APPENDIX A:
Notice of Preparation and Scoping Comments

NOTICE OF PREPARATION (NOP)
Hotel Project Sonoma

Date:	June 15, 2015
To:	Responsible Agencies, Interested Parties, and Organizations
Subject:	NOP of an Environmental Impact Report for the Hotel Project Sonoma
Location:	City of Sonoma, California

Kenwood Investments, LLC (Project Applicant) is proposing a 62-room hotel, restaurant, and spa with 115 off-street parking spaces, located on West Napa Street in Sonoma, California, on a 54,000-square-foot lot (1.24 acres). At build out, the Project would include a basement parking garage of 37,655 square feet, total hotel building area of 67,478 square feet including a spa, an 80-seat restaurant, and 26,962 square feet of exterior open space including; courtyards, surface parking areas, parking ramps, and patio areas. Additionally, the Project would be landscaped with perimeter plantings, raised planters and tree wells in exterior courtyards, auto court landscaping, street trees, street entry planters, and a second floor rooftop garden.

In compliance with the California Environmental Quality Act (CEQA), the City of Sonoma will be the lead agency and will prepare the EIR for the proposed Project. Attached are the project description, location maps, and preliminary identification of the potential environmental issues to be explored. The City of Sonoma requests your input regarding the scope and content of environmental analysis that is relevant to your respective agency's statutory/regulatory responsibilities in order to ascertain potential environmental impacts of the proposed Project.

This Notice Preparation and an Initial Study are also available on the City of Sonoma website:
http://www.sonomacity.org/default.aspx?Pageid=455

Your views and comments are welcomed, however, due to time limits mandated by State law, your response must be sent at the earliest possible date but not later than 30 days after receipt of this notice. The review period will extend to July 14, 2015. Please send your written response, with the name, address, phone number, and email address of your agency contact person, to the following address:

David Goodison, Planning Director
Planning Department
City of Sonoma
No. 1 The Plaza
Sonoma, CA 95476

A scoping meeting will be conducted at 6:30 p.m. on Thursday, June 25, 2015 to collect oral comments from agencies and the public. The meeting will be held in the Community Meeting Room, located at 177 First Street West, Sonoma, CA. If you have questions regarding this NOP or the scoping meeting, please contact David Goodison at (707) 938-3681 or via email at dgoodison@sonomacity.org.

6-11-15

David Goodison, Planning Director
City of Sonoma

Date

1. Project Information

Title:

Hotel Project Sonoma

Lead Agency Name and Address:

City of Sonoma Planning Department
No. 1 The Plaza
Sonoma, CA 95476

Contact Person and Information:

David Goodison, Planning Director
Phone: (707) 938-3681
Email: dgoodison@sonomacity.org

2. Location and Regional Setting

In general, the Project site is located near the southwest corner of the Sonoma Plaza in the City of Sonoma, California, 40 miles north of San Francisco, as shown in Figure 1 of the Initial Study.

The Project site is located within the block bounded by Highway 12 (West Napa Street) to the north, First Street West to the east, Andrieux Street to the south, and Second Street West to the west, with regional vehicular access to the Project site provided via West Napa Street.

Sonoma County Transit provides bus service between Sonoma and the City of Santa Rosa, City of San Rafael, City of Petaluma, and Aqua Caliente. The Project site is served by Route 30, 32, 34, 38, and 40.

3. Project Site Setting

The Project site consists of three parcels totaling 54,000 square feet (1.24 acres). The existing site is largely a paved private parking lot and includes a metal warehouse building, a building at 153 West Napa Street, and other ancillary structures. All existing properties at the Project site are controlled or owned by the Project Applicant.

The Project site consists of the following three Assessor's Parcel Numbers (APNs):

- 018-251-051
- 018-251-052
- 018-251-055

4. Surrounding Land Uses

The Project site is located in downtown Sonoma, California, where there's a broad mix of uses including, boutique shops, hotels, restaurants, wine tasting rooms, a shopping center, and other commercial uses, including a gas station and convenience store. Additionally, there are some residential neighborhoods nearby but not adjacent to the Project site, consisting primarily of single-family and mixed-use residential units.

Sonoma State Historic Park is located 0.2 miles northeast of the Project site, and Vallejo Home State Park is located 0.5 miles northwest of the Project site. Additionally, the Project site is southwest of the Sonoma Plaza, a large park in the center of the downtown area including the City of Sonoma City Hall, picnic and play areas, and large expanses of public lawns and green space.

5. Project Background

EXISTING SITE

In total, the Project site is 54,000 square feet (1.24 acres). As shown in Figure 2 of the Initial Study, the existing Project site contains a commercial building fronting West Napa Street, which is currently used as a retail shop, a metal building, which was previously used for newspaper production by the Sonoma Index-Tribune, and a shed along the southern edge of the Project site. Additionally, there is a three-story building east of the site at 135 West Napa Street consisting of retail, offices, seven studio apartments, and a surface parking lot. Although the structure at 135 West Napa Street would be retained with no change in use, the parking lot would be reconfigured as part of the Project. The existing Project site includes a total of 16,184 square feet of building space inclusive of the shed structure. The existing Project site includes 79 surface parking spaces.

PROJECT COMPONENTS

This section provides detailed descriptions of anticipated development. Figure 3 of the Initial Study shows the Conceptual Site Plan. In general, the Project would include four primary components, including a hotel restaurant building, a main hotel building, a hotel basement parking garage, and a service support building, described in detail below. At completion, the Project would include 62 guestrooms, an 80-seat restaurant, on-site parking for 115 vehicles,[1] a swimming pool, and 3 exterior courtyards for hotel guests. Total proposed hotel building area would be 67,478 square feet, exterior courtyard and patio space totaling 26,962 square feet, and basement parking garage area totaling 37,655 square feet.

Demolition and Site Preparation: The existing metal warehouse, 153 West Napa Street building, ancillary structures (i.e., sheds), and existing parking lots would be demolished and removed to accommodate the Project. In total, 14,250 square feet of building space would be demolished, and approximately 30,000 square feet of existing surface parking lots would be removed consisting of surface lots and other paved surfaces.

[1] 94 vehicle parking spaces would be in the Basement Parking Garage and 21 would be surface vehicle parking spaces, totaling 115 parking spaces.

Hotel-Restaurant Building: The hotel-restaurant building would consist of a three-story building fronting West Napa Street and would include an 80-seat ground floor restaurant with two upper floors consisting of 20 guestrooms.

Main Hotel Building: The main hotel building would consist of a three-story building constructed around two exterior garden courtyards. This building would include a public lobby, guest reception, two upper floors consisting of 39 guestrooms, a fitness center, and a spa with six treatment rooms, as well as 3 first-floor accessible guestrooms.

Hotel Basement Parking Garage: The 37,655-square-foot basement parking garage would include parking for 94 vehicles utilizing a managed valet parking system, and provide other building support, such as delivery and storage space. Additionally, the Project would include 21 on-site surface parking spaces, for a total parking capacity of 115.

First Street West Service Support Building: The 1,780 square-foot buildings would include the swimming pool mechanical room, the emergency generator room, service elevator to garage, a pool refreshment service counter, storage and exit stairs.

Exterior Courtyards: The Project would be constructed around three exterior courtyards, including the Hotel Plaza Courtyard, a sheltered lobby courtyard, and a raised swimming pool veranda area. The courtyards would be landscaped with raised planting beds, and tree wells irrigated with captured, stored, and recycled rain water.

Pedestrian Circulation: The Project is planned to be pedestrian oriented by encouraging hotel guests to park their vehicles for the duration of their stay and walk or bike in and around the Sonoma Plaza area. Guest vehicles would enter the site via West Napa Street, and drop-off would occur in an area set back from West Napa Street to avoid the potential for traffic back up along the West Napa Street. During non-peak traffic periods, departing guests would exit right onto West Napa Street, and during weekday evening peak traffic periods (4:00 p.m. and 6:00 p.m.) and weekend midday peak hours (12:00 noon and 2:00 p.m.) guests would depart via a one-way vehicle ramp from the parking garage onto First Street West.

Additionally, the hotel would provide, maintain, and encourage use of a fleet of bicycles for its guests. Further, employees of the hotel would be encouraged to use bicycles for transportation to and from the hotel by providing employee showers. Secured employee bicycle parking would be provided in the southwest corner of the parking garage, in addition to public bicycle racks provided at the front of the hotel.

Architectural Design: The Project is expected to complement Sonoma's vernacular style and character by incorporating three primary Sonoma architectural patterns, including the use of gabled thick walled buildings parallel to the street, creation of exterior timber arcades at the sidewalk, and overhanging sheltered roofs.

Authentic Sonoma building materials would be used throughout the Project, including thick plaster, wood and stone clad walls, metal and tile roofs, and split-faced cut stone (i.e., similar to Sonoma City Hall and Buena Vista Winery).

The building exteriors would include deep window reveals finished with thick sills and jambs, and would include metal clad wood windows with true divided lights. Guestrooms would include exterior custom wrought iron balconies. Additionally, buildings would include exterior detailing consisting of custom stone, steel and plaster finishes, timber and precast corbel blocks and miscellaneous running trim to add visual interest, color, depth, texture, and dimension to wall surfaces.

The height and scale of the buildings would be mitigated through the use of "layering" strategies whereby the overall scale of the building would be broken down into smaller elements. Layering strategies would include the introduction of appropriately scaled individual components at the street edge and the staggering and sloping of the upper floor plates and third floor roof surfaces back from the street or the Hotel Plaza Courtyard. Steep roofs with dormers would fold over the third story of many of the buildings to minimize the sense of wall height. Other scale reduction strategies would include articulation of the exterior facades with exterior timber arcades, balconies, awnings, recessed entry doors, porches and window seats. The Project's street frontage and courtyards would include street trees in planters, fountains, and other landscaping.

Sustainable LEED Certified Design: The Project would be constructed to meet Leadership in Energy and Environmental Design (LEED) Certification requirements by incorporating several sustainability components throughout construction and operation of the Hotel. Sustainability components could include design strategies, such as:

- Compliance with State Cal Green Building Codes

- Sustainable Site Development Strategies
    - Use of brownfield site
    - Pedestrian oriented. Encouragement of guests to walk or bike Sonoma
    - Bicycles available to guests for duration of stay
    - Secure short and long term bicycle parking
    - Changing rooms and shower facilities for staff.
    - Electric vehicle recharging stations
    - Reduced parking footprint through the use of underground parking

- Sustainable Building Design
    - Cool roof system for low slope roofs with increased solar reflectance and reduced thermal emittance.
    - Areas of vegetated roof gardens.
    - Building thermal insulation in walls and roofs
    - High performance thermal glazing
    - Whole building weather protection and waterproofing systems
    - Cal Green compliant direct-vent sealed-combustion gas fireplaces.

- Water Use Reduction Strategies
    - Water conservation program including low flow plumbing fixtures and low water use laundry
    - Rainwater capture, storage and recycle system
    - Water use reduction program for staff and guests
    - Building-level water metering
    - Grading and paving to control surface storm water
    - Low water use landscape design and plant selection
    - Low water use irrigation systems
    - Use of HVAC system condensate for landscape irrigation

- Energy Efficiency and Atmospheric Quality

- Ample use of natural light
    - Daylight sensor lighting systems
    - High energy efficient mechanical and electrical systems
    - Light pollution reduction for all outdoor lighting.
    - HVAC systems that do not contain CFCs and Halon
    - Refer to Section 06 for additional information on mechanical system design
    - Fundamental building commissioning and verification
    - Optimized energy performance
    - Building level energy metering
    - Fundamental refrigerant management

- Renewable Energy
    - Rooftop solar panel array

- Materials and Resource Management
    - Recycled construction waste
    - Construction and demolition waste management planning
    - Storage and collection area for recyclables.
    - Sustainably sourced new and recycled materials
    - Recycled content in steel
    - Recycled content in concrete
    - Recycled content in carpets and flooring
- Indoor Environmental Quality
    - Enhanced Indoor air quality performance
    - Environmental tobacco smoke control
    - Low emitting paints and finishes
    - Cal Green compliant carpet, cushion and adhesive systems
    - Low VOC emission resilient flooring and adhesive
    - Composite wood products with formaldehyde free content
    - Thermal insulation without added formaldehyde
    - Exhaust and control of indoor air quality in the basement parking garage
    - Cal Green Compliant HVAC system to provide optimum air quality
    - Provide individual thermal comfort control to all guest rooms
    - Acoustic barriers and mitigations

Solid Waste and Recycling: The Hotel would comply with the recycling requirements of the City of Sonoma. Recycling staging would take place in the southern receiving dock of the service core, and trash and recycling storage enclosures would be located adjacent to First Street West in a fully enclosed service building. Solid waste and recycling service providers are discussed below under Utilities and Services.

Parking and Deliveries: As previously mentioned, the Project would provide a total of 115 on-site vehicle parking spaces, consisting of 94 parking spaces in the basement parking garage (40 of which would be managed by valet staff), and 21 surface parking spaces. Parking capacity in the basement parking garage would be maximized through the use of a combination of 90 degree stalls, and stacked tandem spaces.

Upon arrival, guests would pull up to the Hotel Plaza Courtyard, and following check in, valet attendants would park the vehicle in the Basement Garage. Upon departure, the guest's vehicle would be delivered to the valet station for pick up. Street side valet parking is proposed during the evenings for restaurant patrons.

Large truck deliveries would be staged from the street on First Street West, similar to how other businesses in the area, including the adjacent Red Grape restaurant, receive deliveries. Deliveries would be restricted to off-peak periods[2] to minimize impacts to downtown activities and to minimize traffic. Small truck or van deliveries would take place inside the basement parking garage at the service core receiving area. Three service elevators are provided in the hotel to efficiently facilitate the vertical transfer of deliveries inside the hotel. Designation of a truck loading zone on First Street West located adjacent to the basement parking garage entry is being requested as part of the Project's use permit application.

Landscaping: Figure 2 of the Initial Study shows existing trees, and trees expected to be removed during construction of the Project. The City of Sonoma had an independent Arborist Report prepared for this project. Although mature trees are proposed to be removed, they would be replaced on a one-for-one basis, either on site or through a City sponsored in lieu payment to support tree planting elsewhere within the City, consistent with the requirements of Tree Ordinance contained in Sonoma Municipal Code Chapter 12.08.

As shown Figure 3 of the Initial Study, the Project proposes three exterior courtyards, including the hotel courtyard plaza, a courtyard adjoining the hotel lobby, and the swimming pool and spa pool. Additional landscaping includes street trees in raised planters along West Napa Street, First Street West, and throughout the Project site, as well as raised planter beds.

Stormwater: The Project site would remain connected to the City's storm drain system, and on-site drainage would be designed to capture, store and reuse rain water to support landscape irrigation. A preliminary stormwater mitigation Plan (SMP) prepared by a Civil Engineer to demonstrate compliance with Standard Urban Stormwater Mitigation Plan (SUSMP) requirements will be provided as part of the Project's Use Permit Application. The Project is expected to comply with the Draft Phase II Small MS4 General Permit standards established by the State Water Resources Control Board (SWRCB).

Water Supply: The City of Sonoma receives treated water from the Sonoma County Water Agency (SCWA), and owns distribution facilities, including four storage tanks, two booster stations, and the necessary water mains and appurtenances for purveying water throughout the City's service area. The City is also connected to two storage tanks owned by the SCWA. Additional water supply is derived from six active wells, and a well that is classified as standby and only used when necessary.[3] Potable water will be provided to the Project site through existing connections.

Sanitary Sewer Service: Sanitary sewer service would continue to be provided through the through the Sonoma Valley County Sanitation District (SVCSD), which operates its treatment plant at 22675 8th Street East in Sonoma, California.

[2] Off-peak hours include any weekday not between 4:00 p.m. and 6:00 p.m., and weekends not between 12:00 noon and 2:00 p.m.

[3] City of Sonoma, City of Sonoma Water Distribution System, http://www.sonomacity.org/default.aspx?PageId=338, accessed on February 16, 2015,

Utilities and Services: Electricity and natural gas would be supplied to the Project site by Pacific Gas & Electric (PG&E). Solid waste recycling service for the City of Sonoma is provided by Sonoma Garbage Collectors.

6. Required Permits and Approvals

The City of Sonoma requires the following permits and approvals for the Project:

- Certification of the EIR.
- Use permit to operate a hotel and restaurant.
- Approval by the City of Sonoma Planning Commission and City Council of the proposed site modifications.
- Waiver from the Commercial Zoning Residential Component (Article II-19.10.020-B.3 of the Sonoma Development Code).
- Encroachment Permits for any work within the City right-of-way (i.e., curb cuts, and sidewalk improvements).
- Design Review for proposed buildings and landscape.
- Grading and Building Permits for construction of the Project buildings.
- Tree removal, relocation, and/or alteration permit.

7. Environmental Impact Report

The EIR will fulfill CEQA requirements for environmental review of the Serramonte Shopping Center Expansion, referred to as "the proposed Project." The EIR will provide an environmental assessment of the potential consequences of the proposed Project.

It will discuss how land uses and policies could potentially affect the environment, identify significant impacts, and recommend measures to mitigate those impacts. The EIR will also consider the potential environmental impacts of alternatives, including the "No Project Alternative" (business-as-usual under existing plans and ordinances), and identify an environmentally superior alternative.

Impact assessment will be conducted parallel to Plan preparation so that identified mitigation can be built into the proposed Project. The environmental assessment will utilize the most current guidelines for CEQA and for each issue area, including global warming and greenhouse gases/climate change. Community members can provide input at two different phases in the EIR process: in response to the Notice of Preparation (this notice), declaring that an EIR is going to be prepared, and to the Draft EIR itself. Additional public comment will be accepted during future public hearings before the Planning Commission and City Council when adoption of the EIR is considered.

8. Potential Environmental Impacts to be Considered

Topics for analysis of the proposed Project and project alternatives that will be included in the EIR are:

- Aesthetics
- Air Quality
- Cultural Resources
- Geology, Soils, and Seismicity
- Hydrology and Water Quality
- Noise
- Public Services
- Traffic and Transportation
- Utilities and Service Systems

The City has determined that the following topics are not relevant to the EIR:

- Agriculture
- Biological Resources
- Hazards and Hazardous Materials
- Land Use and Planning
- Mineral Resources
- Population and Housing
- Recreation

Kristi Black
P.O. Box 10456
Oakland, California 94610

June 26, 2015

David Goodison, Planning Director
City of Sonoma Planning Department
No. 1 The Plaza
Sonoma, California 95476

SUBJECT: Scoping Comments for Hotel Project Sonoma EIR//SCH# 2015062041

Mr. Goodison:

My comments regarding the content of the Environmental Impact Report (EIR) for the Hotel Project Sonoma are as follows:

Project Description

- The EIR should contain a schedule of when construction activities are anticipated to occur (time of year and duration) and when it is anticipated that the hotel would be open to guests.

Aesthetics

- The EIR should discuss the impacts to the aesthetics of the site and the vicinity during construction. Impacts could include visibility of construction equipment, dust plumes, and materials stockpiled on site. Views from West Napa Street and from the Sonoma Plaza should be analyzed in the EIR.

Biological Resources

- The Initial Study (IS) states that the impact to sensitive species would be less than significant. Many bird species are protected at the federal level (under the Migratory Bird Treaty Act) and at the state level (under various sections of the Fish and Game Code). The IS does not analyze the potential to impact birds directly (e.g., through tree removal and nest destruction) and indirectly (e.g., through noise from construction equipment adversely affecting nesting birds). The impact to these protected birds should be analyzed in the EIR. Mitigation should be considered in the EIR for activities such as tree removal. Mitigation could include a preconstruction nesting bird survey and avoidance buffers around active nests if the project takes place during nesting season.
- The EIR should clarify and expand upon the discussion of criterion A. The discussion states that General Plan policies ER-2.1 through ER-2.9 would protect species, but the discussion does not disclose what the potential impacts to unnamed special-status species could be. The mitigation identified in the IS (General Plan policies ER-2.1 through ER-2.9) does not seem to avoid, reduce, or compensate for any impacts at the project site if, as explained in the IS, the

policies maintain/preserve already-existing habitat elsewhere in the City. The EIR should clarify and substantiate what the potential impact to special-status species would be; whether the impact would be significant; and what, if any, mitigation would be required.

Energy Conservation

- The EIR should contain a discussion of energy impacts of the project, per Appendix F of the California Environmental Quality Act Guidelines.

Alternatives

- The EIR should examine a 25-room alternative.
- The EIR should examine an alternative that does not have a restaurant.
- The EIR should examine a 25-room alternative that does not have a restaurant.

I would also like to be added to the mailing list for the project. Thank you for the opportunity to comment on the scope of the EIR.

Best regards,

Kristi Black

APPENDIX B:
Initial Study Checklist

CITY OF SONOMA
ENVIRONMENTAL INITIAL STUDY CHECKLIST

1. PROJECT TITLE:		Hotel Project Sonoma
2. LEAD AGENCY NAME and ADDRESS:		City of Sonoma Planning Department No. 1 The Plaza Sonoma, CA 95476
3. CONTACT PERSON and PHONE NUMBER:		David Goodison, Planning Director (707) 938-3681
4. PROJECT LOCATION:	**Address:**	153 West Napa Street 541 First Street West
	APN(s):	018-251-051, 052, 055
5. PROJECT APPLICANT'S:		Darius Anderson and Bill Hooper Kenwood Investments, LLC 136 West Napa Street Sonoma, CA 95476
6. GENERAL PLAN DESIGNATION:		Commercial
7. ZONING:	**Base:**	Commercial (C)
	Overlay:	Historic, Plaza Area
***8. PROPERTY DESCRIPTION*:**		See Project Description section below.
9. SURROUNDING LAND USES and SETTING:		See Surrounding Land Uses section below. See Project Site Setting section below.
10. OTHER REQUIRED APPROVALS:		See Other Required Approvals section below.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages. Topics indicated with an asterisk (*) would result in at least one "Potentially Significant Impact" which would be "Less-Than-Significant" with incorporation of mitigation that the project applicant has agreed to implement.

☒Aesthetics	☒Greenhouse Gas Emissions	☐Population and Housing
☐Agricultural Resources	☐Hazards/Hazardous Materials	☒Public Services
☒Air Quality	☒Hydrology/Water Quality	☐Recreation
☐Biological Resources	☐Land Use and Planning	☒Transportation/Traffic
☒Cultural Resources	☐Mineral Resources	☒Utilities/Service Systems
☒Geology/Soils	☒Noise	☒Mandatory Findings of Significance

DETERMINATION:

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

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

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

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

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

Prepared by:

Signature: ______________________ **Date:** 06/15/2015
Steve Noack, AICP, Principal
PlaceWorks (Consultant)

Approved by:

Signature: ______________________ **Date:** 6-11-15
David Goodison, Planning Director
City of Sonoma

PROJECT LOCATION

The Project site is located near the southwest corner of the Sonoma Plaza in the City of Sonoma, California, approximately 40 miles north of San Francisco, as shown in Figure 1.

The Project site is located within the block bounded by Highway 12 (West Napa Street) to the north, First Street West to the east, Andrieux Street to the south, and Second Street West to the west, with regional vehicular access to the Project site provided via West Napa Street.

Sonoma County Transit provides bus service between Sonoma and the City of Santa Rosa, City of San Rafael, City of Petaluma, and Aqua Caliente. The Project site is served by Route 30, 32, 34, 38, and 40.

PROJECT SITE SETTING

The Project site consists of three parcels totaling 54,000 square feet (1.24 acres), as shown in Figure 2. The existing Project site contains a commercial building fronting West Napa Street, which is currently used as a retail shop, a metal building, which was previously used for newspaper production by the Sonoma Index-Tribune, and a shed along the southern edge of the Project site. Additionally, there is a three-story building east of the site at 135 West Napa Street consisting of retail, offices, seven studio apartments, and a surface parking lot. Although the structure at 135 West Napa Street would be retained with no change in use, the parking lot would be reconfigured as part of the Project. The existing Project site includes a total of 16,184 square feet of building space, inclusive of the shed structure, and includes 79 surface parking spaces. All existing properties at the Project site are controlled or owned by the Project Applicant.

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SURROUNDING LAND USES

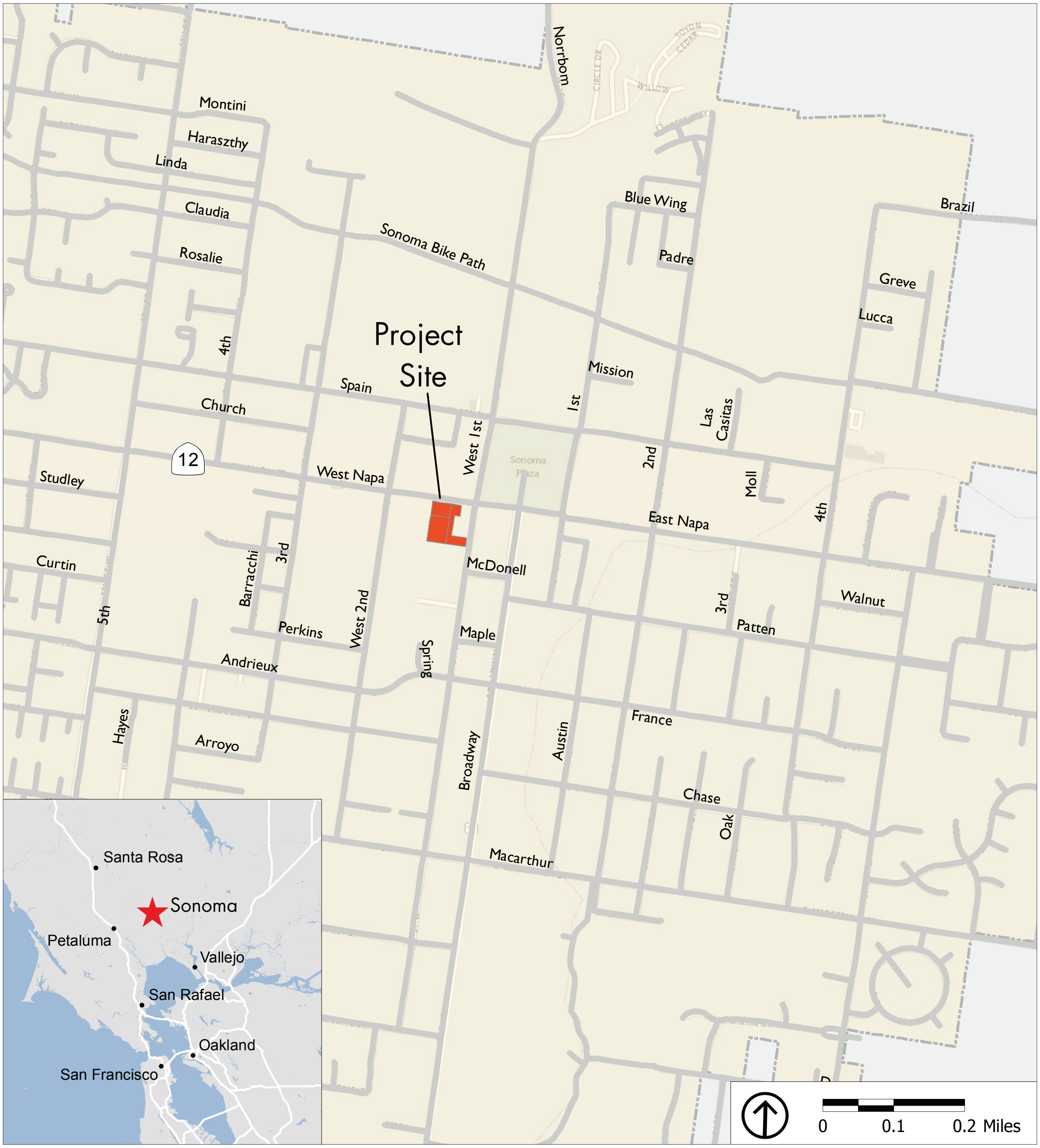
The Project site is located in downtown Sonoma, California, where there is a broad mix of uses including, boutique shops, hotels, restaurants, wine tasting rooms, a shopping center, and other commercial uses, including a gas station and convenience store. Additionally, there are some residential neighborhoods nearby but not adjacent to the Project site, consisting primarily of single-family and mixed-use residential units.

Sonoma State Historic Park is located 0.2 miles northeast of the Project site, and Vallejo Home State Park is located 0.5 miles northwest of the Project site. Additionally, the Project site is southwest of the Sonoma Plaza, a large park in the center of the downtown area including the City of Sonoma City Hall, picnic and play areas, and large expanses of public lawns and green space.

PROJECT DESCRIPTION

The vision for the Project is to redevelop a site that is used primarily as a private parking lot. The Project would include demolition of existing structures, including the existing metal warehouse, the structure at 153 West Napa Street, and other ancillary structures, such as a shed that is currently on site. Additionally, existing parking lots, including the parking lots serving 135 West Napa Street, 123 West Napa Street, and 117 West Napa Street would be reconfigured and/or removed and replaced with new buildings and parking areas.

PLACEWORKS



Source: Sonoma County 2011, 2006; PlaceWorks, 2015; ESRI, 2015.

Sonoma City Limits

Project Site

Figure 1

Regional and Local Location

Source: Kenwood Investments, LLC, 2014; Ross, Drulis, Cusenbery, 2014.

Figure 2
Existing Site Plan

The Project includes four primary components, including a hotel restaurant building, a main hotel building, a hotel basement parking garage, and a service support building, described in detail below and shown on Figure 3. At build out, the Project would include 62 guestrooms, an 80-seat restaurant, on-site parking for 115 vehicles,[1] a swimming pool, and three exterior courtyards for hotel guests. Total proposed hotel building area would be 67,478 square feet, exterior courtyard and patio space totaling 26,962 square feet, and basement parking garage area totaling 37,655 square feet, as shown in Table 1.

TABLE 1 PROPOSED PROJECT SITE

Component	Square Feet (Approximate)
Basement Parking Garage (approx. 94 vehicle space)	37,655
Exterior Courtyards[a]	26,962
Hotel Building Area	
First Floor[b]	23,805
Second Floor[c]	22,168
Third Floor[d]	21,505
Total Hotel Building Area[e]	67,478

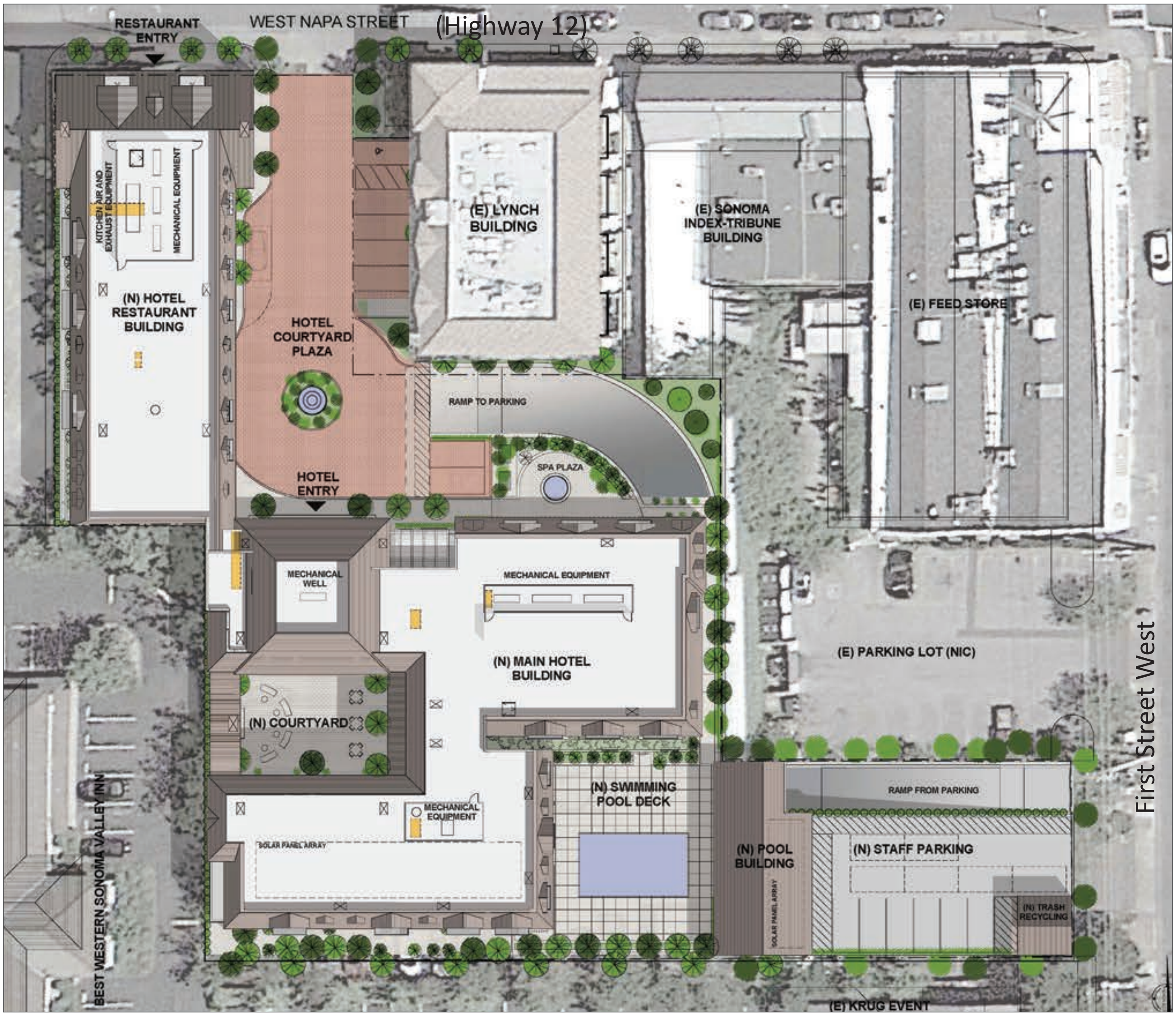
a. Includes square-footage of open space, exterior courtyards, surface parking, and patio areas.
b. Includes approximately 7,168 square feet for an 80-seat restaurant along West Napa Street; approximately 5,099 square feet for pool deck; and approximately 4,857 square feet for the spa.
c. Includes approximately 575 square feet of garden terrace area; and 22,168 square-feet of hotel space, guestrooms, and service area.
d. Includes hotel space, guestrooms, and service areas.
e. Excludes Basement Parking Garage square-footage.
Source: Kenwood Investments, LLC, May 2015.

Demolition and Site Preparation: The existing metal warehouse, 153 West Napa Street building, ancillary structures (i.e. sheds), and existing parking lots would be demolished and removed to accommodate the Project. In total, 14,250 square feet of building space would be demolished, and approximately 30,000 square feet of existing surface parking lots would be removed consisting of surface lots and other paved surfaces.

Hotel-Restaurant Building: The hotel-restaurant building would consist of a three-story building fronting West Napa Street and would include an 80-seat ground floor restaurant with two upper floors consisting of 20 guestrooms.

Main Hotel Building: The main hotel building would consist of a three-story building constructed around two exterior garden courtyards. This building would include a public lobby, guest reception, two upper floors consisting of 39 guestrooms a fitness center, and a spa with six treatment rooms, as well as three first-floor accessible guestrooms.

[1] Approximately 94 vehicle parking spaces would be in the Basement Parking Garage and 21 would be surface parking spaces, totaling 115.



Source: Kenwood Investments, LLC, 2014; Ross, Drulis, Cusenbery, 2015.

Figure 3
Proposed Site Plan

Hotel Basement Parking Garage: The 37,655-square-foot basement parking garage would include parking for 94 vehicles utilizing a managed valet parking system, and provide other building support, such as delivery and storage space. Additionally, the Project would include 21 on-site surface parking spaces, for a total parking capacity of 115.

First Street West Service Support Building: The 1,780-square-foot buildings would include the swimming pool mechanical room, the emergency generator room, service elevator to garage, a pool refreshment service counter, storage, and exit stairs.

Exterior Courtyards: The Project would be constructed around three exterior courtyards, including the hotel plaza courtyard, a sheltered lobby courtyard, and a raised swimming pool veranda area. The courtyards would be landscaped with raised planting beds, and tree wells irrigated with captured, stored, and recycled rain water.

Pedestrian Circulation: The Project is planned to be pedestrian oriented by encouraging hotel guests to park their vehicles for the duration of their stay and walk or bike in and around the Sonoma Plaza area. Guest vehicles would enter the site via West Napa Street, and drop-off would occur in an area set back from West Napa Street to avoid the potential for traffic back up along the West Napa Street. During non-peak traffic periods,[2] departing guests would exit right onto West Napa Street, and during peak traffic periods, guests would depart via a one-way vehicle ramp from the parking garage onto First Street West.

Additionally, the hotel would provide, maintain, and encourage the use of a fleet of bicycles for its guests. Further, employees of the hotel would be encouraged to use bicycles for transportation to and from the hotel by providing employee showers. Secured employee bicycle parking would be provided in the southwest corner of the parking garage, in addition to public bicycle racks provided at the front of the hotel.

Architectural Design: The Project is expected to complement Sonoma's vernacular style and character by incorporating three primary Sonoma architectural patterns, including the use of gabled thick walled buildings parallel to the street, the creation of exterior timber arcades at the sidewalk, and overhanging sheltered roofs.

Authentic Sonoma building materials would be used throughout the Project, including thick plaster, wood and stone clad walls, metal and tile roofs, and split-faced cut stone (i.e. similar to Sonoma City Hall and Buena Vista Winery).

The building exteriors would include deep window reveals finished with thick sills and jambs, and would include metal clad wood windows with true divided lights. Guestrooms would include exterior custom wrought iron balconies. Additionally, buildings would include exterior detailing consisting of custom stone, steel and plaster finishes, timber and precast corbel blocks and miscellaneous running trim to add visual interest, color, depth, texture, and dimension to wall surfaces.

The height and scale of the buildings would be mitigated through the use of "layering" strategies whereby the overall scale of the building would be broken down into smaller elements. Layering strategies would include the introduction of appropriately scaled individual components at the street edge and the staggering and sloping of the upper floor plates and third floor roof surfaces back from the street or the Hotel Plaza Courtyard. Steep roofs with dormers would fold over the third story of many of the buildings to minimize the sense of wall height. Other scale reduction strategies would include articulation of the exterior facades

[2] Peak traffic periods include weekdays between 4:00 p.m. – 6:00 p.m. and between 12:00 noon and 2:00 p.m. on weekends.

with exterior timber arcades, balconies, awnings, recessed entry doors, porches and window seats. The Project's street frontage and courtyards would include street trees in planters, fountains, and other landscaping.

Sustainable LEED Certified Design: The Project would be constructed to meet Leadership in Energy and Environmental Design (LEED) Certification requirements by incorporating several sustainability components throughout construction and operation of the Hotel. Sustainability components could include design strategies, such as:

- Compliance with State Cal Green Building Codes
- Sustainable Site Development Strategies
  - Use of brownfield site
  - Pedestrian oriented. Encouragement of guests to walk or bike Sonoma
  - Bicycles available to guests for duration of stay
  - Secure short and long term bicycle parking
  - Changing rooms and shower facilities for staff.
  - Electric vehicle recharging stations
  - Reduced parking footprint through the use of underground parking
- Sustainable Building Design
  - Cool roof system for low slope roofs with increased solar reflectance and reduced thermal emittance.
  - Areas of vegetated roof gardens.
  - Building thermal insulation in walls and roofs
  - High performance thermal glazing
  - Whole building weather protection and waterproofing systems
  - Cal Green compliant direct-vent sealed-combustion gas fireplaces.
- Water Use Reduction Strategies
  - Water conservation program including low flow plumbing fixtures and low water use laundry
  - Rainwater capture, storage and recycle system
  - Water use reduction program for staff and guests
  - Building-level water metering
  - Grading and paving to control surface storm water
  - Low water use landscape design and plant selection
  - Low water use irrigation systems
  - Use of HVAC system condensate for landscape irrigation
- Energy Efficiency and Atmospheric Quality
  - Ample use of natural light
  - Daylight sensor lighting systems
  - High energy efficient mechanical and electrical systems
  - Light pollution reduction for all outdoor lighting.
  - HVAC systems that do not contain CFCs and Halon
  - Refer to Section 06 for additional information on mechanical system design
  - Fundamental building commissioning and verification
  - Optimized energy performance
  - Building level energy metering
  - Fundamental refrigerant management

- Renewable Energy
    - Rooftop solar panel array
- Materials and Resource Management
    - Recycled construction waste
    - Construction and demolition waste management planning
    - Storage and collection area for recyclables.
    - Sustainably sourced new and recycled materials
    - Recycled content in steel
    - Recycled content in concrete
    - Recycled content in carpets and flooring
- Indoor Environmental Quality
    - Enhanced Indoor air quality performance
    - Environmental tobacco smoke control
    - Low emitting paints and finishes
    - Cal Green compliant carpet, cushion and adhesive systems
    - Low VOC emission resilient flooring and adhesive
    - Composite wood products with formaldehyde free content
    - Thermal insulation without added formaldehyde
    - Exhaust and control of indoor air quality in the basement parking garage
    - Cal Green Compliant HVAC system to provide optimum air quality
    - Provide individual thermal comfort control to all guest rooms
    - Acoustic barriers and mitigations

Solid Waste and Recycling: The Project would comply with the recycling requirements of the City of Sonoma. Recycling staging would take place in the southern receiving dock of the service core, and trash and recycling storage enclosures would be located adjacent to First Street West in a fully enclosed service building. Solid waste and recycling service providers are discussed below under Utilities and Services.

Parking and Deliveries: As previously mentioned, the Project would provide a total of 115 on-site vehicle parking spaces, consisting of 94 parking spaces in the basement parking garage (31 of which would be managed by valet staff), and 21 surface parking spaces. Parking capacity in the basement parking garage will be maximized through the use of a combination of 90 degree stalls, and stacked tandem spaces.

Large truck deliveries would be staged from the street on First Street West, similar to how other businesses in the area receive deliveries. Deliveries would be restricted to off-peak periods to minimize impacts to downtown activities and to minimize traffic.

Small truck or van deliveries would take place inside the basement parking garage at the service core receiving area. Three service elevators are provided in the hotel to efficiently facilitate the vertical transfer of deliveries inside the hotel. Designation of a truck loading zone on First Street West located adjacent to the basement parking garage entry is being requested as part of the Project's Use Permit Application.

Landscaping: Figure 2 above shows existing trees, and trees expected to be removed during construction of the Project. The City of Sonoma had an independent Arborist Report prepared, included as an Appendix to this Initial Study. Although mature trees are proposed to be removed, they would be replaced on a one-for-one basis, either on site or through a City sponsored in lieu payment to support tree planting elsewhere within the City, consistent with the requirements of Tree Ordinance contained in Sonoma Municipal Code Chapter 12.08.

As shown in Figure 3, the Project proposes three exterior courtyards, including the hotel courtyard plaza, a courtyard adjoining the Hotel Lobby, and a courtyard where the swimming pool and spa pool are located. Additional landscape includes street trees in raised planters along West Napa Street, First Street West, and throughout the Project site, as well as raised planter beds.

Stormwater: The Project site would remain connected to the City's storm drain system, and is expected to capture, store and reuse rainwater to support landscape irrigation. A preliminary stormwater mitigation Plan (SMP) prepared by a Civil Engineer to demonstrate compliance with Standard Urban Stormwater Mitigation Plan (SUSMP) requirements will be provided as part of the Project's Use Permit Application. The Project is expected to comply with the Draft Phase II Small MS4 General Permit standards established by the State Water Resources Control Board (SWRCB).

Water Supply: The City of Sonoma receives treated water from the Sonoma County Water Agency (SCWA), and owns distribution facilities, including four storage tanks, two booster stations, and the necessary water mains and appurtenances for purveying water throughout the City's service area. The City is also connected to two storage tanks owned by the SCWA. Additional water supply is derived from six active wells, as well as a well that is classified as standby and only used when necessary.[3] Potable water will be provided to the Project site through existing connections.

Sanitary Sewer Service: Sanitary sewer service would continue to be provided through the through the Sonoma Valley County Sanitation District (SVCSD), which operates its treatment plant at 22675 8th Street East in Sonoma, California.

Utilities and Services: Electricity and natural gas would be supplied to the Project site by Pacific Gas & Electric (PG&E). Solid waste recycling service for the City of Sonoma is provided by Sonoma Garbage Collectors.

OTHER REQUIRED APPROVALS:

The proposed Project requires review, approvals, and/or permits from the following agencies:[4]

- Certification of the EIR.
- Use Permit to operate a hotel and restaurant.
- Approval by the City of Sonoma Planning Commission and City Council of the proposed site modifications.
- Waiver from the Commercial Zoning Residential Component (Article II-19.10.020-B.3 of the Sonoma Development Code).
- Encroachment Permits for any work within the City right-of-way (i.e. curb cuts, and sidewalk improvements)
- Grading and Building Permits for construction of the Project buildings.
- Tree removal, relocation, and/or alteration permit.

[3] City of Sonoma, City of Sonoma Water Distribution System, http://www.sonomacity.org/default.aspx?PageId=338, accessed on February 16, 2015,

[4] The entitlement process may identify other required permits or approvals not anticipated by the preceding list.

ENVIRONMENTAL IMPACTS:

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

Discussion:

a) Have a substantial adverse effect on a scenic vista?

The City of Sonoma Municipal Code (SMC) defines "scenic vistas" as a public view, benefiting the community at large, of significant features, including hillside terrain, ridgelines, canyons, geologic features, and community amenities (e.g., parks, landmarks, permanent open space).[5] This would include public views from road corridors of the hillsides that adjoin Sonoma Valley. Additionally, SMC section 19.40.130.D, states that new structures must be constructed in a manner that preserves scenic vistas by maintaining view corridors. This SMC section states that examples of view corridors include; unbuilt space between buildings, view opportunities created from undeveloped lots, airspace created from public parks and open spaces, and open spaces created from the deliberate spacing of buildings on the same lot or adjacent lots. Because existing landscaping and buildings on and around the Project site obscure views of the hills to the north and south from public vantage points, there is not currently a scenic vista visible from or across the Project site. Further, the Project's planned height of three stories would be consistent with existing development in the vicinity of the Project site. Consequently, construction of the Project would result in a *less-than-significant* impact on scenic vistas, and will not be further analyzed as part of the Environmental Impact Report (EIR).

[5] Sonoma Municipal Code Section 19.40.130(C.)

b) Substantially damage scenic resources, including, but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway?

The nearest State scenic highway is a portion of State Route (SR) 12, located 3 miles to the northwest of the Project site. The State scenic highway portion of SR 12 extends from Danielli Avenue east of Santa Rosa to London Way near Agua Caliente.[6] Because the Project site is not located along or near a State scenic highway, there would be *no impact* to scenic resources within a State scenic highway. Therefore, this will not be discussed further as a part of the EIR.

c) Substantially degrade the existing visual character or quality of the site and its surroundings?

The Project proposes to construct a three-story, 67,478 square foot hotel, with a 7,168 square foot restaurant, 6,139 square foot spa and spa plaza, 5,099 square foot pool deck, 2,131 square foot courtyard, 4,069 square feet of surface parking and a 30,525 square foot ancillary subterranean parking garage with an additional 7,130 square feet of storage area in an urban setting within Downtown Sonoma, surrounded by primarily commercial development. The existing visual character of the site and vicinity include buildings constructed from the early part to the middle of the 20th century. A number of the buildings in the vicinity are historic resources, including a concentration of historic sites and structures encompassed in the Plaza National Historic Landmark and Nation Register Districts, which are located east of the Project site. These and other historic structures in the vicinity of the Project site establish the overall visual character of Sonoma's downtown. In general, the immediate surroundings include parking lots, stucco buildings with false facades, brick buildings, Mission-style buildings, and single-family homes of various styles. Section 19.34.020 of the Development Code contains design standards providing guidance on features such as height, setbacks, screening, building design, circulation, compatibility, and character. The Project would be required to comply with these standards; however, given the historical significance and aesthetic sensitivity of the area surrounding the Project site, this topic is *potentially significant* and will be further analyzed and discussed in detail in the EIR.

d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?

The Project would replace sources of light associated with existing single story retail structure at 153 West Napa Street (Chateau Sonoma) and existing single-story print building at 123 West Napa Street with new sources of interior and exterior lighting typical of restaurant and hotel uses. The Project's lighting would be consistent with lighting from existing development surrounding the Project site and the downtown area. In addition, all proposed exterior lighting would be subject to review and approval by the City's Design Review Commission (DRC) and the exterior lighting standards of the SMC.[7] The SMC requires exterior light fixtures to be shielded to reduce or eliminate light spillage and glare off-site.[8] Additionally, the SMC contains performance standards which prohibit adverse impacts associated with glare.[9] Adherence to SMC standards and receiving DRC approval would ensure a *less-than-significant* impact to day or nighttime views in the area from light and glare, and this will not be discussed further in the EIR.

[6] California Department of Transportation website, http://www.dot.ca.gov/hq/LandArch/scenic_highways/, accessed on February 19, 2015.

[7] Sonoma Municipal Code Section 19.40.030

[8] Sonoma Municipal Code section 19.40.030(D.)

[9] Sonoma Municipal Code section 19.40.090(A.)

	Potentially Significant Impact	Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
2. AGRICULTURAL RESOURCES *Would the project:*				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

Discussion:

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

The Project site is not designated Prime Farmland, Unique Farmland, or Farmland of Statewide Importance on maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Department of Conservation. The Project site is designated Urban and Built-up Land on the 2012 Important

Farmland Map for Sonoma County.[10] Therefore, *no impact* would occur relating to the conversion of farmland and this will not be discussed further in the EIR.

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

As discussed in the Project Description, the Project site is not zoned for agricultural use. Additionally, the Project site is not subject to a Williamson Act contract.[11] Therefore, *no impact* would occur relating to a conflict with existing zoning for agricultural use or a Williamson Act contract and this will not be discussed further in the EIR.

c)-d) Conflict with existing zoning for, or cause rezoning of, forestland (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g)), or, result in the loss of forest land or conversion of forest land to non-forest use?

There is no forest land within or adjacent to the Project site.[12] Therefore, there would be *no impact* to forest land or timber land zoning nor the loss or conversion of forest land and this will not be discussed in the EIR.

e) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of farmland, to non-agricultural use conversion of forest land to non-forest use?

For the reasons provided in response to criteria a), b), and c)-d), there would be *no impact* in relation to the conversion of farmland to non-agricultural use or forest land to non-forest use and this will not be analyzed further in the EIR.

[10] State of California, Department of Conservation, Sonoma County Important Farmland 2012, ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2012/son12.pdf, accessed February 19, 2015.

[11] County of Sonoma, Permit and Resource Management Department, Williamson Act 2014 Calendar Year, http://www.sonoma-county.org/prmd/gisdata/pdfs/wact.pdf, accessed February 19, 2015.

[12] State of California, California Department of Forestry and Fire Protection, 2003, Fire and Resource Assessment Program, The management Landscape, http://frap.fire.ca.gov/data/frapgismaps/pdfs/landscapesmap.pdf, accessed February 19, 2015.

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

Existing Conditions

The Bay Area Air Quality Management District (BAAQMD) is the regional air quality agency for the San Francisco Bay Area Air Basin (SFBAAB), which comprises all of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, and Santa Clara counties; the southern portion of Sonoma County; and the southwestern portion of Solano County. Air quality in this area is determined by such natural factors as topography, meteorology, and climate, in addition to the presence of existing air pollution sources and ambient conditions.[13]

[13] Bay Area Air Quality Management District, 2011, California Environmental Quality Act Air Quality Guidelines, Appendix C: Sample Air Quality Setting.

Discussion:

a) Conflict with or obstruct implementation of the applicable air quality plan?

Large projects that exceed regional employment, population, and housing planning projections have the potential to be inconsistent with the regional inventory compiled as part of the BAAQMD *2010 Bay Area Clean Air Plan*. The Project falls substantially below the regional significance criteria for a hotel development outlined in the CEQA Guidelines Section 15206(b)(2)(D) (62 rooms compared to 500 rooms). Therefore, the Project is not considered a regionally significant project that would affect regional vehicle miles traveled (VMT) and warrant intergovernmental review by the Metropolitan Transportation Commission (MTC). In addition, as the Project only involves development of a hotel and restaurant, it would not result in the increase of population or housing that was not foreseen in City or regional planning efforts (see Section 13 (a) of this Initial Study). Therefore, it would not have the potential to substantially affect housing, employment, and population projections within the region, which is the basis of the *2010 Bay Area Clean Air Plan* projections. Furthermore, the Project would fall under BAAQMD's screening criteria, which is used to determine projects that have the potential to generate emissions that exceed BAAQMD's operational emission thresholds (see item b) below). These thresholds are established to identify projects that have the potential to generate a substantial amount of criteria air pollutants. Because the Project would not exceed these thresholds during Project operations, it would not be considered by the BAAQMD to be a substantial emitter of criteria air pollutants. Therefore, the Project would not conflict with or obstruct implementation of the *2010 Bay Area Clean Air Plan* and impacts would be considered *less than significant*. No mitigation measures are necessary and this issue will not be discussed further in the Draft EIR.

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

BAAQMD has identified thresholds of significance for criteria pollutant emissions and criteria air pollutant precursors, including reactive organic gases (ROG), oxides of nitrogen (NO_x), coarse inhalable particulate matter (PM_{10}), and fine inhalable particulate matter ($PM_{2.5}$). Development projects below the significance thresholds are not expected to generate sufficient criteria pollutant emissions to violate any air quality standard or contribute substantially to an existing or projected air quality violation.

Construction Emissions

Construction activities produce combustion emissions from various sources, such as on-site heavy-duty construction vehicles, vehicles hauling materials to and from the site, and motor vehicles transporting the construction crew. Site preparation activities produce fugitive dust emissions (PM_{10} and $PM_{2.5}$) from demolition and soil-disturbing activities, such as grading and excavation. Air pollutant emissions from construction activities on site would vary daily as construction activity levels change.

BAAQMD's CEQA Guidelines identifies screening criteria for construction-related criteria air pollutant emissions for a "hotel" development with 554 rooms. General hotel developments with 554 rooms or more have the potential to generate a substantial increase in criteria air pollutant emissions and would need further analysis.[14] The Project would be adding an underground basement parking garage. While the Project would not exceed the screening criteria for hotel development, it would result in asphalt demolition and soil export for the underground basement parking garage. Therefore, a quantified analysis of the

[14] Bay Area Air Quality Management District (BAAQMD), 2011 Revised, California Environmental Quality Act Air Quality Guidelines.

Project's construction emissions will be prepared. The impact is *potentially significant*, and this issue will be addressed in the EIR.

Operational Emissions

Long-term air pollutant emissions generated by hotel projects are typically associated with the burning of fossil fuels in cars (mobile sources), energy use for cooling, heating, and cooking (energy), and landscape equipment use and household products (area sources). The existing land uses currently generates criteria air pollutants from transportation, energy, and area sources. The Project would be developed with 62 hotel guestrooms and other on-site facilities including a spa, a restaurant, and spaces for special events.

BAAQMD's CEQA Guidelines identifies screening criteria for operation-related criteria air pollutant emissions for a "hotel" development with 489 rooms. General hotel developments with 489 rooms or more have the potential to generate a substantial increase in criteria air pollutant emissions and would need further analysis.[15] The Project is substantially below the BAAQMD screening criteria for a hotel. Even with the additional on-site facilities, the Project would still be below BAAQMD's screening criteria and would generate nominal criteria air pollutant emissions.[16] Furthermore, the proposed development would be more energy efficient than the existing structures onsite since it would be required to be constructed to achieve the 2013 Building and Energy Efficiency Standards. Operational phase criteria air pollutant emissions generated by the Project would be *less than significant*. No mitigation measures are necessary and this issue will not be discussed further in the EIR.

c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?

SFBAAB is currently designated as a nonattainment area for California and National ambient air quality standards (AAQS) for ozone (O_3) and for $PM_{2.5}$, and a nonattainment area under the California AAQS for PM_{10}.[17] Any project that does not exceed or can be mitigated to less than the BAAQMD significance levels, used as the threshold for determining major projects, does not add significantly to a cumulative impact.[18] As explained in response to item b) above, operation of the Project would fall under the BAAQMD screening criteria and would not result in regional emissions in excess of these threshold values. However, the Project would involve asphalt demolition and soil export for the underground basement parking garage and would generate an increase in criteria air pollutant emissions during construction activities. A quantified analysis of the Project's construction emissions will be prepared to evaluate whether the Project would result in a considerable contribution to O_3, $PM_{2.5}$, and PM_{10} concentrations in the SFBAAB. Until this analysis is completed, this impact is considered *potentially significant* and will be addressed in the EIR.

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15 Bay Area Air Quality Management District (BAAQMD), 2011 Revised, California Environmental Quality Act Air Quality Guidelines.

16 BAAQMD's CEQA Guidelines identifies screening criteria for operation-related criteria air pollutant emissions for a "quality restaurant" development with 47,000 square-feet. General quality restaurant developments with 47,000 square feet or more have the potential to generate a substantial increase in criteria air pollutant emissions and would need further analysis. The Project consists of a 7,161 square-feet restaurant, which is below BAAQMD's screening criteria.

17 California Air Resources Board (CARB), 2014, Area Designations: Activities and Maps, http://www.arb.ca.gov/desig/adm/adm.htm, April 17.

18 Bay Area Air Quality Management District (BAAQMD), 2011 Revised, California Environmental Quality Act Air Quality Guidelines.

d) Expose sensitive receptors to substantial pollutant concentrations?

Localized concentrations refer to the amount of pollutants in a volume of air (ppm or $\mu g/m^3$) that can be correlated to potential health effects on sensitive populations.

Construction Off-Site Community Risk and Hazards

The Project would elevate concentrations of toxic air contaminants (TACs) and diesel-$PM_{2.5}$ in the vicinity of sensitive land uses during construction activities. BAAQMD has developed screening thresholds for assessing potential health risks from construction activities. Receptors would have to be located more than 300 feet away to fall below the BAAQMD's screening thresholds.[19] Therefore, construction health risk assessment will be prepared to evaluate the potential for the Project to expose adjacent residential receptors to elevated concentrations of air pollutants. The impact is *potentially significant* and this issue will be addressed in the EIR.

CO Hotspots

Areas of vehicle congestion have the potential to create pockets of carbon monoxide (CO) called hotspots. These pockets have the potential to exceed the State one-hour standard of 20 ppm or the eight-hour standard of 9 ppm. Under existing and future vehicle emission rates, a project would have to increase traffic volumes at a single intersection by more than 44,000 vehicles per hour—or 24,000 vehicles per hour where vertical and/or horizontal air does not mix—in order to generate a significant CO impact.[20] The hotel would generate a nominal amount of vehicle trip since the Project is an infill development. In addition, the potential for CO hotspots to be generated in the SFBAAB is extremely unlikely because of the improvements in vehicle emission rates and control efficiencies. Typical projects would not expose sensitive receptors to substantial pollutant concentrations and analysis of CO hotspots is not warranted. Therefore, impacts are *less than significant* and no mitigation measures are necessary. This issue will not be discussed further in the EIR.

e) Create objectionable odors and/or airborne dust affecting a substantial number of people?

Construction and operation of a hotel project would not generate substantial odors or be subject to odors that would affect a substantial number of people. The type of facilities that are considered to have objectionable odors include wastewater treatments plants, compost facilities, landfills, solid waste transfer stations, fiberglass manufacturing facilities, paint/coating operations (e.g., auto body shops), dairy farms, petroleum refineries, asphalt batch plants, chemical manufacturing, and food manufacturing facilities. Hotel uses are not associated with foul odors that constitute a public nuisance.

During operation, Project could generate odors from cooking. Odors from cooking are not substantial enough to be considered nuisance odors that would affect a substantial number of people. Furthermore, nuisance odors are regulated under BAAQMD Regulation 7, *Odorous Substances*, which requires abatement of any nuisance generating an odor complaint.[21] In addition, odors are also regulated under BAAQMD Regulation 1, Rule 1-301, *Public Nuisance*, which states that "no person shall discharge from

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[19] Bay Area Air Quality Management District (BAAQMD). 2010. Screening Tables for Air Toxics Evaluation During Construction. Version 1.0. Dated May 2010.

[20] Bay Area Air Quality Management District (BAAQMD), 2011 Revised, *California Environmental Quality Act Air Quality Guidelines.*

[21] It should be noted that while restaurants can generate odors, these sources are not identified by BAAQMD as nuisance odors since they typically do not generate significant odors that affect a substantial number of people. Larger restaurants that employ five or more people are subject to BAAQMD Regulation 7, Odorous Substances.

any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance or annoyance to any considerable number of persons or the public; or which endangers the comfort, repose, health or safety of any such persons or the public, or which causes, or has a natural tendency to cause, injury or damage to business or property."

During construction activities, construction equipment exhaust, application of asphalt, and architectural coatings would temporarily generate odors. Any construction-related odor emissions would be temporary and intermittent in nature. Additionally, noxious odors would be confined to the immediate vicinity of the construction equipment. By the time such emissions reach any sensitive receptor sites, they would be diluted to well below any level of air quality concern. Impacts would be *less than significant*. No mitigation measures are warranted and this issue will not be discussed further in the EIR.

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

Discussion:

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

The Project site is located in an urbanized area, has been completely altered by past development, and essentially no longer supports any natural habitat. Special-status species are plants and animals that are legally protected under the State and/or federal Endangered Species Acts or other regulations, as well as other species that are considered rare enough by the scientific community and trustee agencies to warrant special consideration, particularly with regard to protection of isolated populations, nesting or denning locations, communal roosts and other essential habitat. Suitable habitat for most of the special-status species known or suspected to occur in the vicinity of the City of Sonoma is absent from the site. However, in the remote possibility that special-status plants and/or animals are present at the Project site, General Plan policies ER-2.1 through ER-2.9 would ensure adequate protections of these species by preserving habitat that supports threatened, rare, or endangered species, and ensuring adequate habitat is maintained and preserved throughout the city. Therefore, given the lack of evidence that species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service are present on the site, and given that the General Plan contains policies for protection of habitat, implementation of the Project would have a *less-than-significant* impact in this respect. This will not be analyzed in the EIR.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

The Project site is developed with structures and landscaping, and riparian habitat and other sensitive natural community types are absent. Therefore, there would be *no impact* on riparian habitat or other sensitive natural communities and this will not analyzed in the EIR.

c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal wetland, etc.) through direct removal, filling, hydrological interruption, or other means?

Jurisdictional wetlands and other regulated waters are absent from the Project site. The closest source of fresh water to the Project site is Sonoma Creek which is located approximately 0.75 miles to the west. Typical best management practices (BMPs) would be utilized to prevent any construction-generated sediment or pollutants from entering the storm drain system and entering downgradient regulated waters. Therefore, there would be *no impact* on jurisdictional wetlands and waters and this will not be discussed further in the EIR.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

The Project site is located in an urbanized area, bordered by existing roadways and other urban uses which preclude the presence of any important wildlife movement corridors across the site. The site contains no creeks or aquatic habitat that would support fish nor would the Project substantially interfere with the movement of any native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nurseries. Wildlife species common in urban habitat would continue to move through the area, both during and after construction. Some species common in suburban habitat would most likely be displaced with the elimination of much of the existing landscape trees and shrubs on the site, but these are species that are relatively abundant in urban areas, and their loss or displacement would not be considered a significant impact. Therefore, a *less-than-significant* impact on wildlife movement would occur and this will not be analyzed in the EIR.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

The Project would be subject to the City's Tree Ordinance (SMC 12.08) and the City's Heritage Tree Ordinance (SMC 12.09). Consistency with these portions of the SMC is analyzed in section 10, Land Use and Planning, of this Initial Study. As described in that section, upon Project approval, the Project would be consistent with SMC 12.08 and SMC 12.09 and a *less-than-significant* impact would occur. This will not be further addressed in the EIR.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No habitat conservation plans, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan have been prepared addressing the site and surrounding lands. As a result, the Project would not conflict with any adopted or approved habitat conservation plans. Therefore, *no impact* would occur and this will not be analyzed in the EIR.

	Potentially Significant Impact	*Less-Than-Significant With Mitigation Incorporated*	*Less-Than-Significant Impact*	*No Impact*
5. CULTURAL RESOURCES *Would the project:*				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☒	☐	☐	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☒	☐	☐	☐
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☒	☐	☐	☐
d) Disturb any human remains, including those interred outside of formal cemeteries?	☒	☐	☐	☐

Discussion:

a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?

The development proposal calls for the demolition of the Chateau Sonoma building located at 153 West Napa Street, an existing metal warehouse that was formerly used as a printing plant, and a small accessory structure. A cultural resource analysis of the Chateau Sonoma building (153 West Napa Street) commissioned by the Applicant has been submitted, which concludes that the building is not historically significant.[22] Although the existing metal warehouse has not been identified as historically significant in any previous review, because its potential significance is unknown, an evaluation of its significance is also necessary. Additionally, there has not been analysis of whether the form and design of the proposed development would have an adverse impact on any significant cultural resources in the vicinity of the site and/or the adjoining National Landmark District. Because it is not fully known how the Project will affect potential historic resources on site and historic resources in the vicinity, this would be a *potentially significant* impact without mitigation. This will be further analyzed in the EIR.

b) Cause a substantial adverse change in the significance of an archaeological resource?

The Coast Miwok Native Americans that historically inhabited the region tended to situate along broad alluvial benches adjacent to creeks or other waterways. Because the Project site is not located in proximity to a creek or waterway, there is a low potential for archaeological resources to be present on site. Therefore, it is not anticipated that the Project would adversely impact archaeological resources. Nevertheless, ground disturbing activities associated with implementation of the Project could unearth and damage prehistoric cultural deposits. This is a *potentially significant* impact, and will be further analyzed in the EIR.

[22] Page and Turnbull, 2011, 153 West Napa Street, Historic Resource Evaluation, page 3.

c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Paleontological resources (fossils) are the remains or traces of prehistoric animals and plants. A search of the University of California Museum of Paleontology Specimen Search database indicated that there are not any known paleontological resources from within the City of Sonoma.[23] While fossils are not expected to be discovered during Project construction, it is possible that significant fossils could be discovered during excavation activities, even in areas with a low likelihood of occurrence. The federal Paleontological Resources Preservation Act of 2002 limits the collection of vertebrate fossils and other rare and scientifically significant fossils to qualified researchers who have obtained a permit from the appropriate state or federal agency. Additionally, it specifies these researchers must agree to donate any materials recovered to recognized public institutions, where they will remain accessible to the public and to other researchers. Therefore, if an unknown unique paleontological resource is discovered during the excavation and grading phase for any part of the Project construction process, a *potentially significant* impact could occur to unknown paleontological resources that may be found in the course of construction activities. This will be evaluated in the EIR.

d) Disturb any human remains, including those interred outside of formal cemeteries?

Human remains associated with pre-contact archaeological deposits could exist on the Project site, and could be encountered during construction of the proposed Project. The associated ground-disturbing activities, such as site grading and trenching for utilities, have the potential to disturb human remains interred outside of formal cemeteries. Descendant communities may ascribe religious or cultural significance to such remains, and may view their disturbance as an immitigable impact. Disturbance of unknown human remains would be a significant impact.

Any human remains encountered during ground-disturbing activities are required to be treated in accordance with California Health and Safety Code Section 7050.5, Public Resources Code Section 5097.98 and the California Code of Regulations Section 15064.5(e) (CEQA), which state the mandated procedures of conduct following the discovery of human remains. According to the provisions in CEQA, if human remains are encountered at the site, all work in the immediate vicinity of the discovery shall cease and necessary steps to ensure the integrity of the immediate area shall be taken. The Sonoma County Coroner shall be notified immediately. The Coroner shall then determine whether the remains are Native American. If the Coroner determines the remains are Native American, the Coroner shall notify the NAHC within 24 hours, who will, in turn, notify the person the Native American Heritage Commission (NAHC) identifies as the Native American Most Likely Descendant (MLD)[24] of any human remains. Further actions shall be determined, in part, by the desires of the MLD. The MLD has 48 hours to make recommendations regarding the disposition of the remains following notification from the NAHC of the discovery. If the MLD does not make recommendations within 48 hours, the owner shall, with appropriate dignity, reinter the remains in an area of the property secure from further disturbance. Alternatively, if the owner does not accept the MLD's recommendations, the owner or the descendent may request mediation by the NAHC. Due to the developed nature of the Project site, it is not likely that human remains would be discovered during or disturbed by Project construction, nevertheless, it is possible that human remains would be

[23] University of California Museum of Paleontology, Specimen Search, http://ucmpdb.berkeley.edu/cgi/ucmp_query2, accessed March 9, 2015.

24 "Native American Most Likely Descendant' is a term used in an official capacity in CEQA Guidelines Section 15064.5(e), and other places, to refer to Native American individuals assigned the responsibility/opportunity by NAHC to review and make recommendations for the treatment of Native American human remains discovered during project implementation. Section 5097.98 of the Public Resources Code and Section 7050.5 of the Health and Safety Code also reference Most Likely Descendants.

discovered during or disturbed during Project construction and this remains a *potentially significant* impact and will be addressed in the EIR.

	Potentially Significant Impact	***Less-Than-Significant With Mitigation Incorporated***	***Less-Than-Significant Impact***	***No Impact***
6. GEOLOGY AND SOILS *Would the project:*				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?	☐	☐	☒	☐
ii) Strong seismic ground shaking?	☒	☐	☐	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☒	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒

Discussion:

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial *evidence of a known fault; ii) Strong seismic ground shaking; iii) Seismic-related ground failure, including liquefaction; iv) Landslides?*

The City of Sonoma is located in the seismically active San Francisco Bay Area, in proximity to several mapped active or potentially active regional faults such as the Concord-Green Valley Fault, the Rodgers Creek-Hayward Fault, and the West Napa Fault. Of these faults, the West Napa and the Rogers Creek Faults, located roughly 7 miles east-northeast and 5 miles southwest of the Project site, respectively, are the closest active faults. The West Napa Fault was recently active. Its activity was responsible for the August 2014 M_w6.0 South Napa Earthquake that resulted in one death and approximately $400 million in property damage. The regional seismic setting notwithstanding, the potential for adverse impacts due to surface fault rupture appears to be low; the Project site is not located within a State-designated Alquist-Priolo Earthquake Fault Zone.[25]

Regional seismic shaking studies conducted by the US Geological Survey (USGS) and California Geological Survey (CGS) show that the Project site is located in an area of the City of Sonoma with a very strong seismic shaking potential, equivalent to level VIII on Modified Mercalli scale.[26] It should be noted that most of the San Francisco Bay Area is characterized by similar, if not greater, levels of seismic shaking potential.

The CGS has not mapped or otherwise identified any areas with high seismically induced liquefaction potential in the immediate vicinity of the Project site. A recent USGS evaluation of regional liquefaction hazards mapped the Project site and its immediate surroundings as an area of very low liquefaction potential.[27] For these reasons, development of the Project site is unlikely to result in significant impacts related to seismic-related liquefaction.

Similarly, the CGS has not mapped any areas with high potential for seismically induced landslides in the vicinity of the Project site. This comports with the very gentle topography in the Project vicinity. Consequently, development of the Project site is unlikely to result in significant impacts related to seismic-related landslides.

Although there appears to be a low potential for significant impacts related to primary fault rupture, or seismically induced liquefaction and landslides, the potential for strong seismic ground shaking remains and is regarded as a *potentially significant* impact. For this reason, it will be further addressed in the EIR.

b) Result in substantial soil erosion or the loss of topsoil?

The Project site is situated in an area of gentle topography, with typical slopes of less than 5 percent. Even so, grading and earth-moving activities associated with Project construction could result in substantial erosion or loss of topsoil. Compliance with regulatory requirements during construction, including Chapter 14.20 (Excavations, Grading, and Fills) of the SMC, would minimize this potential to the maximum extent practicable. For example, SMC Section 14.20.100 sets forth requirements for excavation, grading and

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[25] State of California, Department of Conservation, http://www.quake.ca.gov/gmaps/WH/regulatorymaps.htm, accessed February 25, 2015.

[26] Assoc. of Bay Area Governments (ABAG), 2013, http://resilience.abag.ca.gov/earthquakes/sonoma/, accessed March 10, 2015.

[27] USGS, 2006, Maps of Quaternary Deposits and Liquefaction Susceptibility in the Central San Francisco Bay Region, California, Open-File Report 06-1037.

filling operations, including the use of erosion control best management practices (BMPs).[28] In addition, SMC Section 14.20.205 requires the preparation and review/approval of erosion and sediment control plans prior to the issuance of grading permits.[29] Compliance with these regulatory requirements would ensure that construction-related impacts associated with soil erosion or loss of topsoil are reduced to a *less-than-significant* level. Therefore, it will not be further analyzed in the EIR.

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

Existing development around the Project site, constructed on sites typified by similar soils and bedrock geology, has not experienced landslides, lateral spreading, subsidence, liquefaction, or collapse. Given this experience, Project construction is unlikely to result in significant adverse impacts related to unstable geologic units or soil. USGS evaluations of Sonoma County concluded that the Project site is located in an area typified by "little or no potential for the formation of slumps, translational slides, or earth flows."[30] As previously discussed, the Project site is located in an area characterized by a very low liquefaction potential. In addition, the SMC and existing City of Sonoma Building Department policy empower building officials to require submittal of a detailed geotechnical investigation report prior to issuance of a building permit.[31] [32] Such reports often include recommendations for foundation design, soil stabilization measures, soil preparation criteria, and the like. Implementation of these geotechnical recommendations during Project construction would ensure that potential impacts relating to unstable geologic units or soils would be *less than significant*. Therefore, this will not be further analyzed in the EIR.

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?

Refer to Section 6.c. As demonstrated, incorporation of the recommendations identified in the required soils and geotechnical investigation would ensure that potential impacts relating to expansive soils would be *less than significant*. Therefore, this will not be further analyzed in the EIR.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

The Project will be serviced by the existing sanitary sewer system and the use of septic tanks or alternative wastewater disposal systems is not necessary. Therefore, *no impact* would occur, and this topic will not be further analyzed in the EIR.

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[28] City of Sonoma, Sonoma Municipal Code, Section 14.20.100(8.).

[29] This permit is required pursuant to SMC Section 14.20.025.

[30] USGS, 1997, San Francisco Bay Region, California Landslide Folio, Open-File Report 97-745.

[31] City of Sonoma, Sonoma Municipal Code, Section 170 14.10.010(107.1).

[32] City of Sonoma, 2011, Building Department Informational Handout, When is a Soils Investigation Required, Handout No: 31, published February 24, 2011.

	Potentially Significant Impact	***Less-Than-Significant With Mitigation Incorporated***	***Less-Than-Significant Impact***	***No Impact***
7. GREENHOUSE GAS EMISSIONS *Would the project:*				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☒	☐	☐	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

Existing Conditions

Scientists have concluded that human activities are contributing to global climate change by adding large amounts of heat-trapping gases, known as greenhouse gases (GHGs), into the atmosphere. The primary source of these GHG is fossil fuel use. The Intergovernmental Panel on Climate Change (IPCC) has identified four major GHG—water vapor, carbon dioxide (CO_2), methane (CH_4), and ozone (O_3)—that are the likely cause of an increase in global average temperatures observed within the 20th and 21st centuries. Other GHG identified by the IPCC that contribute to global warming to a lesser extent include nitrous oxide (N_2O), sulfur hexafluoride (SF_6), hydrofluorocarbons, perfluorocarbons, and chlorofluorocarbons.[33,34] This section analyzes the Project's contribution to global climate change impacts in California through an analysis of project-related GHG emissions.

Where available, the significance criteria established by the Bay Area Air Quality Management District (BAAQMD) may be relied upon to make the following determinations.

Discussion:

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

The proposed Project would not generate enough greenhouse gas (GHG) emissions on its own to influence global climate change; therefore, the GHG analysis measures the Project's contribution to the cumulative environmental impact. The existing metal warehouse building, other buildings, and parking lot currently generate operational GHG emissions. The development contemplated by the Project would contribute to global climate change through an increase in direct emissions of GHG from on-site area sources and vehicle trips generated by the Project, and indirectly through an increase in off-site energy production required for on-site activities, including water use/wastewater generation, and solid waste disposal.

BAAQMD's CEQA Guidelines identifies screening criteria for operation-related GHG emissions for a "hotel" development. General hotel developments with 83 rooms or more have the potential to generate a

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33 Intergovernmental Panel on Climate Change, 2001, Third Assessment Report: Climate Change 2001, New York: Cambridge University Press.

34 Water vapor (H_2O) is the strongest GHG and the most variable in its phases (vapor, cloud droplets, ice crystals). However, water vapor is not considered a pollutant.

substantial increase in GHG emissions and would need further analysis.[35] The Project consists of a hotel with 62 guestrooms, which is below the BAAQMD screening threshold. However, besides hotel operation, the Project also involves operation of other on-site facilities including a restaurant. Therefore, a quantified analysis of the Project's GHG emissions will be prepared. The impact is *potentially significant*, and this issue will be addressed in the EIR.

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Applicable plans adopted for the purpose of reducing GHG emissions include CARB's Scoping Plan, the MTC's/Association of Bay Area Government's (ABAG) *Plan Bay Area*, and Sonoma County Community Climate Action Plan. A consistency analysis with these plans is presented below.

Scoping Plan

In accordance with Assembly Bill 32 (AB 32), the California Air Resources Board (CARB) developed the *2008 Scoping Plan* to outline the State's strategy to achieve 1990 level emissions by year 2020. To estimate the reductions necessary, CARB projected Statewide 2020 business as usual (BAU) GHG emissions (i.e., GHG emissions in the absence of statewide emission reduction measures). CARB identified that the State as a whole would be required to reduce GHG emissions by 28.5 percent from year 2020 BAU to achieve the targets of AB 32.[36] A revised BAU 2020 forecast conducted after publication of the *2008 Scoping Plan* by CARB shows that the state would have to reduce GHG emissions by 21.6 percent from BAU without Pavley[37] and the 33 percent Renewable Portfolio Standard (RPS) or 15.7 percent from the adjusted baseline (i.e., with Pavley and 33 percent RPS).[38]

Statewide strategies to reduce GHG emissions include the Low Carbon Fuel Standard (LCFS), California Appliance Energy Efficiency regulations; California Building Standards (i.e., CALGreen and the 2008 Building and Energy Efficiency Standards); California Renewable Energy Portfolio standard (33 percent RPS); changes in the corporate average fuel economy standards (e.g., Pavley I and California Advanced Clean Car program); and other measures that would ensure the State is on target to achieve the GHG emissions reduction goals of AB 32. Statewide GHG emissions reduction measures that are being implemented over the next six years would reduce the Project's GHG emissions.

New structures would meet the current Building and Energy Efficiency Standards. The 2013 Building and Energy Efficiency Standards became effective January 1, 2014. The 2013 Standards are 30 percent more energy efficient than the 2008 standards for non-residential buildings. Also, the new buildings would not only be constructed in conformance with CALGreen, which requires high-efficiency water fixtures for indoor plumbing and water efficient irrigation systems, they would also be constructed to meet LEED Certification requirements by incorporating several sustainability components throughout construction and operation of the Hotel. The Project would construct more than 1,000 square feet of new development and would be subject to the City of Sonoma's 2013 CALGreen Checklist and 2013 CALGreen + Tier 1 Checklist. The Project would not conflict with statewide programs adopted for the purpose of reducing

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[35] Bay Area Air Quality Management District (BAAQMD), 2011 Revised, California Environmental Quality Act Air Quality Guidelines.

[36] California Air Resources Board (CARB), 2008, Climate Change Scoping Plan: A Framework for Change.

[37] This refers to Assembly Bill 1493, which entails regulations that reduce GHG emissions in new passenger vehicles from 2009 through 2016.

[38] California Air Resources Board (CARB), 2012, Status of Scoping Plan Recommended Measures, http://www.arb.ca.gov/cc/scopingplan/status_of_scoping_plan_measures.pdf.

GHG emissions. Impacts would be *less than significant*. No mitigation measures are warranted and this issue will not be discussed further in the EIR

MTC's/ABAG's Plan Bay Area

To achieve MTC's/ABAG's sustainable vision for the Bay Area, the *Plan Bay Area* land use concept plan for the region concentrates the majority of new population and employment growth in the region in Priority Development Areas (PDAs). PDAs are transit-oriented, infill development opportunity areas within existing communities. Overall, well over two-thirds of all regional growth by 2040 is allocated within PDAs. PDAs are expected to accommodate 80 percent (or over 525,570 units) of new housing and 66 percent (or 744,230) of new jobs.[39] Consequently, an overarching goal of the regional plan is to concentrate development in areas where there are existing services and infrastructure rather than allocate new growth in outlying areas where substantial transportation investments would be necessary to achieve the per capita passenger vehicle, VMT, and associated GHG emissions reductions. The Project is an infill development and would be consistent with the overall goals of *Plan Bay Area*. Therefore, the Project would not conflict with the land use concept plan identified in the *Plan Bay Area* and impacts would be *less than significant*. No mitigation measures are necessary and this issue will not be discussed further in the EIR.

Sonoma County Community Climate Action Plan

The County of Sonoma adopted a Community Climate Action Plan (CCAP) in 2008. The solutions identified in the CCAP represent the County's actions to achieve the GHG reduction goal of 25 percent below 1990 levels by 2015, which was established by all nine Sonoma cities and the County in 2005. A consistency analysis with the Project to the applicable solutions in the CCAP is shown in Table 2. As shown in this Table, the Project would not conflict with the Sonoma County's CCAP and impacts would be *less than significant*. No mitigation measures are warranted and this issue will not be discussed further in the EIR.

TABLE 2 PROJECT CONSISTENCY WITH SONOMA COUNTY'S COMMUNITY CLIMATE ACTION PLAN

Applicable Solutions	Consistency Analysis
Transportation and Land Use	
Solution #9 – Strengthen city-centered, transit-oriented development Continue to emphasize urban revitalization and infill, mixed-use, and transit-oriented development along major transportation and transit corridors.	*Consistent.* The Project is an infill project that would be pedestrian oriented by encouraging hotel guests to walk or bike in and around the Sonoma Plaza. The Project is also proximate to Sonoma County Transit bus routes on Highway 12 and West Second Street.
Solid Waste	
Solution #3 – Recycle or compost discards including products, packaging, and organic matter Make recycling and composting systems mandatory for large waste generators.	*Consistent.* The Project would comply with the recycling requirement of the City of Sonoma. Recycling stages would take place in the southern receiving dock of the service core, and trash and recycling storage enclosures would be located adjacent to First Street West in a fully enclosed service building.

Source: County of Sonoma, 2008, Community Climate Action Plan (CCAP), October.

[39] Metropolitan Transportation Commission (MTC) and Association of Bay Area Governments (ABAG), 2013, Plan Bay Area: Strategy for a Sustainable Region, July 18.

	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
8. HAZARDS AND HAZARDOUS MATERIALS *Would the project:*				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within ¼-mile of an existing or proposed school?	☐	☐	☒	☐
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☒	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☒

Discussion:

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

During demolition activities, potentially hazardous building materials (e.g., asbestos-containing materials, lead-based paint, mercury, and polychlorinated biphenyls (PCBs))and/or small quantities of hazardous materials stored or used at existing businesses may be encountered. Removal of these materials, if present, by contractors licensed to remove and handle these materials in accordance with existing federal, State, and local regulations would ensure that risks associated with the transport, storage, use, and disposal of such materials would be reduced to the maximum extent practicable. Moreover, Policy 1.6 from the City of Sonoma General Plan 2020, calls for the City to ensure that all operations that use, store, and/or transport hazardous materials comply with all applicable regulations. One of the implementing measures for this policy calls for the City to "maintain contingency plans for responding to spills, accidents, and fires involving hazardous materials."[40]

Additionally, during Project operations, common cleaning substances, building maintenance products, paints and solvents, and similar items would be stored and used, in the buildings on-site. These potentially hazardous materials, however, would not be of a type or occur in sufficient quantities to pose a significant hazard to public health and safety or the environment. Thus, by adhering to existing regulations during demolition activities, the Project would reduce the hazardous materials risks to the public to the maximum extent practicable. Therefore, a *less-than-significant* impact would result in this respect and this issue will not be discussed further in the EIR for the Project.

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials (including, but not limited to, oil, pesticides, chemicals, or radiation) into the environment?

As discussed above, General Plan Policy 1.6 in the Sonoma General Plan 2020 would require that the use, storage, and/or transport of hazardous materials comply with all applicable regulations and the City's maintenance of contingency plans for responding to spills, accidents, and fires involving hazardous materials would implement this policy. This would reduce the potential for the Project to create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials in the construction phase to the maximum extent practicable. Moreover, potentially hazardous materials stored on site during the operation phase of the Project would not be of a type or occur in sufficient quantities to pose a significant hazard to public health and safety or the environment even in the event of reasonably foreseeable upset and accident conditions. Therefore, a *less-than-significant* impact would result in this respect and this issue will not be discussed further in the EIR for the Project.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within ¼-mile of an existing or proposed school?

The Project site is within a quarter of a mile of Saint Francis Solano Catholic School, located at 342 West Napa Street. As discussed above, General Plan Policy 1.6 in the Sonoma General Plan 2020 would require that the use, storage, and/or transport of hazardous materials comply with all applicable regulations and the City's maintenance of contingency plans for responding to spills, accidents, and fires involving hazardous materials would implement this policy. This would reduce the potential for the Project to create a significant hazard to the public or the environment through reasonably foreseeable upset and accident

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[40] City of Sonoma, 2006, City of Sonoma 2020 General Plan, Public Safety Element, Page 60.

conditions involving the release of hazardous materials in the construction phase to the maximum extent practicable. Moreover, potentially hazardous materials stored on site during the operation phase of the Project would not be of a type or occur in sufficient quantities to pose a significant hazard to public health and safety or the environment even in the event of reasonably foreseeable upset and accident conditions. Therefore, a *less-than-significant* impact would result in this respect and this issue will not be discussed further in the EIR for the Project.

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

A Phase I Environmental Site Assessment (ESA) was prepared for the Project site (117 & 135 West Napa Street) on March 24, 2015. The Project site is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.[41,42] Several Leaking Underground Storage Tank (LUST) Cleanup sites were identified in near proximity to the Project site, including the former Chevron Gas Station at 135 West Napa Street immediately east of the site and the existing parking lot of which will be reconfigured as part of the Project. However, all of the listed LUST Cleanup sites, including the one at 135 West Napa Street, were identified as “Completed-Case Closed,” although certain requirements may be imposed by the involved regulatory agencies should there be a change in land use. In addition to these identified LUST Cleanup sites there is a Cleanup Program site located at 568 Broadway, approximately 0.10 miles southeast from the Project site. Although this site has operated as a dry cleaner facility since 1957, and Tetrachloroethylene (PCE) has been detected in soil and groundwater samples at that site, the Phase I ESA did not include this site as a hazard given that it is not immediately adjacent to the Project site. The regulatory status of this site is “Open-Site Assessment;” however, given that this site is two streets over and not adjacent to the Project site, it is not expected to pose a significant hazard to the public in relation to the Project. Further, the Sonoma General Plan states that the level of hazardous materials use and storage within the City is estimated to be relatively low.[43] Additionally, General Plan Policy 1.6 in the Public Safety Element requires that all operations that use, store, and/or transport hazardous materials to comply with applicable regulations. Consequently, given the use of hazardous materials is considered low within the City, and because the Project site is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65062.5, along with compliance with General Plan Policy 1.6 to ensure that all applicable hazardous materials regulations are complied with, a *less-than-significant* impact would occur and will not be discussed further in the EIR.

e)-f) For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area; or for a project within the vicinity of a private airstrip?

The nearest airport, Sonoma Skypark Aiport, is located approximately 2.3 miles to the southeast of the Project site.[44] The Project site is not within the vicinity of an airport or airstrip nor is it within the referral

[41] State Water Resources Control Board, GeoTracker, http://www.geotraker.waterboards.ca.gov/accessed February 25, 2015.

[42] State of California, Department of Toxic Substances Control, Envirostor, http://www.envirostor.dtsc.ca.gov/public/search.asp?cmd=search&reporttype=CORTESE&site_type=CSITES,OPEN,FUDS,CLOSE&status=ACT,BKLG,COM&reporttitle=HAZARDOUS+WASTE+AND+SUBSTANCES+SITE+LIST, accessed February 25, 2015.

[43] City of Sonoma, General Plan 2020, Public Safety Element, page 55.

[44] AirNav, http://www.airnav.com/cgi-bin/airport-search, accessed on February 25, 2015.

area delineated in Comprehensive Airport Land Use Plan for Sonoma County (CALUP).[45] Therefore implementation of the Project would not reasonably be expected to result in a safety hazard. Therefore, *no impact* would occur and this will not be addressed in the EIR.

g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

The City of Sonoma adopted the current Emergency Operations Plan (EOP) in 2009. The EOP establishes policies and procedures and assigns responsibilities to ensure the effective management of emergency operations within the City of Sonoma.[46] No aspect of the Project appears to be in conflict with this EOP. Therefore, a *less-than-significant* impact would result in this respect and this issue will not be discussed further in the EIR for the Project.

h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

According to the California Department of Forestry and Fire Protection (CAL FIRE), the Project site is identified as being within a Non-Very High Fire Hazard Severity Zone.[47] The Project site is located in a highly urbanized setting and the risk of wildland fire is considered low. Thus, the Project would have *no impact,* and this will not be analyzed further as part of the EIR.

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[45] County of Sonoma, Permit and Resource Management Department, Comprehensive Airport Land Use Plan for Sonoma County, Exhibit C5, Airport Safety Zones, Sonoma Skypark.

[46] City of Sonoma, 2009, Emergency Operations Plan, page 4.

[47] State of California, California Department of Forestry and Fire Protection, Fire and Resource Assessment Program, Sonoma County Very High Fire Hazard Severity Zones in LRA, http://frap.fire.ca.gov/webdata/maps/sonoma/fhszl_map.49.pdf, accessed February 25, 2015.

	Potentially Significant Impact	*Less-Than-Significant With Mitigation Incorporated*	*Less-Than-Significant Impact*	*No Impact*
9. HYDROLOGY AND WATER QUALITY *Would the project:*				
a) Violate any water quality standards or waste discharge requirements?	☐	☐	☒	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g. the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☐	☒	☐
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☒	☐
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☒	☐
f) Otherwise substantially degrade water quality?	☐	☐	☒	☐

	Potentially Significant Impact	*Less-Than-Significant With Mitigation Incorporated*	*Less-Than-Significant Impact*	*No Impact*
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	☒
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☒
j) Expose people or structures to inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒

Discussion:

a) Violate any water quality standards or waste discharge requirements?

The National Pollutant Discharge Elimination System (NPDES) permit program was established by the Federal Clean Water Act (CWA) to regulate municipal and industrial discharges to surface waters of the United States from their municipal separate storm sewer systems (MS4s). In California, the State Water Resources Control Board (SWRCB) has broad authority over water quality control issues for the State. The SWRCB is responsible for developing statewide water quality policy and exercises the powers delegated to the State by the federal government under the CWA. The City of Sonoma is within the jurisdiction of the San Francisco Bay RWQCB (Region 2).[48] The San Francisco Bay RWQCB adopted a Water Quality Control Plan for the San Francisco Bay Basin (the Basin Plan) that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the Basin Plan.[49] Construction activities that disturb one or more acres of land that could impact hydrologic resources must comply with the requirements of the SWRCB Construction General Permit (99-08-DWQ).

During construction, the Project Applicant would be required to comply with the NPDES Permit and submit Permit Registration Documents (PRDs) to the SWRCB prior to the start of construction. The PRDs include a Notice of Intent (NOI) and a site-specific construction Stormwater Pollution Prevention Plan (SWPPP) since the proposed Project will disturb one or more acres. The SWPPP describes the incorporation of Best Management Practices (BMPs) to control sedimentation, erosion, and hazardous materials contamination of runoff during construction. Requirements by the SWRCB also require the construction SWPPP to include post construction treatment measures aimed at minimizing storm water

[48] California Environmental Protection Agency, State Water Resources Control Board, http://www.waterboards.ca.gov/waterboards_map.shtml, accessed March 9, 2015.

[49] San Francisco Bay RWQCB, 2007, *Water Quality Control Plan (Basin Plan) for the San Francisco Bay Basin*, http://www.swrcb.ca.gov/rwqcb2/basin_planning.shtml, accessed on November 10, 2011.

runoff. In addition, the City of Sonoma requires submittal of an Erosion and Sediment Control Plan prior to the issuance of building or grading permits. With implementation of these measures, water quality impacts during construction would be *less than significant*.

In addition, SMC Chapter 13.32, Stormwater Management and Discharge Control, serves to protect the health, safety and general welfare of city of Sonoma residents by, among other purposes, prohibiting illicit discharges to the stormwater conveyance system and establishing authority to adopt requirements for stormwater management (including source control requirements). Prior to the start of construction, a preliminary Stormwater Mitigation Plan (SMP) must be submitted and approved by the City. The SUSMP contains BMPs that must be implemented that are consistent with the City of Sonoma's Stormwater Best Management Plan. Implementation of these requirements would result in a *less-than-significant* impact for operational water quality issues. As such, this issue will not be further analyzed in the EIR for the Project.

b) *Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g. the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?*

Construction of the proposed Project could lead to increased demand for water, which could lead to an increase in groundwater pumping. The City of Sonoma Public Works Department currently purchases treated water from the Sonoma County Water Agency (SCWA). Additionally, the City has six deep wells connected to the system. Wells 1,3,4, and 6 are classified as active and well 5 is classified as a standby source and is only used when necessary.[50] The SCWA obtains the majority of its water from the Lake Sonoma Reservoir and the Lake Mendocino Reservoir.[51] Although the site is currently developed with commercial uses, the Project would constitute an intensification of use and a corresponding increase in water use on site. Moreover, the Project would incorporate water conservation strategies including a water conservation program that integrates low flow fixtures and low water use for laundry. Additionally, the Project would include water reduction strategies that integrate rainwater capture, storage, and recycling. Water supply impacts are discussed in further detail in Chapter 17, Utilities and Public Services. Since the proposed Project does not include direct use of groundwater supplies through an on-site well, the impact is considered *less than significant*.

Development of the Project could result in an increase of impervious surfaces, which would reduce infiltration and could lead to reduced groundwater recharge. However, the planned development is on a site that has already been developed and is essentially 100% impervious. The Project applicant would need to submit a SUSMP to the City for approval, which includes site design measures, low impact development (LID), and BMPs, including infiltration features, that would contribute to groundwater recharge and minimize stormwater runoff. Therefore, implementation of the Project would not interfere significantly with groundwater recharge. In summary, *a less-than-significant* impact would result with respect to groundwater recharge or groundwater supply and this topic will not be discussed further in the EIR.

[50] City of Sonoma, City of Sonoma website, http://www.sonomacity.org/default.aspx?PageId=338, accessed March 9, 2015.

[51] Sonoma County Water Agency, Sonoma County Water Agency website, http://www.scwa.ca.gov/current-water-supply-levels/, accessed March 9, 2015.

c)-e) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on- or off-site; substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site; or exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

The Project would be constructed on a developed site that is currently connected to the City's storm drain system. There are no streams or rivers on or adjacent to the site that would be altered by the Project. Once the Project is built, drainage patterns would be similar to existing conditions, with the site drainage conveyed to an existing underground storm drain at the southwest corner of the site that connects to a 36 inch storm drain on Second Street West.

Potential erosion, siltation, and/or flooding impacts are primarily associated with construction-related activities. The Project would involve demolition, clearing and grading activities, drainage and utility improvements, and other site preparation activities, which could result in the potential for erosion or sedimentation and increased stormwater runoff. However, development would be subject to the NPDES construction permit requirements, including preparation of a SWPPP. In addition, the City requires preparation and submittal of an Erosion and Sediment Control Plan. These control measures further reduce the potential for erosion or siltation.

In addition, in accordance with SMC section 14.20.025, the Project would require a grading permit. Issuance of such a permit is necessary for Project implementation and in accordance with SMC section 14.20.040(A) "no grading permit shall be issued until all required data has been approved by the planning director for conformance with CEQA."[52] No grading permit would be issued until all required plans and required documentation have been approved by the City engineer and all required fees have been paid. Moreover, SMC section 14.20.100(3) requires that all graded surfaces and materials, whether filled, excavated, transported or stockpiled, be wetted, protected, covered or contained in such a way as to prevent any nuisance from dust, sediment, site runoff, or spillage onto adjoining property or streets. Furthermore, this SMC section requires incorporation of Best Management Practices (BMPs) in accordance with SMC section 14.20.205, which requires the submittal of Erosion and Sediment Control Plans and outlines the requirements of such plans.

In addition, development of the Project would require compliance with the Phase II Small MS4 Permit requirements that include post-construction design measures that encourage infiltration in pervious areas and post-construction source control measures to help keep pollutants out of stormwater. A preliminary Storm Water Mitigation Plan (SMP) has been prepared by a civil engineer for the Project. The preliminary SMP, included as an Appendix in this Initial Study, demonstrates compliance with the Standard Urban Stormwater Mitigation Plan (SUSMP) requirements.

If the Project resulted in a significant increase in impervious surfaces, this could result in an increase in stormwater runoff that could exceed the capacity of existing or planned stormwater drainage systems. The Project site is currently developed with commercial land uses and is essentially 100% impervious. However, Construction of the Project would require compliance with the SUSMP and LID requirements, which call for post-construction measures to treat and prevent increases in storm water runoff. These measures would be specified in the SMP which must be approved by the City prior to the start of construction, which would ensure that the Project would not exceed the capacity of the planned stormwater drainage systems, result in substantial additional sources of polluted runoff, flooding off-site.[53]

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[52] City of Sonoma, Sonoma Municipal Code, Section 14.20.040.

[53] See the discussion under impact *a,f)*for a complete discussion of potential water quality impacts.

Therefore, since Project construction requires implementation of BMPs and compliance with the SUSMP and SWPPP, the potential for erosion, siltation, flooding is minimized, and the potential for exceeding the capacity of existing or planned stormwater drainage systems, or providing substantial additional sources of polluted runoff is minimized by post-construction BMPs and stormwater treatment measures. Therefore, a *less-than-significant* impact would result with respect to these issues and this subject will not be analyzed further in the EIR for the Project.

g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

The Project does not include any new housing units over the existing seven studio apartments located at 135 West Napa Street. *No impact* would occur. This will not be analyzed in the EIR.

h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?

According to Flood Insurance Rate Map Community-Panel Number 06097C0937E, the Project site is not located within a 100-year flood hazard area.[54] *No impact* would occur. This issue will not be analyzed further in the EIR.

i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

The Project site is not located within a levee or dam inundation area, as mapped by the California Office of Emergency Services.[55] As a result, the Project would not expose people or structures to a significant risk of loss, injury, or death involving failure of a levee or dam. *No impact* would occur. This will not be further analyzed in the EIR.

j) Expose people or structures to inundation by seiche, tsunami, or mudflow?

The Project site is not located in close proximity to the Pacific Ocean or San Francisco Bay and is outside of the tsunami inundation zone as mapped by the California Department of Conservation.[56] Therefore, *no impact* would result in this respect and this will not be analyzed further in the EIR.

[54] Federal Emergency Management Agency, 2008, Flood Insurance Rate map, Sonoma County California, panel 937 of 1150.

[55] California Office of Emergency Services (OES), 2009. *Dam Inundation Registered Images and Boundary Files in Shape File Format, Version DVD 3.* Dated April 2009.

[56] State of California, Department of Conservation, Department of Conservation website, http://www.conservation.ca.gov/cgs/geologic_hazards/Tsunami/Inundation_Maps/Sonoma/Pages/Sonoma.aspx, accessed March 9, 2015.

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

Discussion:

a) Physically divide an established community?

Construction of the Project would have a significant environmental impact if it were sufficiently large or otherwise configured in such a way as to create a physical barrier or other physical division within an established community. A typical example would be a project which involved a continuous right-of-way, such as a roadway, which would divide a community and impede access between parts of the community.

The Project site is already developed with commercial uses, is located in a downtown setting and is surrounded by urban development. As a result, the Project would not physically divide any established community. A *less-than-significant* impact would occur. This will not be analyzed in the EIR.

b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

The Project would have a significant impact if it would conflict with community goals as expressed in adopted plans, policies, or regulations. The Project would require a waiver from the Commercial Zoning Residential Component (Article II-19.10.020-B.3) of the Sonoma Development Code, which requires a residential component be included on development of properties of one-half acre in size or larger for which a discretionary permit is required, unless waived by the Planning Commission. Although the Project would require a waiver from the Residential Component, this component of the Sonoma Development Code is not intended for the purpose of avoiding or mitigation an environmental effect. Further, the Project would develop on an already urbanized site that is currently zoned for commercial use, which allows for hotel and restaurant uses. Therefore a *less-than-significant* impact would occur, and will not be addressed in the EIR.

c) Conflict with any applicable habitat conservation plan or natural community conservation plan?

No habitat conservation plans or natural community conservation plans have been prepared addressing the site and surrounding lands. Therefore *no impact* would occur.

	Potentially Significant Impact	***Less-Than-Significant With Mitigation Incorporated***	***Less-Than-Significant Impact***	***No Impact***
11. MINERAL RESOURCES *Would the project:*				
a) Result in the loss of availability of a known mineral resource that would be of future value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

Discussion:

a) – b) Result in the loss of availability of a known mineral resource that would be of future value to the region and the residents of the state or result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan??

The California Department of Conservation, Geological Survey (CGS) classifies lands into Aggregate and Mineral Resource Zones (MRZs) based on guidelines adopted by the California State Mining and Geology Board, as mandated by the Surface Mining and Reclamation Act of 1974. These MRZs identify whether known or inferred significant mineral resources are present in areas. Lead agencies are required to incorporate identified MRZs resource areas delineated by the State into their General Plans.[57] The City of Sonoma has no General Plan land use designation for mineral resources.[58] Therefore, there would be *no impact* with regard to the loss of a valuable mineral resource and this will not be addressed in the EIR.

[57] Public Resources Code Section 2762(a)(1).
[58] City of Sonoma, 2006, 2020 General Plan.

	Potentially Significant Impact	*Less-Than-Significant With Mitigation Incorporated*	*Less-Than-Significant Impact*	*No Impact*
12. NOISE *Would the project result in:*				
a) Exposure of persons to, or generation of noise levels in excess of, standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☒	☐	☐	☐
b) Exposure of persons to, or generation of excessive groundborne vibration or groundborne noise levels?	☒	☐	☐	☐
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☒	☐	☐	☐
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☒	☐	☐	☐
e) For a project located within an airport land use plan, or where such a plan has not been adopted, within 2 miles of a public airport or public use airport within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

Discussion:

a) Exposure of persons to, or generation of noise levels in excess of, standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

As a hotel development with a restaurant component that is located in a commercial zone within the downtown area, the Project is unlikely to generate or expose people to noise levels in excess of standards established within the Noise Element of the *City of Sonoma 2020 General Plan,* or the City's Noise Ordinance (Chapter 9.56 of the Sonoma Municipal Code). Further, operational noise generated by the Project would not likely differ from noise levels typically found within a downtown commercial environment. However, construction activities would include site preparation work, including, demolition, grading foundation work, and construction. Construction activities associated with Project have the potential to result in significant levels of vibration and/or noise that may be perceptible to nearby sensitive receptors. Additionally, the Project would be located along a major arterial, which would generate noise related to traffic that could impact building occupants. Thus, a *potentially significant* impact would occur and this will be further analyzed in the EIR.

b) Exposure of persons to, or generation of excessive groundborne vibration or groundborne noise levels?

Operation of the Project would not likely expose persons to or generate excessive groundborne vibration or groundborne noise levels.

However, during construction, there may be generation of excessive, albeit temporary, groundborne vibration or groundborne noise levels. This would be considered a *potentially significant* impact, and will be further analyzed in the EIR.

c) A substantial permanent increase in ambient noise levels in the project vicinity?

The proposed Project would increase the amount of development on the Project site, attracting more visitors and employees to the site and resulting in an increase in vehicle trips and traffic on surrounding roadways. Therefore, it could result in a substantial permanent increase to ambient noise levels. Thus, there could be a *potentially significant* impact and will be addressed in the EIR.

d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity?

Construction activities typically associated with new development, including grading, excavation, paving, material deliveries, and building construction, would result in a substantial temporary increase in ambient noise levels in the project vicinity. Although this impact is temporary in nature, increased noise levels throughout the construction period, may adversely affect residents in the area. Pursuant to the City's Noise Ordinance, construction activities and material deliveries would be restricted to the hours between 8 a.m. and 6 p.m. Monday through Friday, between 9:00 a.m. and 6:00 p.m. on Saturday, and between 10 a.m. and 6 p.m. on Sundays and holidays. However, the noise level at any point outside of the property plane of the project would not be permitted to exceed 90 dBA.

Although compliance with the City's Noise Ordinance (Chapter 9.56 of the Sonoma Municipal Code) would minimize potential impacts from construction noise; a *potentially significant* impact could occur during construction activities during build out of the Project, and this will be analyzed in the EIR.

e) Exposure of people residing or working in the vicinity of the plan area to excessive aircraft noise levels, for a project located within an airport land use plan, or where such a plan has not been adopted, within 2 miles of a public airport or public use airport.

The Project site is not within an airport land use plan. The nearest public use airport is Sonoma Skypark Airport at approximately 2.7 miles to the southeast of the project site. Thus, the project site is not within 2 miles of a public airport or a public use airport. Therefore, *no impact* associated with public airports would occur and this will not be analyzed in the EIR.

f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

The Project site is not in the vicinity of a private airstrip. Therefore, *no impact* associated with a private airstrip would occur, and this will not be analyzed in the EIR.

	Potentially Significant Impact	***Less-Than-Significant With Mitigation Incorporated***	***Less-Than-Significant Impact***	***No Impact***
13. POPULATION AND HOUSING *Would the project:*				
a) Induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	☐	☐	☒	☐
b) Displace substantial numbers of existing housing stock, necessitating the construction of replacement housing elsewhere?	☐	☐	☒	☐
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☒	☐

Discussion:

a) Induce substantial population growth in an area, either directly or indirectly?

The Project would result in a substantial and unplanned level of growth if estimated development were to exceed local or regional growth projections. The Project does not include additional residential units but does include commercial space that will require employees. The Association of Bay Area Governments (ABAG) is the regional body for projecting regional growth down to the local level. ABAG's *Projections 2013* estimate a 2015 population for the city of Sonoma of 10,800. By 2020, the population of the City of Sonoma is expected to rise to 11,100. This relates to an increase of 300 residents from 2015 to 2020.[59] Since the Project would not include residential units, would generate fewer than 300 jobs and would likely employ existing Sonoma residents, the Project would result in direct inducement of fewer than 300 jobs and therefore would not exceed regional growth projections.

With respect to indirect growth inducement, the Project would be located near the center of the city and does not entail extension of roads or other infrastructure with the potential to induce population growth.

A *less-than-significant* impact would result with respect to population growth and this will not be discussed further in the EIR.

b)-c) Displace substantial numbers of existing housing stock or displace substantial numbers of people?

As discussed above, the Project site currently contains seven studio apartments at 135 West Napa Street, however the project only requires reconfiguration of the parking lot for this building, and would not displace existing residents. This means that implementation of the Project would neither displace housing

[59] Association of Bay Area Governments, 2013, Projections 2013, Sonoma County Jurisdictional Boundary Table.

units or people and a *less-than-significant* impact would result in this respect and this will not be discussed further in the EIR.

	Potentially Significant Impact	***Less-Than-Significant With Mitigation Incorporated***	***Less-Than-Significant Impact***	***No Impact***
14. PUBLIC SERVICES *Would the project result in substantial adverse physical impacts associated with the provision of or need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services:*				
a) Fire protection?	☐	☐	☒	☐
b) Police protection?	☐	☐	☒	☐
c) Schools?	☐	☐	☐	☒
d) Parks?	☐	☐	☒	☐
e) Other public facilities?	☐	☐	☐	☒

Discussion:

a) Fire protection?

The Project site is located within City limits where fire protection services are provided by Sonoma Valley Fire & Rescue Authority (SVFRA) staff and facilities. Project components include redeveloping the existing site to include a hotel, restaurant, spa, and open space for hotel guests. Although, the Project would be required to comply with the California Fire Code and California Building Code, and undergo development review to verify code compliance and adequate fire access, the Project would result in an increased intensity of use at the site related to additional employees and visitors staying at the proposed hotel. These increases could require additional fire protection demands and the impact would be *potentially significant.* This will be further addressed in the EIR.

b) Police protection?

The Sonoma County Sheriff’s Department currently provides police services for the City. Project components include redeveloping the existing site to include a hotel, restaurant, spa, and open space for hotel guests, and would result in an increase intensity of use at the site related to additional employees and visitors staying at the proposed hotel. These increases could require additional police protection demands and the impact would be *potentially significant.* This will be further addressed in the EIR.

c) Schools?

The Project would redevelop the existing site to include a hotel, restaurant, spa, and open space for hotel guests. There is no residential component proposed by the Project; therefore, *no impact* would occur regarding impacts to schools, and this will not be analyzed as part of the EIR.

d) Parks?

Although the Project includes no residential component and would not bring any new residents to Sonoma, it potentially would bring some new employees. However, as mentioned previously, the increase in employment associated with the Project is unlikely to be substantial. Additionally, although hotel guests would likely utilize parks in the area during their stay, any increases in demand to parks would be negligible given the hotel only has 62-guestrooms. Therefore, potential impacts would be *less than significant*, and this will not be analyzed as part of the EIR.

e) Other Public Facilities?

The Project would not require the provision or construction of other public facilities. *No impact* would occur, and this will not be analyzed as part of the EIR.

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

Discussion:

a) Would the project increase the use of existing neighborhood or regional parks, or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

As discussed above in section 13, the Project would not increase the population in the City of Sonoma beyond regional growth projections which are used for other planning efforts. Further, as discussed in section 14, hotel guests would likely utilize parks in the vicinity; however, given the hotel only offers 62 guestrooms, these impacts would be negligible. Therefore, a *less-than-significant* impact would result with respect to a substantial deterioration of neighborhood and regional parks and will not be discussed further in the EIR.

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

The project does not include or require construction or expansion of recreational facilities; therefore, *no impact* would occur and this will not be addressed in the EIR.

	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
16. TRANSPORTATION/TRAFFIC *Would the project:*				
a) Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☒	☐	☐	☐
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the City for designated roads or highways?	☒	☐	☐	☐
c) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☒	☐	☐	☐
d) Result in inadequate emergency access?	☒	☐	☐	☐
e) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g. bus turnouts, bicycle racks)?	☒	☐	☐	☐

Discussion:

a) Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

The site is located in downtown Sonoma and adjoins State Route 12 (West Napa Street). Nearby intersections include West Napa Street/Second Street West. West Napa Street/First Street West, and Broadway/West Napa Street.

Further analysis of the Project's potential impacts on traffic conditions is necessary. Until this analysis has been completed, impacts in this area are considered to be *potentially significant*. This will be analyzed as part of the EIR.

b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the City for designated roads or highways?

Further analysis of the Project's potential impacts on traffic conditions is necessary. Until this analysis has been completed, impacts in this area are considered to be *potentially significant*. This will be analyzed as part of the EIR.

c) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Further analysis of the Project's potential impacts related to hazards due to a design feature is necessary. Until this analysis has been completed, impacts in this area are considered to be *potentially significant*. This will be analyzed as part of the EIR.

d) Result in inadequate emergency access?

Further analysis of the Project's potential impacts related to emergency access is necessary. Until this analysis has been completed, impacts in this area are considered to be *potentially significant*. This will be analyzed as part of the EIR.

e) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g. bus turnouts, bicycle racks)?

Further analysis of the Project's potential impacts related to potential conflicts with adopted policies, plans, or programs supporting alternative transportation is necessary. Until this analysis has been completed, impacts in this area are considered to be *potentially significant*. This will be analyzed as part of the EIR.

	Potentially Significant Impact	***Less-Than-Significant With Mitigation Incorporated***	***Less-Than-Significant Impact***	***No Impact***
17. UTILITIES AND SERVICE SYSTEMS *Would the project:*				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☒	☐	☐	☐
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☒	☐	☐	☐
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☒	☐	☐	☐
e) Result in a determination by the Sonoma Valley County Sanitation District that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☒	☐	☐	☐
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒	☐
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☒	☐

Discussion:

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

Treatment of wastewater generated by the Project would be handled by the Sonoma Valley County Sanitation District (SVCSD), which has one treatment plant, located on Eighth Street East. The SVCSD is operated and maintained by the Sonoma County Water Agency (SCWA). The SVCSD service area encompasses central Sonoma Valley from Glen Ellen to south Sonoma, including all of the City of

Sonoma. The service area, which is approximately 8 miles long and 2 miles wide, is roughly aligned with Sonoma Creek.

The Project land use type is commercial and would include redevelopment of the existing site to include a hotel, spa, restaurant, and open space for hotel guests. Wastewater effluent associated with this land use would not substantially increase pollutant loads, as there is no heavy industrial use nor agricultural processing where pollutant loads and wastewater volumes are heavy. Nevertheless, impacts to sanitary wastewater quality would be *potentially significant* and will be addressed in the EIR.

b) Require or result in the construction of new or expanded water or wastewater treatment facilities?

The Project would involve development of new on-site buildings and would result in an overall increase to building area at the Project site, which would require new on-site water and wastewater facilities and increase demand for off-site water treatment and supply facilities. This is a *potentially significant* impact, and will be analyzed as part of the EIR.

c) Require or result in the construction of new or expanded storm water drainage facilities, the construction of which could cause significant environmental effects?

The Project would be required to comply with C.3 provisions, including Low Impact Development (LID) site design guidelines. Implementation of LID site design measures would provide both treatment of site runoff and flow control prior to discharge to the City's storm drain system. As a result, there would be no significant increase in site runoff as compared to existing (pre-development) conditions. Therefore, the existing storm drain system is expected to be able to handle the stormwater flow from the site and the impact is expected to be *less than significant.* Thus, this topic will not be addressed in the EIR.

d) Have sufficient water supplies available to serve the project from existing entitlements and resources?

The Project would increase the building area of the Project site, which would increase the site's water demand. This is a *potentially significant* impact, and will be addressed in the EIR.

e) Result in a determination by the wastewater treatment provider that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

The Project would increase the building area of the Project site, which would increase the site's demand for wastewater treatment facilities. This is a *potentially significant* impact, and will be addressed in the EIR.

f) Be served by a landfill with sufficient permitted capacity to accommodate the project?

The Central Disposal Site landfill, located at 500 Mecham Road in Petaluma, California, accommodates solid waste from the City of Sonoma. The Central Disposal Site has a permitted capacity of 19.59 million tons (32.65 million cubic yards). This Site includes two landfills, including Landfill 1, which has a permitted capacity of 18.27 million tons (25.65 million cubic yards), and Landfill 2, which has a permitted capacity of 4.98 million tons (7.0 million cubic yards). Landfill 1 currently contains approximately 12.83 million tons (21.38 million cubic yards) of solid waste, and Landfill 2 currently has 1.12 million tons (1.87 million cubic yards) of solid waste. Therefore, remaining capacity at Landfill 1 is 5.44 million tons (4.27 million cubic yards), and remaining capacity at Landfill 2 is 3.86 million tons (5.13 million cubic yards. Further, permitted daily tonnage at the Central Disposal Site is 2,500 tons; however, average daily tonnage is 1,250 tons.[60] Therefore, the landfill is currently receiving less than its permitted daily tonnage of solid waste.

The Project would increase the building area of the Project site, including a 62-room hotel, 80-seat restaurant, and expected to have a staff of approximately 60 employees.[61] Using solid waste generation rates from CalRecycle, which assumes 2 pounds per room per day for hotel uses, 1 pound per seat per day for restaurant use, and 10.53 pounds per day per employee, the Project would generate approximately 118 pounds per day of solid waste from the hotel, 80 pounds per day of solid waste from the restaurant, and 632 pounds per day from employees, for a total of 260 pounds per day of solid waste generated by the Project. Therefore, the total daily solid waste generation represents less than 0.0001 percent of the average daily tonnage accommodated by the Central Disposal Site. Therefore, the Project's solid waste would be accommodated by the landfill. Therefore, a *less-than-significant* impact would occur, and this will not be addressed in the EIR.

g) Comply with federal, state, and local statutes and regulations related to solid waste?

In compliance with State Law SB 1016, the Project would target a California Integrated Waste Management Board (CIWMB) target of 18.3 pounds per day per employee for the Sonoma County Waste Management Agency.[62, 63] According to CalRecycle, the Sonoma County Waste Management Agency had a disposal rate of 10.0 pounds per day per (PPD) employee, which is below the target of 18.3.[64]

SMC Chapter 7.08, Garbage and Rubbish Disposal, addresses the collection, removal, and transportation of solid wasted within the City of Sonoma. For example, SMC Section 7.08.050 states that it is unlawful for any person to keep or accumulate or permit to be kept or accumulated any garbage or rubbish upon any lot or parcel of land, or upon any public or private street, alley or other right-of-way, or any public place whatsoever, unless the same is in suitable metal or plastic receptacles designed for such purpose. Further, this Section of the Code states that receptacles shall have a capacity of not less than 20 gallons nor more than 90 gallons, and that each receptacle shall have at all times close-fitting lids or covers.

In addition, the Sonoma General Plan includes Policy 3.1 of the Environmental Resources Element which requires increasing the conservation-effectiveness and cost effectiveness of the solid waste source reduction program through expanded recycling and composting.

As mentioned above, solid waste generation by the Project would equate to less than 0.0001 percent of the average daily tonnage accommodated by the Central Disposal Site. In addition, the 2013 waste generated

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[60] Sonoma County Waste Management Agency, About Central Disposal Site Fact Sheet, http://www.recyclenow.org/pdf/fact_sheet_central_disposal_site.pdf, accessed March 13, 2015.

[61] The Project Narrative provide by Kenwood Investments LLC [dated July 28, 2014] identifies 50 full-time employees and 10 part-time employees for the hotel, and 25 full-time and 17 part-time employees for the restaurant, with a maximum number of employees per shift of 40. Conservatively, 60 employees were used for purposes of environmental review.

[62] The Sonoma County Waste Management Agency was formed in April of 1992 as a joint powers authority of the nine incorporated cities and the County of Sonoma. [Source: Sonoma County Waste Management Agency, About, http://www.recyclenow.org/agency/about.asp], accessed June 8, 2015.

[63] CalRecycle, Jurisdiction Diversion/Disposal Rate Summary (2007-current), http://www.calrecycle.ca.gov/LGCentral/reports/diversionprogram/JurisdictionDiversionPost2006.aspx, accessed on June 8, 2015.

[64] CalRecycle, Jurisdiction Diversion/Disposal Rate Summary (2007-current), http://www.calrecycle.ca.gov/LGCentral/reports/diversionprogram/JurisdictionDiversionPost2006.aspx, accessed on June 8, 2015.

by the Sonoma County Waste Management was 10.0 PPD per employee, which includes nine cities and the County of Sonoma, and was below the CalRecycle's target of 18.3 PPD. As such, the nominal increase in solid waste generation by the Project is unlikely to result in any significant increases such that it would conflict with federal, State, and local statutes and regulations. Further, compliance with General Plan Policy 3.1 and SMC Chapter 7.08 would be required. Consequently, the Project would result in a *less-than-significant* impact and this will not be addressed in the EIR.

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

Discussion:

a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

Project impacts in the areas of aesthetics, air quality, cultural resources, geology/soils, greenhouse gas emissions, hazards/hazardous materials, hydrology/water quality, land use and planning, noise, public services, transportation/traffic, and utilities/service systems need to be further evaluated. Therefore the project would result in *potentially significant* impacts to the environment.

b) Does the project have impacts that are individually limited, but cumulatively considerable ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

The Project would redevelop the Project site, resulting in an overall increase in building area at the site, which would increase employment opportunities and visitors to the site, as well as vehicle trips to and from the site. In combination with other development in the Project area, this would have the potential to contribute to cumulative impacts. Cumulative impacts are *potentially significant,* and will be addressed in the EIR.

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

The Project would generate an increase in air pollutants and noise. These impacts ware *potentially significant*, and will be addressed in the EIR.

APPENDIX C:
Arborist Report

MACNAIR
&
ASSOCIATES
CONSULTING ARBORISTS AND HORTICULTURISTS

February 6, 2013

Mr. Rob Gjestland
Community Development Department
City of Sonoma
No. 1 The Plaza
Sonoma, CA 95476-9000

RE: Chateau Sonoma Arborist Report

Dear Mr. Gjestland:

Pursuant to your request, I have performed an evaluation of trees growing on the Chateau Sonoma project site located on West Napa Street in Sonoma. The purpose of this evaluation is to assess the health and structural condition of the trees on the site and to assess construction impact associated with the proposed project.

Report Summary

The proposed project is a hotel complex located on the site of the Sonoma Index Tribune (Lynch Building) and the Chateau Sonoma Shop including the existing parking lot and associated landscape plantings. The proposed site improvements are shown on site plans prepared by RossDrulisCusenbery Architects dated June 2012.

Fifty trees are growing on the site with the majority of the trees growing on the perimeter of the existing parking lot. Nine of the 50 trees are growing behind the Chateau Sonoma Shop. Twenty-two trees included in the evaluation are not shown on the existing Site and Demolition Plan. These trees are shown on the attached Tree Location and Numbering Plan.

The attached tree evaluation spreadsheet provides a general discussion of the health and structural condition of the various trees as well as an assessment of construction impact.

The following table summarizes the tree species, quantities, and general condition of the trees on site.

Tree Species	Quantity	General Condition
Chinese pistache	4	Generally moderate health and structural condition.
coast live oak	2	Generally moderate condition with limited issues.
coast redwood	2	One tree in moderate condition and one drought stressed and previously topped.
crape myrtle	1	Moderate health and structural condition.
Deodar cedar	1	Moderate health and structural condition.
eastern red oak	1	Generally moderate health and structural condition.
European olive	3	Generally moderate health and structural condition.

Tree Species	Quantity	General Condition
flowering plum	2	Poor condition due to drought stress and sunscald.
honeylocust	3	Poor to marginal condition due to drought stress and sunscald.
Japanese maple	4	Generally moderate health and structural condition.
scarlet oak	5	Generally moderate health and structural condition.
Shamel ash	17	Poor to marginal condition due to drought stress and sunscald.
valley oak	5	Generally poor to marginal condition due to drought stress and insect problems.

Construction Impact:

The site demolition plan indicates that two of the 50 existing trees are designated for retention. These two trees (#42 and #43) are located in the landscape planter on the east side of the existing driveway at West Napa Street.

No detailed construction plans are provided. The two retained trees will require tree protection procedures during the construction process. One of the retained trees requires root pruning to correct a problem with girdling roots. Both trees will also require regular irrigation.

Tree Mitigation Recommendations

Tree removals can be mitigated with new landscape plantings and street trees. Generally, a 1:1 ratio of replacement to removed non-native trees is recommended as appropriate mitigation. The native oaks are recommended for replacement at a 2:1 ratio.

Individual Tree Evaluations

The trees have been assigned a number as indicated on the attached site plan. Additionally, the trees have been rated for health and condition. Following is a description of the various data used in the evaluations:

Botanical and Common Names:

The botanical name and common name are provided for each tree.

DBH and # of Trunks:

DBH refers to the approximate measurement of the trunk diameter at 4.5 feet above grade. This measurement is useful to arborists providing quotations for tree maintenance work and evaluating tree growth over time.

The # of trunks notes single or multiple trunk trees. Trunks should occur at or below 54 inches above grade to be considered as a multiple trunk structure.

Height and Canopy Spread:

These fields are approximate visual measurements of the tree's height and canopy spread. Accuracy is within plus or minus 20% of the indicated measurement.

Health and Structural Ratings and Descriptions:

The following chart describes the health and structural rating system used in the evaluation. It is a rating of relative conditions such as vigor, extent of decay, structure, and insect or disease problems. Good and moderate ratings indicate limited structural problems, acceptable vigor, and an absence of significant pest or disease problems. Poor and marginal ratings indicate serious health or structural problems especially if the tree is situated near structures or public areas. Trees rated as poor or marginal are often hazardous.

Rating Chart:

3	Moderate or better condition	Normal and correctable problems of structure or pests and diseases.
2	Marginal condition	Indicates serious problems with structure, decay, or significant insect or disease problems.
1	Poor condition	Indicates very poor health, vigor, or hazardous structural condition

Trees may be rated between two conditions, such as 1.5 or 2.5. This indicates the tree does not precisely meet the criteria for either of the two categories and allows the rating system to be used as a continuum.

The Comments/Observation section describes the basis for the health and structural rating. The specific pests, disease, and structural defects observed are described and identified if possible.

This evaluation is of above ground structure only and additional defects may exist at the root collar. Many of the larger mature and over-mature trees require a root collar examination to evaluate the primary structural roots and root collar for decay and disease.

Comment/Observations:

A summary description of the tree including health and structural observations.

Suitability for Preservation:

An assessment of health and structural condition as an indication for tolerance to construction impacts and as criteria for preservation.

Construction Impact:

A discussion of the probable construction impact affecting the tree.

Please contact me with any questions regarding this report.

Sincerely,

James MacNair
International Society of Arboriculture Certified Arborist WE-0603A
Member American Society of Arboricultural Consultants

Tree Photographs:

Tree #2 coast redwood designated for removal.

Honeylocust (tree #6) with sunscald trunk damage. Tree is located adjacent to future pool area, although not identified on demolition plan.

Shamel ash along south parking lot perimeter. Trees vary from poor to marginal in condition.

Old sunscald damage on Shamel ash.

Valley oak (tree #21) in marginal condition due to drought stress and pit scale infestation.

Valley oak (tree #25) also in marginal condition. Note branch dieback and weak growth.

One of a number of eastern oaks (non-native). Generally the trees are in moderate condition.

Cluster of coast live oaks and smaller valley oaks behind the Chateau Sonoma Shop.

Olives and Deodar cedar behind Chateau Sonoma Shop. Trees were not shown on the demolition plans.

The two eastern oaks identified on the plans as retained. All other trees are to be removed.

Chinese pistache on site and typical moderate health and structural condition.

Chateau Sonoma
Tree Evaluation Data

Chateau Sonoma Tree Evaluation Data

Health and Structural Rating Key: 3.0 = moderate or better condition
2.5 = marginal to moderate
2.0 = marginal condition
1.5 = poor to marginal condition
1.0 = poor condition

Tree #	Species	Trunk Diameter @4.5'	# of Trunks	Crown Height	Crown Diameter	Health Rating	Structural Rating	Comments/Observations	Suitability for Preservation (Based on Condition)	Construction Impact
1	coast redwood (Sequoia sempervirens)	16"	1	40'-45'±	25'-30'±	3.0	3.0	Semi-mature tree with single trunk structure. No significant structural defects observed. Located adjacent to overhead electrical lines. Vigor and foliage density are moderate. Located in 10' x 15' planter.	Moderate	Designated for removal.
2	coast redwood	24"	1	40'±	40'±	2.5	2.5	Semi-mature tree. Trunk appears topped in upper crown. Vigor is variable with foliage off-color. Tree is likely chronically drought stressed.	Moderate	Designated for removal.
3	Chinese pistache (Pistacia chinensis)	7.5"	1	20'-25'±	20'-25'±	2.5	3.0	Smaller tree in moderately low vigor. No significant structural defects observed. Ligustrum hedge planted around tree.	Moderate	Designated for removal.
4	honeylocust (Gleditsia triacanthos)	7"	1	15'±	12'-15'±	2.0	2.5	Stunted tree with significant trunk damage from sunscald. Vigor is low. No significant structural defects.	Poor	Trees not shown on demolition plan and located adjacent to parking lot and future pool area. Trees likely to require removal.
5	honeylocust	8	1	15'±	12'-15'±	2.0	2.5			
6	honeylocust	8	1	15'±	12'-15'±	2.0	2.5			
7	Shamel ash (Fraxinus uhdei)	13"	1	35'±	25'±	2.0	2.5	Small tree with upright structure and closely spaced, multiple limb attachments. Vigor is low with significant branch dieback occurring.	Poor	Tree not shown on demolition plan. Tree will require removal.
8	Shamel ash	11"	1	35'±	25'±	2.0	2.5	Stunted tree with co-dominant trunks and reaction ridge at union. Vigor is low.	Poor	Designated for removal.
9	Shamel ash	10"	1	40'±	20'±	2.5	2.0	Stunted tree with small secondary trunk. Vigor is variable with long decayed seam due to sunscald damage.	Poor	Designated for removal.
10	Shamel ash	9"	1	35'-40'±	15'	2	2	Narrow tree with sunscald damage. Vigor is low.	Poor	Designated for removal.
11	Shamel ash	10"	1	35'±	15'	1.5	2	Significant trunk canker and severe sunscald damage. Vigor is low with dieback occurring.	Poor	Designated for removal.
12	Shamel ash	6"	1	25'±	10'±	1.5	1.5	Significant trunk canker and severe sunscald damage. Vigor is low with dieback occurring.	Poor	Designated for removal.

Tree #	Species	Trunk Diameter @4.5'	# of Trunks	Crown Height	Crown Diameter	Health Rating	Structural Rating	Comments/Observations	Suitability for Preservation (Based on Condition)	Construction Impact
13	Shamel ash	9"	1	40'±	15'±	2.0	2.0	Co-dominant trunks form at 8'. Vigor is low with probable trunk canker. Sunscald damage.	Poor	Designated for removal.
14	Shamel ash	7"	1	35'±	12'±	1.5	2.0	Small tree in low vigor with significant dieback and sunscald damage.	Poor	Designated for removal.
15	Chinese pistache	7"	1	25'±	20'±	2.5	3.0	Stunted tree in low vigor from drought stress with significant epicormic sprouting. No significant structural defects.	Marginal	Tree not shown on demolition plan. Tree will require removal.
16	Shamel ash	7"	1	25'±	15'±	1.5	2.0	Stunted tree with low vigor and substantial sunscald damage. 4" valley oak seedling adjacent.	Poor	Tree not shown on demolition plan. Tree will require removal.
17	Shamel ash	7" (low)	2	25'±	15'±	1.5	2.0	Stunted tree with low vigor and substantial sunscald damage.	Poor	Designated for removal.
18	Shamel ash	8"	1	25'±	15'±	1.5	2.0	Stunted tree with low vigor and substantial sunscald damage.	Poor	Designated for removal.
19	Shamel ash	6" (low)	1	25'±	15'±	1.0	2.0	Severe sunscald.	Poor	Tree not shown on demolition plan. Tree will require removal.
20	valley oak (Quercus lobata)	3"; 4"; 6"	3	15'±	15'±	2.0	2.0	Low, multi-trunk structure with history of pruning. Vigor is low with pit scale infestation and weak epicormic sprouting.	Poor to Marginal	Tree not shown on demolition plan. Tree will require removal.
21	valley oak	7"; 11"	2	25'±	25'±	2.0	2.5	Low, two trunk structure with reaction ridge at union. Vigor is slow with pit scale infestation and weak epicormic sprouting.	Marginal	Designated for removal.
22	Shamel ash	3"; 3.5"	2	20'±	15'±	2.5	2.0	Low two structure originating from basal sprouts. Marginal structure. Low vigor.	Poor	Tree not shown on demolition plan. Tree will require removal.
23	Shamel ash	2"	1	12'±	4'±	2.5	2.0	Sprout from cut stump.	Poor	Designated for removal.
24	Shamel ash	.5"; .5"; 1"; 2"	4	12'±	5'±	2.5	2.0	Sprouts from cut stump.	Poor	Tree not shown on demolition plan. Tree will require removal.
25	valley oak	13"	1	35'±	30'±	2.0	3.0	Young tree with closely spaced, multiple limb attachments forming at 10'. Vigor is low with weak epicormic sprouting and branch dieback occurring. 2- 2" and 1-3.5" coast live oak seedlings at base.	Marginal	Designated for removal.
26	Shamel ash	7"	2 @ 6'	25'±	10'±	1.5	1.5	Tree has severe sunscald damage.	Poor	Designated for removal.
27	Shamel ash	1.5"	1	12'±	4'±	2.0	3.0	Recently planted. Tree has poor vigor due to drought stress.	Poor	Designated for removal.
28	red oak (Quercus rubra)	5"	1	20'±	20'±	2.5	2.5	Young tree with co-dominant trunks formed, otherwise no significant structural defects.	Moderate	Designated for removal.

Tree #	Species	Trunk Diameter @4.5'	# of Trunks	Crown Height	Crown Diameter	Health Rating	Structural Rating	Comments/Observations	Suitability for Preservation (Based on Condition)	Construction Impact
29	scarlet oak (Quercus coccinea)	6"	1	30'±	20'±	2.5	3.0	Tree appears drought stressed with low upper crown vigor. No significant structural defects.	Moderate	Designated for removal.
30	scarlet oak	7"	1	35'±	35'±	3.0	3.0	Young tree with no significant structural defects. Vigor is moderate.	Moderate	Designated for removal.
31	scarlet oak	7"	1	35'±	35'±	3.0	3.0	Young tree with no significant structural defects. Vigor is moderate.	Moderate	Designated for removal.
32	coast live oak (Quercus agrifolia)	14"; 18"	2	35'-40'±	20'-25'±	3.0	2.5	Low two trunk structure with moderately asymmetrical crown form. Possible weak trunk union. Vigor and foliage density are moderate.	Moderate	Designated for removal.
33	coast live oak	12"; 16"; 18"	3	30'-35'±	30'	2.5	2.5	Low, multiple trunk structure with attachment inclusions and reaction wood ridges. Significant bark beetle activity on lower trunk.	Moderate	Designated for removal.
34	valley oak	10"	1	20'±	15'-20'±	3.0	2.5	Young tree with high-branched structure. Located adjacent to tree #32. Vigor and twig density are moderate.	Moderate	Tree not shown on demolition plan. Tree will require removal.
35	valley oak	6"; 7"	2	20'-25'±	20'±	3.0	2.0	Two trunk structure with significant bend in trunk below crown of tree #32. Vigor and twig density are moderate.	Marginal	Designated for removal.
36	Deodar cedar (Cedrus deodara)	10"±	1	30'-35'±	20'±	3.0	3.0	Young tree with no significant structural defects. Vigor is moderate.	Moderate	Tree not shown on demolition plan. Tree will require removal.
37	European olive (Olea europaea)	10"±	1	15'±	12'±	3.0	3.0	Young tree with history of crown pruning. Vigor and foliage density are moderate.	Moderate	Tree not shown on demolition plan. Tree will require removal.
38	European olive	10"±	1	15'±	12'±	3.0	3.0	Young tree with history of crown pruning. Vigor and foliage density are moderate.	Moderate	Tree not shown on demolition plan. Tree will require removal.
39	European olive	10"±	1	15'±	12'±	3.0	3.0	Young tree with history of crown pruning. Vigor and foliage density are moderate.	Moderate	Tree not shown on demolition plan. Tree will require removal.
40	Japanese maple (Acer palmatum)	3.5" (low)	1	8'±	6'±	3.0	3.0	Young tree with no significant structural defects. Vigor is moderate.	Moderate	Tree not shown on demolition plan. Tree will require removal.
41	Japanese maple	3.5" (low)	1	8'±	6'±	3.0	3.0	Young tree with no significant structural defects. Vigor is moderate.	Moderate	Tree not shown on demolition plan. Tree will require removal.

Tree #	Species	Trunk Diameter @4.5'	# of Trunks	Crown Height	Crown Diameter	Health Rating	Structural Rating	Comments/Observations	Suitability for Preservation (Based on Condition)	Construction Impact
42	scarlet oak	6"	1	18'±	12'±	3.0	3.0	Young tree with no significant structural defects. Vigor is moderate.	Moderate	One of two trees designated to be retained. Tree protection procedures will be required.
43	scarlet oak	3.5"	1	20'±	8'±	2.5	2.0	Young tree with girdling roots and lower trunk fissures. Vigor appears moderately low.	Moderate	One of two trees designated to be retained. Tree protection procedures will be required.
44	Chinese pistache	10"	1	30'-35'±	30'±	3.0	3.0	Semi-mature tree with single trunk structure. No significant structural defects observed. Vigor and twig density are moderate.	Moderate	Designated for removal.
45	crape myrtle (Lagerstroemia indica)	6"	1	20'-25'±	10'-12'±	3.0	3.0	Narrow crown form with no significant structural defects. Vigor appears moderate.	Moderate	Designated for removal.
46	Japanese maple	3"; 3"; 3"	3	15'±	12'±	3.0	3.0	Low, multiple trunk structure. No significant structural defects. Vigor appears moderate.	Moderate	Tree not shown on demolition plan. Tree will require removal.
47	Japanese maple	4" (low)	1	15'±	10'±	3.0	2.5	Low, multiple trunk structure with history of pruning and broken limbs. Vigor appears moderate.	Marginal to Moderate	Tree not shown on demolition plan. Tree will require removal.
48	flowering plum (Prunus cerasifera)	8"±	1	20'±	15'	2.0	1.5	Very marginal tree with severe sunscald damage.	Poor	Tree not shown on demolition plan. Tree will require removal.
49	flowering plum	3.5"±	1	20'±	8'±	1.5	1.5	Very marginal tree with severe sunscald damage.	Poor	Tree not shown on demolition plan. Tree will require removal.
50	Chinese pistache	9"	1	25'±	15'-20'±	3.0	3.0	Semi-mature tree with single trunk structure. No significant structural defects observed. Vigor and twig density are moderate.	Moderate	Tree not shown on demolition plan. Tree will require removal.

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ARCHITECTURE

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Chateau Sonoma Hotel

Sonoma, CA

Kenwood Investments LLC

REVISIONS

No.	Description	Date

USE PERMIT

Sheet Title

EXISTING SITE AND DEMOLITION PLAN

N

Drawn By: Author | Checked By: Checker

Scale: 1/16" = 1'-0"

Date: June, 2012

Project No.: Project Number

A1.02

Drawing No.

Tree Location and
Numbering Plan
2/7/13

APPENDIX D:
Air Quality and Greenhouse Gas Modeling

Hotel Project Sonoma

Sonoma-San Francisco County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	37.66	1000sqft	0.00	37,655.00	0
Other Non-Asphalt Surfaces	22.48	1000sqft	0.52	22,483.00	0
Parking Lot	4.48	1000sqft	0.10	4,479.00	0
Hotel	62.00	Room	0.62	67,478.00	0

1.2 Other Project Characteristics

Urbanization Urban **Wind Speed (m/s)** 2.2 **Precipitation Freq (Days)** 75

Climate Zone 4 **Operational Year** 2017

Utility Company Pacific Gas & Electric Company

CO2 Intensity (lb/MWhr) 641.35 **CH4 Intensity (lb/MWhr)** 0.029 **N2O Intensity (lb/MWhr)** 0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Project Description - see assumptions

Construction Phase - Applicant provided schedule

Off-road Equipment - Equipment provided by the Applicant

Off-road Equipment - Haul = no equipment

Off-road Equipment - Equipment provided by the Applicant

Off-road Equipment - Applicant provided construction equipment

Off-road Equipment - Haul = no construction

Off-road Equipment - Assumes use of 1 skid steer loader during finishing and landscaping activities.

Off-road Equipment - Applicant provided construction equipment

Off-road Equipment - Haul = no equipment

Off-road Equipment - Applicant provided construction equipment

Trips and VMT - Trips based on size of the haul trucks. Water Trucks added as vendor trips. Haul length provided by Applicant.

Architectural Coating - Modified = parking structure not painted. Reduced painting area provided by the Applicant/Architect

Vehicle Trips - trip rates provided by WTrans

Energy Use - Hotel energy use is based on calculations provided by the Applicant and includes reductions from the most recent T24.

Water And Wastewater - Water Demand from the Basis of Design Report. 100% treated wastewater

Construction Off-road Equipment Mitigation - BAAQMD Best Management Practices

Energy Mitigation - 2013 Title 24 is 30% high for non-residential (included in base calcs not mitigated scenario). Includes Renewable Energy but unknown kwh generated

Table Name	Column Name	Default Value	New Value
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tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9
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tblConstructionPhase	NumDays	200.00	32.00
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tblConstructionPhase	NumDays	20.00	5.00
tblConstructionPhase	NumDays	20.00	2.00
tblConstructionPhase	NumDays	4.00	5.00
tblConstructionPhase	NumDays	4.00	5.00

tblConstructionPhase	NumDays	4.00	45.00
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tblConstructionPhase	PhaseEndDate	1/29/2018	12/29/2017
tblConstructionPhase	PhaseEndDate	8/5/2016	7/7/2016
tblConstructionPhase	PhaseEndDate	7/11/2016	7/25/2016
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tblConstructionPhase	PhaseStartDate	7/26/2016	7/29/2016
tblConstructionPhase	PhaseStartDate	8/16/2016	7/29/2016
tblConstructionPhase	PhaseStartDate	12/30/2017	12/18/2016
tblEnergyUse	LightingElect	2.72	6.17
tblEnergyUse	NT24E	3.22	5.83
tblEnergyUse	T24E	2.50	6.18
tblEnergyUse	T24NG	41.63	29.10
tblGrading	MaterialExported	0.00	16,000.00
tblGrading	MaterialImported	0.00	148.00
tblLandUse	LandUseSquareFeet	37,660.00	37,655.00
tblLandUse	LandUseSquareFeet	22,480.00	22,483.00
tblLandUse	LandUseSquareFeet	4,480.00	4,479.00
tblLandUse	LandUseSquareFeet	90,024.00	67,478.00
tblLandUse	LotAcreage	0.86	0.00
tblLandUse	LotAcreage	2.07	0.62
tblOffRoadEquipment	HorsePower	125.00	121.00
tblOffRoadEquipment	HorsePower	80.00	33.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
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tblOffRoadEquipment	UsageHours	6.00	4.00
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tblTripsAndVMT	HaulingTripLength	20.00	5.00
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tblTripsAndVMT	HaulingTripLength	20.00	5.00
tblTripsAndVMT	HaulingTripLength	20.00	5.00
tblTripsAndVMT	HaulingTripNumber	19.00	23.00
tblTripsAndVMT	HaulingTripNumber	44.00	45.00
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tblTripsAndVMT	VendorTripNumber	0.00	4.00
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tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	WorkerTripNumber	55.00	0.00
tblVehicleTrips	SU_TR	5.95	8.19
tblWater	IndoorWaterUseRate	1,572,739.74	5,400,000.00
tblWater	OutdoorWaterUseRate	174,748.86	66,000.00

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					
2016	0.2181	1.4470	1.4698	2.0000e-003	0.0780	0.0799	0.1579	0.0285	0.0762	0.1046	0.0000	171.8549	171.8549	0.0267	0.0000	172.4150
2017	0.6504	2.8814	2.7637	4.4700e-003	0.0855	0.1707	0.2562	0.0231	0.1644	0.1876	0.0000	370.7615	370.7615	0.0565	0.0000	371.9477
Total	**0.8685**	**4.3284**	**4.2335**	**6.4700e-003**	**0.1635**	**0.2506**	**0.4140**	**0.0516**	**0.2406**	**0.2922**	**0.0000**	**542.6164**	**542.6164**	**0.0832**	**0.0000**	**544.3627**

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					
2016	0.2181	1.4470	1.4698	2.0000e-003	0.0535	0.0799	0.1334	0.0177	0.0762	0.0938	0.0000	171.8548	171.8548	0.0267	0.0000	172.4148
2017	0.6504	2.8814	2.7637	4.4700e-003	0.0855	0.1707	0.2562	0.0231	0.1644	0.1876	0.0000	370.7612	370.7612	0.0565	0.0000	371.9474
Total	**0.8685**	**4.3284**	**4.2335**	**6.4700e-003**	**0.1390**	**0.2506**	**0.3896**	**0.0408**	**0.2406**	**0.2814**	**0.0000**	**542.6160**	**542.6160**	**0.0832**	**0.0000**	**544.3622**

	ROG	**NOx**	**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**	**14.96**	**0.00**	**5.91**	**20.98**	**0.00**	**3.71**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.5826	1.0000e-005	1.1900e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.2600e-003	2.2600e-003	1.0000e-005	0.0000	2.3900e-003
Energy	0.0123	0.1120	0.0941	6.7000e-004		8.5100e-003	8.5100e-003		8.5100e-003	8.5100e-003	0.0000	553.7440	553.7440	0.0219	6.2700e-003	556.1483
Mobile	0.3255	0.6141	2.9058	5.1700e-003	0.3553	7.7600e-003	0.3631	0.0954	7.1400e-003	0.1025	0.0000	398.6824	398.6824	0.0186	0.0000	399.0739
Waste						0.0000	0.0000		0.0000	0.0000	6.8915	0.0000	6.8915	0.4073	0.0000	15.4444
Water						0.0000	0.0000		0.0000	0.0000	1.7132	8.5675	10.2806	0.1764	4.2300e-003	15.2967
Total	**0.9205**	**0.7261**	**3.0011**	**5.8400e-003**	**0.3553**	**0.0163**	**0.3716**	**0.0954**	**0.0157**	**0.1110**	**8.6047**	**960.9960**	**969.6008**	**0.6241**	**0.0105**	**985.9657**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.5826	1.0000e-005	1.1900e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.2600e-003	2.2600e-003	1.0000e-005	0.0000	2.3900e-003
Energy	0.0123	0.1120	0.0941	6.7000e-004		8.5100e-003	8.5100e-003		8.5100e-003	8.5100e-003	0.0000	553.7440	553.7440	0.0219	6.2700e-003	556.1483
Mobile	0.3255	0.6141	2.9058	5.1700e-003	0.3553	7.7600e-003	0.3631	0.0954	7.1400e-003	0.1025	0.0000	398.6824	398.6824	0.0186	0.0000	399.0739
Waste						0.0000	0.0000		0.0000	0.0000	6.8915	0.0000	6.8915	0.4073	0.0000	15.4444
Water						0.0000	0.0000		0.0000	0.0000	1.3705	6.8633	8.2338	0.1411	3.3800e-003	12.2446
Total	**0.9205**	**0.7261**	**3.0011**	**5.8400e-003**	**0.3553**	**0.0163**	**0.3716**	**0.0954**	**0.0157**	**0.1110**	**8.2621**	**959.2919**	**967.5540**	**0.5888**	**9.6500e-003**	**982.9135**

	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**	**3.98**	**0.18**	**0.21**	**5.66**	**8.10**	**0.31**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition_Buildings	Demolition	7/1/2016	7/29/2016	5	21	
2	Demolition_BuildingHaul	Demolition	7/1/2016	7/7/2016	5	5	
3	Demolition_AsphaltHaul	Demolition	7/22/2016	7/25/2016	5	2	
4	Site Preparation	Site Preparation	7/29/2016	8/15/2016	5	12	
5	Site Preparation Haul	Site Preparation	7/29/2016	8/25/2016	5	20	
6	Rough Grading	Grading	7/29/2016	9/29/2016	5	45	
7	Building Construction	Building Construction	9/1/2016	12/29/2017	5	347	
8	Trenching	Trenching	12/18/2016	1/18/2017	5	23	
9	Architectural Coating	Architectural Coating	8/28/2017	10/26/2017	5	44	
10	Fine Grading	Grading	10/15/2017	10/20/2017	5	5	
11	Fine Grading Haul	Grading	10/15/2017	10/20/2017	5	5	
12	Paving	Paving	10/20/2017	10/30/2017	5	7	
13	Finishing and Landscaping	Building Construction	11/12/2017	12/26/2017	5	32	

Acres of Grading (Site Preparation Phase): 6

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 73,111; Non-Residential Outdoor: 6,748 (Architectural Coating –

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition_Buildings	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition_Buildings	Excavators	1	8.00	132	0.38
Demolition_Buildings	Rubber Tired Dozers	0	8.00	255	0.40
Demolition_Buildings	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Demolition_BuildingHaul	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition_BuildingHaul	Rubber Tired Dozers	0	8.00	255	0.40
Demolition_BuildingHaul	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Demolition_AsphaltHaul	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition_AsphaltHaul	Excavators	1	8.00	132	0.38
Demolition_AsphaltHaul	Rubber Tired Dozers	0	8.00	255	0.40
Demolition_AsphaltHaul	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Graders	1	8.00	174	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation Haul	Graders	0	8.00	174	0.41
Site Preparation Haul	Rubber Tired Dozers	0	7.00	255	0.40
Site Preparation Haul	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Rough Grading	Graders	0	6.00	174	0.41
Rough Grading	Rubber Tired Dozers	0	6.00	255	0.40
Rough Grading	Rubber Tired Loaders	1	7.10	154	0.36
Rough Grading	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Building Construction	Cranes	1	6.00	226	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45

Trenching	Excavators	1	4.00	55	0.38
Trenching	Tractors/Loaders/Backhoes	1	4.00	70	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48
Fine Grading	Graders	0	6.00	174	0.41
Fine Grading	Rubber Tired Dozers	0	6.00	255	0.40
Fine Grading	Rubber Tired Loaders	1	8.00	154	0.36
Fine Grading	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Fine Grading Haul	Graders	0	6.00	174	0.41
Fine Grading Haul	Rubber Tired Dozers	0	6.00	255	0.40
Fine Grading Haul	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Paving	Cement and Mortar Mixers	0	6.00	9	0.56
Paving	Pavers	1	4.00	121	0.42
Paving	Paving Equipment	0	8.00	130	0.36
Paving	Rollers	1	4.00	33	0.38
Paving	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Finishing and Landscaping	Cranes	0	6.00	226	0.29
Finishing and Landscaping	Forklifts	0	6.00	89	0.20
Finishing and Landscaping	Generator Sets	0	8.00	84	0.74
Finishing and Landscaping	Skid Steer Loaders	1	8.00	64	0.37
Finishing and Landscaping	Tractors/Loaders/Backhoes	0	6.00	97	0.37
Finishing and Landscaping	Welders	0	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition_Buildings	1	3.00	4.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition_BuildingHaul	0	0.00	0.00	45.00	12.40	7.30	21.00	LD_Mix	HDT_Mix	HHDT
Demolition_AsphaltHaul	1	3.00	0.00	32.00	12.40	7.30	5.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	4.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation Haul	0	0.00	0.00	2,462.00	12.40	7.30	5.00	LD_Mix	HDT_Mix	HHDT
Rough Grading	1	3.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	55.00	22.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	2	5.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	11.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Fine Grading	1	3.00	4.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Fine Grading Haul	0	0.00	0.00	23.00	12.40	7.30	5.00	LD_Mix	HDT_Mix	HHDT
Paving	2	5.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Finishing and Landscaping	1	0.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition_Buildings - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.3200e-003	0.0379	0.0293	5.0000e-005		1.8700e-003	1.8700e-003		1.7200e-003	1.7200e-003	0.0000	4.2682	4.2682	1.2900e-003	0.0000	4.2952
Total	**3.3200e-003**	**0.0379**	**0.0293**	**5.0000e-005**		**1.8700e-003**	**1.8700e-003**		**1.7200e-003**	**1.7200e-003**	**0.0000**	**4.2682**	**4.2682**	**1.2900e-003**	**0.0000**	**4.2952**

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	5.6000e-004	4.1400e-003	7.0100e-003	1.0000e-005	2.7000e-004	6.0000e-005	3.3000e-004	8.0000e-005	6.0000e-005	1.3000e-004	0.0000	0.8963	0.8963	1.0000e-005	0.0000	0.8965
Worker	1.3000e-004	1.8000e-004	1.8100e-003	0.0000	2.8000e-004	0.0000	2.9000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2577	0.2577	1.0000e-005	0.0000	0.2580
Total	**6.9000e-004**	**4.3200e-003**	**8.8200e-003**	**1.0000e-005**	**5.5000e-004**	**6.0000e-005**	**6.2000e-004**	**1.6000e-004**	**6.0000e-005**	**2.1000e-004**	**0.0000**	**1.1540**	**1.1540**	**2.0000e-005**	**0.0000**	**1.1545**

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	3.3200e-003	0.0379	0.0293	5.0000e-005		1.8700e-003	1.8700e-003		1.7200e-003	1.7200e-003	0.0000	4.2682	4.2682	1.2900e-003	0.0000	4.2952
Total	**3.3200e-003**	**0.0379**	**0.0293**	**5.0000e-005**		**1.8700e-003**	**1.8700e-003**		**1.7200e-003**	**1.7200e-003**	**0.0000**	**4.2682**	**4.2682**	**1.2900e-003**	**0.0000**	**4.2952**

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	5.6000e-004	4.1400e-003	7.0100e-003	1.0000e-005	2.7000e-004	6.0000e-005	3.3000e-004	8.0000e-005	6.0000e-005	1.3000e-004	0.0000	0.8963	0.8963	1.0000e-005	0.0000	0.8965
Worker	1.3000e-004	1.8000e-004	1.8100e-003	0.0000	2.8000e-004	0.0000	2.9000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2577	0.2577	1.0000e-005	0.0000	0.2580
Total	**6.9000e-004**	**4.3200e-003**	**8.8200e-003**	**1.0000e-005**	**5.5000e-004**	**6.0000e-005**	**6.2000e-004**	**1.6000e-004**	**6.0000e-005**	**2.1000e-004**	**0.0000**	**1.1540**	**1.1540**	**2.0000e-005**	**0.0000**	**1.1545**

3.3 Demolition_BuildingHaul - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					4.8100e-003	0.0000	4.8100e-003	7.3000e-004	0.0000	7.3000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**4.8100e-003**	**0.0000**	**4.8100e-003**	**7.3000e-004**	**0.0000**	**7.3000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	5.6000e-004	6.9600e-003	7.3700e-003	2.0000e-005	3.9000e-004	9.0000e-005	4.8000e-004	1.1000e-004	8.0000e-005	1.9000e-004	0.0000	1.5816	1.5816	1.0000e-005	0.0000	1.5819
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**5.6000e-004**	**6.9600e-003**	**7.3700e-003**	**2.0000e-005**	**3.9000e-004**	**9.0000e-005**	**4.8000e-004**	**1.1000e-004**	**8.0000e-005**	**1.9000e-004**	**0.0000**	**1.5816**	**1.5816**	**1.0000e-005**	**0.0000**	**1.5819**

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					2.0600e-003	0.0000	2.0600e-003	3.1000e-004	0.0000	3.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**2.0600e-003**	**0.0000**	**2.0600e-003**	**3.1000e-004**	**0.0000**	**3.1000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	5.6000e-004	6.9600e-003	7.3700e-003	2.0000e-005	3.9000e-004	9.0000e-005	4.8000e-004	1.1000e-004	8.0000e-005	1.9000e-004	0.0000	1.5816	1.5816	1.0000e-005	0.0000	1.5819
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**5.6000e-004**	**6.9600e-003**	**7.3700e-003**	**2.0000e-005**	**3.9000e-004**	**9.0000e-005**	**4.8000e-004**	**1.1000e-004**	**8.0000e-005**	**1.9000e-004**	**0.0000**	**1.5816**	**1.5816**	**1.0000e-005**	**0.0000**	**1.5819**

3.4 Demolition_AsphaltHaul - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.1900e-003	0.0000	2.1900e-003	3.3000e-004	0.0000	3.3000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.2000e-004	3.6100e-003	2.7900e-003	0.0000		1.8000e-004	1.8000e-004		1.6000e-004	1.6000e-004	0.0000	0.4065	0.4065	1.2000e-004	0.0000	0.4091
Total	**3.2000e-004**	**3.6100e-003**	**2.7900e-003**	**0.0000**	**2.1900e-003**	**1.8000e-004**	**2.3700e-003**	**3.3000e-004**	**1.6000e-004**	**4.9000e-004**	**0.0000**	**0.4065**	**0.4065**	**1.2000e-004**	**0.0000**	**0.4091**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.5000e-004	1.4400e-003	3.8000e-003	0.0000	7.0000e-005	2.0000e-005	8.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.2873	0.2873	0.0000	0.0000	0.2874
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	1.0000e-005	2.0000e-005	1.7000e-004	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0246	0.0246	0.0000	0.0000	0.0246
Total	**2.6000e-004**	**1.4600e-003**	**3.9700e-003**	**0.0000**	**1.0000e-004**	**2.0000e-005**	**1.1000e-004**	**3.0000e-005**	**1.0000e-005**	**4.0000e-005**	**0.0000**	**0.3119**	**0.3119**	**0.0000**	**0.0000**	**0.3119**

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					9.4000e-004	0.0000	9.4000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.2000e-004	3.6100e-003	2.7900e-003	0.0000		1.8000e-004	1.8000e-004		1.6000e-004	1.6000e-004	0.0000	0.4065	0.4065	1.2000e-004	0.0000	0.4091
Total	**3.2000e-004**	**3.6100e-003**	**2.7900e-003**	**0.0000**	**9.4000e-004**	**1.8000e-004**	**1.1200e-003**	**1.4000e-004**	**1.6000e-004**	**3.0000e-004**	**0.0000**	**0.4065**	**0.4065**	**1.2000e-004**	**0.0000**	**0.4091**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.5000e-004	1.4400e-003	3.8000e-003	0.0000	7.0000e-005	2.0000e-005	8.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.2873	0.2873	0.0000	0.0000	0.2874
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	1.0000e-005	2.0000e-005	1.7000e-004	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0246	0.0246	0.0000	0.0000	0.0246
Total	**2.6000e-004**	**1.4600e-003**	**3.9700e-003**	**0.0000**	**1.0000e-004**	**2.0000e-005**	**1.1000e-004**	**3.0000e-005**	**1.0000e-005**	**4.0000e-005**	**0.0000**	**0.3119**	**0.3119**	**0.0000**	**0.0000**	**0.3119**

3.5 Site Preparation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0348	0.0000	0.0348	0.0177	0.0000	0.0177	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0147	0.1546	0.0991	1.0000e-004		8.3900e-003	8.3900e-003		7.7200e-003	7.7200e-003	0.0000	9.6947	9.6947	2.9200e-003	0.0000	9.7561
Total	**0.0147**	**0.1546**	**0.0991**	**1.0000e-004**	**0.0348**	**8.3900e-003**	**0.0432**	**0.0177**	**7.7200e-003**	**0.0254**	**0.0000**	**9.6947**	**9.6947**	**2.9200e-003**	**0.0000**	**9.7561**

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	3.2000e-004	2.3700e-003	4.0100e-003	1.0000e-005	1.5000e-004	4.0000e-005	1.9000e-004	4.0000e-005	3.0000e-005	8.0000e-005	0.0000	0.5122	0.5122	0.0000	0.0000	0.5123
Worker	2.0000e-004	2.8000e-004	2.7600e-003	1.0000e-005	4.3000e-004	0.0000	4.4000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.3927	0.3927	2.0000e-005	0.0000	0.3932
Total	**5.2000e-004**	**2.6500e-003**	**6.7700e-003**	**2.0000e-005**	**5.8000e-004**	**4.0000e-005**	**6.3000e-004**	**1.6000e-004**	**3.0000e-005**	**2.0000e-004**	**0.0000**	**0.9049**	**0.9049**	**2.0000e-005**	**0.0000**	**0.9055**

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					0.0149	0.0000	0.0149	7.5800e-003	0.0000	7.5800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0147	0.1546	0.0991	1.0000e-004		8.3900e-003	8.3900e-003		7.7200e-003	7.7200e-003	0.0000	9.6946	9.6946	2.9200e-003	0.0000	9.7561
Total	**0.0147**	**0.1546**	**0.0991**	**1.0000e-004**	**0.0149**	**8.3900e-003**	**0.0233**	**7.5800e-003**	**7.7200e-003**	**0.0153**	**0.0000**	**9.6946**	**9.6946**	**2.9200e-003**	**0.0000**	**9.7561**

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	3.2000e-004	2.3700e-003	4.0100e-003	1.0000e-005	1.5000e-004	4.0000e-005	1.9000e-004	4.0000e-005	3.0000e-005	8.0000e-005	0.0000	0.5122	0.5122	0.0000	0.0000	0.5123
Worker	2.0000e-004	2.8000e-004	2.7600e-003	1.0000e-005	4.3000e-004	0.0000	4.4000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.3927	0.3927	2.0000e-005	0.0000	0.3932
Total	**5.2000e-004**	**2.6500e-003**	**6.7700e-003**	**2.0000e-005**	**5.8000e-004**	**4.0000e-005**	**6.3000e-004**	**1.6000e-004**	**3.0000e-005**	**2.0000e-004**	**0.0000**	**0.9049**	**0.9049**	**2.0000e-005**	**0.0000**	**0.9055**

3.6 Site Preparation Haul - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					9.0000e-004	0.0000	9.0000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**9.0000e-004**	**0.0000**	**9.0000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.0191	0.1107	0.2920	2.5000e-004	5.1500e-003	1.2200e-003	6.3600e-003	1.4200e-003	1.1200e-003	2.5300e-003	0.0000	22.1046	22.1046	2.0000e-004	0.0000	22.1087
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0191**	**0.1107**	**0.2920**	**2.5000e-004**	**5.1500e-003**	**1.2200e-003**	**6.3600e-003**	**1.4200e-003**	**1.1200e-003**	**2.5300e-003**	**0.0000**	**22.1046**	**22.1046**	**2.0000e-004**	**0.0000**	**22.1087**

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					3.9000e-004	0.0000	3.9000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**3.9000e-004**	**0.0000**	**3.9000e-004**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.0191	0.1107	0.2920	2.5000e-004	5.1500e-003	1.2200e-003	6.3600e-003	1.4200e-003	1.1200e-003	2.5300e-003	0.0000	22.1046	22.1046	2.0000e-004	0.0000	22.1087
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0191**	**0.1107**	**0.2920**	**2.5000e-004**	**5.1500e-003**	**1.2200e-003**	**6.3600e-003**	**1.4200e-003**	**1.1200e-003**	**2.5300e-003**	**0.0000**	**22.1046**	**22.1046**	**2.0000e-004**	**0.0000**	**22.1087**

3.7 Rough Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0110	0.1118	0.0696	9.0000e-005		6.2300e-003	6.2300e-003		5.7400e-003	5.7400e-003	0.0000	8.9474	8.9474	2.7000e-003	0.0000	9.0041
Total	**0.0110**	**0.1118**	**0.0696**	**9.0000e-005**	**0.0000**	**6.2300e-003**	**6.2300e-003**	**0.0000**	**5.7400e-003**	**5.7400e-003**	**0.0000**	**8.9474**	**8.9474**	**2.7000e-003**	**0.0000**	**9.0041**

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	2.9000e-004	4.0000e-004	3.8800e-003	1.0000e-005	6.1000e-004	1.0000e-005	6.1000e-004	1.6000e-004	1.0000e-005	1.7000e-004	0.0000	0.5523	0.5523	3.0000e-005	0.0000	0.5530
Total	**2.9000e-004**	**4.0000e-004**	**3.8800e-003**	**1.0000e-005**	**6.1000e-004**	**1.0000e-005**	**6.1000e-004**	**1.6000e-004**	**1.0000e-005**	**1.7000e-004**	**0.0000**	**0.5523**	**0.5523**	**3.0000e-005**	**0.0000**	**0.5530**

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0110	0.1118	0.0696	9.0000e-005		6.2300e-003	6.2300e-003		5.7400e-003	5.7400e-003	0.0000	8.9474	8.9474	2.7000e-003	0.0000	9.0041
Total	**0.0110**	**0.1118**	**0.0696**	**9.0000e-005**	**0.0000**	**6.2300e-003**	**6.2300e-003**	**0.0000**	**5.7400e-003**	**5.7400e-003**	**0.0000**	**8.9474**	**8.9474**	**2.7000e-003**	**0.0000**	**9.0041**

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	2.9000e-004	4.0000e-004	3.8800e-003	1.0000e-005	6.1000e-004	1.0000e-005	6.1000e-004	1.6000e-004	1.0000e-005	1.7000e-004	0.0000	0.5523	0.5523	3.0000e-005	0.0000	0.5530
Total	**2.9000e-004**	**4.0000e-004**	**3.8800e-003**	**1.0000e-005**	**6.1000e-004**	**1.0000e-005**	**6.1000e-004**	**1.6000e-004**	**1.0000e-005**	**1.7000e-004**	**0.0000**	**0.5523**	**0.5523**	**3.0000e-005**	**0.0000**	**0.5530**

3.8 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1432	0.8937	0.6398	9.5000e-004		0.0594	0.0594		0.0573	0.0573	0.0000	80.7776	80.7776	0.0178	0.0000	81.1504
Total	**0.1432**	**0.8937**	**0.6398**	**9.5000e-004**		**0.0594**	**0.0594**		**0.0573**	**0.0573**	**0.0000**	**80.7776**	**80.7776**	**0.0178**	**0.0000**	**81.1504**

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	0.0129	0.0944	0.1597	2.3000e-004	6.1100e-003	1.4100e-003	7.5200e-003	1.7500e-003	1.2900e-003	3.0500e-003	0.0000	20.4229	20.4229	1.6000e-004	0.0000	20.4263
Worker	0.0102	0.0140	0.1375	2.6000e-004	0.0216	2.0000e-004	0.0218	5.7400e-003	1.8000e-004	5.9200e-003	0.0000	19.5753	19.5753	1.1300e-003	0.0000	19.5990
Total	**0.0231**	**0.1085**	**0.2973**	**4.9000e-004**	**0.0277**	**1.6100e-003**	**0.0293**	**7.4900e-003**	**1.4700e-003**	**8.9700e-003**	**0.0000**	**39.9982**	**39.9982**	**1.2900e-003**	**0.0000**	**40.0253**

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	0.1432	0.8937	0.6398	9.5000e-004		0.0594	0.0594		0.0573	0.0573	0.0000	80.7775	80.7775	0.0178	0.0000	81.1503
Total	**0.1432**	**0.8937**	**0.6398**	**9.5000e-004**		**0.0594**	**0.0594**		**0.0573**	**0.0573**	**0.0000**	**80.7775**	**80.7775**	**0.0178**	**0.0000**	**81.1503**

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	0.0129	0.0944	0.1597	2.3000e-004	6.1100e-003	1.4100e-003	7.5200e-003	1.7500e-003	1.2900e-003	3.0500e-003	0.0000	20.4229	20.4229	1.6000e-004	0.0000	20.4263
Worker	0.0102	0.0140	0.1375	2.6000e-004	0.0216	2.0000e-004	0.0218	5.7400e-003	1.8000e-004	5.9200e-003	0.0000	19.5753	19.5753	1.1300e-003	0.0000	19.5990
Total	**0.0231**	**0.1085**	**0.2973**	**4.9000e-004**	**0.0277**	**1.6100e-003**	**0.0293**	**7.4900e-003**	**1.4700e-003**	**8.9700e-003**	**0.0000**	**39.9982**	**39.9982**	**1.2900e-003**	**0.0000**	**40.0253**

3.8 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3841	2.4842	1.8604	2.8500e-003		0.1593	0.1593		0.1537	0.1537	0.0000	239.9115	239.9115	0.0503	0.0000	240.9686
Total	**0.3841**	**2.4842**	**1.8604**	**2.8500e-003**		**0.1593**	**0.1593**		**0.1537**	**0.1537**	**0.0000**	**239.9115**	**239.9115**	**0.0503**	**0.0000**	**240.9686**

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	0.0327	0.2528	0.4356	6.7000e-004	0.0183	3.6300e-003	0.0219	5.2400e-003	3.3400e-003	8.5800e-003	0.0000	59.9635	59.9635	4.6000e-004	0.0000	59.9732
Worker	0.0266	0.0371	0.3599	7.7000e-004	0.0644	5.6000e-004	0.0650	0.0171	5.1000e-004	0.0177	0.0000	56.2583	56.2583	3.0500e-003	0.0000	56.3222
Total	**0.0593**	**0.2899**	**0.7955**	**1.4400e-003**	**0.0827**	**4.1900e-003**	**0.0869**	**0.0224**	**3.8500e-003**	**0.0262**	**0.0000**	**116.2217**	**116.2217**	**3.5100e-003**	**0.0000**	**116.2954**

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	0.3841	2.4841	1.8604	2.8500e-003		0.1593	0.1593		0.1537	0.1537	0.0000	239.9112	239.9112	0.0503	0.0000	240.9684
Total	**0.3841**	**2.4841**	**1.8604**	**2.8500e-003**		**0.1593**	**0.1593**		**0.1537**	**0.1537**	**0.0000**	**239.9112**	**239.9112**	**0.0503**	**0.0000**	**240.9684**

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	0.0327	0.2528	0.4356	6.7000e-004	0.0183	3.6300e-003	0.0219	5.2400e-003	3.3400e-003	8.5800e-003	0.0000	59.9635	59.9635	4.6000e-004	0.0000	59.9732
Worker	0.0266	0.0371	0.3599	7.7000e-004	0.0644	5.6000e-004	0.0650	0.0171	5.1000e-004	0.0177	0.0000	56.2583	56.2583	3.0500e-003	0.0000	56.3222
Total	**0.0593**	**0.2899**	**0.7955**	**1.4400e-003**	**0.0827**	**4.1900e-003**	**0.0869**	**0.0224**	**3.8500e-003**	**0.0262**	**0.0000**	**116.2217**	**116.2217**	**3.5100e-003**	**0.0000**	**116.2954**

3.9 Trenching - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.0500e-003	0.0102	7.7300e-003	1.0000e-005		7.7000e-004	7.7000e-004		7.1000e-004	7.1000e-004	0.0000	0.9486	0.9486	2.9000e-004	0.0000	0.9546
Total	**1.0500e-003**	**0.0102**	**7.7300e-003**	**1.0000e-005**		**7.7000e-004**	**7.7000e-004**		**7.1000e-004**	**7.1000e-004**	**0.0000**	**0.9486**	**0.9486**	**2.9000e-004**	**0.0000**	**0.9546**

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	1.1000e-004	1.5000e-004	1.4400e-003	0.0000	2.3000e-004	0.0000	2.3000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.2046	0.2046	1.0000e-005	0.0000	0.2048
Total	**1.1000e-004**	**1.5000e-004**	**1.4400e-003**	**0.0000**	**2.3000e-004**	**0.0000**	**2.3000e-004**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**0.0000**	**0.2046**	**0.2046**	**1.0000e-005**	**0.0000**	**0.2048**

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	1.0500e-003	0.0102	7.7300e-003	1.0000e-005		7.7000e-004	7.7000e-004		7.1000e-004	7.1000e-004	0.0000	0.9486	0.9486	2.9000e-004	0.0000	0.9546
Total	**1.0500e-003**	**0.0102**	**7.7300e-003**	**1.0000e-005**		**7.7000e-004**	**7.7000e-004**		**7.1000e-004**	**7.1000e-004**	**0.0000**	**0.9486**	**0.9486**	**2.9000e-004**	**0.0000**	**0.9546**

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	1.1000e-004	1.5000e-004	1.4400e-003	0.0000	2.3000e-004	0.0000	2.3000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.2046	0.2046	1.0000e-005	0.0000	0.2048
Total	**1.1000e-004**	**1.5000e-004**	**1.4400e-003**	**0.0000**	**2.3000e-004**	**0.0000**	**2.3000e-004**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**0.0000**	**0.2046**	**0.2046**	**1.0000e-005**	**0.0000**	**0.2048**

3.9 Trenching - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.2700e-003	0.0124	9.9700e-003	1.0000e-005		9.1000e-004	9.1000e-004		8.4000e-004	8.4000e-004	0.0000	1.2134	1.2134	3.7000e-004	0.0000	1.2212
Total	**1.2700e-003**	**0.0124**	**9.9700e-003**	**1.0000e-005**		**9.1000e-004**	**9.1000e-004**		**8.4000e-004**	**8.4000e-004**	**0.0000**	**1.2134**	**1.2134**	**3.7000e-004**	**0.0000**	**1.2212**

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	1.2000e-004	1.7000e-004	1.6400e-003	0.0000	2.9000e-004	0.0000	3.0000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2557	0.2557	1.0000e-005	0.0000	0.2560
Total	**1.2000e-004**	**1.7000e-004**	**1.6400e-003**	**0.0000**	**2.9000e-004**	**0.0000**	**3.0000e-004**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**0.0000**	**0.2557**	**0.2557**	**1.0000e-005**	**0.0000**	**0.2560**

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	1.2700e-003	0.0124	9.9700e-003	1.0000e-005		9.1000e-004	9.1000e-004		8.4000e-004	8.4000e-004	0.0000	1.2134	1.2134	3.7000e-004	0.0000	1.2212
Total	**1.2700e-003**	**0.0124**	**9.9700e-003**	**1.0000e-005**		**9.1000e-004**	**9.1000e-004**		**8.4000e-004**	**8.4000e-004**	**0.0000**	**1.2134**	**1.2134**	**3.7000e-004**	**0.0000**	**1.2212**

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	1.2000e-004	1.7000e-004	1.6400e-003	0.0000	2.9000e-004	0.0000	3.0000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2557	0.2557	1.0000e-005	0.0000	0.2560
Total	**1.2000e-004**	**1.7000e-004**	**1.6400e-003**	**0.0000**	**2.9000e-004**	**0.0000**	**3.0000e-004**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**0.0000**	**0.2557**	**0.2557**	**1.0000e-005**	**0.0000**	**0.2560**

3.10 Architectural Coating - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1929					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.3100e-003	0.0481	0.0411	7.0000e-005		3.8100e-003	3.8100e-003		3.8100e-003	3.8100e-003	0.0000	5.6172	5.6172	5.9000e-004	0.0000	5.6296
Total	**0.2002**	**0.0481**	**0.0411**	**7.0000e-005**		**3.8100e-003**	**3.8100e-003**		**3.8100e-003**	**3.8100e-003**	**0.0000**	**5.6172**	**5.6172**	**5.9000e-004**	**0.0000**	**5.6296**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0000e-004	1.2600e-003	0.0122	3.0000e-005	2.1800e-003	2.0000e-005	2.2000e-003	5.8000e-004	2.0000e-005	6.0000e-004	0.0000	1.9041	1.9041	1.0000e-004	0.0000	1.9063
Total	**9.0000e-004**	**1.2600e-003**	**0.0122**	**3.0000e-005**	**2.1800e-003**	**2.0000e-005**	**2.2000e-003**	**5.8000e-004**	**2.0000e-005**	**6.0000e-004**	**0.0000**	**1.9041**	**1.9041**	**1.0000e-004**	**0.0000**	**1.9063**

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	0.1929					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.3100e-003	0.0481	0.0411	7.0000e-005		3.8100e-003	3.8100e-003		3.8100e-003	3.8100e-003	0.0000	5.6172	5.6172	5.9000e-004	0.0000	5.6296
Total	**0.2002**	**0.0481**	**0.0411**	**7.0000e-005**		**3.8100e-003**	**3.8100e-003**		**3.8100e-003**	**3.8100e-003**	**0.0000**	**5.6172**	**5.6172**	**5.9000e-004**	**0.0000**	**5.6296**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0000e-004	1.2600e-003	0.0122	3.0000e-005	2.1800e-003	2.0000e-005	2.2000e-003	5.8000e-004	2.0000e-005	6.0000e-004	0.0000	1.9041	1.9041	1.0000e-004	0.0000	1.9063
Total	**9.0000e-004**	**1.2600e-003**	**0.0122**	**3.0000e-005**	**2.1800e-003**	**2.0000e-005**	**2.2000e-003**	**5.8000e-004**	**2.0000e-005**	**6.0000e-004**	**0.0000**	**1.9041**	**1.9041**	**1.0000e-004**	**0.0000**	**1.9063**

3.11 Fine Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.2700e-003	0.0127	8.6000e-003	1.0000e-005		7.1000e-004	7.1000e-004		6.5000e-004	6.5000e-004	0.0000	1.1029	1.1029	3.4000e-004	0.0000	1.1100
Total	**1.2700e-003**	**0.0127**	**8.6000e-003**	**1.0000e-005**	**0.0000**	**7.1000e-004**	**7.1000e-004**	**0.0000**	**6.5000e-004**	**6.5000e-004**	**0.0000**	**1.1029**	**1.1029**	**3.4000e-004**	**0.0000**	**1.1100**

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	1.1000e-004	8.8000e-004	1.5200e-003	0.0000	6.0000e-005	1.0000e-005	8.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.2097	0.2097	0.0000	0.0000	0.2097
Worker	3.0000e-005	4.0000e-005	3.8000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0590	0.0590	0.0000	0.0000	0.0591
Total	**1.4000e-004**	**9.2000e-004**	**1.9000e-003**	**0.0000**	**1.3000e-004**	**1.0000e-005**	**1.5000e-004**	**4.0000e-005**	**1.0000e-005**	**5.0000e-005**	**0.0000**	**0.2687**	**0.2687**	**0.0000**	**0.0000**	**0.2688**

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.2700e-003	0.0127	8.6000e-003	1.0000e-005		7.1000e-004	7.1000e-004		6.5000e-004	6.5000e-004	0.0000	1.1029	1.1029	3.4000e-004	0.0000	1.1100
Total	**1.2700e-003**	**0.0127**	**8.6000e-003**	**1.0000e-005**	**0.0000**	**7.1000e-004**	**7.1000e-004**	**0.0000**	**6.5000e-004**	**6.5000e-004**	**0.0000**	**1.1029**	**1.1029**	**3.4000e-004**	**0.0000**	**1.1100**

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	1.1000e-004	8.8000e-004	1.5200e-003	0.0000	6.0000e-005	1.0000e-005	8.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.2097	0.2097	0.0000	0.0000	0.2097
Worker	3.0000e-005	4.0000e-005	3.8000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0590	0.0590	0.0000	0.0000	0.0591
Total	**1.4000e-004**	**9.2000e-004**	**1.9000e-003**	**0.0000**	**1.3000e-004**	**1.0000e-005**	**1.5000e-004**	**4.0000e-005**	**1.0000e-005**	**5.0000e-005**	**0.0000**	**0.2687**	**0.2687**	**0.0000**	**0.0000**	**0.2688**

3.12 Fine Grading Haul - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	1.5000e-004	9.4000e-004	2.5000e-003	0.0000	5.0000e-005	1.0000e-005	6.0000e-005	1.0000e-005	1.0000e-005	2.0000e-005	0.0000	0.2028	0.2028	0.0000	0.0000	0.2028
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.5000e-004**	**9.4000e-004**	**2.5000e-003**	**0.0000**	**5.0000e-005**	**1.0000e-005**	**6.0000e-005**	**1.0000e-005**	**1.0000e-005**	**2.0000e-005**	**0.0000**	**0.2028**	**0.2028**	**0.0000**	**0.0000**	**0.2028**

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	1.5000e-004	9.4000e-004	2.5000e-003	0.0000	5.0000e-005	1.0000e-005	6.0000e-005	1.0000e-005	1.0000e-005	2.0000e-005	0.0000	0.2028	0.2028	0.0000	0.0000	0.2028
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.5000e-004**	**9.4000e-004**	**2.5000e-003**	**0.0000**	**5.0000e-005**	**1.0000e-005**	**6.0000e-005**	**1.0000e-005**	**1.0000e-005**	**2.0000e-005**	**0.0000**	**0.2028**	**0.2028**	**0.0000**	**0.0000**	**0.2028**

3.13 Paving - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.0700e-003	8.8000e-003	6.8000e-003	1.0000e-005		5.0000e-004	5.0000e-004		4.6000e-004	4.6000e-004	0.0000	0.9049	0.9049	2.8000e-004	0.0000	0.9107
Paving	1.3000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.2000e-003**	**8.8000e-003**	**6.8000e-003**	**1.0000e-005**		**5.0000e-004**	**5.0000e-004**		**4.6000e-004**	**4.6000e-004**	**0.0000**	**0.9049**	**0.9049**	**2.8000e-004**	**0.0000**	**0.9107**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	9.0000e-005	8.8000e-004	0.0000	1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1377	0.1377	1.0000e-005	0.0000	0.1379
Total	**6.0000e-005**	**9.0000e-005**	**8.8000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1377**	**0.1377**	**1.0000e-005**	**0.0000**	**0.1379**

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	1.0700e-003	8.8000e-003	6.8000e-003	1.0000e-005		5.0000e-004	5.0000e-004		4.6000e-004	4.6000e-004	0.0000	0.9049	0.9049	2.8000e-004	0.0000	0.9107
Paving	1.3000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.2000e-003**	**8.8000e-003**	**6.8000e-003**	**1.0000e-005**		**5.0000e-004**	**5.0000e-004**		**4.6000e-004**	**4.6000e-004**	**0.0000**	**0.9049**	**0.9049**	**2.8000e-004**	**0.0000**	**0.9107**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	9.0000e-005	8.8000e-004	0.0000	1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1377	0.1377	1.0000e-005	0.0000	0.1379
Total	**6.0000e-005**	**9.0000e-005**	**8.8000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1377**	**0.1377**	**1.0000e-005**	**0.0000**	**0.1379**

3.14 Finishing and Landscaping - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.7100e-003	0.0220	0.0222	3.0000e-005		1.1800e-003	1.1800e-003		1.0900e-003	1.0900e-003	0.0000	3.0209	3.0209	9.3000e-004	0.0000	3.0403
Total	**1.7100e-003**	**0.0220**	**0.0222**	**3.0000e-005**		**1.1800e-003**	**1.1800e-003**		**1.0900e-003**	**1.0900e-003**	**0.0000**	**3.0209**	**3.0209**	**9.3000e-004**	**0.0000**	**3.0403**

Unmitigated Construction Off-Site

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

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	1.7100e-003	0.0220	0.0222	3.0000e-005		1.1800e-003	1.1800e-003		1.0900e-003	1.0900e-003	0.0000	3.0209	3.0209	9.3000e-004	0.0000	3.0403
Total	**1.7100e-003**	**0.0220**	**0.0222**	**3.0000e-005**		**1.1800e-003**	**1.1800e-003**		**1.0900e-003**	**1.0900e-003**	**0.0000**	**3.0209**	**3.0209**	**9.3000e-004**	**0.0000**	**3.0403**

Mitigated Construction Off-Site

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.3255	0.6141	2.9058	5.1700e-003	0.3553	7.7600e-003	0.3631	0.0954	7.1400e-003	0.1025	0.0000	398.6824	398.6824	0.0186	0.0000	399.0739
Unmitigated	0.3255	0.6141	2.9058	5.1700e-003	0.3553	7.7600e-003	0.3631	0.0954	7.1400e-003	0.1025	0.0000	398.6824	398.6824	0.0186	0.0000	399.0739

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Enclosed Parking with Elevator	0.00	0.00	0.00		
Hotel	506.54	507.78	507.78	963,064	963,064
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	506.54	507.78	507.78	963,064	963,064

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Hotel	9.50	7.30	7.30	19.40	61.60	19.00	58	38	4
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.472844	0.077308	0.180858	0.152037	0.061620	0.009142	0.019059	0.010004	0.002606	0.002514	0.008628	0.000531	0.002848

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	431.8541	431.8541	0.0195	4.0400e-003	433.5166
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	431.8541	431.8541	0.0195	4.0400e-003	433.5166
NaturalGas Mitigated	0.0123	0.1120	0.0941	6.7000e-004		8.5100e-003	8.5100e-003		8.5100e-003	8.5100e-003	0.0000	121.8899	121.8899	2.3400e-003	2.2300e-003	122.6317
NaturalGas Unmitigated	0.0123	0.1120	0.0941	6.7000e-004		8.5100e-003	8.5100e-003		8.5100e-003	8.5100e-003	0.0000	121.8899	121.8899	2.3400e-003	2.2300e-003	122.6317

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	2.28413e+006	0.0123	0.1120	0.0941	6.7000e-004		8.5100e-003	8.5100e-003		8.5100e-003	8.5100e-003	0.0000	121.8899	121.8899	2.3400e-003	2.2300e-003	122.6317
Other Non-Asphalt Surfaces	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
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0123**	**0.1120**	**0.0941**	**6.7000e-004**		**8.5100e-003**	**8.5100e-003**		**8.5100e-003**	**8.5100e-003**	**0.0000**	**121.8899**	**121.8899**	**2.3400e-003**	**2.2300e-003**	**122.6317**

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					
Other Non-Asphalt Surfaces	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
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hotel	2.28413e+006	0.0123	0.1120	0.0941	6.7000e-004		8.5100e-003	8.5100e-003		8.5100e-003	8.5100e-003	0.0000	121.8899	121.8899	2.3400e-003	2.2300e-003	122.6317
Total		**0.0123**	**0.1120**	**0.0941**	**6.7000e-004**		**8.5100e-003**	**8.5100e-003**		**8.5100e-003**	**8.5100e-003**	**0.0000**	**121.8899**	**121.8899**	**2.3400e-003**	**2.2300e-003**	**122.6317**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Enclosed Parking with Elevator	253795	73.8318	3.3400e-003	6.9000e-004	74.1160
Hotel	1.22675e+006	356.8757	0.0161	3.3400e-003	358.2495
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	3941.52	1.1466	5.0000e-005	1.0000e-005	1.1511
Total		**431.8541**	**0.0195**	**4.0400e-003**	**433.5166**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Enclosed Parking with Elevator	253795	73.8318	3.3400e-003	6.9000e-004	74.1160
Hotel	1.22675e+006	356.8757	0.0161	3.3400e-003	358.2495
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	3941.52	1.1466	5.0000e-005	1.0000e-005	1.1511
Total		**431.8541**	**0.0195**	**4.0400e-003**	**433.5166**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.5826	1.0000e-005	1.1900e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.2600e-003	2.2600e-003	1.0000e-005	0.0000	2.3900e-003
Unmitigated	0.5826	1.0000e-005	1.1900e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.2600e-003	2.2600e-003	1.0000e-005	0.0000	2.3900e-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	0.0666					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.5159					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.1000e-004	1.0000e-005	1.1900e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.2600e-003	2.2600e-003	1.0000e-005	0.0000	2.3900e-003
Total	**0.5826**	**1.0000e-005**	**1.1900e-003**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.2600e-003**	**2.2600e-003**	**1.0000e-005**	**0.0000**	**2.3900e-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	0.0666					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.5159					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.1000e-004	1.0000e-005	1.1900e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.2600e-003	2.2600e-003	1.0000e-005	0.0000	2.3900e-003
Total	**0.5826**	**1.0000e-005**	**1.1900e-003**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.2600e-003**	**2.2600e-003**	**1.0000e-005**	**0.0000**	**2.3900e-003**

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	8.2338	0.1411	3.3800e-003	12.2446
Unmitigated	10.2806	0.1764	4.2300e-003	15.2967

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Hotel	5.4 / 0.066	10.2806	0.1764	4.2300e-003	15.2967
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**10.2806**	**0.1764**	**4.2300e-003**	**15.2967**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Hotel	4.32 / 0.061974	8.2338	0.1411	3.3800e-003	12.2446
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**8.2338**	**0.1411**	**3.3800e-003**	**12.2446**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	6.8915	0.4073	0.0000	15.4444
Unmitigated	6.8915	0.4073	0.0000	15.4444

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Hotel	33.95	6.8915	0.4073	0.0000	15.4444
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**6.8915**	**0.4073**	**0.0000**	**15.4444**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Hotel	33.95	6.8915	0.4073	0.0000	15.4444
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**6.8915**	**0.4073**	**0.0000**	**15.4444**

9.0 Operational Offroad

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

10.0 Vegetation

Chateau Sonoma - Existing

Sonoma-San Francisco County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Strip Mall	15.41	1000sqft	1.24	15,412.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	75
Climate Zone	4			**Operational Year**	2015
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Existing

Construction Phase - Existing = no construction

Off-road Equipment - Existing = no construction

Trips and VMT - Existing = no construction

Architectural Coating - Existing = no construction

Vehicle Trips - Vehicle trips derived from the retail and warehouse only. Provided by WTrans

Vechicle Emission Factors -

Vechicle Emission Factors -

Vechicle Emission Factors -

Energy Use - based on energy use provided by the applicant

Water And Wastewater - Water Demand = Basis for Design Report. 100% Treated wastewater

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	0.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	0.00
tblConstructionPhase	NumDays	10.00	1.00
tblEnergyUse	LightingElect	6.02	1.99
tblEnergyUse	NT24E	2.68	0.89
tblEnergyUse	T24E	3.55	1.17
tblLandUse	LandUseSquareFeet	15,410.00	15,412.00
tblLandUse	LotAcreage	0.35	1.24
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	OperationalYear	2014	2015
tblTripsAndVMT	WorkerTripNumber	1.00	0.00
tblVehicleTrips	ST_TR	42.04	10.58
tblVehicleTrips	SU_TR	20.43	10.58
tblVehicleTrips	WD_TR	44.32	12.78
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	IndoorWaterUseRate	1,141,457.56	82,676.00
tblWater	OutdoorWaterUseRate	699,603.02	1,555.00
tblWater	SepticTankPercent	10.33	0.00

2.0 Emissions Summary

	ROG	NOx	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	tons/yr										MT/yr					
Area	0.0682	0.0000	1.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.8000e-004	2.8000e-004	0.0000	0.0000	2.9000e-004
Energy	2.4000e-004	2.2100e-003	1.8500e-003	1.0000e-005		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	20.5598	20.5598	8.7000e-004	2.1000e-004	20.6443
Mobile	0.1365	0.2284	1.1456	1.5600e-003	0.1064	2.8400e-003	0.1092	0.0286	2.6000e-003	0.0312	0.0000	127.6138	127.6138	6.9700e-003	0.0000	127.7602
Waste						0.0000	0.0000		0.0000	0.0000	3.2844	0.0000	3.2844	0.1941	0.0000	7.3605
Water						0.0000	0.0000		0.0000	0.0000	0.0293	0.1317	0.1610	1.1000e-004	6.0000e-005	0.1833
Total	**0.2049**	**0.2306**	**1.1476**	**1.5700e-003**	**0.1064**	**3.0100e-003**	**0.1094**	**0.0286**	**2.7700e-003**	**0.0313**	**3.3136**	**148.3056**	**151.6193**	**0.2021**	**2.7000e-004**	**155.9487**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0682	0.0000	1.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.8000e-004	2.8000e-004	0.0000	0.0000	2.9000e-004
Energy	2.4000e-004	2.2100e-003	1.8500e-003	1.0000e-005		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	20.5598	20.5598	8.7000e-004	2.1000e-004	20.6443
Mobile	0.1365	0.2284	1.1456	1.5600e-003	0.1064	2.8400e-003	0.1092	0.0286	2.6000e-003	0.0312	0.0000	127.6138	127.6138	6.9700e-003	0.0000	127.7602
Waste						0.0000	0.0000		0.0000	0.0000	3.2844	0.0000	3.2844	0.1941	0.0000	7.3605
Water						0.0000	0.0000		0.0000	0.0000	0.0293	0.1317	0.1610	1.1000e-004	6.0000e-005	0.1833
Total	**0.2049**	**0.2306**	**1.1476**	**1.5700e-003**	**0.1064**	**3.0100e-003**	**0.1094**	**0.0286**	**2.7700e-003**	**0.0313**	**3.3136**	**148.3056**	**151.6193**	**0.2021**	**2.7000e-004**	**155.9486**

	ROG	NOx	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**

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	0.1365	0.2284	1.1456	1.5600e-003	0.1064	2.8400e-003	0.1092	0.0286	2.6000e-003	0.0312	0.0000	127.6138	127.6138	6.9700e-003	0.0000	127.7602
Unmitigated	0.1365	0.2284	1.1456	1.5600e-003	0.1064	2.8400e-003	0.1092	0.0286	2.6000e-003	0.0312	0.0000	127.6138	127.6138	6.9700e-003	0.0000	127.7602

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Strip Mall	196.94	163.04	163.04	288,377	288,377
Total	196.94	163.04	163.04	288,377	288,377

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
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.473156	0.077101	0.180447	0.153254	0.061890	0.009298	0.018424	0.009367	0.002574	0.002539	0.008564	0.000535	0.002852

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: Y

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	18.1583	18.1583	8.2000e-004	1.7000e-004	18.2282
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	18.1583	18.1583	8.2000e-004	1.7000e-004	18.2282
NaturalGas Mitigated	2.4000e-004	2.2100e-003	1.8500e-003	1.0000e-005		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	2.4015	2.4015	5.0000e-005	4.0000e-005	2.4162
NaturalGas Unmitigated	2.4000e-004	2.2100e-003	1.8500e-003	1.0000e-005		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	2.4015	2.4015	5.0000e-005	4.0000e-005	2.4162

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					
Strip Mall	45003	2.4000e-004	2.2100e-003	1.8500e-003	1.0000e-005		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	2.4015	2.4015	5.0000e-005	4.0000e-005	2.4162
Total		**2.4000e-004**	**2.2100e-003**	**1.8500e-003**	**1.0000e-005**		**1.7000e-004**	**1.7000e-004**		**1.7000e-004**	**1.7000e-004**	**0.0000**	**2.4015**	**2.4015**	**5.0000e-005**	**4.0000e-005**	**2.4162**

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					
Strip Mall	45003	2.4000e-004	2.2100e-003	1.8500e-003	1.0000e-005		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	2.4015	2.4015	5.0000e-005	4.0000e-005	2.4162
Total		**2.4000e-004**	**2.2100e-003**	**1.8500e-003**	**1.0000e-005**		**1.7000e-004**	**1.7000e-004**		**1.7000e-004**	**1.7000e-004**	**0.0000**	**2.4015**	**2.4015**	**5.0000e-005**	**4.0000e-005**	**2.4162**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Strip Mall	62418.6	18.1583	8.2000e-004	1.7000e-004	18.2282
Total		**18.1583**	**8.2000e-004**	**1.7000e-004**	**18.2282**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Strip Mall	62418.6	18.1583	8.2000e-004	1.7000e-004	18.2282
Total		**18.1583**	**8.2000e-004**	**1.7000e-004**	**18.2282**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0682	0.0000	1.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.8000e-004	2.8000e-004	0.0000	0.0000	2.9000e-004
Unmitigated	0.0682	0.0000	1.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.8000e-004	2.8000e-004	0.0000	0.0000	2.9000e-004

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	8.0400e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0602					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	1.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.8000e-004	2.8000e-004	0.0000	0.0000	2.9000e-004
Total	**0.0682**	**0.0000**	**1.5000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.8000e-004**	**2.8000e-004**	**0.0000**	**0.0000**	**2.9000e-004**

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	8.0400e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0602					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	1.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.8000e-004	2.8000e-004	0.0000	0.0000	2.9000e-004
Total	**0.0682**	**0.0000**	**1.5000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.8000e-004**	**2.8000e-004**	**0.0000**	**0.0000**	**2.9000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.1610	1.1000e-004	6.0000e-005	0.1833
Unmitigated	0.1610	1.1000e-004	6.0000e-005	0.1833

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Strip Mall	0.082676 / 0.001555	0.1610	1.1000e-004	6.0000e-005	0.1833
Total		**0.1610**	**1.1000e-004**	**6.0000e-005**	**0.1833**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Strip Mall	0.082676 / 0.001555	0.1610	1.1000e-004	6.0000e-005	0.1833
Total		**0.1610**	**1.1000e-004**	**6.0000e-005**	**0.1833**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	3.2844	0.1941	0.0000	7.3605
Unmitigated	3.2844	0.1941	0.0000	7.3605

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Strip Mall	16.18	3.2844	0.1941	0.0000	7.3605
Total		**3.2844**	**0.1941**	**0.0000**	**7.3605**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Strip Mall	16.18	3.2844	0.1941	0.0000	7.3605
Total		**3.2844**	**0.1941**	**0.0000**	**7.3605**

9.0 Operational Offroad

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

10.0 Vegetation

Hotel Project Sonoma Construction HRA Mitigated

Sonoma-San Francisco County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	37.66	1000sqft	0.00	37,655.00	0
Other Non-Asphalt Surfaces	22.48	1000sqft	0.52	22,483.00	0
Parking Lot	4.48	1000sqft	0.10	4,479.00	0
Hotel	62.00	Room	0.62	67,478.00	0

1.2 Other Project Characteristics

Urbanization Urban **Wind Speed (m/s)** 2.2 **Precipitation Freq (Days)** 75

Climate Zone 4 **Operational Year** 2017

Utility Company Pacific Gas & Electric Company

CO2 Intensity (lb/MWhr) 641.35 **CH4 Intensity (lb/MWhr)** 0.029 **N2O Intensity (lb/MWhr)** 0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Project Description - see assumptions

Construction Phase - Applicant provided schedule

Off-road Equipment - Equipment provided by the Applicant

Off-road Equipment - Haul = no equipment

Off-road Equipment - Equipment provided by the Applicant

Off-road Equipment - Applicant provided construction equipment

Off-road Equipment - Haul = no construction

Off-road Equipment - Assumes use of 1 skid steer loader during finishing and landscaping activities.

Off-road Equipment - Applicant provided construction equipment

Off-road Equipment - Applicant provided construction equipment

Off-road Equipment - Haul = no equipment

Off-road Equipment - Applicant provided construction equipment

Trips and VMT - Trips based on size of the haul trucks. Water Trucks added as vendor trips. Haul length provided by Applicant.

Demolition -

Grading -

Architectural Coating - Modified = parking structure not painted. Reduced painting area provided by the Applicant/Architect

Vehicle Trips - trip rates provided by WTrans

Area Coating -

Energy Use - Hotel energy use is based on calculations provided by the Applicant and includes reductions from the most recent T24.

Water And Wastewater - Water Demand from the Basis of Design Report. 100% treated wastewater

Construction Off-road Equipment Mitigation - BAAQMD Best Management Practices

Energy Mitigation - 2013 Title 24 is 30% high for non-residential (included in base calcs not mitigated scenario). Includes Renewable Energy but unknown kwh generated

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	63,875.00	6,748.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	191,626.00	73,111.00
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9

tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstructionPhase	NumDays	10.00	44.00
tblConstructionPhase	NumDays	200.00	32.00
tblConstructionPhase	NumDays	200.00	347.00
tblConstructionPhase	NumDays	20.00	21.00
tblConstructionPhase	NumDays	20.00	5.00
tblConstructionPhase	NumDays	20.00	2.00
tblConstructionPhase	NumDays	4.00	5.00
tblConstructionPhase	NumDays	4.00	5.00
tblConstructionPhase	NumDays	4.00	45.00
tblConstructionPhase	NumDays	10.00	7.00
tblConstructionPhase	NumDays	2.00	12.00
tblConstructionPhase	NumDays	2.00	20.00
tblConstructionPhase	PhaseEndDate	3/21/2017	10/26/2017
tblConstructionPhase	PhaseEndDate	12/13/2017	12/26/2017
tblConstructionPhase	PhaseEndDate	1/29/2018	12/29/2017
tblConstructionPhase	PhaseEndDate	8/5/2016	7/7/2016
tblConstructionPhase	PhaseEndDate	7/11/2016	7/25/2016
tblConstructionPhase	PhaseEndDate	11/2/2017	10/20/2017
tblConstructionPhase	PhaseEndDate	10/27/2017	10/20/2017
tblConstructionPhase	PhaseEndDate	10/27/2016	9/29/2016
tblConstructionPhase	PhaseEndDate	10/31/2017	10/30/2017
tblConstructionPhase	PhaseEndDate	8/10/2016	8/15/2016
tblConstructionPhase	PhaseEndDate	9/12/2016	8/25/2016
tblConstructionPhase	PhaseEndDate	1/31/2018	1/18/2017
tblConstructionPhase	PhaseStartDate	1/19/2017	8/28/2017
tblConstructionPhase	PhaseStartDate	10/31/2017	11/12/2017
tblConstructionPhase	PhaseStartDate	9/30/2016	9/1/2016
tblConstructionPhase	PhaseStartDate	7/30/2016	7/1/2016

tblConstructionPhase	PhaseStartDate	7/8/2016	7/22/2016
tblConstructionPhase	PhaseStartDate	10/27/2017	10/15/2017
tblConstructionPhase	PhaseStartDate	10/21/2017	10/15/2017
tblConstructionPhase	PhaseStartDate	8/26/2016	7/29/2016
tblConstructionPhase	PhaseStartDate	10/21/2017	10/20/2017
tblConstructionPhase	PhaseStartDate	7/26/2016	7/29/2016
tblConstructionPhase	PhaseStartDate	8/16/2016	7/29/2016
tblConstructionPhase	PhaseStartDate	12/30/2017	12/18/2016
tblEnergyUse	LightingElect	2.72	6.17
tblEnergyUse	NT24E	3.22	5.83
tblEnergyUse	T24E	2.50	6.18
tblEnergyUse	T24NG	41.63	29.10
tblGrading	MaterialExported	0.00	16,000.00
tblGrading	MaterialImported	0.00	148.00
tblLandUse	LandUseSquareFeet	37,660.00	37,655.00
tblLandUse	LandUseSquareFeet	22,480.00	22,483.00
tblLandUse	LandUseSquareFeet	4,480.00	4,479.00
tblLandUse	LandUseSquareFeet	90,024.00	67,478.00
tblLandUse	LotAcreage	0.86	0.00
tblLandUse	LotAcreage	2.07	0.62
tblOffRoadEquipment	HorsePower	125.00	121.00
tblOffRoadEquipment	HorsePower	80.00	33.00
tblOffRoadEquipment	HorsePower	162.00	132.00
tblOffRoadEquipment	HorsePower	162.00	132.00
tblOffRoadEquipment	HorsePower	162.00	55.00
tblOffRoadEquipment	HorsePower	199.00	154.00
tblOffRoadEquipment	HorsePower	199.00	154.00
tblOffRoadEquipment	HorsePower	97.00	70.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00

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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	UsageHours	6.00	4.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblProjectCharacteristics	OperationalYear	2014	2017
tblTripsAndVMT	HaulingTripLength	20.00	5.00
tblTripsAndVMT	HaulingTripLength	20.00	21.00
tblTripsAndVMT	HaulingTripLength	20.00	5.00
tblTripsAndVMT	HaulingTripLength	20.00	5.00
tblTripsAndVMT	HaulingTripNumber	19.00	23.00
tblTripsAndVMT	HaulingTripNumber	44.00	45.00
tblTripsAndVMT	HaulingTripNumber	20.00	32.00
tblTripsAndVMT	HaulingTripNumber	2,000.00	2,462.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	22.00	0.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	WorkerTripNumber	55.00	0.00
tblVehicleTrips	SU_TR	5.95	8.19
tblWater	IndoorWaterUseRate	1,572,739.74	5,400,000.00
tblWater	OutdoorWaterUseRate	174,748.86	66,000.00

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					
2016	0.2181	1.4470	1.4698	2.0000e-003	0.0780	0.0799	0.1579	0.0285	0.0762	0.1046	0.0000	171.8549	171.8549	0.0267	0.0000	172.4150
2017	0.6504	2.8814	2.7637	4.4700e-003	0.0855	0.1707	0.2562	0.0231	0.1644	0.1876	0.0000	370.7615	370.7615	0.0565	0.0000	371.9477
Total	**0.8685**	**4.3284**	**4.2335**	**6.4700e-003**	**0.1635**	**0.2506**	**0.4140**	**0.0516**	**0.2406**	**0.2922**	**0.0000**	**542.6164**	**542.6164**	**0.0832**	**0.0000**	**544.3627**

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					
2016	0.2181	1.4470	1.4698	2.0000e-003	0.0509	0.0303	0.0813	0.0170	0.0296	0.0466	0.0000	171.8548	171.8548	0.0267	0.0000	172.4148
2017	0.6504	2.8814	2.7637	4.4700e-003	0.0791	0.0717	0.1508	0.0216	0.0705	0.0920	0.0000	370.7612	370.7612	0.0565	0.0000	371.9474
Total	**0.8685**	**4.3284**	**4.2335**	**6.4700e-003**	**0.1300**	**0.1020**	**0.2320**	**0.0386**	**0.1000**	**0.1386**	**0.0000**	**542.6160**	**542.6160**	**0.0832**	**0.0000**	**544.3622**

	ROG	**NOx**	**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**	**20.46**	**59.28**	**43.96**	**25.26**	**58.43**	**52.57**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition_Buildings	Demolition	7/1/2016	7/29/2016	5	21	
2	Demolition_BuildingHaul	Demolition	7/1/2016	7/7/2016	5	5	
3	Demolition_AsphaltHaul	Demolition	7/22/2016	7/25/2016	5	2	
4	Site Preparation	Site Preparation	7/29/2016	8/15/2016	5	12	
5	Site Preparation Haul	Site Preparation	7/29/2016	8/25/2016	5	20	
6	Rough Grading	Grading	7/29/2016	9/29/2016	5	45	
7	Building Construction	Building Construction	9/1/2016	12/29/2017	5	347	
8	Trenching	Trenching	12/18/2016	1/18/2017	5	23	
9	Architectural Coating	Architectural Coating	8/28/2017	10/26/2017	5	44	
10	Fine Grading	Grading	10/15/2017	10/20/2017	5	5	
11	Fine Grading Haul	Grading	10/15/2017	10/20/2017	5	5	
12	Paving	Paving	10/20/2017	10/30/2017	5	7	
13	Finishing and Landscaping	Building Construction	11/12/2017	12/26/2017	5	32	

Acres of Grading (Site Preparation Phase): 6

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 73,111; Non-Residential Outdoor: 6,748 (Architectural Coating –

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition_Buildings	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition_Buildings	Excavators	1	8.00	132	0.38
Demolition_Buildings	Rubber Tired Dozers	0	8.00	255	0.40
Demolition_Buildings	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Demolition_BuildingHaul	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition_BuildingHaul	Rubber Tired Dozers	0	8.00	255	0.40
Demolition_BuildingHaul	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Demolition_AsphaltHaul	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition_AsphaltHaul	Excavators	1	8.00	132	0.38
Demolition_AsphaltHaul	Rubber Tired Dozers	0	8.00	255	0.40
Demolition_AsphaltHaul	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Graders	1	8.00	174	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation Haul	Graders	0	8.00	174	0.41
Site Preparation Haul	Rubber Tired Dozers	0	7.00	255	0.40
Site Preparation Haul	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Rough Grading	Graders	0	6.00	174	0.41
Rough Grading	Rubber Tired Dozers	0	6.00	255	0.40
Rough Grading	Rubber Tired Loaders	1	7.10	154	0.36
Rough Grading	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Building Construction	Cranes	1	6.00	226	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74

Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Trenching	Excavators	1	4.00	55	0.38
Trenching	Tractors/Loaders/Backhoes	1	4.00	70	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48
Fine Grading	Graders	0	6.00	174	0.41
Fine Grading	Rubber Tired Dozers	0	6.00	255	0.40
Fine Grading	Rubber Tired Loaders	1	8.00	154	0.36
Fine Grading	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Fine Grading Haul	Graders	0	6.00	174	0.41
Fine Grading Haul	Rubber Tired Dozers	0	6.00	255	0.40
Fine Grading Haul	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Paving	Cement and Mortar Mixers	0	6.00	9	0.56
Paving	Pavers	1	4.00	121	0.42
Paving	Paving Equipment	0	8.00	130	0.36
Paving	Rollers	1	4.00	33	0.38
Paving	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Finishing and Landscaping	Cranes	0	6.00	226	0.29
Finishing and Landscaping	Forklifts	0	6.00	89	0.20
Finishing and Landscaping	Generator Sets	0	8.00	84	0.74
Finishing and Landscaping	Skid Steer Loaders	1	8.00	64	0.37
Finishing and Landscaping	Tractors/Loaders/Backhoes	0	6.00	97	0.37
Finishing and Landscaping	Welders	0	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition_Buildings	1	3.00	4.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition_BuildingHaul	0	0.00	0.00	45.00	12.40	7.30	21.00	LD_Mix	HDT_Mix	HHDT
Demolition_AsphaltHaul	1	3.00	0.00	32.00	12.40	7.30	5.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	4.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation Haul	0	0.00	0.00	2,462.00	12.40	7.30	5.00	LD_Mix	HDT_Mix	HHDT
Rough Grading	1	3.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	55.00	22.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	2	5.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	11.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Fine Grading	1	3.00	4.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Fine Grading Haul	0	0.00	0.00	23.00	12.40	7.30	5.00	LD_Mix	HDT_Mix	HHDT
Paving	2	5.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Finishing and Landscaping	1	0.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use DPF for Construction Equipment

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Demolition_Buildings - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.3200e-003	0.0379	0.0293	5.0000e-005		1.8700e-003	1.8700e-003		1.7200e-003	1.7200e-003	0.0000	4.2682	4.2682	1.2900e-003	0.0000	4.2952
Total	**3.3200e-003**	**0.0379**	**0.0293**	**5.0000e-005**		**1.8700e-003**	**1.8700e-003**		**1.7200e-003**	**1.7200e-003**	**0.0000**	**4.2682**	**4.2682**	**1.2900e-003**	**0.0000**	**4.2952**

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	5.6000e-004	4.1400e-003	7.0100e-003	1.0000e-005	2.7000e-004	6.0000e-005	3.3000e-004	8.0000e-005	6.0000e-005	1.3000e-004	0.0000	0.8963	0.8963	1.0000e-005	0.0000	0.8965
Worker	1.3000e-004	1.8000e-004	1.8100e-003	0.0000	2.8000e-004	0.0000	2.9000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2577	0.2577	1.0000e-005	0.0000	0.2580
Total	**6.9000e-004**	**4.3200e-003**	**8.8200e-003**	**1.0000e-005**	**5.5000e-004**	**6.0000e-005**	**6.2000e-004**	**1.6000e-004**	**6.0000e-005**	**2.1000e-004**	**0.0000**	**1.1540**	**1.1540**	**2.0000e-005**	**0.0000**	**1.1545**

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	3.3200e-003	0.0379	0.0293	5.0000e-005		2.8000e-004	2.8000e-004		2.6000e-004	2.6000e-004	0.0000	4.2682	4.2682	1.2900e-003	0.0000	4.2952
Total	**3.3200e-003**	**0.0379**	**0.0293**	**5.0000e-005**		**2.8000e-004**	**2.8000e-004**		**2.6000e-004**	**2.6000e-004**	**0.0000**	**4.2682**	**4.2682**	**1.2900e-003**	**0.0000**	**4.2952**

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	5.6000e-004	4.1400e-003	7.0100e-003	1.0000e-005	2.5000e-004	6.0000e-005	3.1000e-004	7.0000e-005	6.0000e-005	1.3000e-004	0.0000	0.8963	0.8963	1.0000e-005	0.0000	0.8965
Worker	1.3000e-004	1.8000e-004	1.8100e-003	0.0000	2.6000e-004	0.0000	2.6000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2577	0.2577	1.0000e-005	0.0000	0.2580
Total	**6.9000e-004**	**4.3200e-003**	**8.8200e-003**	**1.0000e-005**	**5.1000e-004**	**6.0000e-005**	**5.7000e-004**	**1.4000e-004**	**6.0000e-005**	**2.0000e-004**	**0.0000**	**1.1540**	**1.1540**	**2.0000e-005**	**0.0000**	**1.1545**

3.3 Demolition_BuildingHaul - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					4.8100e-003	0.0000	4.8100e-003	7.3000e-004	0.0000	7.3000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**4.8100e-003**	**0.0000**	**4.8100e-003**	**7.3000e-004**	**0.0000**	**7.3000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	5.6000e-004	6.9600e-003	7.3700e-003	2.0000e-005	3.9000e-004	9.0000e-005	4.8000e-004	1.1000e-004	8.0000e-005	1.9000e-004	0.0000	1.5816	1.5816	1.0000e-005	0.0000	1.5819
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**5.6000e-004**	**6.9600e-003**	**7.3700e-003**	**2.0000e-005**	**3.9000e-004**	**9.0000e-005**	**4.8000e-004**	**1.1000e-004**	**8.0000e-005**	**1.9000e-004**	**0.0000**	**1.5816**	**1.5816**	**1.0000e-005**	**0.0000**	**1.5819**

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					2.0600e-003	0.0000	2.0600e-003	3.1000e-004	0.0000	3.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**2.0600e-003**	**0.0000**	**2.0600e-003**	**3.1000e-004**	**0.0000**	**3.1000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	5.6000e-004	6.9600e-003	7.3700e-003	2.0000e-005	3.7000e-004	9.0000e-005	4.6000e-004	1.0000e-004	8.0000e-005	1.8000e-004	0.0000	1.5816	1.5816	1.0000e-005	0.0000	1.5819
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**5.6000e-004**	**6.9600e-003**	**7.3700e-003**	**2.0000e-005**	**3.7000e-004**	**9.0000e-005**	**4.6000e-004**	**1.0000e-004**	**8.0000e-005**	**1.8000e-004**	**0.0000**	**1.5816**	**1.5816**	**1.0000e-005**	**0.0000**	**1.5819**

3.4 Demolition_AsphaltHaul - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.1900e-003	0.0000	2.1900e-003	3.3000e-004	0.0000	3.3000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.2000e-004	3.6100e-003	2.7900e-003	0.0000		1.8000e-004	1.8000e-004		1.6000e-004	1.6000e-004	0.0000	0.4065	0.4065	1.2000e-004	0.0000	0.4091
Total	**3.2000e-004**	**3.6100e-003**	**2.7900e-003**	**0.0000**	**2.1900e-003**	**1.8000e-004**	**2.3700e-003**	**3.3000e-004**	**1.6000e-004**	**4.9000e-004**	**0.0000**	**0.4065**	**0.4065**	**1.2000e-004**	**0.0000**	**0.4091**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.5000e-004	1.4400e-003	3.8000e-003	0.0000	7.0000e-005	2.0000e-005	8.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.2873	0.2873	0.0000	0.0000	0.2874
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	1.0000e-005	2.0000e-005	1.7000e-004	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0246	0.0246	0.0000	0.0000	0.0246
Total	**2.6000e-004**	**1.4600e-003**	**3.9700e-003**	**0.0000**	**1.0000e-004**	**2.0000e-005**	**1.1000e-004**	**3.0000e-005**	**1.0000e-005**	**4.0000e-005**	**0.0000**	**0.3119**	**0.3119**	**0.0000**	**0.0000**	**0.3119**

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					9.4000e-004	0.0000	9.4000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.2000e-004	3.6100e-003	2.7900e-003	0.0000		3.0000e-005	3.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.4065	0.4065	1.2000e-004	0.0000	0.4091
Total	**3.2000e-004**	**3.6100e-003**	**2.7900e-003**	**0.0000**	**9.4000e-004**	**3.0000e-005**	**9.7000e-004**	**1.4000e-004**	**2.0000e-005**	**1.6000e-004**	**0.0000**	**0.4065**	**0.4065**	**1.2000e-004**	**0.0000**	**0.4091**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.5000e-004	1.4400e-003	3.8000e-003	0.0000	6.0000e-005	2.0000e-005	8.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.2873	0.2873	0.0000	0.0000	0.2874
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	1.0000e-005	2.0000e-005	1.7000e-004	0.0000	2.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0246	0.0246	0.0000	0.0000	0.0246
Total	**2.6000e-004**	**1.4600e-003**	**3.9700e-003**	**0.0000**	**8.0000e-005**	**2.0000e-005**	**1.1000e-004**	**3.0000e-005**	**1.0000e-005**	**4.0000e-005**	**0.0000**	**0.3119**	**0.3119**	**0.0000**	**0.0000**	**0.3119**

3.5 Site Preparation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0348	0.0000	0.0348	0.0177	0.0000	0.0177	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0147	0.1546	0.0991	1.0000e-004		8.3900e-003	8.3900e-003		7.7200e-003	7.7200e-003	0.0000	9.6947	9.6947	2.9200e-003	0.0000	9.7561
Total	**0.0147**	**0.1546**	**0.0991**	**1.0000e-004**	**0.0348**	**8.3900e-003**	**0.0432**	**0.0177**	**7.7200e-003**	**0.0254**	**0.0000**	**9.6947**	**9.6947**	**2.9200e-003**	**0.0000**	**9.7561**

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	3.2000e-004	2.3700e-003	4.0100e-003	1.0000e-005	1.5000e-004	4.0000e-005	1.9000e-004	4.0000e-005	3.0000e-005	8.0000e-005	0.0000	0.5122	0.5122	0.0000	0.0000	0.5123
Worker	2.0000e-004	2.8000e-004	2.7600e-003	1.0000e-005	4.3000e-004	0.0000	4.4000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.3927	0.3927	2.0000e-005	0.0000	0.3932
Total	**5.2000e-004**	**2.6500e-003**	**6.7700e-003**	**2.0000e-005**	**5.8000e-004**	**4.0000e-005**	**6.3000e-004**	**1.6000e-004**	**3.0000e-005**	**2.0000e-004**	**0.0000**	**0.9049**	**0.9049**	**2.0000e-005**	**0.0000**	**0.9055**

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					0.0149	0.0000	0.0149	7.5800e-003	0.0000	7.5800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0147	0.1546	0.0991	1.0000e-004		1.2600e-003	1.2600e-003		1.1600e-003	1.1600e-003	0.0000	9.6946	9.6946	2.9200e-003	0.0000	9.7561
Total	**0.0147**	**0.1546**	**0.0991**	**1.0000e-004**	**0.0149**	**1.2600e-003**	**0.0161**	**7.5800e-003**	**1.1600e-003**	**8.7400e-003**	**0.0000**	**9.6946**	**9.6946**	**2.9200e-003**	**0.0000**	**9.7561**

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	3.2000e-004	2.3700e-003	4.0100e-003	1.0000e-005	1.4000e-004	4.0000e-005	1.8000e-004	4.0000e-005	3.0000e-005	7.0000e-005	0.0000	0.5122	0.5122	0.0000	0.0000	0.5123
Worker	2.0000e-004	2.8000e-004	2.7600e-003	1.0000e-005	4.0000e-004	0.0000	4.0000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3927	0.3927	2.0000e-005	0.0000	0.3932
Total	**5.2000e-004**	**2.6500e-003**	**6.7700e-003**	**2.0000e-005**	**5.4000e-004**	**4.0000e-005**	**5.8000e-004**	**1.5000e-004**	**3.0000e-005**	**1.8000e-004**	**0.0000**	**0.9049**	**0.9049**	**2.0000e-005**	**0.0000**	**0.9055**

3.6 Site Preparation Haul - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					9.0000e-004	0.0000	9.0000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**9.0000e-004**	**0.0000**	**9.0000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.0191	0.1107	0.2920	2.5000e-004	5.1500e-003	1.2200e-003	6.3600e-003	1.4200e-003	1.1200e-003	2.5300e-003	0.0000	22.1046	22.1046	2.0000e-004	0.0000	22.1087
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0191**	**0.1107**	**0.2920**	**2.5000e-004**	**5.1500e-003**	**1.2200e-003**	**6.3600e-003**	**1.4200e-003**	**1.1200e-003**	**2.5300e-003**	**0.0000**	**22.1046**	**22.1046**	**2.0000e-004**	**0.0000**	**22.1087**

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					3.9000e-004	0.0000	3.9000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**3.9000e-004**	**0.0000**	**3.9000e-004**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.0191	0.1107	0.2920	2.5000e-004	4.8000e-003	1.2200e-003	6.0200e-003	1.3300e-003	1.1200e-003	2.4500e-003	0.0000	22.1046	22.1046	2.0000e-004	0.0000	22.1087
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0191**	**0.1107**	**0.2920**	**2.5000e-004**	**4.8000e-003**	**1.2200e-003**	**6.0200e-003**	**1.3300e-003**	**1.1200e-003**	**2.4500e-003**	**0.0000**	**22.1046**	**22.1046**	**2.0000e-004**	**0.0000**	**22.1087**

3.7 Rough Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0110	0.1118	0.0696	9.0000e-005		6.2300e-003	6.2300e-003		5.7400e-003	5.7400e-003	0.0000	8.9474	8.9474	2.7000e-003	0.0000	9.0041
Total	**0.0110**	**0.1118**	**0.0696**	**9.0000e-005**	**0.0000**	**6.2300e-003**	**6.2300e-003**	**0.0000**	**5.7400e-003**	**5.7400e-003**	**0.0000**	**8.9474**	**8.9474**	**2.7000e-003**	**0.0000**	**9.0041**

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	2.9000e-004	4.0000e-004	3.8800e-003	1.0000e-005	6.1000e-004	1.0000e-005	6.1000e-004	1.6000e-004	1.0000e-005	1.7000e-004	0.0000	0.5523	0.5523	3.0000e-005	0.0000	0.5530
Total	**2.9000e-004**	**4.0000e-004**	**3.8800e-003**	**1.0000e-005**	**6.1000e-004**	**1.0000e-005**	**6.1000e-004**	**1.6000e-004**	**1.0000e-005**	**1.7000e-004**	**0.0000**	**0.5523**	**0.5523**	**3.0000e-005**	**0.0000**	**0.5530**

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0110	0.1118	0.0696	9.0000e-005		9.4000e-004	9.4000e-004		8.6000e-004	8.6000e-004	0.0000	8.9474	8.9474	2.7000e-003	0.0000	9.0041
Total	**0.0110**	**0.1118**	**0.0696**	**9.0000e-005**	**0.0000**	**9.4000e-004**	**9.4000e-004**	**0.0000**	**8.6000e-004**	**8.6000e-004**	**0.0000**	**8.9474**	**8.9474**	**2.7000e-003**	**0.0000**	**9.0041**

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	2.9000e-004	4.0000e-004	3.8800e-003	1.0000e-005	5.6000e-004	1.0000e-005	5.7000e-004	1.5000e-004	1.0000e-005	1.6000e-004	0.0000	0.5523	0.5523	3.0000e-005	0.0000	0.5530
Total	**2.9000e-004**	**4.0000e-004**	**3.8800e-003**	**1.0000e-005**	**5.6000e-004**	**1.0000e-005**	**5.7000e-004**	**1.5000e-004**	**1.0000e-005**	**1.6000e-004**	**0.0000**	**0.5523**	**0.5523**	**3.0000e-005**	**0.0000**	**0.5530**

3.8 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1432	0.8937	0.6398	9.5000e-004		0.0594	0.0594		0.0573	0.0573	0.0000	80.7776	80.7776	0.0178	0.0000	81.1504
Total	**0.1432**	**0.8937**	**0.6398**	**9.5000e-004**		**0.0594**	**0.0594**		**0.0573**	**0.0573**	**0.0000**	**80.7776**	**80.7776**	**0.0178**	**0.0000**	**81.1504**

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	0.0129	0.0944	0.1597	2.3000e-004	6.1100e-003	1.4100e-003	7.5200e-003	1.7500e-003	1.2900e-003	3.0500e-003	0.0000	20.4229	20.4229	1.6000e-004	0.0000	20.4263
Worker	0.0102	0.0140	0.1375	2.6000e-004	0.0216	2.0000e-004	0.0218	5.7400e-003	1.8000e-004	5.9200e-003	0.0000	19.5753	19.5753	1.1300e-003	0.0000	19.5990
Total	**0.0231**	**0.1085**	**0.2973**	**4.9000e-004**	**0.0277**	**1.6100e-003**	**0.0293**	**7.4900e-003**	**1.4700e-003**	**8.9700e-003**	**0.0000**	**39.9982**	**39.9982**	**1.2900e-003**	**0.0000**	**40.0253**

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	0.1432	0.8937	0.6398	9.5000e-004		0.0247	0.0247		0.0244	0.0244	0.0000	80.7775	80.7775	0.0178	0.0000	81.1503
Total	**0.1432**	**0.8937**	**0.6398**	**9.5000e-004**		**0.0247**	**0.0247**		**0.0244**	**0.0244**	**0.0000**	**80.7775**	**80.7775**	**0.0178**	**0.0000**	**81.1503**

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	0.0129	0.0944	0.1597	2.3000e-004	5.7200e-003	1.4100e-003	7.1300e-003	1.6600e-003	1.2900e-003	2.9500e-003	0.0000	20.4229	20.4229	1.6000e-004	0.0000	20.4263
Worker	0.0102	0.0140	0.1375	2.6000e-004	0.0199	2.0000e-004	0.0201	5.3300e-003	1.8000e-004	5.5100e-003	0.0000	19.5753	19.5753	1.1300e-003	0.0000	19.5990
Total	**0.0231**	**0.1085**	**0.2973**	**4.9000e-004**	**0.0256**	**1.6100e-003**	**0.0272**	**6.9900e-003**	**1.4700e-003**	**8.4600e-003**	**0.0000**	**39.9982**	**39.9982**	**1.2900e-003**	**0.0000**	**40.0253**

3.8 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3841	2.4842	1.8604	2.8500e-003		0.1593	0.1593		0.1537	0.1537	0.0000	239.9115	239.9115	0.0503	0.0000	240.9686
Total	**0.3841**	**2.4842**	**1.8604**	**2.8500e-003**		**0.1593**	**0.1593**		**0.1537**	**0.1537**	**0.0000**	**239.9115**	**239.9115**	**0.0503**	**0.0000**	**240.9686**

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	0.0327	0.2528	0.4356	6.7000e-004	0.0183	3.6300e-003	0.0219	5.2400e-003	3.3400e-003	8.5800e-003	0.0000	59.9635	59.9635	4.6000e-004	0.0000	59.9732
Worker	0.0266	0.0371	0.3599	7.7000e-004	0.0644	5.6000e-004	0.0650	0.0171	5.1000e-004	0.0177	0.0000	56.2583	56.2583	3.0500e-003	0.0000	56.3222
Total	**0.0593**	**0.2899**	**0.7955**	**1.4400e-003**	**0.0827**	**4.1900e-003**	**0.0869**	**0.0224**	**3.8500e-003**	**0.0262**	**0.0000**	**116.2217**	**116.2217**	**3.5100e-003**	**0.0000**	**116.2954**

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	0.3841	2.4841	1.8604	2.8500e-003		0.0663	0.0663		0.0654	0.0654	0.0000	239.9112	239.9112	0.0503	0.0000	240.9684
Total	**0.3841**	**2.4841**	**1.8604**	**2.8500e-003**		**0.0663**	**0.0663**		**0.0654**	**0.0654**	**0.0000**	**239.9112**	**239.9112**	**0.0503**	**0.0000**	**240.9684**

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	0.0327	0.2528	0.4356	6.7000e-004	0.0171	3.6300e-003	0.0207	4.9500e-003	3.3400e-003	8.2900e-003	0.0000	59.9635	59.9635	4.6000e-004	0.0000	59.9732
Worker	0.0266	0.0371	0.3599	7.7000e-004	0.0594	5.6000e-004	0.0600	0.0159	5.1000e-004	0.0164	0.0000	56.2583	56.2583	3.0500e-003	0.0000	56.3222
Total	**0.0593**	**0.2899**	**0.7955**	**1.4400e-003**	**0.0765**	**4.1900e-003**	**0.0807**	**0.0209**	**3.8500e-003**	**0.0247**	**0.0000**	**116.2217**	**116.2217**	**3.5100e-003**	**0.0000**	**116.2954**

3.9 Trenching - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.0500e-003	0.0102	7.7300e-003	1.0000e-005		7.7000e-004	7.7000e-004		7.1000e-004	7.1000e-004	0.0000	0.9486	0.9486	2.9000e-004	0.0000	0.9546
Total	**1.0500e-003**	**0.0102**	**7.7300e-003**	**1.0000e-005**		**7.7000e-004**	**7.7000e-004**		**7.1000e-004**	**7.1000e-004**	**0.0000**	**0.9486**	**0.9486**	**2.9000e-004**	**0.0000**	**0.9546**

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	1.1000e-004	1.5000e-004	1.4400e-003	0.0000	2.3000e-004	0.0000	2.3000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.2046	0.2046	1.0000e-005	0.0000	0.2048
Total	**1.1000e-004**	**1.5000e-004**	**1.4400e-003**	**0.0000**	**2.3000e-004**	**0.0000**	**2.3000e-004**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**0.0000**	**0.2046**	**0.2046**	**1.0000e-005**	**0.0000**	**0.2048**

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	1.0500e-003	0.0102	7.7300e-003	1.0000e-005		1.2000e-004	1.2000e-004		1.1000e-004	1.1000e-004	0.0000	0.9486	0.9486	2.9000e-004	0.0000	0.9546
Total	**1.0500e-003**	**0.0102**	**7.7300e-003**	**1.0000e-005**		**1.2000e-004**	**1.2000e-004**		**1.1000e-004**	**1.1000e-004**	**0.0000**	**0.9486**	**0.9486**	**2.9000e-004**	**0.0000**	**0.9546**

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	1.1000e-004	1.5000e-004	1.4400e-003	0.0000	2.1000e-004	0.0000	2.1000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.2046	0.2046	1.0000e-005	0.0000	0.2048
Total	**1.1000e-004**	**1.5000e-004**	**1.4400e-003**	**0.0000**	**2.1000e-004**	**0.0000**	**2.1000e-004**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**0.0000**	**0.2046**	**0.2046**	**1.0000e-005**	**0.0000**	**0.2048**

3.9 Trenching - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.2700e-003	0.0124	9.9700e-003	1.0000e-005		9.1000e-004	9.1000e-004		8.4000e-004	8.4000e-004	0.0000	1.2134	1.2134	3.7000e-004	0.0000	1.2212
Total	**1.2700e-003**	**0.0124**	**9.9700e-003**	**1.0000e-005**		**9.1000e-004**	**9.1000e-004**		**8.4000e-004**	**8.4000e-004**	**0.0000**	**1.2134**	**1.2134**	**3.7000e-004**	**0.0000**	**1.2212**

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	1.2000e-004	1.7000e-004	1.6400e-003	0.0000	2.9000e-004	0.0000	3.0000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2557	0.2557	1.0000e-005	0.0000	0.2560
Total	**1.2000e-004**	**1.7000e-004**	**1.6400e-003**	**0.0000**	**2.9000e-004**	**0.0000**	**3.0000e-004**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**0.0000**	**0.2557**	**0.2557**	**1.0000e-005**	**0.0000**	**0.2560**

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	1.2700e-003	0.0124	9.9700e-003	1.0000e-005		1.4000e-004	1.4000e-004		1.3000e-004	1.3000e-004	0.0000	1.2134	1.2134	3.7000e-004	0.0000	1.2212
Total	**1.2700e-003**	**0.0124**	**9.9700e-003**	**1.0000e-005**		**1.4000e-004**	**1.4000e-004**		**1.3000e-004**	**1.3000e-004**	**0.0000**	**1.2134**	**1.2134**	**3.7000e-004**	**0.0000**	**1.2212**

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	1.2000e-004	1.7000e-004	1.6400e-003	0.0000	2.7000e-004	0.0000	2.7000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2557	0.2557	1.0000e-005	0.0000	0.2560
Total	**1.2000e-004**	**1.7000e-004**	**1.6400e-003**	**0.0000**	**2.7000e-004**	**0.0000**	**2.7000e-004**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**0.0000**	**0.2557**	**0.2557**	**1.0000e-005**	**0.0000**	**0.2560**

3.10 Architectural Coating - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1929					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.3100e-003	0.0481	0.0411	7.0000e-005		3.8100e-003	3.8100e-003		3.8100e-003	3.8100e-003	0.0000	5.6172	5.6172	5.9000e-004	0.0000	5.6296
Total	**0.2002**	**0.0481**	**0.0411**	**7.0000e-005**		**3.8100e-003**	**3.8100e-003**		**3.8100e-003**	**3.8100e-003**	**0.0000**	**5.6172**	**5.6172**	**5.9000e-004**	**0.0000**	**5.6296**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0000e-004	1.2600e-003	0.0122	3.0000e-005	2.1800e-003	2.0000e-005	2.2000e-003	5.8000e-004	2.0000e-005	6.0000e-004	0.0000	1.9041	1.9041	1.0000e-004	0.0000	1.9063
Total	**9.0000e-004**	**1.2600e-003**	**0.0122**	**3.0000e-005**	**2.1800e-003**	**2.0000e-005**	**2.2000e-003**	**5.8000e-004**	**2.0000e-005**	**6.0000e-004**	**0.0000**	**1.9041**	**1.9041**	**1.0000e-004**	**0.0000**	**1.9063**

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	0.1929					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.3100e-003	0.0481	0.0411	7.0000e-005		5.7000e-004	5.7000e-004		5.7000e-004	5.7000e-004	0.0000	5.6172	5.6172	5.9000e-004	0.0000	5.6296
Total	**0.2002**	**0.0481**	**0.0411**	**7.0000e-005**		**5.7000e-004**	**5.7000e-004**		**5.7000e-004**	**5.7000e-004**	**0.0000**	**5.6172**	**5.6172**	**5.9000e-004**	**0.0000**	**5.6296**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0000e-004	1.2600e-003	0.0122	3.0000e-005	2.0100e-003	2.0000e-005	2.0300e-003	5.4000e-004	2.0000e-005	5.6000e-004	0.0000	1.9041	1.9041	1.0000e-004	0.0000	1.9063
Total	**9.0000e-004**	**1.2600e-003**	**0.0122**	**3.0000e-005**	**2.0100e-003**	**2.0000e-005**	**2.0300e-003**	**5.4000e-004**	**2.0000e-005**	**5.6000e-004**	**0.0000**	**1.9041**	**1.9041**	**1.0000e-004**	**0.0000**	**1.9063**

3.11 Fine Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.2700e-003	0.0127	8.6000e-003	1.0000e-005		7.1000e-004	7.1000e-004		6.5000e-004	6.5000e-004	0.0000	1.1029	1.1029	3.4000e-004	0.0000	1.1100
Total	**1.2700e-003**	**0.0127**	**8.6000e-003**	**1.0000e-005**	**0.0000**	**7.1000e-004**	**7.1000e-004**	**0.0000**	**6.5000e-004**	**6.5000e-004**	**0.0000**	**1.1029**	**1.1029**	**3.4000e-004**	**0.0000**	**1.1100**

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	1.1000e-004	8.8000e-004	1.5200e-003	0.0000	6.0000e-005	1.0000e-005	8.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.2097	0.2097	0.0000	0.0000	0.2097
Worker	3.0000e-005	4.0000e-005	3.8000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0590	0.0590	0.0000	0.0000	0.0591
Total	**1.4000e-004**	**9.2000e-004**	**1.9000e-003**	**0.0000**	**1.3000e-004**	**1.0000e-005**	**1.5000e-004**	**4.0000e-005**	**1.0000e-005**	**5.0000e-005**	**0.0000**	**0.2687**	**0.2687**	**0.0000**	**0.0000**	**0.2688**

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.2700e-003	0.0127	8.6000e-003	1.0000e-005		1.1000e-004	1.1000e-004		1.0000e-004	1.0000e-004	0.0000	1.1029	1.1029	3.4000e-004	0.0000	1.1100
Total	**1.2700e-003**	**0.0127**	**8.6000e-003**	**1.0000e-005**	**0.0000**	**1.1000e-004**	**1.1000e-004**	**0.0000**	**1.0000e-004**	**1.0000e-004**	**0.0000**	**1.1029**	**1.1029**	**3.4000e-004**	**0.0000**	**1.1100**

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	1.1000e-004	8.8000e-004	1.5200e-003	0.0000	6.0000e-005	1.0000e-005	7.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.2097	0.2097	0.0000	0.0000	0.2097
Worker	3.0000e-005	4.0000e-005	3.8000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0590	0.0590	0.0000	0.0000	0.0591
Total	**1.4000e-004**	**9.2000e-004**	**1.9000e-003**	**0.0000**	**1.2000e-004**	**1.0000e-005**	**1.3000e-004**	**4.0000e-005**	**1.0000e-005**	**5.0000e-005**	**0.0000**	**0.2687**	**0.2687**	**0.0000**	**0.0000**	**0.2688**

3.12 Fine Grading Haul - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	1.5000e-004	9.4000e-004	2.5000e-003	0.0000	5.0000e-005	1.0000e-005	6.0000e-005	1.0000e-005	1.0000e-005	2.0000e-005	0.0000	0.2028	0.2028	0.0000	0.0000	0.2028
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.5000e-004**	**9.4000e-004**	**2.5000e-003**	**0.0000**	**5.0000e-005**	**1.0000e-005**	**6.0000e-005**	**1.0000e-005**	**1.0000e-005**	**2.0000e-005**	**0.0000**	**0.2028**	**0.2028**	**0.0000**	**0.0000**	**0.2028**

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	1.5000e-004	9.4000e-004	2.5000e-003	0.0000	4.0000e-005	1.0000e-005	5.0000e-005	1.0000e-005	1.0000e-005	2.0000e-005	0.0000	0.2028	0.2028	0.0000	0.0000	0.2028
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.5000e-004**	**9.4000e-004**	**2.5000e-003**	**0.0000**	**4.0000e-005**	**1.0000e-005**	**5.0000e-005**	**1.0000e-005**	**1.0000e-005**	**2.0000e-005**	**0.0000**	**0.2028**	**0.2028**	**0.0000**	**0.0000**	**0.2028**

3.13 Paving - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.0700e-003	8.8000e-003	6.8000e-003	1.0000e-005		5.0000e-004	5.0000e-004		4.6000e-004	4.6000e-004	0.0000	0.9049	0.9049	2.8000e-004	0.0000	0.9107
Paving	1.3000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.2000e-003**	**8.8000e-003**	**6.8000e-003**	**1.0000e-005**		**5.0000e-004**	**5.0000e-004**		**4.6000e-004**	**4.6000e-004**	**0.0000**	**0.9049**	**0.9049**	**2.8000e-004**	**0.0000**	**0.9107**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	9.0000e-005	8.8000e-004	0.0000	1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1377	0.1377	1.0000e-005	0.0000	0.1379
Total	**6.0000e-005**	**9.0000e-005**	**8.8000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1377**	**0.1377**	**1.0000e-005**	**0.0000**	**0.1379**

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	1.0700e-003	8.8000e-003	6.8000e-003	1.0000e-005		2.2000e-004	2.2000e-004		2.0000e-004	2.0000e-004	0.0000	0.9049	0.9049	2.8000e-004	0.0000	0.9107
Paving	1.3000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.2000e-003**	**8.8000e-003**	**6.8000e-003**	**1.0000e-005**		**2.2000e-004**	**2.2000e-004**		**2.0000e-004**	**2.0000e-004**	**0.0000**	**0.9049**	**0.9049**	**2.8000e-004**	**0.0000**	**0.9107**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	9.0000e-005	8.8000e-004	0.0000	1.5000e-004	0.0000	1.5000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1377	0.1377	1.0000e-005	0.0000	0.1379
Total	**6.0000e-005**	**9.0000e-005**	**8.8000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**1.5000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1377**	**0.1377**	**1.0000e-005**	**0.0000**	**0.1379**

3.14 Finishing and Landscaping - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.7100e-003	0.0220	0.0222	3.0000e-005		1.1800e-003	1.1800e-003		1.0900e-003	1.0900e-003	0.0000	3.0209	3.0209	9.3000e-004	0.0000	3.0403
Total	**1.7100e-003**	**0.0220**	**0.0222**	**3.0000e-005**		**1.1800e-003**	**1.1800e-003**		**1.0900e-003**	**1.0900e-003**	**0.0000**	**3.0209**	**3.0209**	**9.3000e-004**	**0.0000**	**3.0403**

Unmitigated Construction Off-Site

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

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	1.7100e-003	0.0220	0.0222	3.0000e-005		1.8000e-004	1.8000e-004		1.6000e-004	1.6000e-004	0.0000	3.0209	3.0209	9.3000e-004	0.0000	3.0403
Total	**1.7100e-003**	**0.0220**	**0.0222**	**3.0000e-005**		**1.8000e-004**	**1.8000e-004**		**1.6000e-004**	**1.6000e-004**	**0.0000**	**3.0209**	**3.0209**	**9.3000e-004**	**0.0000**	**3.0403**

Mitigated Construction Off-Site

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

CalEEMod Inputs (Operation)

Name: Hotel Project Sonoma
Project Location: southwest corner of Highway 12 and First Street, City of Sonoma, Ca
County/Air Basin: Sonoma County - San Francisco Bay Area Air Basin
Climate Zone: 4
Land Use Setting: Urban
Operational Year: 2017
Utility Company: PG&E

Existing

Land Use	Unit Amount	Size Metric	Lot Acreage	Square Feet	Population / Employees
Chateau Sonoma Retail	3,550	SQFT		3,550	**3**
Print Building, 2-Story	11,318	SQFT		11,318	
Subtotal Buildings Onsite	***14,868***	***SQFT***	***0.55***	***14,868***	
Accessory Building: Shed	544	SQFT		544	
Total Buildings Onsite	**15,412**				**3**
Parking Lot (79 spaces)	30,000	SQFT	0.69	30,000	
			1.24		
Offsite (not a part):					
Lynch Building, 3-story	13,771	SQFT			
Sonoma Tribune Office/Retail, 2-Story	6,372	SQFT			
Existig Monthly Power	5,203	kwh/month	62,436	annual kwh	

CalEEMod Inputs (Operation)

Name:	Hotel Project Sonoma
Project Location:	southwest corner of Highway 12 and First Street, City of Sonoma, Ca
County/Air Basin:	Sonoma County - San Francisco Bay Area Air Basin
Climate Zone:	4
Land Use Setting:	Urban
Operational Year:	2017
Utility Company:	PG&E

Project

Land Use	Unit Amount	Size Metric	Lot Acreage	Square Feet	Population / Employees
Hotel	62	Rooms	0.00	55,453	
Restaurant (High Quality)	7,168	SQFT	0.00	7,168	
Spa	4,857	SQFT	0.00	4,857	
Total Hotel Project Sonoma			0.62	67,478	60
Parking Garage (94 spaces)	37,655	SQFT	0.00	37,655	
Surface Parking (21 spaces)	4,479	SQFT	0.10	4,479	
Hardscape	22,483	SQFT	0.52	22,483	
Total			**1.24**		**60**

Bicycle Fleet for guests
Electric vehicle recharging stations
Rooftop solar panel array

Proposed Monthly Power	123,120	kwh/month	1,477,440	annual kwh

Emergency generator for the pool mechanic building (Permitted by BAAQMD). Nominal Emissions during testing only.

Trip Generation

	Modifed Rates					
Land Use Subtype	**Weekday**	**Saturday**	**Sunday**	**Weekday Trips/Day****	**Saturday Trips/Day**	**Sunday Trips/Day**
Existing Chateau Sonoma	12.78	10.58	10.58	197	163	163
Hotel Project Sonoma	No Change from Default		8.19	507	508	508
				310	345	345

**Provided by WTrans 2015

Solid Waste

	Tons/Yr
Existing	16.18
Project	33.95
Net	17.77

Based on CalEEMod defaults

CalEEMod Inputs (Operation)

Name:	Hotel Project Sonoma
Project Location:	southwest corner of Highway 12 and First Street, City of Sonoma, Ca
County/Air Basin:	Sonoma County - San Francisco Bay Area Air Basin
Climate Zone:	4
Land Use Setting:	Urban
Operational Year:	2017
Utility Company:	PG&E

Water and Wastewater:

Rates

	People Per ESD	Gallons per day per ESD
Water: County Water Agency		
Sewer: Sonoma Valley Commuity Sewer District	2.6	200
ESD: Equivelent Single-Family Dwelling Unit		

		Annual (gallons per year)		
Existing	**EDUs**	**Total**	**IndoorWaterUseRate**	**OutdoorWaterUse Rate**
Chateau Sonoma*	1	84,231	83,214	1,017
Hotel Project Sonoma**	23	5,466,000	5,400,000	66,000
Net Increase				

* Provided by the Applicant, based on Somona Valley Community Sewer District water rates per ESD. (assumes only 1 ESD for existing)

** J Crowley Group. J, Inc. 2015, July 20. Hotel Project Sonoma, Water Conservation Program. Includes 34,000 gallons/yr reduction through rainwater harvesting for outdoor water use.

Water Mitigation

Existing

No Change

Project

Install Low Flow Bathroom Faucet	32	% Reduction in flow
Install Low Flow Kitchen Faucet	18	% Reduction in flow
Install Low Flow Toilet	20	% Reduction in flow
Install Low Flow Shower	20	% Reduction in flow
Use Water Efficiency Irrigation System	6.1	% Reduction in flow

Area - Hearths

not applicable

ENERGY USE

CalEEMod Default Rates			**kWh/year**				**kBTU/year**	
EnergyUseLandUseSubType		T24E	NT24E	LightingElect	Total Electricty	T24NG	NT24NG	Total Natural Gas
Strip Mall	CalEEMod Default	3.55	2.68	6.02	12	2.92	0	2.92
Hotel	CalEEMod Default*	2.5	3.22	2.72	8.44	41.63	4.75	46.38
Parking Lot		0	0	0.88	0.88	0	0	0.00
Parking Structure		3.92	0.19	2.63	6.74	0	0	0.00

ENERGY	**SQFT**		**kWh/year**				**kBTU/year**	
Existing Strip Mall	15,412	54,713	41,304	92,780	188,797	45,003	0	45,003
Chateau Sonoma	15,412	18,094	13,659	30,683	62,436	45,003	0	45,003
New Hotel	67,480	168,700	217,286	183,546	569,531	2,809,192	320,530	3,129,722
Parking Lot	4,479	0	0	3,942	3,942	0	0	0
Parking Structure	37,655	147,608	7,154	99,033	253,795	0	0	0
TOTAL		316,308	224,440	286,520	827,267	2,809,192	320,530	3,129,722
Hotel Project		417,295	393,679	416,613	1,227,587	1,966,435	320,530	2,286,965
Total		564,903	400,834	511,704	1,477,440	1,966,435	320,530	2,286,965

Provided by the Applicant

Updated Energy Rates			**kWh/year**			**kBTU/year**
		T24E	NT24E	LightingElect	T24NG	NT24NG
Strip Mall	Modified Rate	1.17	0.89	1.99	2.92	0.00
Hotel	Modified Rate*	6.18	5.83	6.17	29.1	4.75
Parking Lot	default	0.00	0.00	0.88	0.00	0.00
Parking Structure	default	3.92	0.2	2.63	0.00	0.00

*Includes a 30% reduction for non-residential building natural gas associated with Title 24.

Construction Assumptions

*Provided by the Applicant and RDC & Midstate Construction

Overall 18 month Construction Schedule - Commence in July 2016

Demo*	**Quanity**	**Unit**	**Haul Truck Capacity**	**unit**	**Miles 1 way**	**Duration (days)**	**Total Trips**	**Trips/Day**
Demoltion - Buildings	356	CY	20	tons	21	5	45	9
Demolition - Asphalt	205	Tons	13	tons	5	2	32	16
	note tons of building for CalEEMod		450					
Soil Haul*								
Site Preparation Export	16000	CY	13	CY	5	20	2,462	123
Fine Grading Import	148	CY	13	CY	5	5	23	5

Conversion factors from CalEEMod User's Guide

0.046	ton/SF
1.26	tons/cy
20	tons
15.82	CY (per 20 ton truck)
0.79	CY/ton

VOC - Coatings*

Interior	70%
Exterior	20%

Land Use	Land Use Amount (BSF)	Paintable Surface Area Multiplier*	Paintable Surface Area (BSF)	Paintable Interior Surface Area	Paintable Exterior Surface Area
Hotel	67,478	2.0	134,956	70,852	6,748
Surface Parking	4,479	0.06	269	269	0
Underground Parking Structure	37,655	0.06	2,259	2,259	0
	Non-Residential Total for Construction:			73,111	6,748

Energy during construction* 60,000 kwh total 3,000 kwh/month

5-day work week (with limited Saturdays, as necessary)

Construction Phasing

5-Day Work Week (with limited Saturdays, as necessary)
Construction phasing provided by the Applicant and RDC & Midstate Construction

Phase Name	Start Date	Approximate End Date	CalEEMod Days	Duration (Mos)
Demolition - Buildings + Asphalt	7/1/2016	7/29/2016	20	0.9
Building Haul	7/1/2016	7/8/2016	5	0.2
Asphalt Haul	7/22/2016	7/26/2016	2	0.1
Site Preparation	7/29/2016	8/16/2016	12	0.5
Site Prep Soil Export	7/29/2016	8/26/2016	20	0.9
Rough Grading	7/29/2016	9/30/2016	45	2.0
Building Construction	9/1/2016	12/29/2017	346	15.7
Utilities	12/18/2016	1/18/2017	23	1.0
Architectural Coating	8/28/2017	10/27/2017	44	2.0
Fine Grading	10/15/2017	10/20/2017	5	0.2
Fine Grading Soil Import	10/15/2017	10/20/2017	5	0.2
Paving	10/20/2017	10/31/2017	7	0.3
Finishing and Landscaping	11/12/2017	12/26/2017	32	1.5

Construction Days		start	end	Days
	2016	7/1/2016	12/31/2016	131
	2017	1/1/2017	12/29/2017	260
	TOTAL			391

Construction Equipment Mix

CalEEMod defaults, except where noted
Provided by the Applicant and RDC &Midstate Construction*

	Trips	Days Onsite	Pieces of Equipment	Hrs Op	HP	LF
Demolition - Building						
Hitachi 200 Excavator*		15	1	8	132	0.38
Water Truck**	4		1			
Worker Trips	3					
Vendor Trips	0					
Demolition - Asphalt						
Hitachi 200 Excavator*		5	1	8	132	0.38
Water Truck**	4		1			
Worker Trips	3					
Vendor Trips	0					
Site Preparation						
Grader			1	8	174	0.41
Rubber Tired Dozers			1	7	255	0.40
Tractors/Loaders/Backhoes			1	8	97	0.37
Dump Trucks (see soil haul trucks)*		10				
Water Truck**	4		1			
Worker Trips	8					
Vendor Trips	0					
Rough Grading						
Caterpillar 930L Loader		40	1	7.1	154	0.37
Water Truck** (overlap w/SP)	0		1			
Worker Trips	3					
Vendor Trips	0					
Utility Trenching**						
Cat 307 Midi Excavator*		20	1	4	55	0.38
Case 580 Backhoe*		20	1	4	70	0.37
Building Construction						
Cranes			1	6	226	0.29
Forklifts			1	6	89	0.20
Generator Sets			1	8	84	0.74
Tractors/Loaders/Backhoes			1	6	97	0.37
Welders			3	8	46	0.45
Worker Trips	55					
Vendor Trips	22					
Fine Grading						
Caterpillar 930L Loader*		5	1	8	154	0.37
Water Truck**	4		1			
Worker Trips	3					
Vendor Trips	0					
Architectural Coating						
Air Compressors			1	6	78	0.48
Worker Trips	11					
Vendor Trips	0					
Site Paving						
Cat 650 Paver*			1	4	121	0.42
Cat Pavement Roller*			1	4	33	0.38
Worker Trips	5					
Vendor Trips	0					
Finishing/Landscaping**						
Skid Steer Loader***			1	8	64	0.37
no additional worker/vendor trips						

**Four water truck trips per day are assumed for purposes of this analysis. Emissions accounted for in the vendor trips assigned.

***Assumes use of 1 skid steer loader during finishing and landscaping activities.

Criteria Air Pollutant Emissions Summary - Construction

tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Total	0.87	4.33	4.23	0.01	0.14	0.25	0.39	0.04	0.24	0.28

tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Total Onsite	0.76	3.80	2.80	0.00	0.02	0.24	0.26	0.01	0.23	0.24
Total Offsite	0.11	0.53	1.44	0.00	0.12	0.01	0.13	0.03	0.01	0.04

Average Annual Emissions With Best Control Measures for Fugitive Dust

tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
2016 Onsite	0.17	1.21	0.85	0.00	0.02	0.08	0.10	0.01	0.07	0.08
2016 Offsite	0.04	0.24	0.62	0.00	0.04	0.00	0.04	0.01	0.00	0.01
Total 2016	0.22	1.45	1.47	0.00	0.05	0.08	0.13	0.02	0.08	0.09
2017 Onsite	0.59	2.59	1.95	0.00	0.00	0.17	0.17	0.00	0.16	0.16
2017 Offsite	0.06	0.29	0.81	0.00	0.09	0.00	0.09	0.02	0.00	0.03
Total 2017	0.65	2.88	2.76	0.00	0.09	0.17	0.26	0.02	0.16	0.19

Criteria Air Pollutant Emissions Summary - Construction

with Best Control Measures for Fugitive Dust

Annual emissions divided by total construction duration to obtain average daily emissions. Average construction emissions accounts for the duration of each construction phase and the time each piece of construction equipment is onsite.

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Total	avg lbs/day	4.44	22.14	21.66	0.03	0.71	1.28	1.99	0.21	1.23	1.4

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Total Onsite	avg lbs/day	3.90	19.44	14.31	0.02	0.09	1.24	1.34	0.04	1.20	1.24
Total Offsite	avg lbs/day	0.54	2.70	7.35	0.01	0.62	0.04	0.66	0.17	0.03	0.20

Annual Average Emissions

	Days	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
2016 Total	131	3.33	22.09	22.44	0.03	0.82	1.22	2.04	0.27	1.16	1.43
2017 Total	260	5.00	22.16	21.26	0.03	0.66	1.31	1.97	0.18	1.26	1.44
Total Days	391										

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Onsite Mit Details

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
2016 Onsite	avg lbs/day	2.65	18.50	12.95	0.02	0.28	1.17	1.45	0.12	1.12	1.24
2017 Onsite	avg lbs/day	4.54	19.91	14.99	0.02	0.00	1.28	1.28	0.00	1.24	1.24

Offsite Mit Details

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
2016 Offsite	avg lbs/day	0.68	3.59	9.49	0.01	0.54	0.05	0.59	0.15	0.04	0.19
2017 Offsite	avg lbs/day	0.47	2.26	6.27	0.01	0.66	0.03	0.69	0.18	0.03	0.21

Criteria Air Pollutant Emissions Summary - Construction with Mitigation

tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Total	0.87	4.33	4.23	0.01	0.13	0.10	0.23	0.04	0.10	0.14

tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Total Onsite	0.76	3.80	2.80	0.00	0.02	0.09	0.11	0.01	0.09	0.10
Total Offsite	0.11	0.53	1.44	0.00	0.11	0.01	0.12	0.03	0.01	0.04

Average Annual Emissions With Best Control Measures for Fugitive Dust

tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
2016 Onsite	0.17	1.21	0.85	0.00	0.02	0.03	0.05	0.01	0.03	0.03
2016 Offsite	0.04	0.24	0.62	0.00	0.03	0.00	0.04	0.01	0.00	0.01
Total 2016	0.22	1.45	1.47	0.00	0.05	0.03	0.08	0.02	0.03	0.05
2017 Onsite	0.59	2.59	1.95	0.00	0.00	0.07	0.07	0.00	0.07	0.07
2017 Offsite	0.06	0.29	0.81	0.00	0.08	0.00	0.08	0.02	0.00	0.03
Total 2017	0.65	2.88	2.76	0.00	0.08	0.07	0.15	0.02	0.07	0.09

Criteria Air Pollutant Emissions Summary - Construction with Mitigation

with Best Control Measures for Fugitive Dust

Annual emissions divided by total construction duration to obtain average daily emissions. Average construction emissions accounts for the duration of each construction phase and the time each piece of construction equipment is onsite.

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Total	avg lbs/day	4.44	22.14	21.66	0.03	0.67	0.52	1.19	0.20	0.51	0.71

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Total Onsite	avg lbs/day	3.90	19.44	14.31	0.02	0.09	0.49	0.58	0.04	0.48	0.52
Total Offsite	avg lbs/day	0.54	2.70	7.35	0.01	0.57	0.04	0.61	0.16	0.03	0.19

Annual Average Emissions

	Days	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
2016 Total	131	3.33	22.09	22.44	0.03	0.78	0.46	1.24	0.26	0.45	0.71
2017 Total	260	5.00	22.16	21.26	0.03	0.61	0.55	1.16	0.17	0.54	0.71
Total Days	391										

FOR CONSTRUCTION HRA

Onsite Mit Details

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
2016 Onsite	avg lbs/day	2.65	18.50	12.95	0.02	0.28	0.42	0.70	0.12	0.41	0.53
2017 Onsite	avg lbs/day	4.54	19.91	14.99	0.02	0.00	0.52	0.52	0.00	0.51	0.51

Offsite Mit Details

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
2016 Offsite	avg lbs/day	0.68	3.59	9.49	0.01	0.50	0.05	0.55	0.14	0.04	0.18
2017 Offsite	avg lbs/day	0.47	2.26	6.27	0.01	0.61	0.03	0.64	0.17	0.03	0.20

Emissions Summary - Operation

Existing 2015

Mitigated Operational

Category	tons/yr	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
		MT/yr					
Area		0	0	0	0	0	0
Energy		0	21	21	0	0	21
Mobile		0	128	128	0	0	128
Waste		3	0	3	0	0	7
Water		0	0	0	0	0	0
Total		3	148	152	0	0	156

Project 2017

Mitigated Operational

Category	tons/yr	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
		MT/yr					
Area		0	0	0	0	0	0
Energy		0	554	554	0	0	556
Mobile		0	399	399	0	0	399
Waste		7	0	7	0	0	15
Water		1	7	8	0	0	12
Total		8	959	968	1	0	983
Construction							544
30-Yr Amortization							18

APPENDIX E:
Health Risk Assessment

Construction Health Risk Assessment | August 2015

Hotel Project Sonoma

for the City of Sonoma

Prepared for:

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1. Introduction

The City of Sonoma is proposing to construct a hotel with restaurant component in the City of Sonoma, Sonoma County, California. The latest version of the Bay Area Air Quality Management District (BAAQMD) CEQA Air Quality Guidelines requires projects to evaluate the impacts of construction activities on sensitive receptors (BAAQMD, 2012). Project construction is anticipated to take place starting in July 2016 and be completed by the end of December 2017, approximately 547 calendar days (391 workdays).

The nearest offsite sensitive receptors are the residents at the multi-family residential complex approximately 100 feet to the southwest of the project site. Other nearby sensitive receptors includes a mix of single- and multi-family residences that are dispersed in the surrounding area to the project site. The residents at these locations could be potentially impacted from the proposed construction activities.

The BAAQMD has developed *Screening Tables for Air Toxics Evaluation During Construction* (2010) that evaluate construction-related health risks associated with residential, commercial, and industrial projects. According to the screening tables, the residences are much closer than the distance of 100 meters (328 feet) that would screen out potential health risks. Therefore, a site-specific construction health risk assessment (HRA) was prepared for the proposed project.

This construction HRA considers the health impact of construction operations at the project site to sensitive receptors (adults and children in the nearby residences) from diesel equipment exhaust (diesel particulate matter or DPM) and fine particulate matter ($PM_{2.5}$).

1. Introduction

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2. Project Description

The project site is located on a 1.24-acre property within the southwest quadrant of the intersection of East Napa Street and 1st Street West in the City of Sonoma. It is surrounded by other commercial land uses. Additionally, residential land uses along with the Golden Living Centers – London House Sonoma nursing care facility and Sunshine School daycare facility are also in in proximity and within the 1,000-foot buffer zone of project site.

The proposed project would involve demolition of the existing metal warehouse, 153 West Napa Street building, ancillary structures (i.e. sheds), and existing parking lots and development of the proposed 62-room hotel and 80-seat restaurant. Construction of the project is anticipated to begin in July 2016 and be completed by the end of December 2017. Construction activities would include demolition, grading and excavation, building construction, exterior and interior architectural coating (painting), landscaping, and paving. Additionally, it is anticipated that construction activities would include truck haul operations to remove the demolition debris and soil material that would be generated.

The project site and vicinity are depicted in Figure 1.

2. Project Description

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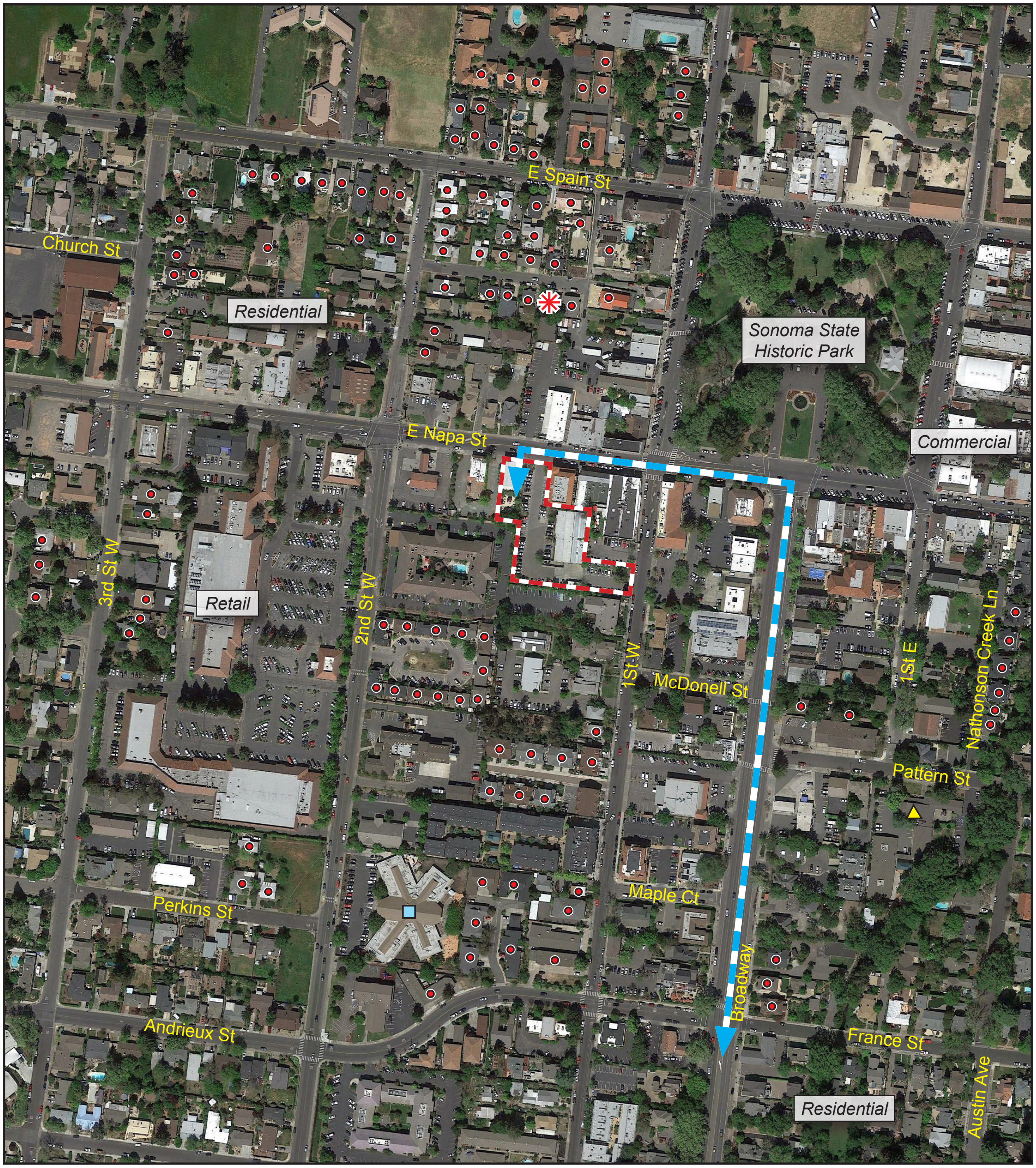
Figure 1 - Project Location and ISCST3 Model Configuration



Project Boundary
Truck Route
Receptor
Maximum Exposed Receptor
Golden Living Centers - London House Sonoma
Sunshine School

0 400
Scale (Feet)

Source: ESRI, 2015

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3. Methodology and Significance Thresholds

The purpose of the construction HRA is to evaluate the potential health impacts from diesel particulate matter (DPM) and particulate matter less than 2.5 microns ($PM_{2.5}$) emitted during construction activities associated with the proposed project. Construction sources evaluated in this HRA include off-road construction equipment, such as tractors/loaders/backhoes, concrete/industrial saws, forklifts, rubber tired dozers, excavators, pavers, rollers, and water trucks.

The BAAQMD's 2010 adopted "Thresholds of Significance" for local community risk impacts were challenged in a lawsuit and subsequently rescinded. However, lead agencies can determine that these are appropriate air quality thresholds for projects they review. The 2010 BAAQMD thresholds that were used for this project are shown below:

- Non-compliance with a qualified risk reduction plan
- Excess cancer risk of more than 10 in a million
- Non-cancer hazard index (chronic or acute) greater than 1.0
- Incremental increase in average annual $PM_{2.5}$ concentration of greater than 0.3 $\mu g/m^3$

Since both the City and County of Sonoma do not currently have qualified risk reduction plans, a site-specific analysis of DPM and $PM_{2.5}$ impacts on sensitive receptors was conducted.

The methodology used in this HRA is consistent with the following BAAQMD and the Office of Environmental Health Hazard Assessment (OEHHA) guidance documents:

- BAAQMD, 2012. *California Environmental Quality Act Air Quality Guidelines*. May 2012.
- BAAQMD, 2010. *Screening Tables for Air Toxics Evaluation During Construction*. May 2010.
- BAAQMD, 2012. *Recommended Methods for Screening and Modeling Local Risks and Hazards*. Version 3.0. May 2012.
- OEHHA, 2012. *Air Toxics Hot Spots Program Risk Assessment Guidelines*. Revised Technical Support Document for Exposure Assessment and Stochastic Analysis. August, 2012.
- OEHHA. 2015. *Air Toxics Hot Spots Program Guidance Manual for the Preparation of Health Risk Assessments.* February, 2015.

Potential exposures to DPM and $PM_{2.5}$ from proposed project construction activities were evaluated for off-site sensitive receptors in close proximity to the site. Using air dispersion models, receptor concentrations were estimated and excess lifetime cancer risks and chronic non-cancer hazard indexes were calculated. These risks were then compared to the significance thresholds identified in the BAAQMD CEQA guidelines.

3. Methodology and Significance Thresholds

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4. Construction Emissions

Construction emissions were calculated as average daily emissions in pounds per day, using the proposed construction schedule and the latest version of California Emissions Estimation Model, known as CalEEMod Version 2013.2.2 (CAPCOA, 2013).

The project was assumed to take place over 547 calendar days (391 work days) from July 2016 through end of December2017. The average daily emission rates from construction equipment used during the proposed project were determined by dividing the annual average emissions for each construction year by the number of construction days per year for each calendar year of construction (i.e., 2016 and 2017). In addition, emissions from haul trucks traveling to and from the site within a 1,000-foot radius were included as offsite emissions. The modeled average daily emission rates for the construction scenario are summarized in Table 1. The CalEEMod construction emissions output and emission rate calculations are provided in Appendix A.

Table 1 Construction Activity – Average Daily Emission Rates

Parameter – Year	Onsite Emissions (lbs/day)	Total Offsite Emissions (lbs/day)
DPM – 2016	1.17	0.05
$PM_{2.5}$ - 2016	1.24	0.19
DPM – 2017	1.28	0.03
$PM_{2.5}$ - 2017	1.24	0.21

Presented emission rates are average daily emissions.
Source: CalEEMod 2013.2.2.

4. Construction Emissions

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5. Dispersion Modeling

To assess the impact of emitted compounds on sensitive receptors near the project, air quality modeling using the ISCST3 atmospheric dispersion model was performed. The model is a steady state Gaussian plume model and is an approved model by BAAQMD for estimating ground level impacts from point and fugitive sources in simple and complex terrain. The on-site construction emissions for the project were modeled as poly-area sources. Off-site construction emissions for project related truck traffic were modeled as adjacent volume sources.

The model requires additional input parameters, including chemical emission data and local meteorology. Inputs for the construction phase emission rates are those described in Section 4. Meteorological data obtained from the BAAQMD for the nearest met station (Sonoma Baylds) and the three latest available years of record (2003-2005) were used to represent local weather conditions and prevailing winds. The prevailing wind direction at the project site is to the east and east-southeast; therefore, the residential receptors to the southeast are downwind from the construction emissions. The wind rose for the Sonoma Baylds meteorological station is provided in Appendix B.

DPM emissions were based on the CalEEMod construction runs, using annual exhaust PM_{10} construction emissions presented in lbs/day. The $PM_{2.5}$ emissions were taken from the CalEEMod output for $PM_{2.5}$ total, which includes exhaust $PM_{2.5}$ as well as fugitive dust $PM_{2.5}$. Off-site construction emissions from haul trucks were also obtained from the CalEEMod construction runs, proportioning the emissions from the one-way haul trip length of 5 miles to take into account the 0.36-mile distance within 1,000 feet of the project site. An emission release height of 4.15 meters was used as representative of the stack exhaust height for off-road construction equipment and off-site haul trucks and an initial vertical dispersion parameter of 1.93 m was used, per CARB guidance (2000). The lateral dispersion parameter for the truck volume sources for the assumed truck route along Broadway was determined by dividing the width of the traveled roadway by 2.15.

The modeling analysis also considered the spatial distribution and elevation of each emitting source in relation to the sensitive receptors. To accommodate the model's Cartesian grid format, direction-dependent calculations were obtained by identifying the Universal Transverse Mercator (UTM) coordinates for each source location.

To determine contaminant impacts during construction hours, the model's scalar option was invoked to predict flagpole-level concentrations (1.5 m for ground-floor receptors) for emissions generated between the hours of 7:00 AM and 4:00 PM, with a one-hour break for lunch between 11:00 AM and noon. In addition, a scalar factor was applied to the risk calculations to account for the number of days of construction activity per year.

For all modeling runs, a unit emission rate of 1 gm/sec was used. The unit emission rates were proportioned among either the volume sources for truck traffic, or proportioned over the poly-area sources for on-site

5. Dispersion Modeling

construction emissions. The maximum ISCST3 concentrations from the output files were then multiplied by the emission rates calculated in Appendix A to obtain the maximum flagpole-level concentrations at the maximum exposed receptor (MER) near the project site. The flagpole-level DPM and $PM_{2.5}$ concentrations from the on-site and off-site sources used in the risk calculation spreadsheets are provided in Table C1 of Appendix C. The ISCST3 model output for the emission sources is presented in Appendix B. The configuration of the sources and the receptor locations are presented in Figure 1.

6. Risk Characterizations

6.1 CARCINOGENIC CHEMICAL RISK

The BAAQMD has established a threshold of ten in a million (10E–06) as a level posing no significant risk for exposures to carcinogens.

Health risks associated with exposure to carcinogenic compounds can be defined in terms of the probability of developing cancer as a result of exposure to a chemical at a given concentration. The cancer risk probability is determined by multiplying the chemical's annual concentration by its cancer potency factor (CPF), a measure of the carcinogenic potential of a chemical when a dose is received through the inhalation pathway. It is an upper-limit estimate of the probability of contracting cancer as a result of continuous exposure to an ambient concentration of one microgram per cubic meter ($\mu g/m^3$) over a lifetime of 70 years.

Cancer risks were calculated using BAAQMD recommended methods for a residential receptor. For the inhalation pathway, contaminant dose is multiplied by the cancer potency factor in units of inverse dose expressed in milligrams per kilogram per day $(mg/kg/day)^{-1}$ to derive the cancer risk estimate. To calculate the contaminant dose, the following equation was used:

$$Dose_{AIR} = (C_{air} \times EF \times ED \times [BR/BW] \times A \times CF) / AT$$

Where:

$Dose_{AIR}$	=	dose by inhalation (mg/kg/day)
C_{air}	=	concentration of contaminant in air ($\mu g/m^3$)
EF	=	exposure frequency (days/year)
ED	=	exposure duration (years – construction period)
BR/BW	=	daily breathing rate normalized to body weight (L/kg-day)
A	=	inhalation absorption factor (default = 1)
CF	=	conversion factor ($1x10^{-6}$, µg to mg, L to m^3)
AT	=	averaging time (days)

The inhalation absorption factor (A) is a unitless factor that is only used if the cancer potency factor included a correction for absorption across the lung. For this assessment, the default value of 1 was used. The exposure frequency (EF) of 0.96 is used to represent 350 days per year to allow for a two week period away from home each year (OEHHA, 2015). The 95th percentile daily breathing rates (BR/BW), exposure duration (ED), age sensitivity factors (ASFs), and fraction of time at home (FAH) for the various age groups are provided herein:

6. Risk Characterizations

Age Groups	BR/BW (L/kg-day)	ED (2016/2017)	ASF	FAH
Third trimester	361	0.25/na	10	0.85
0-2 age group	1,090	0.25/0.99	10	0.85
2-9 age group	861	0.50/0.99	3	0.72
16-70 age group	290	0.50/0.99	1	0.73

To calculate the overall cancer risk, the risk for each appropriate age group is calculated per the following equation:

$$\text{Cancer Risk}_{\text{AIR}} = \text{Dose}_{\text{AIR}} \times \text{CPF} \times \text{ASF} \times \text{FAH} \times \frac{\text{ED}}{AT}$$

Where:

Dose_{AIR}	=	dose by inhalation (mg/kg-day), per age group
CPF	=	cancer potency factor, chemical-specific $(\text{mg/kg-day})^{-1}$
ASF	=	age sensitivity factor, per age group
FAH	=	fraction of time at home, per age group
ED	=	exposure duration (years)
AT	=	averaging time period over which exposure duration is averaged (always 70 years)

The CPFs used in the assessment were obtained from OEHHA guidance. For DPM, a CPF of 1.1 mg/kg-day^{-1} was used. Additionally, for purposes of this assessment, an FAH factor of 1 was applied for the receptors at the nursing care facility and school daycare.

The excess lifetime cancer risks during the construction period to the maximally exposed resident, in addition to the students at the nearby Sunshine School daycare and patients at the Golden Living Centers – London House Sonoma, were calculated based on the factors provided above. The cancer risks for each age group are summed to estimate the total cancer risk for each toxic chemical species. For purposes of this assessment, the calculated residential cancer risks associated with construction activities are based on the 3rd trimester and 0 to 2 year old age groups. The calculated cancer risks for the nursing home and daycare facilities are based on the 16 to 70 year old and 2 to 9 year old age groups, respectively. The final step converts the cancer risk in scientific notation to a whole number that expresses the cancer risk in "chances per million" by multiplying the cancer risk by a factor of $1\text{x}10^6$ (i.e. 1 million). The calculated results are provided in Appendix C.

6.2 NON-CARCINOGENIC HAZARDS

An evaluation of the potential non-cancer effects of chronic chemical exposures was also conducted. Adverse health effects are evaluated by comparing the annual receptor level (flagpole) concentration of each chemical compound with the appropriate reference exposure limit (REL). Available RELs promulgated by OEHHA were considered in the assessment.

To quantify non-carcinogenic impacts, the hazard index approach was used. The hazard index assumes that chronic sub-threshold exposures adversely affect a specific organ or organ system (toxicological endpoint).

For each discrete chemical exposure, target organs presented in regulatory guidance were used. To calculate the hazard index, each chemical concentration or dose is divided by the appropriate toxicity value. For compounds affecting the same toxicological endpoint, this ratio is summed. Where the total equals or exceeds one, a health hazard is presumed to exist. In a manner consistent with the assessment of carcinogenic exposures, REL/RfC (reference concentration) values were converted to units expressed in mg/kg/day to accommodate the above intake algorithm.

The chronic hazard analysis for DPM is provided in Appendix C. The calculations contain the relevant exposure concentrations and corresponding reference dose values used in the evaluation of non-carcinogenic exposures.

6.3 CRITERIA POLLUTANTS

The BAAQMD has recently incorporated $PM_{2.5}$ into the District's CEQA significance thresholds due to recent studies that show adverse health impacts from exposure to this pollutant. An incremental increase of greater than 0.3 $\mu g/m^3$ for the annual average $PM_{2.5}$ concentration is considered to be a significant impact. The modeling results for $PM_{2.5}$ are summarized in Table 2; the model runs are provided in Appendix B.

6. Risk Characterizations

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7. Conclusions

The residential health risk values are based on the maximum modeled receptor concentration over the construction exposure period, conservatively assuming a 24-hour per day outdoor exposure and averaged over a 70-year lifetime. According to the modeling results and as shown in Figure 1, the MER is the single family residence north of the project site along the south side of Church Street near its terminus. Results of the health risk assessment shown in Table 2 indicate that the maximum incremental cancer risk during the construction phase of the project at the MER is 17 per million (17E-06), which exceeds the significance threshold of 10 per million. The calculated cancer risks for the daycare and the nursing care facility is 1.4 per million (1.4E-06) and less than 1 per million (3E-08), respectively, and do not exceed the 10 per million significance threshold.

For non-carcinogenic effects, the hazard index identified for each toxicological endpoint totaled less than one for the MER, nursing care facility, and daycare. Therefore, chronic non-carcinogenic hazards are within acceptable limits. In addition, the highest $PM_{2.5}$ annual concentrations at each receptor location are less than the BAAQMD significance threshold of 0.3 µg/m^3.

Table 2 Health Risk Assessment Results

Receptor	Cancer Risk (per million)	Chronic Hazard Index	$PM_{2.5}$ (µg/m^3)[1]
Resident (Maximum Exposed Receptor)	17	0.04	0.10
Golden Living Centers – London House Sonoma	0.03	0.002	0.004
Sunnyside School Daycare	1.4	0.01	0.03
BAAQMD Threshold	10	1.0	0.3
Exceeds Threshold	Yes	No	No

Sources: Lakes AERMOD View, 8.9, 2014.
Note:
[1] From year 2016 which represents the highest maximum annual $PM_{2.5}$ concentration.

As the calculated cancer risk at the MER exceeds the 10 per million significance threshold, the following mitigation measure is recommended to minimize risk impacts:

> During construction, the construction contractor shall use construction equipment fitted with Level 3 Diesel Particulate Filters (DPF) for equipment of 50 horsepower or more. The construction contractor shall maintain a list of all operating equipment in use on the project site for verification by the City of Sonoma Building Department official or their designee. The construction equipment list shall state the makes, models, and number of construction equipment onsite. Equipment shall properly service and maintain construction equipment in accordance with the manufacturer's recommendations. The construction contractor shall also ensure that all nonessential idling of construction equipment is

7. Conclusions

restricted to five minutes or less in compliance with CARB Rule 2449. Prior to issuance of any construction permit, the construction contractor shall ensure that all construction plans submitted to the City of Sonoma Planning Department and/or Building Department clearly show the requirement for Level 3 DPF for construction equipment over 50 horsepower.

Tables 3 and 4 show the average daily emission rates and calculated cancer risk at the MER, respectively, with incorporation the mitigation measure.

Table 3 Construction Activity – Average Daily Emission Rates With Mitigation

Parameter – Year	Onsite Emissions (lbs/day)[1]	Total Offsite Emissions (lbs/day)[1]
DPM – 2016	0.42	0.05
$PM_{2.5}$ - 2016	0.53	0.18
DPM – 2017	0.52	0.03
$PM_{2.5}$ - 2017	0.51	0.20

Presented emission rates are average daily emissions.
Source: CalEEMod 2013.2.2.
[1] Accounts for emissions reductions from implementation of mitigation which requires use of Level 3 DPF for construction equipment with a horsepower rating of 50 horsepower or higher.

Table 4 Health Risk Assessment Results – With Mitigation

Receptor	Cancer Risk (per million)	Chronic Hazard Index	$PM_{2.5}$ (μg/m^3)[1]
Resident (Maximum Exposed Individual)	6.8	0.014	0.04
BAAQMD Threshold	10	1.0	0.3
Exceeds Threshold	No	No	No

Sources: Lakes AERMOD View, 8.9, 2015.
Note:
[1] From year 2016 which represents the highest maximum annual $PM_{2.5}$ concentration.

As shown in Table 4, incorporation of mitigation would reduce cancer risk at the MER to 6.8 per million (6.8E-06) and below the 10 per million significance threshold. Overall, the results of this construction health risk assessment indicate that the project would have a less than significant impact with respect to chronic non-carcinogenic hazard impacts and $PM_{2.5}$ emissions for the surrounding sensitive receptors during the 1.5-year construction period. Additionally, with incorporation of mitigation, excess cancer risk impacts would also be less than significant to the nearby sensitive receptors.

7. Conclusions

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8. References

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7. Conclusions

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Appendix A. Emission Rate Calculations

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Construction Emissions - DPM and PM2.5
Input to ISCST3 Model

Onsite Construction Emissions		DPM [1]	$PM_{2.5}$ [2]
2016 Onsite Emissions	Average Daily Emissions (lbs/day)	1.17	1.24
	Average Daily Emissions (lbs/hr)	1.47E-01	1.55E-01
	Emission Rate (g/s)	1.85E-02	1.96E-02
	Modeled Area (acres)	1.30	1.30
	Modeled Area (m^2)	5,268	5,268
	Emission Rate per Area ($g/s/m^2$)	**3.51E-06**	**3.72E-06**
2017 Onsite Emissions	Average Daily Emissions (lbs/day)	1.28	1.24
	Average Daily Emissions (lbs/hr)	1.60E-01	1.54E-01
	Emission Rate (g/s)	2.02E-02	1.95E-02
	Modeled Area (acres)	1.30	1.30
	Modeled Area (m^2)	5,268	5,268
	Emission Rate per Area ($g/s/m^2$)	**3.83E-06**	**3.69E-06**

Note: Emissions assumed to be evenly distributed over entire construction phase area.

Offsite Construction Emissions		DPM [1]	$PM_{2.5}$ [2]
2016 Offsite Emissions	Haul Length Daily Emissions (lbs/day)	0.05	0.19
	Hauling Emissions w/in 1,000 ft (lbs/day) [3]	3.14E-03	1.27E-02
	Emission Rate (lbs/hr)	3.92E-04	1.59E-03
	Emission Rate (g/s)	4.94E-05	2.00E-04
	Number of Sources	25	25
	Emission Rate per Source (g/s/source)	**1.98E-06**	**8.01E-06**
2017 Offsite Emissions	Haul Length Daily Emissions (lbs/day)	0.03	0.21
	Hauling Emissions w/in 1,000 ft (lbs/day) [3]	2.19E-03	1.40E-02
	Emission Rate (lbs/hr)	2.74E-04	1.75E-03
	Emission Rate (g/s)	3.45E-05	2.20E-04
	Number of Sources in ISCST3 Model	25	25
	Emission Rate per Source (g/s/source)	**1.38E-06**	**8.81E-06**

Note: Emissions evenly distributed over 25 modeled volume sources.

	2016	2017
Hours per work day (7:00 AM to 3:00 PM) [4]	8	8
Total calendar days per year	184	363
Residential Risk Scalar [5]	0.50	0.99

	Building Demolition	Asphalt Demolition	Grading
Haul Length (miles)	21	5	5
Number of Haul Trips	45	32	2,485

Proportioned Hauling Length (miles)	**5**
Haul Length within 1,000 ft of Site (mile)	**0.36**

[1] DPM emissions taken as PM_{10} exhaust emissions from CalEEMod average daily emissions.

[2] $PM_{2.5}$ emissions taken as total $PM_{2.5}$ (exhaust and fugitive dust) emissions from CalEEMod average daily emissions.

[3] Emissions from CalEEMod offsite average daily emissions, which is based on haul truck trip distance of 5 miles proportioned to evaluate emissions from the **0.36-**mile route within 1,000 of the project site.

[4] Work hours applied in Season-Hour-Day of the Week (SHRDOW) variable emissions module in ISCST3 model (see App B - ISCST3 Output Files).

[5] Residential risk scalars determined for each year of construction to adjust receptor exposures to the exposure durations for each construction year (see App C - Risk Calculations).

Mitigated Construction Emissions - DPM and PM2.5
Diesel Particulate Filters Level 3 (for equipment > 50 HP)
Input to ISCST3 Model

Onsite Construction Emissions - Mitigated		DPM [1]	$PM_{2.5}$ [2]
2016 Onsite Emissions	Average Daily Emissions (lbs/day)	0.42	0.53
	Average Daily Emissions (lbs/hr)	5.22E-02	6.66E-02
	Emission Rate (g/s)	6.57E-03	8.39E-03
	Modeled Area (acres)	1.30	1.30
	Modeled Area (m^2)	5,268	5,268
	Emission Rate per Area ($g/s/m^2$)	**1.25E-06**	**1.59E-06**
2017 Onsite Emissions	Average Daily Emissions (lbs/day)	0.52	0.51
	Average Daily Emissions (lbs/hr)	6.49E-02	6.40E-02
	Emission Rate (g/s)	8.18E-03	8.06E-03
	Modeled Area (acres)	1.30	1.30
	Modeled Area (m^2)	5,268	5,268
	Emission Rate per Area ($g/s/m^2$)	**1.55E-06**	**1.53E-06**

Note: Emissions assumed to be evenly distributed over entire construction phase area.

Offsite Construction Emissions - Mitigated		DPM [1]	$PM_{2.5}$ [2]
2016 Offsite Emissions	Haul Length Daily Emissions (lbs/day)	0.05	0.18
	Hauling Emissions w/in 1,000 ft (lbs/day) [3]	3.13E-03	1.21E-02
	Emission Rate (lbs/hr)	3.92E-04	1.51E-03
	Emission Rate (g/s)	4.94E-05	1.90E-04
	Number of Sources	25	25
	Emission Rate per Source (g/s/source)	**1.97E-06**	**7.59E-06**
2017 Offsite Emissions	Haul Length Daily Emissions (lbs/day)	0.03	0.20
	Hauling Emissions w/in 1,000 ft (lbs/day) [3]	2.19E-03	1.32E-02
	Emission Rate (lbs/hr)	2.74E-04	1.65E-03
	Emission Rate (g/s)	3.45E-05	2.07E-04
	Number of Sources in ISCST3 Model	25	25
	Emission Rate per Source (g/s/source)	**1.38E-06**	**8.30E-06**

Note: Emissions evenly distributed over 25 modeled volume sources.

	2016	2017
Hours per work day (7:00 AM to 3:00 PM) [4]	8	8
Total calendar days per year	184	363
Residential Risk Scalar [5]	0.50	0.99

	Demolition	Grading
Haul Length (miles)	21	5
Number of Haul Trips	45	2485

Proportioned Hauling Length (miles)	**5**
Haul Length within 1,000 ft of Site (mile)	**0.36**

[1] DPM emissions taken as PM_{10} exhaust emissions from CalEEMod average daily emissions.

[2] $PM_{2.5}$ emissions taken as total $PM_{2.5}$ (exhaust and fugitive dust) emissions from CalEEMod average daily emissions.

[3] Emissions from CalEEMod offsite average daily emissions, which is based on haul truck trip distance of 5 miles proportioned to evaluate emissions from the **0.36-**mile route within 1,000 of the project site.

[4] Work hours applied in Season-Hour-Day of the Week (SHRDOW) variable emissions module in ISCST3 model (see App B - ISCST3 Output Files).

[5] Residential risk scalars determined for each year of construction to adjust receptor exposures to the exposure durations for each construction year (see App C - Risk Calculations).

Criteria Air Pollutant Emissions Summary - Construction

with Best Control Measures for Fugitive Dust

Annual emissions divided by total construction duration to obtain average daily emissions. Average construction emissions accounts for the duration of each construction phase and the time each piece of construction equipment is onsite.

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Total	avg lbs/day	4.44	22.14	21.66	0.03	0.71	1.28	1.99	0.21	1.23	1.4

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Total Onsite	avg lbs/day	3.90	19.44	14.31	0.02	0.09	1.24	1.34	0.04	1.20	1.24
Total Offsite	avg lbs/day	0.54	2.70	7.35	0.01	0.62	0.04	0.66	0.17	0.03	0.20

Annual Average Emissions

	Days	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
2016 Total	131	3.33	22.09	22.44	0.03	0.82	1.22	2.04	0.27	1.16	1.43
2017 Total	260	5.00	22.16	21.26	0.03	0.66	1.31	1.97	0.18	1.26	1.44
Total Days	391										

FOR CONSTRUCTION HRA

Onsite Mit Details

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
2016 Onsite	avg lbs/day	2.65	18.50	12.95	0.02	0.28	1.17	1.45	0.12	1.12	1.24
2017 Onsite	avg lbs/day	4.54	19.91	14.99	0.02	0.00	1.28	1.28	0.00	1.24	1.24

Offsite Mit Details

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
2016 Offsite	avg lbs/day	0.68	3.59	9.49	0.01	0.54	0.05	0.59	0.15	0.04	0.19
2017 Offsite	avg lbs/day	0.47	2.26	6.27	0.01	0.66	0.03	0.69	0.18	0.03	0.21

Criteria Air Pollutant Emissions Summary - Construction with Mitigation

with Best Control Measures for Fugitive Dust

Annual emissions divided by total construction duration to obtain average daily emissions. Average construction emissions accounts for the duration of each construction phase and the time each piece of construction equipment is onsite.

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Total	avg lbs/day	4.44	22.14	21.66	0.03	0.67	0.52	1.19	0.20	0.51	0.71

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Total Onsite	avg lbs/day	3.90	19.44	14.31	0.02	0.09	0.49	0.58	0.04	0.48	0.52
Total Offsite	avg lbs/day	0.54	2.70	7.35	0.01	0.57	0.04	0.61	0.16	0.03	0.19

Annual Average Emissions

	Days	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
2016 Total	131	3.33	22.09	22.44	0.03	0.78	0.46	1.24	0.26	0.45	0.71
2017 Total	260	5.00	22.16	21.26	0.03	0.61	0.55	1.16	0.17	0.54	0.71
Total Days	391										

FOR CONSTRUCTION HRA

	Onsite Mit Details	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
2016 Onsite	avg lbs/day	2.65	18.50	12.95	0.02	0.28	0.42	0.70	0.12	0.41	0.53
2017 Onsite	avg lbs/day	4.54	19.91	14.99	0.02	0.00	0.52	0.52	0.00	0.51	0.51

	Offsite Mit Details	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
2016 Offsite	avg lbs/day	0.68	3.59	9.49	0.01	0.50	0.05	0.55	0.14	0.04	0.18
2017 Offsite	avg lbs/day	0.47	2.26	6.27	0.01	0.61	0.03	0.64	0.17	0.03	0.20

Hotel Project Sonoma

Sonoma-San Francisco County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	37.66	1000sqft	0.00	37,655.00	0
Other Non-Asphalt Surfaces	22.48	1000sqft	0.52	22,483.00	0
Parking Lot	4.48	1000sqft	0.10	4,479.00	0
Hotel	62.00	Room	0.62	67,478.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	75
Climate Zone	4			**Operational Year**	2017
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Project Description - see assumptions

Construction Phase - Applicant provided schedule

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Equipment provided by the Applicant

Off-road Equipment - Haul = no equipment

Off-road Equipment - Equipment provided by the Applicant

Off-road Equipment - Applicant provided construction equipment

Off-road Equipment - Haul = no construction

Off-road Equipment - Assumes use of 1 skid steer loader during finishing and landscaping activities.

Off-road Equipment - Applicant provided construction equipment

Off-road Equipment - Applicant provided construction equipment

Off-road Equipment -

Off-road Equipment - Haul = no equipment

Off-road Equipment - Applicant provided construction equipment

Trips and VMT - Trips based on size of the haul trucks. Water Trucks added as vendor trips. Haul length provided by Applicant.

Demolition -

Grading -

Architectural Coating - Modified = parking structure not painted. Reduced painting area provided by the Applicant/Architect

Vehicle Trips - trip rates provided by WTrans

Area Coating -

Energy Use - Hotel energy use is based on calculations provided by the Applicant and includes reductions from the most recent T24.

Water And Wastewater - Water Demand from the Basis of Design Report. 100% treated wastewater

Construction Off-road Equipment Mitigation - BAAQMD Best Management Practices

Energy Mitigation - 2013 Title 24 is 30% high for non-residential (included in base calcs not mitigated scenario). Includes Renewable Energy but unknown kwh generated

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	63,875.00	6,748.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	191,626.00	73,111.00
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9
tblConstructionPhase	NumDays	10.00	44.00

tblConstructionPhase	NumDays	200.00	32.00
tblConstructionPhase	NumDays	200.00	347.00
tblConstructionPhase	NumDays	20.00	21.00
tblConstructionPhase	NumDays	20.00	5.00
tblConstructionPhase	NumDays	20.00	2.00
tblConstructionPhase	NumDays	4.00	5.00
tblConstructionPhase	NumDays	4.00	5.00
tblConstructionPhase	NumDays	4.00	45.00
tblConstructionPhase	NumDays	10.00	7.00
tblConstructionPhase	NumDays	2.00	12.00
tblConstructionPhase	NumDays	2.00	20.00
tblConstructionPhase	PhaseEndDate	3/21/2017	10/26/2017
tblConstructionPhase	PhaseEndDate	12/13/2017	12/26/2017
tblConstructionPhase	PhaseEndDate	1/29/2018	12/29/2017
tblConstructionPhase	PhaseEndDate	8/5/2016	7/7/2016
tblConstructionPhase	PhaseEndDate	7/11/2016	7/25/2016
tblConstructionPhase	PhaseEndDate	11/2/2017	10/20/2017
tblConstructionPhase	PhaseEndDate	10/27/2017	10/20/2017
tblConstructionPhase	PhaseEndDate	10/27/2016	9/29/2016
tblConstructionPhase	PhaseEndDate	10/31/2017	10/30/2017
tblConstructionPhase	PhaseEndDate	8/10/2016	8/15/2016
tblConstructionPhase	PhaseEndDate	9/12/2016	8/25/2016
tblConstructionPhase	PhaseEndDate	1/31/2018	1/18/2017
tblConstructionPhase	PhaseStartDate	1/19/2017	8/28/2017
tblConstructionPhase	PhaseStartDate	10/31/2017	11/12/2017
tblConstructionPhase	PhaseStartDate	9/30/2016	9/1/2016
tblConstructionPhase	PhaseStartDate	7/30/2016	7/1/2016

tblConstructionPhase	PhaseStartDate	7/8/2016	7/22/2016
tblConstructionPhase	PhaseStartDate	10/27/2017	10/15/2017
tblConstructionPhase	PhaseStartDate	10/21/2017	10/15/2017
tblConstructionPhase	PhaseStartDate	8/26/2016	7/29/2016
tblConstructionPhase	PhaseStartDate	10/21/2017	10/20/2017
tblConstructionPhase	PhaseStartDate	7/26/2016	7/29/2016
tblConstructionPhase	PhaseStartDate	8/16/2016	7/29/2016
tblConstructionPhase	PhaseStartDate	12/30/2017	12/18/2016
tblEnergyUse	LightingElect	2.72	6.17
tblEnergyUse	NT24E	3.22	5.83
tblEnergyUse	T24E	2.50	6.18
tblEnergyUse	T24NG	41.63	29.10
tblGrading	MaterialExported	0.00	16,000.00
tblGrading	MaterialImported	0.00	148.00
tblLandUse	LandUseSquareFeet	37,660.00	37,655.00
tblLandUse	LandUseSquareFeet	22,480.00	22,483.00
tblLandUse	LandUseSquareFeet	4,480.00	4,479.00
tblLandUse	LandUseSquareFeet	90,024.00	67,478.00
tblLandUse	LotAcreage	0.86	0.00
tblLandUse	LotAcreage	2.07	0.62
tblOffRoadEquipment	HorsePower	125.00	121.00
tblOffRoadEquipment	HorsePower	80.00	33.00
tblOffRoadEquipment	HorsePower	162.00	132.00
tblOffRoadEquipment	HorsePower	162.00	132.00
tblOffRoadEquipment	HorsePower	162.00	55.00
tblOffRoadEquipment	HorsePower	199.00	154.00
tblOffRoadEquipment	HorsePower	199.00	154.00

tblOffRoadEquipment	HorsePower	97.00	70.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	UsageHours	6.00	4.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblProjectCharacteristics	OperationalYear	2014	2017
tblTripsAndVMT	HaulingTripLength	20.00	5.00
tblTripsAndVMT	HaulingTripLength	20.00	21.00
tblTripsAndVMT	HaulingTripLength	20.00	5.00
tblTripsAndVMT	HaulingTripLength	20.00	5.00
tblTripsAndVMT	HaulingTripNumber	19.00	23.00
tblTripsAndVMT	HaulingTripNumber	44.00	45.00
tblTripsAndVMT	HaulingTripNumber	20.00	32.00
tblTripsAndVMT	HaulingTripNumber	2,000.00	2,462.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	22.00	0.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	WorkerTripNumber	55.00	0.00
tblVehicleTrips	SU_TR	5.95	8.19
tblWater	IndoorWaterUseRate	1,572,739.74	5,400,000.00
tblWater	OutdoorWaterUseRate	174,748.86	66,000.00

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					
2016	0.2181	1.4470	1.4698	2.0000e-003	0.0780	0.0799	0.1579	0.0285	0.0762	0.1046	0.0000	171.8549	171.8549	0.0267	0.0000	172.4150
2017	0.6504	2.8814	2.7637	4.4700e-003	0.0855	0.1707	0.2562	0.0231	0.1644	0.1876	0.0000	370.7615	370.7615	0.0565	0.0000	371.9477
Total	**0.8685**	**4.3284**	**4.2335**	**6.4700e-003**	**0.1635**	**0.2506**	**0.4140**	**0.0516**	**0.2406**	**0.2922**	**0.0000**	**542.6164**	**542.6164**	**0.0832**	**0.0000**	**544.3627**

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					
2016	0.2181	1.4470	1.4698	2.0000e-003	0.0535	0.0799	0.1334	0.0177	0.0762	0.0938	0.0000	171.8548	171.8548	0.0267	0.0000	172.4148
2017	0.6504	2.8814	2.7637	4.4700e-003	0.0855	0.1707	0.2562	0.0231	0.1644	0.1876	0.0000	370.7612	370.7612	0.0565	0.0000	371.9474
Total	**0.8685**	**4.3284**	**4.2335**	**6.4700e-003**	**0.1390**	**0.2506**	**0.3896**	**0.0408**	**0.2406**	**0.2814**	**0.0000**	**542.6160**	**542.6160**	**0.0832**	**0.0000**	**544.3622**

	ROG	**NOx**	**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**	**14.96**	**0.00**	**5.91**	**20.98**	**0.00**	**3.71**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition_Buildings	Demolition	7/1/2016	7/29/2016	5	21	
2	Demolition_BuildingHaul	Demolition	7/1/2016	7/7/2016	5	5	
3	Demolition_AsphaltHaul	Demolition	7/22/2016	7/25/2016	5	2	
4	Site Preparation	Site Preparation	7/29/2016	8/15/2016	5	12	
5	Site Preparation Haul	Site Preparation	7/29/2016	8/25/2016	5	20	
6	Rough Grading	Grading	7/29/2016	9/29/2016	5	45	
7	Building Construction	Building Construction	9/1/2016	12/29/2017	5	347	
8	Trenching	Trenching	12/18/2016	1/18/2017	5	23	
9	Architectural Coating	Architectural Coating	8/28/2017	10/26/2017	5	44	
10	Fine Grading	Grading	10/15/2017	10/20/2017	5	5	
11	Fine Grading Haul	Grading	10/15/2017	10/20/2017	5	5	
12	Paving	Paving	10/20/2017	10/30/2017	5	7	
13	Finishing and Landscaping	Building Construction	11/12/2017	12/26/2017	5	32	

Acres of Grading (Site Preparation Phase): 6

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 73,111; Non-Residential Outdoor: 6,748 (Architectural Coating –

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition_Buildings	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition_Buildings	Excavators	1	8.00	132	0.38
Demolition_Buildings	Rubber Tired Dozers	0	8.00	255	0.40
Demolition_Buildings	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Demolition_BuildingHaul	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition_BuildingHaul	Rubber Tired Dozers	0	8.00	255	0.40
Demolition_BuildingHaul	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Demolition_AsphaltHaul	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition_AsphaltHaul	Excavators	1	8.00	132	0.38
Demolition_AsphaltHaul	Rubber Tired Dozers	0	8.00	255	0.40
Demolition_AsphaltHaul	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Graders	1	8.00	174	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation Haul	Graders	0	8.00	174	0.41
Site Preparation Haul	Rubber Tired Dozers	0	7.00	255	0.40
Site Preparation Haul	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Rough Grading	Graders	0	6.00	174	0.41
Rough Grading	Rubber Tired Dozers	0	6.00	255	0.40
Rough Grading	Rubber Tired Loaders	1	7.10	154	0.36
Rough Grading	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Building Construction	Cranes	1	6.00	226	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37

Building Construction	Welders	3	8.00	46	0.45
Trenching	Excavators	1	4.00	55	0.38
Trenching	Tractors/Loaders/Backhoes	1	4.00	70	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48
Fine Grading	Graders	0	6.00	174	0.41
Fine Grading	Rubber Tired Dozers	0	6.00	255	0.40
Fine Grading	Rubber Tired Loaders	1	8.00	154	0.36
Fine Grading	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Fine Grading Haul	Graders	0	6.00	174	0.41
Fine Grading Haul	Rubber Tired Dozers	0	6.00	255	0.40
Fine Grading Haul	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Paving	Cement and Mortar Mixers	0	6.00	9	0.56
Paving	Pavers	1	4.00	121	0.42
Paving	Paving Equipment	0	8.00	130	0.36
Paving	Rollers	1	4.00	33	0.38
Paving	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Finishing and Landscaping	Cranes	0	6.00	226	0.29
Finishing and Landscaping	Forklifts	0	6.00	89	0.20
Finishing and Landscaping	Generator Sets	0	8.00	84	0.74
Finishing and Landscaping	Skid Steer Loaders	1	8.00	64	0.37
Finishing and Landscaping	Tractors/Loaders/Backhoes	0	6.00	97	0.37
Finishing and Landscaping	Welders	0	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition_Buildings	1	3.00	4.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition_BuildingHaul	0	0.00	0.00	45.00	12.40	7.30	21.00	LD_Mix	HDT_Mix	HHDT
Demolition_AsphaltHaul	1	3.00	0.00	32.00	12.40	7.30	5.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	4.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation Haul	0	0.00	0.00	2,462.00	12.40	7.30	5.00	LD_Mix	HDT_Mix	HHDT
Rough Grading	1	3.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	55.00	22.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	2	5.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	11.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Fine Grading	1	3.00	4.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Fine Grading Haul	0	0.00	0.00	23.00	12.40	7.30	5.00	LD_Mix	HDT_Mix	HHDT
Paving	2	5.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Finishing and Landscaping	1	0.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition_Buildings - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.3200e-003	0.0379	0.0293	5.0000e-005		1.8700e-003	1.8700e-003		1.7200e-003	1.7200e-003	0.0000	4.2682	4.2682	1.2900e-003	0.0000	4.2952
Total	**3.3200e-003**	**0.0379**	**0.0293**	**5.0000e-005**		**1.8700e-003**	**1.8700e-003**		**1.7200e-003**	**1.7200e-003**	**0.0000**	**4.2682**	**4.2682**	**1.2900e-003**	**0.0000**	**4.2952**

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	5.6000e-004	4.1400e-003	7.0100e-003	1.0000e-005	2.7000e-004	6.0000e-005	3.3000e-004	8.0000e-005	6.0000e-005	1.3000e-004	0.0000	0.8963	0.8963	1.0000e-005	0.0000	0.8965
Worker	1.3000e-004	1.8000e-004	1.8100e-003	0.0000	2.8000e-004	0.0000	2.9000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2577	0.2577	1.0000e-005	0.0000	0.2580
Total	**6.9000e-004**	**4.3200e-003**	**8.8200e-003**	**1.0000e-005**	**5.5000e-004**	**6.0000e-005**	**6.2000e-004**	**1.6000e-004**	**6.0000e-005**	**2.1000e-004**	**0.0000**	**1.1540**	**1.1540**	**2.0000e-005**	**0.0000**	**1.1545**

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	3.3200e-003	0.0379	0.0293	5.0000e-005		1.8700e-003	1.8700e-003		1.7200e-003	1.7200e-003	0.0000	4.2682	4.2682	1.2900e-003	0.0000	4.2952
Total	**3.3200e-003**	**0.0379**	**0.0293**	**5.0000e-005**		**1.8700e-003**	**1.8700e-003**		**1.7200e-003**	**1.7200e-003**	**0.0000**	**4.2682**	**4.2682**	**1.2900e-003**	**0.0000**	**4.2952**

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	5.6000e-004	4.1400e-003	7.0100e-003	1.0000e-005	2.7000e-004	6.0000e-005	3.3000e-004	8.0000e-005	6.0000e-005	1.3000e-004	0.0000	0.8963	0.8963	1.0000e-005	0.0000	0.8965
Worker	1.3000e-004	1.8000e-004	1.8100e-003	0.0000	2.8000e-004	0.0000	2.9000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2577	0.2577	1.0000e-005	0.0000	0.2580
Total	**6.9000e-004**	**4.3200e-003**	**8.8200e-003**	**1.0000e-005**	**5.5000e-004**	**6.0000e-005**	**6.2000e-004**	**1.6000e-004**	**6.0000e-005**	**2.1000e-004**	**0.0000**	**1.1540**	**1.1540**	**2.0000e-005**	**0.0000**	**1.1545**

3.3 Demolition_BuildingHaul - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					4.8100e-003	0.0000	4.8100e-003	7.3000e-004	0.0000	7.3000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**4.8100e-003**	**0.0000**	**4.8100e-003**	**7.3000e-004**	**0.0000**	**7.3000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	5.6000e-004	6.9600e-003	7.3700e-003	2.0000e-005	3.9000e-004	9.0000e-005	4.8000e-004	1.1000e-004	8.0000e-005	1.9000e-004	0.0000	1.5816	1.5816	1.0000e-005	0.0000	1.5819
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**5.6000e-004**	**6.9600e-003**	**7.3700e-003**	**2.0000e-005**	**3.9000e-004**	**9.0000e-005**	**4.8000e-004**	**1.1000e-004**	**8.0000e-005**	**1.9000e-004**	**0.0000**	**1.5816**	**1.5816**	**1.0000e-005**	**0.0000**	**1.5819**

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					2.0600e-003	0.0000	2.0600e-003	3.1000e-004	0.0000	3.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**2.0600e-003**	**0.0000**	**2.0600e-003**	**3.1000e-004**	**0.0000**	**3.1000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	5.6000e-004	6.9600e-003	7.3700e-003	2.0000e-005	3.9000e-004	9.0000e-005	4.8000e-004	1.1000e-004	8.0000e-005	1.9000e-004	0.0000	1.5816	1.5816	1.0000e-005	0.0000	1.5819
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**5.6000e-004**	**6.9600e-003**	**7.3700e-003**	**2.0000e-005**	**3.9000e-004**	**9.0000e-005**	**4.8000e-004**	**1.1000e-004**	**8.0000e-005**	**1.9000e-004**	**0.0000**	**1.5816**	**1.5816**	**1.0000e-005**	**0.0000**	**1.5819**

3.4 Demolition_AsphaltHaul - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.1900e-003	0.0000	2.1900e-003	3.3000e-004	0.0000	3.3000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.2000e-004	3.6100e-003	2.7900e-003	0.0000		1.8000e-004	1.8000e-004		1.6000e-004	1.6000e-004	0.0000	0.4065	0.4065	1.2000e-004	0.0000	0.4091
Total	**3.2000e-004**	**3.6100e-003**	**2.7900e-003**	**0.0000**	**2.1900e-003**	**1.8000e-004**	**2.3700e-003**	**3.3000e-004**	**1.6000e-004**	**4.9000e-004**	**0.0000**	**0.4065**	**0.4065**	**1.2000e-004**	**0.0000**	**0.4091**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.5000e-004	1.4400e-003	3.8000e-003	0.0000	7.0000e-005	2.0000e-005	8.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.2873	0.2873	0.0000	0.0000	0.2874
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	1.0000e-005	2.0000e-005	1.7000e-004	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0246	0.0246	0.0000	0.0000	0.0246
Total	**2.6000e-004**	**1.4600e-003**	**3.9700e-003**	**0.0000**	**1.0000e-004**	**2.0000e-005**	**1.1000e-004**	**3.0000e-005**	**1.0000e-005**	**4.0000e-005**	**0.0000**	**0.3119**	**0.3119**	**0.0000**	**0.0000**	**0.3119**

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					9.4000e-004	0.0000	9.4000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.2000e-004	3.6100e-003	2.7900e-003	0.0000		1.8000e-004	1.8000e-004		1.6000e-004	1.6000e-004	0.0000	0.4065	0.4065	1.2000e-004	0.0000	0.4091
Total	**3.2000e-004**	**3.6100e-003**	**2.7900e-003**	**0.0000**	**9.4000e-004**	**1.8000e-004**	**1.1200e-003**	**1.4000e-004**	**1.6000e-004**	**3.0000e-004**	**0.0000**	**0.4065**	**0.4065**	**1.2000e-004**	**0.0000**	**0.4091**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.5000e-004	1.4400e-003	3.8000e-003	0.0000	7.0000e-005	2.0000e-005	8.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.2873	0.2873	0.0000	0.0000	0.2874
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	1.0000e-005	2.0000e-005	1.7000e-004	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0246	0.0246	0.0000	0.0000	0.0246
Total	**2.6000e-004**	**1.4600e-003**	**3.9700e-003**	**0.0000**	**1.0000e-004**	**2.0000e-005**	**1.1000e-004**	**3.0000e-005**	**1.0000e-005**	**4.0000e-005**	**0.0000**	**0.3119**	**0.3119**	**0.0000**	**0.0000**	**0.3119**

3.5 Site Preparation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0348	0.0000	0.0348	0.0177	0.0000	0.0177	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0147	0.1546	0.0991	1.0000e-004		8.3900e-003	8.3900e-003		7.7200e-003	7.7200e-003	0.0000	9.6947	9.6947	2.9200e-003	0.0000	9.7561
Total	**0.0147**	**0.1546**	**0.0991**	**1.0000e-004**	**0.0348**	**8.3900e-003**	**0.0432**	**0.0177**	**7.7200e-003**	**0.0254**	**0.0000**	**9.6947**	**9.6947**	**2.9200e-003**	**0.0000**	**9.7561**

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	3.2000e-004	2.3700e-003	4.0100e-003	1.0000e-005	1.5000e-004	4.0000e-005	1.9000e-004	4.0000e-005	3.0000e-005	8.0000e-005	0.0000	0.5122	0.5122	0.0000	0.0000	0.5123
Worker	2.0000e-004	2.8000e-004	2.7600e-003	1.0000e-005	4.3000e-004	0.0000	4.4000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.3927	0.3927	2.0000e-005	0.0000	0.3932
Total	**5.2000e-004**	**2.6500e-003**	**6.7700e-003**	**2.0000e-005**	**5.8000e-004**	**4.0000e-005**	**6.3000e-004**	**1.6000e-004**	**3.0000e-005**	**2.0000e-004**	**0.0000**	**0.9049**	**0.9049**	**2.0000e-005**	**0.0000**	**0.9055**

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					0.0149	0.0000	0.0149	7.5800e-003	0.0000	7.5800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0147	0.1546	0.0991	1.0000e-004		8.3900e-003	8.3900e-003		7.7200e-003	7.7200e-003	0.0000	9.6946	9.6946	2.9200e-003	0.0000	9.7561
Total	**0.0147**	**0.1546**	**0.0991**	**1.0000e-004**	**0.0149**	**8.3900e-003**	**0.0233**	**7.5800e-003**	**7.7200e-003**	**0.0153**	**0.0000**	**9.6946**	**9.6946**	**2.9200e-003**	**0.0000**	**9.7561**

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	3.2000e-004	2.3700e-003	4.0100e-003	1.0000e-005	1.5000e-004	4.0000e-005	1.9000e-004	4.0000e-005	3.0000e-005	8.0000e-005	0.0000	0.5122	0.5122	0.0000	0.0000	0.5123
Worker	2.0000e-004	2.8000e-004	2.7600e-003	1.0000e-005	4.3000e-004	0.0000	4.4000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.3927	0.3927	2.0000e-005	0.0000	0.3932
Total	**5.2000e-004**	**2.6500e-003**	**6.7700e-003**	**2.0000e-005**	**5.8000e-004**	**4.0000e-005**	**6.3000e-004**	**1.6000e-004**	**3.0000e-005**	**2.0000e-004**	**0.0000**	**0.9049**	**0.9049**	**2.0000e-005**	**0.0000**	**0.9055**

3.6 Site Preparation Haul - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					9.0000e-004	0.0000	9.0000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**9.0000e-004**	**0.0000**	**9.0000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.0191	0.1107	0.2920	2.5000e-004	5.1500e-003	1.2200e-003	6.3600e-003	1.4200e-003	1.1200e-003	2.5300e-003	0.0000	22.1046	22.1046	2.0000e-004	0.0000	22.1087
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0191**	**0.1107**	**0.2920**	**2.5000e-004**	**5.1500e-003**	**1.2200e-003**	**6.3600e-003**	**1.4200e-003**	**1.1200e-003**	**2.5300e-003**	**0.0000**	**22.1046**	**22.1046**	**2.0000e-004**	**0.0000**	**22.1087**

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					3.9000e-004	0.0000	3.9000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**3.9000e-004**	**0.0000**	**3.9000e-004**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.0191	0.1107	0.2920	2.5000e-004	5.1500e-003	1.2200e-003	6.3600e-003	1.4200e-003	1.1200e-003	2.5300e-003	0.0000	22.1046	22.1046	2.0000e-004	0.0000	22.1087
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0191**	**0.1107**	**0.2920**	**2.5000e-004**	**5.1500e-003**	**1.2200e-003**	**6.3600e-003**	**1.4200e-003**	**1.1200e-003**	**2.5300e-003**	**0.0000**	**22.1046**	**22.1046**	**2.0000e-004**	**0.0000**	**22.1087**

3.7 Rough Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0110	0.1118	0.0696	9.0000e-005		6.2300e-003	6.2300e-003		5.7400e-003	5.7400e-003	0.0000	8.9474	8.9474	2.7000e-003	0.0000	9.0041
Total	**0.0110**	**0.1118**	**0.0696**	**9.0000e-005**	**0.0000**	**6.2300e-003**	**6.2300e-003**	**0.0000**	**5.7400e-003**	**5.7400e-003**	**0.0000**	**8.9474**	**8.9474**	**2.7000e-003**	**0.0000**	**9.0041**

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	2.9000e-004	4.0000e-004	3.8800e-003	1.0000e-005	6.1000e-004	1.0000e-005	6.1000e-004	1.6000e-004	1.0000e-005	1.7000e-004	0.0000	0.5523	0.5523	3.0000e-005	0.0000	0.5530
Total	**2.9000e-004**	**4.0000e-004**	**3.8800e-003**	**1.0000e-005**	**6.1000e-004**	**1.0000e-005**	**6.1000e-004**	**1.6000e-004**	**1.0000e-005**	**1.7000e-004**	**0.0000**	**0.5523**	**0.5523**	**3.0000e-005**	**0.0000**	**0.5530**

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0110	0.1118	0.0696	9.0000e-005		6.2300e-003	6.2300e-003		5.7400e-003	5.7400e-003	0.0000	8.9474	8.9474	2.7000e-003	0.0000	9.0041
Total	**0.0110**	**0.1118**	**0.0696**	**9.0000e-005**	**0.0000**	**6.2300e-003**	**6.2300e-003**	**0.0000**	**5.7400e-003**	**5.7400e-003**	**0.0000**	**8.9474**	**8.9474**	**2.7000e-003**	**0.0000**	**9.0041**

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	2.9000e-004	4.0000e-004	3.8800e-003	1.0000e-005	6.1000e-004	1.0000e-005	6.1000e-004	1.6000e-004	1.0000e-005	1.7000e-004	0.0000	0.5523	0.5523	3.0000e-005	0.0000	0.5530
Total	**2.9000e-004**	**4.0000e-004**	**3.8800e-003**	**1.0000e-005**	**6.1000e-004**	**1.0000e-005**	**6.1000e-004**	**1.6000e-004**	**1.0000e-005**	**1.7000e-004**	**0.0000**	**0.5523**	**0.5523**	**3.0000e-005**	**0.0000**	**0.5530**

3.8 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1432	0.8937	0.6398	9.5000e-004		0.0594	0.0594		0.0573	0.0573	0.0000	80.7776	80.7776	0.0178	0.0000	81.1504
Total	**0.1432**	**0.8937**	**0.6398**	**9.5000e-004**		**0.0594**	**0.0594**		**0.0573**	**0.0573**	**0.0000**	**80.7776**	**80.7776**	**0.0178**	**0.0000**	**81.1504**

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	0.0129	0.0944	0.1597	2.3000e-004	6.1100e-003	1.4100e-003	7.5200e-003	1.7500e-003	1.2900e-003	3.0500e-003	0.0000	20.4229	20.4229	1.6000e-004	0.0000	20.4263
Worker	0.0102	0.0140	0.1375	2.6000e-004	0.0216	2.0000e-004	0.0218	5.7400e-003	1.8000e-004	5.9200e-003	0.0000	19.5753	19.5753	1.1300e-003	0.0000	19.5990
Total	**0.0231**	**0.1085**	**0.2973**	**4.9000e-004**	**0.0277**	**1.6100e-003**	**0.0293**	**7.4900e-003**	**1.4700e-003**	**8.9700e-003**	**0.0000**	**39.9982**	**39.9982**	**1.2900e-003**	**0.0000**	**40.0253**

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	0.1432	0.8937	0.6398	9.5000e-004		0.0594	0.0594		0.0573	0.0573	0.0000	80.7775	80.7775	0.0178	0.0000	81.1503
Total	**0.1432**	**0.8937**	**0.6398**	**9.5000e-004**		**0.0594**	**0.0594**		**0.0573**	**0.0573**	**0.0000**	**80.7775**	**80.7775**	**0.0178**	**0.0000**	**81.1503**

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	0.0129	0.0944	0.1597	2.3000e-004	6.1100e-003	1.4100e-003	7.5200e-003	1.7500e-003	1.2900e-003	3.0500e-003	0.0000	20.4229	20.4229	1.6000e-004	0.0000	20.4263
Worker	0.0102	0.0140	0.1375	2.6000e-004	0.0216	2.0000e-004	0.0218	5.7400e-003	1.8000e-004	5.9200e-003	0.0000	19.5753	19.5753	1.1300e-003	0.0000	19.5990
Total	**0.0231**	**0.1085**	**0.2973**	**4.9000e-004**	**0.0277**	**1.6100e-003**	**0.0293**	**7.4900e-003**	**1.4700e-003**	**8.9700e-003**	**0.0000**	**39.9982**	**39.9982**	**1.2900e-003**	**0.0000**	**40.0253**

3.8 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3841	2.4842	1.8604	2.8500e-003		0.1593	0.1593		0.1537	0.1537	0.0000	239.9115	239.9115	0.0503	0.0000	240.9686
Total	**0.3841**	**2.4842**	**1.8604**	**2.8500e-003**		**0.1593**	**0.1593**		**0.1537**	**0.1537**	**0.0000**	**239.9115**	**239.9115**	**0.0503**	**0.0000**	**240.9686**

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	0.0327	0.2528	0.4356	6.7000e-004	0.0183	3.6300e-003	0.0219	5.2400e-003	3.3400e-003	8.5800e-003	0.0000	59.9635	59.9635	4.6000e-004	0.0000	59.9732
Worker	0.0266	0.0371	0.3599	7.7000e-004	0.0644	5.6000e-004	0.0650	0.0171	5.1000e-004	0.0177	0.0000	56.2583	56.2583	3.0500e-003	0.0000	56.3222
Total	**0.0593**	**0.2899**	**0.7955**	**1.4400e-003**	**0.0827**	**4.1900e-003**	**0.0869**	**0.0224**	**3.8500e-003**	**0.0262**	**0.0000**	**116.2217**	**116.2217**	**3.5100e-003**	**0.0000**	**116.2954**

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	0.3841	2.4841	1.8604	2.8500e-003		0.1593	0.1593		0.1537	0.1537	0.0000	239.9112	239.9112	0.0503	0.0000	240.9684
Total	**0.3841**	**2.4841**	**1.8604**	**2.8500e-003**		**0.1593**	**0.1593**		**0.1537**	**0.1537**	**0.0000**	**239.9112**	**239.9112**	**0.0503**	**0.0000**	**240.9684**

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	0.0327	0.2528	0.4356	6.7000e-004	0.0183	3.6300e-003	0.0219	5.2400e-003	3.3400e-003	8.5800e-003	0.0000	59.9635	59.9635	4.6000e-004	0.0000	59.9732
Worker	0.0266	0.0371	0.3599	7.7000e-004	0.0644	5.6000e-004	0.0650	0.0171	5.1000e-004	0.0177	0.0000	56.2583	56.2583	3.0500e-003	0.0000	56.3222
Total	**0.0593**	**0.2899**	**0.7955**	**1.4400e-003**	**0.0827**	**4.1900e-003**	**0.0869**	**0.0224**	**3.8500e-003**	**0.0262**	**0.0000**	**116.2217**	**116.2217**	**3.5100e-003**	**0.0000**	**116.2954**

3.9 Trenching - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.0500e-003	0.0102	7.7300e-003	1.0000e-005		7.7000e-004	7.7000e-004		7.1000e-004	7.1000e-004	0.0000	0.9486	0.9486	2.9000e-004	0.0000	0.9546
Total	**1.0500e-003**	**0.0102**	**7.7300e-003**	**1.0000e-005**		**7.7000e-004**	**7.7000e-004**		**7.1000e-004**	**7.1000e-004**	**0.0000**	**0.9486**	**0.9486**	**2.9000e-004**	**0.0000**	**0.9546**

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	1.1000e-004	1.5000e-004	1.4400e-003	0.0000	2.3000e-004	0.0000	2.3000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.2046	0.2046	1.0000e-005	0.0000	0.2048
Total	**1.1000e-004**	**1.5000e-004**	**1.4400e-003**	**0.0000**	**2.3000e-004**	**0.0000**	**2.3000e-004**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**0.0000**	**0.2046**	**0.2046**	**1.0000e-005**	**0.0000**	**0.2048**

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	1.0500e-003	0.0102	7.7300e-003	1.0000e-005		7.7000e-004	7.7000e-004		7.1000e-004	7.1000e-004	0.0000	0.9486	0.9486	2.9000e-004	0.0000	0.9546
Total	**1.0500e-003**	**0.0102**	**7.7300e-003**	**1.0000e-005**		**7.7000e-004**	**7.7000e-004**		**7.1000e-004**	**7.1000e-004**	**0.0000**	**0.9486**	**0.9486**	**2.9000e-004**	**0.0000**	**0.9546**

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	1.1000e-004	1.5000e-004	1.4400e-003	0.0000	2.3000e-004	0.0000	2.3000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.2046	0.2046	1.0000e-005	0.0000	0.2048
Total	**1.1000e-004**	**1.5000e-004**	**1.4400e-003**	**0.0000**	**2.3000e-004**	**0.0000**	**2.3000e-004**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**0.0000**	**0.2046**	**0.2046**	**1.0000e-005**	**0.0000**	**0.2048**

3.9 Trenching - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.2700e-003	0.0124	9.9700e-003	1.0000e-005		9.1000e-004	9.1000e-004		8.4000e-004	8.4000e-004	0.0000	1.2134	1.2134	3.7000e-004	0.0000	1.2212
Total	**1.2700e-003**	**0.0124**	**9.9700e-003**	**1.0000e-005**		**9.1000e-004**	**9.1000e-004**		**8.4000e-004**	**8.4000e-004**	**0.0000**	**1.2134**	**1.2134**	**3.7000e-004**	**0.0000**	**1.2212**

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	1.2000e-004	1.7000e-004	1.6400e-003	0.0000	2.9000e-004	0.0000	3.0000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2557	0.2557	1.0000e-005	0.0000	0.2560
Total	**1.2000e-004**	**1.7000e-004**	**1.6400e-003**	**0.0000**	**2.9000e-004**	**0.0000**	**3.0000e-004**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**0.0000**	**0.2557**	**0.2557**	**1.0000e-005**	**0.0000**	**0.2560**

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	1.2700e-003	0.0124	9.9700e-003	1.0000e-005		9.1000e-004	9.1000e-004		8.4000e-004	8.4000e-004	0.0000	1.2134	1.2134	3.7000e-004	0.0000	1.2212
Total	**1.2700e-003**	**0.0124**	**9.9700e-003**	**1.0000e-005**		**9.1000e-004**	**9.1000e-004**		**8.4000e-004**	**8.4000e-004**	**0.0000**	**1.2134**	**1.2134**	**3.7000e-004**	**0.0000**	**1.2212**

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	1.2000e-004	1.7000e-004	1.6400e-003	0.0000	2.9000e-004	0.0000	3.0000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2557	0.2557	1.0000e-005	0.0000	0.2560
Total	**1.2000e-004**	**1.7000e-004**	**1.6400e-003**	**0.0000**	**2.9000e-004**	**0.0000**	**3.0000e-004**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**0.0000**	**0.2557**	**0.2557**	**1.0000e-005**	**0.0000**	**0.2560**

3.10 Architectural Coating - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1929					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.3100e-003	0.0481	0.0411	7.0000e-005		3.8100e-003	3.8100e-003		3.8100e-003	3.8100e-003	0.0000	5.6172	5.6172	5.9000e-004	0.0000	5.6296
Total	**0.2002**	**0.0481**	**0.0411**	**7.0000e-005**		**3.8100e-003**	**3.8100e-003**		**3.8100e-003**	**3.8100e-003**	**0.0000**	**5.6172**	**5.6172**	**5.9000e-004**	**0.0000**	**5.6296**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0000e-004	1.2600e-003	0.0122	3.0000e-005	2.1800e-003	2.0000e-005	2.2000e-003	5.8000e-004	2.0000e-005	6.0000e-004	0.0000	1.9041	1.9041	1.0000e-004	0.0000	1.9063
Total	**9.0000e-004**	**1.2600e-003**	**0.0122**	**3.0000e-005**	**2.1800e-003**	**2.0000e-005**	**2.2000e-003**	**5.8000e-004**	**2.0000e-005**	**6.0000e-004**	**0.0000**	**1.9041**	**1.9041**	**1.0000e-004**	**0.0000**	**1.9063**

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	0.1929					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.3100e-003	0.0481	0.0411	7.0000e-005		3.8100e-003	3.8100e-003		3.8100e-003	3.8100e-003	0.0000	5.6172	5.6172	5.9000e-004	0.0000	5.6296
Total	**0.2002**	**0.0481**	**0.0411**	**7.0000e-005**		**3.8100e-003**	**3.8100e-003**		**3.8100e-003**	**3.8100e-003**	**0.0000**	**5.6172**	**5.6172**	**5.9000e-004**	**0.0000**	**5.6296**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0000e-004	1.2600e-003	0.0122	3.0000e-005	2.1800e-003	2.0000e-005	2.2000e-003	5.8000e-004	2.0000e-005	6.0000e-004	0.0000	1.9041	1.9041	1.0000e-004	0.0000	1.9063
Total	**9.0000e-004**	**1.2600e-003**	**0.0122**	**3.0000e-005**	**2.1800e-003**	**2.0000e-005**	**2.2000e-003**	**5.8000e-004**	**2.0000e-005**	**6.0000e-004**	**0.0000**	**1.9041**	**1.9041**	**1.0000e-004**	**0.0000**	**1.9063**

3.11 Fine Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.2700e-003	0.0127	8.6000e-003	1.0000e-005		7.1000e-004	7.1000e-004		6.5000e-004	6.5000e-004	0.0000	1.1029	1.1029	3.4000e-004	0.0000	1.1100
Total	**1.2700e-003**	**0.0127**	**8.6000e-003**	**1.0000e-005**	**0.0000**	**7.1000e-004**	**7.1000e-004**	**0.0000**	**6.5000e-004**	**6.5000e-004**	**0.0000**	**1.1029**	**1.1029**	**3.4000e-004**	**0.0000**	**1.1100**

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	1.1000e-004	8.8000e-004	1.5200e-003	0.0000	6.0000e-005	1.0000e-005	8.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.2097	0.2097	0.0000	0.0000	0.2097
Worker	3.0000e-005	4.0000e-005	3.8000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0590	0.0590	0.0000	0.0000	0.0591
Total	**1.4000e-004**	**9.2000e-004**	**1.9000e-003**	**0.0000**	**1.3000e-004**	**1.0000e-005**	**1.5000e-004**	**4.0000e-005**	**1.0000e-005**	**5.0000e-005**	**0.0000**	**0.2687**	**0.2687**	**0.0000**	**0.0000**	**0.2688**

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.2700e-003	0.0127	8.6000e-003	1.0000e-005		7.1000e-004	7.1000e-004		6.5000e-004	6.5000e-004	0.0000	1.1029	1.1029	3.4000e-004	0.0000	1.1100
Total	**1.2700e-003**	**0.0127**	**8.6000e-003**	**1.0000e-005**	**0.0000**	**7.1000e-004**	**7.1000e-004**	**0.0000**	**6.5000e-004**	**6.5000e-004**	**0.0000**	**1.1029**	**1.1029**	**3.4000e-004**	**0.0000**	**1.1100**

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	1.1000e-004	8.8000e-004	1.5200e-003	0.0000	6.0000e-005	1.0000e-005	8.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.2097	0.2097	0.0000	0.0000	0.2097
Worker	3.0000e-005	4.0000e-005	3.8000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0590	0.0590	0.0000	0.0000	0.0591
Total	**1.4000e-004**	**9.2000e-004**	**1.9000e-003**	**0.0000**	**1.3000e-004**	**1.0000e-005**	**1.5000e-004**	**4.0000e-005**	**1.0000e-005**	**5.0000e-005**	**0.0000**	**0.2687**	**0.2687**	**0.0000**	**0.0000**	**0.2688**

3.12 Fine Grading Haul - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	1.5000e-004	9.4000e-004	2.5000e-003	0.0000	5.0000e-005	1.0000e-005	6.0000e-005	1.0000e-005	1.0000e-005	2.0000e-005	0.0000	0.2028	0.2028	0.0000	0.0000	0.2028
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.5000e-004**	**9.4000e-004**	**2.5000e-003**	**0.0000**	**5.0000e-005**	**1.0000e-005**	**6.0000e-005**	**1.0000e-005**	**1.0000e-005**	**2.0000e-005**	**0.0000**	**0.2028**	**0.2028**	**0.0000**	**0.0000**	**0.2028**

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	1.5000e-004	9.4000e-004	2.5000e-003	0.0000	5.0000e-005	1.0000e-005	6.0000e-005	1.0000e-005	1.0000e-005	2.0000e-005	0.0000	0.2028	0.2028	0.0000	0.0000	0.2028
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.5000e-004**	**9.4000e-004**	**2.5000e-003**	**0.0000**	**5.0000e-005**	**1.0000e-005**	**6.0000e-005**	**1.0000e-005**	**1.0000e-005**	**2.0000e-005**	**0.0000**	**0.2028**	**0.2028**	**0.0000**	**0.0000**	**0.2028**

3.13 Paving - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.0700e-003	8.8000e-003	6.8000e-003	1.0000e-005		5.0000e-004	5.0000e-004		4.6000e-004	4.6000e-004	0.0000	0.9049	0.9049	2.8000e-004	0.0000	0.9107
Paving	1.3000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.2000e-003**	**8.8000e-003**	**6.8000e-003**	**1.0000e-005**		**5.0000e-004**	**5.0000e-004**		**4.6000e-004**	**4.6000e-004**	**0.0000**	**0.9049**	**0.9049**	**2.8000e-004**	**0.0000**	**0.9107**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	9.0000e-005	8.8000e-004	0.0000	1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1377	0.1377	1.0000e-005	0.0000	0.1379
Total	**6.0000e-005**	**9.0000e-005**	**8.8000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1377**	**0.1377**	**1.0000e-005**	**0.0000**	**0.1379**

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Off-Road	1.0700e-003	8.8000e-003	6.8000e-003	1.0000e-005		5.0000e-004	5.0000e-004		4.6000e-004	4.6000e-004	0.0000	0.9049	0.9049	2.8000e-004	0.0000	0.9107
Paving	1.3000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.2000e-003**	**8.8000e-003**	**6.8000e-003**	**1.0000e-005**		**5.0000e-004**	**5.0000e-004**		**4.6000e-004**	**4.6000e-004**	**0.0000**	**0.9049**	**0.9049**	**2.8000e-004**	**0.0000**	**0.9107**

Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	9.0000e-005	8.8000e-004	0.0000	1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1377	0.1377	1.0000e-005	0.0000	0.1379
Total	**6.0000e-005**	**9.0000e-005**	**8.8000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1377**	**0.1377**	**1.0000e-005**	**0.0000**	**0.1379**

3.14 Finishing and Landscaping - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.7100e-003	0.0220	0.0222	3.0000e-005		1.1800e-003	1.1800e-003		1.0900e-003	1.0900e-003	0.0000	3.0209	3.0209	9.3000e-004	0.0000	3.0403
Total	**1.7100e-003**	**0.0220**	**0.0222**	**3.0000e-005**		**1.1800e-003**	**1.1800e-003**		**1.0900e-003**	**1.0900e-003**	**0.0000**	**3.0209**	**3.0209**	**9.3000e-004**	**0.0000**	**3.0403**

Unmitigated Construction Off-Site

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

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	1.7100e-003	0.0220	0.0222	3.0000e-005		1.1800e-003	1.1800e-003		1.0900e-003	1.0900e-003	0.0000	3.0209	3.0209	9.3000e-004	0.0000	3.0403
Total	**1.7100e-003**	**0.0220**	**0.0222**	**3.0000e-005**		**1.1800e-003**	**1.1800e-003**		**1.0900e-003**	**1.0900e-003**	**0.0000**	**3.0209**	**3.0209**	**9.3000e-004**	**0.0000**	**3.0403**

Mitigated Construction Off-Site

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

Hotel Project Sonoma Construction HRA Mitigated

Sonoma-San Francisco County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	37.66	1000sqft	0.00	37,655.00	0
Other Non-Asphalt Surfaces	22.48	1000sqft	0.52	22,483.00	0
Parking Lot	4.48	1000sqft	0.10	4,479.00	0
Hotel	62.00	Room	0.62	67,478.00	0

1.2 Other Project Characteristics

Urbanization Urban **Wind Speed (m/s)** 2.2 **Precipitation Freq (Days)** 75

Climate Zone 4 **Operational Year** 2017

Utility Company Pacific Gas & Electric Company

CO2 Intensity (lb/MWhr) 641.35 **CH4 Intensity (lb/MWhr)** 0.029 **N2O Intensity (lb/MWhr)** 0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Project Description - see assumptions

Construction Phase - Applicant provided schedule

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Equipment provided by the Applicant

Off-road Equipment - Haul = no equipment

Off-road Equipment - Equipment provided by the Applicant

Off-road Equipment - Applicant provided construction equipment

Off-road Equipment - Haul = no construction

Off-road Equipment - Assumes use of 1 skid steer loader during finishing and landscaping activities.

Off-road Equipment - Applicant provided construction equipment

Off-road Equipment - Applicant provided construction equipment

Off-road Equipment -

Off-road Equipment - Haul = no equipment

Off-road Equipment - Applicant provided construction equipment

Trips and VMT - Trips based on size of the haul trucks. Water Trucks added as vendor trips. Haul length provided by Applicant.

Demolition -

Grading -

Architectural Coating - Modified = parking structure not painted. Reduced painting area provided by the Applicant/Architect

Vehicle Trips - trip rates provided by WTrans

Area Coating -

Energy Use - Hotel energy use is based on calculations provided by the Applicant and includes reductions from the most recent T24.

Water And Wastewater - Water Demand from the Basis of Design Report. 100% treated wastewater

Construction Off-road Equipment Mitigation - BAAQMD Best Management Practices

Energy Mitigation - 2013 Title 24 is 30% high for non-residential (included in base calcs not mitigated scenario). Includes Renewable Energy but unknown kwh generated

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	63,875.00	6,748.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	191,626.00	73,111.00
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	10.00	44.00
tblConstructionPhase	NumDays	200.00	32.00
tblConstructionPhase	NumDays	200.00	347.00
tblConstructionPhase	NumDays	20.00	21.00
tblConstructionPhase	NumDays	20.00	5.00
tblConstructionPhase	NumDays	20.00	2.00
tblConstructionPhase	NumDays	4.00	5.00

tblConstructionPhase	NumDays	4.00	5.00
tblConstructionPhase	NumDays	4.00	45.00
tblConstructionPhase	NumDays	10.00	7.00
tblConstructionPhase	NumDays	2.00	12.00
tblConstructionPhase	NumDays	2.00	20.00
tblConstructionPhase	PhaseEndDate	3/21/2017	10/26/2017
tblConstructionPhase	PhaseEndDate	12/13/2017	12/26/2017
tblConstructionPhase	PhaseEndDate	1/29/2018	12/29/2017
tblConstructionPhase	PhaseEndDate	8/5/2016	7/7/2016
tblConstructionPhase	PhaseEndDate	7/11/2016	7/25/2016
tblConstructionPhase	PhaseEndDate	11/2/2017	10/20/2017
tblConstructionPhase	PhaseEndDate	10/27/2017	10/20/2017
tblConstructionPhase	PhaseEndDate	10/27/2016	9/29/2016
tblConstructionPhase	PhaseEndDate	10/31/2017	10/30/2017
tblConstructionPhase	PhaseEndDate	8/10/2016	8/15/2016
tblConstructionPhase	PhaseEndDate	9/12/2016	8/25/2016
tblConstructionPhase	PhaseEndDate	1/31/2018	1/18/2017
tblConstructionPhase	PhaseStartDate	1/19/2017	8/28/2017
tblConstructionPhase	PhaseStartDate	10/31/2017	11/12/2017
tblConstructionPhase	PhaseStartDate	9/30/2016	9/1/2016
tblConstructionPhase	PhaseStartDate	7/30/2016	7/1/2016
tblConstructionPhase	PhaseStartDate	7/8/2016	7/22/2016
tblConstructionPhase	PhaseStartDate	10/27/2017	10/15/2017
tblConstructionPhase	PhaseStartDate	10/21/2017	10/15/2017
tblConstructionPhase	PhaseStartDate	8/26/2016	7/29/2016
tblConstructionPhase	PhaseStartDate	10/21/2017	10/20/2017
tblConstructionPhase	PhaseStartDate	7/26/2016	7/29/2016

tblConstructionPhase	PhaseStartDate	8/16/2016	7/29/2016
tblConstructionPhase	PhaseStartDate	12/30/2017	12/18/2016
tblEnergyUse	LightingElect	2.72	6.17
tblEnergyUse	NT24E	3.22	5.83
tblEnergyUse	T24E	2.50	6.18
tblEnergyUse	T24NG	41.63	29.10
tblGrading	MaterialExported	0.00	16,000.00
tblGrading	MaterialImported	0.00	148.00
tblLandUse	LandUseSquareFeet	37,660.00	37,655.00
tblLandUse	LandUseSquareFeet	22,480.00	22,483.00
tblLandUse	LandUseSquareFeet	4,480.00	4,479.00
tblLandUse	LandUseSquareFeet	90,024.00	67,478.00
tblLandUse	LotAcreage	0.86	0.00
tblLandUse	LotAcreage	2.07	0.62
tblOffRoadEquipment	HorsePower	125.00	121.00
tblOffRoadEquipment	HorsePower	80.00	33.00
tblOffRoadEquipment	HorsePower	162.00	132.00
tblOffRoadEquipment	HorsePower	162.00	132.00
tblOffRoadEquipment	HorsePower	162.00	55.00
tblOffRoadEquipment	HorsePower	199.00	154.00
tblOffRoadEquipment	HorsePower	199.00	154.00
tblOffRoadEquipment	HorsePower	97.00	70.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	UsageHours	6.00	4.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblProjectCharacteristics	OperationalYear	2014	2017

tblTripsAndVMT	HaulingTripLength	20.00	5.00
tblTripsAndVMT	HaulingTripLength	20.00	21.00
tblTripsAndVMT	HaulingTripLength	20.00	5.00
tblTripsAndVMT	HaulingTripLength	20.00	5.00
tblTripsAndVMT	HaulingTripNumber	19.00	23.00
tblTripsAndVMT	HaulingTripNumber	44.00	45.00
tblTripsAndVMT	HaulingTripNumber	20.00	32.00
tblTripsAndVMT	HaulingTripNumber	2,000.00	2,462.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	22.00	0.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	WorkerTripNumber	55.00	0.00
tblVehicleTrips	SU_TR	5.95	8.19
tblWater	IndoorWaterUseRate	1,572,739.74	5,400,000.00
tblWater	OutdoorWaterUseRate	174,748.86	66,000.00

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					
2016	0.2181	1.4470	1.4698	2.0000e-003	0.0780	0.0799	0.1579	0.0285	0.0762	0.1046	0.0000	171.8549	171.8549	0.0267	0.0000	172.4150
2017	0.6504	2.8814	2.7637	4.4700e-003	0.0855	0.1707	0.2562	0.0231	0.1644	0.1876	0.0000	370.7615	370.7615	0.0565	0.0000	371.9477
Total	**0.8685**	**4.3284**	**4.2335**	**6.4700e-003**	**0.1635**	**0.2506**	**0.4140**	**0.0516**	**0.2406**	**0.2922**	**0.0000**	**542.6164**	**542.6164**	**0.0832**	**0.0000**	**544.3627**

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					
2016	0.1387	0.8395	1.4308	2.0000e-003	0.0509	0.0441	0.0951	0.0170	0.0437	0.0607	0.0000	171.8548	171.8548	0.0267	0.0000	172.4148
2017	0.4877	1.7137	2.7692	4.4700e-003	0.0791	0.1047	0.1838	0.0216	0.1043	0.1259	0.0000	370.7612	370.7612	0.0565	0.0000	371.9474
Total	**0.6264**	**2.5533**	**4.2000**	**6.4700e-003**	**0.1300**	**0.1488**	**0.2789**	**0.0386**	**0.1480**	**0.1866**	**0.0000**	**542.6160**	**542.6160**	**0.0832**	**0.0000**	**544.3622**

	ROG	**NOx**	**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	**27.88**	**41.01**	**0.79**	**0.00**	**20.46**	**40.60**	**32.65**	**25.26**	**38.47**	**36.14**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition_Buildings	Demolition	7/1/2016	7/29/2016	5	21	
2	Demolition_BuildingHaul	Demolition	7/1/2016	7/7/2016	5	5	
3	Demolition_AsphaltHaul	Demolition	7/22/2016	7/25/2016	5	2	
4	Site Preparation	Site Preparation	7/29/2016	8/15/2016	5	12	
5	Site Preparation Haul	Site Preparation	7/29/2016	8/25/2016	5	20	
6	Rough Grading	Grading	7/29/2016	9/29/2016	5	45	
7	Building Construction	Building Construction	9/1/2016	12/29/2017	5	347	
8	Trenching	Trenching	12/18/2016	1/18/2017	5	23	
9	Architectural Coating	Architectural Coating	8/28/2017	10/26/2017	5	44	
10	Fine Grading	Grading	10/15/2017	10/20/2017	5	5	
11	Fine Grading Haul	Grading	10/15/2017	10/20/2017	5	5	
12	Paving	Paving	10/20/2017	10/30/2017	5	7	
13	Finishing and Landscaping	Building Construction	11/12/2017	12/26/2017	5	32	

Acres of Grading (Site Preparation Phase): 6

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 73,111; Non-Residential Outdoor: 6,748 (Architectural Coating –

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition_Buildings	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition_Buildings	Excavators	1	8.00	132	0.38
Demolition_Buildings	Rubber Tired Dozers	0	8.00	255	0.40
Demolition_Buildings	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Demolition_BuildingHaul	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition_BuildingHaul	Rubber Tired Dozers	0	8.00	255	0.40
Demolition_BuildingHaul	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Demolition_AsphaltHaul	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition_AsphaltHaul	Excavators	1	8.00	132	0.38
Demolition_AsphaltHaul	Rubber Tired Dozers	0	8.00	255	0.40
Demolition_AsphaltHaul	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Graders	1	8.00	174	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation Haul	Graders	0	8.00	174	0.41
Site Preparation Haul	Rubber Tired Dozers	0	7.00	255	0.40
Site Preparation Haul	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Rough Grading	Graders	0	6.00	174	0.41
Rough Grading	Rubber Tired Dozers	0	6.00	255	0.40
Rough Grading	Rubber Tired Loaders	1	7.10	154	0.36
Rough Grading	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Building Construction	Cranes	1	6.00	226	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37

Building Construction	Welders		3	8.00	46	0.45
Trenching	Excavators		1	4.00	55	0.38
Trenching	Tractors/Loaders/Backhoes		1	4.00	70	0.37
Architectural Coating	Air Compressors		1	6.00	78	0.48
Fine Grading	Graders		0	6.00	174	0.41
Fine Grading	Rubber Tired Dozers		0	6.00	255	0.40
Fine Grading	Rubber Tired Loaders		1	8.00	154	0.36
Fine Grading	Tractors/Loaders/Backhoes		0	7.00	97	0.37
Fine Grading Haul	Graders		0	6.00	174	0.41
Fine Grading Haul	Rubber Tired Dozers		0	6.00	255	0.40
Fine Grading Haul	Tractors/Loaders/Backhoes		0	7.00	97	0.37
Paving	Cement and Mortar Mixers		0	6.00	9	0.56
Paving	Pavers		1	4.00	121	0.42
Paving	Paving Equipment		0	8.00	130	0.36
Paving	Rollers		1	4.00	33	0.38
Paving	Tractors/Loaders/Backhoes		0	8.00	97	0.37
Finishing and Landscaping	Cranes		0	6.00	226	0.29
Finishing and Landscaping	Forklifts		0	6.00	89	0.20
Finishing and Landscaping	Generator Sets		0	8.00	84	0.74
Finishing and Landscaping	Skid Steer Loaders		1	8.00	64	0.37
Finishing and Landscaping	Tractors/Loaders/Backhoes		0	6.00	97	0.37
Finishing and Landscaping	Welders		0	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition_Buildings	1	3.00	4.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition_BuildingHaul	0	0.00	0.00	45.00	12.40	7.30	21.00	LD_Mix	HDT_Mix	HHDT
Demolition_AsphaltHaul	1	3.00	0.00	32.00	12.40	7.30	5.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	4.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation Haul	0	0.00	0.00	2,462.00	12.40	7.30	5.00	LD_Mix	HDT_Mix	HHDT
Rough Grading	1	3.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	55.00	22.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	2	5.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	11.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Fine Grading	1	3.00	4.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Fine Grading Haul	0	0.00	0.00	23.00	12.40	7.30	5.00	LD_Mix	HDT_Mix	HHDT
Paving	2	5.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Finishing and Landscaping	1	0.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Demolition_Buildings - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.3200e-003	0.0379	0.0293	5.0000e-005		1.8700e-003	1.8700e-003		1.7200e-003	1.7200e-003	0.0000	4.2682	4.2682	1.2900e-003	0.0000	4.2952
Total	**3.3200e-003**	**0.0379**	**0.0293**	**5.0000e-005**		**1.8700e-003**	**1.8700e-003**		**1.7200e-003**	**1.7200e-003**	**0.0000**	**4.2682**	**4.2682**	**1.2900e-003**	**0.0000**	**4.2952**

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	5.6000e-004	4.1400e-003	7.0100e-003	1.0000e-005	2.7000e-004	6.0000e-005	3.3000e-004	8.0000e-005	6.0000e-005	1.3000e-004	0.0000	0.8963	0.8963	1.0000e-005	0.0000	0.8965
Worker	1.3000e-004	1.8000e-004	1.8100e-003	0.0000	2.8000e-004	0.0000	2.9000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2577	0.2577	1.0000e-005	0.0000	0.2580
Total	**6.9000e-004**	**4.3200e-003**	**8.8200e-003**	**1.0000e-005**	**5.5000e-004**	**6.0000e-005**	**6.2000e-004**	**1.6000e-004**	**6.0000e-005**	**2.1000e-004**	**0.0000**	**1.1540**	**1.1540**	**2.0000e-005**	**0.0000**	**1.1545**

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	3.3200e-003	0.0379	0.0293	5.0000e-005		1.8700e-003	1.8700e-003		1.7200e-003	1.7200e-003	0.0000	4.2682	4.2682	1.2900e-003	0.0000	4.2952
Total	**3.3200e-003**	**0.0379**	**0.0293**	**5.0000e-005**		**1.8700e-003**	**1.8700e-003**		**1.7200e-003**	**1.7200e-003**	**0.0000**	**4.2682**	**4.2682**	**1.2900e-003**	**0.0000**	**4.2952**

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	5.6000e-004	4.1400e-003	7.0100e-003	1.0000e-005	2.5000e-004	6.0000e-005	3.1000e-004	7.0000e-005	6.0000e-005	1.3000e-004	0.0000	0.8963	0.8963	1.0000e-005	0.0000	0.8965
Worker	1.3000e-004	1.8000e-004	1.8100e-003	0.0000	2.6000e-004	0.0000	2.6000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2577	0.2577	1.0000e-005	0.0000	0.2580
Total	**6.9000e-004**	**4.3200e-003**	**8.8200e-003**	**1.0000e-005**	**5.1000e-004**	**6.0000e-005**	**5.7000e-004**	**1.4000e-004**	**6.0000e-005**	**2.0000e-004**	**0.0000**	**1.1540**	**1.1540**	**2.0000e-005**	**0.0000**	**1.1545**

3.3 Demolition_BuildingHaul - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					4.8100e-003	0.0000	4.8100e-003	7.3000e-004	0.0000	7.3000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**4.8100e-003**	**0.0000**	**4.8100e-003**	**7.3000e-004**	**0.0000**	**7.3000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	5.6000e-004	6.9600e-003	7.3700e-003	2.0000e-005	3.9000e-004	9.0000e-005	4.8000e-004	1.1000e-004	8.0000e-005	1.9000e-004	0.0000	1.5816	1.5816	1.0000e-005	0.0000	1.5819
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**5.6000e-004**	**6.9600e-003**	**7.3700e-003**	**2.0000e-005**	**3.9000e-004**	**9.0000e-005**	**4.8000e-004**	**1.1000e-004**	**8.0000e-005**	**1.9000e-004**	**0.0000**	**1.5816**	**1.5816**	**1.0000e-005**	**0.0000**	**1.5819**

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					2.0600e-003	0.0000	2.0600e-003	3.1000e-004	0.0000	3.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**2.0600e-003**	**0.0000**	**2.0600e-003**	**3.1000e-004**	**0.0000**	**3.1000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	5.6000e-004	6.9600e-003	7.3700e-003	2.0000e-005	3.7000e-004	9.0000e-005	4.6000e-004	1.0000e-004	8.0000e-005	1.8000e-004	0.0000	1.5816	1.5816	1.0000e-005	0.0000	1.5819
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**5.6000e-004**	**6.9600e-003**	**7.3700e-003**	**2.0000e-005**	**3.7000e-004**	**9.0000e-005**	**4.6000e-004**	**1.0000e-004**	**8.0000e-005**	**1.8000e-004**	**0.0000**	**1.5816**	**1.5816**	**1.0000e-005**	**0.0000**	**1.5819**

3.4 Demolition_AsphaltHaul - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.1900e-003	0.0000	2.1900e-003	3.3000e-004	0.0000	3.3000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.2000e-004	3.6100e-003	2.7900e-003	0.0000		1.8000e-004	1.8000e-004		1.6000e-004	1.6000e-004	0.0000	0.4065	0.4065	1.2000e-004	0.0000	0.4091
Total	**3.2000e-004**	**3.6100e-003**	**2.7900e-003**	**0.0000**	**2.1900e-003**	**1.8000e-004**	**2.3700e-003**	**3.3000e-004**	**1.6000e-004**	**4.9000e-004**	**0.0000**	**0.4065**	**0.4065**	**1.2000e-004**	**0.0000**	**0.4091**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.5000e-004	1.4400e-003	3.8000e-003	0.0000	7.0000e-005	2.0000e-005	8.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.2873	0.2873	0.0000	0.0000	0.2874
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	1.0000e-005	2.0000e-005	1.7000e-004	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0246	0.0246	0.0000	0.0000	0.0246
Total	**2.6000e-004**	**1.4600e-003**	**3.9700e-003**	**0.0000**	**1.0000e-004**	**2.0000e-005**	**1.1000e-004**	**3.0000e-005**	**1.0000e-005**	**4.0000e-005**	**0.0000**	**0.3119**	**0.3119**	**0.0000**	**0.0000**	**0.3119**

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					9.4000e-004	0.0000	9.4000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.2000e-004	3.6100e-003	2.7900e-003	0.0000		1.8000e-004	1.8000e-004		1.6000e-004	1.6000e-004	0.0000	0.4065	0.4065	1.2000e-004	0.0000	0.4091
Total	**3.2000e-004**	**3.6100e-003**	**2.7900e-003**	**0.0000**	**9.4000e-004**	**1.8000e-004**	**1.1200e-003**	**1.4000e-004**	**1.6000e-004**	**3.0000e-004**	**0.0000**	**0.4065**	**0.4065**	**1.2000e-004**	**0.0000**	**0.4091**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.5000e-004	1.4400e-003	3.8000e-003	0.0000	6.0000e-005	2.0000e-005	8.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.2873	0.2873	0.0000	0.0000	0.2874
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	1.0000e-005	2.0000e-005	1.7000e-004	0.0000	2.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0246	0.0246	0.0000	0.0000	0.0246
Total	**2.6000e-004**	**1.4600e-003**	**3.9700e-003**	**0.0000**	**8.0000e-005**	**2.0000e-005**	**1.1000e-004**	**3.0000e-005**	**1.0000e-005**	**4.0000e-005**	**0.0000**	**0.3119**	**0.3119**	**0.0000**	**0.0000**	**0.3119**

3.5 Site Preparation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0348	0.0000	0.0348	0.0177	0.0000	0.0177	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0147	0.1546	0.0991	1.0000e-004		8.3900e-003	8.3900e-003		7.7200e-003	7.7200e-003	0.0000	9.6947	9.6947	2.9200e-003	0.0000	9.7561
Total	**0.0147**	**0.1546**	**0.0991**	**1.0000e-004**	**0.0348**	**8.3900e-003**	**0.0432**	**0.0177**	**7.7200e-003**	**0.0254**	**0.0000**	**9.6947**	**9.6947**	**2.9200e-003**	**0.0000**	**9.7561**

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	3.2000e-004	2.3700e-003	4.0100e-003	1.0000e-005	1.5000e-004	4.0000e-005	1.9000e-004	4.0000e-005	3.0000e-005	8.0000e-005	0.0000	0.5122	0.5122	0.0000	0.0000	0.5123
Worker	2.0000e-004	2.8000e-004	2.7600e-003	1.0000e-005	4.3000e-004	0.0000	4.4000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.3927	0.3927	2.0000e-005	0.0000	0.3932
Total	**5.2000e-004**	**2.6500e-003**	**6.7700e-003**	**2.0000e-005**	**5.8000e-004**	**4.0000e-005**	**6.3000e-004**	**1.6000e-004**	**3.0000e-005**	**2.0000e-004**	**0.0000**	**0.9049**	**0.9049**	**2.0000e-005**	**0.0000**	**0.9055**

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					0.0149	0.0000	0.0149	7.5800e-003	0.0000	7.5800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.5000e-003	0.0498	0.0665	1.0000e-004		2.4100e-003	2.4100e-003		2.4100e-003	2.4100e-003	0.0000	9.6946	9.6946	2.9200e-003	0.0000	9.7561
Total	**2.5000e-003**	**0.0498**	**0.0665**	**1.0000e-004**	**0.0149**	**2.4100e-003**	**0.0173**	**7.5800e-003**	**2.4100e-003**	**9.9900e-003**	**0.0000**	**9.6946**	**9.6946**	**2.9200e-003**	**0.0000**	**9.7561**

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	3.2000e-004	2.3700e-003	4.0100e-003	1.0000e-005	1.4000e-004	4.0000e-005	1.8000e-004	4.0000e-005	3.0000e-005	7.0000e-005	0.0000	0.5122	0.5122	0.0000	0.0000	0.5123
Worker	2.0000e-004	2.8000e-004	2.7600e-003	1.0000e-005	4.0000e-004	0.0000	4.0000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3927	0.3927	2.0000e-005	0.0000	0.3932
Total	**5.2000e-004**	**2.6500e-003**	**6.7700e-003**	**2.0000e-005**	**5.4000e-004**	**4.0000e-005**	**5.8000e-004**	**1.5000e-004**	**3.0000e-005**	**1.8000e-004**	**0.0000**	**0.9049**	**0.9049**	**2.0000e-005**	**0.0000**	**0.9055**

3.6 Site Preparation Haul - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					9.0000e-004	0.0000	9.0000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**9.0000e-004**	**0.0000**	**9.0000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.0191	0.1107	0.2920	2.5000e-004	5.1500e-003	1.2200e-003	6.3600e-003	1.4200e-003	1.1200e-003	2.5300e-003	0.0000	22.1046	22.1046	2.0000e-004	0.0000	22.1087
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0191**	**0.1107**	**0.2920**	**2.5000e-004**	**5.1500e-003**	**1.2200e-003**	**6.3600e-003**	**1.4200e-003**	**1.1200e-003**	**2.5300e-003**	**0.0000**	**22.1046**	**22.1046**	**2.0000e-004**	**0.0000**	**22.1087**

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					3.9000e-004	0.0000	3.9000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**3.9000e-004**	**0.0000**	**3.9000e-004**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.0191	0.1107	0.2920	2.5000e-004	4.8000e-003	1.2200e-003	6.0200e-003	1.3300e-003	1.1200e-003	2.4500e-003	0.0000	22.1046	22.1046	2.0000e-004	0.0000	22.1087
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0191**	**0.1107**	**0.2920**	**2.5000e-004**	**4.8000e-003**	**1.2200e-003**	**6.0200e-003**	**1.3300e-003**	**1.1200e-003**	**2.4500e-003**	**0.0000**	**22.1046**	**22.1046**	**2.0000e-004**	**0.0000**	**22.1087**

3.7 Rough Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0110	0.1118	0.0696	9.0000e-005		6.2300e-003	6.2300e-003		5.7400e-003	5.7400e-003	0.0000	8.9474	8.9474	2.7000e-003	0.0000	9.0041
Total	**0.0110**	**0.1118**	**0.0696**	**9.0000e-005**	**0.0000**	**6.2300e-003**	**6.2300e-003**	**0.0000**	**5.7400e-003**	**5.7400e-003**	**0.0000**	**8.9474**	**8.9474**	**2.7000e-003**	**0.0000**	**9.0041**

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	2.9000e-004	4.0000e-004	3.8800e-003	1.0000e-005	6.1000e-004	1.0000e-005	6.1000e-004	1.6000e-004	1.0000e-005	1.7000e-004	0.0000	0.5523	0.5523	3.0000e-005	0.0000	0.5530
Total	**2.9000e-004**	**4.0000e-004**	**3.8800e-003**	**1.0000e-005**	**6.1000e-004**	**1.0000e-005**	**6.1000e-004**	**1.6000e-004**	**1.0000e-005**	**1.7000e-004**	**0.0000**	**0.5523**	**0.5523**	**3.0000e-005**	**0.0000**	**0.5530**

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.3400e-003	0.0453	0.0722	9.0000e-005		2.1900e-003	2.1900e-003		2.1900e-003	2.1900e-003	0.0000	8.9474	8.9474	2.7000e-003	0.0000	9.0041
Total	**2.3400e-003**	**0.0453**	**0.0722**	**9.0000e-005**	**0.0000**	**2.1900e-003**	**2.1900e-003**	**0.0000**	**2.1900e-003**	**2.1900e-003**	**0.0000**	**8.9474**	**8.9474**	**2.7000e-003**	**0.0000**	**9.0041**

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	2.9000e-004	4.0000e-004	3.8800e-003	1.0000e-005	5.6000e-004	1.0000e-005	5.7000e-004	1.5000e-004	1.0000e-005	1.6000e-004	0.0000	0.5523	0.5523	3.0000e-005	0.0000	0.5530
Total	**2.9000e-004**	**4.0000e-004**	**3.8800e-003**	**1.0000e-005**	**5.6000e-004**	**1.0000e-005**	**5.7000e-004**	**1.5000e-004**	**1.0000e-005**	**1.6000e-004**	**0.0000**	**0.5523**	**0.5523**	**3.0000e-005**	**0.0000**	**0.5530**

3.8 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1432	0.8937	0.6398	9.5000e-004		0.0594	0.0594		0.0573	0.0573	0.0000	80.7776	80.7776	0.0178	0.0000	81.1504
Total	**0.1432**	**0.8937**	**0.6398**	**9.5000e-004**		**0.0594**	**0.0594**		**0.0573**	**0.0573**	**0.0000**	**80.7776**	**80.7776**	**0.0178**	**0.0000**	**81.1504**

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	0.0129	0.0944	0.1597	2.3000e-004	6.1100e-003	1.4100e-003	7.5200e-003	1.7500e-003	1.2900e-003	3.0500e-003	0.0000	20.4229	20.4229	1.6000e-004	0.0000	20.4263
Worker	0.0102	0.0140	0.1375	2.6000e-004	0.0216	2.0000e-004	0.0218	5.7400e-003	1.8000e-004	5.9200e-003	0.0000	19.5753	19.5753	1.1300e-003	0.0000	19.5990
Total	**0.0231**	**0.1085**	**0.2973**	**4.9000e-004**	**0.0277**	**1.6100e-003**	**0.0293**	**7.4900e-003**	**1.4700e-003**	**8.9700e-003**	**0.0000**	**39.9982**	**39.9982**	**1.2900e-003**	**0.0000**	**40.0253**

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	0.0851	0.4603	0.6308	9.5000e-004		0.0339	0.0339		0.0339	0.0339	0.0000	80.7775	80.7775	0.0178	0.0000	81.1503
Total	**0.0851**	**0.4603**	**0.6308**	**9.5000e-004**		**0.0339**	**0.0339**		**0.0339**	**0.0339**	**0.0000**	**80.7775**	**80.7775**	**0.0178**	**0.0000**	**81.1503**

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	0.0129	0.0944	0.1597	2.3000e-004	5.7200e-003	1.4100e-003	7.1300e-003	1.6600e-003	1.2900e-003	2.9500e-003	0.0000	20.4229	20.4229	1.6000e-004	0.0000	20.4263
Worker	0.0102	0.0140	0.1375	2.6000e-004	0.0199	2.0000e-004	0.0201	5.3300e-003	1.8000e-004	5.5100e-003	0.0000	19.5753	19.5753	1.1300e-003	0.0000	19.5990
Total	**0.0231**	**0.1085**	**0.2973**	**4.9000e-004**	**0.0256**	**1.6100e-003**	**0.0272**	**6.9900e-003**	**1.4700e-003**	**8.4600e-003**	**0.0000**	**39.9982**	**39.9982**	**1.2900e-003**	**0.0000**	**40.0253**

3.8 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3841	2.4842	1.8604	2.8500e-003		0.1593	0.1593		0.1537	0.1537	0.0000	239.9115	239.9115	0.0503	0.0000	240.9686
Total	**0.3841**	**2.4842**	**1.8604**	**2.8500e-003**		**0.1593**	**0.1593**		**0.1537**	**0.1537**	**0.0000**	**239.9115**	**239.9115**	**0.0503**	**0.0000**	**240.9686**

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	0.0327	0.2528	0.4356	6.7000e-004	0.0183	3.6300e-003	0.0219	5.2400e-003	3.3400e-003	8.5800e-003	0.0000	59.9635	59.9635	4.6000e-004	0.0000	59.9732
Worker	0.0266	0.0371	0.3599	7.7000e-004	0.0644	5.6000e-004	0.0650	0.0171	5.1000e-004	0.0177	0.0000	56.2583	56.2583	3.0500e-003	0.0000	56.3222
Total	**0.0593**	**0.2899**	**0.7955**	**1.4400e-003**	**0.0827**	**4.1900e-003**	**0.0869**	**0.0224**	**3.8500e-003**	**0.0262**	**0.0000**	**116.2217**	**116.2217**	**3.5100e-003**	**0.0000**	**116.2954**

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	0.2303	1.3517	1.8628	2.8500e-003		0.0958	0.0958		0.0958	0.0958	0.0000	239.9112	239.9112	0.0503	0.0000	240.9684
Total	**0.2303**	**1.3517**	**1.8628**	**2.8500e-003**		**0.0958**	**0.0958**		**0.0958**	**0.0958**	**0.0000**	**239.9112**	**239.9112**	**0.0503**	**0.0000**	**240.9684**

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	0.0327	0.2528	0.4356	6.7000e-004	0.0171	3.6300e-003	0.0207	4.9500e-003	3.3400e-003	8.2900e-003	0.0000	59.9635	59.9635	4.6000e-004	0.0000	59.9732
Worker	0.0266	0.0371	0.3599	7.7000e-004	0.0594	5.6000e-004	0.0600	0.0159	5.1000e-004	0.0164	0.0000	56.2583	56.2583	3.0500e-003	0.0000	56.3222
Total	**0.0593**	**0.2899**	**0.7955**	**1.4400e-003**	**0.0765**	**4.1900e-003**	**0.0807**	**0.0209**	**3.8500e-003**	**0.0247**	**0.0000**	**116.2217**	**116.2217**	**3.5100e-003**	**0.0000**	**116.2954**

3.9 Trenching - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.0500e-003	0.0102	7.7300e-003	1.0000e-005		7.7000e-004	7.7000e-004		7.1000e-004	7.1000e-004	0.0000	0.9486	0.9486	2.9000e-004	0.0000	0.9546
Total	**1.0500e-003**	**0.0102**	**7.7300e-003**	**1.0000e-005**		**7.7000e-004**	**7.7000e-004**		**7.1000e-004**	**7.1000e-004**	**0.0000**	**0.9486**	**0.9486**	**2.9000e-004**	**0.0000**	**0.9546**

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	1.1000e-004	1.5000e-004	1.4400e-003	0.0000	2.3000e-004	0.0000	2.3000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.2046	0.2046	1.0000e-005	0.0000	0.2048
Total	**1.1000e-004**	**1.5000e-004**	**1.4400e-003**	**0.0000**	**2.3000e-004**	**0.0000**	**2.3000e-004**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**0.0000**	**0.2046**	**0.2046**	**1.0000e-005**	**0.0000**	**0.2048**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.8000e-004	7.4700e-003	7.6000e-003	1.0000e-005		5.4000e-004	5.4000e-004		5.1000e-004	5.1000e-004	0.0000	0.9486	0.9486	2.9000e-004	0.0000	0.9546
Total	**5.8000e-004**	**7.4700e-003**	**7.6000e-003**	**1.0000e-005**		**5.4000e-004**	**5.4000e-004**		**5.1000e-004**	**5.1000e-004**	**0.0000**	**0.9486**	**0.9486**	**2.9000e-004**	**0.0000**	**0.9546**

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	1.1000e-004	1.5000e-004	1.4400e-003	0.0000	2.1000e-004	0.0000	2.1000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.2046	0.2046	1.0000e-005	0.0000	0.2048
Total	**1.1000e-004**	**1.5000e-004**	**1.4400e-003**	**0.0000**	**2.1000e-004**	**0.0000**	**2.1000e-004**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**0.0000**	**0.2046**	**0.2046**	**1.0000e-005**	**0.0000**	**0.2048**

3.9 Trenching - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.2700e-003	0.0124	9.9700e-003	1.0000e-005		9.1000e-004	9.1000e-004		8.4000e-004	8.4000e-004	0.0000	1.2134	1.2134	3.7000e-004	0.0000	1.2212
Total	**1.2700e-003**	**0.0124**	**9.9700e-003**	**1.0000e-005**		**9.1000e-004**	**9.1000e-004**		**8.4000e-004**	**8.4000e-004**	**0.0000**	**1.2134**	**1.2134**	**3.7000e-004**	**0.0000**	**1.2212**

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	1.2000e-004	1.7000e-004	1.6400e-003	0.0000	2.9000e-004	0.0000	3.0000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2557	0.2557	1.0000e-005	0.0000	0.2560
Total	**1.2000e-004**	**1.7000e-004**	**1.6400e-003**	**0.0000**	**2.9000e-004**	**0.0000**	**3.0000e-004**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**0.0000**	**0.2557**	**0.2557**	**1.0000e-005**	**0.0000**	**0.2560**

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	7.1000e-004	9.3100e-003	9.8500e-003	1.0000e-005		6.6000e-004	6.6000e-004		6.3000e-004	6.3000e-004	0.0000	1.2134	1.2134	3.7000e-004	0.0000	1.2212
Total	**7.1000e-004**	**9.3100e-003**	**9.8500e-003**	**1.0000e-005**		**6.6000e-004**	**6.6000e-004**		**6.3000e-004**	**6.3000e-004**	**0.0000**	**1.2134**	**1.2134**	**3.7000e-004**	**0.0000**	**1.2212**

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	1.2000e-004	1.7000e-004	1.6400e-003	0.0000	2.7000e-004	0.0000	2.7000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2557	0.2557	1.0000e-005	0.0000	0.2560
Total	**1.2000e-004**	**1.7000e-004**	**1.6400e-003**	**0.0000**	**2.7000e-004**	**0.0000**	**2.7000e-004**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**0.0000**	**0.2557**	**0.2557**	**1.0000e-005**	**0.0000**	**0.2560**

3.10 Architectural Coating - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1929					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.3100e-003	0.0481	0.0411	7.0000e-005		3.8100e-003	3.8100e-003		3.8100e-003	3.8100e-003	0.0000	5.6172	5.6172	5.9000e-004	0.0000	5.6296
Total	**0.2002**	**0.0481**	**0.0411**	**7.0000e-005**		**3.8100e-003**	**3.8100e-003**		**3.8100e-003**	**3.8100e-003**	**0.0000**	**5.6172**	**5.6172**	**5.9000e-004**	**0.0000**	**5.6296**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0000e-004	1.2600e-003	0.0122	3.0000e-005	2.1800e-003	2.0000e-005	2.2000e-003	5.8000e-004	2.0000e-005	6.0000e-004	0.0000	1.9041	1.9041	1.0000e-004	0.0000	1.9063
Total	**9.0000e-004**	**1.2600e-003**	**0.0122**	**3.0000e-005**	**2.1800e-003**	**2.0000e-005**	**2.2000e-003**	**5.8000e-004**	**2.0000e-005**	**6.0000e-004**	**0.0000**	**1.9041**	**1.9041**	**1.0000e-004**	**0.0000**	**1.9063**

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	0.1929					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3100e-003	0.0299	0.0403	7.0000e-005		2.0900e-003	2.0900e-003		2.0900e-003	2.0900e-003	0.0000	5.6172	5.6172	5.9000e-004	0.0000	5.6296
Total	**0.1942**	**0.0299**	**0.0403**	**7.0000e-005**		**2.0900e-003**	**2.0900e-003**		**2.0900e-003**	**2.0900e-003**	**0.0000**	**5.6172**	**5.6172**	**5.9000e-004**	**0.0000**	**5.6296**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0000e-004	1.2600e-003	0.0122	3.0000e-005	2.0100e-003	2.0000e-005	2.0300e-003	5.4000e-004	2.0000e-005	5.6000e-004	0.0000	1.9041	1.9041	1.0000e-004	0.0000	1.9063
Total	**9.0000e-004**	**1.2600e-003**	**0.0122**	**3.0000e-005**	**2.0100e-003**	**2.0000e-005**	**2.0300e-003**	**5.4000e-004**	**2.0000e-005**	**5.6000e-004**	**0.0000**	**1.9041**	**1.9041**	**1.0000e-004**	**0.0000**	**1.9063**

3.11 Fine Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.2700e-003	0.0127	8.6000e-003	1.0000e-005		7.1000e-004	7.1000e-004		6.5000e-004	6.5000e-004	0.0000	1.1029	1.1029	3.4000e-004	0.0000	1.1100
Total	**1.2700e-003**	**0.0127**	**8.6000e-003**	**1.0000e-005**	**0.0000**	**7.1000e-004**	**7.1000e-004**	**0.0000**	**6.5000e-004**	**6.5000e-004**	**0.0000**	**1.1029**	**1.1029**	**3.4000e-004**	**0.0000**	**1.1100**

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	1.1000e-004	8.8000e-004	1.5200e-003	0.0000	6.0000e-005	1.0000e-005	8.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.2097	0.2097	0.0000	0.0000	0.2097
Worker	3.0000e-005	4.0000e-005	3.8000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0590	0.0590	0.0000	0.0000	0.0591
Total	**1.4000e-004**	**9.2000e-004**	**1.9000e-003**	**0.0000**	**1.3000e-004**	**1.0000e-005**	**1.5000e-004**	**4.0000e-005**	**1.0000e-005**	**5.0000e-005**	**0.0000**	**0.2687**	**0.2687**	**0.0000**	**0.0000**	**0.2688**

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9000e-004	5.6700e-003	9.0400e-003	1.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004	0.0000	1.1029	1.1029	3.4000e-004	0.0000	1.1100
Total	**2.9000e-004**	**5.6700e-003**	**9.0400e-003**	**1.0000e-005**	**0.0000**	**2.7000e-004**	**2.7000e-004**	**0.0000**	**2.7000e-004**	**2.7000e-004**	**0.0000**	**1.1029**	**1.1029**	**3.4000e-004**	**0.0000**	**1.1100**

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	1.1000e-004	8.8000e-004	1.5200e-003	0.0000	6.0000e-005	1.0000e-005	7.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.2097	0.2097	0.0000	0.0000	0.2097
Worker	3.0000e-005	4.0000e-005	3.8000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0590	0.0590	0.0000	0.0000	0.0591
Total	**1.4000e-004**	**9.2000e-004**	**1.9000e-003**	**0.0000**	**1.2000e-004**	**1.0000e-005**	**1.3000e-004**	**4.0000e-005**	**1.0000e-005**	**5.0000e-005**	**0.0000**	**0.2687**	**0.2687**	**0.0000**	**0.0000**	**0.2688**

3.12 Fine Grading Haul - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	1.5000e-004	9.4000e-004	2.5000e-003	0.0000	5.0000e-005	1.0000e-005	6.0000e-005	1.0000e-005	1.0000e-005	2.0000e-005	0.0000	0.2028	0.2028	0.0000	0.0000	0.2028
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.5000e-004**	**9.4000e-004**	**2.5000e-003**	**0.0000**	**5.0000e-005**	**1.0000e-005**	**6.0000e-005**	**1.0000e-005**	**1.0000e-005**	**2.0000e-005**	**0.0000**	**0.2028**	**0.2028**	**0.0000**	**0.0000**	**0.2028**

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	1.5000e-004	9.4000e-004	2.5000e-003	0.0000	4.0000e-005	1.0000e-005	5.0000e-005	1.0000e-005	1.0000e-005	2.0000e-005	0.0000	0.2028	0.2028	0.0000	0.0000	0.2028
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.5000e-004**	**9.4000e-004**	**2.5000e-003**	**0.0000**	**4.0000e-005**	**1.0000e-005**	**5.0000e-005**	**1.0000e-005**	**1.0000e-005**	**2.0000e-005**	**0.0000**	**0.2028**	**0.2028**	**0.0000**	**0.0000**	**0.2028**

3.13 Paving - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.0700e-003	8.8000e-003	6.8000e-003	1.0000e-005		5.0000e-004	5.0000e-004		4.6000e-004	4.6000e-004	0.0000	0.9049	0.9049	2.8000e-004	0.0000	0.9107
Paving	1.3000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.2000e-003**	**8.8000e-003**	**6.8000e-003**	**1.0000e-005**		**5.0000e-004**	**5.0000e-004**		**4.6000e-004**	**4.6000e-004**	**0.0000**	**0.9049**	**0.9049**	**2.8000e-004**	**0.0000**	**0.9107**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	9.0000e-005	8.8000e-004	0.0000	1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1377	0.1377	1.0000e-005	0.0000	0.1379
Total	**6.0000e-005**	**9.0000e-005**	**8.8000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1377**	**0.1377**	**1.0000e-005**	**0.0000**	**0.1379**

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	6.5000e-004	5.6100e-003	7.8000e-003	1.0000e-005		3.4000e-004	3.4000e-004		3.3000e-004	3.3000e-004	0.0000	0.9049	0.9049	2.8000e-004	0.0000	0.9107
Paving	1.3000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**7.8000e-004**	**5.6100e-003**	**7.8000e-003**	**1.0000e-005**		**3.4000e-004**	**3.4000e-004**		**3.3000e-004**	**3.3000e-004**	**0.0000**	**0.9049**	**0.9049**	**2.8000e-004**	**0.0000**	**0.9107**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	9.0000e-005	8.8000e-004	0.0000	1.5000e-004	0.0000	1.5000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1377	0.1377	1.0000e-005	0.0000	0.1379
Total	**6.0000e-005**	**9.0000e-005**	**8.8000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**1.5000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1377**	**0.1377**	**1.0000e-005**	**0.0000**	**0.1379**

3.14 Finishing and Landscaping - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.7100e-003	0.0220	0.0222	3.0000e-005		1.1800e-003	1.1800e-003		1.0900e-003	1.0900e-003	0.0000	3.0209	3.0209	9.3000e-004	0.0000	3.0403
Total	**1.7100e-003**	**0.0220**	**0.0222**	**3.0000e-005**		**1.1800e-003**	**1.1800e-003**		**1.0900e-003**	**1.0900e-003**	**0.0000**	**3.0209**	**3.0209**	**9.3000e-004**	**0.0000**	**3.0403**

Unmitigated Construction Off-Site

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

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	8.0000e-004	0.0183	0.0247	3.0000e-005		1.2800e-003	1.2800e-003		1.2800e-003	1.2800e-003	0.0000	3.0209	3.0209	9.3000e-004	0.0000	3.0403
Total	**8.0000e-004**	**0.0183**	**0.0247**	**3.0000e-005**		**1.2800e-003**	**1.2800e-003**		**1.2800e-003**	**1.2800e-003**	**0.0000**	**3.0209**	**3.0209**	**9.3000e-004**	**0.0000**	**3.0403**

Mitigated Construction Off-Site

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

Hotel Project Sonoma Construction HRA Mitigated

Sonoma-San Francisco County, Mitigation Report

Construction Mitigation Summary

Phase	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.03	0.37	0.01	0.00	0.45	0.45	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	0.35	0.41	0.00	0.00	0.40	0.38	0.00	0.00	0.00	0.00	0.00	0.00
Demolition_AsphaltHaul	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Demolition_BuildingHaul	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Demolition_Buildings	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading	0.70	0.52	-0.04	0.00	0.61	0.58	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Haul	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Finishing and Landscaping	0.53	0.17	-0.11	0.00	-0.08	-0.17	0.00	0.00	0.00	0.00	0.00	0.00
Paving	0.33	0.36	-0.13	0.00	0.32	0.28	0.00	0.00	0.00	0.00	0.00	0.00
Rough Grading	0.77	0.59	-0.04	0.00	0.65	0.62	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation	0.80	0.67	0.31	0.00	0.71	0.69	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation Haul	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Trenching	0.41	0.25	0.01	0.00	0.29	0.26	0.00	0.00	0.00	0.00	0.00	0.00

OFFROAD Equipment Mitigation

Equipment Type	Fuel Type	Tier	Number Mitigated	Total Number of Equipment	DPF	Oxidation Catalyst
Air Compressors	Diesel	Tier 3	1	1	No Change	0.00
Cement and Mortar Mixers	Diesel	No Change	0	0	No Change	0.00
Concrete/Industrial Saws	Diesel	No Change	0	0	No Change	0.00
Cranes	Diesel	Tier 4 Final	1	1	No Change	0.00
Excavators	Diesel	No Change	3	3	No Change	0.00
Forklifts	Diesel	Tier 3	1	1	No Change	0.00
Generator Sets	Diesel	Tier 3	1	1	No Change	0.00
Graders	Diesel	Tier 3	1	1	No Change	0.00
Pavers	Diesel	Tier 3	1	1	No Change	0.00
Paving Equipment	Diesel	No Change	0	0	No Change	0.00
Rollers	Diesel	No Change	0	1	No Change	0.00
Rubber Tired Dozers	Diesel	Tier 3	1	1	No Change	0.00
Rubber Tired Loaders	Diesel	Tier 3	2	2	No Change	0.00
Skid Steer Loaders	Diesel	Tier 3	1	1	No Change	0.00
Tractors/Loaders/Backhoes	Diesel	Tier 3	3	3	No Change	0.00
Welders	Diesel	No Change	0	3	No Change	0.00

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Unmitigated tons/yr						Unmitigated mt/yr					
Air Compressors	7.31000E-003	4.80700E-002	4.11000E-002	7.00000E-005	3.81000E-003	3.81000E-003	0.00000E+000	5.61716E+000	5.61716E+000	5.90000E-004	0.00000E+000	5.62961E+000
Cement and Mortar Mixers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Concrete/Industrial Saws	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Cranes	8.66700E-002	1.02841E+000	3.66120E-001	7.30000E-004	4.60700E-002	4.23800E-002	0.00000E+000	6.84077E+001	6.84077E+001	2.08800E-002	0.00000E+000	6.88462E+001
Excavators	4.60000E-003	5.11000E-002	3.98600E-002	6.00000E-005	2.73000E-003	2.51000E-003	0.00000E+000	5.62971E+000	5.62971E+000	1.70000E-003	0.00000E+000	5.66542E+000
Forklifts	2.79700E-002	2.41800E-001	1.62990E-001	2.00000E-004	2.00200E-002	1.84200E-002	0.00000E+000	1.85185E+001	1.85185E+001	5.65000E-003	0.00000E+000	1.86372E+001
Generator Sets	1.01910E-001	7.90660E-001	6.55990E-001	1.14000E-003	5.37900E-002	5.37900E-002	0.00000E+000	9.80635E+001	9.80635E+001	8.20000E-003	0.00000E+000	9.82356E+001

Graders	6.11000E-003	6.22800E-002	2.95700E-002	4.00000E-005	3.50000E-003	3.22000E-003	0.00000E+000	3.53479E+000	3.53479E+000	1.07000E-003	0.00000E+000	3.55718E+000
Pavers	6.10000E-004	6.83000E-003	4.80000E-003	1.00000E-005	3.40000E-004	3.10000E-004	0.00000E+000	7.10010E-001	7.10010E-001	2.20000E-004	0.00000E+000	7.14580E-001
Paving Equipment	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Rollers	4.60000E-004	1.97000E-003	1.99000E-003	0.00000E+000	1.70000E-004	1.60000E-004	0.00000E+000	1.94880E-001	1.94880E-001	6.00000E-005	0.00000E+000	1.96130E-001
Rubber Tired Dozers	6.50000E-003	7.28200E-002	5.50500E-002	5.00000E-005	3.39000E-003	3.12000E-003	0.00000E+000	4.39805E+000	4.39805E+000	1.33000E-003	0.00000E+000	4.42591E+000
Rubber Tired Loaders	1.23100E-002	1.24490E-001	7.81500E-002	1.10000E-004	6.94000E-003	6.39000E-003	0.00000E+000	1.00504E+001	1.00504E+001	3.04000E-003	0.00000E+000	1.01141E+001
Skid Steer Loaders	1.71000E-003	2.19600E-002	2.21800E-002	3.00000E-005	1.18000E-003	1.09000E-003	0.00000E+000	3.02089E+000	3.02089E+000	9.30000E-004	0.00000E+000	3.04033E+000
Tractors/Loaders/Backhoes	4.54000E-002	4.35520E-001	3.36550E-001	4.40000E-004	3.29900E-002	3.03500E-002	0.00000E+000	4.06993E+001	4.06993E+001	1.24100E-002	0.00000E+000	4.09600E+001
Welders	2.68720E-001	9.14050E-001	1.00298E+000	1.33000E-003	6.83700E-002	6.83700E-002	0.00000E+000	9.79688E+001	9.79688E+001	2.18500E-002	0.00000E+000	9.84277E+001

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Mitigated tons/yr							Mitigated mt/yr					
Air Compressors	1.31000E-003	2.98500E-002	4.03100E-002	7.00000E-005	2.09000E-003	2.09000E-003	0.00000E+000	5.61715E+000	5.61715E+000	5.90000E-004	0.00000E+000	5.62961E+000
Cement and Mortar Mixers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Concrete/Industrial Saws	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Cranes	9.02000E-003	3.91100E-002	3.30910E-001	7.30000E-004	1.20000E-003	1.20000E-003	0.00000E+000	6.84077E+001	6.84077E+001	2.08800E-002	0.00000E+000	6.88461E+001
Excavators	4.60000E-003	5.11000E-002	3.98600E-002	6.00000E-005	2.73000E-003	2.51000E-003	0.00000E+000	5.62970E+000	5.62970E+000	1.70000E-003	0.00000E+000	5.66542E+000
Forklifts	4.90000E-003	1.11930E-001	1.51150E-001	2.00000E-004	7.84000E-003	7.84000E-003	0.00000E+000	1.85185E+001	1.85185E+001	5.65000E-003	0.00000E+000	1.86372E+001
Generator Sets	2.28300E-002	5.21180E-001	7.03780E-001	1.14000E-003	3.65200E-002	3.65200E-002	0.00000E+000	9.80634E+001	9.80634E+001	8.20000E-003	0.00000E+000	9.82355E+001
Graders	9.10000E-004	1.75100E-002	2.79300E-002	4.00000E-005	8.50000E-004	8.50000E-004	0.00000E+000	3.53479E+000	3.53479E+000	1.07000E-003	0.00000E+000	3.55718E+000
Pavers	1.90000E-004	3.64000E-003	5.80000E-003	1.00000E-005	1.80000E-004	1.80000E-004	0.00000E+000	7.10010E-001	7.10010E-001	2.20000E-004	0.00000E+000	7.14580E-001
Paving Equipment	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Rollers	4.60000E-004	1.97000E-003	1.99000E-003	0.00000E+000	1.70000E-004	1.60000E-004	0.00000E+000	1.94880E-001	1.94880E-001	6.00000E-005	0.00000E+000	1.96130E-001
Rubber Tired Dozers	1.13000E-003	2.19100E-002	2.45600E-002	5.00000E-005	8.30000E-004	8.30000E-004	0.00000E+000	4.39804E+000	4.39804E+000	1.33000E-003	0.00000E+000	4.42590E+000
Rubber Tired Loaders	2.64000E-003	5.09700E-002	8.12900E-002	1.10000E-004	2.46000E-003	2.46000E-003	0.00000E+000	1.00503E+001	1.00503E+001	3.04000E-003	0.00000E+000	1.01141E+001
Skid Steer Loaders	8.00000E-004	1.83100E-002	2.47200E-002	3.00000E-005	1.28000E-003	1.28000E-003	0.00000E+000	3.02089E+000	3.02089E+000	9.30000E-004	0.00000E+000	3.04032E+000
Tractors/Loaders/Backhoes	1.06600E-002	2.43290E-001	3.28530E-001	4.40000E-004	1.70500E-002	1.70500E-002	0.00000E+000	4.06992E+001	4.06992E+001	1.24100E-002	0.00000E+000	4.09599E+001
Welders	2.68720E-001	9.14050E-001	1.00298E+000	1.33000E-003	6.83700E-002	6.83700E-002	0.00000E+000	9.79687E+001	9.79687E+001	2.18500E-002	0.00000E+000	9.84276E+001

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Air Compressors	8.20793E-001	3.79031E-001	1.92214E-002	0.00000E+000	4.51444E-001	4.51444E-001	0.00000E+000	1.78026E-006	1.78026E-006	0.00000E+000	0.00000E+000	0.00000E+000
Cement and Mortar Mixers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Concrete/Industrial Saws	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Cranes	8.95927E-001	9.61970E-001	9.61707E-002	0.00000E+000	9.73953E-001	9.71685E-001	0.00000E+000	1.16946E-006	1.16946E-006	0.00000E+000	0.00000E+000	1.16201E-006
Excavators	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.77629E-006	1.77629E-006	0.00000E+000	0.00000E+000	0.00000E+000
Forklifts	8.24812E-001	5.37097E-001	7.26425E-002	0.00000E+000	6.08392E-001	5.74376E-001	0.00000E+000	1.08000E-006	1.08000E-006	0.00000E+000	0.00000E+000	1.60969E-006
Generator Sets	7.75979E-001	3.40829E-001	-7.28517E-002	0.00000E+000	3.21063E-001	3.21063E-001	0.00000E+000	1.12172E-006	1.12172E-006	0.00000E+000	0.00000E+000	1.11976E-006
Graders	8.51064E-001	7.18850E-001	5.54616E-002	0.00000E+000	7.57143E-001	7.36025E-001	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Pavers	6.88525E-001	4.67057E-001	-2.08333E-001	0.00000E+000	4.70588E-001	4.19355E-001	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Paving Equipment	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Rollers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Rubber Tired Dozers	8.26154E-001	6.99121E-001	5.53860E-001	0.00000E+000	7.55162E-001	7.33974E-001	0.00000E+000	2.27373E-006	2.27373E-006	0.00000E+000	0.00000E+000	2.25942E-006
Rubber Tired Loaders	7.85540E-001	5.90570E-001	-4.01791E-002	0.00000E+000	6.45533E-001	6.15023E-001	0.00000E+000	9.94990E-007	9.94990E-007	0.00000E+000	0.00000E+000	1.97743E-006
Skid Steer Loaders	5.32164E-001	1.66211E-001	-1.14518E-001	0.00000E+000	-8.47458E-002	-1.74312E-001	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	3.28912E-006
Tractors/Loaders/Backhoes	7.65198E-001	4.41380E-001	2.38300E-002	0.00000E+000	4.83177E-001	4.38221E-001	0.00000E+000	1.22852E-006	1.22852E-006	0.00000E+000	0.00000E+000	1.22070E-006
Welders	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.22488E-006	1.22488E-006	0.00000E+000	0.00000E+000	1.11757E-006

Fugitive Dust Mitigation

Yes/No	Mitigation Measure	Mitigation Input		Mitigation Input		Mitigation Input	
No	Soil Stabilizer for unpaved Roads	PM10 Reduction	0.00	PM2.5 Reduction	0.00		
Yes	Replace Ground Cover of Area Disturbed	PM10 Reduction	5.00	PM2.5 Reduction	5.00		
Yes	Water Exposed Area	PM10 Reduction	55.00	PM2.5 Reduction	55.00	Frequency (per day)	2.00
No	Unpaved Road Mitigation	Moisture Content %	0.00	Vehicle Speed (mph)	15.00		
Yes	Clean Paved Road	% PM Reduction	9.00				

		Unmitigated		Mitigated		Percent Reduction	
Phase	Source	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5
Architectural Coating	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Architectural Coating	Roads	0.00	0.00	0.00	0.00	0.08	0.07
Building Construction	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	Roads	0.11	0.03	0.10	0.03	0.07	0.07
Demolition_AsphaltHaul	Fugitive Dust	0.00	0.00	0.00	0.00	0.57	0.58
Demolition_AsphaltHaul	Roads	0.00	0.00	0.00	0.00	0.20	0.00
Demolition_BuildingHaul	Fugitive Dust	0.00	0.00	0.00	0.00	0.57	0.58
Demolition_BuildingHaul	Roads	0.00	0.00	0.00	0.00	0.05	0.09
Demolition_Buildings	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Demolition_Buildings	Roads	0.00	0.00	0.00	0.00	0.07	0.13
Fine Grading	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading	Roads	0.00	0.00	0.00	0.00	0.08	0.00
Fine Grading Haul	Fugitive Dust	0.00	0.00	0.00	0.00	1.00	0.00
Fine Grading Haul	Roads	0.00	0.00	0.00	0.00	0.20	0.00
Finishing and Landscaping	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Finishing and Landscaping	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Paving	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Paving	Roads	0.00	0.00	0.00	0.00	0.06	0.00
Rough Grading	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Rough Grading	Roads	0.00	0.00	0.00	0.00	0.08	0.06
Site Preparation	Fugitive Dust	0.03	0.02	0.01	0.01	0.57	0.57
Site Preparation	Roads	0.00	0.00	0.00	0.00	0.07	0.06
Site Preparation Haul	Fugitive Dust	0.00	0.00	0.00	0.00	0.57	0.57
Site Preparation Haul	Roads	0.01	0.00	0.00	0.00	0.07	0.06
Trenching	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Trenching	Roads	0.00	0.00	0.00	0.00	0.08	0.07

Appendix B. ISCST3 Model Output Files

Appendix

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Results Summary

Hotel
Construction HRA

Concentration - Source Group: 1

Averaging Period	Rank	Peak	Units	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
ANNUAL		4.86850	ug/m^3	547216.31	4238479.50	25.00	0.00	0.00	

Concentration - Source Group: 2

Averaging Period	Rank	Peak	Units	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
ANNUAL		8.07027	ug/m^3	547420.63	4238181.50	24.00	0.00	0.00	

Concentration - Source Group: ALL

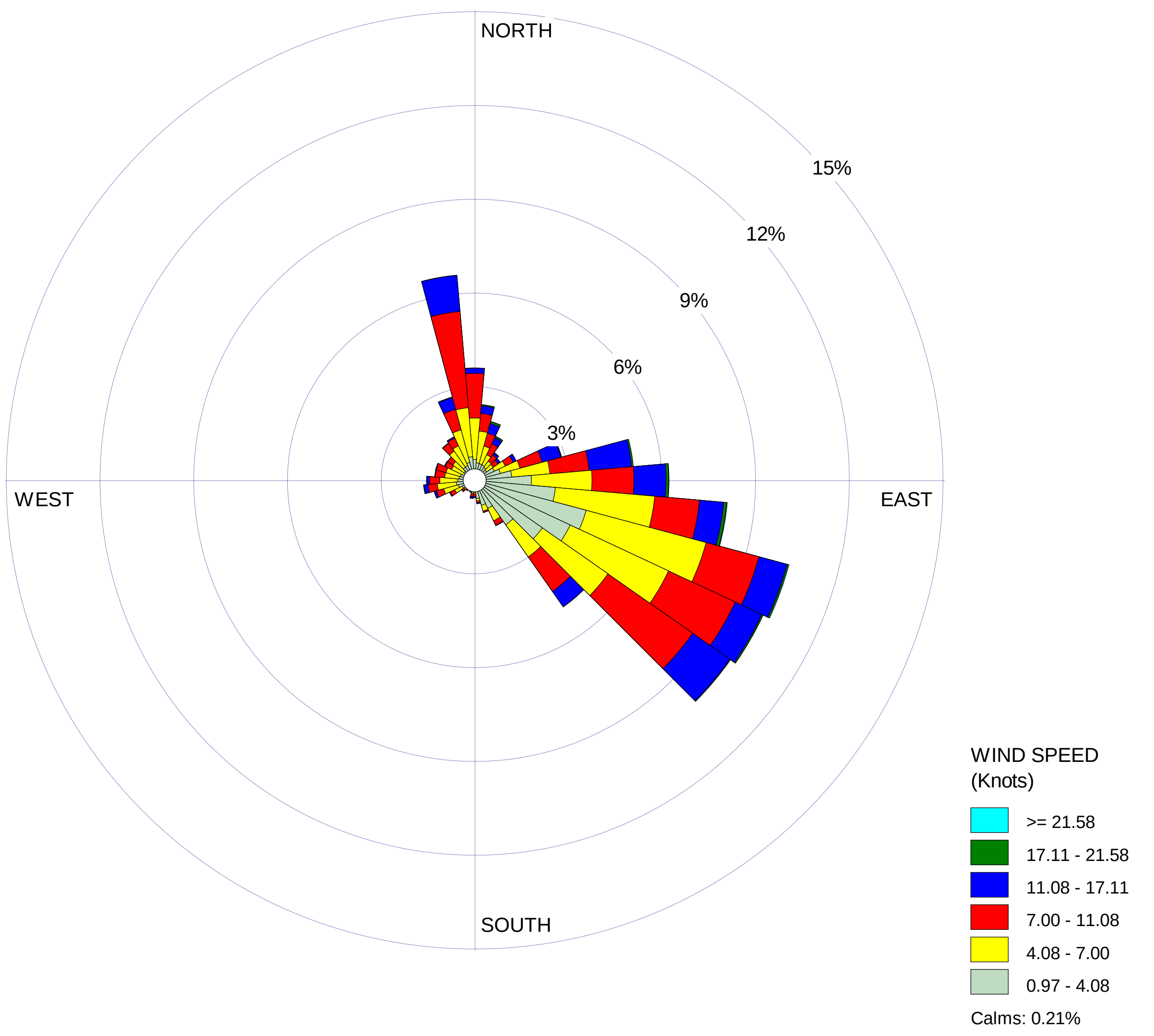
Averaging Period	Rank	Peak	Units	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
ANNUAL		11.28970	ug/m^3	547420.63	4238181.50	24.00	0.00	0.00	

WIND ROSE PLOT:

Station #9903

DISPLAY:

Wind Speed
Flow Vector (blowing to)



COMMENTS:	DATA PERIOD: **Start Date: 1/1/2003 - 00:00** **End Date: 12/31/2005 - 23:00**	COMPANY NAME:	
		MODELER:	
	CALM WINDS: **0.21%**	TOTAL COUNT: **26304 hrs.**	
	AVG. WIND SPEED: **6.34 Knots**	DATE: **8/17/2015**	PROJECT NO.:

WRPLOT View - Lakes Environmental Software

```
**
****************************************
**
** ISCST3 Input Produced by:
** AERMOD View Ver. 8.9.0
** Lakes Environmental Software Inc.
** Date: 8/20/2015
** File: C:\Users\NVermilion\Desktop\HRA\CSON-02.1\B - ISCST3 Model Output Files\cson\cson.INP
**
****************************************
**
**
****************************************
** ISCST3 Control Pathway
****************************************
**
**
CO STARTING
   TITLEONE Hotel
   TITLETWO Construction HRA
   MODELOPT DFAULT CONC  URBAN
   AVERTIME ANNUAL
   POLLUTID OTHER
   TERRHGTS ELEV
   FLAGPOLE 1.50
   RUNORNOT RUN
   ERRORFIL cson.err
CO FINISHED
**
****************************************
** ISCST3 Source Pathway
****************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION 1            AREAPOLY   547189.902  4238314.022       24.000
** DESCRSRC Onsite
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = 2
** DESCRSRC Offsite (haul)
** PREFIX
** Length of Side = 22.50
** Configuration = Adjacent
** Emission Rate = 1.0
** Vertical Dimension = 4.15
** SZINIT = 1.93
** Nodes = 4
** 547222.734, 4238356.991, 24.00, 4.15, 0.00
```

```
** 547224.676, 4238363.369, 24.00, 4.15, 10.47
** 547404.370, 4238339.798, 25.00, 4.15, 10.47
** 547357.525, 4237957.980, 22.29, 4.15, 10.47
** ----------------------------------------------------------------------
   LOCATION L0000001     VOLUME   547229.220 4238362.773 24.00
   LOCATION L0000002     VOLUME   547251.529 4238359.846 24.00
   LOCATION L0000003     VOLUME   547273.837 4238356.920 24.00
   LOCATION L0000004     VOLUME   547296.146 4238353.994 24.00
   LOCATION L0000005     VOLUME   547318.455 4238351.068 24.00
   LOCATION L0000006     VOLUME   547340.764 4238348.141 24.04
   LOCATION L0000007     VOLUME   547363.073 4238345.215 24.69
   LOCATION L0000008     VOLUME   547385.382 4238342.289 25.00
   LOCATION L0000009     VOLUME   547403.963 4238336.474 25.00
   LOCATION L0000010     VOLUME   547401.223 4238314.141 25.00
   LOCATION L0000011     VOLUME   547398.483 4238291.809 25.00
   LOCATION L0000012     VOLUME   547395.743 4238269.476 24.70
   LOCATION L0000013     VOLUME   547393.003 4238247.144 24.00
   LOCATION L0000014     VOLUME   547390.263 4238224.811 24.00
   LOCATION L0000015     VOLUME   547387.523 4238202.479 24.00
   LOCATION L0000016     VOLUME   547384.783 4238180.146 24.00
   LOCATION L0000017     VOLUME   547382.043 4238157.814 23.94
   LOCATION L0000018     VOLUME   547379.303 4238135.481 23.89
   LOCATION L0000019     VOLUME   547376.563 4238113.148 23.00
   LOCATION L0000020     VOLUME   547373.823 4238090.816 23.00
   LOCATION L0000021     VOLUME   547371.083 4238068.483 23.00
   LOCATION L0000022     VOLUME   547368.343 4238046.151 23.00
   LOCATION L0000023     VOLUME   547365.603 4238023.818 23.00
   LOCATION L0000024     VOLUME   547362.863 4238001.486 23.00
   LOCATION L0000025     VOLUME   547360.123 4237979.153 22.47
** End of LINE VOLUME Source ID = 2
** Source Parameters **
   SRCPARAM 1            0.000189829     4.150        12     1.930
   AREAVERT 1            547189.902 4238314.022 547205.931 4238311.901
   AREAVERT 1            547200.509 4238268.059 547288.899 4238257.217
   AREAVERT 1            547291.256 4238277.723 547256.136 4238282.673
   AREAVERT 1            547259.436 4238321.093 547228.794 4238324.629
   AREAVERT 1            547231.151 4238348.200 547226.437 4238348.435
   AREAVERT 1            547227.616 4238356.214 547195.559 4238359.985
** LINE VOLUME Source ID = 2
   SRCPARAM L0000001          0.04      4.15     10.47      1.93
   SRCPARAM L0000002          0.04      4.15     10.47      1.93
   SRCPARAM L0000003          0.04      4.15     10.47      1.93
   SRCPARAM L0000004          0.04      4.15     10.47      1.93
   SRCPARAM L0000005          0.04      4.15     10.47      1.93
   SRCPARAM L0000006          0.04      4.15     10.47      1.93
   SRCPARAM L0000007          0.04      4.15     10.47      1.93
   SRCPARAM L0000008          0.04      4.15     10.47      1.93
   SRCPARAM L0000009          0.04      4.15     10.47      1.93
   SRCPARAM L0000010          0.04      4.15     10.47      1.93
   SRCPARAM L0000011          0.04      4.15     10.47      1.93
   SRCPARAM L0000012          0.04      4.15     10.47      1.93
```

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   SRCPARAM L0000013          0.04      4.15     10.47      1.93
   SRCPARAM L0000014          0.04      4.15     10.47      1.93
   SRCPARAM L0000015          0.04      4.15     10.47      1.93
   SRCPARAM L0000016          0.04      4.15     10.47      1.93
   SRCPARAM L0000017          0.04      4.15     10.47      1.93
   SRCPARAM L0000018          0.04      4.15     10.47      1.93
   SRCPARAM L0000019          0.04      4.15     10.47      1.93
   SRCPARAM L0000020          0.04      4.15     10.47      1.93
   SRCPARAM L0000021          0.04      4.15     10.47      1.93
   SRCPARAM L0000022          0.04      4.15     10.47      1.93
   SRCPARAM L0000023          0.04      4.15     10.47      1.93
   SRCPARAM L0000024          0.04      4.15     10.47      1.93
   SRCPARAM L0000025          0.04      4.15     10.47      1.93
** ---------------------------------------------------------------------

** Variable Emissions Type: "By Season / Hour / Day (SHRDOW)"
** Variable Emission Scenario: "Scenario 1"
** WeekDays:
** Winter
   EMISFACT 1            SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT 1            SHRDOW 0.0 1.0 1.0 1.0 1.0 0.0
   EMISFACT 1            SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT 1            SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Spring
   EMISFACT 1            SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT 1            SHRDOW 0.0 1.0 1.0 1.0 1.0 0.0
   EMISFACT 1            SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT 1            SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Summer
   EMISFACT 1            SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT 1            SHRDOW 0.0 1.0 1.0 1.0 1.0 0.0
   EMISFACT 1            SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT 1            SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Fall
   EMISFACT 1            SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT 1            SHRDOW 0.0 1.0 1.0 1.0 1.0 0.0
   EMISFACT 1            SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT 1            SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
** Winter
   EMISFACT 1            SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT 1            SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT 1            SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT 1            SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Spring
   EMISFACT 1            SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT 1            SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT 1            SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT 1            SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Summer
   EMISFACT 1            SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
```

```
   EMISFACT 1            SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT 1            SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT 1            SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Fall
   EMISFACT 1            SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT 1            SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT 1            SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT 1            SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
** Winter
   EMISFACT 1            SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT 1            SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT 1            SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT 1            SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Spring
   EMISFACT 1            SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT 1            SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT 1            SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT 1            SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Summer
   EMISFACT 1            SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT 1            SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT 1            SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT 1            SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Fall
   EMISFACT 1            SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT 1            SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT 1            SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT 1            SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
** Winter
   EMISFACT L0000001     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000001     SHRDOW 0.0 1.0 1.0 1.0 1.0 0.0
   EMISFACT L0000001     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0000001     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000002     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000002     SHRDOW 0.0 1.0 1.0 1.0 1.0 0.0
   EMISFACT L0000002     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0000002     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000003     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000003     SHRDOW 0.0 1.0 1.0 1.0 1.0 0.0
   EMISFACT L0000003     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0000003     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000004     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000004     SHRDOW 0.0 1.0 1.0 1.0 1.0 0.0
   EMISFACT L0000004     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0000004     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000005     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000005     SHRDOW 0.0 1.0 1.0 1.0 1.0 0.0
   EMISFACT L0000005     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0000005     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
```

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EMISFACT L0000006     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000006     SHRDOW 0.0 1.0 1.0 1.0 1.0 0.0
EMISFACT L0000006     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000006     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000007     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000007     SHRDOW 0.0 1.0 1.0 1.0 1.0 0.0
EMISFACT L0000007     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000007     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000008     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000008     SHRDOW 0.0 1.0 1.0 1.0 1.0 0.0
EMISFACT L0000008     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000008     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000009     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000009     SHRDOW 0.0 1.0 1.0 1.0 1.0 0.0
EMISFACT L0000009     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000009     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000010     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000010     SHRDOW 0.0 1.0 1.0 1.0 1.0 0.0
EMISFACT L0000010     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000010     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000011     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000011     SHRDOW 0.0 1.0 1.0 1.0 1.0 0.0
EMISFACT L0000011     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000011     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000012     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000012     SHRDOW 0.0 1.0 1.0 1.0 1.0 0.0
EMISFACT L0000012     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000012     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000013     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000013     SHRDOW 0.0 1.0 1.0 1.0 1.0 0.0
EMISFACT L0000013     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000013     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000014     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000014     SHRDOW 0.0 1.0 1.0 1.0 1.0 0.0
EMISFACT L0000014     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000014     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000015     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000015     SHRDOW 0.0 1.0 1.0 1.0 1.0 0.0
EMISFACT L0000015     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000015     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000016     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000016     SHRDOW 0.0 1.0 1.0 1.0 1.0 0.0
EMISFACT L0000016     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000016     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000017     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000017     SHRDOW 0.0 1.0 1.0 1.0 1.0 0.0
EMISFACT L0000017     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000017     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000018     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000018     SHRDOW 0.0 1.0 1.0 1.0 1.0 0.0
EMISFACT L0000018     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
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   EMISFACT L0000018     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000019     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000019     SHRDOW 0.0 1.0 1.0 1.0 1.0 0.0
   EMISFACT L0000019     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0000019     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000020     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000020     SHRDOW 0.0 1.0 1.0 1.0 1.0 0.0
   EMISFACT L0000020     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0000020     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000021     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000021     SHRDOW 0.0 1.0 1.0 1.0 1.0 0.0
   EMISFACT L0000021     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0000021     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000022     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000022     SHRDOW 0.0 1.0 1.0 1.0 1.0 0.0
   EMISFACT L0000022     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0000022     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000023     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000023     SHRDOW 0.0 1.0 1.0 1.0 1.0 0.0
   EMISFACT L0000023     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0000023     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000024     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000024     SHRDOW 0.0 1.0 1.0 1.0 1.0 0.0
   EMISFACT L0000024     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0000024     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000025     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000025     SHRDOW 0.0 1.0 1.0 1.0 1.0 0.0
   EMISFACT L0000025     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0000025     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Spring
   EMISFACT L0000001     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000001     SHRDOW 0.0 1.0 1.0 1.0 1.0 0.0
   EMISFACT L0000001     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0000001     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000002     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000002     SHRDOW 0.0 1.0 1.0 1.0 1.0 0.0
   EMISFACT L0000002     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0000002     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000003     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000003     SHRDOW 0.0 1.0 1.0 1.0 1.0 0.0
   EMISFACT L0000003     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0000003     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000004     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000004     SHRDOW 0.0 1.0 1.0 1.0 1.0 0.0
   EMISFACT L0000004     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0000004     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000005     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000005     SHRDOW 0.0 1.0 1.0 1.0 1.0 0.0
   EMISFACT L0000005     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0000005     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000006     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
```

```
EMISFACT L0000006     SHRDOW 0.0 1.0 1.0 1.0 1.0 0.0
EMISFACT L0000006     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000006     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000007     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000007     SHRDOW 0.0 1.0 1.0 1.0 1.0 0.0
EMISFACT L0000007     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000007     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000008     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000008     SHRDOW 0.0 1.0 1.0 1.0 1.0 0.0
EMISFACT L0000008     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000008     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000009     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000009     SHRDOW 0.0 1.0 1.0 1.0 1.0 0.0
EMISFACT L0000009     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000009     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000010     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000010     SHRDOW 0.0 1.0 1.0 1.0 1.0 0.0
EMISFACT L0000010     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000010     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000011     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000011     SHRDOW 0.0 1.0 1.0 1.0 1.0 0.0
EMISFACT L0000011     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000011     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000012     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000012     SHRDOW 0.0 1.0 1.0 1.0 1.0 0.0
EMISFACT L0000012     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000012     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000013     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000013     SHRDOW 0.0 1.0 1.0 1.0 1.0 0.0
EMISFACT L0000013     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000013     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000014     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000014     SHRDOW 0.0 1.0 1.0 1.0 1.0 0.0
EMISFACT L0000014     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000014     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000015     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000015     SHRDOW 0.0 1.0 1.0 1.0 1.0 0.0
EMISFACT L0000015     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000015     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000016     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000016     SHRDOW 0.0 1.0 1.0 1.0 1.0 0.0
EMISFACT L0000016     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000016     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000017     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000017     SHRDOW 0.0 1.0 1.0 1.0 1.0 0.0
EMISFACT L0000017     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000017     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000018     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000018     SHRDOW 0.0 1.0 1.0 1.0 1.0 0.0
EMISFACT L0000018     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000018     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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   EMISFACT L0000019     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0000019     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000020     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000020     SHRDOW 0.0 1.0 1.0 1.0 1.0 0.0
   EMISFACT L0000020     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0000020     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000021     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000021     SHRDOW 0.0 1.0 1.0 1.0 1.0 0.0
   EMISFACT L0000021     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0000021     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000022     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000022     SHRDOW 0.0 1.0 1.0 1.0 1.0 0.0
   EMISFACT L0000022     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0000022     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000023     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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   EMISFACT L0000023     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0000023     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000024     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000024     SHRDOW 0.0 1.0 1.0 1.0 1.0 0.0
   EMISFACT L0000024     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0000024     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000025     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000025     SHRDOW 0.0 1.0 1.0 1.0 1.0 0.0
   EMISFACT L0000025     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0000025     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Summer
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   EMISFACT L0000001     SHRDOW 0.0 1.0 1.0 1.0 1.0 0.0
   EMISFACT L0000001     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0000001     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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   EMISFACT L0000002     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
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   EMISFACT L0000005     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0000005     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000006     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000006     SHRDOW 0.0 1.0 1.0 1.0 1.0 0.0
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EMISFACT L0000006     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
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EMISFACT L0000007     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000007     SHRDOW 0.0 1.0 1.0 1.0 1.0 0.0
EMISFACT L0000007     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000007     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000008     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000008     SHRDOW 0.0 1.0 1.0 1.0 1.0 0.0
EMISFACT L0000008     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000008     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000009     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000009     SHRDOW 0.0 1.0 1.0 1.0 1.0 0.0
EMISFACT L0000009     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000009     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000010     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000010     SHRDOW 0.0 1.0 1.0 1.0 1.0 0.0
EMISFACT L0000010     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000010     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000011     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000011     SHRDOW 0.0 1.0 1.0 1.0 1.0 0.0
EMISFACT L0000011     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000011     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000012     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000012     SHRDOW 0.0 1.0 1.0 1.0 1.0 0.0
EMISFACT L0000012     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000012     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000013     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000013     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000013     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000014     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000014     SHRDOW 0.0 1.0 1.0 1.0 1.0 0.0
EMISFACT L0000014     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000014     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000015     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000015     SHRDOW 0.0 1.0 1.0 1.0 1.0 0.0
EMISFACT L0000015     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000015     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000016     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000016     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000017     SHRDOW 0.0 1.0 1.0 1.0 1.0 0.0
EMISFACT L0000017     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000017     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000018     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000018     SHRDOW 0.0 1.0 1.0 1.0 1.0 0.0
EMISFACT L0000018     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000018     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000019     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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   EMISFACT L0000019     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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   EMISFACT L0000020     SHRDOW 0.0 1.0 1.0 1.0 1.0 0.0
   EMISFACT L0000020     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0000020     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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   EMISFACT L0000021     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0000021     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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   EMISFACT L0000022     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0000022     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000023     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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   EMISFACT L0000023     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0000023     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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   EMISFACT L0000024     SHRDOW 0.0 1.0 1.0 1.0 1.0 0.0
   EMISFACT L0000024     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0000024     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000025     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000025     SHRDOW 0.0 1.0 1.0 1.0 1.0 0.0
   EMISFACT L0000025     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0000025     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Fall
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   EMISFACT L0000001     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0000001     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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   EMISFACT L0000002     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
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   EMISFACT L0000003     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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   EMISFACT L0000006     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000007     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000007     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000008     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000008     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
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EMISFACT L0000009     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
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EMISFACT L0000010     SHRDOW 0.0 1.0 1.0 1.0 1.0 0.0
EMISFACT L0000010     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000010     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000011     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000011     SHRDOW 0.0 1.0 1.0 1.0 1.0 0.0
EMISFACT L0000011     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000011     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000012     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000012     SHRDOW 0.0 1.0 1.0 1.0 1.0 0.0
EMISFACT L0000012     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000012     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000013     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000013     SHRDOW 0.0 1.0 1.0 1.0 1.0 0.0
EMISFACT L0000013     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000013     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000014     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000014     SHRDOW 0.0 1.0 1.0 1.0 1.0 0.0
EMISFACT L0000014     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000014     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000015     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000015     SHRDOW 0.0 1.0 1.0 1.0 1.0 0.0
EMISFACT L0000015     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000015     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000016     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000016     SHRDOW 0.0 1.0 1.0 1.0 1.0 0.0
EMISFACT L0000016     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000016     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000017     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000017     SHRDOW 0.0 1.0 1.0 1.0 1.0 0.0
EMISFACT L0000017     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000017     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000018     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000018     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000018     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000019     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000019     SHRDOW 0.0 1.0 1.0 1.0 1.0 0.0
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   EMISFACT L0000020     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0000020     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000021     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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   EMISFACT L0000021     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0000021     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000022     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000022     SHRDOW 0.0 1.0 1.0 1.0 1.0 0.0
   EMISFACT L0000022     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0000022     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000023     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000023     SHRDOW 0.0 1.0 1.0 1.0 1.0 0.0
   EMISFACT L0000023     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0000023     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000024     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000024     SHRDOW 0.0 1.0 1.0 1.0 1.0 0.0
   EMISFACT L0000024     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0000024     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000025     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000025     SHRDOW 0.0 1.0 1.0 1.0 1.0 0.0
   EMISFACT L0000025     SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0000025     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
** Winter
   EMISFACT L0000001     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000001     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000001     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000001     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000002     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000002     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000002     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000002     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000003     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000003     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000003     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000003     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000004     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000004     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000004     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000004     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000005     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000005     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000005     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000005     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000006     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000006     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000006     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000006     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000007     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000007     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000007     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000007     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000008     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000008     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000008     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000008     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000009     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000009     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000009     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000009     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000010     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000010     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000010     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000010     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000011     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000011     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000011     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000011     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000012     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000012     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000012     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000012     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000013     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000013     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000013     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000013     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000014     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000014     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000014     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000014     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000015     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000015     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000015     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000015     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000016     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000016     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000016     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000016     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000017     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000017     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000017     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000017     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000018     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000018     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000018     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000018     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000019     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000019     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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   EMISFACT L0000019     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000019     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000020     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000020     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000020     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000020     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000021     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000021     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000021     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000021     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000022     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000022     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000022     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000022     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000023     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000023     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000023     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000023     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000024     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000024     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000024     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000024     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000025     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000025     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000025     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000025     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Spring
   EMISFACT L0000001     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000001     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000001     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000001     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000002     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000002     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000002     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000002     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000003     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000003     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000003     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000003     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000004     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000004     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000004     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000004     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000005     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000005     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000005     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000005     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000006     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000006     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000006     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000006     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000007     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000007     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000007     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000007     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000008     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000008     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000008     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000008     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000009     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000009     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000009     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000009     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000010     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000010     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000010     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000010     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000011     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000011     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000011     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000011     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000012     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000012     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000012     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000012     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000013     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000013     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000013     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000013     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000014     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000014     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000014     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000014     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000015     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000015     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000015     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000015     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000016     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000016     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000016     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000016     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000017     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000017     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000017     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000017     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000018     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000018     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000018     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000018     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000019     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000019     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000019     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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   EMISFACT L0000019     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000020     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000020     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000020     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000020     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000021     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000021     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000021     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000021     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000022     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000022     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000022     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000022     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000023     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000023     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000023     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000023     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000024     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000024     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000024     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000024     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000025     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000025     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000025     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000025     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Summer
   EMISFACT L0000001     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000001     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000001     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000001     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000002     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000002     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000002     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000002     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000003     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000003     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000003     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000003     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000004     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000004     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000004     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000004     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000005     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000005     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000005     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000005     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000006     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000006     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000006     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000006     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000007     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000007     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000007     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000007     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000008     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000008     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000008     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000008     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000009     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000009     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000009     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000009     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000010     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000010     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000010     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000010     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000011     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000011     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000011     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000011     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000012     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000012     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000012     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000012     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000013     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000013     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000013     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000013     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000014     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000014     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000014     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000014     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000015     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000015     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000015     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000015     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000016     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000016     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000016     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000016     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000017     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000017     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000017     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000017     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000018     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000018     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000018     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000018     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000019     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000019     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000019     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000019     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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   EMISFACT L0000020     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000020     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000020     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000020     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000021     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000021     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000021     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000021     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000022     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000022     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000022     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000022     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000023     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000023     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000023     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000023     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000024     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000024     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000024     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000024     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000025     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000025     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000025     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000025     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Fall
   EMISFACT L0000001     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000001     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000001     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000001     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000002     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000002     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000002     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000002     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000003     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000003     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000003     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000003     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000004     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000004     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000004     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000004     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000005     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000005     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000005     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000005     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000006     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000006     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000006     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000006     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000007     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000007     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000007     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000007     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000008     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000008     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000008     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000008     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000009     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000009     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000009     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000009     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000010     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000010     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000010     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000010     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000011     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000011     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000011     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000011     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000012     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000012     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000012     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000012     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000013     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000013     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000013     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000013     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000014     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000014     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000014     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000014     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000015     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000015     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000015     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000015     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000016     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000016     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000016     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000016     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000017     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000017     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000017     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000017     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000018     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000018     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000018     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000018     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000019     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000019     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000019     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000019     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000020     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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   EMISFACT L0000020     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000020     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000020     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000021     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000021     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000021     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000021     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000022     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000022     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000022     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000022     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000023     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000023     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000023     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000023     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000024     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000024     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000024     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000024     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000025     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000025     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000025     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000025     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
** Winter
   EMISFACT L0000001     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000001     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000001     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000001     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000002     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000002     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000002     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000002     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000003     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000003     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000003     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000003     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000004     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000004     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000004     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000004     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000005     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000005     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000005     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000005     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000006     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000006     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000006     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000006     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000007     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000007     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000007     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000007     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000008     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000008     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000008     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000008     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000009     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000009     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000009     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000009     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000010     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000010     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000010     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000010     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000011     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000011     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000011     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000011     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000012     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000012     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000012     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000013     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000013     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000014     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000014     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000014     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000014     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000015     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000015     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000015     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000015     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000016     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000016     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000016     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000016     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000017     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000017     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000017     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000017     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000018     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000018     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000018     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000018     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000019     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000019     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000019     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000019     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000020     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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   EMISFACT L0000020     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000020     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000020     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000021     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000021     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000021     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000021     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000022     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000022     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000022     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000022     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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   EMISFACT L0000023     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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   EMISFACT L0000023     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000024     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000024     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000024     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000024     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000025     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000025     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000025     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000025     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Spring
   EMISFACT L0000001     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000001     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000001     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000001     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000002     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000002     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000002     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000002     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000003     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000003     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000003     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000003     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000004     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000004     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000004     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000004     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000005     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000005     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000005     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000005     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000006     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000006     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000006     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000006     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000007     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000007     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000007     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000007     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000008     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000008     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000008     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000008     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000009     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000009     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000009     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000009     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000010     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000010     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000010     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000010     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000011     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000011     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000011     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000011     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000012     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000012     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000012     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000012     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000013     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000013     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000013     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000013     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000014     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000014     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000014     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000014     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000015     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000015     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000015     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000015     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000016     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000016     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000016     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000016     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000017     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000017     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000017     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000017     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000018     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000018     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000018     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000018     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000019     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000019     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000019     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000019     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000020     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000020     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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   EMISFACT L0000020     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000020     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000021     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000021     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000021     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000021     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000022     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000022     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000022     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000022     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000023     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000023     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000023     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000023     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000024     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000024     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000024     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000024     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000025     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000025     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000025     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000025     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Summer
   EMISFACT L0000001     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000001     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000001     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000001     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000002     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000002     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000002     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000002     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000003     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000003     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000003     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000003     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000004     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000004     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000004     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000004     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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   EMISFACT L0000005     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000006     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000006     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000006     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000006     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000007     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000007     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000007     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000007     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000008     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000008     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000008     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000008     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000009     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000009     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000009     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000009     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000010     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000010     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000010     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000014     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000014     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000014     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000014     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000015     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000015     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000015     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000015     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000016     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000016     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000016     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000016     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000017     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000017     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000017     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000018     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000018     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000018     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000018     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000019     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000019     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000019     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000019     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000020     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000020     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000020     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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   EMISFACT L0000020     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000021     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000021     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000021     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000021     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000022     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000022     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000022     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000022     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000023     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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   EMISFACT L0000024     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000024     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000024     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000024     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000025     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000025     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000025     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000025     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Fall
   EMISFACT L0000001     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000001     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000001     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000001     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000002     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000002     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000002     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000002     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000003     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000003     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000003     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000003     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000004     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000004     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000004     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000004     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000005     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000005     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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   EMISFACT L0000005     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000006     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000006     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000006     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000006     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000007     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000007     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000007     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000007     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000008     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000008     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000008     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000009     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000009     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000009     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000010     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000010     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000011     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000011     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000013     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000014     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000014     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000014     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000014     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000015     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000015     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000015     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000015     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000016     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000016     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000016     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000016     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000017     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000017     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000017     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000017     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000018     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000018     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000018     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000018     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000019     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000019     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000019     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000019     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000020     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000020     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000020     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000020     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
```

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   EMISFACT L0000021     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000021     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000021     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000021     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000022     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000022     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000022     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000022     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000023     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000023     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000023     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000023     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000024     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000024     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000024     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000024     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000025     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000025     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000025     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000025     SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   SRCGROUP 1        1
   SRCGROUP 2        L0000001 L0000002 L0000003 L0000004 L0000005 L0000006
   SRCGROUP 2        L0000007 L0000008 L0000009 L0000010 L0000011 L0000012
   SRCGROUP 2        L0000013 L0000014 L0000015 L0000016 L0000017 L0000018
   SRCGROUP 2        L0000019 L0000020 L0000021 L0000022 L0000023 L0000024
   SRCGROUP 2        L0000025
   SRCGROUP ALL
SO FINISHED
**
****************************************
** ISCST3 Receptor Pathway
****************************************
**
**
RE STARTING
** DESCRREC "" ""
   DISCCART    547261.14   4238136.32   23.02    1.50
   DISCCART    547237.21   4238140.49   23.00    1.50
   DISCCART    547215.70   4238143.61   23.00    1.50
   DISCCART    547195.59   4238147.08   23.00    1.50
   DISCCART    547187.61   4238116.55   23.00    1.50
   DISCCART    547206.68   4238113.08   23.00    1.50
   DISCCART    547228.19   4238111.35   23.00    1.50
   DISCCART    547253.37   4238042.56   23.00    1.50
   DISCCART    547242.64   4238027.31   22.92    1.50
   DISCCART    547203.82   4238019.24   22.95    1.50
   DISCCART    547202.86   4238048.04   23.00    1.50
   DISCCART    547182.21   4238050.44   23.00    1.50
   DISCCART    547173.57   4238020.20   22.12    1.50
   DISCCART    547170.69   4237994.75   22.00    1.50
   DISCCART    547139.96   4237969.31   22.00    1.50
```

DISCCART	547501.79	4238097.47	23.05	1.50
DISCCART	547181.57	4238229.24	23.88	1.50
DISCCART	547181.57	4238205.99	23.05	1.50
DISCCART	547177.28	4238185.97	23.00	1.50
DISCCART	547163.69	4238183.82	23.00	1.50
DISCCART	547147.24	4238186.32	23.00	1.50
DISCCART	547135.43	4238187.75	23.00	1.50
DISCCART	547117.19	4238188.47	23.00	1.50
DISCCART	547101.46	4238193.48	23.00	1.50
DISCCART	547103.96	4238231.75	23.01	1.50
DISCCART	547121.13	4238237.83	23.48	1.50
DISCCART	547146.16	4238234.96	23.95	1.50
DISCCART	547164.76	4238232.82	24.00	1.50
DISCCART	546913.45	4238220.86	23.00	1.50
DISCCART	546913.15	4238234.54	23.00	1.50
DISCCART	546927.13	4238245.18	23.00	1.50
DISCCART	546880.62	4238296.26	23.92	1.50
DISCCART	546878.79	4238279.23	23.00	1.50
DISCCART	546877.27	4238249.44	23.00	1.50
DISCCART	546943.16	4238456.08	24.00	1.50
DISCCART	546947.83	4238498.01	24.89	1.50
DISCCART	546963.82	4238500.54	24.96	1.50
DISCCART	546949.94	4238511.06	24.95	1.50
DISCCART	546952.88	4238539.26	25.00	1.50
DISCCART	546962.98	4238557.35	25.02	1.50
DISCCART	547006.75	4238572.50	25.64	1.50
DISCCART	547018.95	4238569.98	25.87	1.50
DISCCART	547045.89	4238568.71	25.05	1.50
DISCCART	547060.20	4238568.29	25.43	1.50
DISCCART	547075.77	4238570.40	25.92	1.50
DISCCART	547015.59	4238513.58	24.95	1.50
DISCCART	547088.81	4238551.46	25.79	1.50
DISCCART	547104.38	4238552.30	25.78	1.50
DISCCART	547119.53	4238553.98	25.83	1.50
DISCCART	547111.96	4238523.68	25.00	1.50
DISCCART	547086.29	4238523.26	25.00	1.50
DISCCART	547107.75	4238505.59	24.99	1.50
DISCCART	547151.94	4238514.85	25.00	1.50
DISCCART	547150.25	4238529.16	25.00	1.50
DISCCART	547152.36	4238546.41	25.00	1.50
DISCCART	547155.73	4238561.14	25.91	1.50
DISCCART	547179.71	4238513.58	25.00	1.50
DISCCART	547194.02	4238512.32	25.00	1.50
DISCCART	547213.38	4238510.64	25.00	1.50
DISCCART	547239.05	4238507.27	25.00	1.50
DISCCART	547253.78	4238537.99	25.95	1.50
DISCCART	547244.10	4238553.14	26.00	1.50
DISCCART	547220.95	4238522.42	25.06	1.50
DISCCART	547221.38	4238551.88	25.76	1.50
DISCCART	547196.55	4238550.62	25.69	1.50
DISCCART	547178.03	4238552.72	25.82	1.50

```
   DISCCART    547196.97   4238523.68   25.00    1.50
   DISCCART    547160.67   4238597.23   26.00    1.50
   DISCCART    547159.24   4238617.62   26.85    1.50
   DISCCART    547174.26   4238640.87   26.84    1.50
   DISCCART    547176.05   4238600.80   26.00    1.50
   DISCCART    547177.84   4238620.83   26.63    1.50
   DISCCART    547200.02   4238641.94   26.90    1.50
   DISCCART    547186.07   4238596.87   26.00    1.50
   DISCCART    547203.59   4238590.07   26.00    1.50
   DISCCART    547218.62   4238586.14   26.00    1.50
   DISCCART    547257.97   4238590.79   26.00    1.50
   DISCCART    547220.05   4238638.36   26.00    1.50
   DISCCART    547258.32   4238634.43   26.00    1.50
   DISCCART    547269.06   4238633.71   26.06    1.50
   DISCCART    547273.35   4238656.25   26.92    1.50
   DISCCART    547328.79   4238615.47   26.86    1.50
   DISCCART    547330.94   4238630.85   26.93    1.50
   DISCCART    547334.16   4238651.96   27.00    1.50
   DISCCART    547002.77   4238046.26   22.00    1.50
   DISCCART    547020.10   4238042.94   22.00    1.50
   DISCCART    547005.35   4238077.24   22.05    1.50
   DISCCART    547393.34   4237955.90   23.00    1.50
   DISCCART    547392.23   4237974.71   23.00    1.50
   DISCCART    547395.55   4237992.42   23.00    1.50
   DISCCART    547578.15   4238244.06   24.00    1.50
   DISCCART    547572.51   4238224.97   24.00    1.50
   DISCCART    547567.73   4238210.22   24.00    1.50
   DISCCART    547562.52   4238189.82   24.00    1.50
   DISCCART    547560.36   4238175.50   24.00    1.50
   DISCCART    547555.15   4238160.75   24.00    1.50
   DISCCART    546941.45   4238334.34   24.00    1.50
   DISCCART    546942.02   4238318.51   24.00    1.50
   DISCCART    547152.95   4238488.72   24.55    1.50
   DISCCART    547173.87   4238487.03   24.93    1.50
   DISCCART    547199.32   4238485.89   24.94    1.50
   DISCCART    547216.29   4238479.67   25.00    1.50
   DISCCART    547229.86   4238479.67   25.00    1.50
   DISCCART    547247.39   4238476.28   25.00    1.50
   DISCCART    547270.01   4238480.81   25.00    1.50
   DISCCART    547270.01   4238502.29   25.00    1.50
   DISCCART    547151.82   4238453.66   24.00    1.50
   DISCCART    547142.21   4238436.70   24.00    1.50
   DISCCART    547240.04   4237989.95   22.00    1.50
   DISCCART    547420.62   4238181.37   24.00    1.50
   DISCCART    547461.48   4238181.37   24.00    1.50
   DISCCART    547261.93   4238159.73   23.06    1.50
   DISCCART    547140.67   4238051.61   22.98    1.50
RE FINISHED
**
****************************************
** ISCST3 Meteorology Pathway
```

```
****************************************
**
**
ME STARTING
   INPUTFIL ..\..\D-METD~1\combined.asc
   ANEMHGHT 10 METERS
   SURFDATA 9903 2003
   UAIRDATA 9903 2003
ME FINISHED
**
****************************************
** ISCST3 Output Pathway
****************************************
**
**
OU STARTING
** Auto-Generated Plotfiles
   PLOTFILE ANNUAL ALL cson.IS\AN00GALL.PLT 31
   PLOTFILE ANNUAL 1 cson.IS\AN00G001.PLT 32
   PLOTFILE ANNUAL 2 cson.IS\AN00G002.PLT 33
OU FINISHED


 *** Message Summary For ISC3 Model Setup ***

 --------- Summary of Total Messages --------

A Total of            0 Fatal Error Message(s)
A Total of            1 Warning Message(s)
A Total of            0 Informational Message(s)


   ******** FATAL ERROR MESSAGES ********
              ***  NONE  ***


   ********   WARNING MESSAGES   ********
RE W282  1527 CHK_EL:RecElev < SrcBase; See non-DFAULT HE>ZI option in  MCB#9

***********************************
*** SETUP Finishes Successfully ***
***********************************
```

*** MODEL SETUP OPTIONS SUMMARY ***

- -

**Intermediate Terrain Processing is Selected

**Model Is Setup For Calculation of Average CONCentration Values.

-- SCAVENGING/DEPOSITION LOGIC --
**Model Uses NO DRY DEPLETION. DDPLETE = F
**Model Uses NO WET DEPLETION. WDPLETE = F
**NO WET SCAVENGING Data Provided.
**NO GAS DRY DEPOSITION Data Provided.
**Model Does NOT Use GRIDDED TERRAIN Data for Depletion Calculations

**Model Uses URBAN Dispersion.

**Model Uses Regulatory DEFAULT Options:
1. Final Plume Rise.
2. Stack-tip Downwash.
3. Buoyancy-induced Dispersion.
4. Use Calms Processing Routine.
5. Not Use Missing Data Processing Routine.
6. Default Wind Profile Exponents.
7. Default Vertical Potential Temperature Gradients.
8. "Upper Bound" Values for Supersquat Buildings.
9. No Exponential Decay for URBAN/Non-SO2

**Model Accepts Receptors on ELEV Terrain.

**Model Accepts FLAGPOLE Receptor Heights.

**Model Calculates ANNUAL Averages Only

**This Run Includes: 26 Source(s);   3 Source Group(s); and   113 Receptor(s)

**The Model Assumes A Pollutant Type of: OTHER

**Model Set To Continue RUNning After the Setup Testing.

**Output Options Selected:
Model Outputs Tables of ANNUAL Averages by Receptor
Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)

**NOTE: The Following Flags May Appear Following CONC Values: c for Calm Hours
m for Missing Hours
b for Both Calm and Missing Hours

```
**Misc. Inputs:  Anem. Hgt. (m) =    10.00 ;    Decay Coef. =    0.000     ;    Rot. Angle =     0.0
                 Emission Units = GRAMS/SEC                                ;  Emission Rate Unit Factor =   0.10000E+07
                 Output Units   = MICROGRAMS/M**3

**Approximate Storage Requirements of Model =     1.3 MB of RAM.

**Input Runstream File:          cson.INP
**Output Print File:             cson.OUT
**Detailed Error/Message File:   cson.err
```

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	EMISSION RATE SCALAR VARY BY
L0000001	0	0.40000E-01	547229.2	4238363.0	24.0	4.15	10.47	1.93	SHRDOW
L0000002	0	0.40000E-01	547251.5	4238360.0	24.0	4.15	10.47	1.93	SHRDOW
L0000003	0	0.40000E-01	547273.8	4238357.0	24.0	4.15	10.47	1.93	SHRDOW
L0000004	0	0.40000E-01	547296.1	4238354.0	24.0	4.15	10.47	1.93	SHRDOW
L0000005	0	0.40000E-01	547318.4	4238351.0	24.0	4.15	10.47	1.93	SHRDOW
L0000006	0	0.40000E-01	547340.8	4238348.0	24.0	4.15	10.47	1.93	SHRDOW
L0000007	0	0.40000E-01	547363.1	4238345.0	24.7	4.15	10.47	1.93	SHRDOW
L0000008	0	0.40000E-01	547385.4	4238342.5	25.0	4.15	10.47	1.93	SHRDOW
L0000009	0	0.40000E-01	547403.9	4238336.5	25.0	4.15	10.47	1.93	SHRDOW
L0000010	0	0.40000E-01	547401.2	4238314.0	25.0	4.15	10.47	1.93	SHRDOW
L0000011	0	0.40000E-01	547398.5	4238292.0	25.0	4.15	10.47	1.93	SHRDOW
L0000012	0	0.40000E-01	547395.8	4238269.5	24.7	4.15	10.47	1.93	SHRDOW
L0000013	0	0.40000E-01	547393.0	4238247.0	24.0	4.15	10.47	1.93	SHRDOW
L0000014	0	0.40000E-01	547390.3	4238225.0	24.0	4.15	10.47	1.93	SHRDOW
L0000015	0	0.40000E-01	547387.5	4238202.5	24.0	4.15	10.47	1.93	SHRDOW
L0000016	0	0.40000E-01	547384.8	4238180.0	24.0	4.15	10.47	1.93	SHRDOW
L0000017	0	0.40000E-01	547382.1	4238158.0	23.9	4.15	10.47	1.93	SHRDOW
L0000018	0	0.40000E-01	547379.3	4238135.5	23.9	4.15	10.47	1.93	SHRDOW
L0000019	0	0.40000E-01	547376.6	4238113.0	23.0	4.15	10.47	1.93	SHRDOW
L0000020	0	0.40000E-01	547373.8	4238091.0	23.0	4.15	10.47	1.93	SHRDOW
L0000021	0	0.40000E-01	547371.1	4238068.5	23.0	4.15	10.47	1.93	SHRDOW
L0000022	0	0.40000E-01	547368.3	4238046.0	23.0	4.15	10.47	1.93	SHRDOW
L0000023	0	0.40000E-01	547365.6	4238024.0	23.0	4.15	10.47	1.93	SHRDOW
L0000024	0	0.40000E-01	547362.9	4238001.5	23.0	4.15	10.47	1.93	SHRDOW
L0000025	0	0.40000E-01	547360.1	4237979.0	22.5	4.15	10.47	1.93	SHRDOW

*** AREAPOLY SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC /METER**2)	LOCATION OF AREA X (METERS)	LOCATION OF AREA Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	NUMBER OF VERTS.	INIT. SZ (METERS)	EMISSION RATE SCALAR VARY BY
1	0	0.18983E-03	547189.9	4238314.0	24.0	4.15	12	1.93	SHRDOW

*** SOURCE IDs DEFINING SOURCE GROUPS ***

GROUP ID	SOURCE IDs
1	1 ,
2	L0000001, L0000002, L0000003, L0000004, L0000005, L0000006, L0000007, L0000008, L0000009, L0000010, L0000011, L0000012, L0000013, L0000014, L0000015, L0000016, L0000017, L0000018, L0000019, L0000020, L0000021, L0000022, L0000023, L0000024, L0000025,
ALL	1 , L0000001, L0000002, L0000003, L0000004, L0000005, L0000006, L0000007, L0000008, L0000009, L0000010, L0000011, L0000012, L0000013, L0000014, L0000015, L0000016, L0000017, L0000018, L0000019, L0000020, L0000021, L0000022, L0000023, L0000024, L0000025,

```
                * SOURCE EMISSION RATE SCALARS WHICH VARY SEASONALLY, DIURNALLY AND BY DAY OF WEEK (SHRDOW) *

SOURCE ID = 1        ;  SOURCE TYPE = AREAPOLY :
 HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
                                                SEASON = WINTER;  DAY OF WEEK = WEEKDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .1000E+01
   9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .0000E+00   13  .1000E+01   14  .1000E+01   15  .1000E+01   16  .1000E+01
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON = SPRING;  DAY OF WEEK = WEEKDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .1000E+01
   9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .0000E+00   13  .1000E+01   14  .1000E+01   15  .1000E+01   16  .1000E+01
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON = SUMMER;  DAY OF WEEK = WEEKDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .1000E+01
   9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .0000E+00   13  .1000E+01   14  .1000E+01   15  .1000E+01   16  .1000E+01
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON =  FALL ;  DAY OF WEEK = WEEKDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .1000E+01
   9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .0000E+00   13  .1000E+01   14  .1000E+01   15  .1000E+01   16  .1000E+01
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON = WINTER;  DAY OF WEEK = SATURDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14  .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON = SPRING;  DAY OF WEEK = SATURDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14  .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON = SUMMER;  DAY OF WEEK = SATURDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14  .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON =  FALL ;  DAY OF WEEK = SATURDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14  .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON = WINTER;  DAY OF WEEK = SUNDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14  .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON = SPRING;  DAY OF WEEK = SUNDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14  .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON = SUMMER;  DAY OF WEEK = SUNDAY
```

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

SEASON = FALL ; DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY SEASONALLY, DIURNALLY AND BY DAY OF WEEK (SHRDOW) *

SOURCE ID = L0000001 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SEASON = WINTER; DAY OF WEEK = WEEKDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.1000E+01
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.0000E+00	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = SPRING; DAY OF WEEK = WEEKDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.1000E+01
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.0000E+00	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = SUMMER; DAY OF WEEK = WEEKDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.1000E+01
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.0000E+00	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = FALL ; DAY OF WEEK = WEEKDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.1000E+01
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.0000E+00	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = WINTER; DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = SPRING; DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = SUMMER; DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = FALL ; DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = WINTER; DAY OF WEEK = SUNDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = SPRING; DAY OF WEEK = SUNDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = SUMMER; DAY OF WEEK = SUNDAY															

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

SEASON = FALL ; DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

CONC   URBAN ELEV FLGPOL DFAULT

* SOURCE EMISSION RATE SCALARS WHICH VARY SEASONALLY, DIURNALLY AND BY DAY OF WEEK (SHRDOW) *

```
SOURCE ID = L0000002 ;  SOURCE TYPE = VOLUME   :
 HOUR   SCALAR    HOUR   SCALAR    HOUR   SCALAR    HOUR   SCALAR    HOUR   SCALAR    HOUR   SCALAR    HOUR   SCALAR    HOUR   SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
                                                SEASON = WINTER;  DAY OF WEEK = WEEKDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .1000E+01
   9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .0000E+00   13  .1000E+01   14  .1000E+01   15  .1000E+01   16  .1000E+01
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON = SPRING;  DAY OF WEEK = WEEKDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .1000E+01
   9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .0000E+00   13  .1000E+01   14  .1000E+01   15  .1000E+01   16  .1000E+01
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON = SUMMER;  DAY OF WEEK = WEEKDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .1000E+01
   9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .0000E+00   13  .1000E+01   14  .1000E+01   15  .1000E+01   16  .1000E+01
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON =  FALL ;  DAY OF WEEK = WEEKDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .1000E+01
   9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .0000E+00   13  .1000E+01   14  .1000E+01   15  .1000E+01   16  .1000E+01
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON = WINTER;  DAY OF WEEK = SATURDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14  .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON = SPRING;  DAY OF WEEK = SATURDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14  .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON = SUMMER;  DAY OF WEEK = SATURDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14  .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON =  FALL ;  DAY OF WEEK = SATURDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14  .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON = WINTER;  DAY OF WEEK = SUNDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14  .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON = SPRING;  DAY OF WEEK = SUNDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14  .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON = SUMMER;  DAY OF WEEK = SUNDAY
```

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

SEASON = FALL ; DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

CONC   URBAN ELEV FLGPOL DFAULT

* SOURCE EMISSION RATE SCALARS WHICH VARY SEASONALLY, DIURNALLY AND BY DAY OF WEEK (SHRDOW) *

SOURCE ID = L0000003 ; SOURCE TYPE = VOLUME   :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SEASON = WINTER; DAY OF WEEK = WEEKDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.1000E+01
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.0000E+00	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = SPRING; DAY OF WEEK = WEEKDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.1000E+01
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.0000E+00	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = SUMMER; DAY OF WEEK = WEEKDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.1000E+01
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.0000E+00	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = FALL ; DAY OF WEEK = WEEKDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.1000E+01
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.0000E+00	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = WINTER; DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = SPRING; DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = SUMMER; DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = FALL ; DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = WINTER; DAY OF WEEK = SUNDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = SPRING; DAY OF WEEK = SUNDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = SUMMER; DAY OF WEEK = SUNDAY															

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

SEASON = FALL ; DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY SEASONALLY, DIURNALLY AND BY DAY OF WEEK (SHRDOW) *

SOURCE ID = L0000004 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SEASON = WINTER; DAY OF WEEK = WEEKDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.1000E+01
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.0000E+00	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = SPRING; DAY OF WEEK = WEEKDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.1000E+01
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.0000E+00	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = SUMMER; DAY OF WEEK = WEEKDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.1000E+01
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.0000E+00	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = FALL ; DAY OF WEEK = WEEKDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.1000E+01
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.0000E+00	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = WINTER; DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = SPRING; DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = SUMMER; DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = FALL ; DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = WINTER; DAY OF WEEK = SUNDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = SPRING; DAY OF WEEK = SUNDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = SUMMER; DAY OF WEEK = SUNDAY															

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

SEASON = FALL ; DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

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                * SOURCE EMISSION RATE SCALARS WHICH VARY SEASONALLY, DIURNALLY AND BY DAY OF WEEK (SHRDOW) *

SOURCE ID = L0000005 ;  SOURCE TYPE = VOLUME   :
 HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
                                                SEASON = WINTER;  DAY OF WEEK = WEEKDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .1000E+01
   9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .0000E+00   13  .1000E+01   14  .1000E+01   15  .1000E+01   16  .1000E+01
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON = SPRING;  DAY OF WEEK = WEEKDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .1000E+01
   9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .0000E+00   13  .1000E+01   14  .1000E+01   15  .1000E+01   16  .1000E+01
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON = SUMMER;  DAY OF WEEK = WEEKDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .1000E+01
   9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .0000E+00   13  .1000E+01   14  .1000E+01   15  .1000E+01   16  .1000E+01
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON =  FALL ;  DAY OF WEEK = WEEKDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .1000E+01
   9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .0000E+00   13  .1000E+01   14  .1000E+01   15  .1000E+01   16  .1000E+01
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON = WINTER;  DAY OF WEEK = SATURDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14  .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON = SPRING;  DAY OF WEEK = SATURDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14  .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON = SUMMER;  DAY OF WEEK = SATURDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14  .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON =  FALL ;  DAY OF WEEK = SATURDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14  .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON = WINTER;  DAY OF WEEK = SUNDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14  .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON = SPRING;  DAY OF WEEK = SUNDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14  .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON = SUMMER;  DAY OF WEEK = SUNDAY
```

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

SEASON = FALL ; DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

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              * SOURCE EMISSION RATE SCALARS WHICH VARY SEASONALLY, DIURNALLY AND BY DAY OF WEEK (SHRDOW) *

SOURCE ID = L0000006 ;  SOURCE TYPE = VOLUME   :
 HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
                                                SEASON = WINTER;  DAY OF WEEK = WEEKDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .1000E+01
   9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .0000E+00   13  .1000E+01   14  .1000E+01   15  .1000E+01   16  .1000E+01
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON = SPRING;  DAY OF WEEK = WEEKDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .1000E+01
   9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .0000E+00   13  .1000E+01   14  .1000E+01   15  .1000E+01   16  .1000E+01
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON = SUMMER;  DAY OF WEEK = WEEKDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .1000E+01
   9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .0000E+00   13  .1000E+01   14  .1000E+01   15  .1000E+01   16  .1000E+01
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON =  FALL ;  DAY OF WEEK = WEEKDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .1000E+01
   9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .0000E+00   13  .1000E+01   14  .1000E+01   15  .1000E+01   16  .1000E+01
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON = WINTER;  DAY OF WEEK = SATURDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14  .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON = SPRING;  DAY OF WEEK = SATURDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14  .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON = SUMMER;  DAY OF WEEK = SATURDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14  .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON =  FALL ;  DAY OF WEEK = SATURDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14  .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON = WINTER;  DAY OF WEEK = SUNDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14  .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON = SPRING;  DAY OF WEEK = SUNDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14  .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON = SUMMER;  DAY OF WEEK = SUNDAY
```

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

SEASON = FALL ; DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

```
                * SOURCE EMISSION RATE SCALARS WHICH VARY SEASONALLY, DIURNALLY AND BY DAY OF WEEK (SHRDOW) *

SOURCE ID = L0000007 ;  SOURCE TYPE = VOLUME   :
 HOUR   SCALAR    HOUR   SCALAR    HOUR   SCALAR    HOUR   SCALAR    HOUR   SCALAR    HOUR   SCALAR    HOUR   SCALAR    HOUR   SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
                                                SEASON = WINTER;  DAY OF WEEK = WEEKDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .1000E+01
   9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .0000E+00   13  .1000E+01   14  .1000E+01   15  .1000E+01   16  .1000E+01
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON = SPRING;  DAY OF WEEK = WEEKDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .1000E+01
   9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .0000E+00   13  .1000E+01   14  .1000E+01   15  .1000E+01   16  .1000E+01
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON = SUMMER;  DAY OF WEEK = WEEKDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .1000E+01
   9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .0000E+00   13  .1000E+01   14  .1000E+01   15  .1000E+01   16  .1000E+01
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON =  FALL ;  DAY OF WEEK = WEEKDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .1000E+01
   9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .0000E+00   13  .1000E+01   14  .1000E+01   15  .1000E+01   16  .1000E+01
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON = WINTER;  DAY OF WEEK = SATURDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14  .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON = SPRING;  DAY OF WEEK = SATURDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14  .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON = SUMMER;  DAY OF WEEK = SATURDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14  .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON =  FALL ;  DAY OF WEEK = SATURDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14  .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON = WINTER;  DAY OF WEEK = SUNDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14  .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON = SPRING;  DAY OF WEEK = SUNDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14  .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON = SUMMER;  DAY OF WEEK = SUNDAY
```

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

SEASON = FALL ; DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

```
               * SOURCE EMISSION RATE SCALARS WHICH VARY SEASONALLY, DIURNALLY AND BY DAY OF WEEK (SHRDOW) *

SOURCE ID = L0000008 ;  SOURCE TYPE = VOLUME   :
 HOUR   SCALAR    HOUR   SCALAR    HOUR   SCALAR    HOUR   SCALAR    HOUR   SCALAR    HOUR   SCALAR    HOUR   SCALAR    HOUR   SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
                                                SEASON = WINTER;  DAY OF WEEK = WEEKDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .1000E+01
   9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .0000E+00   13  .1000E+01   14  .1000E+01   15  .1000E+01   16  .1000E+01
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON = SPRING;  DAY OF WEEK = WEEKDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .1000E+01
   9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .0000E+00   13  .1000E+01   14  .1000E+01   15  .1000E+01   16  .1000E+01
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON = SUMMER;  DAY OF WEEK = WEEKDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .1000E+01
   9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .0000E+00   13  .1000E+01   14  .1000E+01   15  .1000E+01   16  .1000E+01
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON =  FALL ;  DAY OF WEEK = WEEKDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .1000E+01
   9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .0000E+00   13  .1000E+01   14  .1000E+01   15  .1000E+01   16  .1000E+01
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON = WINTER;  DAY OF WEEK = SATURDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14  .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON = SPRING;  DAY OF WEEK = SATURDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14  .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON = SUMMER;  DAY OF WEEK = SATURDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14  .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON =  FALL ;  DAY OF WEEK = SATURDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14  .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON = WINTER;  DAY OF WEEK = SUNDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14  .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON = SPRING;  DAY OF WEEK = SUNDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14  .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON = SUMMER;  DAY OF WEEK = SUNDAY
```

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

SEASON = FALL ; DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY SEASONALLY, DIURNALLY AND BY DAY OF WEEK (SHRDOW) *

SOURCE ID = L0000009 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SEASON = WINTER; DAY OF WEEK = WEEKDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.1000E+01
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.0000E+00	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = SPRING; DAY OF WEEK = WEEKDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.1000E+01
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.0000E+00	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = SUMMER; DAY OF WEEK = WEEKDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.1000E+01
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.0000E+00	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = FALL ; DAY OF WEEK = WEEKDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.1000E+01
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.0000E+00	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = WINTER; DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = SPRING; DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = SUMMER; DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = FALL ; DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = WINTER; DAY OF WEEK = SUNDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = SPRING; DAY OF WEEK = SUNDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = SUMMER; DAY OF WEEK = SUNDAY															

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

SEASON = FALL ; DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY SEASONALLY, DIURNALLY AND BY DAY OF WEEK (SHRDOW) *

SOURCE ID = L0000010 ; SOURCE TYPE = VOLUME   :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SEASON = WINTER; DAY OF WEEK = WEEKDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.1000E+01
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.0000E+00	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = SPRING; DAY OF WEEK = WEEKDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.1000E+01
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.0000E+00	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = SUMMER; DAY OF WEEK = WEEKDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.1000E+01
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.0000E+00	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = FALL ; DAY OF WEEK = WEEKDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.1000E+01
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.0000E+00	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = WINTER; DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = SPRING; DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = SUMMER; DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = FALL ; DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = WINTER; DAY OF WEEK = SUNDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = SPRING; DAY OF WEEK = SUNDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = SUMMER; DAY OF WEEK = SUNDAY															

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

SEASON = FALL ; DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

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                * SOURCE EMISSION RATE SCALARS WHICH VARY SEASONALLY, DIURNALLY AND BY DAY OF WEEK (SHRDOW) *

SOURCE ID = L0000011 ;  SOURCE TYPE = VOLUME   :
 HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
                                                SEASON = WINTER;  DAY OF WEEK = WEEKDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .1000E+01
   9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .0000E+00   13  .1000E+01   14  .1000E+01   15  .1000E+01   16  .1000E+01
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON = SPRING;  DAY OF WEEK = WEEKDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .1000E+01
   9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .0000E+00   13  .1000E+01   14  .1000E+01   15  .1000E+01   16  .1000E+01
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON = SUMMER;  DAY OF WEEK = WEEKDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .1000E+01
   9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .0000E+00   13  .1000E+01   14  .1000E+01   15  .1000E+01   16  .1000E+01
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON =  FALL ;  DAY OF WEEK = WEEKDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .1000E+01
   9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .0000E+00   13  .1000E+01   14  .1000E+01   15  .1000E+01   16  .1000E+01
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON = WINTER;  DAY OF WEEK = SATURDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14  .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON = SPRING;  DAY OF WEEK = SATURDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14  .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON = SUMMER;  DAY OF WEEK = SATURDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14  .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON =  FALL ;  DAY OF WEEK = SATURDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14  .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON = WINTER;  DAY OF WEEK = SUNDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14  .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON = SPRING;  DAY OF WEEK = SUNDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14  .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON = SUMMER;  DAY OF WEEK = SUNDAY
```

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

SEASON = FALL ; DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY SEASONALLY, DIURNALLY AND BY DAY OF WEEK (SHRDOW) *

SOURCE ID = L0000012 ; SOURCE TYPE = VOLUME   :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SEASON = WINTER; DAY OF WEEK = WEEKDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.1000E+01
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.0000E+00	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = SPRING; DAY OF WEEK = WEEKDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.1000E+01
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.0000E+00	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = SUMMER; DAY OF WEEK = WEEKDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.1000E+01
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.0000E+00	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = FALL ; DAY OF WEEK = WEEKDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.1000E+01
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.0000E+00	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = WINTER; DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = SPRING; DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = SUMMER; DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = FALL ; DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = WINTER; DAY OF WEEK = SUNDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = SPRING; DAY OF WEEK = SUNDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = SUMMER; DAY OF WEEK = SUNDAY															

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

SEASON = FALL ; DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

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                * SOURCE EMISSION RATE SCALARS WHICH VARY SEASONALLY, DIURNALLY AND BY DAY OF WEEK (SHRDOW) *

SOURCE ID = L0000013 ;  SOURCE TYPE = VOLUME   :
 HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
                                                  SEASON = WINTER;  DAY OF WEEK = WEEKDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .1000E+01
   9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .0000E+00   13  .1000E+01   14  .1000E+01   15  .1000E+01   16  .1000E+01
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                  SEASON = SPRING;  DAY OF WEEK = WEEKDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .1000E+01
   9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .0000E+00   13  .1000E+01   14  .1000E+01   15  .1000E+01   16  .1000E+01
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                  SEASON = SUMMER;  DAY OF WEEK = WEEKDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .1000E+01
   9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .0000E+00   13  .1000E+01   14  .1000E+01   15  .1000E+01   16  .1000E+01
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                  SEASON =  FALL ;  DAY OF WEEK = WEEKDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .1000E+01
   9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .0000E+00   13  .1000E+01   14  .1000E+01   15  .1000E+01   16  .1000E+01
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                  SEASON = WINTER;  DAY OF WEEK = SATURDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14  .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                  SEASON = SPRING;  DAY OF WEEK = SATURDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14  .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                  SEASON = SUMMER;  DAY OF WEEK = SATURDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14  .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                  SEASON =  FALL ;  DAY OF WEEK = SATURDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14  .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                  SEASON = WINTER;  DAY OF WEEK = SUNDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14  .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                  SEASON = SPRING;  DAY OF WEEK = SUNDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14  .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                  SEASON = SUMMER;  DAY OF WEEK = SUNDAY
```

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

SEASON = FALL ; DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY SEASONALLY, DIURNALLY AND BY DAY OF WEEK (SHRDOW) *

SOURCE ID = L0000014 ; SOURCE TYPE = VOLUME   :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SEASON = WINTER; DAY OF WEEK = WEEKDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.1000E+01
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.0000E+00	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = SPRING; DAY OF WEEK = WEEKDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.1000E+01
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.0000E+00	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = SUMMER; DAY OF WEEK = WEEKDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.1000E+01
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.0000E+00	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = FALL ; DAY OF WEEK = WEEKDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.1000E+01
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.0000E+00	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = WINTER; DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = SPRING; DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = SUMMER; DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = FALL ; DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = WINTER; DAY OF WEEK = SUNDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = SPRING; DAY OF WEEK = SUNDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = SUMMER; DAY OF WEEK = SUNDAY															

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

SEASON = FALL ; DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

CONC   URBAN ELEV FLGPOL DFAULT

* SOURCE EMISSION RATE SCALARS WHICH VARY SEASONALLY, DIURNALLY AND BY DAY OF WEEK (SHRDOW) *

SOURCE ID = L0000015 ; SOURCE TYPE = VOLUME   :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
						SEASON = WINTER;	DAY OF WEEK = WEEKDAY								
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.1000E+01
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.0000E+00	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
						SEASON = SPRING;	DAY OF WEEK = WEEKDAY								
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.1000E+01
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.0000E+00	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
						SEASON = SUMMER;	DAY OF WEEK = WEEKDAY								
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.1000E+01
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.0000E+00	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
						SEASON = FALL ;	DAY OF WEEK = WEEKDAY								
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.1000E+01
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.0000E+00	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
						SEASON = WINTER;	DAY OF WEEK = SATURDAY								
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
						SEASON = SPRING;	DAY OF WEEK = SATURDAY								
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
						SEASON = SUMMER;	DAY OF WEEK = SATURDAY								
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
						SEASON = FALL ;	DAY OF WEEK = SATURDAY								
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
						SEASON = WINTER;	DAY OF WEEK = SUNDAY								
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
						SEASON = SPRING;	DAY OF WEEK = SUNDAY								
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
						SEASON = SUMMER;	DAY OF WEEK = SUNDAY								

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

SEASON = FALL ; DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY SEASONALLY, DIURNALLY AND BY DAY OF WEEK (SHRDOW) *

SOURCE ID = L0000016 ; SOURCE TYPE = VOLUME   :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SEASON = WINTER; DAY OF WEEK = WEEKDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.1000E+01
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.0000E+00	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = SPRING; DAY OF WEEK = WEEKDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.1000E+01
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.0000E+00	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = SUMMER; DAY OF WEEK = WEEKDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.1000E+01
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.0000E+00	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = FALL ; DAY OF WEEK = WEEKDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.1000E+01
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.0000E+00	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = WINTER; DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = SPRING; DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = SUMMER; DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = FALL ; DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = WINTER; DAY OF WEEK = SUNDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = SPRING; DAY OF WEEK = SUNDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = SUMMER; DAY OF WEEK = SUNDAY															

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

SEASON = FALL ; DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

CONC   URBAN ELEV FLGPOL DFAULT

* SOURCE EMISSION RATE SCALARS WHICH VARY SEASONALLY, DIURNALLY AND BY DAY OF WEEK (SHRDOW) *

SOURCE ID = L0000017 ; SOURCE TYPE = VOLUME   :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SEASON = WINTER; DAY OF WEEK = WEEKDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.1000E+01
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.0000E+00	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = SPRING; DAY OF WEEK = WEEKDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.1000E+01
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.0000E+00	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = SUMMER; DAY OF WEEK = WEEKDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.1000E+01
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.0000E+00	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = FALL ; DAY OF WEEK = WEEKDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.1000E+01
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.0000E+00	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = WINTER; DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = SPRING; DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = SUMMER; DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = FALL ; DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = WINTER; DAY OF WEEK = SUNDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = SPRING; DAY OF WEEK = SUNDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = SUMMER; DAY OF WEEK = SUNDAY															

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

SEASON = FALL ; DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY SEASONALLY, DIURNALLY AND BY DAY OF WEEK (SHRDOW) *

SOURCE ID = L0000018 ; SOURCE TYPE = VOLUME   :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
						SEASON = WINTER;	DAY OF WEEK = WEEKDAY								
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.1000E+01
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.0000E+00	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
						SEASON = SPRING;	DAY OF WEEK = WEEKDAY								
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.1000E+01
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.0000E+00	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
						SEASON = SUMMER;	DAY OF WEEK = WEEKDAY								
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.1000E+01
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.0000E+00	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
						SEASON = FALL ;	DAY OF WEEK = WEEKDAY								
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.1000E+01
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.0000E+00	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
						SEASON = WINTER;	DAY OF WEEK = SATURDAY								
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
						SEASON = SPRING;	DAY OF WEEK = SATURDAY								
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
						SEASON = SUMMER;	DAY OF WEEK = SATURDAY								
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
						SEASON = FALL ;	DAY OF WEEK = SATURDAY								
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
						SEASON = WINTER;	DAY OF WEEK = SUNDAY								
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
						SEASON = SPRING;	DAY OF WEEK = SUNDAY								
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
						SEASON = SUMMER;	DAY OF WEEK = SUNDAY								

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

SEASON = FALL ; DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

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                * SOURCE EMISSION RATE SCALARS WHICH VARY SEASONALLY, DIURNALLY AND BY DAY OF WEEK (SHRDOW) *

SOURCE ID = L0000019 ;  SOURCE TYPE = VOLUME   :
 HOUR   SCALAR    HOUR   SCALAR    HOUR   SCALAR    HOUR   SCALAR    HOUR   SCALAR    HOUR   SCALAR    HOUR   SCALAR    HOUR   SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
                                                SEASON = WINTER;  DAY OF WEEK = WEEKDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .1000E+01
   9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .0000E+00   13  .1000E+01   14  .1000E+01   15  .1000E+01   16  .1000E+01
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON = SPRING;  DAY OF WEEK = WEEKDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .1000E+01
   9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .0000E+00   13  .1000E+01   14  .1000E+01   15  .1000E+01   16  .1000E+01
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON = SUMMER;  DAY OF WEEK = WEEKDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .1000E+01
   9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .0000E+00   13  .1000E+01   14  .1000E+01   15  .1000E+01   16  .1000E+01
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON =  FALL ;  DAY OF WEEK = WEEKDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .1000E+01
   9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .0000E+00   13  .1000E+01   14  .1000E+01   15  .1000E+01   16  .1000E+01
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON = WINTER;  DAY OF WEEK = SATURDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14  .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON = SPRING;  DAY OF WEEK = SATURDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14  .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON = SUMMER;  DAY OF WEEK = SATURDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14  .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON =  FALL ;  DAY OF WEEK = SATURDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14  .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON = WINTER;  DAY OF WEEK = SUNDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14  .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON = SPRING;  DAY OF WEEK = SUNDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14  .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON = SUMMER;  DAY OF WEEK = SUNDAY
```

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

SEASON = FALL ; DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY SEASONALLY, DIURNALLY AND BY DAY OF WEEK (SHRDOW) *

SOURCE ID = L0000020 ; SOURCE TYPE = VOLUME   :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SEASON = WINTER; DAY OF WEEK = WEEKDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.1000E+01
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.0000E+00	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = SPRING; DAY OF WEEK = WEEKDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.1000E+01
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.0000E+00	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = SUMMER; DAY OF WEEK = WEEKDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.1000E+01
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.0000E+00	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = FALL ; DAY OF WEEK = WEEKDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.1000E+01
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.0000E+00	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = WINTER; DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = SPRING; DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = SUMMER; DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = FALL ; DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = WINTER; DAY OF WEEK = SUNDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = SPRING; DAY OF WEEK = SUNDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = SUMMER; DAY OF WEEK = SUNDAY															

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

SEASON = FALL ; DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY SEASONALLY, DIURNALLY AND BY DAY OF WEEK (SHRDOW) *

SOURCE ID = L0000021 ; SOURCE TYPE = VOLUME   :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SEASON = WINTER; DAY OF WEEK = WEEKDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.1000E+01
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.0000E+00	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = SPRING; DAY OF WEEK = WEEKDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.1000E+01
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.0000E+00	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = SUMMER; DAY OF WEEK = WEEKDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.1000E+01
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.0000E+00	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = FALL ; DAY OF WEEK = WEEKDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.1000E+01
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.0000E+00	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = WINTER; DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = SPRING; DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = SUMMER; DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = FALL ; DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = WINTER; DAY OF WEEK = SUNDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = SPRING; DAY OF WEEK = SUNDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = SUMMER; DAY OF WEEK = SUNDAY															

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

SEASON = FALL ; DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY SEASONALLY, DIURNALLY AND BY DAY OF WEEK (SHRDOW) *

SOURCE ID = L0000022 ; SOURCE TYPE = VOLUME   :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SEASON = WINTER; DAY OF WEEK = WEEKDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.1000E+01
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.0000E+00	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = SPRING; DAY OF WEEK = WEEKDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.1000E+01
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.0000E+00	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = SUMMER; DAY OF WEEK = WEEKDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.1000E+01
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.0000E+00	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = FALL ; DAY OF WEEK = WEEKDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.1000E+01
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.0000E+00	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = WINTER; DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = SPRING; DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = SUMMER; DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = FALL ; DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = WINTER; DAY OF WEEK = SUNDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = SPRING; DAY OF WEEK = SUNDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = SUMMER; DAY OF WEEK = SUNDAY															

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

SEASON = FALL ; DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

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                * SOURCE EMISSION RATE SCALARS WHICH VARY SEASONALLY, DIURNALLY AND BY DAY OF WEEK (SHRDOW) *

SOURCE ID = L0000023 ;  SOURCE TYPE = VOLUME   :
 HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
                                                SEASON = WINTER;  DAY OF WEEK = WEEKDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .1000E+01
   9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .0000E+00   13  .1000E+01   14  .1000E+01   15  .1000E+01   16  .1000E+01
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON = SPRING;  DAY OF WEEK = WEEKDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .1000E+01
   9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .0000E+00   13  .1000E+01   14  .1000E+01   15  .1000E+01   16  .1000E+01
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON = SUMMER;  DAY OF WEEK = WEEKDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .1000E+01
   9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .0000E+00   13  .1000E+01   14  .1000E+01   15  .1000E+01   16  .1000E+01
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON =  FALL ;  DAY OF WEEK = WEEKDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .1000E+01
   9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .0000E+00   13  .1000E+01   14  .1000E+01   15  .1000E+01   16  .1000E+01
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON = WINTER;  DAY OF WEEK = SATURDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14  .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON = SPRING;  DAY OF WEEK = SATURDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14  .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON = SUMMER;  DAY OF WEEK = SATURDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14  .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON =  FALL ;  DAY OF WEEK = SATURDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14  .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON = WINTER;  DAY OF WEEK = SUNDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14  .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON = SPRING;  DAY OF WEEK = SUNDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14  .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                SEASON = SUMMER;  DAY OF WEEK = SUNDAY
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1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

SEASON = FALL ; DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY SEASONALLY, DIURNALLY AND BY DAY OF WEEK (SHRDOW) *

SOURCE ID = L0000024 ; SOURCE TYPE = VOLUME   :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SEASON = WINTER; DAY OF WEEK = WEEKDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.1000E+01
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.0000E+00	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = SPRING; DAY OF WEEK = WEEKDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.1000E+01
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.0000E+00	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = SUMMER; DAY OF WEEK = WEEKDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.1000E+01
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.0000E+00	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = FALL ; DAY OF WEEK = WEEKDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.1000E+01
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.0000E+00	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = WINTER; DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = SPRING; DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = SUMMER; DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = FALL ; DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = WINTER; DAY OF WEEK = SUNDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = SPRING; DAY OF WEEK = SUNDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
SEASON = SUMMER; DAY OF WEEK = SUNDAY															

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

SEASON = FALL ; DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY SEASONALLY, DIURNALLY AND BY DAY OF WEEK (SHRDOW) *

SOURCE ID = L0000025 ; SOURCE TYPE = VOLUME   :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
						SEASON = WINTER;	DAY OF WEEK = WEEKDAY								
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.1000E+01
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.0000E+00	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
						SEASON = SPRING;	DAY OF WEEK = WEEKDAY								
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.1000E+01
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.0000E+00	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
						SEASON = SUMMER;	DAY OF WEEK = WEEKDAY								
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.1000E+01
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.0000E+00	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
						SEASON = FALL ;	DAY OF WEEK = WEEKDAY								
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.1000E+01
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.0000E+00	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
						SEASON = WINTER;	DAY OF WEEK = SATURDAY								
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
						SEASON = SPRING;	DAY OF WEEK = SATURDAY								
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
						SEASON = SUMMER;	DAY OF WEEK = SATURDAY								
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
						SEASON = FALL ;	DAY OF WEEK = SATURDAY								
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
						SEASON = WINTER;	DAY OF WEEK = SUNDAY								
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
						SEASON = SPRING;	DAY OF WEEK = SUNDAY								
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
						SEASON = SUMMER;	DAY OF WEEK = SUNDAY								

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

SEASON = FALL ; DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZFLAG)
(METERS)

(547261.1,	4238136.5,	23.0,	1.5);	(547237.2,	4238140.5,	23.0,	1.5);
(547215.7,	4238143.5,	23.0,	1.5);	(547195.6,	4238147.0,	23.0,	1.5);
(547187.6,	4238116.5,	23.0,	1.5);	(547206.7,	4238113.0,	23.0,	1.5);
(547228.2,	4238111.5,	23.0,	1.5);	(547253.4,	4238042.5,	23.0,	1.5);
(547242.6,	4238027.5,	22.9,	1.5);	(547203.8,	4238019.0,	23.0,	1.5);
(547202.9,	4238048.0,	23.0,	1.5);	(547182.2,	4238050.5,	23.0,	1.5);
(547173.6,	4238020.0,	22.1,	1.5);	(547170.7,	4237995.0,	22.0,	1.5);
(547139.9,	4237969.5,	22.0,	1.5);	(547501.8,	4238097.5,	23.0,	1.5);
(547181.6,	4238229.0,	23.9,	1.5);	(547181.6,	4238206.0,	23.0,	1.5);
(547177.2,	4238186.0,	23.0,	1.5);	(547163.7,	4238184.0,	23.0,	1.5);
(547147.2,	4238186.5,	23.0,	1.5);	(547135.4,	4238188.0,	23.0,	1.5);
(547117.2,	4238188.5,	23.0,	1.5);	(547101.4,	4238193.5,	23.0,	1.5);
(547103.9,	4238232.0,	23.0,	1.5);	(547121.1,	4238238.0,	23.5,	1.5);
(547146.2,	4238235.0,	24.0,	1.5);	(547164.8,	4238233.0,	24.0,	1.5);
(546913.4,	4238221.0,	23.0,	1.5);	(546913.1,	4238234.5,	23.0,	1.5);
(546927.1,	4238245.0,	23.0,	1.5);	(546880.6,	4238296.5,	23.9,	1.5);
(546878.8,	4238279.0,	23.0,	1.5);	(546877.2,	4238249.5,	23.0,	1.5);
(546943.2,	4238456.0,	24.0,	1.5);	(546947.8,	4238498.0,	24.9,	1.5);
(546963.8,	4238500.5,	25.0,	1.5);	(546949.9,	4238511.0,	25.0,	1.5);
(546952.9,	4238539.5,	25.0,	1.5);	(546963.0,	4238557.5,	25.0,	1.5);
(547006.8,	4238572.5,	25.6,	1.5);	(547018.9,	4238570.0,	25.9,	1.5);
(547045.9,	4238568.5,	25.0,	1.5);	(547060.2,	4238568.5,	25.4,	1.5);
(547075.8,	4238570.5,	25.9,	1.5);	(547015.6,	4238513.5,	25.0,	1.5);
(547088.8,	4238551.5,	25.8,	1.5);	(547104.4,	4238552.5,	25.8,	1.5);
(547119.5,	4238554.0,	25.8,	1.5);	(547111.9,	4238523.5,	25.0,	1.5);
(547086.3,	4238523.5,	25.0,	1.5);	(547107.8,	4238505.5,	25.0,	1.5);
(547151.9,	4238515.0,	25.0,	1.5);	(547150.2,	4238529.0,	25.0,	1.5);
(547152.4,	4238546.5,	25.0,	1.5);	(547155.8,	4238561.0,	25.9,	1.5);
(547179.7,	4238513.5,	25.0,	1.5);	(547194.0,	4238512.5,	25.0,	1.5);
(547213.4,	4238510.5,	25.0,	1.5);	(547239.1,	4238507.5,	25.0,	1.5);
(547253.8,	4238538.0,	26.0,	1.5);	(547244.1,	4238553.0,	26.0,	1.5);
(547220.9,	4238522.5,	25.1,	1.5);	(547221.4,	4238552.0,	25.8,	1.5);
(547196.6,	4238550.5,	25.7,	1.5);	(547178.0,	4238552.5,	25.8,	1.5);
(547197.0,	4238523.5,	25.0,	1.5);	(547160.7,	4238597.0,	26.0,	1.5);
(547159.2,	4238617.5,	26.9,	1.5);	(547174.3,	4238641.0,	26.8,	1.5);
(547176.1,	4238601.0,	26.0,	1.5);	(547177.8,	4238621.0,	26.6,	1.5);
(547200.0,	4238642.0,	26.9,	1.5);	(547186.1,	4238597.0,	26.0,	1.5);
(547203.6,	4238590.0,	26.0,	1.5);	(547218.6,	4238586.0,	26.0,	1.5);
(547258.0,	4238591.0,	26.0,	1.5);	(547220.1,	4238638.5,	26.0,	1.5);
(547258.3,	4238634.5,	26.0,	1.5);	(547269.1,	4238633.5,	26.1,	1.5);
(547273.4,	4238656.5,	26.9,	1.5);	(547328.8,	4238615.5,	26.9,	1.5);

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( 547330.9, 4238631.0,      26.9,       1.5);         ( 547334.2, 4238652.0,      27.0,       1.5);
( 547002.8, 4238046.5,      22.0,       1.5);         ( 547020.1, 4238043.0,      22.0,       1.5);
( 547005.4, 4238077.0,      22.0,       1.5);         ( 547393.3, 4237956.0,      23.0,       1.5);
( 547392.2, 4237974.5,      23.0,       1.5);         ( 547395.6, 4237992.5,      23.0,       1.5);
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*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZFLAG)
(METERS)

(547578.1,	4238244.0,	24.0,	1.5);	(547572.5,	4238225.0,	24.0,	1.5);
(547567.8,	4238210.0,	24.0,	1.5);	(547562.5,	4238190.0,	24.0,	1.5);
(547560.4,	4238175.5,	24.0,	1.5);	(547555.1,	4238161.0,	24.0,	1.5);
(546941.4,	4238334.5,	24.0,	1.5);	(546942.0,	4238318.5,	24.0,	1.5);
(547152.9,	4238488.5,	24.5,	1.5);	(547173.9,	4238487.0,	24.9,	1.5);
(547199.3,	4238486.0,	24.9,	1.5);	(547216.3,	4238479.5,	25.0,	1.5);
(547229.9,	4238479.5,	25.0,	1.5);	(547247.4,	4238476.5,	25.0,	1.5);
(547270.0,	4238481.0,	25.0,	1.5);	(547270.0,	4238502.5,	25.0,	1.5);
(547151.8,	4238453.5,	24.0,	1.5);	(547142.2,	4238436.5,	24.0,	1.5);
(547240.1,	4237990.0,	22.0,	1.5);	(547420.6,	4238181.5,	24.0,	1.5);
(547461.5,	4238181.5,	24.0,	1.5);	(547261.9,	4238159.5,	23.1,	1.5);
(547140.7,	4238051.5,	23.0,	1.5);				

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
(1=YES; 0=NO)

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1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1
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NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
(METERS/SEC)

1.54,   3.09,   5.14,   8.23, 10.80,

*** WIND PROFILE EXPONENTS ***

STABILITY	WIND SPEED CATEGORY					
CATEGORY	1	2	3	4	5	6
A	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00
B	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00
C	.20000E+00	.20000E+00	.20000E+00	.20000E+00	.20000E+00	.20000E+00
D	.25000E+00	.25000E+00	.25000E+00	.25000E+00	.25000E+00	.25000E+00
E	.30000E+00	.30000E+00	.30000E+00	.30000E+00	.30000E+00	.30000E+00
F	.30000E+00	.30000E+00	.30000E+00	.30000E+00	.30000E+00	.30000E+00

*** VERTICAL POTENTIAL TEMPERATURE GRADIENTS ***
(DEGREES KELVIN PER METER)

STABILITY	WIND SPEED CATEGORY					
CATEGORY	1	2	3	4	5	6
A	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
B	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
C	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
D	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00

E	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01
F	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01

CONC   URBAN ELEV FLGPOL DFAULT

*** THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

FILE: ..\..\D-METD~1\combined.asc
FORMAT: (4I2,2F9.4,F6.1,I2,2F7.1,f9.4,f10.1,f8.4,i4,f7.2)
SURFACE STATION NO.:   9903   UPPER AIR STATION NO.:   9903
NAME: UNKNOWN   NAME: UNKNOWN
YEAR: 2003   YEAR: 2003

YR MN DY HR	FLOW VECTOR	SPEED (M/S)	TEMP (K)	STAB CLASS	MIXING HEIGHT (M) RURAL	MIXING HEIGHT (M) URBAN	USTAR (M/S)	M-O LENGTH (M)	Z-0 (M)	IPCODE	PRATE (mm/HR)
03 01 01 01	133.1	2.46	277.3	4	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 02	119.0	1.70	276.4	5	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 03	348.3	1.07	277.2	6	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 04	95.5	1.48	276.4	6	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 05	114.8	2.15	275.4	5	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 06	134.6	2.01	275.8	5	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 07	123.2	2.19	275.8	5	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 08	105.3	1.39	276.0	6	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 09	149.6	1.00	277.2	5	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 10	247.9	1.00	279.7	4	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 11	310.2	1.00	282.0	3	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 12	320.8	1.65	283.6	2	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 13	335.2	2.10	284.6	2	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 14	9.0	2.32	284.5	3	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 15	341.5	2.32	284.9	4	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 16	328.8	2.41	284.5	4	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 17	309.9	2.46	284.2	4	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 18	273.2	2.10	283.4	4	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 19	247.2	1.16	282.7	5	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 20	302.4	1.56	281.8	6	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 21	264.6	1.16	281.9	6	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 22	291.5	3.13	282.3	5	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 23	221.5	1.34	281.8	6	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 24	285.7	2.32	281.9	5	300.0	300.0	0.0000	0.0	0.0000	0	0.00

*** NOTES: STABILITY CLASS 1=A, 2=B, 3=C, 4=D, 5=E AND 6=F.
FLOW VECTOR IS DIRECTION TOWARD WHICH WIND IS BLOWING.

*** THE ANNUAL (3 YRS) AVERAGE CONCENTRATION   VALUES FOR SOURCE GROUP: 1   ***
INCLUDING SOURCE(S):   1   ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER   IN MICROGRAMS/M**3   **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
547261.13	4238136.50	0.68837	547237.19	4238140.50	0.57983
547215.69	4238143.50	0.54010	547195.56	4238147.00	0.54469
547187.63	4238116.50	0.40066	547206.69	4238113.00	0.38706
547228.19	4238111.50	0.38867	547253.38	4238042.50	0.22606
547242.62	4238027.50	0.18809	547203.81	4238019.00	0.17824
547202.88	4238048.00	0.22141	547182.19	4238050.50	0.23682
547173.56	4238020.00	0.19392	547170.69	4237995.00	0.16656
547139.94	4237969.50	0.14109	547501.81	4238097.50	1.28750
547181.56	4238229.00	1.99972	547181.56	4238206.00	1.17359
547177.25	4238186.00	0.80887	547163.69	4238184.00	0.70929
547147.25	4238186.50	0.66961	547135.44	4238188.00	0.66900
547117.19	4238188.50	0.67556	547101.44	4238193.50	0.75287
547103.94	4238232.00	1.57632	547121.13	4238238.00	1.93284
547146.19	4238235.00	2.06887	547164.75	4238233.00	2.09011
546913.44	4238221.00	0.52781	546913.12	4238234.50	0.55431
546927.12	4238245.00	0.61519	546880.62	4238296.50	0.47624
546878.81	4238279.00	0.48458	546877.25	4238249.50	0.47852
546943.19	4238456.00	0.48921	546947.81	4238498.00	0.44159
546963.81	4238500.50	0.48296	546949.94	4238511.00	0.43558
546952.88	4238539.50	0.42825	546963.00	4238557.50	0.44905
547006.75	4238572.50	0.58022	547018.94	4238570.00	0.63103
547045.88	4238568.50	0.76038	547060.19	4238568.50	0.84736
547075.75	4238570.50	0.96326	547015.56	4238513.50	0.69000
547088.81	4238551.50	1.14763	547104.38	4238552.50	1.35267
547119.50	4238554.00	1.60141	547111.94	4238523.50	1.60871
547086.31	4238523.50	1.21490	547107.75	4238505.50	1.62069
547151.94	4238515.00	2.77915	547150.25	4238529.00	2.52637
547152.38	4238546.50	2.34389	547155.75	4238561.00	2.21847
547179.69	4238513.50	3.58339	547194.00	4238512.50	3.74208
547213.38	4238510.50	3.59377	547239.06	4238507.50	3.01188
547253.75	4238538.00	2.03525	547244.13	4238553.00	1.98008
547220.94	4238522.50	3.06097	547221.38	4238552.00	2.37852
547196.56	4238550.50	2.69217	547178.00	4238552.50	2.62917
547197.00	4238523.50	3.37886	547160.69	4238597.00	1.85373
547159.25	4238617.50	1.64406	547174.25	4238641.00	1.48472
547176.06	4238601.00	1.88685	547177.81	4238621.00	1.67057
547200.00	4238642.00	1.42061	547186.06	4238597.00	1.94269

547203.56	4238590.00	1.96251	547218.62	4238586.00	1.87660
547258.00	4238591.00	1.36575	547220.06	4238638.50	1.32586
547258.31	4238634.50	1.05742	547269.06	4238633.50	0.98635

*** THE ANNUAL (3 YRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: 1 ***
INCLUDING SOURCE(S): 1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
547273.38	4238656.50	0.85180	547328.81	4238615.50	0.71087
547330.94	4238631.00	0.65683	547334.19	4238652.00	0.59138
547002.75	4238046.50	0.10723	547020.12	4238043.00	0.10136
547005.38	4238077.00	0.15248	547393.31	4237956.00	0.27996
547392.25	4237974.50	0.32337	547395.56	4237992.50	0.38355
547578.13	4238244.00	1.13338	547572.50	4238225.00	1.24761
547567.75	4238210.00	1.32921	547562.50	4238190.00	1.39777
547560.38	4238175.50	1.40522	547555.12	4238161.00	1.41089
546941.44	4238334.50	0.60595	546942.00	4238318.50	0.64363
547152.94	4238488.50	3.25957	547173.88	4238487.00	4.28980
547199.31	4238486.00	4.85723	547216.31	4238479.50	4.86850
547229.88	4238479.50	4.34570	547247.38	4238476.50	3.71439
547270.00	4238481.00	2.70328	547270.00	4238502.50	2.27034
547151.81	4238453.50	3.86151	547142.19	4238436.50	3.52741
547240.06	4237990.00	0.14127	547420.62	4238181.50	3.21944
547461.50	4238181.50	2.53442	547261.94	4238159.50	1.00729
547140.69	4238051.50	0.20986			

CONC   URBAN ELEV FLGPOL DFAULT

*** THE ANNUAL (3 YRS) AVERAGE CONCENTRATION   VALUES FOR SOURCE GROUP: 2   ***
INCLUDING SOURCE(S):   L0000001, L0000002, L0000003, L0000004, L0000005, L0000006, L0000007,
L0000008, L0000009, L0000010, L0000011, L0000012, L0000013, L0000014, L0000015, L0000016, L0000017, L0000018, L0000019,
L0000020, L0000021, L0000022, L0000023, L0000024, L0000025,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER   IN MICROGRAMS/M**3   **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
547261.13	4238136.50	1.36946	547237.19	4238140.50	1.06334
547215.69	4238143.50	0.87931	547195.56	4238147.00	0.75402
547187.63	4238116.50	0.66795	547206.69	4238113.00	0.76563
547228.19	4238111.50	0.91744	547253.38	4238042.50	0.95897
547242.62	4238027.50	0.79938	547203.81	4238019.00	0.55378
547202.88	4238048.00	0.61909	547182.19	4238050.50	0.53921
547173.56	4238020.00	0.45180	547170.69	4237995.00	0.39645
547139.94	4237969.50	0.29684	547501.81	4238097.50	2.61599
547181.56	4238229.00	0.81545	547181.56	4238206.00	0.76542
547177.25	4238186.00	0.71253	547163.69	4238184.00	0.64871
547147.25	4238186.50	0.58957	547135.44	4238188.00	0.55328
547117.19	4238188.50	0.50405	547101.44	4238193.50	0.47428
547103.94	4238232.00	0.53891	547121.13	4238238.00	0.59692
547146.19	4238235.00	0.67091	547164.75	4238233.00	0.74141
546913.44	4238221.00	0.25230	546913.12	4238234.50	0.25674
546927.12	4238245.00	0.27355	546880.62	4238296.50	0.23509
546878.81	4238279.00	0.23382	546877.25	4238249.50	0.23000
546943.19	4238456.00	0.24134	546947.81	4238498.00	0.23776
546963.81	4238500.50	0.25382	546949.94	4238511.00	0.23569
546952.88	4238539.50	0.22747	546963.00	4238557.50	0.22949
547006.75	4238572.50	0.27211	547018.94	4238570.00	0.29009
547045.88	4238568.50	0.33515	547060.19	4238568.50	0.36409
547075.75	4238570.50	0.39928	547015.56	4238513.50	0.31397
547088.81	4238551.50	0.44887	547104.38	4238552.50	0.49980
547119.50	4238554.00	0.55854	547111.94	4238523.50	0.55931
547086.31	4238523.50	0.46356	547107.75	4238505.50	0.56187
547151.94	4238515.00	0.81309	547150.25	4238529.00	0.76943
547152.38	4238546.50	0.74738	547155.75	4238561.00	0.73972
547179.69	4238513.50	1.08243	547194.00	4238512.50	1.25080
547213.38	4238510.50	1.49355	547239.06	4238507.50	1.79366
547253.75	4238538.00	1.57231	547244.13	4238553.00	1.38827
547220.94	4238522.50	1.46659	547221.38	4238552.00	1.25074
547196.56	4238550.50	1.07097	547178.00	4238552.50	0.91721
547197.00	4238523.50	1.21715	547160.69	4238597.00	0.69231
547159.25	4238617.50	0.64646	547174.25	4238641.00	0.66403

547176.06	4238601.00	0.76234
547200.00	4238642.00	0.76243
547203.56	4238590.00	0.94671
547258.00	4238591.00	1.19200
547258.31	4238634.50	0.97304
547177.81	4238621.00	0.72251
547186.06	4238597.00	0.82643
547218.62	4238586.00	1.04586
547220.06	4238638.50	0.84566
547269.06	4238633.50	0.99966

*** THE ANNUAL (3 YRS) AVERAGE CONCENTRATION   VALUES FOR SOURCE GROUP: 2   ***
INCLUDING SOURCE(S):   L0000001, L0000002, L0000003, L0000004, L0000005, L0000006, L0000007,
L0000008, L0000009, L0000010, L0000011, L0000012, L0000013, L0000014, L0000015, L0000016, L0000017, L0000018, L0000019,
L0000020, L0000021, L0000022, L0000023, L0000024, L0000025,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER   IN MICROGRAMS/M**3   **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
547273.38	4238656.50	0.90909	547328.81	4238615.50	1.11165
547330.94	4238631.00	1.02037	547334.19	4238652.00	0.91144
547002.75	4238046.50	0.22990	547020.12	4238043.00	0.24105
547005.38	4238077.00	0.24931	547393.31	4237956.00	3.14489
547392.25	4237974.50	5.19449	547395.56	4237992.50	6.06820
547578.13	4238244.00	1.89600	547572.50	4238225.00	2.00566
547567.75	4238210.00	2.07142	547562.50	4238190.00	2.11410
547560.38	4238175.50	2.10592	547555.12	4238161.00	2.12875
546941.44	4238334.50	0.29370	546942.00	4238318.50	0.29945
547152.94	4238488.50	0.88521	547173.88	4238487.00	1.13057
547199.31	4238486.00	1.52173	547216.31	4238479.50	1.88135
547229.88	4238479.50	2.09439	547247.38	4238476.50	2.37588
547270.00	4238481.00	2.48772	547270.00	4238502.50	2.09984
547151.81	4238453.50	0.96636	547142.19	4238436.50	0.90969
547240.06	4237990.00	0.61315	547420.62	4238181.50	8.07027
547461.50	4238181.50	4.60016	547261.94	4238159.50	1.43987
547140.69	4238051.50	0.41976			

*** THE ANNUAL (3 YRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): 1 , L0000001, L0000002, L0000003, L0000004, L0000005, L0000006,
L0000007, L0000008, L0000009, L0000010, L0000011, L0000012, L0000013, L0000014, L0000015, L0000016, L0000017, L0000018,
L0000019, L0000020, L0000021, L0000022, L0000023, L0000024, L0000025,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
547261.13	4238136.50	2.05783	547237.19	4238140.50	1.64317
547215.69	4238143.50	1.41941	547195.56	4238147.00	1.29871
547187.63	4238116.50	1.06861	547206.69	4238113.00	1.15268
547228.19	4238111.50	1.30611	547253.38	4238042.50	1.18503
547242.62	4238027.50	0.98747	547203.81	4238019.00	0.73202
547202.88	4238048.00	0.84050	547182.19	4238050.50	0.77604
547173.56	4238020.00	0.64571	547170.69	4237995.00	0.56301
547139.94	4237969.50	0.43792	547501.81	4238097.50	3.90347
547181.56	4238229.00	2.81516	547181.56	4238206.00	1.93900
547177.25	4238186.00	1.52140	547163.69	4238184.00	1.35800
547147.25	4238186.50	1.25918	547135.44	4238188.00	1.22227
547117.19	4238188.50	1.17960	547101.44	4238193.50	1.22714
547103.94	4238232.00	2.11522	547121.13	4238238.00	2.52975
547146.19	4238235.00	2.73977	547164.75	4238233.00	2.83151
546913.44	4238221.00	0.78010	546913.12	4238234.50	0.81105
546927.12	4238245.00	0.88873	546880.62	4238296.50	0.71133
546878.81	4238279.00	0.71840	546877.25	4238249.50	0.70852
546943.19	4238456.00	0.73054	546947.81	4238498.00	0.67934
546963.81	4238500.50	0.73678	546949.94	4238511.00	0.67126
546952.88	4238539.50	0.65572	546963.00	4238557.50	0.67854
547006.75	4238572.50	0.85233	547018.94	4238570.00	0.92111
547045.88	4238568.50	1.09552	547060.19	4238568.50	1.21144
547075.75	4238570.50	1.36253	547015.56	4238513.50	1.00397
547088.81	4238551.50	1.59649	547104.38	4238552.50	1.85245
547119.50	4238554.00	2.15993	547111.94	4238523.50	2.16801
547086.31	4238523.50	1.67845	547107.75	4238505.50	2.18254
547151.94	4238515.00	3.59222	547150.25	4238529.00	3.29578
547152.38	4238546.50	3.09125	547155.75	4238561.00	2.95818
547179.69	4238513.50	4.66579	547194.00	4238512.50	4.99286
547213.38	4238510.50	5.08729	547239.06	4238507.50	4.80554
547253.75	4238538.00	3.60756	547244.13	4238553.00	3.36835
547220.94	4238522.50	4.52754	547221.38	4238552.00	3.62925
547196.56	4238550.50	3.76313	547178.00	4238552.50	3.54637
547197.00	4238523.50	4.59598	547160.69	4238597.00	2.54603
547159.25	4238617.50	2.29051	547174.25	4238641.00	2.14875

547176.06	4238601.00	2.64918	547177.81	4238621.00	2.39307
547200.00	4238642.00	2.18303	547186.06	4238597.00	2.76912
547203.56	4238590.00	2.90921	547218.62	4238586.00	2.92246
547258.00	4238591.00	2.55775	547220.06	4238638.50	2.17151
547258.31	4238634.50	2.03046	547269.06	4238633.50	1.98601

*** THE ANNUAL (3 YRS) AVERAGE CONCENTRATION   VALUES FOR SOURCE GROUP: ALL   ***
INCLUDING SOURCE(S):   1   , L0000001, L0000002, L0000003, L0000004, L0000005, L0000006,
L0000007, L0000008, L0000009, L0000010, L0000011, L0000012, L0000013, L0000014, L0000015, L0000016, L0000017, L0000018,
L0000019, L0000020, L0000021, L0000022, L0000023, L0000024, L0000025,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER   IN MICROGRAMS/M**3   **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
547273.38	4238656.50	1.76088	547328.81	4238615.50	1.82252
547330.94	4238631.00	1.67720	547334.19	4238652.00	1.50282
547002.75	4238046.50	0.33713	547020.12	4238043.00	0.34241
547005.38	4238077.00	0.40179	547393.31	4237956.00	3.42485
547392.25	4237974.50	5.51786	547395.56	4237992.50	6.45175
547578.13	4238244.00	3.02938	547572.50	4238225.00	3.25326
547567.75	4238210.00	3.40062	547562.50	4238190.00	3.51186
547560.38	4238175.50	3.51113	547555.12	4238161.00	3.53963
546941.44	4238334.50	0.89965	546942.00	4238318.50	0.94308
547152.94	4238488.50	4.14477	547173.88	4238487.00	5.42035
547199.31	4238486.00	6.37892	547216.31	4238479.50	6.74982
547229.88	4238479.50	6.44005	547247.38	4238476.50	6.09026
547270.00	4238481.00	5.19099	547270.00	4238502.50	4.37018
547151.81	4238453.50	4.82784	547142.19	4238436.50	4.43706
547240.06	4237990.00	0.75442	547420.62	4238181.50	11.28970
547461.50	4238181.50	7.13456	547261.94	4238159.50	2.44716
547140.69	4238051.50	0.62962			

CONC   URBAN ELEV FLGPOL DFAULT

*** THE SUMMARY OF MAXIMUM ANNUAL (3 YRS) RESULTS ***

** CONC OF OTHER   IN MICROGRAMS/M**3   **

GROUP ID		AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZFLAG)				OF TYPE	NETWORK GRID-ID
1	1ST HIGHEST VALUE IS	4.86850 AT (	547216.31,	4238479.50,	25.00,	1.50)	DC	NA
	2ND HIGHEST VALUE IS	4.85723 AT (	547199.31,	4238486.00,	24.94,	1.50)	DC	NA
	3RD HIGHEST VALUE IS	4.34570 AT (	547229.88,	4238479.50,	25.00,	1.50)	DC	NA
	4TH HIGHEST VALUE IS	4.28980 AT (	547173.88,	4238487.00,	24.93,	1.50)	DC	NA
	5TH HIGHEST VALUE IS	3.86151 AT (	547151.81,	4238453.50,	24.00,	1.50)	DC	NA
	6TH HIGHEST VALUE IS	3.74208 AT (	547194.00,	4238512.50,	25.00,	1.50)	DC	NA
	7TH HIGHEST VALUE IS	3.71439 AT (	547247.38,	4238476.50,	25.00,	1.50)	DC	NA
	8TH HIGHEST VALUE IS	3.59377 AT (	547213.38,	4238510.50,	25.00,	1.50)	DC	NA
	9TH HIGHEST VALUE IS	3.58339 AT (	547179.69,	4238513.50,	25.00,	1.50)	DC	NA
	10TH HIGHEST VALUE IS	3.52741 AT (	547142.19,	4238436.50,	24.00,	1.50)	DC	NA
2	1ST HIGHEST VALUE IS	8.07027 AT (	547420.62,	4238181.50,	24.00,	1.50)	DC	NA
	2ND HIGHEST VALUE IS	6.06820 AT (	547395.56,	4237992.50,	23.00,	1.50)	DC	NA
	3RD HIGHEST VALUE IS	5.19449 AT (	547392.25,	4237974.50,	23.00,	1.50)	DC	NA
	4TH HIGHEST VALUE IS	4.60016 AT (	547461.50,	4238181.50,	24.00,	1.50)	DC	NA
	5TH HIGHEST VALUE IS	3.14489 AT (	547393.31,	4237956.00,	23.00,	1.50)	DC	NA
	6TH HIGHEST VALUE IS	2.61599 AT (	547501.81,	4238097.50,	23.05,	1.50)	DC	NA
	7TH HIGHEST VALUE IS	2.48772 AT (	547270.00,	4238481.00,	25.00,	1.50)	DC	NA
	8TH HIGHEST VALUE IS	2.37588 AT (	547247.38,	4238476.50,	25.00,	1.50)	DC	NA
	9TH HIGHEST VALUE IS	2.12875 AT (	547555.12,	4238161.00,	24.00,	1.50)	DC	NA
	10TH HIGHEST VALUE IS	2.11410 AT (	547562.50,	4238190.00,	24.00,	1.50)	DC	NA
ALL	1ST HIGHEST VALUE IS	11.28970 AT (	547420.62,	4238181.50,	24.00,	1.50)	DC	NA
	2ND HIGHEST VALUE IS	7.13456 AT (	547461.50,	4238181.50,	24.00,	1.50)	DC	NA
	3RD HIGHEST VALUE IS	6.74982 AT (	547216.31,	4238479.50,	25.00,	1.50)	DC	NA
	4TH HIGHEST VALUE IS	6.45175 AT (	547395.56,	4237992.50,	23.00,	1.50)	DC	NA
	5TH HIGHEST VALUE IS	6.44005 AT (	547229.88,	4238479.50,	25.00,	1.50)	DC	NA
	6TH HIGHEST VALUE IS	6.37892 AT (	547199.31,	4238486.00,	24.94,	1.50)	DC	NA
	7TH HIGHEST VALUE IS	6.09026 AT (	547247.38,	4238476.50,	25.00,	1.50)	DC	NA
	8TH HIGHEST VALUE IS	5.51786 AT (	547392.25,	4237974.50,	23.00,	1.50)	DC	NA
	9TH HIGHEST VALUE IS	5.42035 AT (	547173.88,	4238487.00,	24.93,	1.50)	DC	NA
	10TH HIGHEST VALUE IS	5.19099 AT (	547270.00,	4238481.00,	25.00,	1.50)	DC	NA

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART

DP = DISCPOLR
BD = BOUNDARY

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*** Message Summary : ISCST3 Model Execution ***

 --------- Summary of Total Messages --------

A Total of           0 Fatal Error Message(s)
A Total of           1 Warning Message(s)
A Total of          55 Informational Message(s)

A Total of          55 Calm Hours Identified

   ******** FATAL ERROR MESSAGES ********
              ***  NONE  ***

   ********   WARNING MESSAGES   ********
RE W282  1527 CHK_EL:RecElev < SrcBase; See non-DFAULT HE>ZI option in  MCB#9

   ************************************
   *** ISCST3 Finishes Successfully ***
   ************************************
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Appendix

Appendix C. Risk Calculation Worksheets

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Table C1
MER Concentrations

Emission Source (a)	ISCST3 Output ($\mu g/m^3$) (b)	Pollutant (c)	Emission Rates [1] (g/s) (d)	MER Concentrations ($\mu g/m^3$) (f)
Residential Receptors - Unmitigated				
	Annual Average		Average Daily	Annual Average
2016 Onsite	4.87	DPM	1.85E-02	**9.00E-02**
		$PM_{2.5}$	1.96E-02	**9.53E-02**
2016 Offsite	8.07	DPM	4.94E-05	**3.99E-04**
		$PM_{2.5}$	2.00E-04	**1.62E-03**
2017 Onsite	4.87	DPM	2.02E-02	**9.82E-02**
		$PM_{2.5}$	1.95E-02	**9.47E-02**
2017 Offsite	8.07	DPM	3.45E-05	**2.78E-04**
		$PM_{2.5}$	2.20E-04	**1.78E-03**
Residential Receptors - Mitigation: Tier 3 Engines & Level 3 Diesel Particulate Filters				
2016 Onsite	4.87	DPM	6.57E-03	**3.20E-02**
		$PM_{2.5}$	8.39E-03	**4.09E-02**
2016 Offsite	8.07	DPM	4.94E-05	**3.98E-04**
		$PM_{2.5}$	1.90E-04	**1.53E-03**
2017 Onsite	4.87	DPM	8.18E-03	**3.98E-02**
		$PM_{2.5}$	8.06E-03	**3.93E-02**
2017 Offsite	8.07	DPM	3.45E-05	**2.78E-04**
		$PM_{2.5}$	2.07E-04	**1.67E-03**

MER UTM coordinates: 547420.63E, 4238181.50N

[1] Emission Rates from Emission Rate Calculations (Appendix A - Construction Emissions).

Emission Source (a)	ISCST3 Output ($\mu g/m^3$) (b)	Pollutant (c)	Emission Rates [1] (g/s) (d)	MER Concentrations ($\mu g/m^3$) (f)
Nursing Care Receptors - Unmitigated				
	Annual Average		Average Daily	Annual Average
2016 Onsite	0.21	DPM	1.85E-02	**3.88E-03**
		$PM_{2.5}$	1.96E-02	**4.11E-03**
2016 Offsite	0.42	DPM	4.94E-05	**2.07E-05**
		$PM_{2.5}$	2.00E-04	**8.41E-05**
2017 Onsite	0.21	DPM	2.02E-02	**4.23E-03**
		$PM_{2.5}$	1.95E-02	**4.08E-03**
2017 Offsite	0.42	DPM	3.45E-05	**1.45E-05**
		$PM_{2.5}$	2.20E-04	**9.24E-05**
Nursing Care Receptors - Mitigation: Tier 3 Engines & Level 3 Diesel Particulate Filters				
2016 Onsite	0.21	DPM	6.57E-03	**1.38E-03**
		$PM_{2.5}$	8.39E-03	**1.76E-03**
2016 Offsite	0.42	DPM	4.94E-05	**2.07E-05**
		$PM_{2.5}$	1.90E-04	**7.97E-05**
2017 Onsite	0.21	DPM	8.18E-03	**1.72E-03**
		$PM_{2.5}$	8.06E-03	**1.69E-03**
2017 Offsite	0.42	DPM	3.45E-05	**1.45E-05**
		$PM_{2.5}$	2.07E-04	**8.71E-05**

Nursing Care Facility UTM coordinates: 547140.69E, 4238051.50N

[1] Emission Rates from Emission Rate Calculations (Appendix A - Construction Emissions).

Table C1
MER Concentrations

Emission Source (a)	ISCST3 Output (μg/m³) (b)	Pollutant (c)	Emission Rates [1] (g/s) (d)	MER Concentrations (μg/m³) (f)
Daycare Receptors - Unmitigated				
	Annual Average		Average Daily	Annual Average
2016 Onsite	1.29	DPM	1.85E-02	**2.38E-02**
		$PM_{2.5}$	1.96E-02	**2.52E-02**
2016 Offsite	2.62	DPM	4.94E-05	**1.29E-04**
		$PM_{2.5}$	2.00E-04	**5.24E-04**
2017 Onsite	1.29	DPM	2.02E-02	**2.60E-02**
		$PM_{2.5}$	1.95E-02	**2.50E-02**
2017 Offsite	2.62	DPM	3.45E-05	**9.03E-05**
		$PM_{2.5}$	2.20E-04	**5.76E-04**
Daycare Receptors - Mitigation: Tier 3 Engines & Level 3 Diesel Particulate Filters				
2016 Onsite	1.29	DPM	6.57E-03	**8.46E-03**
		$PM_{2.5}$	8.39E-03	**1.08E-02**
2016 Offsite	2.62	DPM	4.94E-05	**1.29E-04**
		$PM_{2.5}$	1.90E-04	**4.97E-04**
2017 Onsite	1.29	DPM	8.18E-03	**1.05E-02**
		$PM_{2.5}$	8.06E-03	**1.04E-02**
2017 Offsite	2.62	DPM	3.45E-05	**9.02E-05**
		$PM_{2.5}$	2.07E-04	**5.43E-04**

Daycare Facility UTM coordinates: 547420.63E, 4238181.50N

[1] Emission Rates from Emission Rate Calculations (Appendix A - Construction Emissions).

Table C2a
Quantification of Carcinogenic Risks for Residences

Source		MER Conc. (µg/m^3)	Weight Fraction	Contaminant	URF (µg/m^3)$^{-1}$	CPF (mg/kg/day)$^{-1}$	Dose (by age bin) 3rd Trimester (mg/kg-day)	0 < 2 years (mg/kg-day)	2 < 16 years (mg/kg-day)	16 < 70 years (mg/kg-day)	Carcinogenic Risks (by age bin) 3rd Trimester per million	0 < 2 years per million	2 < 16 years per million	16 < 70 years per million	**Total Risk** per million
(a)		(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)
Unmitigated															
2016	On-Site Emissions	9.00E-02	1.00E+00	Diesel Particulate	3.0E-04	1.1E+00	3.1E-05	9.4E-05			0.99	3.03			4.0
	Truck Route	3.99E-04	1.00E+00		3.0E-04	1.1E+00	1.4E-07	4.2E-07			0.0044	0.013			0.018
2017	On-Site Emissions	9.82E-02	1.00E+00		3.0E-04	1.1E+00		1.0E-04				13.0			13.0
	Truck Route	2.78E-04	1.00E+00		3.0E-04	1.1E+00		2.9E-07				0.037			0.037
														Total Cancer Risk	**17**
Mitigated Run: Level 3 Diesel Particulate Filters for equipment 50 HP or greater															
2016	On-Site Emissions	3.20E-02	1.00E+00	Diesel Particulate	3.0E-04	1.1E+00	1.1E-05	3.3E-05			0.35	1.08			1.43
	Truck Route	3.98E-04	1.00E+00		3.0E-04	1.1E+00	1.4E-07	4.2E-07			0.0044	0.013			0.018
2017	On-Site Emissions	3.98E-02	1.00E+00		3.0E-04	1.1E+00		4.2E-05				5.28			5.28
	Truck Route	2.78E-04	1.00E+00		3.0E-04	1.1E+00		2.9E-07				0.037			0.037
														Total Cancer Risk	**6.8**

MER UTM coordinates: 547420.63E, 4238181.50N

		3rd Trimester	0 < 2 years	2 < 16 years	16 < 70 years
	exposure year(s)	2016	2016-2017	n/a	n/a
Dose Exposure Factors:	exposure frequency (days/year)	350	350	350	350
	inhalation rate (L/kg-day) [1]	361	1090	745	290
	inhalation absorption factor	1	1	1	1
Risk Calculation Factors:	age sensitivity factor	10	10	3	1
	averaging time (years)	70	70	70	70
	fraction of time at home	0.85	0.85	0.72	0.73

exposure durations per age bin		exposure durations (year)			
Construction Year	Risk Scalar [2]	3rd Trimester	0 < 2 years	2 < 16 years	16 < 70 years
2016	0.50	0.25	0.25		
2017	0.99		0.99		

[1] Inhalation rate taken as the 95th percentile breathing rates (OEHHA, 2015).

[2] Residential risk scalars determined for each year of construction to adjust receptor exposures to the exposure durations for each construction year (see App A - Construction Emissions).

Table C2b
Quantification of Carcinogenic Risks for Nursing Facility

Source		MER Conc. (µg/m³)	Weight Fraction	Contaminant	URF $(\mu g/m^3)^{-1}$	CPF $(mg/kg/day)^{-1}$	Dose (by age bin) 16 < 70 years (mg/kg-day)	Carcinogenic Risks (by age bin) 16 < 70 years per million	Total Risk per million
(a)		(b)	(c)	(d)	(e)	(f)	(j)	(n)	(o)
Unmitigated									
2016	On-Site Emissions	3.88E-03	1.00E+00	Diesel Particulate	3.0E-04	1.1E+00	1.1E-06	0.01	0.0
	Truck Route	2.07E-05	1.00E+00		3.0E-04	1.1E+00	5.8E-09	0.000	0.000
2017	On-Site Emissions	4.23E-03	1.00E+00		3.0E-04	1.1E+00	1.2E-06	0.0	0.0
	Truck Route	1.45E-05	1.00E+00		3.0E-04	1.1E+00	4.0E-09	0.000	0.000
								Total Cancer Risk	**0.03**
Mitigated Run: Level 3 Diesel Particulate Filters for equipment 50 HP or greater									
2016	On-Site Emissions	1.38E-03	1.00E+00	Diesel Particulate	3.0E-04	1.1E+00	3.8E-07	0.00	0.00
	Truck Route	2.07E-05	1.00E+00		3.0E-04	1.1E+00	5.8E-09	0.000	0.000
2017	On-Site Emissions	1.72E-03	1.00E+00		3.0E-04	1.1E+00	4.8E-07	0.01	0.01
	Truck Route	1.45E-05	1.00E+00		3.0E-04	1.1E+00	4.0E-09	0.000	0.000
								Total Cancer Risk	**0.01**

Nursing Care Facility UTM coordinates: 547140.69E, 4238051.50N

		16 < 70 years
	exposure year(s)	2016-2017
Dose Exposure Factors:	exposure frequency (days/year)	350
	inhalation rate (L/kg-day) [1]	290
	inhalation absorption factor	1
Risk Calculation Factors:	age sensitivity factor	1
	averaging time (years)	70
	fraction of time at home	1

exposure durations per age bin		exposure durations (year)
Construction Year	Risk Scalar [2]	16 < 70 years
2016	0.50	0.50
2017	0.99	0.99

[1] Inhalation rate taken as the 95th percentile breathing rates (OEHHA, 2015).

[2] Residential risk scalars determined for each year of construction to adjust receptor exposures to the exposure durations for each construction year (see App A - Construction E

Table C2b
Quantification of Carcinogenic Risks for Daycare Facility-Students

Source		MER Conc. (µg/m^3)	Weight Fraction	Contaminant	URF (µg/m^3)$^{-1}$	CPF (mg/kg/day)$^{-1}$	Dose (by age bin) 16 < 70 years (mg/kg-day)	Carcinogenic Risks (by age bin) 16 < 70 years per million	Total Risk per million
(a)		(b)	(c)	(d)	(e)	(f)	(j)	(n)	(o)
Unmitigated									
2016	On-Site Emissions	2.38E-02	1.00E+00	Diesel Particulate	3.0E-04	1.1E+00	2.0E-05	0.44	0.4
	Truck Route	1.29E-04	1.00E+00		3.0E-04	1.1E+00	1.1E-07	0.002	0.002
2017	On-Site Emissions	2.60E-02	1.00E+00		3.0E-04	1.1E+00	2.1E-05	1.0	1.0
	Truck Route	9.03E-05	1.00E+00		3.0E-04	1.1E+00	7.5E-08	0.003	0.003
								Total Cancer Risk	**1.41**
Mitigated Run: Level 3 Diesel Particulate Filters for equipment 50 HP or greater									
2016	On-Site Emissions	8.46E-03	1.00E+00	Diesel Particulate	3.0E-04	1.1E+00	7.0E-06	0.16	0.16
	Truck Route	1.29E-04	1.00E+00		3.0E-04	1.1E+00	1.1E-07	0.002	0.002
2017	On-Site Emissions	1.05E-02	1.00E+00		3.0E-04	1.1E+00	8.7E-06	0.39	0.39
	Truck Route	9.02E-05	1.00E+00		3.0E-04	1.1E+00	7.4E-08	0.003	0.003
								Total Cancer Risk	**0.55**

Daycare Facility UTM coordinates: 547420.63E, 4238181.50N

		2<9
	exposure year(s)	2016-2017
Dose Exposure Factors:	exposure frequency (days/year)	350
	inhalation rate (L/kg-day) [1]	861
	inhalation absorption factor	1
Risk Calculation Factors:	age sensitivity factor	3
	averaging time (years)	70
	fraction of time at home	1

exposure durations per age bin		exposure durations (year)
Construction Year	Risk Scalar [2]	2<9
2016	0.50	0.50
2017	0.99	0.99

[1] Inhalation rate taken as the 95th percentile breathing rates (OEHHA, 2015).

[2] Residential risk scalars determined for each year of construction to adjust receptor exposures to the exposure durations for each construction year (see App A - Construction E

Table C3a
Quantification of Non-Carcinogenic Risks
Chronic Hazards for Residences

Source		REL Type	MER Conc. (µg/m³)	Weight Fraction	Contaminant	Chronic Hazards / Toxicological Endpoints*								
						REL (µg/m³)	RESP	CNS/PNS	CV/BL	IMMUN	KIDN	GI/LV	REPRO	EYES
(a)		(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)
Unmitigated														
2016	On-Site Emissions	Chronic	9.00E-02	1.00E+00	Diesel Particulate	5.0E+00	1.8E-02							
	Truck Route		3.99E-04	1.00E+00		5.0E+00	8.0E-05							
2017	On-Site Emissions		9.82E-02	1.00E+00		5.0E+00	2.0E-02							
	Truck Route		2.78E-04	1.00E+00		5.0E+00	5.6E-05							
TOTAL							3.8E-02	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
					Maximum Chronic Hazard		**0.038**							
Mitigated Run: Level 3 Diesel Particulate Filters for equipment 50 HP or greater														
2016	On-Site Emissions	Chronic	3.20E-02	1.00E+00	Diesel Particulate	5.0E+00	6.4E-03							
	Truck Route		3.98E-04	1.00E+00		5.0E+00	8.0E-05							
2017	On-Site Emissions		3.98E-02	1.00E+00		5.0E+00	8.0E-03							
	Truck Route		2.78E-04	1.00E+00		5.0E+00	5.6E-05							
TOTAL							1.4E-02	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
					Maximum Chronic Hazard		**0.014**							

* Key to Toxicological Endpoints

RESP	Respiratory System
CNS/PNS	Central/Peripheral Nervous System
CV/BL	Cardiovascular/Blood System
IMMUN	Immune System
KIDN	Kidney
REPRO	Reproductive System
EYES	Eye irritation and/or other effects

Table C3b
Quantification of Non-Carcinogenic Risks
Chronic Hazards for Nursing Facility

Source		REL Type	MER Conc. (μg/m^3)	Weight Fraction	Contaminant	Chronic Hazards / Toxicological Endpoints*								
						REL (μg/m^3)	RESP	CNS/PNS	CV/BL	IMMUN	KIDN	GI/LV	REPRO	EYES
(a)		(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)
Unmitigated														
2016	On-Site Emissions	Chronic	3.88E-03	1.00E+00	Diesel Particulate	5.0E+00	7.8E-04							
	Truck Route		2.07E-05	1.00E+00		5.0E+00	4.1E-06							
2017	On-Site Emissions		4.23E-03	1.00E+00		5.0E+00	8.5E-04							
	Truck Route		1.45E-05	1.00E+00		5.0E+00	2.9E-06							
TOTAL							1.6E-03	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
					Maximum Chronic Hazard		**0.002**							
Mitigated Run: Level 3 Diesel Particulate Filters for equipment 50 HP or greater														
2016	On-Site Emissions	Chronic	1.38E-03	1.00E+00	Diesel Particulate	5.0E+00	2.8E-04							
	Truck Route		2.07E-05	1.00E+00		5.0E+00	4.1E-06							
2017	On-Site Emissions		1.72E-03	1.00E+00		5.0E+00	3.4E-04							
	Truck Route		1.45E-05	1.00E+00		5.0E+00	2.9E-06							
TOTAL							6.3E-04	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
					Maximum Chronic Hazard		**0.001**							

* Key to Toxicological Endpoints

RESP	Respiratory System
CNS/PNS	Central/Peripheral Nervous System
CV/BL	Cardiovascular/Blood System
IMMUN	Immune System
KIDN	Kidney
REPRO	Reproductive System
EYES	Eye irritation and/or other effects

Table C3c
Quantification of Non-Carcinogenic Risks
Chronic Hazards for Daycare Facility

Source		REL Type	MER Conc. (µg/m³)	Weight Fraction	Contaminant	Chronic Hazards / Toxicological Endpoints*								
						REL (µg/m³)	RESP	CNS/PNS	CV/BL	IMMUN	KIDN	GI/LV	REPRO	EYES
(a)		(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)
Unmitigated														
2016	On-Site Emissions	Chronic	2.38E-02	1.00E+00	Diesel Particulate	5.0E+00	4.8E-03							
	Truck Route		1.29E-04	1.00E+00		5.0E+00	2.6E-05							
2017	On-Site Emissions		2.60E-02	1.00E+00		5.0E+00	5.2E-03							
	Truck Route		9.03E-05	1.00E+00		5.0E+00	1.8E-05							
TOTAL							1.0E-02	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
					Maximum Chronic Hazard		**0.010**							
Mitigated Run: Level 3 Diesel Particulate Filters for equipment 50 HP or greater														
2016	On-Site Emissions	Chronic	8.46E-03	1.00E+00	Diesel Particulate	5.0E+00	1.7E-03							
	Truck Route		1.29E-04	1.00E+00		5.0E+00	2.6E-05							
2017	On-Site Emissions		1.05E-02	1.00E+00		5.0E+00	2.1E-03							
	Truck Route		9.02E-05	1.00E+00		5.0E+00	1.8E-05							
TOTAL							3.8E-03	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
					Maximum Chronic Hazard		**0.004**							

* Key to Toxicological Endpoints

RESP	Respiratory System
CNS/PNS	Central/Peripheral Nervous System
CV/BL	Cardiovascular/Blood System
IMMUN	Immune System
KIDN	Kidney
REPRO	Reproductive System
EYES	Eye irritation and/or other effects

Table C4a
$PM_{2.5}$ Concentrations-Residences

Contaminant (a)	Source (b)		MER Conc. ($\mu g/m^3$) (c)	Concentration Annual Average ($\mu g/m^3$) (d)
Unmitigated				
$PM_{2.5}$	2016	On-Site Emissions	9.53E-02	0.10
		Truck Route	1.62E-03	
	2017	On-Site Emissions	9.47E-02	0.10
		Truck Route	1.78E-03	
	Maximum Annual $PM_{2.5}$ Concentration			**0.10**

Mitigated Run: Level 3 DPFs for equipment 50 HP or greater				
$PM_{2.5}$	2016	On-Site Emissions	4.09E-02	0.04
		Truck Route	1.53E-03	
	2017	On-Site Emissions	3.93E-02	0.04
		Truck Route	1.67E-03	
	Maximum Annual $PM_{2.5}$ Concentration			**0.04**

Table C4b

$PM_{2.5}$ Concentrations-Nursing Facility

Contaminant (a)	Source (b)		MER Conc. (µg/m³) (c)	Concentration Annual Average (µg/m³) (d)
Unmitigated				
$PM_{2.5}$	2016	On-Site Emissions	4.11E-03	0.00
		Truck Route	8.41E-05	
	2017	On-Site Emissions	4.08E-03	0.00
		Truck Route	9.24E-05	
	Maximum Annual $PM_{2.5}$ Concentration			**0.004**

Mitigated Run: Level 3 DPFs for equipment 50 HP or greater				
$PM_{2.5}$	2016	On-Site Emissions	1.76E-03	0.00
		Truck Route	7.97E-05	
	2017	On-Site Emissions	1.69E-03	0.00
		Truck Route	8.71E-05	
	Maximum Annual $PM_{2.5}$ Concentration			**0.00**

Table C4c
$PM_{2.5}$ Concentrations-Daycare Facility

Contaminant (a)	Source (b)		MER Conc. ($\mu g/m^3$) (c)	Concentration Annual Average ($\mu g/m^3$) (d)
Unmitigated				
$PM_{2.5}$	2016	On-Site Emissions	2.52E-02	0.03
		Truck Route	5.24E-04	
	2017	On-Site Emissions	2.50E-02	0.03
		Truck Route	5.76E-04	
	Maximum Annual $PM_{2.5}$ Concentration			**0.03**

Mitigated Run: Level 3 DPFs for equipment 50 HP or greater				
$PM_{2.5}$	2016	On-Site Emissions	1.08E-02	0.01
		Truck Route	4.97E-04	
	2017	On-Site Emissions	1.04E-02	0.01
		Truck Route	5.43E-04	
	Maximum Annual $PM_{2.5}$ Concentration			**0.01**

APPENDIX F:
Bat Roosting Habitat Assessment and Impact Report

H. T. HARVEY & ASSOCIATES

Ecological Consultants

3 September 2015

Kyle Simpson
PlaceWorks
451 Clovis Avenue, Suite 200
Clove, CA 93912

Subject: Hotel Project Sonoma – Bat Roosting Habitat Assessment and Impact Report (HTH #3760-01)

Dear Mr. Simpson:

Per your request, H. T. Harvey & Associates has completed a bat roosting habitat assessment and impact report for the proposed Hotel Project Sonoma, located on West Napa Street in Sonoma, California. It is our understanding that the Project involves the construction of a hotel and parking garage totaling 105,133 square feet and exterior open space totaling 26,962 square feet on the 1.24-acre site. The Project site currently consists of a paved parking lot, four buildings (a metal warehouse, Lynch building, Sonoma Index-Tribune building, and Chateau Sonoma [located at 153 West Napa Street]), and other ancillary structures. Further, it is our understanding that the City of Sonoma is requiring an assessment of bat roosting habitat on the site and potential Project impacts on roosting bats for inclusion in the Project's Environmental Impact Report (EIR) for California Environmental Quality Act (CEQA) compliance. This report provides a summary of our assessment results.

Methods

H. T. Harvey & Associates bat biologists Meredith Jantzen, M.S., and Kim Briones, M.S., conducted a daytime habitat assessment for bats on 10 August 2015. They searched for bats, suitable bat roosting habitat, and evidence of roosting bats (e.g., guano or staining) in the two buildings scheduled for demolition (i.e., the metal warehouse and Chateau Sonoma). In addition, due to their proximity to construction-related activities, the Lynch building and the Sonoma Index-Tribune building, which are not scheduled for demolition, were also surveyed. Finally, the biologists evaluated the trees on the site for signs of roosting bats or potential bat roosting habitat.

Based on the results of the daytime survey, the biologists returned to the site prior to sunset to conduct a dusk emergence survey at the Lynch building and Chateau Sonoma. During this survey, the biologists set up two Song Meter SM2BAT bat detectors to assist in the detection of bats and to record vocalizations of any bats emerging from structures on the Project site. In addition, the biologists monitored possible roost locations along rooflines (as identified during the daytime survey) for emerging bats from 7:30 p.m. to 8:45 p.m.

Because the bat biologists were unable to access the attic of the Chateau Sonoma on 10 August, M. Jantzen returned to the site on 25 August 2015 to visually assess potential roosting habitat within the attic and look for bats or evidence of bat presence (e.g., guano or staining).

Results – Daytime Survey

No signs of bat use (i.e., guano or staining) were detected during the daytime surveys on 10 or 25 August. No potential bat roosting habitat was detected at the metal warehouse or Sonoma Index-Tribune building, but potential bat roosting habitat was identified at the Chateau Sonoma and Lynch building. Specifically, the tile roofing on the Lynch building and the attic of the Chateau Sonoma were determined to provide suitable habitat for individuals or colonies of bats, including the pallid bat (*Antrozous pallidus*), a California species of special concern, as well as common bat species such as the Yuma myotis (*Myotis yumanensis*), big brown bat (*Eptesicus fuscus*), and Mexican free-tailed bat (*Tadarida brasiliensis*). In addition, the biologists noted pieces of tin peeling back along the roofline of Chateau Sonoma and several potential bat access points along the roofline where the tin was cut to allow pass-through space for wooden beams. However, examination of the inside of the attic of the Chateau Sonoma revealed no evidence (e.g., guano or staining) that bats were present, or had ever used that site as a roost.

The trees surrounding the building were also surveyed, but these trees were very young and did not provide suitable cavities or crevices to support roosting bats.

Results – Dusk Emergence Survey

Because the Lynch building and Chateau Sonoma building provided potential bat roosting sites, a dusk survey was conducted on 10 August 2015 to determine whether bats were present. No bats were observed or detected at the Lynch building or the Chateau Sonoma building during the dusk emergence survey. Further, no bats were observed emerging from the Lynch building. One Mexican free-tailed bat call was recorded on the bat detector adjacent to the Lynch building. However, because Mexican-free tailed bats roost in large congregations and only one call was detected, it is most likely that this call was from a bat that was passing through the area and not emerging from a roost on the Project site.

Potential Biological Constraints Related to Roosting Bats

Potentially suitable roosting habitat for pallid bats was determined to be present at the Chateau Sonoma building and the Lynch building on the Project site. However, no evidence of pallid bat occupation of these buildings was detected during the daytime habitat assessments or dusk emergency survey. Further, pallid bats are very susceptible to human disturbance, and are not expected to roost in buildings such as those on the Project site while they are occupied and highly disturbed. Therefore, pallid bats are not expected to roost on the Project site, nor constrain development of the proposed Project.

Similarly, although potentially suitable roosting habitat for common bat species was determined to be present at the Lynch building and Chateau Sonoma, no evidence of current bat use of the site, nor any evidence that the attic of the Chateau Sonoma had ever been used by roosting bats, was observed during the daytime habitat assessments or dusk emergence survey. In addition, the trees within the Project site do not provide cavities suitable for use by roosting bats. Therefore, roosting bats were determined to be absent from the site. Given the length of time in which these buildings have stood, coupled with the lack of any evidence that bats have ever used them for roosting, there is no reasonable expectation that bats will move onto the site to roost prior to the start of Project activities unless there are physical changes in these buildings that would improve accessibility to bats or change their thermal characteristics.

Bats, such as the individual Mexican free-tailed bat that was detected during the dusk survey, could potentially forage over the site. If noise and disturbances related to Project construction occur at dusk or after dark, construction activities could result in the temporary disturbance of foraging individual bats through the alteration of foraging patterns (e.g., avoidance of work areas because of increased noise and activity levels during Project activities). However, because the Project would not result in substantial changes to the availability of foraging habitat after construction is completed, the Project is not expected to have a substantial long-term impact on foraging habitat or prey availability for bats. Therefore, this Project would not result in a significant impact to roosting or foraging bats or their habitat, and no mitigation measures are warranted.

Please feel free to contact me at rcarle@harveyecology.com or (408) 458-3241 with any questions you may have regarding this report. Thank you very much for contacting H. T. Harvey & Associates regarding this project.

Sincerely,

Robin Carle

Robin Carle, M.S.
Senior Wildlife Ecologist/Project Manager

APPENDIX G:
Historic Resources Evaluation

Introduction

This section provides information on historic buildings and sites which may be affected by the proposed project and evaluates the potential impact the proposed project would have on these historical resources. It includes a review of previously-identified historical resources and a discussion of whether additional ones could be affected, concluding with a list of historical resources that could be affected by the proposed project. Then there is a brief list of aspects of the proposed project which could affect historical resources. Following is an evaluation of whether the proposed project would have an impact on the historical resources identified in this study.

Methodology

To enable an evaluation of the potential for the project to affect historic buildings and sites, this section begins with a brief physical description of the context, encompassing the city block in which the project site lies and the neighboring blocks. A listing of previously-identified historical resources follows, along with a brief discussion of whether there are additional historic buildings and sites, not previously identified, which could be affected by the proposed project. Identification of historical resources is based on studies of 117 West Napa Street and 153 West Napa Street by Page & Turnbull, the Sonoma Plaza National Historic Landmark listing, the Sonoma Plaza National Register District nomination form, and the 1979 Sonoma inventory (Area 10 of the Valley of the Moon Survey). Based on these references, a list is offered with historic buildings and sites that have the potential to be affected by the proposed project. The evaluation is geared primarily to the criteria in CEQA Guidelines Section 15064.5, which ultimately refer to the California Register Criteria (and National Register Criteria) as well as the Secretary of the Interior's Standards for the Treatment of Historic Properties.

Context and Project Site

The project site is located on the south side of West Napa Street between First and Second Streets West, just west of Sonoma Plaza in the heart of the city of Sonoma. The subject city block is a fairly densely developed downtown commercial district, like the blocks that adjoin it in all directions except the northeast. These blocks are occupied almost entirely by buildings or parking lots, with only a few vacant lots, yards, and gardens. The buildings are typically three stories tall or less. As much unbuilt space is occupied by parking and other hardscape as by planted landscapes. Sonoma Plaza lies northeast of the subject city block. East of Nathanson Creek, development is less dense and markedly more residential. North of Spain Street, open spaces and institutions are interspersed with residential areas.

The project site lies in Assessor's Block 018-251. It consists lot 17 (153 West Napa Street, now the Chateau Sonoma Building); part of lot 52 (the Lynch Building at 135 West Napa Street, which will remain, and the parking lot on the west side of it, which will be part of the project site); lot 51 (the west part of the printing plant behind the Index-Ledger Building at 117 West Napa Street, and part of the parking lot sequence that connects First Street West and West Napa Street), and part of lot 55 (the Index-Tribune Building and the southern extension of its site which wraps east to First Street West).

It can be confusing to correlate the assessor's parcels, street addresses, building permits, previous reports, and existing buildings/site features that are proposed for retention (or demolition) in the proposed project. The table that follows shows how each portion of the existing site is categorized in the various references.

APN	Street Address	Existing Building/Site	Page & Turnbull Study	Proposed Treatment
018-251-017	153 W. Napa Street	Chateau Sonoma	2012 Historic Resource Evaluation	Demolish; construct new restaurant building
018-251-052	135 W. Napa Street	Lynch Building	—	Retain (not in project site)
018-251-052	135 W. Napa Street	Parking lot west of Lynch Building	—	Construct new entry court (restaurant building covers a small portion)
018-251-051	Assessor assigns “First Street West”	1986 Warehouse connected to Index-Tribune Building **Note: The 1986 construction permit for this building has the address 117 W. Napa Street but notes building is actually on a different parcel.**	Mentioned in building permits and Building Chronology; not covered in significance evaluation	Demolish; construct new ramp to subterranean garage and hotel above.
018-251-051	Assessor assigns “First Street West”	Parking lot west of 1986 Warehouse	—	Construct new entry court and hotel
018-251-055	117 W. Napa Street	Index-Tribune (north) building	2011 Historic Resource Evaluation	Retain (not in project site)
018-251-055	117 W. Napa Street	1977 (south) warehouse additions	Mentioned in building permits and Building Chronology; not covered in significance evaluation	Demolish; construct new ramp to subterranean garage and hotel above.
018-251-055	117 W. Napa Street	Driveway and parking lot south of 1977 warehouse additions	—	Construct new staff parking lot at grade and ramp to First Street West from subterranean garage, one-story service building.

Previously Identified Historical Resources

Reports on the Project Site

The project site was previously studied in 2011 (153 West Napa Street) and 2012 (117 West Napa Street) by Page & Turnbull. The surrounding context has been the subject of a historic inventory, two nominations to the National Register of Historic Places, and the Sonoma Historical Overlay District.

In its 2011 study of 153 West Napa Street, Page & Turnbull researched the construction, ownership, and occupancy of the existing building. It also traced previous use and ownership of the parcel before the existing building was constructed around 1910. It discussed the blacksmithing trade in Sonoma because of the building's former use as a blacksmith's shop. The study concluded the property is not individually eligible to the California Register under Criteria 1, 2, or 3. The property does not have a significant association with important historical events or trends, according to the Page & Turnbull study, because it was constructed about 10 years after the most important period of Sonoma's development and its commercial uses were not of notable importance. The past owners and occupants associated with the building were not important to local, state, or national history, according to the report. And building, "designed in a modest commercial or light industrial style with few distinctive details by means of typical construction methods…does not express aesthetic ideals or design concepts more fully than other properties of its type."[1]

The same firm prepared a similar study of 117 W. Napa Street in 2012. Its research methodology was similar to the one for 153 W. Napa Street, and included an account of the history of the *Index-Tribune* and Robert Lynch, the longtime owner who shaped the existing building. Although it did not go into detail, the report appears to treat the rear (south) warehouse portion of the building at 117 W. Napa Street as a separate structure. The site description states, "The building is located on or very near the north, east, and west property lines. It is separated from the south property line by two warehouses, a driveway, and a shed structure, and an asphalt parking lot extends to First Street West."[2] The exterior description states that the rear (south) facade of the building that is the subject of the report "faces south and is composed of two one story portions. The west portion is a reinforced concrete wall that is completely obscured by a large warehouse that was constructed in 1977."[3] The interior description does not include the interior of the warehouses. The Building Chronology in the Page & Turnbull report does include a 1977 building permit for the south warehouse addition on parcel 018-251-055. The report also includes permit 8912, issued in1986, for the warehouse addition located on parcel 018-251-051 (immediately to the west of parcel 018-251-055 on which the original Index-Tribune Building is located).

Thus, the Page & Turnbull report addressed almost exclusively only the older, northern portion of the Index-Tribune Building, which is located entirely on parcel 018-251-055. It made only brief mention of the warehouse additions on the south side of the building (which also housed the printing presses) and did not appear to take them into account in its significance evaluation. For this reason, the Page & Turnbull report cannot be used to assess definitively whether the

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[1] Page & Turnbull. *153 West Napa Street Historic Resource Evaluation.* San Francisco, 29 August 2011. Pp 25-26.
[2] Page & Turnbull. 117 West Napa Street Historic Resource Study. San Francisco, 5 July 2012. P 7.
[3] Ibid. P 10.

warehouse additions are historically significant. It did state that "Although several other buildings were constructed on the subject property during the period of significance, they are not yet 50 years old and do not appear to be exceptionally significant under any criteria."[4]

The report concluded that 117 W. Napa Street is individually eligible to the California Register under Criterion 1 (Events) "for its association with the local newspaper, the *Sonoma Index-Tribune* …continuously operated at 117 West Napa Street—the only extant property associated with newspaper—for more than 80 years."[5] It also found that "117 West Napa Street appears eligible for listing in the California Register under Criterion 2 (Person) for its association with Robert Lynch (1920-2003). Lynch was the fourth-generation owner and publisher of the Sonoma Index-Tribune, and he made his greatest contributions to the City of Sonoma during his productive 54-year tenure."[6]

The two warehouse buildings that make up the south end of the Index-Tribune complex, built in 1977 and 1987, are typical of utilitarian commercial-industrial construction of their time. Although they are located on different parcels, the were connected and both were extensions of the original Index-Tribune Building north of them. The building on parcel 018-251-051 (behind the Lynch Building) has vertically-oriented ribbed steel siding and metal windows. Its gabled roof is so gently sloped it appears nearly flat. The north half of the building is a few feet taller than the south half and has a second floor. The interior of the building consists of offices with carpeted floors, partitions with gypsum wallboard finish, and gypsum board or suspended "T-bar" ceilings. The 1977 building on parcel 018-251-055 immediately to the east is similar in form and length, but is narrower east-to-west. Its most prominent elevation, on the south facing the parking lot, is similar in material to the 1986 warehouse; both buildings have roll-up steel doors on this elevation. The older building has a steel frame and concrete-block walls on its east and west sides; the east wall is faced in stucco but is almost entirely obscured by climbing vegetation. The interior of the older building is a single, high-bay industrial space.

Based on the construction dates, the information and evaluation in the Page & Turnbull report, and the physical description of the buildings, they do not appear to be historically significant. Whether they are viewed as additions to the older Index-Tribune Building, or as separate properties that are physically continuous with it, they do not meet any of the California Register Criteria. Built in the 1970s and 1980s, they are less than 50 years old—and more importantly, they were constructed after the Index-Tribune was already growing and had established itself as an important institution in Sonoma. Utilitarian expansions of the newspaper's plant, they were not important expressions of its role in commerce or community life (which the 1958 Monterey-style north facade on West Napa Street was). They existed for 17 and 26 years, respectively, of Robert Lynch's 54-year run as publisher of the paper. In design and construction materials, the buildings are utterly generic. For these reasons, the two warehouses are not historically significant. For the purposes of CEQA evaluation, they should not be included in the designation of 117 West Napa Street as a historical resource based on the Page & Turnbull report.

Surveys and Districts

The area around the project has been inventoried and included in historical designations four times. The oldest designation is the Sonoma Plaza National Historic Landmark, one of the

[4] Ibid. P 29.
[5] Ibid. P 28.
[6] Ibid. P 29.

earliest designated National Historic Landmarks. Survey work for Sonoma Plaza is recorded as early as 1958, which preceded the National Historic Preservation Act of 1966. In 1961, William G. Raymond, the mayor of Sonoma, applied for Registered National Historic Landmark status. Sonoma Plaza was granted Landmark status by the Department of the Interior and was dedicated in December of 1961. The Sonoma Plaza National Historic Landmark consists of nine specific properties: The Barracks, the Toscano Hotel, the Hotel Annex, the Mission, the Jones (Castenada) Adobe, the Nash Patton Adobe, the Don Salvado Vallejo Adobe, the Leese-Fitch Adobe, and the Bear Flag Monument. The properties on which the proposed hotel would be constructed are not included in the National Landmark.

In 1992 Michael Crowe of the Western Regional Office of the National Park Service realized that the Sonoma Plaza National Historic Landmark status was not focused on local historic significance and submitted the nomination for Sonoma Plaza to become a National Register Historic District. This increased the number of properties to 134, with 82 contributing buildings, five sites (of which three are contributing), one contributing structure, and two contributing objects. The district encompasses properties on the north side of Spain Street from just west of the Plaza to 256 East Spain Street, on the south side of Spain Street from the Jones Adobe west of the Plaza to 245 East Spain Street, along First Street East from Spain Street south to 525 and 542, along the north side of Napa Street from just west of the Plaza to 180 East Napa Street, along the south side of Napa Street from just west of the Plaza to Second Street East, extending onto Second Street East to numbers 532 and 558, and the block between Broadway and First Street East from the Plaza most of the way south toward Patten Street. The project site is not included in the National Register District—but parcel 018-251-055, part of which would be occupied by a parking lot and ramp and a one-story service building for the proposed project—directly abuts the two parcels (APN 018-251-020 and 018-251-056) at the southwest corner of First Street West and West Napa Street which comprise the southwest corner of the National Register District boundary. The second of these parcels was the site of the Vasquez House, which has been moved. It is now a parking lot.

The City of Sonoma historic resources survey was submitted on May 1st, 1979. With matching funds from the Western Regional Office of the National Trust for Historic Preservation, a survey of the Valley of the Moon was conducted; this survey included the City of Sonoma. Carla N. De Petris and Johanna M. Patri coordinated the surveys by dividing the Valley of the Moon into 23 areas; these included outlying areas, unincorporated areas, and the City of Sonoma. The City of Sonoma survey was directed by the Sonoma League for Historic Preservation and the consulting architect was Dan Peterson, AIA, assisted by Gerrie Peterson.

Five areas in the master listing of the historic resources of Sonoma County lie in the City of Sonoma. One of these, area ten, encompasses the Sonoma Plaza District. Area ten runs West/North/South and includes a survey of East and West Napa Street; Sonoma Plaza; First and Fourth Streets East; East and West Spain Street; East and West Second Street, and Church Street.

The survey of area ten covers a total of 113 properties. There is also one bridge, and three properties described as open space, which includes Sonoma Plaza itself. The survey includes 78 properties listed as eligible to the National Register. Each listing gives the historic name of the property, the style, followed by the year it was built, its original use, whether or not it was photo documented, and a National Register rating. The Master List is followed by the DPR 523a forms for the individual properties, which give a more detailed survey of each property. The only property on West Napa Street listed in the survey is the Hawker Home at 158 West Napa Street.

The City of Sonoma Zoning Code contains a historic overlay zone, described in Section 19.42. All of Assessor's Block 251 (including the entire proposed project site) is included in the overlay zone. Chapter 14.42 of the Sonoma Municipal Code, section 1.42.050 contains guidelines for infill development. They set forth site plan considerations and architectural considerations intended to ensure that new construction in the overlay zone is compatible with the historic character of Sonoma. The Overlay Zone requires review under these guidelines that were crafted in order to avoid impacts on the historic character of the Overlay Zone.

Historical Resources that Could Be Affected by Proposed Project

The project could affect historical resources located on the parcels that are included in the project site. Because these could be affected physically by the project and their immediate physical context would change, this section evaluates the effect the project would have on them, based on application of the Secretary's Standards and assessment of the effect on their historical integrity under the California Register Criteria. Additionally, it is necessary to consider whether the proposed project could affect other identified historical properties even though they are not immediately contiguous to the proposed construction and would not be affected by it physically. The following passage discusses whether the properties presented above could be affected by the proposed project under the CEQA Guidelines.

The nine specific properties listed in the National Historic Landmark (NHL) designation are mostly grouped on the north and west side of the Plaza. Only the Leese-Fitch Adobe is near the project site. Because it is not far removed from the project site, new work on the project site might have the possibility of causing a significant impact on its integrity of setting, feeling, and association, and could be interpreted as a change in its immediate surroundings which would materially impair its historical significance. (The Leese-Fitch Adobe, like all nine NHL properties) was also included in the 1992 National Register listing.)

There is only a very limited visual connection between the other eight properties and the project site. The proposed project could affect *only* the integrity of setting, feeling, and association of these properties—and its potential to change their integrity of feeling and association would be extremely low. The proposed project site forms only a small part of the setting of the National Landmark properties; even if it had measurable effect on that, it would not be able to affect the overall historical integrity of one of the properties, much less the group. For these reasons, the proposed project could not change the immediate surroundings of the National Historic Landmark properties in a way that would materially impair their significance.

The 1992 National Register District does not include the project site, but it does include two lots in Block 018-251. One of them formerly contained the Vasquez House but is now a parking lot and is listed as non-contributing, and the other, 529 First Street West, is listed as a non-contributing property because it contains an altered building and a built that post-dates the period of significance of the district. Thus, there are no historically significant features on these two lots. However, there are contributing properties not far from the project site, including the Batto Building (as well as the Leese-Fitch Adobe, which is also part of the National Register Distrrict) on First Street West just north of Napa Street. Because this is a National Register District, the primary question is whether the proposed project could have an impact on the district as a whole. If the project were to cause a substantial loss of integrity to one or more specific contributing properties, that could also cause a significant impact in its own right, but the effect on the district would still be the more likely impact in this case, which is a project occurring outside the district boundaries. For simplicity, the Batto Building, the Leese-Fitch Adobe, and the National Register District as a whole will be examined in assessing potential impacts. (The possible impacts on other contributing properties further away from the project site would be similar to the ones discussed below for the Batto Building and the Leese-Fitch Adobe.)

The 1979 survey of central Sonoma, which was Area 10 of the larger survey of the Valley of the Moon, listed individual properties and not districts. The only property it listed which is close enough to be affected by the proposed project is the Hawker Home at 158 West Napa Street. The other properties are too far from the proposed project site for the proposed project to have the potential to cause a significant impact on them.

Summary of Historic Properties Which Could Be Affected by the Proposed Project

The table that follows lists the historic properties on which the proposed project could have the potential to cause a significant impact. The evaluation of impacts below will examine whether the proposed project actually does have the potential to cause a significant impact on each one.

	Property Name	Address	Listing	Survey Criteria	Type
1	Index-Tribune Building (north)	117 W. Napa St.	Page & Turnbull report	California Register	Building (individual)
2	Sonoma Plaza NR District	See Fig.X	National Register	National Register	District
3	Batto Building	457 1st St. W.	National Register	National Register	Contributor to district
4	Leese-Fitch Adobe	491 Ist St. W.	National Historic Landmark	National Historic Landmark/NR	NHL/Contributor to district
5	Hawker Home	158 W. Napa St.	Valley of the Moon Survey (Area 10)	Local Survey	Building

Impact Evaluation

This section evaluates whether the proposed project could cause a significant impact to each of the five historic properties listed above that have been identified as historical resources and which the CEQA Guidelines require evaluating because the proposed project would affect them physically or is so close that it could affect their immediate physical context.

Salient Aspects of the Proposed Project

The proposed project has been described in greater completeness above. The aspects of it which would have the potential to affect nearby historical resources are:

Siting and Layout	The new restaurant wing would replace the Chateau Sonoma and cover its existing rear yard (APN 018-251-017). The location of the existing parking lot on West Napa Street between the Chateau Sonoma and the Lynch Building would become the entry court of the hotel. The

	three-story main hotel building would occupy the south portion of APN 018-251-051 which is now a parking lot. Most of the existing parking lot on First Street West (the south part of APN 018-251-055) would be occupied by a staff parking lot and the vehicle exit ramp from the subterranean parking garage.
Scale, Form, and Massing	The restaurant wing and main hotel building would both be three-stories tall, with guest rooms on the upper floors. The main roof height limit would be 35 feet, with mechanical equipment and other projections limited to 40 feet. The buildings would have rectangular footprints at their bases, with two courtyards in the main hotel building. Recesses and projections in the wall surfaces would result in a series of smaller planes. Although the majority of the roof would be flat, it would have sloping surfaces at the perimeter to create an appearance similar to gabled and mansard roofs; most windows at the third floor would be in dormers.
Facade Composition and Openings	The two most prominent elevations would be the north (visible from West Napa Street and the entry court) and the east (most of it visible obliquely from West Napa Street and the entry court, with the east elevation of the main hotel building and service building visible at the rear of two parking lots on First Street West). The exterior elevations would be composed of regular bays and consistent story heights, but would not be uniform grids because the exterior finish materials would change at each level, the wall plane would be broken up by recesses and projections, and the openings in would vary in size and configuration.
Exterior Materials	Exterior materials would include stone veneer, stucco, "rustic plywood board and batten, heavy timber arcades, and corrugated roofing and flat tile roofing…timber and precast sills, and miscellaneous running trim."[7]

1. Index-Tribune Building 117 West Spain Street

The 2011 Historic Resource Evaluation by Page & Turnbull determined the Index-Tribune Building to be eligible to the California Register under Criteria 1 (Events) and 2 (Persons). As discussed above, the report focused on the older (north) part of the building in making this determination; it did not attribute this significance to the (south) warehouse additions built in 1977 and 1986. The warehouse additions are not historically significant.

The proposed project would demolish the warehouse additions on the south end of the Index-Tribune complex, and construct in their place a new ramp to the subterranean parking garage and build above it a portion of the new hotel. The new hotel building would not be immediately adjacent to the south wall of the older portion of the Index-Tribune Building. The primary (north) facade of the Index-Tribune Building on West Napa Street would not be altered. The proposed

[7] Ross Drulis Cusenberry. *Hotel Project Sonoma Basis of Design Report.* Sonoma, May, 2015. P 03-2.

project would not alter the historically significant older (north) portions of the Index-Tribune Building.

The proposed project would not change the appearance of the Index-Tribune Building as viewed from West Napa Street, where its primary facade and public entrance are located. The historically significant (older) portions of the interior would remain. The building would continue to convey its association with the *Sonoma Index-Tribune* and with Robert Lynch. Removal of features and building fabric which are not historically significant does not conflict with the Secretary of the Interior's Standards; this includes demolition of non-significant additions.

Demolition would require alteration or reconstruction of a portion of the rear (south) wall of the Index-Tribune Building where the warehouse additions are currently connected to the older (north) portion that will be retained. If this work is executed so that it retains character-defining features that are exposed and constructs new features that are compatible with the historic character of the property, it will conform to the Secretary's Standards and will not cause a loss of historical integrity. Conversely, if this part of the demolition and alteration of the Index-Tribune Building removes character-defining features that could feasibly be retained or adds new features that are not compatible with the historic character of the property, it would not conform to the Secretary's Standards. Construction of a new south elevation which is incompatible with the original building would have the potential to reduce the historical integrity of the property, materially impairing the significance of the property.

Impact CUL-1

The design of the new south facade of the Index-Tribune Building could alter the historic property in a way that removes character-defining features, adds features which detract from the historical character which qualifies the building for listing in the California Register, or both. No details about the proposed south elevation of the Index-Tribune Building were obtained, so this impact is included only to note that the way this aspect of the proposed project is developed could have the potential to cause a substantial adverse change in the significance of the Index-Tribune Building.

2. Sonoma Plaza National Register District

The proposed project would occur on parcel 018-251-055, which immediately abuts two parcels which lie in the National Register District. Portions of the proposed project would form part of the setting of some of the contributing properties in the District, would be visible from them, or both. The project itself would be outside the boundaries of the District. The two parcels in the District that are contiguous to the proposed project site do not contain features that contribute to the significance of the District.

The proposed project would not alter the basic configuration of built and open spaces at the street frontage on its site. The Chateau Sonoma would be replaced by a restaurant wing that would be similar in height at the property line on West Napa Street. The existing parking lots on West Napa Street and First Street west would remain open (though they would change in function, configuration, and design). More of the interior of the subject parcels would be covered in buildings than currently, but this would not be readily apparent visibly from the District. The proposed project would not construct new buildings in direct proximity to the District.

The proposed project would alter the setting of the District only to a small degree. The existing development to the west and south of the District is distinct from the District itself (which is reflected by the District boundary). The proposed project would not be out of scale with nearby buildings—and would be no taller than the norm surrounding it, nor the tallest buildings in the District itself. Although the design of the proposed project would not match the buildings in the district, it would be similar enough to it so that it would not be able to impair the integrity of setting, feeling, or association of the District. For these reasons, the proposed project would have a less-than-significant impact on the Sonoma Plaza National Historic District.

3. Batto Building

The Batto Building (457 First Street West) is separated from West Napa Street by six other buildings. The setting of the Batto Building is primarily the Plaza itself, and to a lesser degree it does include the center of Sonoma overall (which encompasses the interior of the block in which the Batto Building is located). The block on the which the proposed project site is located (including the street frontages on West Napa Street and First Street West) is not on the plaza and plays a limited role in the setting of the Batto Building (and all the buildings on the Plaza).

There are no vantage points from which both the Batto Building and the proposed project site are prominently visible. The proposed project would cause a small degree of change to the setting of the Batto Building, but it would not have the potential to impair its integrity of setting (or the overall integrity). The proposed project is not immediately adjacent to the Batto Building and would cause no physical changes to the Batto Building itself. For these reasons, the proposed project does not have the potential to alter the immediate surroundings of the Batto Building in a way that would materially impair its historical significance, so it would have a less-than-significant impact on the Batto Building.

4. Leese-Fitch Adobe

The Leese-Fitch Adobe (491 First Street West) presents a similar issue to that of the Batto Building. Although it is closer to the project site than the Batto Building, and there are vantage points (particularly on the west side of the Plaza) from which the Leese-Fitch Adobe and the proposed project site are both visible, the proposed project would be a limited visual component of the view from these points. Even near the corner of the Plaza, the setting of the Leese-Fitch Adobe is primarily the Plaza itself; the side streets off the Plaza on which the propose project would be located would play a small role in the setting of the Leese-Fitch Adobe. The non-contributing building next to the Leese-Fitch Adobe at the corner of West Napa Street and First Street West is markedly taller than the Leese-Fitch Adobe and forms a partial screen between it and the project site. The only building on the project site that would be significantly visible from vantage points on the Plaza where the Leese-Fitch Adobe is visible would be the restaurant wing; only part of that building would be visible because the Lynch Building would screen most of it from view.

As in the case of the Batto Building, the proposed project would neither affect the Leese-Fitch Adobe physically nor would it alter its immediate surroundings in a way that would materially impair its historical significance, so it would have a less-than-significant impact on this contributing property.

5. Hawker Home

This one-story, bungalow-style house, now converted to office/commercial use, is immediately across West Napa street from the proposed project site, aligned almost directly north of the Chateau Sonoma Building. The proposed project would remove the Chateau Sonoma and replace it with the restaurant wing of the new hotel. The existing parking lot on the east side of the Chateau Sonoma would become the entry court of the proposed hotel; the existing parking lot on the west side of the Chateau Sonoma (and the commercial building, parking lot, and gas station at the corner of Napa Street West and Second Street West) are not in the project site and would not change. The parking immediately east of the Hawker Home on the north side of West Napa Street and the commercial buildings east of it would not be altered, nor would the house on the west side of the Hawker Home and the institutional/commercial buildings further west. The Hawker Home and its neighbor to the west convey the original residential character of the area immediately beyond the Plaza, but the subject block of First Street West illustrates the mix of residential and commercial development that has characterized this zone for decades.

The proposed project would alter the scale and density of development in the immediate vicinity of the Hawker Home, and would replace the Chateau Sonoma, which is an old building, with a new building. This would change the setting of the Hawker Home somewhat, but the proposed project would not change the balance of commercial and residential development. The increase in density would be on the south side of the proposed project site—the Chateau Sonoma already presents a solid building wall at the property line on West Napa Street. The Hawker Home is an individual historical property, and its setting already includes sizable recent buildings such as the Lynch Building. Therefore, the proposed project would not eliminate the integrity of setting of the Hawker Home, and would not impair the overall integrity of this property. It would not cause a significant impact on the Hawker Home.

Mitigations

One significant impact has been identified, the potential for the design of the altered rear (south) elevation of the Index-Tribune Building to be incompatible with the character of the building or to remove character-defining features, causing a material impairment of the significance of the building. (The alteration will be necessary because of the demolition of the existing south warehouse additions, which themselves are not historically significant.)

CUL-1

To ensure the Index-Tribune Building retains its historical significance, the design of the altered rear (south) elevation after demolition of the warehouse additions should conform to the Secretary of the Interior’s Standards for Rehabilitation. A consultant who meets the Secretary of the Interior’s Professional Qualification Standards for Historic Architecture should submit a report on conformance of the design to the Secretary’s Standard. The report and the architectural drawings and specifications for should be reviewed by the Planning Department and Planning Commission to confirm conformance before final planning approval is granted.

APPENDIX H:
Sonoma Hotel Records Search

September 21, 2015

Kyle Simpson
PlaceWorks
451 Clovis Avenue, Suite 200
Clovis, California 93912

Re: Records Search Results for the Sonoma Hotel Project, Sonoma

Dear Mr. Simpson:

At your request, we completed a record search for the Sonoma Hotel Project (APNs 018-251-051, -052 and -055) in Sonoma, Sonoma County. Research was completed at the Northwest Information Center of the California Historical Information System (NWIC), and encompassed lands within a half-mile of the project area. In addition, we reviewed documents and maps pertinent to this project that are on file at our offices. This letter serves as a report of findings.

Archival Review

Review at the NWIC (file no. 15-0428) found that there has been no previous cultural resources survey of the project area. The NWIC base maps show two known prehistoric archaeological sites within a quarter-mile of the property, and several historic-period resources. Review of the Office of Historic Preservation's Historic Properties Directory found no local, state, or federally listed historical resources at this location. The Sonoma Hotel is adjacent to, but not included in the Sonoma Plaza National Register District (Sonoma Plaza NR District 1992). The property at 135 West Napa Street is not listed in the City of Sonoma Historic Resources Inventory, and a recent historic evaluation of the property by Page & Turnbull found that it does not appear to be eligible for the California Register of Historical Resources.

Ethnographic Review

At the time of European settlement, the study location was within the territory controlled by the Coast Miwok (Kroeber 1925; Kelly 1978). The Coast Miwok were hunter-gatherers in a rich environment that allowed for dense populations. They settled in large, permanent villages about which were distributed seasonal camps and task-specific sites. Primary villages were inhabited throughout the year while other sites were visited seasonally to obtain particular resources. Sites were often established near fresh water sources and at ecotones where plant and animal life was diverse and abundant. The environmental settings enjoyed by the Coast Miwok provided abundant plant and animal resources for their use.

The ethnographic village site of *hūtci* is reportedly near the plaza in Sonoma, but no sites are documented that could be within the study area (Barrett 1908).

Environmental Setting

The project area lies on the Sonoma Valley floor, less than one-quarter-mile from Nathanson Creek, the nearest year-round fresh water source. The geology of the area is older alluvium of late Pleistocene age that consists of unconsolidated, poorly sorted clay, silt, sand, and gravel.

Soils mapped for the study area are of the Huichica series. These soils are moderately well-drained loams found on undulating valley terraces, and in an uncultivated state they support the growth of annual and perennial grasses, forbs, and scattered oaks.

Cultural Resources Sensitivity

Based on an assessment of environmental factors and the locations of known prehistoric archaeological sites it is our opinion that there is the possibility of archaeological deposits within the study area. At present, most of the study area is developed with buildings and paved parking areas and a surface survey is not possible; however, development could be covering surface indications of an archaeological site, and given the presence of alluvial deposits there could be buried archaeological resources. We recommend that a qualified, professional archaeologist develop and implement a plan to search out archaeological deposits prior to the commencement of demolition and construction activities.

Native American Consultation

As part of this search, input was sought from the Federated Indians of Graton Rancheria. Members of the group were apprised of the project and the results of the archival research at a meeting held on September 16, 2015. Buffy McQuillen, the Tribal Historic Preservation Officer, agreed with the recommendation for archaeological field study.

Please contact us if you have any questions or need additional information.

Sincerely,

Vicki Beard

Vicki Beard
Senior Associate

Materials Consulted

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APPENDIX I:
Design Level Geotechnical Report

PJC & Associates, Inc.
Consulting Engineers & Geologists

DESIGN LEVEL GEOTECHNICAL INVESTIGATION
PROPOSED NEW HOTEL
135 WEST NAPA STREET
SONOMA, CALIFORNIA

JOB NO. S927.01

JOB PREPARED FOR:

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MARCH 9, 2015

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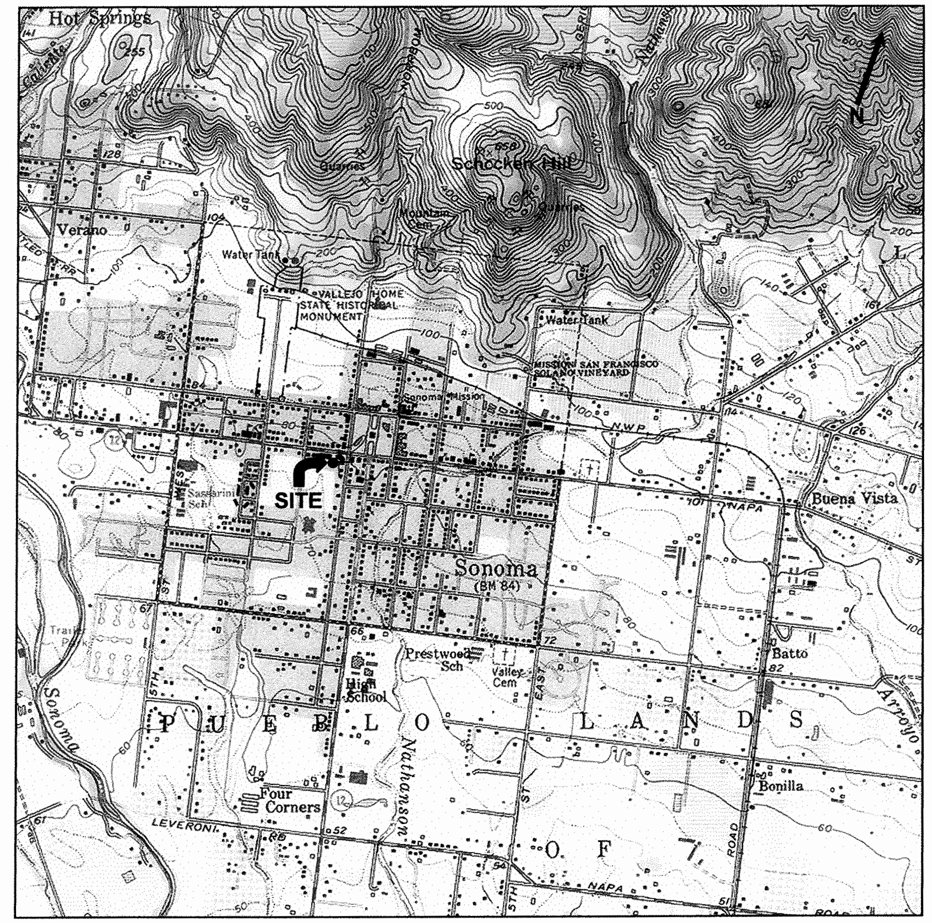


SCALE: 1:24,000

REFERENCE: USGS SONOMA CALIFORNIA QUADRANGLE, DATED 1980.

PJC & Associates, Inc. Consulting Engineers & Geologists	SITE LOCATION MAP PROPOSED NEW HOTEL 135 WEST SPAIN STREET SONOMA, CALIFORNIA	PLATE 1
	Proj. No: S927.01 Date: 3/15 App'd by: PJC	

DESIGN LEVEL GEOTECHNICAL INVESTIGATION
PROPOSED NEW HOTEL
135 WEST NAPA STREET
SONOMA, CALIFORNIA

1. INTRODUCTION

PJC & Associates (PJC) is pleased to submit the results of our design level geotechnical investigation for the proposed new hotel located at 135 West Napa Street in Sonoma, California. The approximate location of the site is shown on the Site Location Map, Plate 1. Our services were completed in accordance with our proposal for geotechnical services dated April 1, 2014. This report presents our engineering opinions and recommendations regarding the geotechnical aspects of the design and construction of the proposed project. Based on the results of this study, it is our opinion that the project site can be developed from a geotechnical engineering standpoint provided the recommendations presented herein are incorporated in the design and carried out through construction.

2. PROJECT DESCRIPTION

Based on the preliminary site drawings and information provided by RossDrulisCusenbery Architecture Inc., it is our understanding that it is proposed to demolish two of the existing buildings and renovating an additional building to construct a 59 room hotel on an assemblage of parcels at the southwest corner of Napa Street West and First Street West. We anticipate that the hotel will be comprised of a three story wood-frame structure with a subterranean parking garage. The underground garage will form a podium deck upon which the wood framed hotel building, swimming pool and associated courtyard and raised gardens will be constructed. We anticipate concrete slab-on-grade floors in the garage and at grade portions of the hotel.

Based on structural loading information provided by the project structural engineer, Mr. Bill Andrews, we anticipate that dead plus live continuous wall loads will be ten kips per lineal foot (plf) or less with dead plus live isolated column loads of 450 kips or less. If the loads vary significantly from the actual loads, we should be consulted to review the actual loading conditions and, if necessary, revise the recommendations of this report.

At the time of this report, a site grading plan or finished floor elevations were not available. Therefore, the amount of grading to be performed at the site is unknown at this time. However, we anticipate that the project will require significant cuts on the order of 10 feet and less to allow for construction of the subterranean parking garage and minor fills to achieve the desired pad grades and to provide adequate gradients for site drainage.

3. SCOPE OF SERVICES

The purpose of this study is to provide geotechnical criteria for the design and construction of the proposed project. Specifically, the scope of our services consisted of the following:

a. Drill five exploratory boreholes to depths between 11.0 and 40.5 feet below the existing ground surface to observe the soil and groundwater conditions. Our project geologist was on site during the exploration to log the materials encountered in the boreholes and to obtain representative samples for visual classification and laboratory testing.

b. Laboratory observation and testing were performed on representative samples obtained during the course of the field investigation to evaluate the appropriate engineering characteristics of the soils underlying the site.

c. Review seismological and geologic literature on the site area, discuss site geology and seismicity, and evaluate potential geologic hazards and earthquake effects (i.e., liquefaction, ground rupture, settlement, lurching and lateral spreading, expansive soils, etc.).

d. Perform engineering analyses to develop geotechnical recommendations for site preparation and earthwork, foundation type(s) and design criteria, lateral earth pressures, retaining wall design criteria, site drainage, slabs-on-grade and construction considerations.

e. Preparation of this report summarizing our work on this project

4. SITE CONDITIONS

a. General. The site is located in a commercial area of downtown Sonoma. The site is bounded by commercial properties to the west and south, First Street West to the east and East Napa Street to the north. At the time of our investigation the site was occupied by existing commercial buildings, and asphalt paved parking areas.

b. Topography and Drainage. The site is located on nearly level topography. According to the United States Geological Survey (USGS) Sonoma, California, 7.5 Minute Quadrangle Map (Topographic), the site is situated near an elevation of 80 feet above mean sea level (MSL). No creeks or seasonal drainage channels pass through the site. The site drainage generally consists of sheet flow and surface infiltration. Regional drainage is provided by storm drains which likely drain to the southwest into Nathanson Creek, which is located approximately one-quarter mile southeast of the site.

5. GEOLOGIC SETTING

The site is located in the Coast Ranges Geomorphic Province of California. This province is characterized by northwest trending topographic and geologic features, and includes many separate ranges, coalescing mountain masses and several major structural valleys. The province is bounded on the east by the Great Valley and on the west by the Pacific Ocean. It extends north into Oregon and south to the Transverse Ranges in Ventura County.

The structure of the northern Coast Ranges region is extremely complex due to continuous tectonic deformation imposed over a long period of time. The initial tectonic episode in the northern Coast Ranges was a result of plate convergence which is believed to have begun during late Jurassic time. This process involved eastward thrusting of oceanic crust beneath the continental crust (Klamath Mountains and Sierra Nevada) and the scraping off of materials that are now accreted to the continent (northern Coast Ranges). East-dipping thrust and reverse faults were believed to be the dominant controlling structures.

Right lateral, strike slip deformation was superimposed on the earlier structures beginning mid-Cenozoic time, and has progressed northward to the vicinity of Cape Mendocino in Southern Humboldt County (Hart, Bryant and Smith, 1983). Thus, the principal structures south of Cape Mendocino are northwest-trending, nearly vertical faults of the San Andreas system.

According to published geologic literature, the soils underlying the site comprise alluvial fan deposits (Q_{of}). These deposits are described as consisting of moderately sorted fine sands and silts, with gravel becoming more abundant toward the fan heads. These deposits likely extend to great depths below the site.

6. FAULTING

Geologic structures in the region are primarily controlled by northwest trending faults. No known active fault passes through the site. The site is not located in the Alquist-Priolo Earthquake Fault Studies Zone. Based on our research, the three closest known potentially active faults to the site are the Rodgers Creek, the West Napa, and the Green Valley. The

Rodgers Creek fault is located four miles to the southwest, the West Napa fault is located seven miles to the northeast, and the Green Valley fault is located 16 miles northeast of the site. Table 1 outlines the nearest known active faults and their associated maximum magnitude and peak site acceleration.

TABLE 1
CLOSEST KNOWN ACTIVE FAULTS

Fault Name	Distance from Site (Miles)	Maximum Earthquakes (Moment Magnitude)	Peak Site Acceleration (g)
Rodgers Creek	4	7.0	0.42
West Napa	7	6.5	0.24
Green Valley	16	6.9	0.17

7. SEISMICITY

The site is located within a zone of high seismic activity related to the active faults that transverse through the surrounding region. Future damaging earthquakes could occur on any of these fault systems during the lifetime of the proposed project. In general, the intensity of ground shaking at the site will depend upon the distance to the causative earthquake epicenter, the magnitude of the shock, the response characteristics of the underlying earth materials, and the quality of construction. Seismic considerations and hazards are discussed in the following subsections of this report.

8. SUBSURFACE CONDITIONS

a. Soils. The subsurface conditions at the project site were investigated by drilling five exploratory boreholes (BH-1 through BH-5) in the proposed construction areas to depths between 11.0 and 40.5 feet below the existing ground surface. The approximate borehole locations are shown on the Borehole Location Plan, Plate 3. The subsurface exploration was used to perform standard penetration tests (SPT), to observe the soil and groundwater conditions, and obtain samples for visual examination and laboratory testing. The drilling and sampling procedures and descriptive logs are included in Appendix A of this report. The laboratory procedures are included in Appendix B.

The exploratory boreholes generally encountered artificial fill overlying alluvial type soil deposits. Underlying the existing pavement sections at BH-1, BH-2, BH-3 and BH-5, our exploration encountered deposits of artificial fill consisting of sandy clays, sandy silts and clayey gravels that extended to depths between three and seven feet below the existing ground surface. The fine-grained artificial fill soils appeared moist to very moist, loosely to moderately compacted, and exhibited low plasticity characteristics. The coarse-grained artificial fill soils appeared very moist, moderately compacted and fine to coarse grained. Underlying the existing pavements and artificial fill, our exploration encountered discontinuous alluvial deposits of sandy silts, sandy clays, clayey sands, and clayey gravels that extended to the maximum explored depths. The fine-grained deposits appeared moist to saturated, soft to hard and exhibited low to medium plasticity characteristics. The coarse-grained deposits appeared moist to saturated, dense to very dense and fine to coarse grained.

b. Groundwater. Groundwater was encountered during the drilling at BH-1 and BH-2 at a depth of nine feet below the existing ground surface on May 22, 2014. After the groundwater level was allowed to equalize in BH-1, the groundwater level rose to a depth of eight feet below the existing ground surface. Groundwater was also encountered in BH-3 at a depth of seven feet below the existing ground surface on May 23, 2014. After the groundwater level was allowed to equalize, the groundwater level rose to a depth of five feet below the existing ground surface at BH-3. Groundwater was not encountered in the other boreholes. However, groundwater levels can fluctuate by several feet throughout the year due to seasonal rainfall and other factors.

9. SEISMIC CONSIDERATIONS & GEOLOGIC HAZARDS

The site is located within a region subject to a high level of seismic activity. Therefore, the site could experience strong seismic ground shaking during the lifetime of the project. The following discussion reflects the possible earthquake effects which could result in damage to the proposed structures.

a. Fault Rupture. Rupture of the ground surface is expected to occur along known active fault traces. No evidence of existing faults or previous ground displacement on the site due to fault movement is indicated in the geologic literature or field exploration. Therefore, the likelihood of ground rupture at the site due to faulting is considered to be low.

b. Ground Shaking. The site has been subjected in the past to ground shaking by earthquakes on the active fault systems that traverse the region. It is believed that earthquakes with significant ground shaking will occur in the region within the next several decades. Therefore, it must be assumed that the site will be subjected to strong ground shaking during the design life of the project.

c. Liquefaction. Our exploration encountered discontinuous alluvial stratums of clayey gravels and clayey sands that extended to the maximum explored depth of 40.5 feet below the existing ground surface where auger refusal was encountered. Select granular samples were retained and washed through the #200 sieve to determine the fines content, further grain-size analysis was also performed on some of the samples. The blow counts of the Standard Penetration testing were then corrected for hammer efficiency, overburder pressure and other parameters based on Skempton, 1986. Table 2 outlines the granular stratums and their corresponding corrected blow counts and fines contents.

TABLE 2
NORMALIZED BLOW COUNTS

Borehole	Depth (Feet)	Description	Blow Counts $(N_1)_{60}$	Fines Content %
BH-1	10.0	Brown Clayey Gravels (GP-GC)	62	10
BH-2	20.0	Moderate Brown Clayey Sand (SC)	63	9
	25.0		39	
BH-2	35.0	Dark Brown Clayey Sand (SC)	50	9
	40.0		59	
BH-3	8.0	Dark Gray Clayey Sand (SP-SC)	50	6
	9.5		96	
	14.5		53	
BH-4	6.0	Brown Clayey Gravel (GC)	97	15*
	8.5		58	

*Estimated based on visual classification.

We performed liquefaction analyzes on the granular stratums encountered in the boreholes. Deposits with normalized blow counts of 35 and greater are not considered susceptible to soil liquefaction. Therefore, based on our analyzes, the granular deposits encountered are not prone to soil liquefaction. Therefore, it is judged that liquefaction is not likely to occur at the site.

d. Lateral Spreading and Lurching. Lateral spreading is normally induced by vibration of near-horizontal alluvial soil layers adjacent to an exposed face. Lurching is an action which produces cracks or fissures parallel to streams or banks when the earthquake motion is at right angles to them. There are no exposed faces or a creek embankment adjacent to the building envelope. Therefore, we judge that the potential for lateral spreading and lurching at the site is low.

e. Expansive Soils. Based on visual observations and Atterburg limits testing (PI=5, 10, 12, 13, 14 & 17), the fine grained soils are judged generally to have a low expansion potential.

10. CONCLUSIONS

Based on the results of our investigation, it is our professional opinion that the project is feasible from a geotechnical standpoint provided the recommendations contained in this report are followed. The primary geotechnical considerations in design and construction is the presence of artificial fill, weak and compressible surface soils, the potential high groundwater conditions.

Our exploration encountered artificial fill deposits that extended to depths between three and seven feet below the existing ground surface. However, we believe that the deeper deposit of existing artificial fill is likely isolated to the environmental remediation previously performed at the site. Although these materials may have been present for some time, they appear to be of variable composition and density. These soils are not suitable for support of fills and foundations. Therefore, the artificial fill should be completely removed from structural areas and replaced as compacted engineered fill.

As previously mentioned, the surface and near surface soils are weak and compressible, and are not suitable for support of fills or foundations. These soils could experience significant differential settlement under loads generated by new construction. Below the weak soils are firm native soils that would be suitable for foundation support. It is our understanding that the portions of the hotel will be constructed at or near existing grade. Therefore, the weak soils should be upgraded by subexcavation and recompaction. Based on our exploratory boreholes, we anticipate that the depth of subexcavation to generally extend to approximate depths between four and five feet below the existing ground surface. The actual depth of subexcavation should be determined by the geotechnical engineer in the field during grading. Provided the weak surface soils are upgraded by subexcavation and recompaction, conventional concrete slabs-on-grade and shallow footings may be used for the at grade portions of the hotel.

As previously mentioned, the project will include a subterranean parking garage below portions of the hotel. We anticipate that grading will remove the weak and compressible surface soils and expose firm, native soils. Therefore, the structure may be adequately supported by a spread footing foundation extending into the underlying, firm native soils. Based on our exploratory work and our experience with our other projects in the area, we judge that the subterranean parking garage floor elevation will extend

below the groundwater table. Therefore, it will be necessary to design the basement structure to resist hydrostatic uplift pressures on the basement walls. As an alternative, a subsurface drainage system and backdrains could be implemented under the garage floor and behind the basement walls.

In this system, the groundwater will be drained to sumps pumps, thereby preventing hydrostatic pressures from developing under the basement slab and behind the walls. Sump failure will not be expected to cause hydrostatic uplift because the sump will always be open to the atmosphere. The likely consequence of pump failure is filling and possible overflow of the pump. Backup pumps are commonly installed in basement sumps to handle such a possibility and should be considered for this project.

It is expected that dewatering will be needed to control groundwater so that the basement excavation can be completed. Depending on the time of year of the excavation, it is conceivable that construction groundwater control could be accomplished by open pumping from sumps. The contractor should determine the depth of the groundwater before the excavation begins and determine if open pumping from sumps is feasible. We can assist the contractor on this task upon request.

If the groundwater control from open pumping from sumps is determined to be ineffective, it may be necessary to dewater the excavation using a system of relatively shallow wells or well points with a combination of ditches or french drains and sump pumps to intercept lateral seepage into the excavation area. The final selection, design, installation and operation of groundwater control systems are usually the responsibility of the contractor. However, it is recommended that the contractor submit his proposed dewatering scheme for review and approval by the geotechnical engineer prior to installation.

In designing and operating the dewatering system, care should be taken to prevent the pumping of soil and development of subsurface erosion. Unpredictable settlement of the surrounding ground surface could result. Graded filter materials and/or geotextile filter fabric should be installed between the native soils and the pumping system to prevent this from happening. If the pumped water is noticed to contain soil fines, pumping should be stopped until the situation is corrected.

The soils expected at the bottom of the excavation are primarily sandy clays, sandy silts, clayey sands and clayey gravels. These materials are very dense and hard. However, depending on the time of year of construction, they could be saturated and unstable and pump and rut under construction traffic. This could create a difficult working environment. The contractor should be aware of this potential problem so that he can take measures to mitigate the problem. We can provide recommendations if this condition develops at the time of construction.

The following sections present geotechnical recommendations and criteria for design and construction.

11. GRADING AND EARTHWORK

We anticipate site grading will probably consist of significant cuts on the order of 10 feet and minor fills to achieve the desired pad grades and to provide adequate gradients for site drainage.

a. Stripping & Demolition. Existing structures to be removed should be completely demolished and removed off site. Structural areas should be stripped of the surface vegetation, old fills, debris, underground utilities, etc. These materials should be moved off site; some of them, if suitable could be stockpiled for later use in landscape areas. If underground utilities pass through the site, we recommend that these utilities be removed in their entirety or rerouted where they exist outside an imaginary plane sloped two horizontal to one vertical (2H:1V) from the outside bottom edge of the nearest foundation element. Voids left from the removal of utilities or other obstructions should be replaced with compacted engineered fill under the observation of the project geotechnical engineer.

b. Excavation and Compaction. The weak and compressible soils should be removed to their full depth within the building pads. The actual depth of subexcavation should be determined by the geotechnical engineer in the field during construction. Based on our subsurface exploration, we anticipate the subexcavation for the northern hotel building will generally extend to a depth of four to five feet below the existing ground surface. However, isolated areas of deeper subexcavation may be required, if the excavation encounters the thicker fill deposits from the environmental remediation. The lateral extent of the subexcavation should be a minimum of five feet beyond all foundations.

After subexcavation, the exposed subgrade scheduled to receive fill should be scarified to minimum depth of eight inches, moisture conditioned to near optimum moisture content, and recompacted to at least 90 percent of relative maximum dry density as determined by ASTM D-1557 test procedures. All fill material should be placed and compacted in accordance to the recommendations presented in Table 3. It is recommended that any import fill to be used on site

be of a low to non-expansive nature and should meet the following criteria:

Plasticity Index	less than 12
Liquid Limit	less than 35
Percent Soil Passing #200 Sieve	between 10% and 35%
Maximum Aggregate Size	4 inches

The existing on-site soils, free of organics and rocks larger than four inches in dimension, are suitable for use as compacted engineered fill. All fills should be placed in lifts no greater than eight inches in loose thickness and compacted to the general recommendations provided for engineered fill.

In areas where pumping subgrade conditions or rutting occur, it may be necessary to stabilize the weak materials using bridging material. In this case, it is recommended that the unstable subgrade areas be "bridged" using a combination of Mirafi 500X (or equivalent) stabilization fabric covered by a layer of coarse angular bridging material. The bridging material should consist of a reasonably well graded mixture of gravel and cobble sized rock fragments conforming to the following gradation and material requirements.

Sieve Size (inches)	Percent Passing
6	100
2	0-50
¾	0-10

Durability Index – 25 minimum

After the stabilization fabric has been placed on the subgrade surface, the bridging material should be track-walked into place over the fabric. It is estimated that an 18-inch thick layer of bridging material will probably be needed. Rubber tired equipment should not be permitted to traverse pumping areas until the placement of the stabilization fabric and bridging material have been completed. The need for subgrade stabilization using this technique and the final limits and thickness of the bridging material should be approved by the geotechnical engineer in the field during construction.

TABLE 3
SUMMARY OF COMPACTION RECOMMEDATIONS

Area	Compaction Recommendations*
General Engineered Fill (Import)	In lifts, a maximum of eight inches loose thickness, compact to a minimum of 90 percent relative compaction near optimum moisture content.
General Engineered Fill (Native)	In lifts, a maximum of eight inches loose thickness, compact to 90 percent relative compaction and conditioned to near optimum moisture content.
Trenches**	Compact to at least 90 percent relative compaction near optimum moisture content.
Pavement Areas	Compact the top eight inches of subgrade to 95 percent relative compaction near optimum moisture content.

*All compaction requirements stated in this report refer to dry density and moisture content relationships obtained through the laboratory standard described by ASTM D-1557-91
**Depths below finished subgrade elevations

A representative of PJC should observe all site preparation and fill placement. It is important that during the stripping, grading and scarification processes, a representative of our firm be present to observe whether any undesirable material is encountered in the construction area.

Generally, grading is most economically performed during the summer months when on site soils are usually dry of optimum moisture content. Delays should be anticipated in site grading performed during the rainy season or early spring due to excessive moisture in the on-site soils. Special and relatively expensive construction procedures should be anticipated if grading must be completed during the winter and early spring.

c. Temporary Construction Slopes. The excavation for the parking garage may be achieved by conventional heavy earth moving equipment. Based on our stability analysis and presuming that the site is properly dewatered, temporary construction cut slopes not subjected to traffic or foundation surcharges are expected to stand at inclinations of ¾ H:1V. However, excessive groundwater seepage could have a destabilizing effect and sloughing and localized failures could occur. This and adjacent traffic and foundation surcharges will probably necessitate that the excavation walls be braced. It is recommended that the geotechnical engineer be retained to review the conditions as they are exposed during construction.

12. FOUNDATIONS-SPREAD FOOTINGS

a. Vertical Loads (At Grade). The structures constructed at or near existing grade may be adequately supported by spread footings founded at least 30 inches into compacted, engineered fill. All footings should be reinforced. The recommended soil bearing pressures, depths of embedment and minimum width of spread footings are presented in Table 4. The bearing values provided have been calculated assuming that all footings bear on compacted engineered fill.

TABLE 4
FOUNDATION DESIGN CRITERIA

Footing Type	Bearing Pressure (psf)*	Minimum Embedment (in)**	Minimum Width (in)
Continuous Wall	2000	30	12
Isolated Column	2800	30	18

*Dead plus live load
** Below lowest adjacent grade

The allowable soil bearing pressures are net values. The weight of the foundation and backfill over the foundation may be neglected when computing dead loads. Allowable soil bearing pressures may be increased by one-half for transient applications such as wind and seismic loads.

b. Lateral Loads (At Grade). Resistance to lateral forces may be computed by using friction or passive pressure. A friction factor of 0.35 is considered appropriate between the bottom of the concrete structures and the engineered fill. A passive pressure equivalent to that exerted by a fluid weighing 350 pounds per square foot per foot of depth (psf/ft) is recommended. Unless restrained at the surface, the upper six inches should be neglected for passive resistance.

c. Modulus of Subgrade Reaction (At Grade). For compacted engineered fill, a maximum modulus of subgrade reaction value of 100 pounds per cubic inch (pci) is recommended.

d. Vertical Loads (Parking Garage). Provided the weak and compressible surface soils are removed during excavation, the subterranean parking garage may be adequately supported by spread footings extending at least 18 inches into the underlying, firm native soils. All footings should be reinforced. The recommended soil bearing pressures, depths of embedment and minimum width of spread footings are presented in Table 2. The bearing values provided have been calculated assuming that all footings uniformly bear on firm native soils.

TABLE 5
FOUNDATION DESIGN CRITERIA

Footing Type	Bearing Pressure (psf)*	Minimum Embedment (in)**	Minimum Width (in)
Continuous Wall	4000	18	18
Isolated Column	4500	18	18

*Dead plus live load
** Below lowest adjacent grade and into firm native soils

The allowable soil bearing pressures are net values. The weight of the foundation and backfill over the foundation may be neglected when computing dead loads. Allowable soil bearing pressures may be increased by one-third for transient applications such as wind and seismic loads.

e. Lateral Loads (Parking Garage). Resistance to lateral forces may be computed by using friction or passive pressure. A friction factor of 0.40 is considered appropriate between the bottom of the concrete structures and the firm native soils. A passive pressure equivalent to that exerted by a fluid weighing 400 pounds per square foot per foot of depth (psf/ft) is recommended. Unless restrained at the surface, the upper six inches should be neglected for passive resistance.

f. Modulus of Subgrade Reaction (Parking Garage). Based on the properties of the supporting firm native soils, a maximum modulus of subgrade reaction value of 150 pounds per cubic inch (pci) is recommended.

g. Settlement. Total settlement of individual foundations will vary depending on the width of the foundation, the supporting material and the actual load supported. Foundation settlements have been estimated based on the loading information provided by the project structural engineer, the bearing values provided and the supporting materials. Maximum settlements of shallow foundations designed and constructed in accordance with the preceding recommendations are estimated to be on the order of one and one-quarter inch. Differential settlement between adjacent footings are expected to be on the order of one-half of one inch. The majority of the settlement is expected to occur during construction and placement of dead loads.

Footing concrete should be placed neat against engineered fill or firm native soils. Footing excavations should not be allowed to dry before placing concrete. If shrinkage cracks appear in the footing excavations, the soil should be thoroughly moistened to close all cracks prior to concrete placement. The geotechnical engineer should observe the bearing surfaces of the spread footings after the cleaning and prior to placement of concrete and steel to assess the conditions of the foundation bearing materials.

13. SLAB-ON-GRADE

Slabs-on-grade for the hotel buildings will be supported on the concrete deck of the basement garage or on compacted engineered fill. If compacted engineered fill is used, slab subgrade should be firm and unyielding and compacted to at least 90 percent relative compaction. All slabs should be supported on at least four inches of clean gravel or crushed rock to provide a capillary moisture break and provide uniform support for the slab. The rock should be graded so that 100 percent passes the one inch sieve and no more than five percent passes the No. 4 sieve.

We recommend that the gravel be placed as soon as possible after compaction of the subgrade to prevent drying of the subgrade soils. If the subgrade is allowed to dry out prior to slab-on-grade construction, the subgrade soils should be moisture conditioned by sprinkling prior to concrete placement.

We recommend that slabs be at least five inches thick and designed and reinforced as determined by the project structural engineer. Slabs should be provided with control joints at regular intervals to induce and control cracking. Special care should be taken to insure that reinforcement is placed at the slab mid-height.

For slabs-on-grade with moisture sensitive surfacing, we recommend that an impermeable membrane be placed over the rock to prevent migration of moisture vapor through the concrete slab. To induce and control cracking, we recommend that expansion and control joints be provided.

14. RETAINING WALLS

a. Lateral Earth Pressures. Restrained, rigid walls of the parking garage should be designed to resist an "at rest" equivalent fluid pressure of 50 pcf. Retaining walls free to rotate on the top and supporting a level backfill may be designed to resist an active equivalent fluid pressure of 35 pcf. A live load surcharge from traffic, equal to at least two feet of soil, should be applied to the retaining walls when traffic comes within a distance of one-half the height of the wall.

b. Drainage Material. In order to prevent the buildup of hydrostatic pressures, drainage should be provided behind all walls, or the walls should be designed for full hydrostatic pressures. Drainage can be provided by using four inch diameter perforated pipe running along the base of the walls.

The drainage material should consist of Caltrans Class II permeable material, or equivalent, surrounding the pipe and extending at least 12 inches horizontally away from the back face of the walls. The drainage material should extend approximately two feet from the top of the wall and should be compacted to approximately, but not substantially more than, 70 percent relative density determined in accordance with ASTM D2049-69. The top of the drainage material should be capped with two feet of impervious, non-expansive soil compacted to at least 90 percent of the maximum dry density determined by ASTM D1557; native soil, if approved by the geotechnical engineer, may be used for this purpose.

c. Native Backfill. Approved on-site soils may be used to backfill the excavation beyond the limits of the drain material, provided they ae approved by the geotechnical engineer and compacted to at least 90 percent of the maximum dry density as determined by ASTM D1557. Excessive compaction in the backfill could result in large pressures being exerted on the wall. All backfill materials, including the drain material, should be placed and compacted by mechanical means only. No jetting should be used.

15. RETAINING WALLS-SEISMIC LOADING

PJC has performed analysis to estimate the anticipated dynamic load due to seismic shaking on retaining walls at the site. Based on our pseudostatic analysis, the walls should be designed for a dynamic lateral force equivalent to a uniform point load, P_e, as determined by the following equation:

$$P_e=7.8*H^2$$

Where:

H = height of retaining wall in feet

P_e = pseudostatic seismic loading in lbs/ft

The pseudostatic force, P_e should be applied at a distance of (2/3)*H above the base of the retaining wall.

16. SEISMIC DESIGN

Geologic structures in the region are primarily controlled by northwest trending faults. No known active fault passes through the site. The site is not located in the Alquist-Priolo Earthquake Fault Studies Zone. Based on the data reviewed, it is concluded that the project site could be subjected to seismic shaking resulting from earthquakes on the active faults primarily in the Coast Ranges. For design, a site class type D, spectral accelerations of S_S of 1.50 g and S_1 of 0.60 g are recommended.

17. UTILITY TRENCHES

Shallow excavations for utility trenches can be readily made with either a backhoe or trencher; larger earth moving equipment should be used for deeper excavations. We expect the walls of trenches less than five feet deep, excavated into engineered fill or native soils, to remain in a near vertical configuration during construction provided no equipment or excavated soil surcharges are located near the top of the excavation. Where trenches extend deeper than five feet, the excavation may become unstable. All trenches regardless of depth, should be evaluated to monitor stability prior to personnel entering the trenches. Shoring or sloping of any deep trench wall may be necessary to protect personnel and to provide stability. All trenches should conform to the current CAL-OSHA requirements for worker safety.

We recommend trenches be backfilled with native soil or granular import fill and compacted to at least 90 percent of maximum dry density. The moisture content of compacted backfill soils should be within two percent of optimum moisture content. Jetting should not be used.

Special care should be taken in the control of utility trench backfilling in pavement areas and slab-on-grade areas. Poor compaction may cause excessive settlements resulting in damage to the pavements and concrete slabs-on-grade. In pavement areas, the top eight inches of trench backfill should be compacted to at least 95 percent relative compaction.

18. DRAINAGE

All final grades should be provided with positive gradients away from foundations to provide rapid removal of surface water runoff to an adequate discharge point. No ponding of water should be allowed on the building pad or adjacent to foundations.

The use of continuous roof gutters is recommended to reduce the possibility of soil saturation adjacent to the building. Downspouts from gutters should be discharged onto an impermeable surface such as pavement or into a closed conduit discharging a minimum of eight feet away from the structures.

19. RIGID PAVEMENTS-PARKING GARAGE

The subgrade of the parking garage excavation will be disturbed during construction. It is important that the subgrade be properly prepared prior to the placing of the concrete pavement. The exposed surface at the subgrade of the excavation supporting pavements should be scarified to a depth of approximately eight inches and compacted to at least 95 percent of the maximum dry density determined by ASTM D1557. The surface of the compacted subgrade should be finished with a smooth drum steel roller. Water will invariably collect beneath the basement floor slab and underdrains should be used, or the slab should be designed for hydrostatic uplift pressures. Plate 2 provides schematic details of slab underdrains. We recommend that a minimum of eight inches of compacted gravel or crushed rock be placed over the subgrade of the excavation. A material such as one-half to three-quarter inch drain rock or Class II permeable material would be suitable for this purpose. The aggregate beneath the slab should be tied to a sump or other suitable discharge point. Additional recommendations can be provided when structural details regarding the construction of the parking garage become available

Based on our general knowledge of the subsurface soils, We recommend that a modulus subgrade reaction (K value) of 100 pounds per square inch (psi) be used in the design of the rigid pavements for the parking garage.

20. LIMITATIONS

The data, information, interpretations and recommendations contained in this report are presented solely as bases and guides to the geotechnical design of the proposed New Hotel located at 135 West Napa Street in Sonoma, California. The conclusions and professional opinions presented herein were developed by PJC in accordance with generally accepted geotechnical engineering principles and practices. No warranty, either expressed or implied, is intended.

This report has not been prepared for use by parties other than the designers of the project. It may not contain sufficient information for the purposes of other parties or other uses. If any changes are made in the project as described in this report, the conclusions and recommendations

contained herein should not be considered valid, unless the changes are reviewed by PJC and the conclusions and recommendations are modified or approved in writing. This report and the figures contained herein are intended for design purposes only. They are not intended to act by themselves as construction drawings or specifications.

Soil deposits may vary in type, strength, and many other important properties between points of observation and exploration. Additionally, changes can occur in groundwater and soil moisture conditions due to seasonal variations or for other reasons. Therefore, it must be recognized that we do not and cannot have complete knowledge of the subsurface conditions underlying the subject site. The criteria presented is based on the findings at the points of exploration and on interpretative data, including interpolation and extrapolation of information obtained at points of observation.

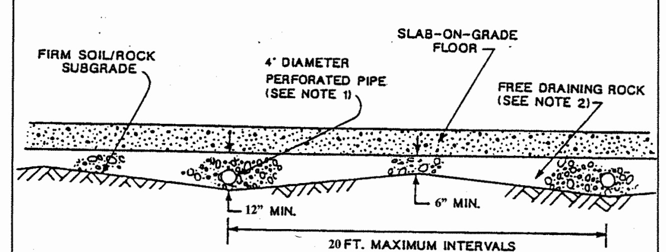
21. ADDITIONAL SERVICES

Upon completion of the project plans, they should be reviewed by our firm to determine that the design is consistent with the recommendations of this report. Observation and testing services should also be provided by PJC to verify that the intent of the plans and specifications is carried out during construction; these services should include observing the foundation excavations, field density testing of fill and installation of the subsurface drainage facilities.

These services will be performed only if PJC is provided with sufficient notice to perform the work. PJC does not accept responsibility for items we are not notified to observe.

APPENDIX A
SKEMATIC DETAILS

1



Notes:

1. PERFORATED PIPE (PVC OR EQUIVALENT) SHOULD BE PLACED WITH PERFORATIONS DOWN. THE PIPE SHOULD BE SLOPED FOR GRAVITY FLOW AND OUTLET THROUGH SOLID PIPE TO DAYLIGHT.

2. DRAIN ROCK SHOULD BE AT LEAST 6" THICK AND A MINIMUM OF 12" WHERE PIPES ARE LOCATED. THE DRAIN ROCK SHOULD BE ½ OR ¾ INCH DRAIN ROCK ON FILTER FABRIC OR CONSIST OF CLASS II PERMEABLE MATERIAL.

PJC & Associates, Inc. *Consulting Engineers & Geologists*	SLAB UNDERDRAIN SYSTEM PROPOSED NEW HOTEL 135 WEST NAPA STREET SONOMA, CALIFORNIA	PLATE **2**
	Proj. No: S927.01 Date: 3/15 App'd by: PJC	

APPENDIX B
FIELD INVESTIGATION

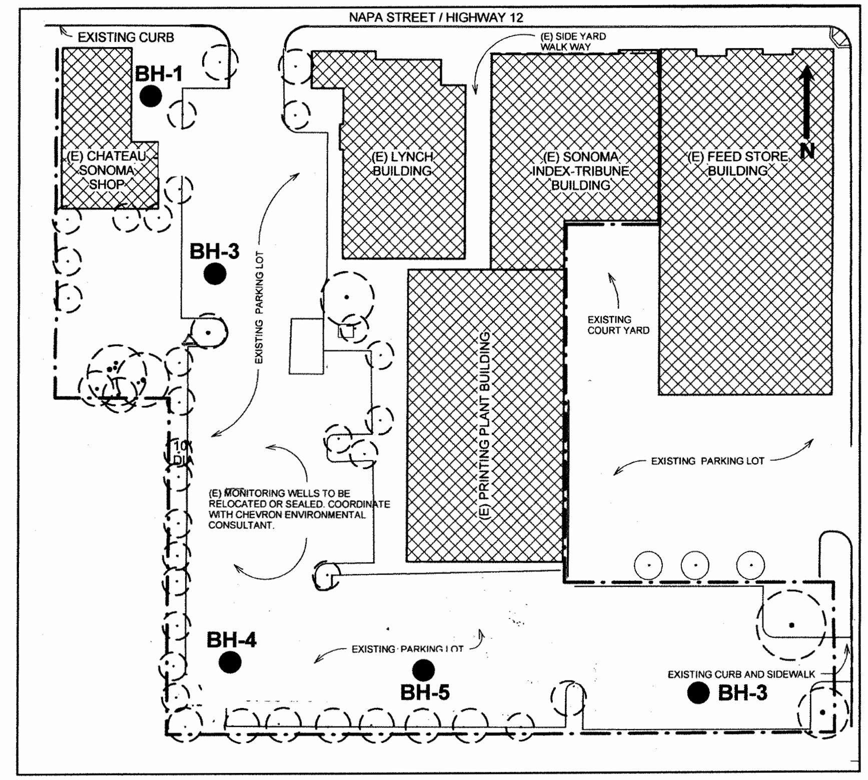
1. INTRODUCTION

The field program performed for this study consisted of drilling five exploratory boreholes (BH-1 through BH-5) in the vicinity of the proposed structures. The explorations were completed on May 22, 2014 and May 23, 2014. The borehole locations are shown on the Borehole Location Plan, Plate 3. Descriptive logs of the boreholes are presented in this appendix as Plates 4 through 8.

2. BOREHOLES

The boreholes were advanced using a truck mounted Mobile B-53 drill with hollow stem augers. The drilling was performed under the observation of a project geologist of PJC who maintained a continuous log of soil conditions and obtained samples suitable for laboratory testing. The soils were classified in accordance with the Unified Soil Classification System, as explained in Plate 9.

Relatively undisturbed and disturbed samples were obtained from the exploratory boreholes. A 2.43 in I.D. California Modified Sampler, or a 1.5 in I.D. Standard Sampler, was driven into the underlying soil using an automatic trip hammer with a 140 pound hammer falling 30 inches to obtain an indication of the density of the materials and to allow visual examination of at least a portion of the soil column. Samples obtained with the split-spoon sampler were retained for further observation and testing. The number of blows required to drive the sampler at six-inch increments was recorded on each borehole log. All samples collected were labeled and transported to PJC's office for examination and laboratory testing.



EXPLANATION

● BOREHOLE LOCATION AND DESIGNATION

NO SCALE

REFERENCE: SITE PLAN PREPARED BY ROSS DRULIS CUSENBERY ARCHITECTURE, DATED APRIL 14, 2014.

PJC & Associates, Inc. *Consulting Engineers & Geologists*	BOREHOLE LOCATION PLAN PROPOSED NEW HOTEL 135 WEST NAPA STREET SONOMA, CALIFORNIA	PLATE 3
	Proj. No: S927.01 Date: 3/15 App'd by: PJC	

PJC & ASSOCIATES, INC.
P.O. BOX 469
SONOMA, CA 95476
Telephone: (707) 935-3747
Fax: (707) 935-3587

BORING NUMBER BH-1; PLATE 4

PAGE 1 OF 2

CLIENT: KENWOOD INVESTMENTS
PROJECT NUMBER: S927.01
DATE STARTED: 5/22/14 COMPLETED: 5/22/14
DRILLING CONTRACTOR: PEARSON DRILLING
DRILLING METHOD: MOBILE B-53 w/ HOLLOW STEM AUGER
LOGGED BY: D.W. CHECKED BY:
NOTES:

PROJECT NAME: PROPOSED NEW HOTEL
PROJECT LOCATION: 135 WEST NAPA ST; SONOMA, CA
GROUND ELEVATION: HOLE SIZE: 6.0 inches
GROUND WATER LEVELS:
AT TIME OF DRILLING: 9.00 ft
AT END OF DRILLING: 8.00 ft
AFTER DRILLING: ---

DEPTH (ft)	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	FINES CONTENT (%)
0	0.0-2.0'; SANDY GRAVEL (GW); gray, slightly moist to moist, moderately compacted, fine to coarse grained. (FILL)										
	2.0-3.0'; SANDY SILT (ML); dark brown, moist, loosely placed, low plasticity. (FILL) $(N_1)_{60}$=9 @ 2.5'	MC		3-3 (6)	1.0	106	19				
	3.0-4.5'; SANDY CLAY (CL); light brown with orange staining, moist, soft to stiff, low plasticity. (ALLUVIUM) $(N_1)_{60}$=9 @ 3.0'				1.5	100	20	30	18	12	
5	4.5-8.0'; SANDY CLAY (CL); mottled olive brown and light gray, very moist, hard, low plasticity. (ALLUVIUM) $(N_1)_{60}$=36 @ 5.0'	MC		10-17 (27)	4.5+	95	26				
	8.0-12.5'; CLAYEY GRAVEL (GP-GC); brown, saturated, very dense, fine to coarse grained, with sand. (ALLUVIUM)										
10	$(N_1)_{60}$=62 @ 10.0'	MC		25-30 (55)	4.5+	127	13				10
	12.5-40.0'; SANDY SILT (ML); dark yellowish brown, saturated, very stiff to hard, low plasticity. (ALLUVIUM)										
15	$(N_1)_{60}$=60 @ 15.0'	MC		24-35 (59)	4.5+	104	23				

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(Continued Next Page)

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BORING NUMBER BH-1; PLATE 4

PAGE 2 OF 2

CLIENT: KENWOOD INVESTMENTS
PROJECT NUMBER: S927.01
PROJECT NAME: PROPOSED NEW HOTEL
PROJECT LOCATION: 135 WEST NAPA ST; SONOMA, CA

DEPTH (ft)	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	FINES CONTENT (%)
	12.5-40.0'; SANDY SILT (ML); dark yellowish brown, saturated, very stiff to hard, low plasticity. (ALLUVIUM) *(continued)*										
20	$(N_1)_{60}$=43 @ 20.0'	SPT		11-15 (26)			23				
25	$(N_1)_{60}$=20 @ 25.0'	SPT		5-7 (12)			31				
30	$(N_1)_{60}$=26 @ 30.0'	MC		10-13 (23)	2.25	94	29				
35	$(N_1)_{60}$=47 @ 35.0'	SPT		13-17 (30)			21				
	$(N_1)_{60}$=50 @ 37.5'	MC		23-35 (58)	4.5+	108	19				
	$(N_1)_{60}$=48 @ 39.5'	SPT		15-17 (32)			32				
40	AUGER REFUSAL AT 40.0 FEET										

Bottom of borehole at 40.0 feet.

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BORING NUMBER BH-2; PLAT

PAGE 1

CLIENT KENWOOD INVESTMENTS
PROJECT NAME PROPOSED NEW HOTEL
PROJECT NUMBER S927.01
PROJECT LOCATION 135 WEST NAPA ST; SONOMA, CA
DATE STARTED 5/22/14 COMPLETED 5/22/14
GROUND ELEVATION ______ HOLE SIZE 6.0 inches
DRILLING CONTRACTOR PEARSON DRILLING
GROUND WATER LEVELS:
DRILLING METHOD MOBILE B-53 w/ HOLLOW STEM AUGER
▽ AT TIME OF DRILLING 9.00 ft
LOGGED BY D.W. CHECKED BY ______
AT END OF DRILLING ---
NOTES ______
AFTER DRILLING ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX
0		0.0-2.0'; ASPHALTIC CONCRETE & BASEROCK									
		2.0-4.0'; SANDY CLAY (CL); moderate brown, very moist, loosely to moderately compacted, low plasticity, with gravel. (FILL)									
		$(N_1)_{60}$=28 @ 3.5'	MC		4-15 (19)						
		4.0-8.0'; SANDY SILT (ML); pale brown, very moist, hard, low plasticity. (ALLUVIUM)									
5		$(N_1)_{60}$=55 @ 6.0'	MC		22-23 (45)	4.5+	95	27	37	27	10
		8.0-13.0'; SANDY CLAY (CL); light yellowish brown, very moist to saturated, very stiff, low plasticity. (ALLUVIUM) ▽									
10		$(N_1)_{60}$=25 @ 10.0'	MC		9-14 (23)	3.75 3.5	91 93	31 31			
		13.0-19.5'; SANDY CLAY (CL); dark yellowish brown, saturated, hard, medium plasticity. (ALLUVIUM)									
15		$(N_1)_{60}$=79 @ 15.0'	MC		35-45 (80)						

(Continued Next Page)

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BORING NUMBER BH-2; PLATE 5

PAGE 2 OF 2

CLIENT KENWOOD INVESTMENTS
PROJECT NAME PROPOSED NEW HOTEL
PROJECT NUMBER S927.01
PROJECT LOCATION 135 WEST NAPA ST; SONOMA, CA

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	FINES CONTENT (%)
20		19.5-28.5'; CLAYEY SAND (SW-SC); moderate brown, saturated, very dense to dense, fine to coarse grained. (ALLUVIUM) $(N_1)_{60}$=63 @ 20.0'	SPT		15-20 (35)			25				
25		$(N_1)_{60}$=39 @ 25.0'	SPT		10-13 (23)			26				9
		28.5-33.0'; SANDY CLAY (CL); dark yellowish brown, saturated, very stiff, medium plasticity. (ALLUVIUM)										
30		$(N_1)_{60}$=54 @ 30.0'	SPT		13-20 (33)			41				59
		33.0-40.5'; CLAYEY SAND (SW-SC); dark brown, saturated, dense to very dense, fine to coarse grained, with gravel. (ALLUVIUM)										
35		$(N_1)_{60}$=50 @ 35.0'	SPT		14-18 (32)			25				
40		$(N_1)_{60}$=59 @ 40.0'	SPT		21-21 (42)			21				9
		AUGER REFUSAL AT 40.5 FEET										

Bottom of borehole at 40.5 feet.

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BORING NUMBER BH-3; PLATE

PAGE 1 OF

CLIENT KENWOOD INVESTMENTS
PROJECT NAME PROPOSED NEW HOTEL
PROJECT NUMBER S927.01
PROJECT LOCATION 135 WEST NAPA ST; SONOMA, CA
DATE STARTED 5/23/14 COMPLETED 5/23/14
GROUND ELEVATION HOLE SIZE 6.0 inches
DRILLING CONTRACTOR PEARSON DRILLING
GROUND WATER LEVELS:
DRILLING METHOD MOBILE B-53 w/ HOLLOW STEM AUGER
▽ AT TIME OF DRILLING 7.00 ft
LOGGED BY D.W. CHECKED BY
▼ AT END OF DRILLING 5.00 ft
NOTES
AFTER DRILLING ---

DEPTH (ft)	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	FINES CONTENT (%)
0.0	0.0-2.0'; ASPHALTIC CONCRETE & BASEROCK										
2.5	2.0-7.0'; SANDY CLAY (CL); yellowish brown, slightly moist to saturated, moderately to loosely compacted, low plasticity, with gravel. (FILL)										
	$(N_1)_{60}$=25 @ 3.0'	MC		8-9 (17)	4.5+	115	13				
5.0	$(N_1)_{60}$=11 @ 5.0'	MC		3-5 (8)	3.5	99	15				
7.5	7.0-15.0'; CLAYEY SAND (SP-SC); dark gray, saturated, very dense, fine to coarse grained, with gravel. (ALLUVIUM)										
	$(N_1)_{60}$=50 @ 8.0'	MC		13-19 (32)							
10.0	$(N_1)_{60}$=96 @ 9.5'	SPT		14-28 (42)			12				
12.5											
15.0	$(N_1)_{60}$=53 @ 14.5'	SPT		12-15 (27)			20				6

TERMINATED AT 15.0 FEET
Bottom of borehole at 15.0 feet.

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BORING NUMBER BH-4; PLATE 7

PAGE 1 OF 1

CLIENT KENWOOD INVESTMENTS
PROJECT NAME PROPOSED NEW HOTEL
PROJECT NUMBER S927.01
PROJECT LOCATION 135 WEST NAPA ST; SONOMA, CA
DATE STARTED 5/23/14 COMPLETED 5/23/14
GROUND ELEVATION HOLE SIZE 6.0 inches
DRILLING CONTRACTOR PEARSON DRILLING
GROUND WATER LEVELS:
DRILLING METHOD MOBILE B-53 w/ HOLLOW STEM AUGER
AT TIME OF DRILLING ---
LOGGED BY D.W. CHECKED BY
AT END OF DRILLING ---
NOTES
AFTER DRILLING ---

DEPTH (ft)	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	FINES CONTENT (%)
0.0	0.0-1.5'; ASPHALTIC CONCRETE & BASEROCK										
	1.5-3.0'; SANDY CLAY (CL); moderate brown, medium stiff, low plasticity. (ALLUVIUM)										
2.5	$(N_1)_{60}$=12 @ 2.5'	MC		4-38 (42)	1.75	93	26	43	29	14	
	3.0-3.5'; SANDY SILT (ML); gray, very moist, stiff, low plasticity. (ALLUVIUM) $(N_1)_{60}$=112 @ 3.0'										
	3.5-9.0'; CLAYEY GRAVEL (GC); brown, moist, very dense, fine to coarse grained. (ALLUVIUM)										
5.0	$(N_1)_{60}$=97 @ 6.0'	SPT		19-25 (44)			11				
7.5	$(N_1)_{60}$=58 @ 8.5'	MC		28-25 (53)	4.5+	110	16				
	9.0-13.0'; SANDY CLAY (CL); pale yellowish brown, moist, hard, medium plasticity. (ALLUVIUM) $(N_1)_{60}$=50 @ 9.0'										
10.0											
12.5	$(N_1)_{60}$=96 @ 12.5'	MC		50	4.5+	108	21	41	24	17	

AUGER REFUSAL AT 13.0 FEET
Bottom of borehole at 13.0 feet.

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BORING NUMBER BH-5; PLATE 8

PAGE 1 OF 1

CLIENT KENWOOD INVESTMENTS
PROJECT NAME PROPOSED NEW HOTEL
PROJECT NUMBER S927.01
PROJECT LOCATION 135 WEST NAPA ST; SONOMA, CA
DATE STARTED 5/23/14 COMPLETED 5/23/14
GROUND ELEVATION ______ HOLE SIZE 6.0 inches
DRILLING CONTRACTOR PEARSON DRILLING
GROUND WATER LEVELS:
DRILLING METHOD MOBILE B-53 w/ HOLLOW STEM AUGER
AT TIME OF DRILLING ---
LOGGED BY D.W. CHECKED BY ______
AT END OF DRILLING ---
NOTES ______
AFTER DRILLING ---

DEPTH (ft)	MATERIAL DESCRIPTION		SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)
0.0	0.0-1.5'; ASPHALTIC CONCRETE & BASEROCK											
	1.5-3.0'; CLAYEY GRAVEL (GC); dark brown, very moist, moderately compacted, fine to coarse grained. (FILL)											
2.5		$(N_1)_{60}$=37 @ 2.5'	MC		13-11 (24)							
	3.0-4.5'; SANDY CLAY (CL); dark brown, moist, medium stiff, low plasticity. (ALLUVIUM)											
			AU					18	30	17	13	
	4.5-8.0'; SANDY CLAY (CL); pale brown, moist, hard, low plasticity. (ALLUVIUM)											
5.0		$(N_1)_{60}$=150 @ 5.0'	MC		56							
7.5												
	8.0-11.0'; SANDY SILT (ML); pale yellowish brown, very moist, hard, low plasticity. (ALLUVIUM)											
		$(N_1)_{60}$=58 @ 9.0'	MC		21-37 (58)	4.5+	97	24	34	29	5	
10.0		$(N_1)_{60}$=60 @ 10.5'	SPT		11-21 (32)			26				

TERMINATED AT 11.0 FEET

Bottom of borehole at 11.0 feet.

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MAJOR DIVISIONS				TYPICAL NAMES
COARSE GRAINED SOILS (MORE THAN HALF IS LARGER THAN #200 SIEVE)	GRAVELS — MORE THAN HALF COARSE FRACTION IS LARGER THAN NO. 4 SIEVE SIZE	CLEAN GRAVELS WITH LITTLE OR NO FINES	GW	WELL GRADED GRAVELS, GRAVEL - SAND MIXTURES
			GP	POORLY GRADED GRAVELS, GRAVEL - SAND MIXTURES
		GRAVELS WITH OVER 12 % FINES	GM	SILTY GRAVELS, POORLY GRADED GRAVEL - SAND - SILT MIXTURES
			GC	CLAYEY GRAVELS, POORLY GRADED GRAVEL - SAND - CLAY MIXTURES
	SANDS — MORE THAN HALF COARSE FRACTION IS SMALLER THAN NO. 4 SIEVE SIZE	CLEAN SANDS WITH LITTLE OR NO FINES	SW	WELL GRADED SANDS, GRAVELLY SANDS
			SP	POORLY GRADED SANDS, GRAVELLY SANDS
		SANDS WITH OVER 12 % FINES	SM	SILTY SANDS, POORLY GRADED SAND - SILT MIXTURES
			SC	CLAYEY SANDS, POORLY GRADED SAND - CLAY MIXTURES
FINE GRAINED SOILS (MORE THAN HALF IS SMALLER THAN #200 SIEVE)	SILTS AND CLAYS — LIQUID LIMIT LESS THAN 50		ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS, OR CLAYEY SILTS WITH SLIGHT PLASTICITY
			CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
			OL	ORGANIC CLAYS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
	SILTS AND CLAYS — LIQUID LIMIT GREATER THAN 50		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACIOUS FINE SANDY OR SILTY SOILS, ELASTIC SILTS
			CH	INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS
			OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS
HIGHLY ORGANIC SOILS			Pt	PEAT AND OTHER HIGHLY ORGANIC SOILS

UNIFIED SOIL CLASSIFICATION SYSTEM

Shear Strength, psf
Confining Pressure, psf

Consol	- Consolidation	Tx	320	(2600)	Unconsolidated Undrained Triaxial
LL	- Liquid Limit (in %)	Tx CU	320	(2600)	Consolidated Undrained Triaxial
PL	- Plastic Limit (in %)	DS	2750	(2000)	Consolidated Drained Direct Shear
PI	- Plasticity Index	FVS	470		Field Vane Shear
G_s	- Specific Gravity	UC	2000		Unconfined Compression
SA	- Sieve Analysis	LVS	700		Laboratory Vane Shear
■	"Undisturbed" Sample	SS	- Shrink Swell		
▣	Bulk or Disturbed Sample	EXP	- Expansion		
◪	Standard Penetration Test	P	- Permeability		
⊡	Sample Attempt with No Recovery				

Note: All strength tests on 2.8" or 2.4" diameter sample unless otherwise indicated.

KEY TO TEST DATA

PJC & Associates, Inc.
Consulting Engineers & Geologists

PROPOSED NEW HOTEL
135 WEST NAPA STREET
SONOMA, CALIFORNIA

PLATE 9

Proj. No: S927.01 Date: 3/15 App'd by: PJC

APPENDIX C
LABORATORY INVESTIGATION

1. INTRODUCTION

This appendix includes a discussion of test procedures and results of the laboratory investigation performed for the proposed project. The investigation program was carried out by employing currently accepted test procedures of the American Society of Testing and Materials (ASTM).

Disturbed samples used in the laboratory investigation were obtained during the course of the field investigation as described in Appendix A of this report. Identification of each sample is by borehole number and depth.

2. INDEX PROPERTY TESTING

In the field of soil mechanics and geotechnical engineering design, it is advantageous to have a standard method of identifying soils and classifying them into categories or groups that have similar distinct engineering properties. The most commonly used method of identifying and classifying soils according to their engineering properties is the Unified Soil Classification System described by ASTM D-2487-83. The USCS is based on a recognition of the various types and significant distribution of soil characteristics and plasticity of materials.

The index properties tests discussed in this report include the determination of natural water content and dry density, Atterburg limits, grain-size distribution and pocket penetrometer tests.

a. Natural Water Content and Dry Density. Natural water content and dry density of the samples were determined on selected undisturbed samples. The samples were extruded, visually classified, trimmed to obtain a smooth flat face, and accurately measured to obtain volume and wet weight. The samples were then dried, in accordance with ASTM D-2216-80, for a period of 24 hours in an oven maintained at a temperature of 100 degrees C. After drying, the weight of each sample was determined and the moisture content and dry density calculated. The water content and dry density results are summarized on the borehole and test pit logs, Plates 4 through 8.

b. Atterburg Limits Determination. The liquid and plastic limits of a selected fine-grained soil samples were determined by air drying and breaking down the sample. The results of the limits are shown on Plate 10.

c. Grain-Size Distribution. The gradation characteristics of a selected sample were determined in accordance with ASTM D422-63. The sample was soaked in water until individual soil particles were separated and then washed on the No. 200 mesh sieve. That portion of the material retained on the No. 200 mesh sieve was oven-dried and then mechanically sieved. The grain-size distribution test is presented on Plate 11.

d. Pocket Penetrometer. Pocket Penetrometer tests were performed on cohesive stratums encountered during excavation. The test estimates the unconfined compressive strength of a cohesive material by measuring the materials resistance to penetration by a calibrated, spring-loaded cylinder. The maximum capacity of the cylinder is 4.5 tons per square foot (tsf). The results of these tests are indicated on the borehole logs.

3. ENGINEERING PROPERTIES

The engineering properties testing consisted of unconfined compression testing.

a. Unconfined Compression Test. Unconfined compression tests were performed on intact samples obtained from the boreholes. In the unconfined compression test, the shear strength is determined by axial loading the sample under a slow constant strain rate until failure is obtained. Failure stress is defined as the maximum stress at ten percent strain. The results of these tests are presented on Plate 12.

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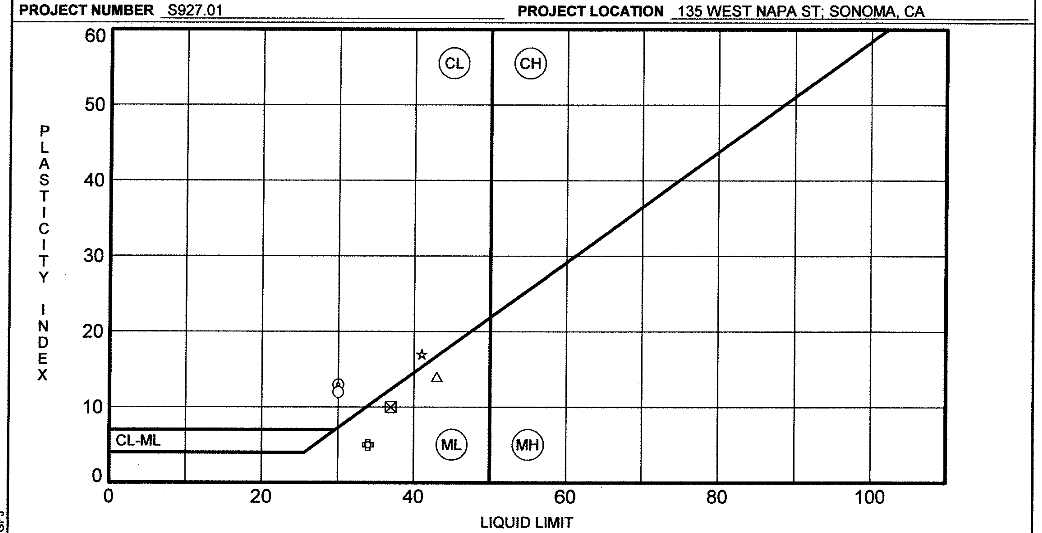
ATTERBERG LIMITS' RESULTS
PLATE 10

CLIENT KENWOOD INVESTMENTS **PROJECT NAME** PROPOSED NEW HOTEL
PROJECT NUMBER S927.01 **PROJECT LOCATION** 135 WEST NAPA ST; SONOMA, CA



	BOREHOLE	DEPTH	LL	PL	PI	Fines	Classification
○	BH-1	3.0	30	18	12		LIGHT BROWN SANDY CLAY (CL)
⊠	BH-2	6.0	37	27	10		PALE BROWN SANDY SILT (ML)
△	BH-4	3.0	43	29	14		GRAY SANDY SILT (ML)
★	BH-4	12.5	41	24	17		PALE YELLOWISH BROWN SANDY CLAY (CL)
⊙	BH-5	3.5	30	17	13		DARK BROWN SANDY CLAY (CL)
✤	BH-5	9.0	34	29	5		PALE YELLOWISH BROWN SANDY SILT (ML)

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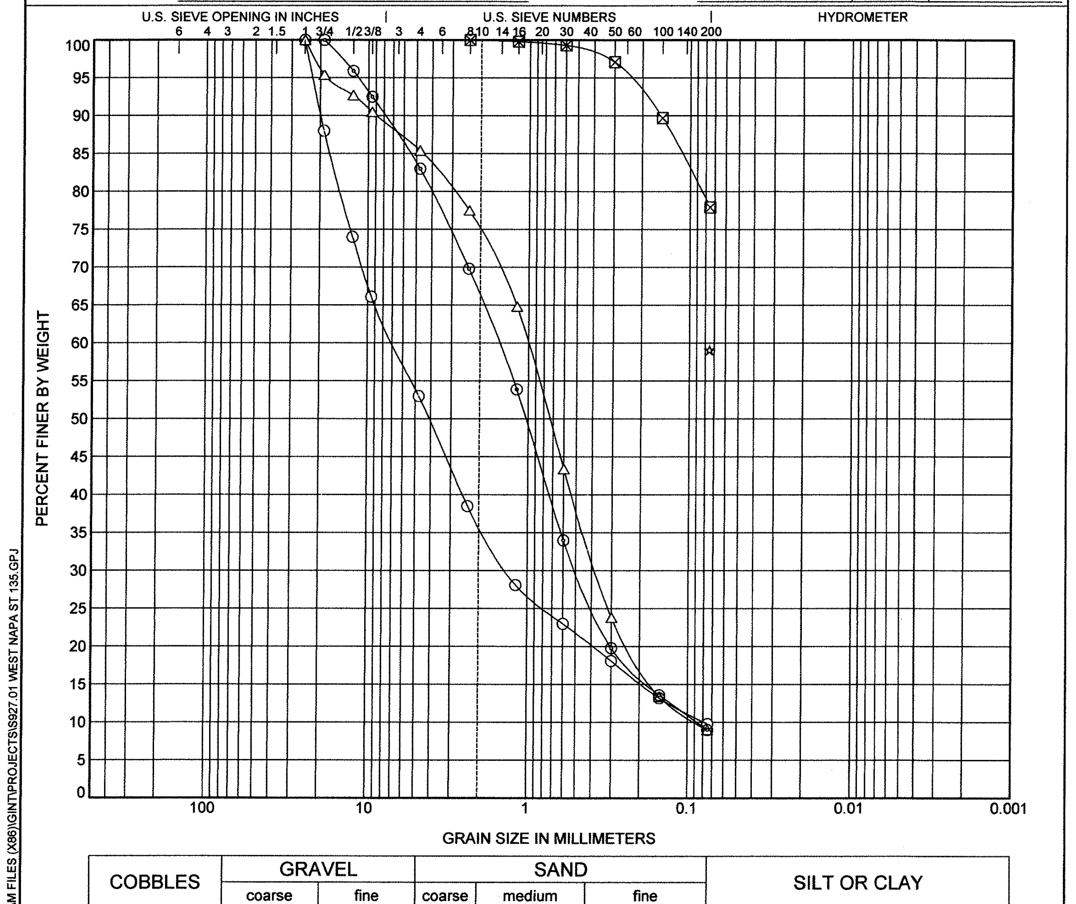
GRAIN SIZE DISTRIBUTION
PLATE 11a

CLIENT KENWOOD INVESTMENTS **PROJECT NAME** PROPOSED NEW HOTEL
PROJECT NUMBER S927.01 **PROJECT LOCATION** 135 WEST NAPA ST; SONOMA, CA



	BOREHOLE	DEPTH	Classification	LL	PL	PI	Cc	Cu
○	BH-1	10.0	BROWN CLAYEY GRAVEL w/SAND (GP-GC)				3.34	88.06
⊠	BH-2	10.0	LIGHT YELLOWISH BROWN SANDY CLAY (CL)					
△	BH-2	25.0	MODERATE BROWN CLAYEY SAND (SW-SC)				1.57	11.55
★	BH-2	30.0	DARK YELLOWISH BROWN SANDY CLAY (CL)					
⊙	BH-2	40.0	DARK BROWN CLAYEY SAND w/GRAVEL(SW-SC)				1.81	17.66

	BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
○	BH-1	10.0	25	6.879	1.339	0.078	47.0	43.2	9.8	
⊠	BH-2	10.0	2.36				0.0	22.1	77.9	
△	BH-2	25.0	25	1.014	0.374	0.088	14.6	76.4	9.0	
★	BH-2	30.0	0.075						59.1	
⊙	BH-2	40.0	19	1.539	0.494	0.087	17.0	74.0	9.0	

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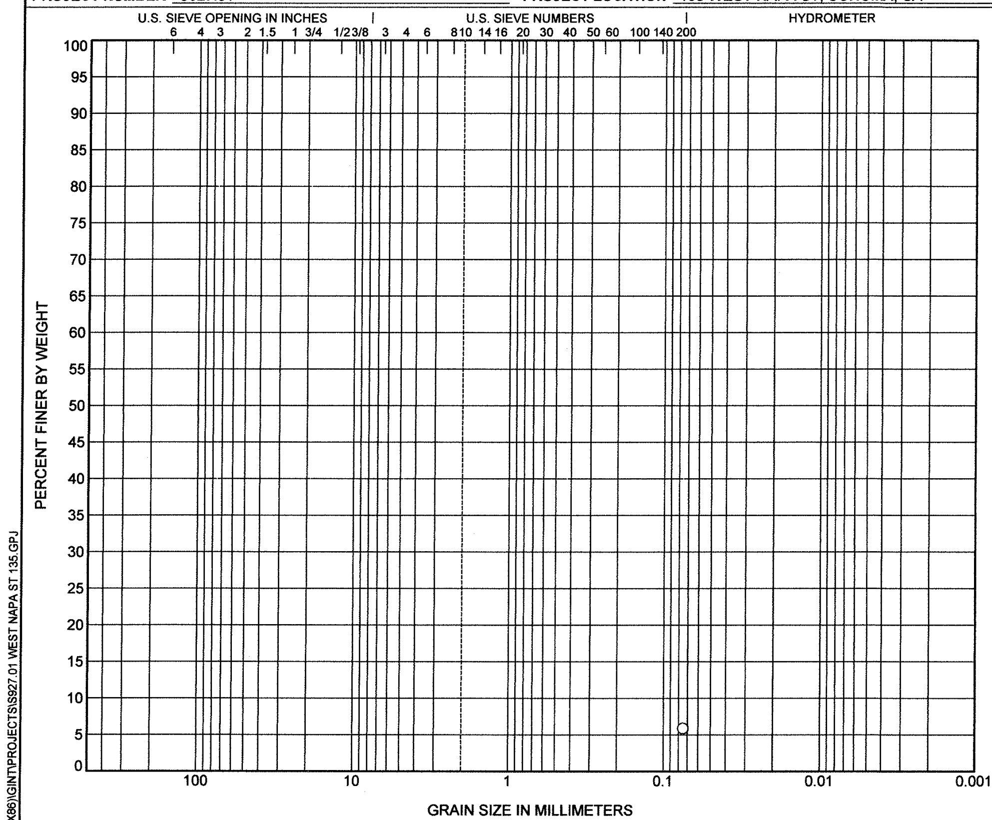
GRAIN SIZE DISTRIBUTION
PLATE 11b

CLIENT KENWOOD INVESTMENTS **PROJECT NAME** PROPOSED NEW HOTEL

PROJECT NUMBER S927.01 **PROJECT LOCATION** 135 WEST NAPA ST; SONOMA, CA

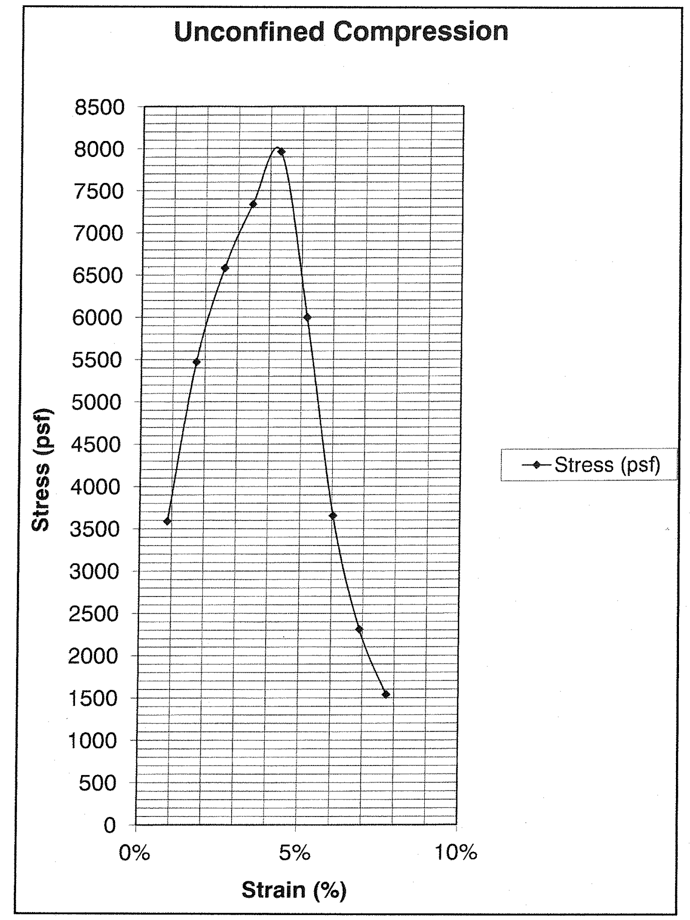


COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification	LL	PL	PI	Cc	Cu
○ BH-3	14.0	DARK GRAY CLAYEY SAND (SP-SC)					

BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
○ BH-3	14.0	0.075						5.9	

GRAIN SIZE - GINT STD US LAB.GDT - 3/9/15 10:34 - C:\PROGRAM FILES (X86)\GINT\PROJECTS\S927.01 WEST NAPA ST 135.GPJ



LOCATION: BH-1 AT 15.0 FEET
DESCRIPTION: DARK YELLOWISH BROWN SANDY SILT (ML)
MOISTURE CONTENT: 23.1%
DRY DENSITY: 104.1pcf
***UNCONFINED COMPRESSIVE STRENGTH :** 7963psf

*Failure stress is defined as the maximum stress at ten percent strain.

PJC & Associates, Inc.
Consulting Engineers & Geologists

UNCONFINED COMPRESSION TEST
PROPOSED NEW HOTEL
135 WEST SPAIN STREET
SONOMA, CALIFORNIA

Proj. No: S927.01 Date: 3/15 App'd by: PJC

PLATE
12

APPENDIX D
REFERENCES

1. "Foundations and Earth Structures" Department of the Navy Design Manual 7.2 (NAVFAC DM-7.2), dated May 1982.

2. "Soil Dynamics, Deep Stabilization, and Special Geotechnical Construction" Department of the Navy Design Manual 7.3 (NAVFAC DM-7.3), dated April 1983.

3. Geologic Map of the Santa Rosa Quadrangle, Scale: 1:250,000, compiled by D.L Wagner and E.J. Bortugno, 1982.

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5. Geologic Map of the Sonoma 7.5-Minute Quadrangle, Sonoma and Napa Counties, California, by David L. Wagner, Kevin B. Clahan, Carolyn E. Randolph-Loar, and Janet Sowers, 2004.

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9. Bowels, Joseph. Engineering Properties of Soils and Their Measurement. 4th Edition, 1992.

10. California Building Code (CBC), 2007 edition.

11. "Maps of Known Active Fault Near-Source Zones in California and Adjacent Portions of Nevada," California Department of Conservation Division of Mines and Geology, Dated February 1998.

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14. "Minimum Design Loads for Buildings and Other Structures" American Society of Civil Engineers, 2005.

15. Kramer, Steven L. Geotechnical Earthquake Engineering, 1996.

16. Youd, T.L. and Idriss, I.M., eds., Proceeding of the NCEER Workshop on Evaluation of Liquefaction Resistance of Soils, National Center for Earthquake Engineering Research, December 31, 1997.

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18. Preliminary Site Plan, Sheet X1.1, prepared by RossDrulisCusenbery Architecture, dated April 14, 2014.

19. Preliminary Site Drawings, 6 Sheets, provided by RossDrulisCusenbery Architecture, undated.

20. Report titled, "Design Level Geotechnical Investigation, Proposed Sonoma Lofts II Residential Project, 649 First Street West, Sonoma, California," prepared by PJC & Associates, dated October 10, 2000.

APPENDIX J:
Noise Monitoring and Modeling Data

City of Sonoma

2020 General Plan

Prepared by:

City of Sonoma
Crawford Multari & Clark Associates
Strategic Economics
Crane Transportation Group
Illingworth & Rodkin

October 2006

City of Sonoma

2020 General Plan

Prepared by:

City of Sonoma
Crawford Multari & Clark Associates
Strategic Economics
Crane Transportation Group
Illingworth & Rodkin

October 2006

Chapter 6

Noise Element

The Noise Element is one of the seven State-mandated General Plan elements. The 1973 Noise Control Act declares it State policy to minimize adverse noise impacts and requires all local general plans to include a noise element that conforms with State planning guidelines. State Noise Insulation Standards adopted in 1974 establish specific acceptable levels noise measured both outside and inside multifamily residences. Since then, these standards have been extended by most local jurisdictions to all types of homes, sensitive sites such as schools and care facilities, and many other land uses. City standards (see Table NE-1) are slightly more restrictive than State levels, as allowed, to ensure protection of local citizens from noise.

Defined as unwanted sound, noise can have adverse effects ranging from interference with sleep and conversation to hearing loss. Accordingly, the purpose of this element is to provide:

- Information about Sonoma's existing and projected noise environment; and,
- Criteria for evaluating the noise environment of future developments and the compatibility between existing and potential land uses.

In addition to goals, policies, and implementation measures aimed at limiting exposure to noise in Sonoma, this element also includes definitions of technical terms, standards for acceptable noise levels, a Noise Contours map, and a Noise Assessment Guide to assist the City in flagging possible noise problems and evaluating the need for project-specific acoustical studies.

Noise Term Definitions

Ambient Noise: The normal or existing composite level from all sources in an area.

Decibel (dB): A unit expressing the relative intensity of sound.

dBA: The most common unit of sound level measurement, it compensates for the effects of low and high frequencies to mimic the response of the human ear.

Day/Night Noise Level (Ldn): The annual average equivalent noise level (Leq) when 10 dBA are added to noise levels measured between 10 p.m. and 7 a.m.

Equivalent Noise Level (Leq): The estimated constant noise level that would deliver the same sound intensity that a fluctuating source actually creates over the same period during the same time of day.

Impulsive Noise: Sound with a distinct peak occurring in a short time interval.

Intrusive Noise: Any noise perceptible over ambient levels, even if within acceptable standards.

Intermittent Noise: Noise present only on occasion but that interferes with human activities such as sleep or conversation.

Noise Contour: A line connecting points of equal noise level measurement.

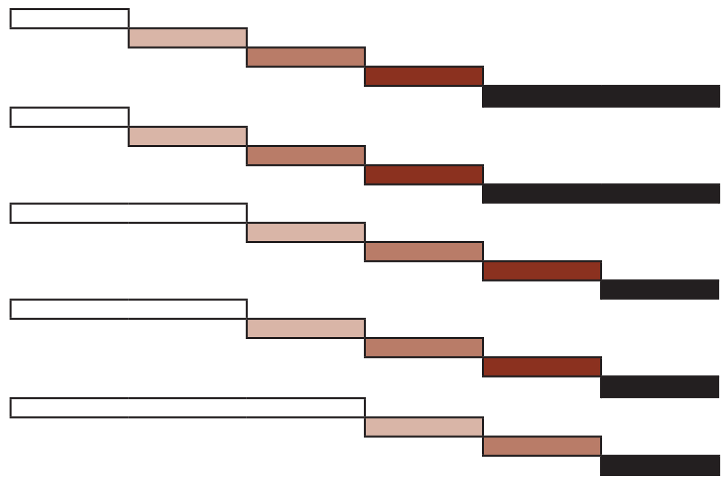
Pure Tone: Sound characterized by a singular pitch over a prolonged time period.

Local Noise Environment

Noise is generally not a serious problem in Sonoma. Table NE-2 shows that more than 90% of city residents live in areas with outdoor noise levels substantially below the general 60 dBA State and City standard for acceptability.

Table NE-1: Acceptable Outdoor Noise Levels

Land Use	Noise Level Standards, dBA L
Residential Single-family dwellings, duplexes, condominiums, apartments, hotels.	
Outdoor Public Facilities Neighborhood parks, amphitheaters, cemeteries	
Public Buildings Schools, libraries, churches, nursing homes	
Commercial Offices, retail businesses, and professional facilities	
Industrial Manufacturing, utilities, and agricultural facilities	



Clearly Acceptable
The activities associated with the specified use can be carried out with virtually no interference from noise.

Normally Acceptable
Occasional slight interference with outdoor activities may occur. Conventional structures will ensure that interior noise levels are compatible with indoor activities and with indoor activities if windows are open. New construction should only be undertaken following a noise study and subject to implementation of noise reduction measures to upgrade conditions to normally acceptable levels.

Conditionally Acceptable
The indicated noise levels will cause moderate interference with outdoor activities and with indoor activities if windows are open. New construction should only be undertaken following a noise study and subject to the implementation of noise reduction measures to upgrade conditions to normally acceptable levels.

Normally Unacceptable
Noise will create substantial interference with indoor and outdoor activities. New construction should be discouraged. If construction does occur, noise mitigation should be required to bring exterior levels up to normally acceptable levels and interior levels in compliance with state law.

Clearly Unacceptable
Unacceptable noise intrusion upon land use activities will occur. Adequate structural insulation will be impractical under most circumstances. New construction is generally not recommended.

Source: Adapted from California General Plan Guidelines, 2003.

The primary source of noise locally is traffic on major streets, especially Highway 12, Leveroni Road, Napa Road, Napa Street, and Eighth Street East. As shown on Figure NE-1, major roadways in the city generate 50-60 dBA 50 feet from centerline (based on continuous 24–hour measurements obtained in October 2003). The louder the vehicle traffic, the further from the roadway the associated noise contours extend. Some noise also emanates from stationary sources such as car washes and commercial loading areas.

With relatively little change anticipated under the Land Use Plan in terms of the amount and distribution of future development, roadway traffic is expected to remain the major noise source in Sonoma. As shown on Figure NE-2, traffic noise increases are not

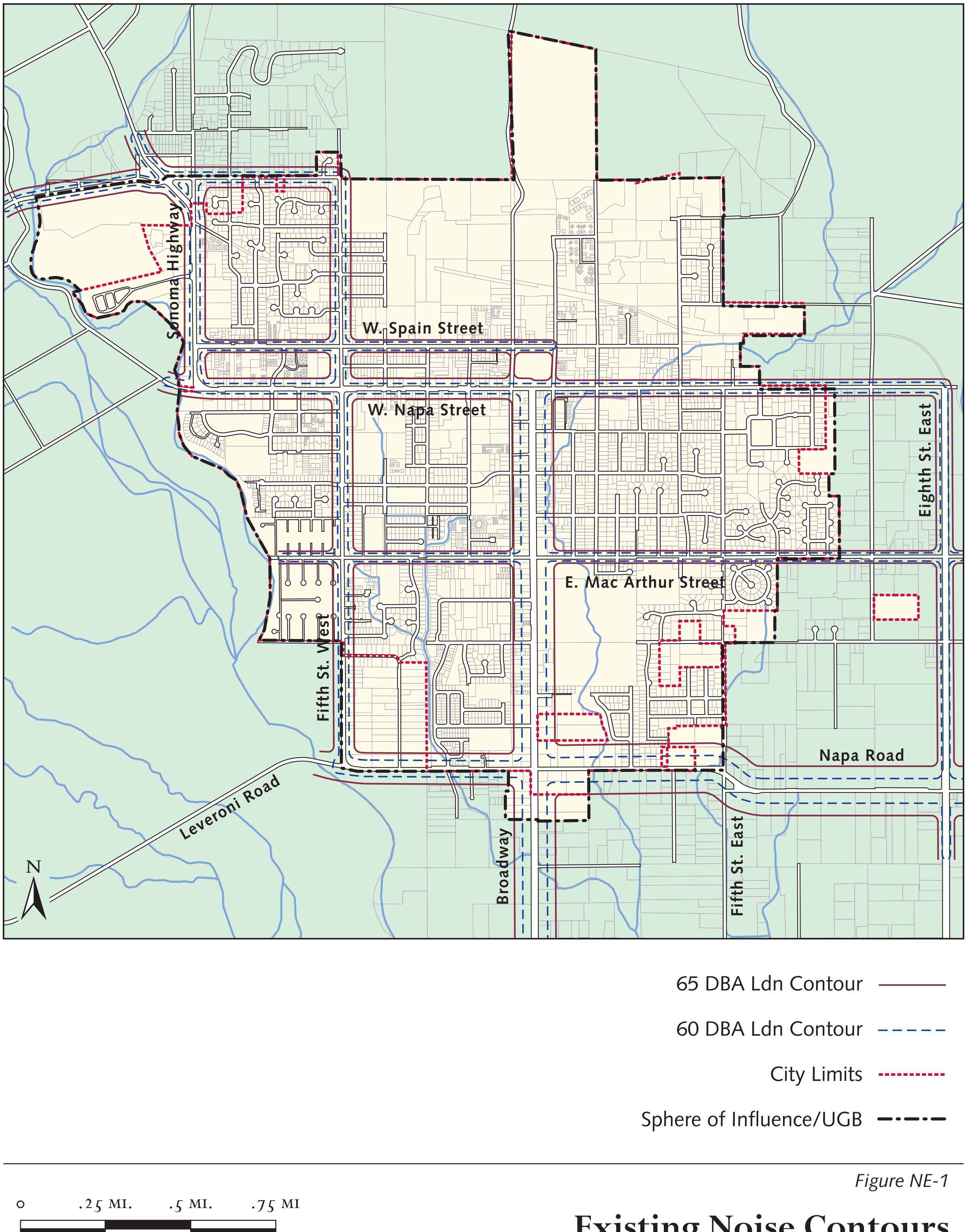


Figure NE-1

Existing Noise Contours

Source: Illingworth and Rodkin, 2003.

Table NE-2: Exposure to Noise

Average Day/ Night Exposure (Ldn)	Area of City Exposed	
	Existing (2003)	Projected (2020)
<55 dBA	65%	56%
55-60 dBA	17%	21%
60-65 dBA	9%	11%
65-70 dBA	5%	7%
>70 dBA	4%	5%

Source: Illingworth and Rodkin, 2005.

Table NE-3: Typical Noise Levels

Land Use Category	Activity to Remain Undisturbed	Max. Interior Level (dBA)
Residential		
Single-family dwellings, duplexes, apartments, condominiums, hotels	Daytime conversation at 5′ Nightime conversation at 10′ Sleep	60 55 50
Public Facilities		
Concert Hall	Listening	25
Theater	Listening	30
School Auditorium	Listening	35
Movie Theater	Listening	45
Church Sanctuary	Listening	45
School Classroom	Speech at 20′, raised voice	55
Library	Speech at 20′, raised voice	55
School Laboratory	Speech at 20′, raised voice	60
Commercial		
Conference Room	Speech at 12′, normal voice	55
Staff Offices	Speech at 6′, normal voice	60
Sales, secretarial	Telephone use	65
Restaurants, markets, retail stores	Conversation at 4′, normal voice	65
Industrial		
Laboratory	Speech at 6′, normal voice	60
Machine Shop	Speech at 3′, Raised voice	75
Assembly, construction	Speech at 2′, raised voice	75

Source: Illingworth and Rodkin, 2005.

expected to exceed 2 dBA—a rise not usually discernible to the human ear. However, some residents already are bothered by traffic noise, which indicates that unfavorable reactions can occur even when standards are easily met in relatively quiet areas. Thus, project review requires careful evaluation of noise potential to minimize conflicts and preserve ambient noise levels that are in keeping with the town's character.

Aircraft produce intermittent noise in Sonoma, but it tends to be faint and infrequent. Flights to and from Sonoma Skypark—a small general aviation airfield about 1.5 miles southeast of the city—usually occur south of the airstrip, and the 50 Ldn noise contour for Skypark operations lies about a mile from the city limit. Helicopter flights also have a negligible impact on the ambient noise environment of the city: they occur rarely for law enforcement or to transport Sonoma Valley Hospital patients.

Standards for Noise Mitigation

Once an existing or potential noise level is determined for a particular location or project, Tables NE-4 and NE-5 are referenced to determine whether City standards can be met and acceptable interior noise environments in the home or workplace can be ensured. If not, mitigation to achieve an acceptable level is required. These more-detailed standards separately address intrusive noise, intermittent noise, and new stationary sources.

In circumstances where new land uses are proposed that could create or be subjected to intrusive noise, the City requires 15–minute integrated average noise level measurements at locations where potential impacts may be significant. The measured level of the intrusive noise is then adjusted to account for special noise source characteristics and the prevailing attitude of Sonoma residents toward noise (see Table NE-4). After adjustment, if the source would create exterior noise levels in the surrounding neighborhood more than 5 dBA higher than ambient levels, noise-reduction measures are required.

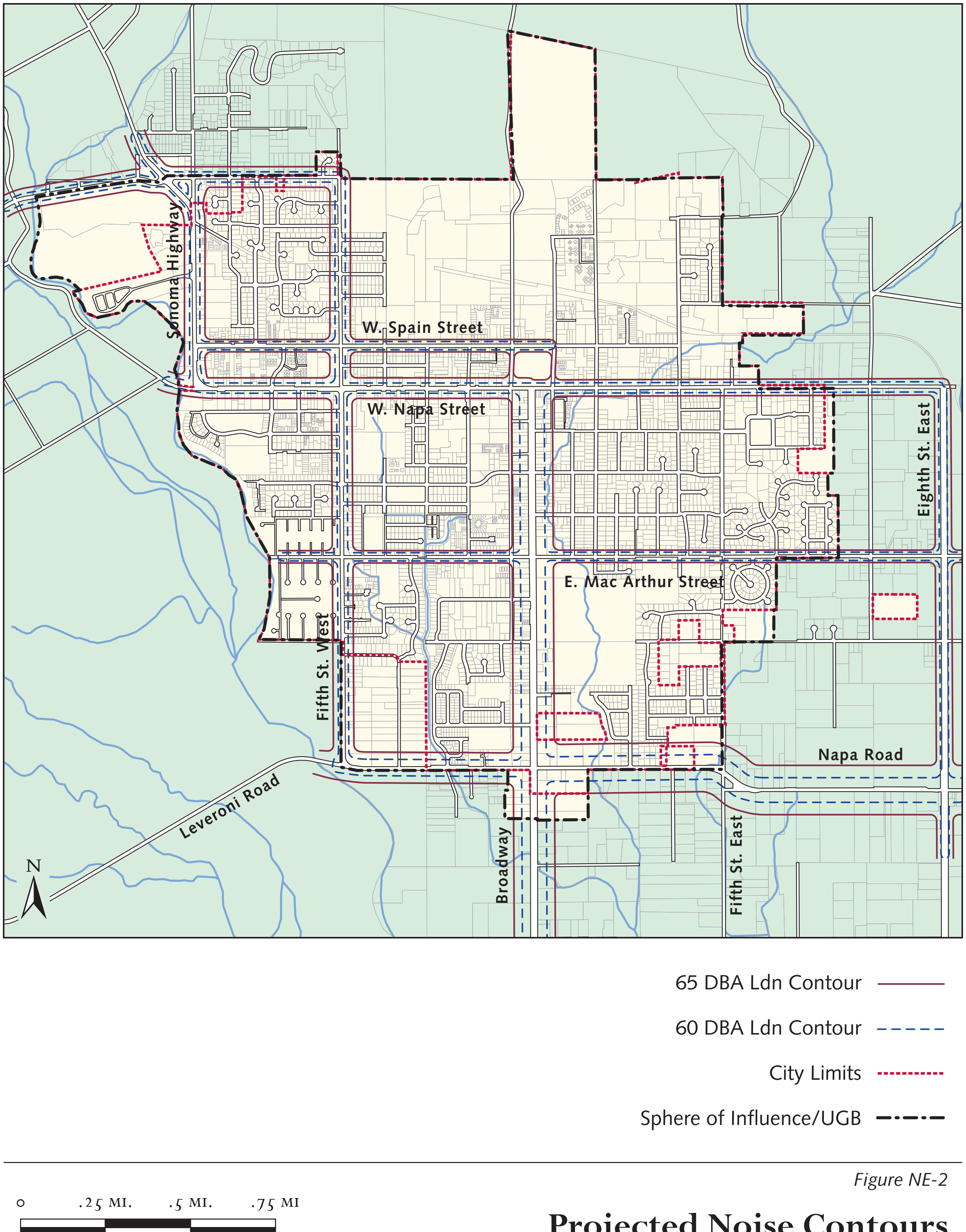


Figure NE-2

Projected Noise Contours

Source: Illingworth and Rodkin, 2003.

Table NE-4: City Adjustments for Intrusive Noise

Type of Correction	Circumstances Under Which Correction is Applicable	Adjustment
Seasonal Correction	Summer (or year-round operation).	0 dBA
	Winter only (or windows always closed).	-5 dBA
Correction for Previous Exposure and Community Attitudes	No prior experience with the intruding noise.	+5 dBA
	Community has had some previous exposure to intruding noise but little effort is being made to control the noise. This correction may also be applied if the community has not been exposed to noise previously, but the people are aware that serious efforts are being made to control the noise.	0 dBA
	Community has had considerable previous exposure to the intruding noise, and the noise-maker's relations with the community are good.	-5 dBA
	The community is aware that the operation causing the noise is very necessary, and that it will not continue indefinitely. This correction can be applied to an operation of limited duration under emergency circumstances.	-10 dBA
Pure tone or Impulse Characteristics	No pure tone or impulsive character.	0 dBA
	Pure tones present.	+5 dBA
	Impulsive sounds present.	+5 dBA

Source: Illingworth and Rodkin.

Table NE-5: Allowable Levels for Stationary Noise Sources[1]

Level	Daytime[5] *(7 am to 10 pm)*	Nighttime[2,5] *(10 pm to 7 am)*
Hourly Leq dB[3]	50	40
Maximum Level, dB[3]	70	60
Maximum Level, dB Impulsive Noise[4]	65	55

Source: Illingworth and Rodkin, 2005.

1. As determined at the property line of the receiving land use. When determining the effectiveness of mitigation measures, the standards may be applied on the receptor side of noise barriers or other property line noise mitigation measures.
2. Applies only when the receiving land use operates or is occupied during nighttime hours.
3. Sound level measurements shall be made with "slow" meter response.
4. Sound level measurements shall be made with "fast" meter response.
5. Allowable levels shall be raised to ambient levels where ambient levels already exceed allowable levels. Allowable levels shall be reduced 5 dB if the ambient Leq is at least 10 dB lower than the allowable level.

The services of an acoustical consultant may be required to evaluate whether a project meets these standards. If any source would cause outdoor noise levels in the surrounding neighborhood to exceed the ambient level by more than 5 dBA, mitigation measures are required to reduce the projected noise increase to less than 5 dBA above ambient levels.

Coordination With Other Elements

The Noise Element is most closely related to the Community Development Element and the Circulation Element. Development allowed through the land use designations and delineated on the Land Use Plan will be subject to policies and implementation measures set forth in the Noise Element with regard to the location and buffering of residential and other noise-sensitive uses. Policies and implementation measures in the Community Development Element directs the location of land uses. The Circulation Element further details traffic conditions, including the projected traffic volumes used to estimate future noise levels along major roadways.

Goals, Policies, and Implementation

The goals, policies, and implementation programs contained in this element, as set forth in Table NE-6 (following page), reflect the desire of the community to maintain the city's quiet environment. Applying the Noise Assessment Guide early in the project review process is key to determining whether potential noise conflicts generate the need for detailed acoustical studies.

Noise Assessment Guide

The City uses the following steps to evaluate the potential noise impacts of a proposed development and determine whether additional acoustical analysis is needed to ensure that associated noise levels conform to adopted City standards. This process is designed to facilitate informed, objective decisions regarding the compatibility of proposed land uses with the existing noise environment. The objective is to ensure that the community's ambient noise level is not degraded and that existing and future residents can enjoy the relative quiet that characterizes Sonoma.

Step 1: Application received.

Step 2: Identify Traffic Volume. Identify projected traffic volumes on nearby roadways.

Step 3: Locate Noise Contours. Determine the location of existing and projected traffic noise contours.

Step 4: Assess Compatibility. Compare projected noise levels with City standards. If the proposal is "clearly" or "normally" acceptable, go to Step 8. If not, continue with Step 5.

Step 5: Residential Use. If a residential area is impacted, go to Step 6. If not, Go to Step 7.

Step 6: Require Noise Study. Require an acoustical study to demonstrate compliance with State noise insulation standards and City noise standards. Go to Step 9.

Step 7: Project modifications. If a proposal falls in the "normally" acceptable category, notify the applicant that the project may create or be exposed to slightly adverse outdoor noise levels, and require design measures that ensure compliance with City standards.

Step 8: Address Special Concerns. If short duration noises (such as live music, truck loading, or machine operations) may significantly intrude on ambient levels in the surrounding neighborhood and/or there have been substantial complaints about noise on or in the vicinity of the site, go to Step 9. If not, go to Step 10.

Step 9: Mitigate intrusive noise. Require an acoustical study to demonstrate compliance with City standards.

Step 10: Findings. Make findings that all applicable criteria will be met, or if special circumstances merit, consider variances from City standards. Variances from State standards are not permitted.

Table NE-6: Goals, Policies, and Implementation Measures

Goal PS-1: Achieve noise compatibility between existing and new development to preserve the quiet atmosphere of Sonoma and quality of life.	
Policies	*Implementation Measures*
1.1 Apply the following standards for maximum Ldn levels to citywide development: *45 Ldn:* For indoor environments in all residential units. *60 Ldn:* For outdoor environments around all residential developments and outdoor public facilities (e.g., parks). *65 Ldn:* For outdoor environments around com-mercial and public buildings (libraries and churches). *70 Ldn:* For outdoor environments around industrial buildings.	1.1.1 Require all acoustical analyses necessary to demonstrate project compliance with City standards to contain: a. A summary of noise data collected, including identification of noise sources and their characteristics, a description of the methodology used to determine noise levels, and quantification of existing and future Ldn on the site. b. Figures illustrating the spatial relationship of noise sources and the project site. c. A description of project-related impacts on noise levels in the surrounding area, based on the standards adopted in this element. d. Specifications for noise mitigation measures and an analysis of their effectiveness in mitigating noise levels to accepted standards.
1.2 Consider imposing more restrictive standards in locations that may be especially sensitive to noise.	1.2.1 Monitor noise complaint reports annually to determine if existing regulations are maintaining acceptable community-wide noise levels and/or sensitivity thresholds.
1.3 Require adequate mitigation of potential noise from all proposed development.	1.3.1 Require project design modifications as necessary to adequately mitigate potential noise impacts, including: a. Locating usable outdoor areas (yards, patios, balconies) and noise-sensitive indoor areas (bedrooms, living rooms, windows) where noise levels will be lowest. b. Locating noise-compatible uses (open space, parking garages, other buildings) to shield noise-sensitive uses (e.g., residences, hospitals, convalescent homes) from major noise sources. c. Using berms, walls, fences, setbacks, dense plantings and other buffers to shield projects from noise sources.
1.4 Evaluate proposed development using the Noise Assessment Guide and require an acoustical study when it is not certain that a proposed project can adequately mitigate potential noise impacts.	Implemented through the project review process and the Noise Assessment Guide (preceding page).
1.5 Encourage all development to minimize noise intrusions through project design.	See measure 1.3.1, above.
1.6 Minimize noise impacts of vehicle idling.	1.6 Require buses and trucks parked anywhere in the city for longer than five minutes to shut off their engines, except when they are actively unloading or loading passengers or goods.

City of Sonoma Municipal Code

Title 9 PUBLIC PEACE, SAFETY AND MORALS

Chapter 9.56 NOISE

Chapter 9.56
NOISE

Sections:

9.56.010 Declaration of policy.

It is hereby declared to be the policy of the city of Sonoma, in the exercise of its police power, to protect the peace, health, safety and general welfare of the citizens of Sonoma from excessive, unnecessary and unreasonable noises from any and all sources in the community. It is the intention of the city council to control the adverse effect of such noise sources on the citizens by prescribing standards prohibiting detrimental levels of noise and by providing a remedy for violations. The provisions of this chapter and the remedies contained in this code shall be cumulative and are not intended to replace any otherwise available remedies for public or private nuisances, nor any other civil or criminal remedies otherwise available. In addition, the regulations contained herein are not intended to substitute for any noise analysis conducted as a part of the city's environmental review process for discretionary permit approvals, nor is it intended to limit more strict noise control requirements for discretionary permit approvals when stricter measures are found to be necessary in order to maintain noise levels that are not detrimental to the health and welfare of the citizens of the city. (Ord. 03-2006 § 2, 2006).

9.56.020 Definitions.

For the purposes of this chapter, certain terms are defined as follows:

A. "'A'-weighted sound level (dBA)" means a decibel scale that approximates the way the human ear responds to various acoustic frequencies.

B. "Commercial property" means property zoned as "Commercial," "Gateway Commercial," or "Winery," as provided in the city of Sonoma development code.

C. "Constant" noise means a continuous noise produced where there is no noticeable change in the level of the noise source. Examples would include such noises as those associated with air conditioners and pool equipment.

D. "Daytime" for purposes of this chapter means the period between 7:00 a.m. and 9:00 p.m. Sunday through Thursday and between 7:00 a.m. and 10:00 p.m. on Friday and Saturday.

E. "Decibel" means the measurement unit used for the level of sound/noise.

F. "Holidays, city-designated" mean those holidays designated as such by the city of Sonoma, including: New Year's Day, Martin Luther King Jr. Day, President's Day, Memorial Day, Independence Day, Labor Day, Columbus Day, Veterans' Day, Thanksgiving Day, the day following Thanksgiving Day, Christmas Eve, and Christmas Day.

G. "Intermittent" noise means repetitive noises where there is a distinction between the onset and decay of the sound. Examples would include hammering and dog barking.

H. "Leaf blower" means a portable machine, powered by a gasoline engine or electric motor, used to blow, displace, or vacuum leaves, dirt, and debris.

I. "Mixed use property" means property zoned as "Mixed Use" as provided in the city of Sonoma development code.

J. "Multifamily residential structure" means any dwelling structure where two or more dwellings are separated by a common wall, floor, or ceiling, including but not limited to apartments, condominiums and townhouses.

K. "Nighttime" for purposes of this chapter means the period between 9:00 p.m. and 7:00 a.m. Sunday through Thursday and between 10:00 p.m. and 7:00 a.m. on Friday and Saturday.

L. "Noise level" means the maximum constant or intermittent sound level produced by a source or group of sources as measured with a sound level meter using fast response and "A"-weighting. In order to measure a noise level, the controls of the sound level meter should be arranged to the setting appropriate to the type of noise being measured.

M. “Sound level meter” means a device for measuring sound level in decibel units within the performance specifications in the American National Standards Institute Standard S1.4, “Specification for Sound Level Meters.”

N. “Property plane” means a vertical plane including the property line that determines the property boundaries in space.

O. “Public property” means property zoned as “Public” or as “Park” as provided in the city of Sonoma development code, or any public street, right-of-way, or easement.

P. “Residential power equipment” means any mechanically powered saw, sander, drill, grinder, leaf blower, lawnmower, hedge trimmer, edger, or any other similar tool or device, when used in or on any residential property.

Q. “Residential property” means property zoned for residential use as provided in the city of Sonoma development code, or properties zoned for mixed use or as where the principal use is residential. (Ord. 02-2011 §§ 1(A), (B), 2011; Ord. 03-2006 § 2, 2006).

9.56.030 Loud or unusual noises prohibited.

No person shall maintain, emit or make, or cause, suffer or permit to be maintained, emitted or made, any noise or sound produced by human, animal, mechanical or other means, which by reason of its raucous or nerve-wracking nature shall disturb the peace or comfort or be injurious to the health of any person or persons; and such a noise or sound may be deemed in violation of this section regardless of whether it is found to be within the noise limits established elsewhere in this chapter for the location or type of noise or sound. (Ord. 03-2006 § 2, 2006).

9.56.040 General noise limits.

Subject to the exceptions and exemptions set forth in SMC 9.56.050 and 9.56.060, the general noise limits set forth in this section shall apply. A summary of the general noise limits set forth in this section is set forth in Table 1. Where two or more noise limits may apply, the more restrictive noise limit shall govern. For purposes of determining sound levels from any source of sound, a sound level measurement shall be made at any point on any receiving private or public property. Sound level measurements shall be made with a sound level meter (Type 1 or 2) set to A-weighting, and “fast” response for intermittent sound. Slow or fast response may be used for constant noise sources. For intermittent sound, the one-second rms maximum level (Lmax) shall be used. For constant sound, the average level (Leq) shall be used.

A. Residential Property Noise Limits.

1. No person shall produce, suffer or allow to be produced by any machine, animal or device, or by any other means, a noise level greater than the following, when measured on any residential property:

a. Daytime: 60 dBA intermittent

50 dBA constant

b. Nighttime: 50 dBA intermittent

40 dBA constant

2. No person shall produce, suffer or allow to be produced by any machine, animal, or device, or by any other means, a noise level greater than the following, when measured on any mixed use property:

a. Daytime: 65 dBA intermittent

55 dBA constant

b. Nighttime: 55 dBA intermittent

45 dBA constant

B. Commercial Property Noise Limits. No person shall produce, suffer or allow to be produced by any machine, animal, or device, or by any other means, a noise level greater than 65 dBA intermittent or 55 dBA constant, when measured on any commercial property, unless specifically authorized by a use permit.

C. Public Property Noise Limits. No person shall produce, suffer or allow to be produced by any machine, animal or device, or by any other means, a noise level, when measured on any public property, that is greater than the most restrictive noise standard applicable under this chapter to any private property adjoining the receiving public property.

Table 1
– General Noise Limits

Property Type or Zone	**Daytime Limits**	**Nighttime Limits**
Residential	60 dBA Intermittent 50 dBA Intermittent	50 dBA Constant 40 dBA Constant
Commercial/Mixed Use	65 dBA Intermittent 55 dBA Constant	65 dBA Intermittent 55 dBA Constant

Public Property	Most restrictive noise limit applicable to adjoining private property

(Ord. 03-2006 § 2, 2006).

9.56.050 Standard exceptions to general noise limits.

The following standard exceptions to the provisions of SMC 9.56.040 shall be allowed as of right, to the extent and during the hours specified. A summary of the standard exceptions provided in this section is set forth in Table 2.

A. Construction. Except as otherwise provided in subsection (B) of this section, or by the planning commission or city council as part of the development review for the project, on any construction project on property within the city, construction, alteration, demolition, maintenance of construction equipment, deliveries of materials or equipment, or repair activities otherwise allowed under applicable law shall be allowed as follows: (1) between 8:00 a.m. and 6:00 p.m., Monday through Friday, (2) between 9:00 a.m. and 6:00 p.m. on Saturday, and (3) between 10:00 a.m. and 6:00 p.m. on Sundays and holidays; however, the noise level at any point outside of the property plane of the project shall not exceed 90 dBA.

For any construction project involving the construction of two or more new residences within the city, or when required by the planning commission or city council as part of their development review for the property, the property owner or occupant shall post a sign at all entrances to the construction site upon commencement of construction for the purpose of informing all contractors and subcontractors, their employees, agents, materialmen and all other persons at the construction site of the basic requirements of this chapter.

1. Said sign(s) shall be posted in a conspicuous place visible from the public right-of-way near the entrance to the job site, at least five feet above ground level, and shall be of a white background, with legible black lettering, which lettering shall be a minimum of one and one-half inches in height.

2. Said sign shall read as follows (or as consistent with other hours approved by the planning commission or city council):

CONSTRUCTION HOURS

(includes any and all deliveries)

MONDAY – FRIDAY	8:00 a.m. to 6:00 p.m.
SATURDAY	9:00 a.m. to 6:00 p.m.

SUNDAY/CITY-DESIGNATED HOLIDAYS	10:00 a.m. to 6:00 p.m.

B. Residential Power Equipment. The operation of residential power equipment other than leaf blowers shall be allowed as follows: (1) between 8:00 a.m. and 6:00 p.m., Monday through Friday, (2) between 9:00 a.m. and 6:00 p.m. on Saturday, and (3) between 10:00 a.m. and 6:00 p.m. on Sundays and holidays. The decibel level generated by residential power equipment, including leaf blowers, shall not exceed 70 dBA measured from 50 feet of the noise source.

C. Leaf Blowers. The operation of leaf blowers shall be allowed as follows:

Commercial, Mixed Use, and Winery Zoning Districts: Monday through Friday, 7:00 a.m. to 11:00 p.m. Prohibited on Saturdays, Sundays, and city-designated holidays.

Public and Park Zoning Districts: Monday through Friday, 7:00 a.m. to 4:00 p.m. Prohibited on Saturdays, Sundays, and city-designated holidays.

All other zoning districts, including Residential: Monday through Saturday, 9:00 a.m. to 4:00 p.m. Prohibited on Sundays, and city-designated holidays.

D. Occasional outdoor gatherings, public dances, shows, and sporting or entertainment events, provided such events are conducted pursuant to a permit or license issued by the city relative to the staging of such events.

E. Within the Winery zoning district, the operation of mechanical devices, apparatus, equipment, and vehicles related to the annual grape crush, within the hours of 7:00 a.m. and 11:00 p.m.

F. The cleaning and maintenance of parking areas and sidewalks within the Commercial, Gateway Commercial and Mixed Use zones, between the hours of 7:00 a.m. and 11:00 p.m., Monday through Friday.

G. Training activities conducted by emergency services personnel between the hours of 7:00 a.m. and 11:00 p.m., Monday through Friday.

Table 2
– Standard Exceptions to General Noise Limits

Type of Activity	**Maximum Noise Level**	**Days/Hours Permitted**
Construction and operation of residential power equipment	70 dBA, as measured from 50 feet of the	Monday – Friday: 8:00 a.m. – 6:00 p.m. Saturday: 9:00 a.m. – 6:00 p.m.

(except for leaf blowers)	noise source	Sunday, city-designated holidays: 10:00 a.m. – 6:00 p.m.
Leaf blowers	70 dBA, as measured from 50 feet of the noise source	Commercial, Mixed Use, and Winery Zoning Districts: Monday through Friday, 7:00 a.m. to 11:00 p.m. Prohibited on Saturdays, Sundays, and city-designated holidays. Public and Park Zoning Districts: Monday through Friday, 7:00 a.m. to 4:00 p.m. Prohibited on Saturdays, Sundays, and city-designated holidays. All other zoning districts, including Residential: Monday through Saturday, 9:00 a.m. to 4:00 p.m. Prohibited on Sundays, and city-designated holidays.
Outdoor events (with permit or license)	As restricted by permit	As restricted by permit
Crush activities	N.A.	Monday – Sunday: 7:00 a.m. – 11:00 p.m.
Maintenance and cleaning within Commercial and Mixed Use zones	N.A.	Monday – Friday: 7:00 a.m. – 11:00 p.m.
Training activities conducted by emergency services personnel	N.A.	Monday – Friday: 7:00 a.m. – 11:00 p.m.

(Ord. 02-2011 §§ 1(C) – (F), 2011; Ord. 03-2006 § 2, 2006).

9.56.060 Exceptions allowed with permit.

A. In addition to the standard exceptions permitted pursuant to SMC 9.56.050, the city planner or his designee may grant a permit allowing an exception from any or all provisions of this chapter where the applicant can show that a diligent investigation of available noise abatement techniques indicates that compliance with the requirements of this chapter would be impractical or unreasonable. Any such permit shall be issued with appropriate conditions to minimize the public detriment caused by the permitted exceptions. Any such permit shall be of such duration as approved by the city planner or his designee, up to a maximum period of three months, but shall be renewable upon a showing of good cause, and shall be conditioned by a schedule for compliance and details of methods thereof in appropriate cases. In the discretion of the city planner or his designee, an exception permit may be issued and reissued for successive short periods of time in order to allow monitoring of the adverse noise impacts of the excepted activity, and additional conditions may be imposed upon reissuance of the permit, if the city planner or his designee determines that such additional conditions are necessary to mitigate noise impacts from the excepted activity to a level he deems acceptable under all the circumstances.

B. Any application for an exception permit under this section shall be accompanied by a fee to be set by resolution of the city council.

C. Any person aggrieved with the decision of the city planner or his designee may appeal to the city council, by writing filed with the city clerk within 10 business days after the date of such decision, however, such appeal shall not stay the effective date of the permit. (Ord. 03-2006 § 2, 2006).

9.56.070 Exemptions.

The following shall be exempt from the provisions of this chapter:

A. Warning devices which are required by law to protect the health, safety and welfare of the community;

B. Emergency vehicle responses and all necessary equipment utilized for the purpose of responding to an emergency, or necessary to restore, preserve, protect or save lives or property from imminent danger of loss or harm;

C. Aviation, railroad, and public transit operations;

D. The operation of any municipal or public utility vehicles;

E. Uses established through any applicable discretionary review process containing specific noise conditions of approval and/or mitigation measures;

F. Work on capital improvements or repairs and maintenance on public property by employees or contractors of the city;

G. The maintenance of public parks and playing fields, including school grounds;

H. Vehicle noise subject to regulation under the California Vehicle Code;

I. Emergency repair work performed by, or at the request of, a property owner on his or her private property, where the delay required to obtain an exception permit under this chapter would result in substantial damage, personal injuries, or property loss to the owner; provided, that such emergency work shall be subject to such reasonable conditions as may be imposed by authorized city employees to mitigate the noise level of the activity;

J. Athletic and recreational events and other activities performed on public parks, property owned by the school district, and other properties zoned as “Public”;

K. Refuse collection conducted by the city's franchised waste collection service. (Ord. 03-2006 § 2, 2006).

9.56.080 Other limitations.

A. Limitations on the Idling of Commercial Vehicles. When parked within 100 feet of a residential zoning district, a driver of a commercial vehicle shall not cause or allow an engine to idle for more than five consecutive minutes, except as necessary for the loading or unloading of cargo within a period not to exceed 30 minutes.

B. Public Rights-of-Way. The direction of any amplified, transmitted or recorded sound toward a public right-of-way from a business adjacent to such right-of-way is prohibited. (Ord. 03-2006 § 2, 2006).

9.56.090 Additional restrictions.

Additional restrictions on noise, including limits on hours of operation, noise-making activities, and maximum decibel levels, may be imposed by the planning commission or the city council through approval of a use permit or tentative map. Any such restrictions shall be fully enforceable as a provision of this chapter. (Ord. 03-2006 § 2, 2006).

9.56.095 Signage requirements for landscape contractor vehicles.

When in service, vehicles used for commercial landscape maintenance shall be identified as such by a sign affixed to the vehicle indicating the name and telephone number of the contracting service, with a minimum letter height of one inch. (Ord. 02-2011 § 1(G), 2011).

9.56.100 Violations, penalties.

Any violation of this chapter may be enforced either as an infraction or as a misdemeanor, or by any remedy available to the city under this code, or under state law. (Ord. 03-2006 § 2, 2006).

The Sonoma Municipal Code is current through Ordinance 05-2015, passed June 22, 2015.

Construction Generated Vibration

Vibration Annoyance Criteria

Receptor:	Average Vibration Level - Houses across Napa	Average Distance (feet): 275
Equipment	Approximate Velocity Level at 25 ft, VdB	Approximate Velocity Level, VdB
Vibratory Roller	94	73
Caisson Drill	87	66
Large bulldozer	87	66
Small bulldozer	58	37
Jackhammer	79	58
Loaded trucks	86	65
	Criteria	**78**

Receptor:	Average Vibration Level - Best Western	Average Distance (feet): 150
Equipment	Approximate Velocity Level at 25 ft, VdB	Approximate Velocity Level, VdB
Vibratory Roller	94	78
Caisson Drill	87	71
Large bulldozer	87	71
Small bulldozer	58	42
Jackhammer	79	63
Loaded trucks	86	70
	Criteria	**78**

Receptor:	Average Vibration Levels - Art museum	Average Distance (feet): 375
Equipment	Approximate Velocity Level at 25 ft, VdB	Approximate Velocity Level, VdB
Vibratory Roller	94	70
Caisson Drill	87	63
Large bulldozer	87	63
Small bulldozer	58	34
Jackhammer	79	55
Loaded trucks	86	62
	Criteria	**78**

Receptor:	Average Vibration Levels - Event Center	Average Distance (feet): 150
Equipment	Approximate Velocity Level at 25 ft, VdB	Approximate Velocity Level, VdB
Vibratory Roller	94	78
Caisson Drill	87	71
Large bulldozer	87	71
Small bulldozer	58	42
Jackhammer	79	63
Loaded trucks	86	70
	Criteria	**78**

Receptor:	Average Vibration Levels - City Hall	Average Distance (feet): 715
Equipment	Approximate Velocity Level at 25 ft, VdB	Approximate Velocity Level, VdB
Vibratory Roller	94	65
Caisson Drill	87	58
Large bulldozer	87	58
Small bulldozer	58	29
Jackhammer	79	50
Loaded trucks	86	57
	Criteria	**78**

Construction Generated Vibration
Structural Damage Criteria

Receptor:	Maximum Vibration Levels - Commercial immediately north/east	Closest Distance (feet): 7
Equipment	Approximate RMS a Velocity at 25 ft, inch/second	Approximate RMS Velocity Level, inch/second
Vibratory Roller	0.210	1.417
Caisson Drill	0.089	0.601
Large bulldozer	0.089	0.601
Small bulldozer	0.003	0.020
Jackhammer	0.035	0.236
Loaded trucks	0.076	0.513
	Criteria	**0.200**

Receptor:	Maximum Vibration Levels - Event Center to south	Closest Distance (feet): 5
Equipment	Approximate RMS a Velocity at 25 ft, inch/second	Approximate RMS Velocity Level, inch/second
Vibratory Roller	0.210	2.348
Caisson Drill	0.089	0.995
Large bulldozer	0.089	0.995
Small bulldozer	0.003	0.034
Jackhammer	0.035	0.391
Loaded trucks	0.076	0.850
	Criteria	**0.200**

Receptor:	Maximum Vibration Levels - Restaurant immediately west	Closest Distance (feet): 40
Equipment	Approximate RMS a Velocity at 25 ft, inch/second	Approximate RMS Velocity Level, inch/second
Vibratory Roller	0.210	0.104
Caisson Drill	0.089	0.044
Large bulldozer	0.089	0.044
Small bulldozer	0.003	0.001
Jackhammer	0.035	0.017
Loaded trucks	0.076	0.038
	Criteria	**0.200**

Receptor:	Maximum Vibration Levels - Best Western immediately west/southl	Closest Distance (feet): 50
Equipment	Approximate RMS a Velocity at 25 ft, inch/second	Approximate RMS Velocity Level, inch/second
Vibratory Roller	0.210	0.074
Caisson Drill	0.089	0.031
Large bulldozer	0.089	0.031
Small bulldozer	0.003	0.001
Jackhammer	0.035	0.012
Loaded trucks	0.076	0.027
	Criteria	**0.200**

Receptor:	Maximum Vibration Levels - Commercial across Napa St	Closest Distance (feet): 60
Equipment	Approximate RMS a Velocity at 25 ft, inch/second	Approximate RMS Velocity Level, inch/second
Vibratory Roller	0.210	0.056
Caisson Drill	0.089	0.024
Large bulldozer	0.089	0.024
Small bulldozer	0.003	0.001
Jackhammer	0.035	0.009
Loaded trucks	0.076	0.020
	Criteria	**0.200**

[1.] Determined based on use of jackhammers or pneumatic hammers that may be used for pavement demolition at a distance of 25 feet

Notes: RMS velocity calculated from vibration level (VdB) using the reference of one microinch/second.

Source: Based on methodology from the United States Department of Transportation Federal Transit Administration, *Transit Noise and Vibration Impact Assessment*

Construction Generated Vibration

Structural Damage Criteria

Receptor:	Maximum Vibration Levels - Salon to east	Closest Distance (feet):	65

Equipment	Approximate RMS a Velocity at 25 ft, inch/second	Approximate RMS Velocity Level, inch/second
Vibratory Roller	0.210	0.050
Caisson Drill	0.089	0.021
Large bulldozer	0.089	0.021
Small bulldozer	0.003	0.001
Jackhammer	0.035	0.008
Loaded trucks	0.076	0.018
	Criteria	**0.200**

Receptor:	Maximum Vibration Levels - Bank of America to east	Closest Distance (feet):	75

Equipment	Approximate RMS a Velocity at 25 ft, inch/second	Approximate RMS Velocity Level, inch/second
Vibratory Roller	0.210	0.040
Caisson Drill	0.089	0.017
Large bulldozer	0.089	0.017
Small bulldozer	0.003	0.001
Jackhammer	0.035	0.007
Loaded trucks	0.076	0.015
	Criteria	**0.200**

Receptor:	Maximum Vibration Levels - Residential to north	Closest Distance (feet):	80

Equipment	Approximate RMS a Velocity at 25 ft, inch/second	Approximate RMS Velocity Level, inch/second
Vibratory Roller	0.210	0.037
Caisson Drill	0.089	0.016
Large bulldozer	0.089	0.016
Small bulldozer	0.003	0.001
Jackhammer	0.035	0.006
Loaded trucks	0.076	0.013
	Criteria	**0.200**

Noise Levels During Construction

Reference Levels: Construction Noise at 50 Feet (dBA Leq)[1]

Construction Phase	Distance: Receptor to center of activity	Average Level (dBA Leq)[2]	Distance: Receptor to border of site	Maximum Level (dBA Lmax)[3]	Drop Off hard=0; soft=0.5
Demolition	50	77	50	81	0
Site Prep		83		85	
Rough Grading		80		84	
Utility Trenching		78		81	
Building Construction		81		81	
Fine Grading		80		84	
Architectural Coating		74		78	
Site Paving		77		80	
Finishing/Landscaping		74		78	

Construction Noise at homes across Napa St

Construction Phase	Distance: Receptor to center of activity	Average Level (dBA Leq)[2]	Distance: Receptor to border of site	Maximum Level (dBA Lmax)[3]
Demolition	275	62	80	77
Site Prep		68		81
Rough Grading		65		80
Utility Trenching		64		77
Building Construction		66		77
Fine Grading		65		80
Architectural Coating		59		74
Site Paving		62		76
Finishing/Landscaping		59		74

Construction Noise at Best Western

Construction Phase	Distance: Receptor to center of activity	Average Level (dBA Leq)[2]	Distance: Receptor to border of site	Maximum Level (dBA Lmax)[3]
Demolition	150	67	50	81
Site Prep		74		85
Rough Grading		70		84
Utility Trenching		69		81
Building Construction		72		81
Fine Grading		70		84
Architectural Coating		64		78
Site Paving		67		80
Finishing/Landscaping		64		78

Construction Noise at Event Center

Construction Phase	Distance: Receptor to center of activity	Average Level (dBA Leq)[2]	Distance: Receptor to border of site	Maximum Level (dBA Lmax)[3]
Demolition	150	67	5	101
Site Prep		74		105
Rough Grading		70		104
Utility Trenching		69		101
Building Construction		72		101
Fine Grading		70		104
Architectural Coating		64		98
Site Paving		67		100
Finishing/Landscaping		64		98

Construction Noise at Art Museum				
Construction Phase	Distance: Receptor to center of activity	Average Level (dBA Leq)[2]	Distance: Receptor to border of site	Maximum Level (dBA Lmax)[3]
Demolition	375	59	160	71
Site Prep		66		75
Rough Grading		62		74
Utility Trenching		61		71
Building Construction		64		70
Fine Grading		62		74
Architectural Coating		56		68
Site Paving		59		70
Finishing/Landscaping		56		67

Construction Noise at City Hall				
Construction Phase	Distance: Receptor to center of activity	Average Level (dBA Leq)[2]	Distance: Receptor to border of site	Maximum Level (dBA Lmax)[3]
Demolition	715	54	580	59
Site Prep		60		64
Rough Grading		57		63
Utility Trenching		55		59
Building Construction		58		59
Fine Grading		57		63
Architectural Coating		51		56
Site Paving		54		59
Finishing/Landscaping		50		56

Construction Noise at Apartments on 2nd St				
Construction Phase	Distance: Receptor to center of activity	Average Level (dBA Leq)[2]	Distance: Receptor to border of site	Maximum Level (dBA Lmax)[3]
Demolition	275	62	100	75
Site Prep		68		79
Rough Grading		65		78
Utility Trenching		64		75
Building Construction		66		75
Fine Grading		65		78
Architectural Coating		59		72
Site Paving		62		74
Finishing/Landscaping		59		72

[1] Calculations based on the Roadway Construction Noise Model with the construction information provided by the applicant.
[2] Average daily noise level including all equipment in use simultaneously considering utilization factors.
[3] Maximum instanteneous noise level from the loudest equipment used during the construction phase.

Construction Noise at home on Broadway

Construction Phase	Distance: Receptor to center of activity	Average Level (dBA Leq)[2]	Distance: Receptor to border of site	Maximum Level (dBA Lmax)[3]
Demolition	700	54	500	61
Site Prep		60		65
Rough Grading		57		64
Utility Trenching		55		61
Building Construction		58		61
Fine Grading		57		64
Architectural Coating		51		58
Site Paving		54		60
Finishing/Landscaping		51		58

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 08/24/2015
Case Description: Demolition

**** Receptor #1 ****

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
Receptor at 50 ft	Residential	60.0	60.0	60.0

Equipment

Description	Impact Device	Spec Usage (%)	Actual Lmax (dBA)	Receptor Lmax (dBA)	Estimated Distance (feet)	Shielding (dBA)
Excavator	No	40		80.7	50.0	0.0

Results

	Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
			Day		Evening		Night		Day		Evening		Night	
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Excavator	80.7	76.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	80.7	76.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 08/24/2015
Case Description: Site Prep

**** Receptor #1 ****

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
Receptor at 50 ft	Residential	60.0	60.0	60.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Grader	No	40	85.0		50.0	0.0
Dozer	No	40		81.7	50.0	0.0
Backhoe	No	40		77.6	50.0	0.0

Results

	Calculated (dBA)		Noise Limits (dBA) Day		Evening		Night		Noise Limit Exceedance (dBA) Day		Evening		Night	
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Grader	85.0	81.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	81.7	77.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	77.6	73.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	85.0	83.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 08/24/2015
Case Description: Rough Grading

**** Receptor #1 ****

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
Receptor at 50 ft	Residential	60.0	60.0	60.0

Equipment

Description	Impact Device	Spec Usage (%)	Actual Lmax (dBA)	Receptor Lmax (dBA)	Estimated Distance (feet)	Shielding (dBA)
Tractor	No	40	84.0		50.0	0.0

Results

Equipment	Calculated (dBA) Lmax	Calculated (dBA) Leq	Noise Limits (dBA) Day Lmax	Noise Limits (dBA) Day Leq	Noise Limits (dBA) Evening Lmax	Noise Limits (dBA) Evening Leq	Noise Limits (dBA) Night Lmax	Noise Limits (dBA) Night Leq	Noise Limit Exceedance (dBA) Day Lmax	Noise Limit Exceedance (dBA) Day Leq	Noise Limit Exceedance (dBA) Evening Lmax	Noise Limit Exceedance (dBA) Evening Leq	Noise Limit Exceedance (dBA) Night Lmax	Noise Limit Exceedance (dBA) Night Leq
Tractor	84.0	80.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	84.0	80.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 08/24/2015
Case Description: Rough Grading

**** Receptor #1 ****

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
Receptor at 50 ft	Residential	60.0	60.0	60.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Excavator	No	40		80.7	50.0	0.0
Backhoe	No	40		77.6	50.0	0.0

Results

	Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
			Day		Evening		Night		Day		Evening		Night	
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Excavator	80.7	76.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	77.6	73.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	80.7	78.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 08/24/2015
Case Description: Building Construction

**** Receptor #1 ****

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
Receptor at 50 ft	Residential	60.0	60.0	60.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Generator	No	50		80.6	50.0	0.0
Crane	No	16		80.6	50.0	0.0
Backhoe	No	40		77.6	50.0	0.0
Welder / Torch	No	40		74.0	50.0	0.0
Welder / Torch	No	40		74.0	50.0	0.0
Welder / Torch	No	40		74.0	50.0	0.0

Results

	Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
			Day		Evening		Night		Day		Evening		Night	
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Generator	80.6	77.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Crane	80.6	72.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	77.6	73.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Welder / Torch	74.0	70.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Welder / Torch	74.0	70.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Welder / Torch	74.0	70.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	80.6	81.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 08/24/2015
Case Description: Fine Grading

**** Receptor #1 ****

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
Receptor at 50 ft	Residential	60.0	60.0	60.0

Equipment

Description	Impact Device	Spec Usage (%)	Actual Lmax (dBA)	Receptor Lmax (dBA)	Estimated Distance (feet)	Shielding (dBA)
Tractor	No	40	84.0		50.0	0.0

Results

	Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
			Day		Evening		Night		Day		Evening		Night	
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Tractor	84.0	80.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	84.0	80.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 08/24/2015
Case Description: Arch Coating

**** Receptor #1 ****

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
Receptor at 50 ft	Residential	60.0	60.0	60.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Compressor (air)	No	40		77.7	50.0	0.0

Results

Equipment	Calculated (dBA) Lmax	Calculated (dBA) Leq	Noise Limits (dBA) Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq	Noise Limit Exceedance (dBA) Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq
Compressor (air)	77.7	73.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	77.7	73.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 08/24/2015
Case Description: Site Paving

**** Receptor #1 ****

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
Receptor at 50 ft	Residential	60.0	60.0	60.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Paver	No	50		77.2	50.0	0.0
Roller	No	20		80.0	50.0	0.0

Results

	Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
			Day		Evening		Night		Day		Evening		Night	
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Paver	77.2	74.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roller	80.0	73.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	80.0	76.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 08/24/2015
Case Description: Finishing/Landscaping

**** Receptor #1 ****

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
Receptor at 50 ft	Residential	60.0	60.0	60.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Backhoe	No	40		77.6	50.0	0.0

Results

	Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
			Day		Evening		Night		Day		Evening		Night	
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Backhoe	77.6	73.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	77.6	73.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Scenario:	EXISTING NO PROJECT	Project:	Hotel Sonoma
Roadway:	Napa Street	Analyst:	NJF
Segment:	2nd to 3rd	Date:	19-Oct-15

ROADWAY INPUTS	
ADT	5,602
SPEED (mph)	25
ROAD NEAR-FAR LN. DIST.	12
DISTANCE ROAD CL (ft)	50
SOFT/HARD CONDITIONS	Soft
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.4%	DAY	75.5%
% MT	1.8%	EVENING	14.0%
% HT	0.7%	NIGHT	10.5%

CALCULATION AREA	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	344	6	3	254	5	2	64	1	0
Speed in MPH	25	25	25	25	25	25	25	25	25
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	59.4	71.1	77.2	59.4	71.1	77.2	59.4	71.1	77.2
ADJUSTMENTS									
Flow	-3.9	-21.2	-25.1	-5.2	-22.5	-26.4	-11.2	-28.5	-32.4
Distance	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	55.5	49.9	52.1	54.1	48.6	50.8	48.1	42.5	44.7
VEHICULAR NOISE	DAY=	57.8	Leq	EVENING=	56.5	Leq	NIGHT=	50.5	Leq

RESULTS					
NOISE LEVELS AT 50 FEET FROM CENTERLINE (dBA):				Ldn=	58.9
				CNEL=	59.6
NOISE CONTOUR:		70 dBA	65 dBA	60 dBA	
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	Ldn:	9	20	43	
	CNEL:	10	22	47	

Scenario:	EXISTING NO PROJECT	Project:	Hotel Sonoma
Roadway:	Broadway / SR-12	Analyst:	NJF
Segment:	France Street to Patten Street	Date:	19-Oct-15

ROADWAY INPUTS	
ADT	11,730
SPEED (mph)	35
ROAD NEAR-FAR LN. DIST.	48
DISTANCE ROAD CL (ft)	50
SOFT/HARD CONDITIONS	Soft
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.4%	DAY	75.5%
% MT	1.8%	EVENING	14.0%
% HT	0.7%	NIGHT	10.5%

CALCULATION AREA	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	719	14	5	532	10	4	133	3	1
Speed in MPH	35	35	35	35	35	35	35	35	35
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	65.1	74.8	80.0	65.1	74.8	80.0	65.1	74.8	80.0
ADJUSTMENTS									
Flow	-2.2	-19.4	-23.4	-3.5	-20.7	-24.7	-9.5	-26.7	-30.7
Distance	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	63.7	56.2	57.4	62.4	54.8	56.1	56.4	48.8	50.1
VEHICULAR NOISE	DAY=	65.2	Leq	EVENING=	63.9	Leq	NIGHT=	57.9	Leq

RESULTS						
NOISE LEVELS AT	50	FEET FROM CENTERLINE (dBA):			**Ldn=**	**66.3**
					CNEL=	**66.9**
NOISE CONTOUR:				*70 dBA*	*65 dBA*	*60 dBA*
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):			**Ldn:**	**28**	**61**	**131**
			CNEL:	**31**	**67**	**144**

APPENDIX K:
Technical Traffic Appendix

SUBAPPENDIX K.1:
LOS Calculations

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	41	413	107	63	405	27	269	92	62	58	84	27
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	43	430	0	66	422	0	280	96	0	60	88	0
Adj No. of Lanes	1	1	1	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	143	585	497	274	723	0	346	363	0	236	248	0
Arrive On Green	0.08	0.31	0.00	0.15	0.39	0.00	0.19	0.19	0.00	0.13	0.13	0.00
Sat Flow, veh/h	1774	1863	1583	1774	1863	0	1774	1863	0	1774	1863	0
Grp Volume(v), veh/h	43	430	0	66	422	0	280	96	0	60	88	0
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	1863	0	1774	1863	0	1774	1863	0
Q Serve(g_s), s	1.6	14.7	0.0	2.3	12.8	0.0	10.7	3.1	0.0	2.2	3.1	0.0
Cycle Q Clear(g_c), s	1.6	14.7	0.0	2.3	12.8	0.0	10.7	3.1	0.0	2.2	3.1	0.0
Prop In Lane	1.00		1.00	1.00		0.00	1.00		0.00	1.00		0.00
Lane Grp Cap(c), veh/h	143	585	497	274	723	0	346	363	0	236	248	0
V/C Ratio(X)	0.30	0.74	0.00	0.24	0.58	0.00	0.81	0.26	0.00	0.25	0.36	0.00
Avail Cap(c_a), veh/h	249	694	590	274	723	0	623	654	0	698	733	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	30.8	21.8	0.0	26.4	17.2	0.0	27.4	24.3	0.0	27.7	28.1	0.0
Incr Delay (d2), s/veh	1.2	4.9	0.0	0.4	1.9	0.0	4.5	0.4	0.0	0.6	0.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.8	8.3	0.0	1.2	6.9	0.0	5.6	1.6	0.0	1.1	1.6	0.0
LnGrp Delay(d),s/veh	32.0	26.6	0.0	26.9	19.1	0.0	31.9	24.7	0.0	28.2	28.9	0.0
LnGrp LOS	C	C		C	B		C	C		C	C	
Approach Vol, veh/h		473			488			376			148	
Approach Delay, s/veh		27.1			20.2			30.1			28.7	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		17.4	14.0	26.8		13.0	8.7	32.1
Change Period (Y+Rc), s		3.5	3.0	4.5		3.5	3.0	4.5
Max Green Setting (Gmax), s		25.0	11.0	26.5		28.0	10.0	27.5
Max Q Clear Time (g_c+I1), s		12.7	4.3	16.7		5.1	3.6	14.8
Green Ext Time (p_c), s		1.1	0.1	5.7		0.6	0.0	7.0

Intersection Summary	
HCM 2010 Ctrl Delay	25.8
HCM 2010 LOS	C

Phase Number	2	3	4	6	7	8
Movement	NBTL	WBL	EBT	SBTL	EBL	WBT
Lead/Lag		Lead	Lag		Lead	Lag
Lead-Lag Optimize		Yes	Yes		Yes	Yes
Recall Mode	None	None	Min	None	None	Min
Maximum Split (s)	28.5	14	31	31.5	13	32
Maximum Split (%)	27.1%	13.3%	29.5%	30.0%	12.4%	30.5%
Minimum Split (s)	27.5	14	30.5	31.5	13	27.5
Yellow Time (s)	3	3	4	3	3	4
All-Red Time (s)	0.5	0	0.5	0.5	0	0.5
Minimum Initial (s)	10	11	9	10	10	9
Vehicle Extension (s)	3	3	5	3	3	5
Minimum Gap (s)	1.5	1.5	3	1.5	1.5	3
Time Before Reduce (s)	1	1	2	1	1	2
Time To Reduce (s)	0.1	0.1	0.1	0.1	0.1	0.1
Walk Time (s)	8		7	8		7
Flash Dont Walk (s)	16		19	20		16
Dual Entry	Yes	Yes	Yes	Yes	No	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	0	60	74	28.5	60	73
End Time (s)	28.5	74	0	60	73	0
Yield/Force Off (s)	25	71	100.5	56.5	70	100.5
Yield/Force Off 170(s)	9	71	100.5	36.5	70	100.5
Local Start Time (s)	0	60	74	28.5	60	73
Local Yield (s)	25	71	100.5	56.5	70	100.5
Local Yield 170(s)	9	71	100.5	36.5	70	100.5

Intersection Summary	
Cycle Length	105
Control Type	Actuated-Uncoordinated
Natural Cycle	105

Splits and Phases: 1: 2nd Street W & E. Napa Street

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	34	446	43	4	445	143	0	2	56	4	2	64
Conflicting Peds, #/hr	100	0	100	100	0	100	100	0	100	100	0	100
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	Free	-	-	None	-	-	None
Storage Length	-	-	-	-	-	0	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	36	474	46	4	473	152	0	2	60	4	2	68

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	573	0	0	620	0	0	1253	1252	697	1253	1275	673
Stage 1	-	-	-	-	-	-	670	670	-	582	582	-
Stage 2	-	-	-	-	-	-	583	582	-	671	693	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1000	-	-	960	-	0	149	172	441	149	167	455
Stage 1	-	-	-	-	-	0	446	455	-	499	499	-
Stage 2	-	-	-	-	-	0	498	499	-	446	445	-
Platoon blocked, %		-	-		-							
Mov Cap-1 Maneuver	905	-	-	876	-	-	94	132	364	97	128	372
Mov Cap-2 Maneuver	-	-	-	-	-	-	94	132	-	97	128	-
Stage 1	-	-	-	-	-	-	381	389	-	426	449	-
Stage 2	-	-	-	-	-	-	364	449	-	320	380	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.6	0.1	16.8	16.8
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	SBLn1
Capacity (veh/h)	364	905	-	-	876	-	372
HCM Lane V/C Ratio	0.164	0.04	-	-	0.005	-	0.183
HCM Control Delay (s)	16.8	9.1	0	-	9.1	0	16.8
HCM Lane LOS	C	A	A	-	A	A	C
HCM 95th %tile Q(veh)	0.6	0.1	-	-	0	-	0.7

Intersection	
Intersection Delay, s/veh	32.9
Intersection LOS	D

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	4	212	240	0	102	237	1	0	329	7	110
Peak Hour Factor	0.90	0.82	0.82	0.82	0.90	0.82	0.82	0.82	0.90	0.82	0.82	0.82
Heavy Vehicles, %	2	0	0	4	2	0	0	0	2	4	0	0
Mvmt Flow	0	5	259	293	0	124	289	1	0	401	9	134
Number of Lanes	0	0	1	1	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	2	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	2	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	1	1
HCM Control Delay	18.8	43.8	40.5
HCM LOS	C	E	E

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	100%	0%	2%	0%	30%	13%
Vol Thru, %	0%	6%	98%	0%	70%	29%
Vol Right, %	0%	94%	0%	100%	0%	58%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	329	117	216	240	340	31
LT Vol	329	0	4	0	102	4
Through Vol	0	7	212	0	237	9
RT Vol	0	110	0	240	1	18
Lane Flow Rate	401	143	263	293	415	38
Geometry Grp	7	7	7	7	6	6
Degree of Util (X)	0.903	0.271	0.557	0.56	0.873	0.095
Departure Headway (Hd)	8.105	6.845	7.612	6.882	7.577	9.002
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	449	525	474	524	477	396
Service Time	5.854	4.593	5.368	4.637	5.625	7.1
HCM Lane V/C Ratio	0.893	0.272	0.555	0.559	0.87	0.096
HCM Control Delay	50.6	12.1	19.6	18.1	43.8	13.1
HCM Lane LOS	F	B	C	C	E	B
HCM 95th-tile Q	9.8	1.1	3.3	3.4	9.2	0.3

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	4	9	18
Peak Hour Factor	0.90	0.82	0.82	0.82
Heavy Vehicles, %	2	0	0	0
Mvmt Flow	0	5	11	22
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	13.1
HCM LOS	B

Lane

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	46	382	86	75	355	42	189	53	69	43	81	29
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	48	402	0	79	374	0	199	56	0	45	85	0
Adj No. of Lanes	1	1	1	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	163	585	497	238	664	0	291	305	0	261	274	0
Arrive On Green	0.09	0.31	0.00	0.13	0.36	0.00	0.16	0.16	0.00	0.15	0.15	0.00
Sat Flow, veh/h	1774	1863	1583	1774	1863	0	1774	1863	0	1774	1863	0
Grp Volume(v), veh/h	48	402	0	79	374	0	199	56	0	45	85	0
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	1863	0	1774	1863	0	1774	1863	0
Q Serve(g_s), s	1.5	11.4	0.0	2.4	9.7	0.0	6.4	1.6	0.0	1.3	2.5	0.0
Cycle Q Clear(g_c), s	1.5	11.4	0.0	2.4	9.7	0.0	6.4	1.6	0.0	1.3	2.5	0.0
Prop In Lane	1.00		1.00	1.00		0.00	1.00		0.00	1.00		0.00
Lane Grp Cap(c), veh/h	163	585	497	238	664	0	291	305	0	261	274	0
V/C Ratio(X)	0.30	0.69	0.00	0.33	0.56	0.00	0.68	0.18	0.00	0.17	0.31	0.00
Avail Cap(c_a), veh/h	295	820	697	324	851	0	737	774	0	825	867	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	25.5	18.1	0.0	23.6	15.6	0.0	23.7	21.7	0.0	22.4	22.9	0.0
Incr Delay (d2), s/veh	1.0	2.1	0.0	0.8	1.1	0.0	2.8	0.3	0.0	0.3	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.8	6.1	0.0	1.2	5.2	0.0	3.3	0.8	0.0	0.7	1.3	0.0
LnGrp Delay(d),s/veh	26.5	20.1	0.0	24.4	16.7	0.0	26.5	22.0	0.0	22.8	23.6	0.0
LnGrp LOS	C	C		C	B		C	C		C	C	
Approach Vol, veh/h		450			453			255			130	
Approach Delay, s/veh		20.8			18.0			25.5			23.3	
Approach LOS		C			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		13.4	11.1	23.4		12.4	8.5	25.9
Change Period (Y+Rc), s		3.5	3.0	4.5		3.5	3.0	4.5
Max Green Setting (Gmax), s		25.0	11.0	26.5		28.0	10.0	27.5
Max Q Clear Time (g_c+I1), s		8.4	4.4	13.4		4.5	3.5	11.7
Green Ext Time (p_c), s		0.8	0.1	5.5		0.5	0.0	6.2

Intersection Summary	
HCM 2010 Ctrl Delay	21.0
HCM 2010 LOS	C

Phase Number	2	3	4	6	7	8
Movement	NBTL	WBL	EBT	SBTL	EBL	WBT
Lead/Lag		Lead	Lag		Lead	Lag
Lead-Lag Optimize		Yes	Yes		Yes	Yes
Recall Mode	None	None	Min	None	None	Min
Maximum Split (s)	28.5	14	31	31.5	13	32
Maximum Split (%)	27.1%	13.3%	29.5%	30.0%	12.4%	30.5%
Minimum Split (s)	27.5	14	30.5	31.5	13	27.5
Yellow Time (s)	3	3	4	3	3	4
All-Red Time (s)	0.5	0	0.5	0.5	0	0.5
Minimum Initial (s)	10	11	9	10	10	9
Vehicle Extension (s)	3	3	4	3	3	4
Minimum Gap (s)	1.5	1.5	3	1.5	1.5	3
Time Before Reduce (s)	1	1	2	1	1	2
Time To Reduce (s)	0.1	0.1	0.1	0.1	0.1	0.1
Walk Time (s)	8		7	8		7
Flash Dont Walk (s)	16		19	20		16
Dual Entry	Yes	No	Yes	Yes	No	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	0	60	74	28.5	60	73
End Time (s)	28.5	74	0	60	73	0
Yield/Force Off (s)	25	71	100.5	56.5	70	100.5
Yield/Force Off 170(s)	9	71	100.5	36.5	70	100.5
Local Start Time (s)	0	60	74	28.5	60	73
Local Yield (s)	25	71	100.5	56.5	70	100.5
Local Yield 170(s)	9	71	100.5	36.5	70	100.5

Intersection Summary	
Cycle Length	105
Control Type	Actuated-Uncoordinated
Natural Cycle	105

Splits and Phases: 1: 2nd Street W & Napa St (SR 12)

Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	42	415	34	6	365	144	10	2	56	9	9	106
Conflicting Peds, #/hr	100	0	100	100	0	100	100	0	100	100	0	100
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	Free	-	-	None	-	-	None
Storage Length	-	-	-	-	-	0	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	43	423	35	6	372	147	10	2	57	9	9	108

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	472	0	0	558	0	0	1116	1112	641	1113	1129	572
Stage 1	-	-	-	-	-	-	627	627	-	485	485	-
Stage 2	-	-	-	-	-	-	489	485	-	628	644	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1090	-	-	1013	-	0	185	209	475	186	204	520
Stage 1	-	-	-	-	-	0	471	476	-	563	552	-
Stage 2	-	-	-	-	-	0	561	552	-	471	468	-
Platoon blocked, %		-	-		-							
Mov Cap-1 Maneuver	986	-	-	925	-	-	102	160	392	123	156	426
Mov Cap-2 Maneuver	-	-	-	-	-	-	102	160	-	123	156	-
Stage 1	-	-	-	-	-	-	401	405	-	479	495	-
Stage 2	-	-	-	-	-	-	369	495	-	344	398	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.8	0.1	15.7	16.3
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	SBLn1
Capacity (veh/h)	392	986	-	-	925	-	426
HCM Lane V/C Ratio	0.146	0.043	-	-	0.007	-	0.254
HCM Control Delay (s)	15.7	8.8	0	-	8.9	0	16.3
HCM Lane LOS	C	A	A	-	A	A	C
HCM 95th %tile Q(veh)	0.5	0.1	-	-	0	-	1

Intersection	
Intersection Delay, s/veh	20.4
Intersection LOS	C

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	4	199	216	0	70	218	11	0	278	4	209
Peak Hour Factor	0.90	0.82	0.82	0.82	0.90	0.82	0.82	0.82	0.90	0.82	0.82	0.82
Heavy Vehicles, %	2	0	0	4	2	0	0	0	2	4	0	0
Mvmt Flow	0	5	243	263	0	85	266	13	0	339	5	255
Number of Lanes	0	0	1	1	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	2	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	2	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	1	1
HCM Control Delay	15.4	25.6	21.5
HCM LOS	C	D	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	100%	0%	2%	0%	23%	20%
Vol Thru, %	0%	2%	98%	0%	73%	0%
Vol Right, %	0%	98%	0%	100%	4%	80%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	278	213	203	216	299	5
LT Vol	278	0	4	0	70	1
Through Vol	0	4	199	0	218	0
RT Vol	0	209	0	216	11	4
Lane Flow Rate	339	260	248	263	365	6
Geometry Grp	7	7	7	7	6	6
Degree of Util (X)	0.712	0.453	0.484	0.462	0.71	0.014
Departure Headway (Hd)	7.563	6.281	7.044	6.318	7.011	8.178
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	475	569	508	566	514	440
Service Time	5.341	4.058	4.834	4.107	5.089	6.178
HCM Lane V/C Ratio	0.714	0.457	0.488	0.465	0.71	0.014
HCM Control Delay	27.1	14.2	16.3	14.5	25.6	11.3
HCM Lane LOS	D	B	C	B	D	B
HCM 95th-tile Q	5.6	2.3	2.6	2.4	5.6	0

Intersection				
Intersection Delay, s/veh				
Intersection LOS				

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	1	0	4
Peak Hour Factor	0.90	0.82	0.82	0.82
Heavy Vehicles, %	2	0	0	0
Mvmt Flow	0	1	0	5
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	11.3
HCM LOS	B

Lane

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	55	549	142	84	539	36	358	122	82	77	112	36
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	55	549	35	84	539	9	358	122	20	77	112	9
Adj No. of Lanes	1	1	1	1	1	0	1	1	0	1	1	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	157	596	506	246	676	11	417	367	60	221	212	17
Arrive On Green	0.09	0.32	0.32	0.14	0.37	0.37	0.23	0.23	0.23	0.12	0.12	0.12
Sat Flow, veh/h	1774	1863	1583	1774	1827	31	1774	1562	256	1774	1702	137
Grp Volume(v), veh/h	55	549	35	84	0	548	358	0	142	77	0	121
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	0	1857	1774	0	1818	1774	0	1839
Q Serve(g_s), s	2.3	22.6	1.2	3.4	0.0	20.9	15.4	0.0	5.1	3.2	0.0	4.9
Cycle Q Clear(g_c), s	2.3	22.6	1.2	3.4	0.0	20.9	15.4	0.0	5.1	3.2	0.0	4.9
Prop In Lane	1.00		1.00	1.00		0.02	1.00		0.14	1.00		0.07
Lane Grp Cap(c), veh/h	157	596	506	246	0	687	417	0	427	221	0	229
V/C Ratio(X)	0.35	0.92	0.07	0.34	0.00	0.80	0.86	0.00	0.33	0.35	0.00	0.53
Avail Cap(c_a), veh/h	223	622	528	246	0	687	558	0	572	626	0	648
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	34.0	26.1	18.8	30.9	0.0	22.4	29.1	0.0	25.2	31.8	0.0	32.6
Incr Delay (d2), s/veh	1.3	19.9	0.1	0.8	0.0	7.5	10.0	0.0	0.5	0.9	0.0	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	1.2	14.9	0.6	1.7	0.0	12.1	8.6	0.0	2.6	1.6	0.0	2.6
LnGrp Delay(d),s/veh	35.4	45.9	18.9	31.8	0.0	29.9	39.1	0.0	25.7	32.8	0.0	34.5
LnGrp LOS	D	D	B	C		C	D		C	C		C
Approach Vol, veh/h		639			632			500			198	
Approach Delay, s/veh		43.5			30.1			35.3			33.8	
Approach LOS		D			C			D			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		22.1	14.0	29.9		13.4	10.0	33.9				
Change Period (Y+Rc), s		3.5	3.0	4.5		3.5	3.0	4.5				
Max Green Setting (Gmax), s		25.0	11.0	26.5		28.0	10.0	27.5				
Max Q Clear Time (g_c+I1), s		17.4	5.4	24.6		6.9	4.3	22.9				
Green Ext Time (p_c), s		1.3	0.1	0.8		0.8	0.0	3.6				
Intersection Summary												
HCM 2010 Ctrl Delay			36.2									
HCM 2010 LOS			D									

Phase Number	2	3	4	6	7	8
Movement	NBTL	WBL	EBT	SBTL	EBL	WBT
Lead/Lag		Lead	Lag		Lead	Lag
Lead-Lag Optimize		Yes	Yes		Yes	Yes
Recall Mode	None	None	Min	None	None	Min
Maximum Split (s)	28.5	14	31	31.5	13	32
Maximum Split (%)	27.1%	13.3%	29.5%	30.0%	12.4%	30.5%
Minimum Split (s)	27.5	14	30.5	31.5	13	27.5
Yellow Time (s)	3	3	4	3	3	4
All-Red Time (s)	0.5	0	0.5	0.5	0	0.5
Minimum Initial (s)	10	11	9	10	10	9
Vehicle Extension (s)	3	3	5	3	3	5
Minimum Gap (s)	1.5	1.5	3	1.5	1.5	3
Time Before Reduce (s)	1	1	2	1	1	2
Time To Reduce (s)	0.1	0.1	0.1	0.1	0.1	0.1
Walk Time (s)	8		7	8		7
Flash Dont Walk (s)	16		19	20		16
Dual Entry	Yes	Yes	Yes	Yes	No	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	0	60	74	28.5	60	73
End Time (s)	28.5	74	0	60	73	0
Yield/Force Off (s)	25	71	100.5	56.5	70	100.5
Yield/Force Off 170(s)	9	71	100.5	36.5	70	100.5
Local Start Time (s)	0	60	74	28.5	60	73
Local Yield (s)	25	71	100.5	56.5	70	100.5
Local Yield 170(s)	9	71	100.5	36.5	70	100.5

Intersection Summary	
Cycle Length	105
Control Type	Actuated-Uncoordinated
Natural Cycle	105

Splits and Phases: 1: 2nd Street W & E. Napa Street

Intersection												
Int Delay, s/veh	2.6											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	45	593	57	5	592	190	0	3	74	5	3	74
Conflicting Peds, #/hr	100	0	100	100	0	100	100	0	100	100	0	100
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	Free	-	-	None	-	-	None
Storage Length	-	-	-	-	-	0	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	45	593	57	5	592	190	0	3	74	5	3	79

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	692	0	0	750	0	0	1516	1514	822	1515	1542	792
Stage 1	-	-	-	-	-	-	812	812	-	702	702	-
Stage 2	-	-	-	-	-	-	704	702	-	813	840	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	903	-	-	859	-	0	98	120	374	98	115	389
Stage 1	-	-	-	-	-	0	373	392	-	429	440	-
Stage 2	-	-	-	-	-	0	428	440	-	372	381	-
Platoon blocked, %		-	-		-							
Mov Cap-1 Maneuver	817	-	-	784	-	-	54	89	309	56	85	318
Mov Cap-2 Maneuver	-	-	-	-	-	-	54	89	-	56	85	-
Stage 1	-	-	-	-	-	-	308	324	-	354	394	-
Stage 2	-	-	-	-	-	-	286	394	-	234	315	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.6	0.1	20.3	20
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	SBLn1
Capacity (veh/h)	309	817	-	-	784	-	318
HCM Lane V/C Ratio	0.239	0.055	-	-	0.006	-	0.248
HCM Control Delay (s)	20.3	9.7	0	-	9.6	0	20
HCM Lane LOS	C	A	A	-	A	A	C
HCM 95th %tile Q(veh)	0.9	0.2	-	-	0	-	1

Intersection	
Intersection Delay, s/veh	58.2
Intersection LOS	F

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	5	246	442	0	133	270	1	0	474	8	135
Peak Hour Factor	0.90	0.82	0.82	0.82	0.90	0.82	0.82	0.82	0.90	0.82	0.82	0.82
Heavy Vehicles, %	2	0	0	4	2	0	0	0	2	4	0	0
Mvmt Flow	0	6	300	539	0	162	329	1	0	578	10	165
Number of Lanes	0	0	1	1	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	2	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	2	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	1	1
HCM Control Delay	51.9	70.8	59.5
HCM LOS	F	F	F

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	100%	0%	2%	0%	33%	14%
Vol Thru, %	0%	6%	98%	0%	67%	28%
Vol Right, %	0%	94%	0%	100%	0%	58%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	474	143	251	442	404	36
LT Vol	474	0	5	0	133	5
Through Vol	0	8	246	0	270	10
RT Vol	0	135	0	442	1	21
Lane Flow Rate	578	174	306	539	493	44
Geometry Grp	7	7	7	7	6	6
Degree of Util (X)	1	0.353	0.672	1	1	0.12
Departure Headway (Hd)	8.519	7.291	7.906	7.197	7.951	9.866
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	428	495	459	507	458	366
Service Time	6.232	5.004	5.618	4.909	5.964	7.866
HCM Lane V/C Ratio	1.35	0.352	0.667	1.063	1.076	0.12
HCM Control Delay	73.2	13.9	25.4	66.9	70.8	14.2
HCM Lane LOS	F	B	D	F	F	B
HCM 95th-tile Q	12.6	1.6	4.9	13.7	13	0.4

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	5	10	21
Peak Hour Factor	0.90	0.82	0.82	0.82
Heavy Vehicles, %	2	0	0	0
Mvmt Flow	0	6	12	26
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	14.2
HCM LOS	B

Lane

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	61	508	114	100	472	56	251	70	92	57	108	39
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	61	508	7	100	472	29	251	70	30	57	108	12
Adj No. of Lanes	1	1	1	1	1	0	1	1	0	1	1	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	173	622	529	270	675	41	317	221	95	239	222	25
Arrive On Green	0.10	0.33	0.33	0.15	0.39	0.39	0.18	0.18	0.18	0.13	0.13	0.13
Sat Flow, veh/h	1774	1863	1583	1774	1737	107	1774	1238	531	1774	1647	183
Grp Volume(v), veh/h	61	508	7	100	0	501	251	0	100	57	0	120
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	0	1844	1774	0	1769	1774	0	1830
Q Serve(g_s), s	2.3	18.0	0.2	3.7	0.0	16.5	9.8	0.0	3.6	2.1	0.0	4.4
Cycle Q Clear(g_c), s	2.3	18.0	0.2	3.7	0.0	16.5	9.8	0.0	3.6	2.1	0.0	4.4
Prop In Lane	1.00		1.00	1.00		0.06	1.00		0.30	1.00		0.10
Lane Grp Cap(c), veh/h	173	622	529	270	0	717	317	0	316	239	0	246
V/C Ratio(X)	0.35	0.82	0.01	0.37	0.00	0.70	0.79	0.00	0.32	0.24	0.00	0.49
Avail Cap(c_a), veh/h	246	683	581	270	0	717	614	0	612	688	0	709
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	30.5	22.0	16.1	27.5	0.0	18.5	28.4	0.0	25.8	28.0	0.0	29.0
Incr Delay (d2), s/veh	1.2	8.4	0.0	0.8	0.0	3.8	4.5	0.0	0.6	0.5	0.0	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	1.2	10.6	0.1	1.8	0.0	9.1	5.2	0.0	1.8	1.0	0.0	2.3
LnGrp Delay(d),s/veh	31.7	30.5	16.1	28.4	0.0	22.4	32.9	0.0	26.4	28.5	0.0	30.5
LnGrp LOS	C	C	B	C		C	C		C	C		C
Approach Vol, veh/h		576			601			351			177	
Approach Delay, s/veh		30.4			23.4			31.0			29.8	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		16.4	14.0	28.6		13.2	10.1	32.6
Change Period (Y+Rc), s		3.5	3.0	4.5		3.5	3.0	4.5
Max Green Setting (Gmax), s		25.0	11.0	26.5		28.0	10.0	27.5
Max Q Clear Time (g_c+I1), s		11.8	5.7	20.0		6.4	4.3	18.5
Green Ext Time (p_c), s		1.1	0.1	4.1		0.8	0.0	6.2

Intersection Summary	
HCM 2010 Ctrl Delay	28.0
HCM 2010 LOS	C

Phase Number	2	3	4	6	7	8
Movement	NBTL	WBL	EBT	SBTL	EBL	WBT
Lead/Lag		Lead	Lag		Lead	Lag
Lead-Lag Optimize		Yes	Yes		Yes	Yes
Recall Mode	None	None	Min	None	None	Min
Maximum Split (s)	28.5	14	31	31.5	13	32
Maximum Split (%)	27.1%	13.3%	29.5%	30.0%	12.4%	30.5%
Minimum Split (s)	27.5	14	30.5	31.5	13	27.5
Yellow Time (s)	3	3	4	3	3	4
All-Red Time (s)	0.5	0	0.5	0.5	0	0.5
Minimum Initial (s)	10	11	9	10	10	9
Vehicle Extension (s)	3	3	5	3	3	5
Minimum Gap (s)	1.5	1.5	3	1.5	1.5	3
Time Before Reduce (s)	1	1	2	1	1	2
Time To Reduce (s)	0.1	0.1	0.1	0.1	0.1	0.1
Walk Time (s)	8		7	8		7
Flash Dont Walk (s)	16		19	20		16
Dual Entry	Yes	Yes	Yes	Yes	No	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	0	60	74	28.5	60	73
End Time (s)	28.5	74	0	60	73	0
Yield/Force Off (s)	25	71	100.5	56.5	70	100.5
Yield/Force Off 170(s)	9	71	100.5	36.5	70	100.5
Local Start Time (s)	0	60	74	28.5	60	73
Local Yield (s)	25	71	100.5	56.5	70	100.5
Local Yield 170(s)	9	71	100.5	36.5	70	100.5

Intersection Summary	
Cycle Length	105
Control Type	Actuated-Uncoordinated
Natural Cycle	105

Splits and Phases: 1: 2nd Street W & E. Napa Street

Intersection	
Int Delay, s/veh	4.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	56	552	45	8	485	192	13	3	74	12	12	141
Conflicting Peds, #/hr	100	0	100	100	0	100	100	0	100	100	0	100
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	Free	-	-	None	-	-	None
Storage Length	-	-	-	-	-	0	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	56	552	45	8	485	192	13	3	74	12	12	150

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	585	0	0	697	0	0	1394	1388	775	1389	1410	685
Stage 1	-	-	-	-	-	-	787	787	-	601	601	-
Stage 2	-	-	-	-	-	-	607	601	-	788	809	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	990	-	-	899	-	0	119	143	398	120	138	448
Stage 1	-	-	-	-	-	0	385	403	-	487	489	-
Stage 2	-	-	-	-	-	0	483	489	-	384	394	-
Platoon blocked, %		-	-		-							
Mov Cap-1 Maneuver	896	-	-	821	-	-	48	105	329	69	101	367
Mov Cap-2 Maneuver	-	-	-	-	-	-	48	105	-	69	101	-
Stage 1	-	-	-	-	-	-	316	330	-	399	437	-
Stage 2	-	-	-	-	-	-	248	437	-	244	323	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.8	0.2	19.1	21.4
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	SBLn1
Capacity (veh/h)	329	896	-	-	821	-	367
HCM Lane V/C Ratio	0.225	0.063	-	-	0.01	-	0.409
HCM Control Delay (s)	19.1	9.3	0	-	9.4	0	21.4
HCM Lane LOS	C	A	A	-	A	A	C
HCM 95th %tile Q(veh)	0.8	0.2	-	-	0	-	1.9

Intersection	
Intersection Delay, s/veh	46.2
Intersection LOS	E

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	5	265	287	0	93	290	15	0	370	5	278
Peak Hour Factor	0.90	0.82	0.82	0.82	0.90	0.82	0.82	0.82	0.90	0.82	0.82	0.82
Heavy Vehicles, %	2	0	0	4	2	0	0	0	2	4	0	0
Mvmt Flow	0	6	323	350	0	113	354	18	0	451	6	339
Number of Lanes	0	0	1	1	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	2	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	2	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	1	1
HCM Control Delay	25.6	68.8	50.4
HCM LOS	D	F	F

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	100%	0%	2%	0%	23%	17%
Vol Thru, %	0%	2%	98%	0%	73%	0%
Vol Right, %	0%	98%	0%	100%	4%	83%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	370	283	270	287	398	6
LT Vol	370	0	5	0	93	1
Through Vol	0	5	265	0	290	0
RT Vol	0	278	0	287	15	5
Lane Flow Rate	451	345	329	350	485	7
Geometry Grp	7	7	7	7	6	6
Degree of Util (X)	1	0.673	0.711	0.687	1	0.019
Departure Headway (Hd)	8.199	7.022	7.777	7.068	7.557	9.501
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	447	525	468	515	485	380
Service Time	5.885	4.63	5.475	4.766	5.546	7.483
HCM Lane V/C Ratio	1.009	0.657	0.703	0.68	1	0.018
HCM Control Delay	71.6	22.7	27.4	23.9	68.8	12.7
HCM Lane LOS	F	C	D	C	F	B
HCM 95th-tile Q	12.8	5	5.5	5.2	13.4	0.1

Intersection				
Intersection Delay, s/veh				
Intersection LOS				

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	1	0	5
Peak Hour Factor	0.90	0.82	0.82	0.82
Heavy Vehicles, %	2	0	0	0
Mvmt Flow	0	1	0	6
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	12.7
HCM LOS	B

Lane

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	41	417	107	63	408	27	269	92	62	58	84	27
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	43	434	0	66	425	0	280	96	0	60	88	0
Adj No. of Lanes	1	1	1	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	143	586	498	274	724	0	346	363	0	236	247	0
Arrive On Green	0.08	0.31	0.00	0.15	0.39	0.00	0.19	0.19	0.00	0.13	0.13	0.00
Sat Flow, veh/h	1774	1863	1583	1774	1863	0	1774	1863	0	1774	1863	0
Grp Volume(v), veh/h	43	434	0	66	425	0	280	96	0	60	88	0
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	1863	0	1774	1863	0	1774	1863	0
Q Serve(g_s), s	1.6	14.8	0.0	2.3	12.9	0.0	10.8	3.1	0.0	2.2	3.1	0.0
Cycle Q Clear(g_c), s	1.6	14.8	0.0	2.3	12.9	0.0	10.8	3.1	0.0	2.2	3.1	0.0
Prop In Lane	1.00		1.00	1.00		0.00	1.00		0.00	1.00		0.00
Lane Grp Cap(c), veh/h	143	586	498	274	724	0	346	363	0	236	247	0
V/C Ratio(X)	0.30	0.74	0.00	0.24	0.59	0.00	0.81	0.26	0.00	0.25	0.36	0.00
Avail Cap(c_a), veh/h	249	693	589	274	724	0	622	654	0	697	732	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	30.9	21.8	0.0	26.5	17.3	0.0	27.4	24.4	0.0	27.7	28.1	0.0
Incr Delay (d2), s/veh	1.2	5.0	0.0	0.5	2.0	0.0	4.6	0.4	0.0	0.6	0.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.8	8.4	0.0	1.2	7.0	0.0	5.6	1.6	0.0	1.1	1.6	0.0
LnGrp Delay(d),s/veh	32.0	26.9	0.0	26.9	19.2	0.0	32.0	24.7	0.0	28.3	29.0	0.0
LnGrp LOS	C	C		C	B		C	C		C	C	
Approach Vol, veh/h		477			491			376			148	
Approach Delay, s/veh		27.3			20.3			30.1			28.7	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		17.4	14.0	26.9		13.0	8.7	32.2
Change Period (Y+Rc), s		3.5	3.0	4.5		3.5	3.0	4.5
Max Green Setting (Gmax), s		25.0	11.0	26.5		28.0	10.0	27.5
Max Q Clear Time (g_c+I1), s		12.8	4.3	16.8		5.1	3.6	14.9
Green Ext Time (p_c), s		1.1	0.1	5.6		0.6	0.0	7.0

Intersection Summary	
HCM 2010 Ctrl Delay	25.8
HCM 2010 LOS	C

Phase Number	2	3	4	6	7	8
Movement	NBTL	WBL	EBT	SBTL	EBL	WBT
Lead/Lag		Lead	Lag		Lead	Lag
Lead-Lag Optimize		Yes	Yes		Yes	Yes
Recall Mode	None	None	Min	None	None	Min
Maximum Split (s)	28.5	14	31	31.5	13	32
Maximum Split (%)	27.1%	13.3%	29.5%	30.0%	12.4%	30.5%
Minimum Split (s)	27.5	14	30.5	31.5	13	27.5
Yellow Time (s)	3	3	4	3	3	4
All-Red Time (s)	0.5	0	0.5	0.5	0	0.5
Minimum Initial (s)	10	11	9	10	10	9
Vehicle Extension (s)	3	3	5	3	3	5
Minimum Gap (s)	1.5	1.5	3	1.5	1.5	3
Time Before Reduce (s)	1	1	2	1	1	2
Time To Reduce (s)	0.1	0.1	0.1	0.1	0.1	0.1
Walk Time (s)	8		7	8		7
Flash Dont Walk (s)	16		19	20		16
Dual Entry	Yes	Yes	Yes	Yes	No	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	0	60	74	28.5	60	73
End Time (s)	28.5	74	0	60	73	0
Yield/Force Off (s)	25	71	100.5	56.5	70	100.5
Yield/Force Off 170(s)	9	71	100.5	36.5	70	100.5
Local Start Time (s)	0	60	74	28.5	60	73
Local Yield (s)	25	71	100.5	56.5	70	100.5
Local Yield 170(s)	9	71	100.5	36.5	70	100.5

Intersection Summary	
Cycle Length	105
Control Type	Actuated-Uncoordinated
Natural Cycle	105

Splits and Phases: 1: 2nd Street W & E. Napa Street

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	34	450	43	7	451	143	0	2	58	4	2	64
Conflicting Peds, #/hr	100	0	100	100	0	100	100	0	100	100	0	100
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	Free	-	-	None	-	-	None
Storage Length	-	-	-	-	-	0	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	36	479	46	7	480	152	0	2	62	4	2	68

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	580	0	0	624	0	0	1270	1269	702	1270	1292	680
Stage 1	-	-	-	-	-	-	674	674	-	595	595	-
Stage 2	-	-	-	-	-	-	596	595	-	675	697	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	994	-	-	957	-	0	145	168	438	145	163	451
Stage 1	-	-	-	-	-	0	444	454	-	491	492	-
Stage 2	-	-	-	-	-	0	490	492	-	444	443	-
Platoon blocked, %		-	-		-							
Mov Cap-1 Maneuver	899	-	-	873	-	-	91	128	362	93	124	369
Mov Cap-2 Maneuver	-	-	-	-	-	-	91	128	-	93	124	-
Stage 1	-	-	-	-	-	-	379	387	-	419	440	-
Stage 2	-	-	-	-	-	-	356	440	-	315	378	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.6	0.1	17	17
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	SBLn1
Capacity (veh/h)	362	899	-	-	873	-	369
HCM Lane V/C Ratio	0.17	0.04	-	-	0.009	-	0.185
HCM Control Delay (s)	17	9.2	0	-	9.2	0	17
HCM Lane LOS	C	A	A	-	A	A	C
HCM 95th %tile Q(veh)	0.6	0.1	-	-	0	-	0.7

Intersection	
Intersection Delay, s/veh	34.8
Intersection LOS	D

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	4	214	244	0	102	240	1	0	335	7	110
Peak Hour Factor	0.90	0.82	0.82	0.82	0.90	0.82	0.82	0.82	0.90	0.82	0.82	0.82
Heavy Vehicles, %	2	0	0	4	2	0	0	0	2	4	0	0
Mvmt Flow	0	5	261	298	0	124	293	1	0	409	9	134
Number of Lanes	0	0	1	1	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	2	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	2	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	1	1
HCM Control Delay	19.3	46	43.6
HCM LOS	C	E	E

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	100%	0%	2%	0%	30%	13%
Vol Thru, %	0%	6%	98%	0%	70%	29%
Vol Right, %	0%	94%	0%	100%	0%	58%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	335	117	218	244	343	31
LT Vol	335	0	4	0	102	4
Through Vol	0	7	214	0	240	9
RT Vol	0	110	0	244	1	18
Lane Flow Rate	409	143	266	298	418	38
Geometry Grp	7	7	7	7	6	6
Degree of Util (X)	0.924	0.273	0.566	0.573	0.886	0.095
Departure Headway (Hd)	8.142	6.881	7.669	6.938	7.627	9.094
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	445	522	471	518	477	392
Service Time	5.889	4.628	5.425	4.694	5.675	7.193
HCM Lane V/C Ratio	0.919	0.274	0.565	0.575	0.876	0.097
HCM Control Delay	54.6	12.2	20	18.7	46	13.2
HCM Lane LOS	F	B	C	C	E	B
HCM 95th-tile Q	10.4	1.1	3.4	3.6	9.6	0.3

Intersection				
Intersection Delay, s/veh				
Intersection LOS				

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	4	9	18
Peak Hour Factor	0.90	0.82	0.82	0.82
Heavy Vehicles, %	2	0	0	0
Mvmt Flow	0	5	11	22
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	13.2
HCM LOS	B

Lane

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	46	387	86	75	359	42	189	53	69	43	81	29
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	48	407	0	79	378	0	199	56	0	45	85	0
Adj No. of Lanes	1	1	1	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	162	589	501	237	667	0	290	304	0	261	274	0
Arrive On Green	0.09	0.32	0.00	0.13	0.36	0.00	0.16	0.16	0.00	0.15	0.15	0.00
Sat Flow, veh/h	1774	1863	1583	1774	1863	0	1774	1863	0	1774	1863	0
Grp Volume(v), veh/h	48	407	0	79	378	0	199	56	0	45	85	0
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	1863	0	1774	1863	0	1774	1863	0
Q Serve(g_s), s	1.5	11.5	0.0	2.4	9.9	0.0	6.4	1.6	0.0	1.3	2.5	0.0
Cycle Q Clear(g_c), s	1.5	11.5	0.0	2.4	9.9	0.0	6.4	1.6	0.0	1.3	2.5	0.0
Prop In Lane	1.00		1.00	1.00		0.00	1.00		0.00	1.00		0.00
Lane Grp Cap(c), veh/h	162	589	501	237	667	0	290	304	0	261	274	0
V/C Ratio(X)	0.30	0.69	0.00	0.33	0.57	0.00	0.69	0.18	0.00	0.17	0.31	0.00
Avail Cap(c_a), veh/h	294	817	695	323	848	0	734	771	0	822	863	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	25.6	18.1	0.0	23.7	15.6	0.0	23.8	21.8	0.0	22.6	23.0	0.0
Incr Delay (d2), s/veh	1.0	2.1	0.0	0.8	1.1	0.0	2.9	0.3	0.0	0.3	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.8	6.2	0.0	1.2	5.2	0.0	3.3	0.8	0.0	0.7	1.3	0.0
LnGrp Delay(d),s/veh	26.6	20.1	0.0	24.5	16.7	0.0	26.7	22.1	0.0	22.9	23.7	0.0
LnGrp LOS	C	C		C	B		C	C		C	C	
Approach Vol, veh/h		455			457			255			130	
Approach Delay, s/veh		20.8			18.0			25.7			23.4	
Approach LOS		C			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		13.4	11.1	23.6		12.4	8.5	26.1
Change Period (Y+Rc), s		3.5	3.0	4.5		3.5	3.0	4.5
Max Green Setting (Gmax), s		25.0	11.0	26.5		28.0	10.0	27.5
Max Q Clear Time (g_c+I1), s		8.4	4.4	13.5		4.5	3.5	11.9
Green Ext Time (p_c), s		0.8	0.1	5.5		0.5	0.0	6.2

Intersection Summary	
HCM 2010 Ctrl Delay	21.1
HCM 2010 LOS	C

Phase Number	2	3	4	6	7	8
Movement	NBTL	WBL	EBT	SBTL	EBL	WBT
Lead/Lag		Lead	Lag		Lead	Lag
Lead-Lag Optimize		Yes	Yes		Yes	Yes
Recall Mode	None	None	Min	None	None	Min
Maximum Split (s)	28.5	14	31	31.5	13	32
Maximum Split (%)	27.1%	13.3%	29.5%	30.0%	12.4%	30.5%
Minimum Split (s)	27.5	14	30.5	31.5	13	27.5
Yellow Time (s)	3	3	4	3	3	4
All-Red Time (s)	0.5	0	0.5	0.5	0	0.5
Minimum Initial (s)	10	11	9	10	10	9
Vehicle Extension (s)	3	3	4	3	3	4
Minimum Gap (s)	1.5	1.5	3	1.5	1.5	3
Time Before Reduce (s)	1	1	2	1	1	2
Time To Reduce (s)	0.1	0.1	0.1	0.1	0.1	0.1
Walk Time (s)	8		7	8		7
Flash Dont Walk (s)	16		19	20		16
Dual Entry	Yes	No	Yes	Yes	No	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	0	60	74	28.5	60	73
End Time (s)	28.5	74	0	60	73	0
Yield/Force Off (s)	25	71	100.5	56.5	70	100.5
Yield/Force Off 170(s)	9	71	100.5	36.5	70	100.5
Local Start Time (s)	0	60	74	28.5	60	73
Local Yield (s)	25	71	100.5	56.5	70	100.5
Local Yield 170(s)	9	71	100.5	36.5	70	100.5

Intersection Summary	
Cycle Length	105
Control Type	Actuated-Uncoordinated
Natural Cycle	105

Splits and Phases: 1: 2nd Street W & Napa St (SR 12)

Intersection												
Int Delay, s/veh	3.3											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	42	420	34	9	371	144	10	2	58	9	9	106
Conflicting Peds, #/hr	100	0	100	100	0	100	100	0	100	100	0	100
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	Free	-	-	None	-	-	None
Storage Length	-	-	-	-	-	0	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	43	429	35	9	379	147	10	2	59	9	9	108

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	479	0	0	563	0	0	1134	1129	646	1130	1146	579
Stage 1	-	-	-	-	-	-	632	632	-	497	497	-
Stage 2	-	-	-	-	-	-	502	497	-	633	649	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1083	-	-	1008	-	0	180	204	472	181	199	515
Stage 1	-	-	-	-	-	0	468	474	-	555	545	-
Stage 2	-	-	-	-	-	0	552	545	-	468	466	-
Platoon blocked, %		-	-		-							
Mov Cap-1 Maneuver	980	-	-	920	-	-	99	155	390	119	151	422
Mov Cap-2 Maneuver	-	-	-	-	-	-	99	155	-	119	151	-
Stage 1	-	-	-	-	-	-	398	404	-	473	487	-
Stage 2	-	-	-	-	-	-	360	487	-	339	397	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.7	0.2	15.9	16.4
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	SBLn1
Capacity (veh/h)	390	980	-	-	920	-	422
HCM Lane V/C Ratio	0.152	0.044	-	-	0.01	-	0.256
HCM Control Delay (s)	15.9	8.8	0	-	9	0	16.4
HCM Lane LOS	C	A	A	-	A	A	C
HCM 95th %tile Q(veh)	0.5	0.1	-	-	0	-	1

Intersection	
Intersection Delay, s/veh	21
Intersection LOS	C

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	4	201	221	0	70	221	11	0	284	4	209
Peak Hour Factor	0.90	0.82	0.82	0.82	0.90	0.82	0.82	0.82	0.90	0.82	0.82	0.82
Heavy Vehicles, %	2	0	0	4	2	0	0	0	2	4	0	0
Mvmt Flow	0	5	245	270	0	85	270	13	0	346	5	255
Number of Lanes	0	0	1	1	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	2	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	2	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	1	1
HCM Control Delay	15.7	26.4	22.4
HCM LOS	C	D	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	100%	0%	2%	0%	23%	20%
Vol Thru, %	0%	2%	98%	0%	73%	0%
Vol Right, %	0%	98%	0%	100%	4%	80%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	284	213	205	221	302	5
LT Vol	284	0	4	0	70	1
Through Vol	0	4	201	0	221	0
RT Vol	0	209	0	221	11	4
Lane Flow Rate	346	260	250	270	368	6
Geometry Grp	7	7	7	7	6	6
Degree of Util (X)	0.731	0.456	0.492	0.476	0.721	0.014
Departure Headway (Hd)	7.597	6.315	7.084	6.357	7.049	8.255
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	474	566	505	563	512	436
Service Time	5.377	4.094	4.876	4.149	5.128	6.255
HCM Lane V/C Ratio	0.73	0.459	0.495	0.48	0.719	0.014
HCM Control Delay	28.5	14.3	16.6	14.9	26.4	11.4
HCM Lane LOS	D	B	C	B	D	B
HCM 95th-tile Q	5.9	2.4	2.7	2.5	5.8	0

Intersection				
Intersection Delay, s/veh				
Intersection LOS				

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	1	0	4
Peak Hour Factor	0.90	0.82	0.82	0.82
Heavy Vehicles, %	2	0	0	0
Mvmt Flow	0	1	0	5
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	11.4
HCM LOS	B

Lane

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	55	553	142	84	542	36	358	122	82	77	112	36
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	55	553	35	84	542	9	358	122	20	77	112	9
Adj No. of Lanes	1	1	1	1	1	0	1	1	0	1	1	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	157	598	508	245	677	11	416	366	60	220	211	17
Arrive On Green	0.09	0.32	0.32	0.14	0.37	0.37	0.23	0.23	0.23	0.12	0.12	0.12
Sat Flow, veh/h	1774	1863	1583	1774	1827	30	1774	1562	256	1774	1702	137
Grp Volume(v), veh/h	55	553	35	84	0	551	358	0	142	77	0	121
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	0	1857	1774	0	1818	1774	0	1839
Q Serve(g_s), s	2.3	22.8	1.2	3.4	0.0	21.1	15.4	0.0	5.2	3.2	0.0	4.9
Cycle Q Clear(g_c), s	2.3	22.8	1.2	3.4	0.0	21.1	15.4	0.0	5.2	3.2	0.0	4.9
Prop In Lane	1.00		1.00	1.00		0.02	1.00		0.14	1.00		0.07
Lane Grp Cap(c), veh/h	157	598	508	245	0	689	416	0	427	220	0	228
V/C Ratio(X)	0.35	0.93	0.07	0.34	0.00	0.80	0.86	0.00	0.33	0.35	0.00	0.53
Avail Cap(c_a), veh/h	223	620	527	245	0	689	557	0	571	624	0	647
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	34.1	26.1	18.8	31.0	0.0	22.4	29.2	0.0	25.3	31.9	0.0	32.7
Incr Delay (d2), s/veh	1.3	20.5	0.1	0.8	0.0	7.6	10.1	0.0	0.5	0.9	0.0	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	1.2	15.1	0.6	1.7	0.0	12.2	8.7	0.0	2.7	1.6	0.0	2.6
LnGrp Delay(d),s/veh	35.5	46.6	18.9	31.9	0.0	30.0	39.3	0.0	25.7	32.9	0.0	34.6
LnGrp LOS	D	D	B	C		C	D		C	C		C
Approach Vol, veh/h		643			635			500			198	
Approach Delay, s/veh		44.1			30.2			35.4			33.9	
Approach LOS		D			C			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		22.2	14.0	30.0		13.4	10.0	34.0
Change Period (Y+Rc), s		3.5	3.0	4.5		3.5	3.0	4.5
Max Green Setting (Gmax), s		25.0	11.0	26.5		28.0	10.0	27.5
Max Q Clear Time (g_c+I1), s		17.4	5.4	24.8		6.9	4.3	23.1
Green Ext Time (p_c), s		1.3	0.1	0.7		0.8	0.0	3.5

Intersection Summary			
HCM 2010 Ctrl Delay			36.4
HCM 2010 LOS			D

Phase Number	2	3	4	6	7	8
Movement	NBTL	WBL	EBT	SBTL	EBL	WBT
Lead/Lag		Lead	Lag		Lead	Lag
Lead-Lag Optimize		Yes	Yes		Yes	Yes
Recall Mode	None	None	Min	None	None	Min
Maximum Split (s)	28.5	14	31	31.5	13	32
Maximum Split (%)	27.1%	13.3%	29.5%	30.0%	12.4%	30.5%
Minimum Split (s)	27.5	14	30.5	31.5	13	27.5
Yellow Time (s)	3	3	4	3	3	4
All-Red Time (s)	0.5	0	0.5	0.5	0	0.5
Minimum Initial (s)	10	11	9	10	10	9
Vehicle Extension (s)	3	3	5	3	3	5
Minimum Gap (s)	1.5	1.5	3	1.5	1.5	3
Time Before Reduce (s)	1	1	2	1	1	2
Time To Reduce (s)	0.1	0.1	0.1	0.1	0.1	0.1
Walk Time (s)	8		7	8		7
Flash Dont Walk (s)	16		19	20		16
Dual Entry	Yes	Yes	Yes	Yes	No	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	0	60	74	28.5	60	73
End Time (s)	28.5	74	0	60	73	0
Yield/Force Off (s)	25	71	100.5	56.5	70	100.5
Yield/Force Off 170(s)	9	71	100.5	36.5	70	100.5
Local Start Time (s)	0	60	74	28.5	60	73
Local Yield (s)	25	71	100.5	56.5	70	100.5
Local Yield 170(s)	9	71	100.5	36.5	70	100.5

Intersection Summary	
Cycle Length	105
Control Type	Actuated-Uncoordinated
Natural Cycle	105

Splits and Phases: 1: 2nd Street W & E. Napa Street

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	45	597	57	8	598	190	0	3	76	5	3	74
Conflicting Peds, #/hr	100	0	100	100	0	100	100	0	100	100	0	100
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	Free	-	-	None	-	-	None
Storage Length	-	-	-	-	-	0	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	45	597	57	8	598	190	0	3	76	5	3	79

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	698	0	0	754	0	0	1532	1530	826	1531	1558	798
Stage 1	-	-	-	-	-	-	816	816	-	714	714	-
Stage 2	-	-	-	-	-	-	716	714	-	817	844	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	898	-	-	856	-	0	95	117	372	96	112	386
Stage 1	-	-	-	-	-	0	371	391	-	422	435	-
Stage 2	-	-	-	-	-	0	421	435	-	370	379	-
Platoon blocked, %		-	-		-							
Mov Cap-1 Maneuver	812	-	-	781	-	-	52	86	307	54	82	316
Mov Cap-2 Maneuver	-	-	-	-	-	-	52	86	-	54	82	-
Stage 1	-	-	-	-	-	-	306	323	-	348	388	-
Stage 2	-	-	-	-	-	-	280	388	-	230	313	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.6	0.1	20.5	20.1
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	SBLn1
Capacity (veh/h)	307	812	-	-	781	-	316
HCM Lane V/C Ratio	0.248	0.055	-	-	0.01	-	0.249
HCM Control Delay (s)	20.5	9.7	0	-	9.7	0	20.1
HCM Lane LOS	C	A	A	-	A	A	C
HCM 95th %tile Q(veh)	1	0.2	-	-	0	-	1

Intersection	
Intersection Delay, s/veh	58.2
Intersection LOS	F

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	5	248	446	0	133	273	1	0	480	8	135
Peak Hour Factor	0.90	0.82	0.82	0.82	0.90	0.82	0.82	0.82	0.90	0.82	0.82	0.82
Heavy Vehicles, %	2	0	0	4	2	0	0	0	2	4	0	0
Mvmt Flow	0	6	302	544	0	162	333	1	0	585	10	165
Number of Lanes	0	0	1	1	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	2	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	2	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	1	1
HCM Control Delay	52	70.8	59.6
HCM LOS	F	F	F

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	100%	0%	2%	0%	33%	14%
Vol Thru, %	0%	6%	98%	0%	67%	28%
Vol Right, %	0%	94%	0%	100%	0%	58%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	480	143	253	446	407	36
LT Vol	480	0	5	0	133	5
Through Vol	0	8	248	0	273	10
RT Vol	0	135	0	446	1	21
Lane Flow Rate	585	174	309	544	496	44
Geometry Grp	7	7	7	7	6	6
Degree of Util (X)	1	0.353	0.678	1	1	0.12
Departure Headway (Hd)	8.52	7.292	7.906	7.197	7.951	9.866
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	433	495	460	506	462	366
Service Time	6.233	5.005	5.618	4.909	5.964	7.866
HCM Lane V/C Ratio	1.351	0.352	0.672	1.075	1.074	0.12
HCM Control Delay	73.2	13.9	25.7	66.9	70.8	14.2
HCM Lane LOS	F	B	D	F	F	B
HCM 95th-tile Q	12.6	1.6	5	13.7	13	0.4

Intersection				
Intersection Delay, s/veh				
Intersection LOS				

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	5	10	21
Peak Hour Factor	0.90	0.82	0.82	0.82
Heavy Vehicles, %	2	0	0	0
Mvmt Flow	0	6	12	26
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	14.2
HCM LOS	B

Lane

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	61	513	114	100	472	56	251	70	92	57	108	39
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	61	513	7	100	472	29	251	70	30	57	108	12
Adj No. of Lanes	1	1	1	1	1	0	1	1	0	1	1	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	173	623	530	270	676	42	316	221	95	238	221	25
Arrive On Green	0.10	0.33	0.33	0.15	0.39	0.39	0.18	0.18	0.18	0.13	0.13	0.13
Sat Flow, veh/h	1774	1863	1583	1774	1737	107	1774	1238	531	1774	1647	183
Grp Volume(v), veh/h	61	513	7	100	0	501	251	0	100	57	0	120
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	0	1844	1774	0	1769	1774	0	1830
Q Serve(g_s), s	2.3	18.3	0.2	3.7	0.0	16.5	9.8	0.0	3.6	2.1	0.0	4.4
Cycle Q Clear(g_c), s	2.3	18.3	0.2	3.7	0.0	16.5	9.8	0.0	3.6	2.1	0.0	4.4
Prop In Lane	1.00		1.00	1.00		0.06	1.00		0.30	1.00		0.10
Lane Grp Cap(c), veh/h	173	623	530	270	0	717	316	0	316	238	0	246
V/C Ratio(X)	0.35	0.82	0.01	0.37	0.00	0.70	0.79	0.00	0.32	0.24	0.00	0.49
Avail Cap(c_a), veh/h	245	683	580	270	0	717	613	0	612	687	0	709
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	30.5	22.1	16.1	27.5	0.0	18.5	28.4	0.0	25.9	28.0	0.0	29.0
Incr Delay (d2), s/veh	1.2	8.9	0.0	0.8	0.0	3.8	4.5	0.0	0.6	0.5	0.0	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	1.2	10.9	0.1	1.9	0.0	9.1	5.2	0.0	1.8	1.0	0.0	2.3
LnGrp Delay(d),s/veh	31.7	30.9	16.1	28.4	0.0	22.3	32.9	0.0	26.4	28.5	0.0	30.5
LnGrp LOS	C	C	B	C		C	C		C	C		C
Approach Vol, veh/h		581			601			351			177	
Approach Delay, s/veh		30.8			23.4			31.1			29.9	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		16.4	14.0	28.7		13.2	10.1	32.6
Change Period (Y+Rc), s		3.5	3.0	4.5		3.5	3.0	4.5
Max Green Setting (Gmax), s		25.0	11.0	26.5		28.0	10.0	27.5
Max Q Clear Time (g_c+I1), s		11.8	5.7	20.3		6.4	4.3	18.5
Green Ext Time (p_c), s		1.1	0.1	3.9		0.8	0.0	6.2

Intersection Summary			
HCM 2010 Ctrl Delay			28.2
HCM 2010 LOS			C

Phase Number	2	3	4	6	7	8
Movement	NBTL	WBL	EBT	SBTL	EBL	WBT
Lead/Lag		Lead	Lag		Lead	Lag
Lead-Lag Optimize		Yes	Yes		Yes	Yes
Recall Mode	None	None	Min	None	None	Min
Maximum Split (s)	28.5	14	31	31.5	13	32
Maximum Split (%)	27.1%	13.3%	29.5%	30.0%	12.4%	30.5%
Minimum Split (s)	27.5	14	30.5	31.5	13	27.5
Yellow Time (s)	3	3	4	3	3	4
All-Red Time (s)	0.5	0	0.5	0.5	0	0.5
Minimum Initial (s)	10	11	9	10	10	9
Vehicle Extension (s)	3	3	5	3	3	5
Minimum Gap (s)	1.5	1.5	3	1.5	1.5	3
Time Before Reduce (s)	1	1	2	1	1	2
Time To Reduce (s)	0.1	0.1	0.1	0.1	0.1	0.1
Walk Time (s)	8		7	8		7
Flash Dont Walk (s)	16		19	20		16
Dual Entry	Yes	Yes	Yes	Yes	No	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	0	60	74	28.5	60	73
End Time (s)	28.5	74	0	60	73	0
Yield/Force Off (s)	25	71	100.5	56.5	70	100.5
Yield/Force Off 170(s)	9	71	100.5	36.5	70	100.5
Local Start Time (s)	0	60	74	28.5	60	73
Local Yield (s)	25	71	100.5	56.5	70	100.5
Local Yield 170(s)	9	71	100.5	36.5	70	100.5

Intersection Summary	
Cycle Length	105
Control Type	Actuated-Uncoordinated
Natural Cycle	105

Splits and Phases: 1: 2nd Street W & E. Napa Street

Intersection	
Int Delay, s/veh	4.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	56	557	45	11	491	192	13	3	76	12	12	141
Conflicting Peds, #/hr	100	0	100	100	0	100	100	0	100	100	0	100
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	Free	-	-	None	-	-	None
Storage Length	-	-	-	-	-	0	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	56	557	45	11	491	192	13	3	76	12	12	150

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	591	0	0	702	0	0	1411	1405	780	1406	1427	691
Stage 1	-	-	-	-	-	-	792	792	-	613	613	-
Stage 2	-	-	-	-	-	-	619	613	-	793	814	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	985	-	-	895	-	0	116	139	395	117	135	445
Stage 1	-	-	-	-	-	0	382	401	-	480	483	-
Stage 2	-	-	-	-	-	0	476	483	-	382	391	-
Platoon blocked, %		-	-		-							
Mov Cap-1 Maneuver	891	-	-	817	-	-	46	101	326	66	98	364
Mov Cap-2 Maneuver	-	-	-	-	-	-	46	101	-	66	98	-
Stage 1	-	-	-	-	-	-	313	328	-	393	429	-
Stage 2	-	-	-	-	-	-	241	429	-	240	320	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.8	0.2	19.4	21.7
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	SBLn1
Capacity (veh/h)	326	891	-	-	817	-	364
HCM Lane V/C Ratio	0.233	0.063	-	-	0.013	-	0.412
HCM Control Delay (s)	19.4	9.3	0	-	9.5	0	21.7
HCM Lane LOS	C	A	A	-	A	A	C
HCM 95th %tile Q(veh)	0.9	0.2	-	-	0	-	2

Intersection	
Intersection Delay, s/veh	46.3
Intersection LOS	E

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	5	267	292	0	93	293	15	0	376	5	278
Peak Hour Factor	0.90	0.82	0.82	0.82	0.90	0.82	0.82	0.82	0.90	0.82	0.82	0.82
Heavy Vehicles, %	2	0	0	4	2	0	0	0	2	4	0	0
Mvmt Flow	0	6	326	356	0	113	357	18	0	459	6	339
Number of Lanes	0	0	1	1	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	2	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	2	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	1	1
HCM Control Delay	26	68.8	50.4
HCM LOS	D	F	F

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	100%	0%	2%	0%	23%	17%
Vol Thru, %	0%	2%	98%	0%	73%	0%
Vol Right, %	0%	98%	0%	100%	4%	83%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	376	283	272	292	401	6
LT Vol	376	0	5	0	93	1
Through Vol	0	5	267	0	293	0
RT Vol	0	278	0	292	15	5
Lane Flow Rate	459	345	332	356	489	7
Geometry Grp	7	7	7	7	6	6
Degree of Util (X)	1	0.663	0.716	0.698	1	0.019
Departure Headway (Hd)	8.17	6.916	7.766	7.058	7.534	9.463
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	445	525	468	516	484	379
Service Time	5.893	4.638	5.473	4.764	5.552	7.495
HCM Lane V/C Ratio	1.031	0.657	0.709	0.69	1.01	0.018
HCM Control Delay	71.6	22.2	27.7	24.5	68.8	12.7
HCM Lane LOS	F	C	D	C	F	B
HCM 95th-tile Q	12.8	4.8	5.6	5.4	13.4	0.1

Intersection				
Intersection Delay, s/veh				
Intersection LOS				

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	1	0	5
Peak Hour Factor	0.90	0.82	0.82	0.82
Heavy Vehicles, %	2	0	0	0
Mvmt Flow	0	1	0	6
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	12.7
HCM LOS	B

Lane

SUBAPPENDIX K.2: Collisions

Intersection Collision Rate Calculaions

City of Sonoma

Intersection # 1: W. Napa Street (SR 12) & 2nd Street West

Date of Count: Wednesday, April 01, 2015

Number of Collisions: 9
Number of Injuries: 2
Number of Fatalities: 0
ADT: 16,500
Start Date: January 1, 2009
End Date: December 31, 2013
Number of Years: 5

Intersection Type: Four-Legged
Control Type: Signals
Area: Urban

$$\text{collision rate} = \frac{\text{Number of Collisions} \times 1 \text{ Million}}{\text{ADT} \times 365 \text{ Days per Year} \times \text{Number of Years}}$$

$$\text{collision rate} = \frac{9 \times 1{,}000{,}000}{16{,}500 \times 365 \times 5}$$

	Collision Rate	Fatality Rate	Injury Rate
Study Intersection	**0.30 c/mve**	**0.0%**	**22.2%**
Statewide Average*	**0.27 c/mve**	**0.4%**	**41.9%**

ADT = average daily total vehicles entering intersection
c/mve = collisions per million vehicles entering intersection
* 2010 Collision Data on California State Highways, Caltrans

Intersection # 2: W. Napa Street (SR 12) & 1st Street West

Date of Count: Wednesday, April 01, 2015

Number of Collisions: 6
Number of Injuries: 1
Number of Fatalities: 0
ADT: 12,400
Start Date: January 1, 2009
End Date: December 31, 2013
Number of Years: 5

Intersection Type: Four-Legged
Control Type: Stop & Yield Controls
Area: Urban

$$\text{collision rate} = \frac{\text{Number of Collisions} \times 1 \text{ Million}}{\text{ADT} \times 365 \text{ Days per Year} \times \text{Number of Years}}$$

$$\text{collision rate} = \frac{6 \times 1{,}000{,}000}{12{,}400 \times 365 \times 5}$$

	Collision Rate	Fatality Rate	Injury Rate
Study Intersection	**0.27 c/mve**	**0.0%**	**16.7%**
Statewide Average*	**0.15 c/mve**	**1.0%**	**41.9%**

ADT = average daily total vehicles entering intersection
c/mve = collisions per million vehicles entering intersection
* 2010 Collision Data on California State Highways, Caltrans

Intersection Collision Rate Calculaions

City of Sonoma

Intersection # 3: W. Napa St. (SR 12) & Broadway

Date of Count: Wednesday, April 01, 2015

Number of Collisions: 17
Number of Injuries: 6
Number of Fatalities: 0
ADT: 12,700
Start Date: January 1, 2009
End Date: December 31, 2013
Number of Years: 5

Intersection Type: Multi-Legged
Control Type: 4 Way Stop
Area: Urban

$$\text{collision rate} = \frac{\text{Number of Collisions x 1 Million}}{\text{ADT x 365 Days per Year x Number of Years}}$$

$$\text{collision rate} = \frac{17 \quad \text{x} \quad 1{,}000{,}000}{12{,}700 \quad \text{x} \quad 365 \quad \text{x} \quad 5}$$

	Collision Rate		Fatality Rate	Injury Rate
Study Intersection	**0.73**	**c/mve**	**0.0%**	**35.3%**
Statewide Average*	**0.21**	**c/mve**	**0.4%**	**35.6%**

ADT = average daily total vehicles entering intersection
c/mve = collisions per million vehicles entering intersection
* 2010 Collision Data on California State Highways, Caltrans

SUBAPPENDIX K.3:
Turn Lane Warrants

Turn Lane Warrant Analysis - Tee Intersections

Study Intersection: West Napa Street/Sonoma Hotel Driveway
Study Scenario: Future plus Project - Weekday PM Peak Hour

Direction of Analysis Street: East/West
Cross Street Intersects: From the South

West Napa Street				West Napa Street	
Eastbound Volumes (veh/hr)				Westbound Volumes (veh/hr)	
Through Volume =	708			666	= Through Volume
Right Turn Volume =	3			6	= Left Turn Volume
Eastbound Speed Limit:	25 mph			Westbound Speed Limit:	25 mph
Eastbound Configuration:	2 Lanes - Undivided	Sonoma Hotel		Westbound Configuration:	2 Lanes - Undivided

Eastbound Right Turn Lane Warrants

1. Check for right turn volume criteria

Thresholds not met, continue to next step

2. Check advance volume threshold criteria for turn lane

Advancing Volume Threshold	AV =	1027.6
Advancing Volume	Va =	711
If AV<Va then warrant is met		No

Right Turn Lane Warranted: **NO**

Eastbound Right Turn Taper Warrants
(evaluate if right turn lane is unwarranted)

1. Check taper volume criteria

NOT WARRANTED - Less than 20 vehicles

2. Check advance volume threshold criteria for taper

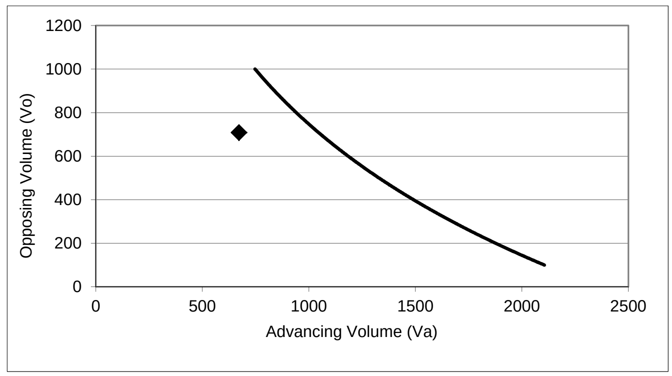
Advancing Volume Threshold	AV =	-
Advancing Volume	Va =	711
If AV<Va then warrant is met		-

Right Turn Taper Warranted: **NO**

Westbound Left Turn Lane Warrants

Percentage Left Turns %lt	0.9	%
Advancing Volume Threshold AV	1046	veh/hr

If AV<Va then warrant is met



◆ Study Intersection
Two lane roadway warrant threshold for: 25 mph
Turn lane warranted if point falls to right of warrant threshold line

Left Turn Lane Warranted: **NO**

Methodology based on Washington State Transportation Center Research Report *Method For Prioritizing Intersection Improvements* , January 1997.
The right turn lane and taper analysis is based on work conducted by Cottrell in 1981.
The left turn lane analysis is based on work conducted by M.D. Harmelink in 1967, and modified by Kikuchi and Chakroborty in 1991.

Turn Lane Warrant Analysis - Tee Intersections

Study Intersection: West Napa Street/Sonoma Hotel Driveway
Study Scenario: Future plus Project - Weekend Midday Peak Hour

Direction of Analysis Street: East/West

Cross Street Intersects: From the South

West Napa Street
Eastbound Volumes (veh/hr)
Through Volume = 657
Right Turn Volume = 3

West Napa Street
Westbound Volumes (veh/hr)
639 = Through Volume
6 = Left Turn Volume

Eastbound Speed Limit: 25 mph
Eastbound Configuration: 2 Lanes - Undivided

Sonoma Hotel

Westbound Speed Limit: 25 mph
Westbound Configuration: 2 Lanes - Undivided

Eastbound Right Turn Lane Warrants

1. Check for right turn volume criteria

Thresholds not met, continue to next step

2. Check advance volume threshold criteria for turn lane

Advancing Volume Threshold	AV =	1027.6
Advancing Volume	Va =	660
If AV<Va then warrant is met		No

Right Turn Lane Warranted: **NO**

Eastbound Right Turn Taper Warrants
(evaluate if right turn lane is unwarranted)

1. Check taper volume criteria

NOT WARRANTED - Less than 20 vehicles

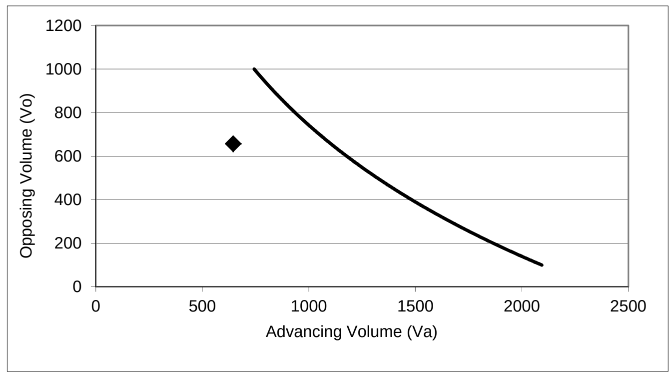
2. Check advance volume threshold criteria for taper

Advancing Volume Threshold	AV =	-
Advancing Volume	Va =	660
If AV<Va then warrant is met		-

Right Turn Taper Warranted: **NO**

Westbound Left Turn Lane Warrants

Percentage Left Turns %lt 0.9 %
Advancing Volume Threshold AV 1103 veh/hr
If AV<Va then warrant is met



◆ Study Intersection
Two lane roadway warrant threshold for: 25 mph
Turn lane warranted if point falls to right of warrant threshold line

Left Turn Lane Warranted: **NO**

Methodology based on Washington State Transportation Center Research Report *Method For Prioritizing Intersection Improvements*, January 1997.
The right turn lane and taper analysis is based on work conducted by Cottrell in 1981.
The left turn lane analysis is based on work conducted by M.D. Harmelink in 1967, and modified by Kikuchi and Chakroborty in 1991.

APPENDIX L:
Water Analysis

HOTEL SONOMA
SONOMA, CALIFORNIA

WATER ANALYSIS

September 3, 2015

Prepared For:

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Prepared By:

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CSW | ST2

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File No. 5.1442.00

REGISTERED PROFESSIONAL ENGINEER
JULIA A. HARBERSON
No. 76626
CIVIL
STATE OF CALIFORNIA

Table of Contents

A. INTRODUCTION

The purpose of this report is to address the impacts of the Hotel Sonoma development on the existing water system as a part of the Environmental Impact Report (EIR). The project site is located in the City of Sonoma, consists of 1.24 acres, and is bordered by West Napa Street to the north and 1st Street to the east. The existing site consists of a retail shop, a metal building, which was previously used for newspaper production by the Sonoma Index-Tribune, and a shed along the southern edge of the project site. The project includes a three-story 105,000 square foot building. The project calls for a 62 room hotel, one restaurant with seating for 80 and six spa treatment rooms.

B. EXISTING CONDITION

The City of Sonoma's potable water supply is primarily water purchased from the Sonoma County Water Agency (SCWA) and the water is pumped from six groundwater wells owned and operated by the City. The SCWA water supply is delivered to the City through the SCWA aqueduct system and is supplied with water from the natural flow of the Russian River. The City is one of eight water contractors under contract with the SCWA for water supply, known as the Restructured Agreement for Water Supply. Under the Restructured Agreement, the SCWA is obligated to deliver water up to 6.3 million gallons per day (mgd) during any month and 3,000 acre-feet of water during a fiscal year. The term of the agreement is through 2037 and can be extended by amendment (2010 Urban Water Management Plan Section 5.3.1)

The City's water service area encompasses the city limits, portions of Sonoma County to the east of the city limits, as well as pocket areas that have outside service area agreements with the City along Thornsberry Road, Lovall Valley Road, East Napa Road, East MacArthur Street, and Denmark Street. The City's service area is approximately 2.5 square miles. The City's water distribution system contains three pressure zones that are each served by one or more storage tanks. The principal water mains in the distribution system range in size from 6 to 16 inches. Most of the distribution grid piping in the older sections of the City range in size from 1-1/2 to 4 inches, while the newer areas are served by pipes 6 to 8 inches in diameter.

The project site is located within pressure Zone 1 of the City of Sonoma's service area. The project site is surrounded by 8 inch water mains located within West Napa Street and 1st Street.

C. PROPOSED CONDITION

Per the City of Sonoma's 2020 General Plan, the project site is zoned C (Commercial) District with a Historic District Overlay. The C zoning district is applied to areas appropriate for a range of commercial land uses including retail, tourist, office, and mixed-use. The maximum residential density is 20 dwelling units per acre. The C zoning district is consistent with the Commercial land use designation of the General Plan (City of Sonoma

Development Code Article II-Community Design Chapter 19.10). The Historic District Overlay is intended to preserve structures that are historically and/ or culturally significant. The proposed hotel project is in conformance with the zoning designation.

The resultant densification of the site, due to development, will result in an increase in the water demand to the site. The proposed development was analyzed based on the square footages of the three (3) land uses (hotel, restaurant and landscape) and estimated demands, taken from the 2010 Water Supply Plan and Water Rate and Connection Charge Study for the City of Sonoma. The square footages are based on the Schematic Design Hotel Sonoma Plans, dated April 10, 2015. The analysis can be found in Attachment 1. Table 1 depicts the result of the project water demand calculations.

Table 1. Calculated Water Demand for Project Site

Use Type	Gross Demand, gal/day	Gross Demand, mgal/year
Restaurant	4,527	1.7
Hotel	17,544	6.4
Landscape	317	0.1
Total	22,388	8.2

Notes: 1. See Attachment 1 for calculations.
2. Calculations based on total square footage determined from the Schematic Design Hotel Sonoma Plans, dated April 10, 2015.
3. 62 room hotel and 80 seat restaurant.

To curb water demand, the proposed development includes a voluntary Water Conservation Program, which can be found in Attachment 2. The program includes use of low flow fixtures, drought resistant landscaping and operational practices. The above practices result in a 30% reduction in water demand. Table 2 below identifies the projected baseline water demand for the project and the net water demand after implementation of the Water Conservation Program.

Table 2. Project Net Water Demand

	Water Demand, mgal/year
Gross Water Demand	8.2
Projected Conservation Program Savings from Baseline (30 percent)	2.5
Net Project Water Demand:	5.7

Notes: 1. Reduction percentage taken from Hotel Project Sonoma, Water Conservation Program, dated July 20, 2015, see Attachment 2.
2. Additional reductions will occur through rainwater harvesting.

Using Calculated Water Demand value (Table 1) for Gross Demand of 8.2 million gallons per year and including a 30% reduction (2.5 million gallons per year), the resultant Net

Projected Water Demand is 5.7 million gallons per year or 17.49 acre feet per year of demand on the City of Sonoma's Water Supply System.

D. CAPACITY ANAYLSIS

The City of Sonoma's 2010 Urban Water Management Plan (UWMP) identified the projected water demand for the City. Table 3 below depicts the Projected Water Deliveries up to year 2035.

Table 3. Projected Water Deliveries (acre feet per year)

Water Use Sectors	2015		2020		2030		2035	
	# Acct.	Volume	# Acct.	Volume	# Acct.	Volume	# Acct.	Volume
Single family	3,530	1,407	3,572	1,469	3,658	1,592	3,666	1,604
Multi-family	272	346	275	361	282	391	283	394
Commercial/ Industrial	339	469	343	490	351	531	352	535
Landscape	76	173	77	180	79	196	79	197
Others	193	74	196	77	200	84	201	84
Total	4,410	2,469	4,463	2,577	4,571	2,793	4,580	2,514

Note:
1. Data presented in this table compiled from the 2010 UWMP tables 3.8, 3.9 and 3.10.
2. The land use and population assumptions for the water use projections are based on the City's 2020 General Plan (dated October 2006) and the current Housing Element as well as the City's Growth Management Ordinance.
3. Population growth projections are based upon Projections 2009, Association of Bay Area Government (ABAG).
4. Projections assume buildout is complete by the year 2031.

The 2010 UWMP established the City's combined projected water supplies are sufficient to meet projected demands, identified in Table 2 above, during normal and multiple dry year conditions. During a severe drought condition, under the single-dry year condition, the City will impose mandatory water conservation. During peak summer months, the City can increase groundwater pumping on a short-term basis to supplement the SCWA supply (2010 UWMP Section 5.6).

According to the City of Sonoma's 2010 UWMP, the City intends to seek and increase in the water supply entitlement limit, as provided for under the restructure agreement, by year 2035. The SCWA will prepare the permit application as well as the needed improvements to increase the capacity of the transmission and delivery system to implement this water supply increase. The City's request would increase its entitlement limit to 3,000 acre-feet per year by 2035 (an increase from its previous request of 2,626 acre-feet per year in 2035). This will provide more reliability to supply during periods of shortages, not due to droughts, but due to environmental factors (2010 UWMP Section 5.6).

Per conversations with City Officials, the projected water deliveries, identified in Table 3, account for the increase in demand on the Water Supply System resulting from the development of the project. There is sufficient water supply to support the development without needing to construct or expand water treatment facilities[1].

1. Conference Call with Dan Takasugi, City of Sonoma Public Works Director/City Engineer, on August 10, 2015.

E. IMPACT DISCUSSION

This section analyzes potential project-specific and cumulative impacts to water supply and water service.

E1. The project would not require or result in the construction of new water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

The increase in water demand, as a result of development, occurs in conformance with the City of Sonoma's 2020 General Plan and 2010 Urban Water Management Plan projected demands for the City. As such, the existing water treatment facilities have sufficient capacity for the demand resulting from the development of the project.

Significance Before Mitigation: Less than significant. Development of the project would not adversely affect the significance of any relevant water treatment facilities and impacts would be less than significant.

E2. The project would have sufficient water supplies available to serve the project from existing entitlements and resources, or new or expanded entitlements needed.

The increase in water demand, as a result of development, occurs in conformance with the City of Sonoma's 2020 General Plan and 2010 Urban Water Management Plan projected demands for the City. As such, the existing water supply system has sufficient capacity for the demand resulting from the development of the project.

Significance Before Mitigation: Less than significant. Development of the project would not adversely affect the significance of any relevant water supply and impacts would be less than significant.

F. CUMULATIVE IMPACTS

Implementation of the project, in combination with past, present, and reasonably foreseeable projects, would not result in a significant cumulative impacts with respect to water supply or services.

The redevelopment of the project site will result in an increase in demand on the City's Water Supply system. The increase in demand has been accounted for in the estimated/projected growth within the City. Impacts as a result of the development of the project would be less than significant.

Applicable Regulations and Conditions of Approval:

1. The applicant shall pay all water connection and service fess (see Attachment 3).
2. Domestic Water, Fire Water and Irrigation services shall be sized in accordance with the City of Sonoma's standards.
3. The applicant shall prepare Fire Flow Calculations indicating the existing Water Supply System has sufficient supply and pressure to serve the development. The calculations shall be prepared by a Registered Engineer.
4. The applicant shall implement the Water Conservation Program to reduce on-site water consumption by 30%. Revisions to the Water Conservation Program shall be submitted to City Staff for approval.

ATTACHMENTS

Attachment 1 – Development Water Demand Calculations

WATER DEMAND CALCULATIONS

HOTEL SONOMA

Job No.: 5.1442.00

Prepared By: JAH

Prepared On: 8/20/2015

CSW ST2

45 Leveroni Court

Novato, CA 94949

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Building Areas By Type (square feet)		
Floor	Hotel	Restaurant
1st Floor	23,805	7,168
2nd Floor	22,168	0
3rd Floor	21,505	0
Total	67,478	7,168

Landscape Area (square feet)	
Total Site Area	54,000
Building/ Pavement	50,557
Landscape Area	3,443

Note: Areas determined from Schematic Design Drawings, Hotel Sonoma dated April 10, 2025.

Water Demand Based on Gross Demand Estimate					
	Area	Gross Demand Estimate			
Type	(sf)	(g/sf/d)	(g/d)	(g/y)	(mgal/y)
Restaurant	7,168	0.6315	4,527	1,652,206	1.7
Hotels	67,478	0.2600	17,544	6,403,662	6.4
Landscape	3,443	0.09198	317	115,591	0.1
Total	**78,089**		**22,388**	**8,171,459**	**8.2**

Note: Gross Demand Estimate determine from 2010 Water Suply Plan and Water Rate and Connection Charge Study for City of Sonoma, July 2010, Tables 19 and 21.

Water Demand Based on Range of Demand						
	Area	Range of Demand (g/sf/yr)			Demand	Demand
Type	(sf)	Low	High	Average	(g/y)	(mgal/y)
Restaurant	7,168	130	331	231	1,655,808	1.7
Hotels	67,478	n/a	n/a	95	6,410,410	6.4
Landscape	3,443	n/a	n/a	34	115,591	0.1
Total	**78,089**				**8,181,809**	**8.2**

Note: Gross Demand Estimate determine from 2010 Water Suply Plan and Water Rate and Connection Charge Study for City of Sonoma, July 2010, Tables 19 and 21.

Net Water Demand	
	Water Demand (mgal/y)
Gross Water Demand	8.2
Projected Savings (30%)	2.5
Net Project Water Demand	5.7

Note: Water Reduction taken from 2010 Water Suply Plan and Water Rate and Connection Charge Study for City of Sonoma, July 2010, Tables 19. Project reduction activities are consistant with the 2010 Water Suply Plan and Water Rate and Connection Charge Study.

2010 Water Supply Plan
and
Water Rate and
Connection Charge Study

for

City of Sonoma

July 2010

John Olaf Nelson Water Resources Mgt., Petaluma, CA

Table 19 - Estimate of Demand for Commercial Square Footage

Basic Data:

Type	Gross Demand Estimate, g/sf/d	Source for Gross Demand Estimate	Range of Demand, g/sf/yr, CII EU Study (3) Low	High	avg	Savings Potential Estimate, %	Source for Savings Potential Estimate
Office Buildings (Inside)	0.0411	1	9	15	12	20%	3
Restaurants	0.6315	1	130	331	231	30%	3
Hotels	0.2600	3			95	30%	3
Retail Space	0.1100	3			40	11%	4
Wt'd Avg Savings based on sf distribution						18%	

Estimated Mix for Future Gross Demand:

	Mix	sf	gpd	g/sf/d	% savings x sf
Offices	35%	152,600	6,271		30,520
Restaurants	10%	43,600	27,534		13,238
Hotels	10%	43,600	11,336		13,080
Retail Space	45%	196,200	21,582		21,582
Sum	100%	436,000	66,723	0.1530	78,420

Sources:

1 Commercial and Institutional End Uses of Water, AWWA Research Foundation., 2000, DeOreo, Dziegielewski, Kiefer, Opitz, Nelson, and Mayer

2 Forecasting Municipal and Industrial Water Use, IWR, US Army, 1983, Crews, Miller

3 Est. by JONWRM based on assumption that reasonable net savings is the difference between the "high" and "average" estimate presented in Source #1 cited above.

4 Est. by JONWRM:

Source: 2010 Water Supply Plan and Water Rate and Connection Charge Study for City of Sonoma, July 2010

Table 21 - Gross Irrigation Demand (1)

			From Table 20	From Table 13			Unit Demand		Applied Water Requirement (1)				
Land Use Category		Type	Area, sf	Net ET, in.	K	Irr. Eff., %	inches/yr	gpd/sf	gpd	g/yr/DU	MG/yr	afa	%
Residential (MF categories include Commercial Landscape													
SF	Typical (Sonoma)	Turf	115,650	33.32	0.80	50%	53.9	0.09198	11,701	16,619	4.27	13.1	
		Non-Turf	385,500	33.32	0.50	68%	24.7	0.04216	17,877	25,389	6.53	20.0	
		Tot.	501,150						29,578	42,008	10.80	33.1	
SF	Low Density (Hillside, Rural & Low Density)	Turf	185,200	33.32	0.80	50%	53.9	0.09198	18,738	53,019	6.84	21.0	
		Non-Turf	322,900	33.32	0.50	68%	24.7	0.04216	14,974	42,368	5.47	16.8	
		Tot.	508,100						33,712	95,387	12.30	37.8	
	Total SF		1,009,250						63,290	59,847	23.10	70.9	54%
MF	(All categories except Mixed Use)	Turf	124,760	33.32	0.80	50%	53.9	0.09198	12,623	4,891	4.61	14.1	
		Non-Turf	417,500	33.32	0.50	68%	24.7	0.04216	19,361	7,502	7.07	21.7	
		Tot.	542,260						31,984	12,393	11.67	35.8	
MF	Mixed Use	Turf	60,800	33.32	0.80	50%	53.9	0.09198	6,152	35,084	2.25	6.9	
		Non-Turf	182,400	33.32	0.50	68%	24.7	0.04216	8,459	48,240	3.09	9.5	
		Tot.	243,200						14,610	83,324	5.33	16.4	
	Total MF (Includes irrigation only metered use)		785,460						46,594	16,905	17.01	52.2	40%
Park Area		Turf	30,000	33.32	0.80	68%	39.5	0.06745	2,226		0.81	2.5	
		Non-Turf	120,000	33.32	0.50	68%	24.7	0.04216	5,565		2.03	6.2	
		Tot.	150,000						7,791		2.84	8.7	
Sub-Total Residential and Commercial Landscape									109,885		40.11	123.1	
Sub-Total Park Landscape									7,791		2.84	8.7	6%
Total Irrigation Demand (Applied Water Requirement)									117,675		42.95	131.8	100%
Total Irrigated Landscape Area			1,944,710 sf or	44.6 acres									

Test to see if estimated Irrigation demand is less than the Maximum Applied Water Allowance (MAWA) per State's (DWR) Model Water Efficient Landscape Ordinance (2)

	ETo (3)	Conversion Factor (4)	ET Adjustment Factor (5)	LA, sf (6)	SLA Factor (7)	SLA, sf (8)	MAWA, g/yr (9)	MAWA, MG/yr	Estimated Demand, MG/yr	Difference MG/yr	% +/--	Meets Test? (8)
Compliance w/o Smart Controllers	46.1	0.620	0.70	1,944,710	0.30	150,000	40,194,781	40.19	42.95	2.76	7%	No
Compliance with Smart Controllers	46.1	0.620	0.70	1,944,710	0.30	150,000	40,194,781	40.19	38.57	-1.62	-4%	Yes

Notes:

1 Estimates in this table are prepared assuming use of Xeriscape in non-turf area, use of in-ground irrigation system run by time clock but without use of Smart Controllers or application of ET restrictions.
The Applied Water Requirement includes a 10% factor to accommodate potential errors in underestimating turf, non-turf and total irrigated landscape areas.
2 California Code of Regulations, Title 23. Waters, Division 2. Department of Water Resources, Chapter 2.7. Model Water Efficient Landscape Ordinance
3 From table published in California's Model Ordinances, this is ETo allowed for Sonoma Valley area.
4 Conversion factor for formula to yield g/yr.
5 ETo adjustment factor. Normally this would be set at 1.0 but it is set lower to induce efficiency. It is noted the City of Sonoma's current Landscape Ord. requires application of a 0.75 adjustment factor and yields a MAWA of 43.0 mgd when applied with an ETo value of 46.1 inches.
6 Landscape area = total Irrigated landscape area (includes SLA areas).
7 Factor providing added water for SLA areas.
8 SLA means special landscape areas considered to be of higher priority and therefore awarded extra water. They are defined as areas of the landscape dedicated solely to edible plants, areas irrigated with recycled water, water features using recycled water and areas dedicated to active play such as parks, sports fields, golf courses, and where turf provides a playing surface.
9 Maximum applied water allowance or MAWA = ETo x 0.62 x {(ET Adjustment Factor x LA) + 0.3 x SLA)}.
Note: Estimated demand exceeds MAWA, hence application of water efficiency measures or reduction of landscape area is appropriate.

Source: 2010 Water Supply Plan and Water Rate and Connection Charge Study for City of Sonoma, July 2010

Attachment 2 – Hotel Project Sonoma, Water Conservation Program

July 20, 2015

TO: Bill Hooper
Kenwood Investments

Hotel Project Sonoma
Water Conservation Program

The Hotel Project Sonoma (Project) is planned to provide lodging, restaurant, and spa services. The current plans call for 62 hotel rooms, one restaurant with seating for 80, and six spa treatment rooms. The three-story building will include a built space of approximately 105,000 square feet (including underground parking) on the 1.24-acre lot.

Water efficiency and sustainability are key principals in developing the project. The project intends to seek voluntary LEED certification to reduce energy and water usage and provide long-term sustainable operation practices. The Project will meet or exceed the water efficiency requirements per the City conservation program, landscape irrigation ordinance, LEED, City water efficient building codes, and CalGreen Bulding codes.

Summary
The City developed demand projections and unit water use factors for its 2010 Urban Water Management Plan (UWMP). Using these UWMP water use factors, the Project's base gross demand prior to the implementation of the project's proposed water conservation strategies is 7.8 million gallons per year. The Project will implement extensive water conservation measures covering plumbing fixtures, landscape and irrigation systems, rainwater harvesting, restaurant and HVAC equipment, operational, laundry and maintenance practices, employee training, and guest outreach. Many of these elements were evaluated in the City's 2010 Water Supply Study and Water Rate and Connection Charge Study with an estimated total water demand reduction of 30 percent for the commercial and hotel customer category. The Project's current estimated net water demand, after factoring water savings, is 5.5 million gallons per year. This will be achieved through savings such as:

- 32 percent reduction from low flow faucets
- 20 percent reduction from high efficiency toilets
- 50 percent reduction from high efficiency urinals
- 20 percent reduction from low flow showerheads
- 33 percent reduction from high efficiency laundry equipment
- at least 34 percent irrigation water reduction through rainfall harvesting.

The Project's extensive conservation program saves a projected 2.3 million gallons per year over the current water demand allotment. The Project's efforts to maximize water efficiency and sustainability will provide water demands at least 30 percent less than similar existing developments.

Proposed Conservation Program

The Project proposes to incorporate indoor plumbing requirements, outdoor irrigation practices, operations and maintenance activities, daily management practices, rainwater harvesting, and other programs to minimize water footprint. The following lists the proposed program elements and actions.

Indoor Room and Bathroom Plumbing Measures

All plumbing fixtures will meet or exceed the flow requirements for fixtures per LEED, City, and CalGreen building code requirements. Table 1 lists the standard fixtures and maximum allowable flow rates.

Table 1. Plumbing Fixture Maximum Flow Rates

Fixture	Project Maximum Flow Rate
Faucet	1.5 gpm
Shower head	2.0 gpm
Toilet	1.28 gal/flush
Urinal	0.5 gal/flush
Kitchen faucet	1.8 gpm

Restaurant Measures

All pre-rinse spray valves will be installed with automatic shutoff devices and selected based on a maximum flow rate of 1.6 gallon per minute. The selection and purchase of dish washing and other water using kitchen appliances (ice makers, steamers, warmers, etc.) will factor water usage and energy efficiency in the decision process. Dishwashers will be specified for a maximum water usage of 1.2 gallons per rack, and steamers with a maximum water usage of two gallons per hour. Icemakers will be specified to use no more than 30 gallons of water per pound of ice. All equipment selected will have at least the Energy Star Label where applicable.

Laundry

The Project will maintain its own laundry facility for linens and towels to ensure quality control. The project will work with washing machine equipment providers to identify the recommended process, equipment, and detergent/chemical usage that provides the best balance of water and energy efficiency. The recommended process should not use more than 2.0 gallons per pound of laundry, based on the Alliance for Water Efficiency recommendations.

Landscape

The Project will minimize landscape installations to reduce water usage and long-term maintenance impacts. Most landscape plantings will be in raised beds or containers, and consist of mainly California natives and drought tolerant plantings, with no grass turf included in any planting area. All water features such as fountains, pools, and spas will use re-circulating water systems.

Landscape irrigation design will follow or exceed the City's Water-Efficient Landscaping Ordinance. A planting and irrigation design plan including maximum applied water allowance (MAWA) analysis will be developed per the City's ordinance and submitted for review by the City. The irrigation system will be highly efficient and use weather-based controllers with rain sensor shutoff.

Rain Harvesting

The Project will install a rain harvesting system to collect and store rain runoff from the site, in line with the City's 2010 Water Supply Plan. As discussed in the Water Supply Plan, the benefits of rain harvesting supply irrigation water during the year's shoulder months and "slow the flow" during the winter to increase groundwater recharge. The water will be stored on site in a underground retention and storage system below the auto court. Water will be used for irrigation and potentially, groundwater infiltration. Based on the analysis conducted in the May 2015 Basis of Design Report (RossDrulisCusenbery), the stormwater system will store approximately 47,200 gallons. Approximately 13,000 gallons of capacity will be used for reducing peak stormwater runoff, but could eventually be discharged. Rainwater harvesting will therefore result in a range of approximately 34,000-47,000 gallons for irrigation use.

Operational Practices

The Project will incorporate many operational and maintenance practices to increase water efficiency and avoid unnecessary uses of water. Many specific practices will be identified and implemented from operations experience once the Project is fully operating. The Project has identified the following practices that will be part of the normal operational plans:

- Multi-day guests will be given the option to decline daily linen service.
- Non-linen laundry will be sent out to commercial laundry service with high-efficiency equipment.
- Water brooms will be used where pavement cleaning is required for health and sanitation purposes.
- Water use efficiency awareness and training will be part of standard employee training procedures.
- Daily check of irrigation system for leaks, blockages, or broken emitters.
- Water feature, pool, and spa leak inspection incorporated into routine maintenance procedures.
- Annual water use evaluation with results compared to industry standards for benchmarking and identification of improvement opportunities.
- Restaurant customers will be served water upon request.
- Informational material provided in guest rooms and other spaces to identify the project's water efficiency efforts and educate guests of resources to investigate water use efficiency measures at home.
- Coordination with City and regional water conservation programs to identify opportunities to further promote water efficiency awareness and opportunities.

Water Shortage conditions

The City of Sonoma 2010 Urban Water Management Plan identifies the potential for a 20 percent reduction in water supplies, with a corresponding 20 percent demand reduction required for customers. The Project water demand projections are developed below and compared to the water demand projected in the UWMP for the project parcel. As the projections indicate, the water demand projections for average normal use are already 30 percent below the UWMP projections. With the implemented fixtures, equipment, and operational procedures, there is little room for additional water savings. In addition, landscape will be partially irrigated with captured rainwater, further minimizing the total demand for City water. However, the Project will consider additional measures to support the City's drought plans, such as, draining water features, postponing spa and pool refilling service, or other measures depending on severity of drought.

The Project will provide additional information to its guests regarding current water shortage conditions in order to promote water efficiency awareness and ask guests to reduce their water used. The Project management will also work with the local and regional water conservation programs to identify and promote water use efficiency during supply shortages. Over time, the industry may develop additional water saving programs that are not yet included in the project. The Project management will evaluate these new programs and implement additional measures as appropriate to further reduce water use.

Water Demand Projections

The City of Sonoma 2010 Water Supply Study and Water Rate and Connection Charge Study projected water demands that were in turn used in the 2010 UWMP. The base water demand for commercial-type uses was provided for retail, restaurant, and hotel. The study then analyzed demand reduction potential based on an array of potential conservation and demand management programs. The City adopted one of the commercial programs, 0.5 gallon per flush urinal requirements for commercial installations, as listed in the UWMP. However, the Project will implement all of the recommended program, plus the strict requirements per LEED and CalGreen.

Total water demand projections are summarized in Table 2. The Project is separated into the two main uses; restaurant, and hotel. There is one restaurant. Hotel includes all rooms, maintenance area, spa, pool, and decking. The parking area is assumed to exert no water demand and is excluded from the calculation. Landscape irrigation is calculated in the May 2015 Basis of Design Report based on actual number of tree and plant containers. Therefore the standard gross demands are not calculated using the City of Sonoma standard unit rates. The irrigation demands will be re-calculated for final City submittal per the Maximum Applied Water Allowance (MAWA) methodology listed in the City's Building Ordinance Title 14.

Table 2 - Project Gross Water Demand

Customer Category	Gal/ft2/ year	Project Area, ft2	Gross Water Demand, mgal/year
Restaurant	231	7,168	1.6
Hotel	95	64,204	6.1
Total Indoor:	--	--	
Landscape	--	--	0.1
Total Gross Water Demand	--	--	7.8

Indoor unit demand rates based on City of Sonoma 2010 Water Supply Study and Water Rate and Connection Charge Study.
Indoor Unit rates do not include irrigation demands.
Landscape based on May 2015 Basis of Design Report per number of emitters.

The gross water demand is reduced due to implementation of the conservation measures and practices discussed above. The 2010 Water Supply Study and Water Rate and Connection Charge Study estimated savings of up to 30 percent from the list of conservation measures provided in the Study. Table 3 lists the quantifiable reduction in water demand for each measure. There are additional water savings for programs that are not quantifiable. Specific operation practices, restaurant and HVAC equipment selections, public information, and other measures will also contribute to the demand reduction.

Table 3 – Project Conservation Program
Quantifiable Water Demand Reduction

Measure	Base Demand		Project Conservation Program		Project Savings	
	Unit flow rate	Demand, gal/yr	Unit flow rate	Demand, gal/yr	Gallons per year	Percent
Faucet[a]	2.2 gpm	494,623	1.5 gpm	337,243	157,380	32
Toilet[a]	1.6 gpf	419,288	1.28 gpf	335,430	83,585	20
Urinal[a]	1.0 gpf	74,453	0.5 gpf	37,226	37,226	50
Showerhead[a]	2.5 gpm	452,600	2.0 gpm	362,080	90,520	20
Laundry[b]	3.0 gal/lb	1,221,648	2.0 gal/lb	814,432	407,216	33
Total:	--	2.7 mgal	--	1.9 mgal	0.8 mgal	30

[a]Unit demand from LEED Baseline values.
[b]Unit demand from Alliance for Water Efficiency.

The 2010 Water Supply Study included programs, both quantifiable and non quantifiable, in its estimate of 30 percent total savings. Applying this estimate to the gross water demand from Table 2, the net Project water demand is projected at 5.5 mgal per year as summarized in Table 4. This demand is further reduced by at least 34,000 gallons (34 percent) through rainwater harvesting.

Table 4 - Project Net Water Demand

	Water Demand, mgal/year
Gross Water Demand	7.8
Projected Conservation Program Savings from Baseline (30 percent)	2.3
Net Project Water Demand:	5.5

Water demand reduction percent based on findings from City of Sonoma 2010 Water Supply Study and Water Rate and Connection Charge Study.

Attachment 3 – Water Connection and Service Fees

CITY OF SONOMA

RESOLUTION NO. 56 – 2014

RESOLUTION OF THE CITY COUNCIL OF THE CITY OF SONOMA, ADOPTING A PROGRAM OF WATER RATE AND FEE INCREASES FOR FISCAL YEAR 2014-15 THROUGH 2018-19 AND SETTING WATER RATES AND CONNECTION FEES TO BE EFFECTIVE JANUARY 1, 2015 AND EACH JANUARY 1ST THEREAFTER TO JANUARY 1, 2019

WHEREAS, the City Council has determined that certain changes in water rates and connection fees charged to customers of the City of Sonoma Water Utility are required to fund expenses incurred by the Water Utility, based on a report entitled, "City of Sonoma 2014 Water Rate Study;" and

WHEREAS, pursuant to Proposition 218, a notice of the public hearing to be held on November 17, 2014 was mailed on October 3, 2014 to all affected utility account holders and property owners; and

WHEREAS, on November 17, 2014 the City Council conducted a public hearing and gave every interested person an opportunity to make a written protest to the scheduled connection fee and rate changes as recommended in the City of Sonoma 2014 Water Rate Study, and the City Council has considered each protest; and

WHEREAS, the City Council finds that a majority written protest against the connection fee and rate changes as recommended and listed in the City of Sonoma 2014 Water Rate Study does not exist; and

WHEREAS, the City Council finds, based upon all evidence in the record, including without limitation the City of Sonoma 2014 Water Rate Study, that the proposed water rates and charges do not exceed the estimated amount required to provide water service to properties served by the Water Utility.

NOW, THEREFORE, BE IT RESOLVED, by the City Council of the City of Sonoma as follows:

Section 1. City of Sonoma 2014 Water Rate Study

The City of Sonoma 2014 Water Rate Study, including the recommended rate schedule and fees for Fiscal Years 2014-15 through 2018-19 prepared by Spillman and Associates and dated November 17, 2014, a copy of which is on file in the Office of the City Clerk, is hereby adopted.

Section 2. Water Rates and Charges

Pursuant to the authority granted in Section 13.04.120 and Sections 13.24.150 through 13.24.190 of the Municipal Code, the rates and charges set forth below are hereby adopted effective for meter usage reads for utility bills or development permit approvals issued after the specified date:

(A) SERVICE CHARGE – Monthly billing period

	1/1/2015	1/1/2016	1/1/2017	1/1/2018	1/1/2019	Annually Beginning 1/1/2020
Meter Size						
5/8" or 3/4"	$ 17.10	$ 17.33	$ 19.79	$ 20.28	$ 20.75	All Rates tied to CPI Adjustments
5/8", 3/4" or 1"	$ 17.10	$ 17.33	$ 19.79	$ 20.28	$ 20.75	
1 1/2"	$ 26.09	$ 26.43	$ 30.18	$ 30.94	$ 31.66	
2"	$ 32.60	$ 33.03	$ 37.72	$ 38.67	$ 39.57	
3"	$ 48.90	$ 49.55	$ 56.58	$ 58.01	$ 59.35	
4"	$ 81.50	$ 82.58	$ 94.30	$ 96.68	$ 98.92	
5"	$ 60.05	$ 60.83	$ 69.47	$ 71.22	$ 72.87	
6"	$ 130.52	$ 132.24	$ 151.02	$ 154.82	$ 158.41	
Fire Line Meter Size						
2"	$ 5.87	$ 5.95	$ 6.80	$ 6.97	$ 7.13	
4"	$ 11.74	$ 11.89	$ 13.58	$ 13.92	$ 14.24	
6"	$ 23.48	$ 23.78	$ 27.16	$ 27.85	$ 28.49	
8"	$ 35.22	$ 35.68	$ 40.75	$ 41.77	$ 42.74	
10"	$ 46.95	$ 47.57	$ 54.32	$ 55.69	$ 56.98	

(B) WATER USE RATES – Monthly billing period

1. Base Water Use Rate:

	1/1/2015	1/1/2016	1/1/2017	1/1/2018	1/1/2019	Annually Beginning 1/1/2020
Base charge For all Users - Adjusted by Use Factor	$ 5.23	$ 5.43	$ 5.74	$ 6.07	$ 6.33	All Rates tied to CPI Adjustments
Use Factors						
Residential	1.00	1.00	1.00	1.00	1.00	1.00
Multi-Family	0.85	0.80	0.80	0.80	0.80	0.80
Commercial	1.05	1.10	1.15	1.15	1.15	1.15
Municipal	1.00	1.00	1.00	1.00	1.00	1.00
Irrigation, Fire & Hydrant	1.32	1.32	1.32	1.32	1.32	1.32

2. Single Family Residential Detached Dwellings and Second Units (Water Use Rate per Unit of Use per Monthly Billing Period - 1 Unit = 1,000 gallons):

Single Family Residential Detached Dwellings & Second Units Conservation Tiers and Rates - Amount of Monthly Water Use

		1/1/2015	1/1/2016	1/1/2017	1/1/2018	1/1/2019	Annually Beginning 1/1/2020
1	1-6 Kg	$ 3.59	$ 3.73	$ 3.94	$ 4.17	$ 4.35	All Rates tied to CPI Adjustments
2	7 - 12 Kg	$ 6.30	$ 6.55	$ 6.91	$ 7.31	$ 7.63	
3	13 - 18 Kg	$ 7.07	$ 7.35	$ 7.76	$ 8.21	$ 8.56	
4	19+ Kg	$10.21	$10.62	$11.22	$11.86	$12.38	

3. Multi-family Residential Dwellings (apartment, condominium/townhouse, mobile home, duplex, triplex, fourplex, live/work) Water Use Rate per Unit of Use per Monthly Billing Period - 1 Unit = 1,000 gallons):

Multi-Family Conservation Tiers and Rates - Amount of Monthly Water Use

		1/1/2015	1/1/2016	1/1/2017	1/1/2018	1/1/2019	Annually Beginning 1/1/2020
1	1 - 26 Kg	$ 4.13	$ 4.04	$ 4.27	$ 4.52	$ 4.71	All Rates tied to CPI Adjustments
2	27 - 78 Kg	$ 4.71	$ 4.61	$ 4.87	$ 5.15	$ 5.37	
3	79+ Kg	$ 4.96	$ 4.85	$ 5.12	$ 5.42	$ 5.65	

4. Commercial – All Commercial, Institutional and Industrial

Commercial Conservation Tiers and Rates - Amount of Monthly Water Use

		1/1/2015	1/1/2016	1/1/2017	1/1/2018	1/1/2019	Annually Beginning 1/1/2020
1	1 - 25 Kg	$ 5.21	$ 5.68	$ 6.27	$ 6.63	$ 6.92	All Rates tied to CPI Adjustments
2	26 - 61 Kg	$ 5.49	$ 5.98	$ 6.60	$ 6.98	$ 7.28	
3	62+ Kg	$ 5.99	$ 6.53	$ 7.21	$ 7.63	$ 7.96	

5. Other Customer Groups - Municipal - governments, institutional and certain non-profits; Irrigation Service (separately metered); Fire Service (separately metered) & Hydrant (temporary meter permits) – Monthly billing period

	1/1/2015	1/1/2016	1/1/2017	1/1/2018	1/1/2019	Annually Beginning 1/1/2020
Municipal	$ 5.23	$ 5.43	$ 5.74	$ 6.07	$ 6.33	All Rates tied to CPI Adjustments
Irrigation	$ 6.90	$ 7.17	$ 7.57	$ 8.01	$ 8.36	
Fire & Hydrant	$ 6.90	$ 7.17	$ 7.57	$ 8.01	$ 8.36	

6. Other Charges:

   a. For all accounts outside of the City of Sonoma city limits 15% will be added to Service and Water Use rates listed above.
   b. Water Use rates may be adjusted annually in accordance with Government Code Section 53756 to provide for a pass through of any increase in the cost of wholesale water purchased from another agency (such as the Sonoma County Water agency) that is in excess of those projected in the adopted 2014 Water Rate Study.
   c. Beginning on January 1, 2020, the Service and Water Use rates may be adjusted annually to provide for the increase, if any, in the San Francisco-Oakland-San Jose Consumer Price Index over the latest available prior 12-month period following notice and a public hearing in accordance with applicable law.

(C) CONNECTION CHARGES

The connection charge for a new service connection shall be the sum of: the front foot charge, meter charge and capacity charge. The front foot charge does not apply in cases where a main extension is required. All applicants must also provide a service lateral (pipe from main to meter) as noted in the City's Water Rate and Fee Schedule.

1. Front Foot Charge

The front foot charge shall be $ 60 per linear foot of frontage on the existing main located in the street. If the lot is bounded by more than one street with mains then, the front footage shall be the sum of the front foot distances on each main divided by the number of streets with mains. If the lot is an irregular lot, such as a flag lot or inner lot the minimum front foot distance shall be 100 feet.

The minimum front footage upon which the front foot charge is based shall be 100 feet.

This rate shall be adjusted annually as specified in section 4.e below.

2. Meter and Lateral Installation Charges

The lateral is the pipeline extending from the main to the meter. The size and materials used shall be approved by the City. The lateral shall terminate in a meter box at a location approved by the City Water Department. The lateral shall be installed to meet City standards. The applicant shall hire or make arrangements for an underground contractor licensed by the State of California to install the lateral and meter box and other appurtenant and required equipment and devices (such as a backflow prevention device if deemed necessary by City).

The meter, however, shall be furnished and installed by the City. Applicant shall pay a meter charge for the meter and installation cost of materials, labor and equipment plus 20% administration charge as determined by the City at the time of installation.

3. Fire Service Only

In cases where required design fire flow for a given application for consumptive water service exceeds 1,000 gallons per minute (with 20 psi residual), the Capacity Charge shall be increased by $ 2,202 per 100 gallons per minute of such excess.

In the cases where the applicant is only being provided fire flow and is not requesting water for consumptive purposes, the Capacity Charge shall be $ 2,202 per 100 gallons per minute of design fire flow provided.

This rate shall be adjusted annually as specified in section 4.e below.

4. Capacity Charge

The capacity charge shall be calculated in terms of the demand of an equivalent single-family dwelling (ESD). An ESD is defined as the water demand for the average day of the maximum month for a typical single family detached home served by the City. The value of an ESD has been determined by the City to be 561 gallons per day. Capacity charges for residential customers and commercial, institutional and industrial customers are calculated as shown below. Note, if at any time a customer's use exceeds the estimate used in determining the capacity charge, the City may require that the customer pay an additional capacity charge at the rate then in effect for each ESD of such excess. For connections made prior to June 6, 1999, base use shall be determined by the City from examination of historic water use records.

a. The Base Capacity Charge per ESD is $ 9,796 effective January 1, 2015 and adjusted annually as specified in section e below.

b. Residential Accounts - For residential customers, the capacity charge is calculated by multiplying the Base Capacity Charge by the factor in the following table times the number of equivalent dwelling units (ESDs) in that category.

   If the area of a residential dwelling is larger than 4,000 square feet or if the area to be irrigated (excluding drip irrigation area) is greater than 2,500 square feet, the capacity charge shall be calculated as set forth in section d below

Type of Residential Dwelling

Use Category	Capacity Charge Unit of Measurement	ESD Factor applied per unit of measurement to ESD Base Capacity Rate
Single family detached dwellings	Dwelling Unit	1.00
Townhouses/condominiums, duplexes, triplexes, and fourplexes	Dwelling Unit	0.80
Mobile home	Dwelling Unit	0.51
Apartment houses (5 or more dwelling units)	Dwelling Unit	0.47
Second/accessory dwellings (dwelling on a parcel in undivided ownership	Dwelling Unit	0.47

c. Non-Residential and Separately Metered Irrigation accounts

   Commercial, institutional and industrial capacity charges shall be based on the following Equivalent Single Family Dwelling Unit ESD factors. The ESD rating for each application shall be computed by multiplying the applicable measurement units by the ESD factor(s). The capacity charge shall then be calculated by multiplying the total ESDs by the Base Capacity Charge per ESD.

   If a single service connection serves both a residential and a non-residential use, or more than one non-residential use, the connection fees for each use shall be additive.

   The minimum ESD for each separate non-residential water service connection shall be 1.0.

Other Uses

Use Category	Capacity Charge Unit of Measurement	ESD Factor applied per unit of measurement to ESD Base Capacity Rate
Commercial	Connections	1.00
Auto dealers	Service bays	0.20
Bars and taverns	Design occupancy	0.04
Business and Professional Offices	1,000 sq. ft.	1.00
Car washes (self service)	Stalls	1.00
Car washes (except self service)	Each 561 gpd of estimated water use during peak month	1.00
Churches, halls and lodges	Connections	1.00
Dental offices	1,000 sq. ft.	1.00
Dry Cleaners	1,000 sq. ft.	1.50
Garages	Service bays	0.50
Hospitals - Convalescent	Beds	0.30
Hospitals - General	Beds	0.30
Hotels/motels	Sleeping rooms	0.50
	Kitchen facilities	0.50
	Manager's living quarters	1.00
	Washing machines (laundry)	1.00
	Other facilities	TBD – Section d
Laundromats	Washing machines	1.00
Other laundries	Each 561 gpd of estimated water use during peak month	1.00
Medical offices	1,000 sq. ft.	1.00
Restaurants - Dine-in	Design seating occupancy	0.20
Restaurants - Take-out	1,000 sq. ft.	2.50
Rest homes	Beds	0.30
Service stations	Gas pumps	0.50
	Service bays	0.20
Storage (self service)	1,000 sq. ft.	0.20
Theaters	Seats	0.05
Warehouse	1,000 sq. ft.	0.20
Other business and commercial development	1,000 sq. ft.	1.00
All industrial uses	Each 561 gpd estimated water use during peak month or 1,000 sq. ft. whichever is greater.	1.00
All other uses not specified above	By determining use during average day of peak month and dividing by 561 gpd.	TBD – Section d

d. For ESD factors not specified above to be applied to the Base Capacity Charge, the ESD factor shall be determined by the City Manager or Designated Representative.

e. The Front Footage, Fire Service and Capacity Charges shall be adjusted annually effective each January 1st by the Engineering News Record (ENR) Construction Cost Index for the San Francisco Bay area annual percent change from July to July averaged over the three prior years.

(D) BACKFLOW PREVENTION DEVICE INSPECTION CHARGES

In cases where a backflow prevention device is determined by the City to be required, applicant shall hire a qualified contractor and be responsible for installing same. An inspection fee shall be charged at the current hourly rate for Public Works Inspection to each such device (typical inspection time of one hour).

A backflow prevention device is required where there is a well on the property to be served and for irrigation services and certain commercial uses. Applicant shall verify with the City Manager or Designated Representative.

(E) REPLACEMENT OF BROKEN METER BOXES

Charges to replace meter box (broken by contractor) including, if required, removal and replacement of surrounding concrete structures if present, shall be cost of materials, labor and equipment plus 20% administrative charges at the time of the breakage and repair.

(F) NEW RENTAL ACCOUNT DEPOSIT

A deposit of $150 will be charged to all new accounts, residential or non-residential, when the person responsible for paying the water bill (applicant) is not the property owner. Said $150 deposit shall be refunded if no final shutoff notices have been issued by the City for 24 months.

(G) CHANGED OR EXPANDED USE

Whenever new "development" as defined in California Government Code Section 65927 (residential or non-residential) occurs on a premise with an existing water service connection, additional connection fees shall be charged as applicable under this resolution.

Whenever an expansion or change in use (non-residential) occurs on a premise with an existing water service connection, which expansion or change in use substantially increases the amount of water used through said connection as determined by the City Manager or Designated Representative, additional connection fees shall be charged to account for said higher usage. Said additional connection fees shall be based on applicable ESD factors as provided in this resolution.

(H) PENALTIES

1. Late charge

Water bills are due 20 days from the date mailed.

A Water Service Delinquent Notice (2^{nd} Notice) Fee shall apply when a customer's bill is not paid within 39 days of mailing of the original bill. This fee shall be as specified in the City of Sonoma Fee Schedule.

If a customer's bill is not paid within 47 days of mailing, the water service may be turned off. A "Water Service Turn Off" fee shall apply.

2. Unauthorized use of City water

Unauthorized use of the City water at a meter will result in a penalty charge of $75; other unauthorized uses of City water will result in a penalty charge of $200. These penalty charges are in addition to the cost of water used and replacement of any damaged equipment.

Section 3 All Other Charges

All other rates, charges, fees, penalties, etc. not provided for herein which are presently charged in connection with operation of the City of Sonoma Water Utility shall remain unchanged.

PASSED, APPROVED AND ADOPTED by the City Council of the City of Sonoma at its regular meeting held on November 17, 2014 by the following vote:

Ayes: Barbose, Cook, Rouse, Brown, Gallian
Noes: None
Absent: None

Tom Rouse

Tom Rouse, Mayor

ATTEST:

Gay Johann

Gay Johann
Assistant City Manager / City Clerk

APPENDIX M:
Sewer Analysis

HOTEL SONOMA
SONOMA, CALIFORNIA

SANITARY SEWER ANALYSIS

August 28, 2015

Prepared For:

Placeworks
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Clovis, CA 93912
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REGISTERED PROFESSIONAL ENGINEER
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No. 76626
CIVIL
STATE OF CALIFORNIA

Prepared By:

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CSW | ST2

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File No. 5.1442.00

Table of Contents

A. INTRODUCTION

The purpose of this report is to address the impacts of the Hotel Sonoma development on the existing sanitary sewer system as a part of the Environmental Impact Report (EIR). The project site is located in the City of Sonoma, consists of 1.24 acres, and is bordered by West Napa Street to north and 1st Street to the east. The existing site consists of a retail shop, a metal building, which was previously used for newspaper production by the Sonoma Index-Tribune, and a shed along the southern edge of the project site. The project includes a three-story 105,000 square foot building. The project calls for a 62 room hotel, one restaurant with seating for 80 and six spa treatment rooms

B. METHODOLOGY

The sewer capacity was analyzed based on SCWA "Design and Construction Standards for Sanitation Facilities" and the Sonoma Valley County Sanitation District (SVCSD) information. The following scenarios were analyzed:

a) Peak wet weather flow for the collection system assuming existing development, including an allowance for infiltration and inflow without development included.
b) Peak wet weather flow for the collection system assuming existing development, including allowance for infiltration and inflow, with development.

Table 1: Peak Wet Weather Flow for Collection System

Peak Wet Weather Flow (Equivalent Single Family Dwelling Unit, ESD)	(a) Existing Condition (without Project)	(b) Existing Conditions (Project included)
	3,338	3,376

Below are descriptions of the methodology and assumptions used for the model runs:

1. Modeling software used was Hydraflow Storm Sewers Extension for AutoCAD Civil 3D 2014.
2. Physical data for the collection system (alignment; pipe size and slope; manhole invert and ground elevation) was obtained from AutoCAD Civil 3D shape files provided by SVCSD.
3. Raw flow data for the SVCSD service area is based upon an AutoCAD Civil 3D shape files provided by SVCSD. See Attachment 1, for exported ESD data.
6. Exhibit 1 (see Attachment 2) depicts the outline of the basins, manhole points of concentration (POC), collection system tributary to MH 157-1 at the intersection of MacArthur Street and Broadway. Exhibit 2 (see Attachment 3) depicts the modeled portion of the sewer (from the intersection of MacArthur Street and Broadway up to the intersection of West Napa Street and Second Street West).
7. Each equivalent single family dwelling unit (ESD) in the existing service area (including the proposed project) is assigned a sewer flow of 200 gallons per day to calculate the average dry weather flow (ADWF). This is the current flow defined by

SVCSD Ordinance No. 6115 and used as a billing basis for the SVCSD. See Attachment 4.

8. All properties in all basins are assumed to exhibit identical peak flow tendencies.
9. No time of concentration reduction allowance has been applied to flows within individual basins. Flow contributions at each point of concentration (POC) are assumed to be concurrent with the arrival of the peak flow in the modeled sewer at that same POC, which has been calculated using the simple sum of peak flows from all basins upstream from the POC in question.
11. Wastewater flows from the Hotel Sonoma development proposed for connection to the SVCSD collection system was calculated using the unit of “Hotel” and “Restaurant” for the “Commercial” category shown in Exhibit A, Equivalent Single-Family Dwelling Billing Unit for Sonoma Valley CSD, from Ordinance 1615 (see Attachment 4). Exhibit A assigns an ESD value of 0.52 ESD per sleep room for hotels and 0.09 ESD per seat for restaurants. Based on this value the proposed Hotel Sonoma development would have a total ESD value of 39.44. However, the existing project site has an existing wastewater discharge of one (1) ESD. As such, a value of 38.44 ESD is applied to the existing condition, see Attachment 5. The ESD value is then used to calculate the ADWF to which peaking factors and I/I quantities are applied.
12. The ADWF from the tributary basins, including Hotel Sonoma, is multiplied by a peaking factor of 2.0 to determine peak dry weather flow (PDWF).
13. An inflow and infiltration (I/I) allowance of 800 gpd/acre is added to PDWF to determine peak wet weather flow (PWWF), per SCWA Design and Construction Standards (see Attachment 6).
15. The Roughness coefficient used was n = 0.013 for all pipes, per SCWA Design and Construction Standards (see Attachment 6).

E. CONCLUSION

Attachment 5 depicts the PWWF calculations for each scenario analyzed. The Hotel Sonoma projected sewer use is 39.44 ESDs. The project site has an existing sewer usage of 1 ESD. As a result the increase in sewer discharge from the site is 38.44 ESDs. The resultant change in flow rate is 0.03 cubic feet per second (cfs) from the project site. The flow rate in the existing 8” sewer main in West Napa Street (MH 137- to MH 138-2) rises from 0.48 cfs to 0.51 cfs.

Attachments 7 and 8 are summaries of the Hydraflow direct output reports from the model runs for both scenarios identified in Table 1. Both analyzed scenarios indicate that surcharging will occur along the entire modeled sewer alignment. The existing sewer main in Broadway (MH 157-1 to MH 138-4) is under capacity in both scenarios. The existing sewer main in West Napa Street (MH 138-4 to MH 137-8) have sufficient capacity, however, the surcharge resulting from the under capacity sewer main in Broadway result in surcharge within the main.

ATTACHMENTS

Attachment 1 – ESD Raw Data

FeatId1	APN	ESD	Basin
1217	018-352-047	1.00	A
1216	018-352-038	1.00	A
1214	018-352-029	1.00	A
1213	018-352-045	1.00	A
1211	018-352-040	1.00	A
1132	018-361-050	1.00	A
1073	018-353-030	1.00	A
1072	018-361-001	1.00	A
1071	018-353-005	1.00	A
876	018-352-030	1.00	A
762	018-411-022	1.00	A
761	018-411-024	1.60	A
760	018-412-006	1.66	A
759	018-411-020	1.00	A
758	018-411-018	1.00	A
757	018-411-013	1.00	A
756	018-411-004	1.00	A
755	018-411-002	1.02	A
662	018-412-031	1.00	A
661	018-412-032	3.33	A
631	018-352-046	1.80	A
630	018-352-018	1.00	A
629	018-352-017	1.00	A
628	018-352-028	1.00	A
627	018-352-027	1.00	A
626	018-352-025	1.00	A
625	018-352-024	1.00	A
624	018-353-027	1.00	A
623	018-352-021	1.00	A
622	018-352-020	1.00	A
620	018-353-015	1.00	A
619	018-353-013	1.00	A
618	018-353-011	1.00	A
617	018-352-048	1.00	A
616	018-353-006	1.00	A
615	018-353-008	1.00	A
614	018-353-010	1.00	A
613	018-353-009	1.00	A
612	018-353-007	1.00	A
610	018-352-044	1.00	A
609	018-353-024	1.00	A
608	018-353-023	1.00	A
607	018-353-021	1.80	A
408	018-361-028	1.00	A
407	018-361-010	1.00	A
405	018-361-026	1.00	A

397	018-361-008	1.00	A
396	018-353-029	1.00	A
395	018-353-025	1.00	A
394	018-361-005	1.00	A
389	018-353-014	1.00	A
385	018-353-012	1.00	A
381	018-361-049	1.00	A
379	018-353-026	1.00	A
237	018-412-002	1.00	A
236	018-412-004	1.00	A
235	018-412-037	1.00	A
234	018-411-009	1.00	A
233	018-411-012	3.40	A
232	018-411-011	12.80	A
71	018-412-028	1.00	A
70	018-413-028	1.00	A
69	018-413-019	1.00	A
68	018-413-018	1.00	A
67	018-412-029	1.60	A
	Total	85.01	

FeatId1	APN	ESD	Basin
1242	018-261-030	1.00	B
1241	018-271-038	1.00	B
1240	018-271-037	1.00	B
1239	018-271-039	1.00	B
1238	018-271-003	1.00	B
1237	018-271-004	1.00	B
1236	018-271-002	1.00	B
1235	018-271-025	1.80	B
1234	018-271-040	1.00	B
1220	018-590-049	1.00	B
1215	018-352-051	1.24	B
1212	018-352-052	1.00	B
1210	018-375-027	0.00	B
1207	018-231-046	1.00	B
1206	018-231-050	1.00	B
1205	018-231-048	1.00	B
1204	018-231-045	1.00	B
1190	018-375-010	0.00	B
1188	018-271-041	1.00	B
1187	018-271-020	1.00	B
1142	018-312-016	1.00	B
1135	018-860-011	1.00	B
1134	018-860-010	1.00	B
1133	127-231-030	1.00	B
1122	018-670-020	1.00	B
1070	018-313-005	1.80	B
1069	018-262-007	1.00	B
1068	018-311-006	1.00	B
1067	018-313-002	1.80	B
1066	018-311-005	1.00	B
1065	018-313-001	1.80	B
1064	018-311-004	1.00	B
1057	018-182-014	584.42	B
1041	018-311-034	1.00	B
1002	018-351-027	1.71	B
950	018-860-030	1.00	B
949	018-860-031	1.00	B
940	018-312-003	0.00	B
914	018-860-016	1.00	B
913	018-860-015	1.00	B
912	018-860-009	1.00	B
911	018-860-012	1.00	B
910	018-860-014	1.00	B
909	018-860-008	1.00	B
908	018-860-013	1.00	B
907	018-860-006	1.00	B

905	018-231-062	1.00	B
903	018-231-067	1.00	B
882	018-590-050	1.00	B
875	018-352-050	1.00	B
874	018-352-043	1.96	B
873	018-272-019	1.00	B
872	018-273-027	1.80	B
871	018-273-026	1.00	B
870	018-273-013	1.00	B
869	018-271-035	1.00	B
868	018-271-033	1.00	B
867	018-271-047	1.00	B
865	018-262-025	1.00	B
864	018-262-014	1.00	B
861	018-273-034	1.80	B
790	018-860-029	1.80	B
786	018-314-005	1.00	B
785	018-314-007	1.80	B
784	018-314-006	1.00	B
783	018-313-023	1.00	B
782	018-313-023	1.00	B
781	018-313-014	1.00	B
780	018-313-012	1.00	B
779	018-313-016	1.00	B
778	018-313-010	1.00	B
777	018-314-009	1.00	B
776	018-313-007	1.00	B
775	018-313-008	1.00	B
774	018-314-020	1.00	B
773	018-314-019	1.00	B
772	018-314-008	1.00	B
768	127-231-037	1.00	B
767	127-231-039	1.00	B
766	127-231-038	1.00	B
659	018-860-021	1.00	B
658	018-860-020	1.00	B
657	018-860-019	1.00	B
656	018-670-025	1.00	B
642	018-670-021	1.00	B
641	018-670-023	1.00	B
640	018-670-022	1.00	B
639	018-670-018	1.00	B
638	018-670-019	1.00	B
637	018-590-048	1.00	B
636	018-590-018	1.00	B
634	018-375-013	1.00	B
633	018-375-012	1.00	B

632	018-375-011	1.00	B
621	018-361-002	1.00	B
611	018-361-040	1.00	B
606	018-313-023	1.00	B
605	018-314-011	1.00	B
604	018-313-019	1.00	B
603	018-321-011	1.00	B
602	018-321-010	1.00	B
601	018-314-014	1.00	B
600	018-321-009	1.80	B
599	018-314-015	1.00	B
594	018-361-047	1.00	B
593	018-361-046	1.00	B
592	018-361-045	1.00	B
591	018-321-055	1.00	B
590	018-321-050	1.00	B
589	018-321-054	1.00	B
588	018-321-044	1.00	B
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586	018-321-057	1.00	B
585	018-321-056	1.00	B
584	018-860-023	1.80	B
583	018-860-026	1.00	B
582	018-860-025	1.00	B
581	018-860-024	1.00	B
580	018-860-027	1.00	B
578	018-860-022	1.00	B
406	018-352-039	1.00	B
404	018-352-031	2.85	B
403	018-352-032	3.20	B
402	018-352-015	1.00	B
401	018-352-012	1.00	B
400	018-353-032	1.00	B
399	018-352-008	3.20	B
398	018-353-031	1.00	B
393	018-352-003	1.00	B
392	018-351-014	1.00	B
391	018-352-005	2.04	B
390	018-352-004	2.00	B
388	018-351-021	3.00	B
387	018-351-018	1.74	B
386	018-353-003	1.00	B
384	018-353-004	1.00	B
383	018-352-049	1.00	B
382	018-351-029	1.48	B
380	018-351-007	1.00	B
378	018-352-007	2.80	B

377	018-352-002	1.80	B
376	018-351-025	2.40	B
375	018-351-023	1.00	B
374	018-351-015	1.00	B
373	018-272-030	1.00	B
372	018-273-033	1.00	B
371	018-273-004	1.00	B
370	018-273-001	1.00	B
369	018-273-031	1.00	B
368	018-272-014	1.00	B
367	018-272-012	1.00	B
366	018-272-004	1.00	B
365	018-273-020	1.00	B
364	018-272-007	1.00	B
363	018-272-015	1.80	B
362	018-272-016	1.00	B
361	018-272-010	1.00	B
360	018-272-009	1.00	B
359	018-273-023	1.00	B
358	018-273-011	1.00	B
357	018-273-019	1.00	B
356	018-273-030	1.00	B
355	018-271-008	1.00	B
354	018-273-012	1.00	B
353	018-273-010	1.00	B
352	018-273-024	1.00	B
351	018-272-002	1.00	B
350	018-273-009	1.00	B
349	018-271-030	1.00	B
348	018-273-008	1.00	B
347	018-273-007	1.00	B
346	018-271-034	1.80	B
345	018-271-015	1.00	B
344	018-272-001	1.00	B
343	018-271-045	1.00	B
342	018-271-012	2.00	B
340	018-271-028	1.00	B
339	018-271-026	1.00	B
338	018-271-046	1.60	B
337	018-271-013	1.00	B
336	018-271-007	1.00	B
331	018-271-016	1.00	B
330	018-271-024	1.00	B
327	018-271-017	1.00	B
326	018-271-018	1.00	B
324	018-271-023	1.00	B
323	018-271-022	1.00	B

314	018-231-063	1.00	B
311	018-231-066	1.00	B
307	018-231-052	1.00	B
306	018-231-034	1.80	B
303	018-231-064	1.00	B
301	018-231-065	1.49	B
299	018-272-029	1.00	B
298	018-272-028	1.00	B
297	018-272-027	1.00	B
296	018-272-021	1.00	B
295	018-273-036	1.00	B
294	018-273-035	1.00	B
293	018-272-020	1.00	B
292	018-272-003	1.00	B
291	018-272-006	1.00	B
290	018-272-011	1.00	B
231	018-262-023	1.00	B
230	018-262-022	1.00	B
229	018-262-010	1.00	B
228	018-262-009	1.00	B
226	018-261-008	2.94	B
225	018-261-012	1.00	B
224	018-262-011	1.00	B
223	018-261-029	1.00	B
222	018-262-002	1.00	B
221	018-262-006	2.00	B
220	018-262-005	1.00	B
219	018-262-004	1.60	B
218	018-262-003	1.80	B
207	018-261-018	1.00	B
205	018-261-021	1.00	B
204	018-261-020	1.80	B
203	018-261-019	1.00	B
182	018-375-009	1.00	B
160	018-321-041	1.60	B
159	018-321-040	1.00	B
158	018-321-014	1.00	B
157	018-321-021	1.00	B
156	018-321-030	1.60	B
155	018-313-015	1.00	B
154	018-321-015	1.00	B
153	018-311-009	1.80	B
152	018-312-011	1.00	B
151	018-311-012	1.00	B
150	018-311-011	1.80	B
149	018-312-015	1.00	B
148	018-311-010	1.00	B

147	018-311-033	1.80	B
146	018-312-007	1.00	B
145	018-312-009	1.00	B
144	018-312-013	1.00	B
143	018-312-006	1.80	B
141	018-312-004	1.00	B
140	018-311-008	1.00	B
139	018-312-005	1.00	B
137	018-302-018	1.00	B
135	018-311-031	1.00	B
134	018-313-013	1.80	B
133	018-313-011	1.00	B
132	018-313-017	1.00	B
131	018-321-013	1.00	B
130	018-313-009	1.00	B
129	018-321-012	1.00	B
128	018-321-002	1.00	B
127	018-313-018	1.00	B
126	018-314-018	1.00	B
125	018-313-006	1.00	B
124	018-313-004	1.00	B
123	018-314-013	1.00	B
122	018-313-003	1.00	B
121	018-311-029	1.00	B
120	018-311-030	1.00	B
118	018-302-017	1.00	B
117	018-311-014	1.00	B
115	018-311-032	1.00	B
114	018-311-013	1.80	B
113	018-311-028	1.00	B
112	018-311-015	1.00	B
109	018-311-026	1.00	B
107	018-311-024	1.00	B
	Total	888.47	

FeatId1	APN	ESD	Basin
1283	018-261-001	7.20	C
1255	018-810-007	1.00	C
1254	018-810-005	0.12	C
1253	018-810-003	0.21	C
1252	018-810-009	1.00	C
1251	018-810-011	1.00	C
1250	018-810-010	1.00	C
1249	018-810-001	0.16	C
1248	018-810-002	0.13	C
1127	018-212-025	1.00	C
1126	018-212-024	1.00	C
1125	018-730-002	1.00	C
1124	018-730-007	1.00	C
1123	018-730-008	1.00	C
1112	018-261-031	1.00	C
1088	018-302-024	4.16	C
1087	018-302-023	1.00	C
1011	018-810-041	0.28	C
1010	018-810-006	1.70	C
1009	018-810-004	0.14	C
975	018-810-042	1.00	C
973	018-301-009	6.12	C
972	018-301-010	1.60	C
962	018-810-008	1.00	C
816	018-730-004	1.00	C
815	018-730-006	1.00	C
644	018-730-010	1.00	C
643	018-730-009	1.00	C
635	018-730-011	0.00	C
598	018-730-003	1.00	C
597	018-730-005	1.00	C
596	018-730-005	1.00	C
595	018-730-001	1.00	C
321	018-261-002	5.18	C
227	018-261-013	1.00	C
215	018-261-016	1.98	C
208	018-261-015	1.00	C
206	018-261-014	1.00	C
201	018-212-026	1.04	C
198	018-212-020	1.00	C
142	018-312-001	2.43	C
138	018-303-022	12.93	C
136	018-303-021	2.20	C
119	018-303-002	1.60	C
116	018-302-016	1.00	C
111	018-302-007	2.00	C

110	018-302-002	1.32	C
108	018-301-008	2.20	C
106	018-302-009	6.10	C
105	018-302-008	1.00	C
104	018-302-014	4.50	C
103	018-302-012	1.80	C
102	018-301-007	4.50	C
	Total	98.60	

FeatId1	APN	ESD	Basin
1296	018-510-018	1.00	D
1295	018-510-022	1.00	D
1294	018-510-021	1.00	D
1293	018-510-020	1.00	D
1292	092-050-003	1.00	D
1289	018-810-021	0.53	D
1288	018-810-024	0.37	D
1287	018-810-023	0.40	D
1286	018-211-002	2.07	D
1285	018-211-001	2.59	D
1284	018-211-005	2.50	D
1279	018-790-001	1.00	D
1278	018-790-007	1.00	D
1277	018-790-008	3.82	D
1276	018-790-014	0.20	D
1275	018-790-015	0.20	D
1274	018-790-016	0.20	D
1273	018-790-017	0.20	D
1272	018-790-018	0.20	D
1271	018-221-036	1.00	D
1270	018-810-012	0.45	D
1269	018-810-013	11.62	D
1268	018-810-036	0.09	D
1267	018-810-035	0.11	D
1266	018-810-034	0.10	D
1265	018-810-033	0.33	D
1264	018-810-038	0.11	D
1263	018-810-039	0.25	D
1262	018-810-029	0.29	D
1261	018-810-031	1.00	D
1260	018-810-030	1.00	D
1259	018-810-018	0.33	D
1258	018-810-040	0.15	D
1257	018-810-014	0.19	D
1256	018-810-015	0.23	D
1247	018-810-020	1.00	D
1246	018-810-018	0.33	D
1245	018-810-026	0.36	D
1244	018-810-025	1.00	D
1243	018-212-032	2.20	D
1232	018-212-019	2.40	D
1230	018-171-032	1.00	D
1223	018-141-015	1.00	D
1222	018-141-014	1.80	D
1221	018-141-017	1.80	D
1219	018-172-027	1.00	D

1209	018-212-028	0.00	D
1208	018-182-014	584.42	D
1186	018-042-007	1.80	D
1185	018-042-006	1.80	D
1184	018-600-002	1.00	D
1183	018-600-001	1.00	D
1182	018-600-003	1.00	D
1181	018-600-004	1.00	D
1180	018-171-021	0.00	D
1179	018-171-024	1.00	D
1178	018-171-025	2.00	D
1177	018-171-010	1.80	D
1176	018-171-009	1.00	D
1175	018-171-008	1.80	D
1174	018-171-007	2.12	D
1171	018-221-003	3.00	D
1170	018-221-001	9.50	D
1169	018-221-025	1.00	D
1168	018-221-044	1.00	D
1167	018-221-043	1.80	D
1166	018-222-025	1.00	D
1165	018-231-001	1.00	D
1164	018-231-002	1.00	D
1163	018-231-003	1.00	D
1162	018-231-029	1.00	D
1161	018-231-004	1.00	D
1160	018-231-061	1.00	D
1159	018-231-036	1.00	D
1158	018-231-035	1.00	D
1157	018-172-026	1.00	D
1151	018-214-001	4.32	D
1150	018-102-040	1.00	D
1149	018-101-078	1.00	D
1148	018-101-079	1.00	D
1147	018-101-074	1.00	D
1146	018-101-073	1.00	D
1145	018-101-075	1.00	D
1144	018-101-076	1.00	D
1143	018-101-080	1.00	D
1129	018-041-015	1.00	D
1121	018-101-066	1.00	D
1120	018-101-065	1.00	D
1119	018-101-068	1.00	D
1118	018-101-067	1.00	D
1117	018-131-018	1.46	D
1116	018-171-026	1.00	D
1115	018-171-006	0.00	D

1114	018-162-014	2.46	D
1113	018-810-017	0.15	D
1104	018-041-006	1.00	D
1103	018-041-008	1.00	D
1102	018-041-013	1.00	D
1101	018-041-011	1.00	D
1094	018-182-013	1.00	D
1093	018-131-007	8.00	D
1059	018-221-005	1.00	D
1058	018-231-039	1.00	D
1056	018-222-017	2.67	D
1055	018-222-002	1.00	D
1054	018-222-019	1.80	D
1053	018-222-003	1.00	D
1052	018-222-023	1.00	D
1051	018-222-022	1.00	D
1050	018-222-028	1.00	D
1049	018-221-024	1.00	D
1048	018-222-016	1.00	D
1047	018-222-005	1.00	D
1046	018-221-023	1.00	D
1045	018-221-031	1.00	D
1044	018-222-006	1.80	D
1043	018-221-032	1.00	D
1042	018-222-007	1.00	D
1040	092-070-024	1.00	D
1039	092-070-022	1.00	D
1038	092-070-008	1.00	D
1037	092-070-010	1.00	D
1036	092-070-012	1.00	D
1035	092-070-001	1.00	D
1034	092-070-005	1.00	D
1033	092-070-033	1.00	D
1032	092-050-008	1.00	D
1031	092-050-010	1.00	D
1030	092-040-004	1.00	D
1029	092-040-006	1.00	D
1028	092-040-009	1.00	D
1027	092-030-010	1.00	D
1026	092-030-008	1.00	D
1025	018-570-009	1.00	D
1024	018-570-010	1.00	D
1023	018-570-011	1.00	D
1022	018-570-012	1.00	D
1021	018-570-014	1.00	D
1020	018-570-013	1.00	D
1019	018-570-015	1.00	D

1018	018-570-016	1.00	D
1017	018-560-029	1.00	D
1016	018-560-028	1.00	D
1015	018-790-013	0.20	D
1014	018-790-012	0.20	D
1008	018-810-019	1.00	D
1007	092-060-013	1.00	D
1006	092-060-016	1.00	D
1005	092-060-014	1.00	D
1004	092-060-009	1.00	D
1003	092-060-010	1.00	D
1001	092-070-023	1.00	D
1000	092-070-004	1.00	D
999	092-070-006	1.00	D
998	092-050-007	1.00	D
997	092-050-009	1.00	D
996	092-040-003	1.00	D
995	092-040-005	1.00	D
994	092-030-009	1.00	D
993	092-030-007	1.00	D
992	018-570-001	1.00	D
991	018-570-002	1.00	D
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988	018-570-005	1.00	D
987	018-570-006	1.00	D
986	018-570-007	1.00	D
985	018-570-008	1.00	D
984	018-560-030	1.00	D
983	018-560-031	1.00	D
982	018-141-012	1.00	D
981	018-091-016	1.00	D
980	018-141-013	1.80	D
978	018-790-020	0.60	D
977	018-810-027	1.00	D
976	018-810-022	1.00	D
974	018-810-028	0.15	D
967	018-860-028	1.00	D
966	092-010-020	2.40	D
964	092-060-012	1.00	D
963	092-060-011	1.00	D
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960	018-790-006	1.00	D
959	018-790-009	1.00	D
958	018-790-003	1.00	D
957	018-790-004	1.00	D
954	092-070-031	1.00	D

953	092-070-032	1.00	D
952	092-070-020	1.00	D
951	092-070-019	1.00	D
936	018-131-028	1.00	D
935	018-091-019	1.00	D
934	018-032-006	0.00	D
933	018-032-007	0.00	D
932	092-060-008	1.00	D
931	092-060-007	1.00	D
930	092-050-011	1.00	D
929	092-050-012	1.00	D
928	092-040-011	1.00	D
927	092-050-002	1.00	D
926	092-050-001	1.00	D
925	092-040-002	1.00	D
924	092-030-012	1.00	D
923	092-030-011	1.00	D
922	092-040-001	1.00	D
921	092-040-012	1.00	D
920	092-030-002	1.00	D
919	092-030-001	1.00	D
918	092-020-001	1.00	D
917	092-020-002	1.00	D
916	092-020-011	1.00	D
915	092-020-012	1.00	D
906	018-231-058	1.00	D
904	018-231-043	1.00	D
902	018-181-033	1.00	D
899	092-060-006	1.00	D
898	092-060-002	1.00	D
897	092-060-001	1.00	D
896	092-060-005	1.00	D
895	092-060-004	1.00	D
894	092-010-018	1.00	D
893	092-010-017	1.00	D
892	092-010-015	4.00	D
891	092-010-019	2.40	D
890	092-010-014	3.00	D
881	018-560-019	1.00	D
880	018-560-018	1.00	D
879	018-560-011	1.00	D
878	018-560-010	1.00	D
866	018-271-001	1.00	D
850	018-172-011	1.00	D
849	018-172-021	1.00	D
848	018-172-024	1.00	D
847	018-172-020	1.00	D

840	018-141-002	1.00	D
838	018-131-013	1.00	D
833	018-131-029	3.20	D
829	018-101-077	1.00	D
828	018-102-020	1.00	D
827	018-091-008	1.00	D
826	018-041-014	1.00	D
825	018-171-035	1.00	D
824	018-171-033	1.00	D
823	018-171-034	1.00	D
822	018-172-003	1.00	D
821	018-171-030	1.00	D
820	018-171-029	1.00	D
819	018-171-027	1.00	D
818	018-171-018	1.00	D
788	018-810-032	0.36	D
787	018-171-037	52.43	D
771	018-101-012	1.00	D
770	018-101-070	1.00	D
769	018-101-048	1.00	D
716	018-231-040	1.00	D
715	018-221-037	1.00	D
714	018-221-035	23.41	D
689	018-181-032	1.00	D
687	018-172-009	1.60	D
686	018-181-014	1.00	D
685	018-181-013	1.00	D
684	018-181-020	1.00	D
683	018-181-019	1.00	D
682	018-181-016	1.00	D
681	018-181-010	1.00	D
666	018-172-004	1.00	D
665	018-172-005	2.60	D
664	018-171-012	1.00	D
579	018-810-037	0.23	D
577	018-810-016	0.21	D
576	018-790-002	1.00	D
560	018-560-024	1.00	D
559	018-560-025	1.00	D
558	018-560-023	1.00	D
557	018-560-022	1.00	D
556	018-560-021	1.00	D
555	018-560-007	1.00	D
554	018-560-020	1.00	D
553	018-560-009	1.00	D
552	018-560-004	1.00	D
551	018-560-006	1.00	D

550	018-560-005	1.00	D
549	018-560-003	1.00	D
543	018-560-008	1.00	D
533	018-181-007	1.00	D
531	018-172-019	1.00	D
530	018-172-018	1.60	D
529	018-172-016	1.00	D
527	018-162-013	1.00	D
526	018-162-010	1.00	D
525	018-162-008	1.80	D
518	018-141-004	1.00	D
515	018-131-006	1.00	D
502	018-162-009	1.00	D
500	018-162-007	1.00	D
484	018-102-017	1.00	D
482	018-102-016	1.00	D
477	018-102-015	1.00	D
474	018-102-019	1.00	D
472	018-102-014	1.00	D
471	018-102-003	1.00	D
469	018-102-002	1.00	D
468	018-102-001	1.00	D
467	018-102-007	1.00	D
466	018-102-041	1.00	D
465	018-102-013	1.00	D
464	018-102-012	1.00	D
463	018-102-024	1.00	D
462	018-102-006	1.00	D
461	018-102-005	1.00	D
460	018-102-011	1.00	D
459	018-102-023	1.00	D
458	018-102-022	1.00	D
457	018-102-010	1.00	D
456	018-102-021	1.00	D
455	018-102-004	1.00	D
454	018-091-010	1.00	D
453	018-102-009	1.00	D
452	018-102-008	1.00	D
451	018-101-030	1.00	D
450	018-091-007	1.00	D
449	018-101-031	1.00	D
448	018-101-028	1.00	D
447	018-101-027	1.00	D
446	018-101-036	1.00	D
445	018-101-029	1.00	D
444	018-101-059	1.00	D
443	018-101-069	1.00	D

442	018-101-035	1.00	D
441	018-101-034	1.00	D
440	018-101-058	1.00	D
439	018-101-033	1.00	D
438	018-101-032	1.00	D
432	018-041-021	1.00	D
421	018-041-005	1.00	D
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413	018-172-008	2.00	D
412	018-171-031	1.00	D
411	018-171-019	1.98	D
410	018-171-014	11.20	D
409	018-162-025	4.00	D
341	018-262-024	1.80	D
335	018-262-021	1.00	D
334	018-262-020	1.00	D
333	018-262-019	1.00	D
332	018-262-018	1.00	D
329	018-262-015	1.00	D
328	018-262-017	1.00	D
325	018-262-016	1.00	D
322	018-261-005	4.00	D
320	018-261-006	1.00	D
319	018-261-023	2.40	D
318	018-261-024	3.20	D
316	018-231-031	1.00	D
315	018-231-027	1.00	D
313	018-231-028	1.00	D
312	018-231-026	1.80	D
310	018-231-018	1.00	D
309	018-231-017	1.00	D
308	018-231-022	1.00	D
305	018-231-019	1.00	D
304	018-231-016	1.00	D
302	018-231-006	1.00	D
300	018-231-007	2.80	D
286	018-221-034	1.20	D
285	018-222-019	1.80	D
284	018-222-013	1.00	D
283	018-222-017	2.67	D
282	018-222-018	1.00	D
281	018-221-020	1.00	D
280	018-221-029	11.76	D
279	018-221-017	9.79	D
278	018-221-015	1.98	D
277	018-222-009	1.80	D
276	018-222-008	2.30	D

275	018-221-006	1.00	D
274	018-221-016	1.00	D
273	018-221-012	17.38	D
272	018-221-004	1.80	D
271	018-221-013	1.20	D
270	018-222-001	1.00	D
269	018-211-004	1.80	D
268	018-221-042	15.87	D
267	018-221-039	1.00	D
266	018-211-003	2.25	D
264	018-212-008	1.60	D
259	018-212-004	1.00	D
257	018-212-002	1.68	D
256	018-212-001	1.20	D
202	018-211-010	1.48	D
200	018-212-014	1.20	D
199	018-212-018	1.00	D
168	018-560-026	1.00	D
167	018-560-016	1.00	D
166	018-560-015	1.00	D
165	018-560-013	1.00	D
164	018-560-012	1.00	D
163	018-560-014	1.00	D
162	018-560-017	1.00	D
99	018-131-012	1.00	D
79	018-041-020	1.00	D
78	018-041-019	1.00	D
77	018-041-017	1.00	D
76	018-041-016	1.00	D
75	018-041-018	1.00	D
74	018-041-012	1.00	D
73	018-041-010	1.00	D
72	018-041-009	1.00	D
59	092-060-015	1.00	D
58	092-040-008	1.00	D
57	092-040-007	1.00	D
56	092-040-010	1.00	D
55	092-050-004	1.00	D
54	092-050-006	1.00	D
53	092-050-005	1.00	D
52	092-070-014	1.00	D
51	092-070-013	1.00	D
50	092-070-017	1.00	D
49	092-070-018	1.00	D
48	092-070-021	1.00	D
47	092-070-015	1.00	D
46	092-070-016	1.00	D

45	092-060-003	1.00	D
44	092-020-009	1.00	D
43	092-020-010	1.00	D
42	092-020-008	1.00	D
41	092-020-007	1.00	D
40	092-020-005	1.00	D
39	092-020-006	1.00	D
38	092-020-004	1.00	D
37	092-020-003	1.00	D
36	092-030-005	1.00	D
35	092-030-006	1.00	D
34	092-030-004	1.00	D
33	092-030-003	1.00	D
32	092-070-002	1.00	D
31	092-070-011	1.00	D
30	092-070-007	1.00	D
29	092-070-009	1.00	D
28	092-070-003	1.00	D
27	092-070-034	1.00	D
26	092-070-036	1.00	D
25	092-070-035	1.00	D
24	092-070-026	1.00	D
23	092-070-030	1.00	D
22	092-070-029	1.00	D
21	092-070-025	1.00	D
20	092-070-027	1.00	D
19	092-070-028	1.00	D
18	018-510-005	1.00	D
17	018-510-003	1.00	D
16	018-510-002	1.00	D
15	018-510-004	1.00	D
14	018-510-001	1.00	D
13	018-510-010	1.00	D
12	018-510-011	1.00	D
11	018-510-012	1.00	D
10	018-510-009	1.00	D
9	018-510-008	1.00	D
8	018-510-007	1.00	D
7	018-510-006	1.00	D
6	018-510-015	1.00	D
5	018-510-013	1.00	D
4	018-510-014	1.00	D
3	018-510-016	1.00	D
2	018-510-019	1.00	D
1	018-510-017	1.00	D
	Total	1252.25	

FeatId1	APN	ESD	Basin
1291	018-121-014	0.00	E
1290	018-121-001	0.00	E
1281	018-202-079	3.33	E
1280	018-202-081	0.31	E
1231	018-700-007	1.00	E
1229	018-700-022	1.00	E
1228	018-700-023	1.00	E
1227	018-700-021	1.00	E
1226	018-700-019	1.00	E
1225	018-700-018	1.00	E
1224	018-700-014	1.00	E
1203	018-151-010	0.00	E
1201	018-680-001	1.00	E
1200	018-680-002	1.00	E
1199	018-680-004	1.00	E
1198	018-680-003	1.00	E
1197	018-680-006	1.00	E
1196	018-680-005	1.00	E
1195	018-680-008	0.80	E
1194	018-680-007	0.80	E
1193	018-680-009	1.00	E
1192	018-680-012	1.00	E
1191	018-680-011	1.00	E
1173	018-162-004	166.52	E
1172	018-162-021	2.46	E
1139	018-121-010	0.00	E
1131	018-131-024	0.00	E
1130	018-131-027	3.00	E
1092	018-121-022	1.00	E
1091	018-121-020	1.00	E
1090	018-121-023	1.00	E
1089	018-121-021	1.00	E
1077	018-131-025	1.00	E
1076	018-121-015	1.00	E
1075	092-010-022	1.00	E
1074	018-071-008	5.00	E
1063	018-202-069	7.98	E
1062	018-202-072	1.58	E
1061	018-202-060	1.00	E
1060	018-202-059	1.00	E
1013	018-202-080	1.00	E
1012	018-202-082	0.71	E
979	018-680-010	1.00	E
956	018-780-001	1.00	E
955	018-780-002	1.00	E
939	018-151-007	0.00	E

938	018-131-004	0.00	E
937	018-161-039	1.00	E
889	018-680-017	1.00	E
888	018-680-015	1.00	E
887	018-680-014	1.00	E
886	018-680-013	1.00	E
885	018-680-016	0.80	E
877	018-680-018	1.00	E
846	018-161-034	1.60	E
845	018-151-006	0.00	E
842	018-131-026	1.00	E
841	018-161-037	12.80	E
839	018-161-017	2.40	E
837	018-131-003	1.00	E
817	018-162-029	1.36	E
754	018-202-063	1.00	E
753	018-202-070	1.00	E
749	018-202-015	4.28	E
748	018-202-014	1.44	E
688	018-162-020	16.94	E
672	018-161-006	1.00	E
668	018-161-040	20.36	E
667	018-162-003	22.58	E
663	018-162-028	1.00	E
660	018-162-026	8.02	E
571	018-700-024	1.00	E
570	018-700-026	1.00	E
569	018-700-025	1.00	E
568	018-700-012	1.00	E
567	018-700-013	1.00	E
566	018-700-003	1.00	E
565	018-700-002	1.00	E
564	018-700-004	1.00	E
563	018-700-001	1.00	E
562	018-700-006	1.00	E
561	018-700-005	1.00	E
548	018-700-020	1.00	E
547	018-700-010	1.00	E
546	018-700-009	1.00	E
545	018-700-008	1.00	E
544	018-700-011	1.00	E
528	018-162-019	1.00	E
514	018-121-019	1.00	E
513	018-121-018	1.00	E
511	018-121-012	1.80	E
499	018-161-024	1.00	E
498	018-161-033	1.80	E

497	018-161-023	1.00	E
496	018-161-022	1.00	E
262	018-202-073	1.20	E
261	018-202-077	51.10	E
260	018-202-077	51.10	E
93	018-121-003	1.80	E
89	018-121-005	13.35	E
88	018-121-004	1.60	E
66	018-121-017	0.00	E
65	018-061-001	0.00	E
64	018-071-006	0.00	E
63	018-061-002	0.00	E
62	018-061-003	0.00	E
61	018-021-004	0.00	E
60	018-021-003	0.00	E
	Total	471.82	

FeatId1	APN	ESD	Basin
1282	018-201-035	1.00	F
1233	018-202-076	1.00	F
1218	018-241-057	1.10	F
1202	018-111-042	3.43	F
1189	127-471-043	1.00	F
1156	018-431-003	3.40	F
1155	018-193-035	1.00	F
1154	018-193-040	1.34	F
1153	018-193-003	1.00	F
1152	018-431-006	27.86	F
1141	018-191-027	1.80	F
1140	018-191-026	1.00	F
1138	018-151-008	0.00	F
1137	018-151-002	4.01	F
1136	018-201-040	1.85	F
1128	018-241-008	5.20	F
1111	018-202-031	1.00	F
1110	018-202-075	16.80	F
1109	018-241-035	3.00	F
1108	018-241-058	1.00	F
1107	018-193-047	2.40	F
1106	018-530-056	1.00	F
1105	018-530-054	3.20	F
1100	018-111-075	0.00	F
1099	018-111-069	1.00	F
1098	018-111-068	1.00	F
1097	018-111-071	1.00	F
1096	018-111-072	1.00	F
1095	018-111-059	1.00	F
1086	018-111-064	1.00	F
1085	018-111-063	1.00	F
1084	018-111-062	1.00	F
1083	018-111-065	1.00	F
1082	018-111-066	1.00	F
1081	018-111-067	1.00	F
1080	018-111-074	1.00	F
1079	018-111-073	1.00	F
1078	018-111-070	1.00	F
971	018-111-061	1.00	F
970	018-111-058	19.50	F
969	018-191-037	1.00	F
968	018-191-036	1.00	F
965	127-670-057	0.00	F
948	018-640-006	1.00	F
947	018-640-008	1.00	F
946	018-640-007	1.00	F

945	018-640-005	1.00	F
944	018-640-004	1.00	F
943	018-640-001	1.00	F
942	018-640-003	1.00	F
941	018-640-002	1.00	F
901	127-670-056	1.00	F
900	127-670-050	1.00	F
884	018-650-013	1.80	F
883	018-650-001	1.00	F
863	018-241-006	4.40	F
862	018-241-005	3.20	F
860	018-202-074	3.61	F
859	018-202-053	1.00	F
858	018-202-052	1.00	F
857	018-202-035	1.00	F
856	018-193-010	1.00	F
855	018-201-038	1.00	F
854	018-202-040	1.00	F
853	018-193-021	1.00	F
852	018-192-008	1.00	F
851	018-192-012	2.00	F
844	018-192-030	1.00	F
843	018-191-034	1.00	F
836	018-112-011	1.00	F
835	018-112-007	1.00	F
834	018-112-009	1.00	F
832	018-112-005	1.00	F
831	018-111-054	1.60	F
830	018-111-053	1.60	F
814	018-870-012	1.00	F
813	018-870-024	1.00	F
812	018-870-011	1.00	F
811	018-870-010	1.00	F
810	018-870-009	1.00	F
809	018-870-008	1.00	F
808	018-870-023	1.00	F
807	018-870-007	1.00	F
806	018-870-025	1.00	F
805	018-870-022	1.00	F
804	018-870-021	1.00	F
803	018-870-006	1.00	F
802	018-870-020	1.00	F
801	018-870-019	1.00	F
800	018-870-005	1.00	F
799	018-870-018	1.00	F
798	018-870-003	1.00	F
797	018-870-002	1.00	F

796	018-870-004	1.00	F
795	018-870-017	1.00	F
794	018-870-014	1.00	F
793	018-870-013	1.00	F
792	018-870-001	1.00	F
791	018-870-015	1.00	F
789	018-870-016	1.00	F
765	127-204-019	1.00	F
764	127-204-021	1.00	F
763	127-204-017	3.00	F
752	018-202-003	1.00	F
751	018-202-002	1.00	F
750	018-202-006	5.00	F
747	018-202-026	2.00	F
746	018-194-012	1.00	F
745	018-194-016	1.00	F
744	018-201-032	2.31	F
743	018-201-022	1.60	F
742	018-201-019	1.80	F
741	018-201-018	1.00	F
740	018-201-021	1.60	F
739	018-194-002	1.00	F
738	018-201-023	1.60	F
737	018-201-016	2.60	F
736	018-201-020	1.00	F
735	018-201-031	1.28	F
734	018-201-017	2.60	F
733	018-193-043	1.00	F
732	018-201-015	1.00	F
731	018-201-028	1.00	F
730	018-201-026	1.80	F
729	018-201-024	1.00	F
728	018-193-042	1.00	F
727	018-193-041	1.33	F
726	018-193-039	1.45	F
725	018-201-008	15.27	F
724	018-201-007	3.43	F
723	018-193-027	1.00	F
722	018-193-036	1.88	F
721	018-193-038	1.00	F
720	018-193-034	1.00	F
719	018-201-006	1.00	F
718	018-201-004	1.00	F
717	018-194-018	8.40	F
713	018-201-039	1.00	F
712	018-202-048	1.00	F
711	018-202-010	1.00	F

710	018-201-034	1.00	F
709	018-202-051	4.30	F
708	018-202-050	1.60	F
707	018-202-044	2.00	F
706	018-194-001	4.00	F
705	018-202-049	1.00	F
704	018-194-013	1.00	F
703	018-194-003	1.00	F
702	018-201-002	2.00	F
701	018-194-020	19.12	F
700	018-194-017	1.00	F
699	018-192-022	1.00	F
698	018-192-021	1.00	F
697	018-192-020	1.80	F
696	018-191-017	1.00	F
695	018-191-016	1.00	F
694	018-191-014	1.00	F
693	018-191-013	1.90	F
692	018-192-015	1.00	F
691	018-192-014	1.00	F
690	018-192-013	1.00	F
680	018-201-003	1.00	F
679	018-193-030	1.00	F
678	018-192-031	1.00	F
677	018-193-009	1.00	F
676	018-192-034	1.00	F
675	018-191-029	1.00	F
674	018-191-022	1.00	F
673	018-192-018	1.00	F
671	018-191-015	1.00	F
670	018-191-018	1.00	F
669	018-191-033	1.00	F
655	127-474-007	1.00	F
654	127-471-044	1.00	F
653	127-471-036	1.00	F
652	127-474-006	1.00	F
651	127-471-035	1.00	F
650	127-471-042	1.00	F
649	127-471-041	1.00	F
648	127-471-038	1.00	F
647	127-471-037	1.00	F
646	127-471-039	2.00	F
645	127-474-013	1.00	F
575	018-780-006	2.00	F
574	018-780-005	2.00	F
573	018-780-003	1.60	F
572	018-780-004	1.00	F

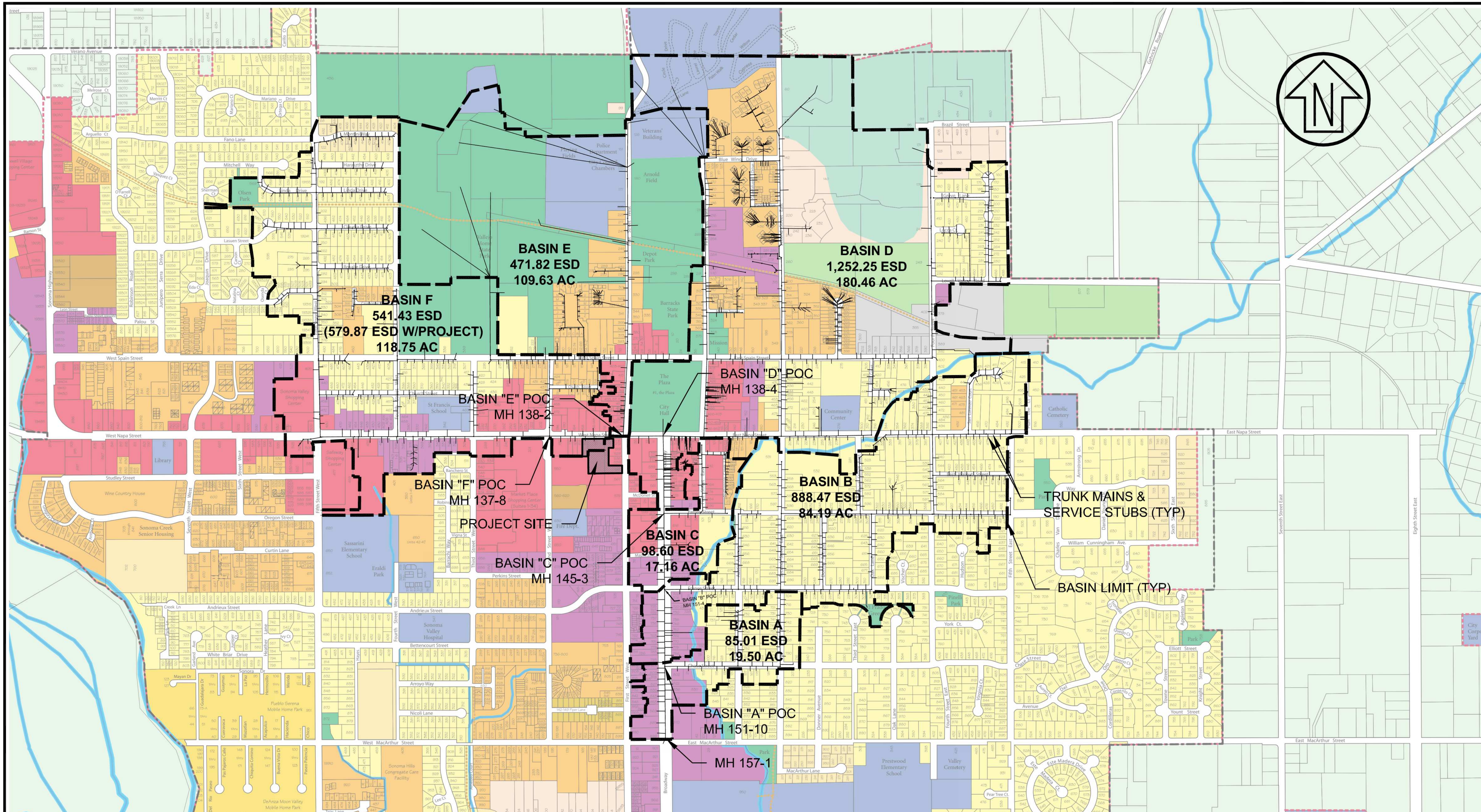
542	018-201-036	1.00	F
541	018-191-002	1.00	F
540	018-191-032	1.00	F
539	018-191-001	1.00	F
538	018-191-013	1.90	F
537	018-192-009	1.00	F
536	018-191-009	1.00	F
535	018-192-005	1.00	F
534	018-192-010	1.80	F
532	018-191-008	1.00	F
524	018-192-028	1.00	F
523	018-192-026	1.50	F
522	018-191-031	1.00	F
521	018-192-029	1.00	F
520	018-191-035	1.00	F
519	018-192-025	1.00	F
517	018-151-009	1.00	F
516	018-151-011	3.00	F
512	018-112-021	1.00	F
510	018-112-013	1.00	F
509	018-112-019	1.00	F
508	018-112-017	1.00	F
507	018-112-008	1.00	F
506	018-112-015	1.00	F
505	018-111-034	1.00	F
504	018-111-039	1.00	F
503	018-111-032	1.00	F
501	018-151-005	2.00	F
495	018-111-038	1.60	F
494	018-111-031	1.00	F
493	018-111-030	1.80	F
492	018-111-027	1.00	F
491	018-111-033	1.00	F
490	018-111-021	1.00	F
489	018-111-026	1.00	F
488	018-111-022	1.00	F
487	018-112-001	1.00	F
486	018-112-004	1.00	F
485	018-111-020	1.00	F
483	018-111-018	1.00	F
481	018-111-013	1.00	F
480	018-111-012	1.00	F
479	018-112-003	1.00	F
478	018-111-016	1.00	F
476	018-111-015	1.00	F
475	018-111-014	1.80	F
473	018-111-052	1.00	F

470	018-111-009	1.00	F
437	018-012-006	1.00	F
436	018-012-005	1.00	F
435	018-012-004	1.00	F
434	018-012-003	1.00	F
433	018-012-001	1.00	F
431	018-012-002	1.00	F
430	018-011-008	1.00	F
429	018-011-009	1.00	F
428	018-011-012	1.00	F
427	018-011-011	1.00	F
426	018-011-007	1.00	F
425	018-011-006	1.00	F
424	018-011-010	1.00	F
423	018-011-004	1.00	F
422	018-011-005	1.00	F
419	018-012-008	1.00	F
418	018-012-007	1.00	F
417	018-111-036	1.00	F
416	018-112-002	1.00	F
415	018-112-006	1.00	F
414	018-111-019	1.00	F
317	018-251-025	2.07	F
289	018-251-052	7.69	F
288	018-251-050	4.60	F
287	018-251-026	0.00	F
265	018-202-078	1.28	F
263	018-202-083	1.21	F
258	018-202-062	1.60	F
255	018-202-056	1.00	F
254	018-202-007	1.00	F
253	018-202-071	1.00	F
252	018-202-054	1.00	F
251	018-202-001	2.40	F
250	018-202-009	4.20	F
249	018-202-013	2.30	F
248	018-202-057	1.00	F
247	127-472-003	1.60	F
246	127-472-002	1.60	F
245	127-472-001	1.60	F
244	127-471-006	1.00	F
243	127-471-002	1.60	F
242	127-471-001	1.60	F
241	127-471-005	1.60	F
240	127-471-004	1.60	F
239	127-471-003	1.60	F
238	127-221-007	1.00	F

217	018-251-015	2.86	F
216	018-251-014	1.33	F
214	018-251-017	1.00	F
213	018-241-017	1.00	F
212	018-241-061	6.20	F
211	018-241-013	2.52	F
210	018-241-011	1.00	F
209	018-241-014	5.00	F
197	127-670-052	1.00	F
196	127-670-054	1.00	F
195	127-670-055	1.00	F
194	127-670-049	1.00	F
193	127-670-048	1.00	F
192	127-670-051	1.00	F
191	127-670-053	1.00	F
190	127-670-047	1.00	F
189	127-670-046	1.00	F
188	127-474-005	1.00	F
187	127-474-011	1.00	F
186	127-474-010	1.00	F
185	127-474-012	1.00	F
184	127-474-009	1.00	F
183	127-474-008	1.00	F
181	127-670-024	1.00	F
180	127-670-026	1.00	F
179	127-670-025	1.00	F
178	018-650-012	1.00	F
177	018-650-011	1.00	F
176	018-650-009	1.00	F
175	018-650-007	1.00	F
174	018-650-008	1.00	F
173	018-650-005	1.00	F
172	018-650-006	1.00	F
171	018-650-004	1.00	F
170	018-650-003	1.00	F
169	018-650-002	1.00	F
161	018-650-010	1.00	F
101	018-113-009	1.00	F
100	018-113-008	1.00	F
98	018-113-007	1.00	F
97	018-113-006	1.00	F
96	018-113-005	1.60	F
95	018-113-004	1.00	F
94	018-113-003	1.00	F
92	018-113-010	1.00	F
91	018-113-002	1.00	F
90	018-113-011	1.00	F

87	018-112-012	1.00	F
86	018-113-001	1.00	F
85	018-112-018	1.00	F
84	018-112-022	1.00	F
83	018-112-020	1.00	F
82	018-112-014	1.00	F
81	018-112-016	1.00	F
80	018-112-010	1.00	F
	Total	541.43	

Attachment 2 – Exhibit 1: ESD and I/I Map



Rev	Date	Description	Checked

CSW | ST2

CSW/Stuber-Stroeh Engineering Group, Inc.
Civil & Structural Engineers | Surveying & Mapping | Environmental Planning
Land Planning | Construction Management

45 Leveroni Court
Novato, CA 94949

tel: 415.883.9850
fax: 415.883.9835

http://www.cswst2.com

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Prepared Under the Direction of:

Job No. -

Date: 08/28/15

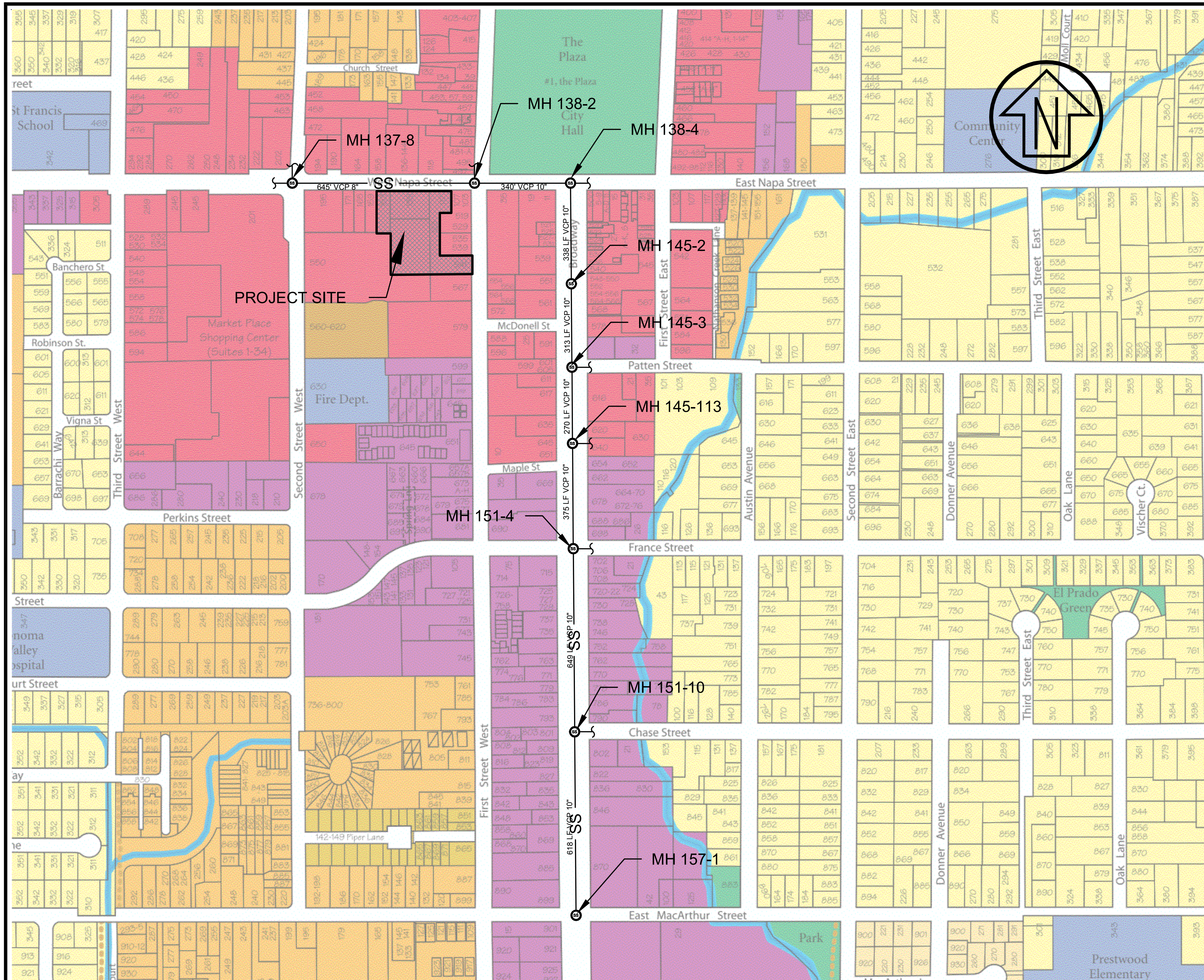
Scale: 1" = 800'

HOTEL SONOMA
EXHIBIT 1
ESD & I/I BASIN MAP

SONOMA SONOMA COUNTY CALIFORNIA

P:\05\5144200\Calculations_and_Spreadsheets\Sewer\Maps\ESD MAP.dwg 08/28/2015 - 10:44 AM harja 1:1

Attachment 3 – Exhibit 2: Sewer Contribution Map



SEWER MANHOLE CONTRIBUTING FLOW

MANHOLE ID	FLOW (CFS)	FLOW (GAL./DAY)
137-8	0.48	311,575
PROJECT SITE	0.03	16,273
138-2	0.43	276,434
138-4	1.00	645,271
145-3	0.08	53,169
151-4	0.65	422,741
151-10	0.08	49,601
TOTAL	2.75	1,775,464

Rev	Date	Description	Checked

CSW | ST2

CSW/Stuber-Stroeh Engineering Group, Inc.

Civil & Structural Engineers | Surveying & Mapping | Environmental Planning
Land Planning | Construction Management

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Prepared Under the Direction of:

Job No. -

Date: 08/28/15

Scale: 1" = 400'

HOTEL SONOMA
EXHIBIT 2
SEWER CONTRIBUTION MAP

SONOMA SONOMA COUNTY CALIFORNIA

Attachment 4 – SVCSD Ordinance No. 6115

ORDINANCE NO. 6115

AN ORDINANCE OF THE BOARD OF DIRECTORS OF THE SONOMA VALLEY COUNTY SANITATION DISTRICT, STATE OF CALIFORNIA, SETTING SEWER SERVICE CHARGES, CALLING FOR COLLECTION ON THE TAX ROLL FOR FISCAL YEAR 2015/2016, AND MAKING FINDINGS AND DETERMINATION OF EXEMPTION PURSUANT TO THE CALIFORNIA ENVIRONMENTAL QUALITY ACT. (2/3 VOTE REQUIRED) (FIRST DISTRICT).

The Board of Directors of the Sonoma Valley County Sanitation District (District), State of California, ordains as follows:

SECTION I

The first sentence of Section III, Ordinance No. 51 is hereby amended to read:

The methodology used to calculate annual service charges for residential and commercial users, effective July 1, 2015, shall be as shown in Exhibit "A".

SECTION II

Section III of Ordinance No. 51 is hereby replaced with the following:

The methodology used to calculate annual service charges for residential and commercial users shall be as follows:
Two Categories of Users: A) Non-Residential Users And Residential Users With No Public Water Connection; or B) Residential Users With a Public Water Connection

A) Amount of Proposed Charge Increase For Non-Residential Users And Residential Users With No Public Water Connection

Effective July 1, 2015 the District proposes to increase the charge to $890 per year per Equivalent Single-family Dwelling (ESD) for non-residential users and residential users with no public water connection. This represents an increase of $38 or 4.5% versus current year. This charge has been calculated by dividing the annual costs of providing wastewater treatment and collection service by the total estimated number of ESDs in the District.

B) Residential Rate Structure For Residential Users With a Public Water Connection

Many surrounding communities (including the Cities of Cotati, Healdsburg, Petaluma, Rohnert Park, Santa Rosa, Sebastopol, and the Town of Windsor) set their sewer rates partially on an estimate of the amount of sewage generated by each household, based on water usage during winter months. A 2011 District study found that such "volume-based" rate structures better account for household sewer discharge, promote water conservation, and provide financial reliability for District services. The study also found that volume-based rates would provide District ratepayers with the opportunity to control a portion of their sewage bills.

The District's volume-based rate applies to residential users with a public water connection including multiple family units such as apartments, condominiums, and mobile home parks. The rate includes fixed charges and charges based on water use.

- 70 Percent Fixed Charges: The fixed charge recovers costs that the sewage treatment and collection system incurs regardless of increased or decreased sewage flow into the system.

Effective July 1, 2015 the District proposes to increase the fixed charge to $623 per year per Equivalent Single-family Dwelling (ESD) for residential users with a public water connection. This represents an increase of $27 or 4.5% versus current year. All residential sewer customers with a public water connection must pay this fixed charge.

- 30 Percent Volume-Based: The volume-based charge recovers costs to the sewage treatment and collection system that vary with the amount of sewage conveyed and treated. The volume-based charge gives District ratepayers the opportunity to control a portion of their sewage bill.

Effective July 1, 2015 the District proposes to increase the volumetric charge to $5.03 per Thousand Gallons for residential users with a public water connection. This represents an increase of $0.21 per Thousand Gallons or 4.5% versus current year.

The volume charge uses winter water use as the basis for the calculation. Winter water use generally provides the best available estimate of indoor water use and its impact to the District's treatment facilities because outdoor irrigation is usually minimal during the winter months.

The District recognizes that due to current drought conditions customers may have irrigated during winter months. To take drought conditions into account while also recognizing District ratepayers who were able to conserve water, the District will use winter water use data from both 2014 and 2015 to determine the volume used to calculate the volumetric charge. The District will

- Compare January, February, and March 2015 water bills to January, February, and March 2014 water bills. The months correspond to the date of the water bill.
- Select the water bill with the lowest water use and use that bill as the basis for the volumetric rate calculation. Each water bill covers a two month billing period. There are 6 billing periods annually.

For 2015 each residential user with public water and sewer connections will be charged as follows:

Fixed Charge:

$623 per ESD x Number of ESD's

And:

Volumetric Charge using the lowest winter water bill covering two months from either 2014 or 2015 for the billing months identified above:

Total Winter Water Usage in Thousands of Gallons x 6 billing periods annually x 5.03 per Thousand Gallons

The highest residential water usage on a winter water bill covering two months will be capped at 40 thousand gallons per ESD based on the assumption that anything over 40 thousand gallons per ESD is likely to be irrigation water, not indoor water use. If the water usage on your lowest winter water bill exceeds 40 thousand gallons per ESD, the Volumetric Charge would be calculated as follows:

Number of ESD's x 40 Thousand Gallons x 6 billing periods annually x $5.03 per Thousand Gallons

The 2015 sewer charges for residential customers with a public water connection are the Fixed Charge plus the Volumetric Charge:

Sewer Charge Component	Charge
Fixed Charge	$623 per ESD
Volume Charge	$5.03 per Thousand Gallons

For all non-residential users, and for residential users with no public water connection, effective July 1, 2015, the methodology for calculating the annual service charges shall be as shown in Exhibit "A". This charge is based on the annual costs of providing wastewater treatment and collection service divided by the calculated number of ESDs. For such users, an annual service charge of eight hundred ninety two dollars and No Cents ($890.00) per ESD and the average flow of 200 gallons per day per one Equivalent Single-Family Dwelling Unit (ESD) on properties within the boundaries established as the District's is hereby prescribed and established effective July 1, 2015.

When requested by a user with five or more ESDs of capacity for any one parcel, the General Manager may allow the annual service charges to be based on actual measures usage of the sewer system. Then General Manager will base the charge on the user's contribution of wastewater into the District's facilities including, but not limited to, flow, biological oxygen demand (BOD), total suspended solids (TSS), or any other component of the wastewater that contributes to the costs of collection, treatment, and disposal. The annual service charge shall be calculated using the formulas shown in Sections IV and V herein. Where the General Manager determines that a user's discharge constitutes a significant portion of the District's total wastewater flow, BOD, or TSS loading, the user shall be required to pay a service charge based on the formulas in Sections IV and V. All costs of monitoring wastewater components under Sections IV and V shall be the responsibility of the user.

SECTION III

Section IV of Ordinance No. 51 is hereby amended to read:

SECTION IV - SERVICE CHARGES. The methodology used to calculate service charges for users other than those charged in accordance with Section III of this ordinance shall, effective July 1, 2015, be the sum of the following:

Wastewater Flow (Flow)	$0.01101	per gallon/day (gpd) multiplied by 365 days or the number of days in the billing period
Biochemical Oxygen Demand (BOD)	$0.63762	per pound/day (lb/day) multiplied by 365 days or the number of days in the billing period
Total Suspended Solids (TSS)	$0.11346	per pound/day (lb/day) multiplied by 365 days or the number of days in the billing period

The General Manager may calculate and bill the sewer service charge of industrial, commercial, and institutional users on a more frequent basis (than annually).

SECTION IV

Exhibit "A" of Ordinance 51 is hereby replaced by the attached Exhibit "A."

SECTION V

The District does hereby elect, pursuant to Section 5473 of the Health and Safety Code of the State of California to have the sewer service charge for fiscal year 2014/2015 established by said District, collected on the tax roll of the County of Sonoma, State of California, in the manner provided pursuant to Sections 5471 through 5473.11 of the Health and Safety Code of the State of California.

SECTION VI

The Board of Directors hereby finds that the California Environmental Quality Act does not apply to the establishment of charges pursuant to this Ordinance, as such fees are for the purpose of meeting operations expenses, meeting financial reserve needs and requirements, and setting aside funds for capital projects necessary to maintain service within the existing District (14 California Code of Regulations 15273, California Public Resources Code Section 21080).

SECTION VII

If any section, subsection, sentence, clause, or phrase of this Ordinance is for any reason held to be unconstitutional and invalid, such decision shall not affect the validity of the remaining portion of this Ordinance. The Board of Directors hereby declares that it would have passed this Ordinance and every section, subsection, sentence, clause, or phrase thereof, irrespective of the fact that any one or more sections, subsections, sentences, clauses, or phrases be declared unconstitutional or invalid.

SECTION VIII

This Ordinance shall be and the same is hereby declared to be in full force and effect from and after thirty (30) days after the date of its passage and shall be published once before the expiration of fifteen (15) days after said passage, with the names of the Directors voting for or against the same, in a newspaper of general circulation, published in the County of Sonoma, State of California, and the District's Clerk of the Board shall post in the office of the District's Clerk, a certified copy of the full text of this Ordinance along with the names of those Directors voting for or against the Ordinance.

In regular session of the Board of Directors of the Sonoma Valley County Sanitation District, State of California, introduced, passed, and adopted after hearing this 19th day of May 2015, on regular roll call of the members of said Board by the following vote:

DIRECTORS:

COOK: Absent CARRILLO: Aye GORIN: Aye

Ayes: 2 Noes: 0 Abstain: 0 Absent: 1

WHEREUPON, the Chair declared the above and foregoing ordinance duly adopted and

SO ORDERED.

By: Susan Gorin
Chair, Board of Directors
County of Sonoma, State of California

ATTEST: Veronica A. Ferguson

By: Roxanne Epstein
Clerk of the Board

EXHIBIT A

EQUIVALENT SINGLE-FAMILY DWELLING BILLING UNIT FOR SONOMA VALLEY CSD

Use Category		Billing Basis: Flow gallons	BOD mg/l	TSS mg/l		2015-2016: Use	ESD
Residential							
	Single-Family	200	200	200		connections	1.00
	Condominium	200	200	200		dwelling units	1.00
	Multiple-Family	160	200	200		dwelling units	0.80
	Mobile home park	160	200	200		spaces	0.80
	Mobile home (Individual)	160	200	200		units	0.80
	Granny unit	160	200	200		unit	0.80
Commercial							
	Appliance repair	190	200	200		1,000 sq. ft.	0.95
	Art gallery	190	200	200		1,000 sq. ft.	0.95
	Auto dealers						
	With service facilities	190	180	280		connection	1.04
		38	180	280		add per service bay	0.21
	Without service facilities	190	200	200		connection	0.95
	Bakery	190	1000	600		1,000 sq. ft.	2.83
	Butcher					see note 1 below	
	Banks & financial institutions	190	130	80		1,000 sq. ft.	0.65
	Barber shop	19	130	80		chair	0.07
	Beauty shop	38	130	80		chair	0.13
	Bars & taverns	20	200	200		seat	0.10
	Car washes, self service	190	20	150		stall	0.59
	Camp ground or RV park						
	with hookups	125	200	200		site	0.63
	without hookups	75	200	200		site	0.38
	Churches, hall & lodges	2	200	200		seat	0.01
	Coffee shops	6	1000	600		seats	0.09
	Dry cleaners	285	150	110		1,000 sq. ft.	1.10
	Fire stations	190	200	200		1,000 sq. ft.	0.95
	Garages	95	180	280		service bays	0.52
	Hospitals						
	Convalescent	125	250	100		beds	0.57
	General	175	250	100		beds	0.80
	Veterinarian	6	250	100		cages	0.03
	Hotels/motels	100	310	120		sleeping rooms	0.52
	Laundromats	500	150	110		washing machines	1.92
	Library	190	200	200		1,000 sq. ft.	0.95
	Machine shops	152	180	280		1,000 sq. ft.	0.84
	Markets	38	800	800		1,000 sq. ft.	0.57
	Offices						
	Business	76	130	80		1,000 sq. ft.	0.26
	Dental	190	130	80		Exam. room	0.65
	Medical	190	130	80		Exam. room	0.65
	Post office	190	130	80		1,000 sq. ft.	0.65
	Resort					calc per ESD	
	Restaurants						
	Dine-in						
	With DW & garbage disp.	6	1000	600		seat	0.09
	With DW or garbage disp.	6	619	371		seat	0.06
	Without DW & garbage disp.	6	238	143		seat	0.03
	Take-out	475	238	143		1,000 sq. ft.	2.30
	Rest homes	125	250	100		beds	0.57
	Retail stores	38	150	150		1,000 sq. ft.	0.16
	Schools						
	Elementary	9	130	100		per student day	0.03
	High	14	130	100		per student day	0.05
	Service stations	380	180	280		set of gas pumps	2.09
		38	180	280		add per service bay	0.21
	Shoe repair	190	200	200		1,000 sq. ft.	0.95
	Theaters	2	200	200		seat	0.01
	Warehouse					see note 1 below	
	Others as determined by the Engr.					see note 1 below	

ALL COMMERCIAL ESDs TO BE DETERMINED BY THE GENERAL MANAGER USING THE FOLLOWING FORMULA:
ESD = (TSS x FLOW x 0.33) / (SFD TSS x SFD FLOW) + (BOD x FLOW x 0.33) / (SFD BOD x SFD FLOW) + (FLOW x (0.34 / SFD FLOW))

Annual Service Charge Formula		
Sum of the following:	Flow	$ 0.01101
	BOD	$ 0.63762
	TSS	$ 0.11346

Note 1: Use to be calculated on a case by case basis using the above formula

Definitions		
	Flow = Gallons per Day	
	BOD = Biological Oxygen Demand	DW = dishwasher
	ESD = Equivalent Single Family Dwelling	disp. = disposal

Attachment 5 – Equivalent Single-family Dwelling Units and Peak Wet Weather Flow Calculations

CSW | ST2

HOTEL SONOMA
Job No.: 5.1442.00
Prepared By: JAH
Prepared On: 8/28/15

45 Leveroni Court
Novato, CA 94949
415.883.9850

Table 1: Equiv. Single Family Dwelling Units			
Basin	Total ESD	Area (sf)	Area (acre)
A	85.01	849,262	19.50
B	888.47	3,667,368	84.19
C	98.60	747,551	17.16
D	1,252.25	7,860,976	180.46
E	471.82	4,775,597	109.63
F	541.43	5,172,888	118.75
Total	3,337.58	23,073,643	529.70

Table 2: Project Equiv. Single Family Dwelling			
Use	No. Units	ESD/Unit	ESD
Hotel	62	0.52	32.24
Restaurant	80	0.09	7.20
			39.44

Note: ESD calculations based on SVCSD Ordinance No. 6115, Hotel ESD calculated as 0.52 ESD per Sleep Room, Restaurant calculated as 0.09 ESD per seat)

Table 3: Equiv. Single Family Dwelling Units w/ Project			
Basin	Total ESD	Area (sf)	Area (acre)
F	541.43	5172888	118.75
Project	38.44	48,854	1.12
Total	579.87	5,221,743	119.87

Note: The project site (APN 018-251-017) produces 1 ESD in the existing condition, as such the Project ESD contribution to the existing model is 38.44 (39.44 ESD - 1 ESD = 38.44 ESD)

Table 4: Inflow and Infiltration			
Service Area	Area (acre)	I/I (gpd/acre)	I/I (gpd)
A	19.50	800	15,597
B	84.19	800	67,353
C	17.16	800	13,729
D	180.46	800	144,371
E	109.63	800	87,706
F	118.75	800	95,003
F w/Project	119.87	800	95,900
Total	529.70	800	423,758

Note: Total Calculations do not include Project Site

Table 5: Existing Waste Water Flows - w/o Project								
Service Area	No. ESDs	ADWF, gpd/ESD	Peak Factor	PDWF, gpd	I/I, gpd	PWWF, gpd	(cfs)	Sewer
A	85.01	200	2.0	34,004	15,597	49,601	0.08	MH-151-10
B	888.47	200	2.0	355,388	67,353	422,741	0.65	MH 151-4
C	98.60	200	2.0	39,440	13,729	53,169	0.08	MH 145-3
D	1,252.25	200	2.0	500,900	144,371	645,271	1.00	MH 138-4
E	471.82	200	2.0	188,728	87,706	276,434	0.43	MH 138-2
F	541.43	200	2.0	216,572	95,003	311,575	0.48	MH-137-8
Total	3,337.58	200	2.0	1,335,032	423,758	1,758,790	2.72	

HOTEL SONOMA
Job No.: 5.1442.00
Prepared By: JAH
Prepared On: 8/28/15

CSW ST2
45 Leveroni Court
Novato, CA 94949
415.883.9850

Table 6: Existing Waste Water Flows - w/ Project								
Service Area	No. ESDs	ADWF, gpd/ESD	Peak Factor	PDWF, gpd	I/I, gpd	PWWF, gpd	(cfs)	Sewer
A	85.01	200	2.0	34,004	15,597	49,601	0.08	MH-151-10
B	888.47	200	2.0	355,388	67,353	422,741	0.65	MH 151-4
C	98.60	200	2.0	39,440	13,729	53,169	0.08	MH 145-3
D	1,252.25	200	2.0	500,900	144,371	645,271	1.00	MH 138-4
E	471.82	200	2.0	188,728	87,706	276,434	0.43	MH 138-2
F w/Project	579.87	200	2.0	231,948	95,900	327,848	0.51	MH-137-8
Total	3,376.02	200	2.0	1,350,408	424,656	1,775,064	2.75	

Attachment 6 – SCWA Design and Construction Standards Excerpt

investigated, a report prepared, and construction controlled by the recommendations contained in the Geotechnical Engineer's report.

3.7 Other Agency Approval

The Project Engineer shall be responsible for obtaining any additional permits or authorizations from other regulatory agencies. Agencies that may have jurisdiction include, but are not limited to, the following:

- Amtrak
- Bay Area Air Quality Management District
- City of Santa Rosa
- City of Sonoma
- California Department of Fish and Game
- California Department of Transportation
- County of Sonoma
- NOAA Fisheries
- North Coast Regional Water Quality Control Board
- PRMD
- San Francisco Bay Regional Water Quality Control Board
- State Water Resources Control Board
- U.S. Department of the Army, Corps of Engineers
- U.S. Department of Fish and Wildlife
- Other Utility Companies

SECTION 4 - DESIGN STANDARDS

4.1 Design Criteria

A. Flow Characteristics - The Agency's Sanitation Zones and the Districts each have different flow characteristics. Flow characteristic information is contained in Standard Drawing No. 138 (Sanitary Sewer Sanitary Area flow Characteristics) available at the Agency's Office and at PRMD. The flow characteristics information for each Sanitation Zone and District includes the following:

- Average number of people per ESD
- Average dry weather flow (ADWF) per ESD in GPD
- Average dry weather flow (ADWF) 4-month running average
- Peak dry weather flow (PDWF) 5-year
- Ratio of peak (PDWF) to average (ADWF) flow
- Connected ESD load
- Requirement to add 800 gallons per acre per day rainfall derived inflow and infiltration to the PDWF in order to determine the design peak wet weather flow (PWWF)

B. Population Density - Population densities for determining the ultimate tributary area population shall be based on a review of the General Plan documents for the local planning area, actual count, or the character of the proposed development, whichever is greatest.

C. Commercial or Industrial Flows - Unit design flows used for commercial or industrial areas shall be based on the type of existing or proposed development and shall be determined by special study subject to the review and approval of the Agency.

D. Manning Formula - The diameter of gravity sewers shall be determined by use of the Manning formula, using a roughness coefficient, "n," of 0.013 for collector pipes, "n" of 0.014 for trunk sewer pipes, or the pipe manufacturer's recommendation, whichever is rougher.

E. Special Design Problems - Special design problems involving siphons, pumps, force mains, non-residential connections, or other unusual features require individual study and approval. Where deemed necessary, additional data/calculations may be requested from the Project Engineer to facilitate review.

F. References to be used as a guide to design of sewers - Reference is made to the Water Environment Federation (WEF) manual, *Gravity Sanitary Sewer Design and Construction* (latest edition), the American Society of Civil Engineers manual, *Design and Construction of Sanitary and Storm Sewer* (latest edition), the Metcalf & Eddy, Inc. text book *Wastewater Engineering: Collection and Pumping of Wastewater*, or other books or manuals of common industry use as approved by the Agency.

G. Mobile Home Parks - If the sewerage system is to be a privately owned sewerage system serving a mobile home park, the sewerage system shall be under the jurisdiction of the State of California Department of Housing and Community Development (State HCD). However, upon completion and prior to connection to the lateral, the sewerage system shall be subject to video inspection by the Agency to determine that all portions of the system within the mobile home park are secure against possible infiltration and/or inflow of storm, surface, and/or groundwater. Prior to the Agency's inspection, the State HCD shall provide the Agency with a full size set of the State HCD approved design drawings to be used by the Agency for the pre-connection inspection. All sewer construction within the mobile home park shall satisfactorily pass the test for leakage contained herein prior to connection to the Agency's or District's sewer system. The sewerage system shall be designed and constructed in accordance with Agency Standards.

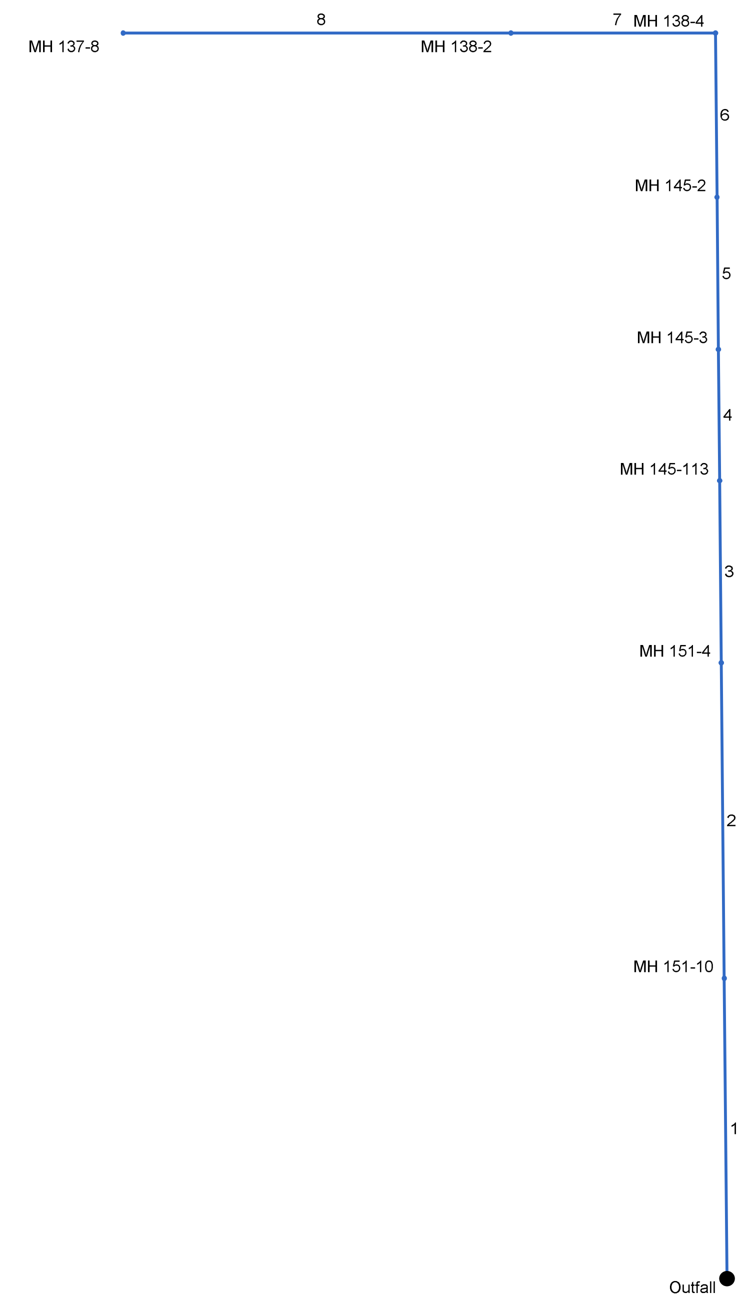
H. Public Schools - The design and installation of new sewerage systems serving public schools shall be under the jurisdiction of the State Division of Architecture (State Architect). However, upon completion and prior to connection to the lateral, the sewerage system shall be subject to video inspection by the Agency to determine that all portions of the system within the school site are secure against possible infiltration and/or inflow of storm, surface, and/or groundwater. Prior to the Agency's inspection, the State Architect shall provide the Agency with a full size set of the State Architect approved design drawings to be used by the Agency for the pre-connection inspection. All sewer construction within the school site shall satisfactorily pass the test for leakage contained herein prior to connection to the Agency's or District's sewer system.

4.2 Sewer Pipes

A. Gravity Sewer Pipe Materials - The following pipe materials shall be used for gravity sewer lines unless otherwise specifically required or approved by the Agency. Selection of the pipe type for a given project shall be made by the Project Engineer and be subject to review and approval by the Agency. Lateral sewers shall be of the same pipe type as

Attachment 7 – Existing Condition (without Project)
Hydraflow Storm Sewers Direct Output

Hydraflow Storm Sewers Extension for Autodesk® AutoCAD® Civil 3D® Plan



Project File: EXISTING CONDITION.stm	Number of lines: 8	Date: 8/25/2015

Storm Sewer Inventory Report

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
1	End	618.000	-90.432	MH	0.08	0.00	0.00	0.0	59.30	0.61	63.06	10	Cir	0.013	0.15	67.47	Basin A
2	1	649.000	0.000	MH	0.65	0.00	0.00	0.0	63.06	0.16	64.12	10	Cir	0.013	0.15	71.60	Basin B
3	2	375.000	0.000	MH	0.00	0.00	0.00	0.0	64.12	0.31	65.30	10	Cir	0.013	0.15	72.60	
4	3	270.000	-0.001	MH	0.08	0.00	0.00	0.0	65.30	0.26	65.99	10	Cir	0.013	0.15	73.67	Basin C
5	4	313.000	0.000	MH	0.00	0.00	0.00	0.0	65.99	1.25	69.90	10	Cir	0.013	0.15	79.18	
6	5	338.000	-0.001	MH	1.00	0.00	0.00	0.0	69.97	-0.07	69.74	10	Cir	0.013	1.00	81.59	Basin D
7	6	340.000	-89.566	MH	0.43	0.00	0.00	0.0	69.80	0.60	71.85	10	Cir	0.013	0.15	80.73	Basin E
8	7	645.000	0.000	MH	0.48	0.00	0.00	0.0	71.87	0.26	73.55	8	Cir	0.013	1.00	78.50	Basin F

Project File: EXISTING CONDITION.stm | Number of lines: 8 | Date: 8/25/2015

Storm Sewer Tabulation

Station		Len	Drng Area		Rnoff coeff	Area x C		Tc		Rain (I)	Total flow	Cap full	Vel	Pipe		Invert Elev		HGL Elev		Grnd / Rim Elev		Line ID
Line	To Line		Incr	Total		Incr	Total	Inlet	Syst					Size	Slope	Dn	Up	Dn	Up	Dn	Up	
		(ft)	(ac)	(ac)	(C)			(min)	(min)	(in/hr)	(cfs)	(cfs)	(ft/s)	(in)	(%)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	
1	End	618.000	0.00	0.00	0.00	0.00	0.00	0.0	19.5	0.0	2.72	1.71	4.99	10	0.61	59.30	63.06	60.13	69.66	66.60	67.47	Basin A
2	1	649.000	0.00	0.00	0.00	0.00	0.00	0.0	17.3	0.0	2.64	0.89	4.84	10	0.16	63.06	64.12	69.72	79.16	67.47	71.60	Basin B
3	2	375.000	0.00	0.00	0.00	0.00	0.00	0.0	15.5	0.0	1.99	1.23	3.65	10	0.31	64.12	65.30	79.21	82.31	71.60	72.60	
4	3	270.000	0.00	0.00	0.00	0.00	0.00	0.0	14.3	0.0	1.99	1.11	3.65	10	0.26	65.30	65.99	82.34	84.57	72.60	73.67	Basin C
5	4	313.000	0.00	0.00	0.00	0.00	0.00	0.0	12.8	0.0	1.91	2.45	3.50	10	1.25	65.99	69.90	84.60	86.98	73.67	79.18	
6	5	338.000	0.00	0.00	0.00	0.00	0.00	0.0	11.2	0.0	1.91	0.00	3.50	10	-0.07	69.97	69.74	87.01	89.58	79.18	81.59	Basin D
7	6	340.000	0.00	0.00	0.00	0.00	0.00	0.0	7.8	0.0	0.91	1.70	1.67	10	0.60	69.80	71.85	89.77	90.36	81.59	80.73	Basin E
8	7	645.000	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.0	0.48	0.62	1.38	8	0.26	71.87	73.55	90.37	91.39	80.73	78.50	Basin F

Project File: EXISTING CONDITION.stm | Number of lines: 8 | Run Date: 8/25/2015

NOTES:Known Qs only ; c = cir e = ellip b = box

Hydraulic Grade Line Computations

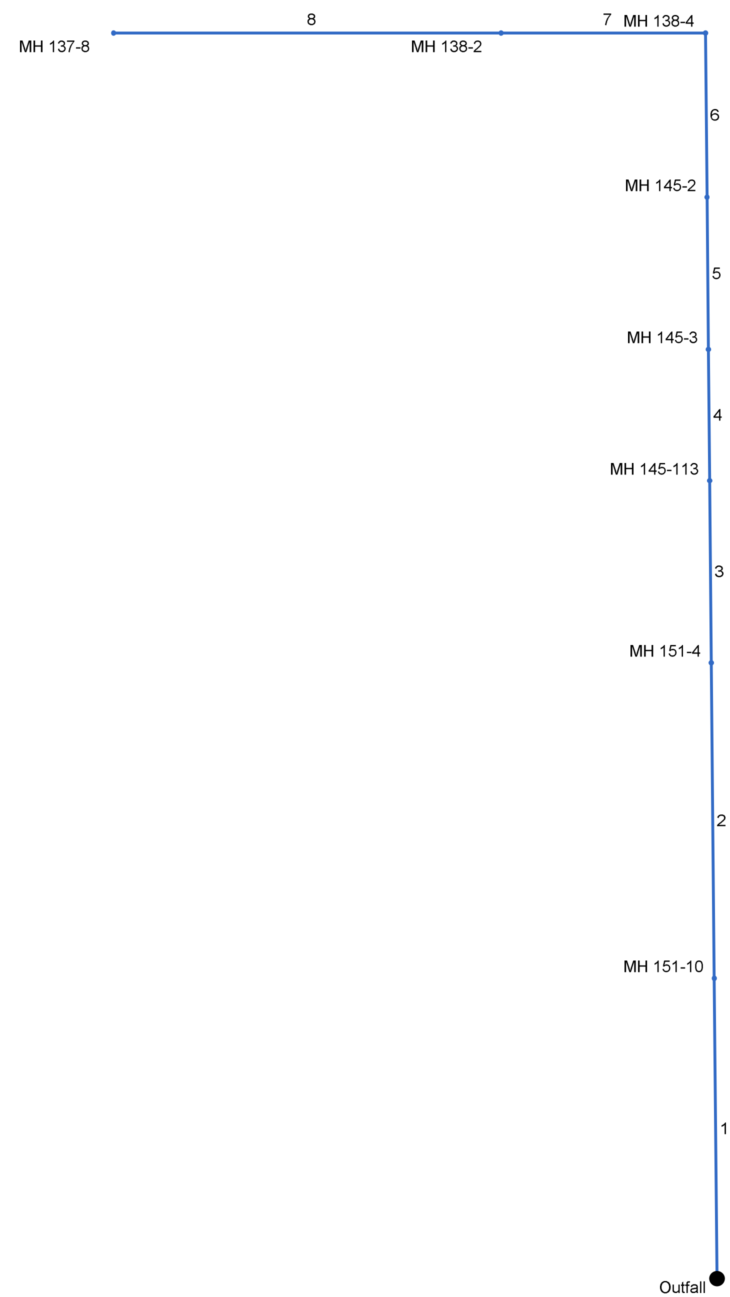
Line	Size	Q	Downstream								Len	Upstream								Check		JL coeff	Minor loss
			Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf		Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf	Ave Sf	Enrgy loss		
	(in)	(cfs)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(ft)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(%)	(ft)	(K)	(ft)
1	10	2.72	59.30	60.13	0.83	0.55	4.99	0.39	60.52	1.541	618.000	63.06	69.66	0.83	0.55	4.99	0.39	70.05	1.543	1.542	9.530	0.15	0.06
2	10	2.64	63.06	69.72	0.83	0.55	4.84	0.36	70.09	1.454	649.000	64.12	79.16	0.83	0.55	4.84	0.36	79.52	1.453	1.454	9.434	0.15	0.05
3	10	1.99	64.12	79.21	0.83	0.55	3.65	0.21	79.42	0.826	375.000	65.30	82.31	0.83	0.55	3.65	0.21	82.51	0.826	0.826	3.097	0.15	0.03
4	10	1.99	65.30	82.34	0.83	0.55	3.65	0.21	82.55	0.826	270.000	65.99	84.57	0.83	0.55	3.65	0.21	84.78	0.826	0.826	2.230	0.15	0.03
5	10	1.91	65.99	84.60	0.83	0.55	3.50	0.19	84.79	0.761	313.000	69.90	86.98	0.83	0.55	3.50	0.19	87.17	0.761	0.761	2.382	0.15	0.03
6	10	1.91	69.97	87.01	0.83	0.55	3.50	0.19	87.20	0.761	338.000	69.74	89.58	0.83	0.55	3.50	0.19	89.77	0.761	0.761	2.572	1.00	0.19
7	10	0.91	69.80	89.77	0.83	0.55	1.67	0.04	89.82	0.173	340.000	71.85	90.36	0.83	0.55	1.67	0.04	90.40	0.173	0.173	0.587	0.15	0.01
8	8	0.48	71.87	90.37	0.67	0.35	1.38	0.03	90.40	0.158	645.000	73.55	91.39	0.67	0.35	1.38	0.03	91.41	0.158	0.158	1.019	1.00	0.03

Project File: EXISTING CONDITION.stm | Number of lines: 8 | Run Date: 8/25/2015

; c = cir e = ellip b = box

Attachment 8 – Existing Condition (with Project) Hydraflow Storm Sewers Direct Output

Hydraflow Storm Sewers Extension for Autodesk® AutoCAD® Civil 3D® Plan



Project File: PROPOSED CONDITION.stm	Number of lines: 8	Date: 8/25/2015

Storm Sewer Inventory Report

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
1	End	618.000	-90.432	MH	0.08	0.00	0.00	0.0	59.30	0.61	63.06	10	Cir	0.013	0.15	67.47	Basin A
2	1	649.000	0.000	MH	0.65	0.00	0.00	0.0	63.06	0.16	64.12	10	Cir	0.013	0.15	71.60	Basin B
3	2	375.000	0.000	MH	0.00	0.00	0.00	0.0	64.12	0.31	65.30	10	Cir	0.013	0.15	72.60	
4	3	270.000	-0.001	MH	0.08	0.00	0.00	0.0	65.30	0.26	65.99	10	Cir	0.013	0.15	73.67	Basin C
5	4	313.000	0.000	MH	0.00	0.00	0.00	0.0	65.99	1.25	69.90	10	Cir	0.013	0.15	79.18	
6	5	338.000	-0.001	MH	1.00	0.00	0.00	0.0	69.97	-0.07	69.74	10	Cir	0.013	1.00	81.59	Basin D
7	6	340.000	-89.566	MH	0.43	0.00	0.00	0.0	69.80	0.60	71.85	10	Cir	0.013	0.15	80.73	Basin E
8	7	645.000	0.000	MH	0.51	0.00	0.00	0.0	71.87	0.26	73.55	8	Cir	0.013	1.00	78.50	Basin F w/ Project

Project File: PROPOSED CONDITION.stm | Number of lines: 8 | Date: 8/25/2015

Storm Sewer Tabulation

Station		Len	Drng Area		Rnoff coeff	Area x C		Tc		Rain (I)	Total flow	Cap full	Vel	Pipe		Invert Elev		HGL Elev		Grnd / Rim Elev		Line ID
Line	To Line		Incr	Total		Incr	Total	Inlet	Syst					Size	Slope	Dn	Up	Dn	Up	Dn	Up	
		(ft)	(ac)	(ac)	(C)			(min)	(min)	(in/hr)	(cfs)	(cfs)	(ft/s)	(in)	(%)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	
1	End	618.000	0.00	0.00	0.00	0.00	0.00	0.0	18.8	0.0	2.75	1.71	5.04	10	0.61	59.30	63.06	60.13	69.87	66.60	67.47	Basin A
2	1	649.000	0.00	0.00	0.00	0.00	0.00	0.0	16.6	0.0	2.67	0.89	4.90	10	0.16	63.06	64.12	69.93	79.58	67.47	71.60	Basin B
3	2	375.000	0.00	0.00	0.00	0.00	0.00	0.0	14.9	0.0	2.02	1.23	3.70	10	0.31	64.12	65.30	79.64	82.83	71.60	72.60	
4	3	270.000	0.00	0.00	0.00	0.00	0.00	0.0	13.7	0.0	2.02	1.11	3.70	10	0.26	65.30	65.99	82.86	85.16	72.60	73.67	Basin C
5	4	313.000	0.00	0.00	0.00	0.00	0.00	0.0	12.2	0.0	1.94	2.45	3.56	10	1.25	65.99	69.90	85.19	87.65	73.67	79.18	
6	5	338.000	0.00	0.00	0.00	0.00	0.00	0.0	10.6	0.0	1.94	0.00	3.56	10	-0.07	69.97	69.74	87.68	90.33	79.18	81.59	Basin D
7	6	340.000	0.00	0.00	0.00	0.00	0.00	0.0	7.4	0.0	0.94	1.70	1.72	10	0.60	69.80	71.85	90.53	91.16	81.59	80.73	Basin E
8	7	645.000	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.0	0.51	0.62	1.46	8	0.26	71.87	73.55	91.16	92.31	80.73	78.50	Basin F w/ Project

Project File: PROPOSED CONDITION.stm | Number of lines: 8 | Run Date: 8/25/2015

NOTES:Known Qs only ; c = cir e = ellip b = box

Hydraulic Grade Line Computations

Line	Size	Q	Downstream								Len	Upstream								Check		JL coeff	Minor loss
	(in)	(cfs)	Invert elev (ft)	HGL elev (ft)	Depth (ft)	Area (sqft)	Vel (ft/s)	Vel head (ft)	EGL elev (ft)	Sf (%)	(ft)	Invert elev (ft)	HGL elev (ft)	Depth (ft)	Area (sqft)	Vel (ft/s)	Vel head (ft)	EGL elev (ft)	Sf (%)	Ave Sf (%)	Enrgy loss (ft)	(K)	(ft)
1	10	2.75	59.30	60.13	0.83	0.55	5.04	0.40	60.53	1.575	618.000	63.06	69.87	0.83	0.55	5.04	0.40	70.27	1.577	1.576	9.741	0.15	0.06
2	10	2.67	63.06	69.93	0.83	0.55	4.90	0.37	70.31	1.487	649.000	64.12	79.58	0.83	0.55	4.90	0.37	79.96	1.487	1.487	9.650	0.15	0.06
3	10	2.02	64.12	79.64	0.83	0.55	3.70	0.21	79.85	0.851	375.000	65.30	82.83	0.83	0.55	3.70	0.21	83.04	0.851	0.851	3.191	0.15	0.03
4	10	2.02	65.30	82.86	0.83	0.55	3.70	0.21	83.08	0.851	270.000	65.99	85.16	0.83	0.55	3.70	0.21	85.37	0.851	0.851	2.298	0.15	0.03
5	10	1.94	65.99	85.19	0.83	0.55	3.56	0.20	85.39	0.785	313.000	69.90	87.65	0.83	0.55	3.56	0.20	87.85	0.785	0.785	2.457	0.15	0.03
6	10	1.94	69.97	87.68	0.83	0.55	3.56	0.20	87.88	0.785	338.000	69.74	90.33	0.83	0.55	3.56	0.20	90.53	0.785	0.785	2.653	1.00	0.20
7	10	0.94	69.80	90.53	0.83	0.55	1.72	0.05	90.58	0.184	340.000	71.85	91.16	0.83	0.55	1.72	0.05	91.20	0.184	0.184	0.627	0.15	0.01
8	8	0.51	71.87	91.16	0.67	0.35	1.46	0.03	91.20	0.178	645.000	73.55	92.31	0.67	0.35	1.46	0.03	92.35	0.178	0.178	1.150	1.00	0.03

Project File: PROPOSED CONDITION.stm | Number of lines: 8 | Run Date: 8/25/2015

; c = cir e = ellip b = box