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MEMORANDUM

DATE: June 14, 2019

TO: Lillian Hua, Associate Planner, City of Milpitas

FROM: Theresa Wallace, AICP, Principal
Matthew Wiswell, Project Manager

SUBJECT: California Environmental Quality Act (CEQA) Exemption Memo for the 2001 Tarob Court Project, Milpitas, California

This memorandum and attachments provide a description of the proposed 2001 Tarob Court Project (project) and substantial evidence to confirm that the project is exempt from further environmental analysis per Section 15168(c) of the California Environmental Quality Act (CEQA). The approximately 1.22-acre project site is located at 2001 Tarob Court in Milpitas, Santa Clara County. The proposed project would involve demolition of the existing building and concrete pavements on the site and construction of 40 residential units and associated parking, open space, and landscaping.

Attachment A provides a description of the proposed project. This attachment includes a description of the project location, existing site characteristics, the proposed project, and required approvals and entitlements. The City of Milpitas (City) is the CEQA lead agency for the proposed project.

The responses in the environmental checklist (included in Attachment B to this memo) prepared for the project demonstrate for each CEQA topic that because the proposed project was evaluated and impacts were mitigated to the degree possible as part of the Transit Area Specific Plan Final Environmental Impact Report (TASP FEIR), no additional CEQA review is required. CEQA Guidelines Section 15168(c)(4) recommends using a written checklist or similar device to confirm whether the environmental effects of a subsequent activity were adequately covered in a program EIR. The responses contained in the checklist confirm that the project was considered within the scope of the evaluation within the TASP FEIR and no new impacts were identified and no new mitigation measures are required.

The City can approve the 2001 Tarob Court Project as being within the scope of the Transit Area Specific Plan covered by the TASP FEIR and no new environmental document for the purposes of CEQA clearance is required. Pursuant to Public Resources Code Section 21166 and CEQA Guidelines Section 15168, the 2001 Tarob Court Project is exempt from further review under CEQA. This analysis finds that a Notice of Exemption may be prepared for the project and filed with the Santa Clara County Clerk.

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ATTACHMENT A

PROJECT DESCRIPTION

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ATTACHMENT A
PROJECT DESCRIPTION

The following describes the proposed 2001 Tarob Court Project (project) that would include construction of a four-story building with a total of 40 residential units. The project site is located within the planning area for the Milpitas Transit Area Specific Plan (TASP).[1] In addition to the description of the proposed project itself, this section includes a summary description of the proposed project's location and existing site characteristics and required approvals and entitlements. The City of Milpitas (City) is the lead agency for review of the proposed project under the California Environmental Quality Act (CEQA). As demonstrated in Attachment B, the proposed project is Categorically Exempt from further environmental review pursuant to section 15168(c) of the CEQA Guidelines and is within the scope of the certified Milpitas Transit Area Specific Plan Project Final Environmental Impact Report[2] (TASP FEIR).

PROJECT SITE

The following section describes the location and site characteristics for the project site and provides a brief overview of the existing land uses within and in the vicinity of the site.

Location and Surrounding Land Uses

The project site is located in the southern portion of the City of Milpitas, just north of the border with the City of San José. The approximately 1.22-acre project site is located at 2001 Tarob Court (Assessor's Parcel Number [APN] 086-036-034). The project site is located within a light industrial area of Milpitas that is predominantly developed with commercial office parks and other buildings for industrial and commercial uses. The project site is bordered to the north by Tarob Court, to the east by Lundy Place, and to the west and south by commercial and light industrial uses. The project site is in close proximity to the Great Mall shopping center in Milpitas, approximately 0.5 miles north of the project site.

Regional vehicular access to the project site is provided by Interstate 880 (I-880) located to the west and Interstate 680 (I-680) located east of the project site. The future Bay Area Rapid Transit (BART) Milpitas station is currently under construction and will be co-located with the Montague Valley Transportation Authority (VTA) light rail station, approximately 0.1 mile northeast of the project site. Figure 1 shows the site's regional and local context. Figure 2 shows an aerial of the existing site and surrounding land uses.

Site Characteristics and Current Site Conditions

The project site is currently developed with an approximately 16,463-square-foot, free standing office/light-industrial building. The project site includes a public utility easement that wraps around the project site from the southern corner along Lundy Place, where it is 40 feet in width, to the

1 Milpitas, City of, 2008. *Milpitas Transit Area Specific Plan.* June. Amended December 2011.
2 Milpitas, City of, 2008. *Milpitas Transit Area Specific Plan Final Environmental Impact Report.* May.

northern corner along Tarob Court, where it tapers down and varies from 4 feet to 10 feet in width. According to the Federal Emergency Management Agency (FEMA), the project site is located in a Zone AO Special Flood Hazard Area due to the proximity of East Penitencia Creek.[3] Pedestrian and vehicular access to the project site is via Lundy Avenue and Tarob Court.

Existing General Plan and Zoning

The project site is designated Multi-Family Residential High Density (MFH) within the City's General Plan.[4] The project site is located within the TASP Planning Area, and is within the Multi-Family Residential High Density with a Transit-Oriented Development (TOD) Overlay (R3-TOD) TASP zoning district.

MILPITAS TRANSIT AREA SPECIFIC PLAN

In 2008, the City of Milpitas adopted the Milpitas TASP as a guide for development and redevelopment of its light industrial corridor near the future Milpitas BART and current VTA station. The goals of the TASP are to create an attractive and livable neighborhood within walking distance of the future Milpitas BART and VTA light rail transit stations and to transform the older, light industrial area into a residential and commercial area that would meet demand for housing, offices, and shopping in the Bay Area. Milpitas designated the TASP to accommodate substantial growth, minimize impacts on local roadways, and reduce urban sprawl at the periphery of the region.

The TASP identifies subdistricts within the planning area, each having its own policies related to street design, land use, building height, setbacks, parks and building design. The project site is located within the Trade Zone/Montague subdistrict. The Trade Zone/Montague subdistrict is identified as being an attractive residential district with ample green space that would serve transit users as it is located directly adjacent to the BART station and VTA light rail.

Environmental impacts associated with implementation of the TASP were evaluated in the Final Environmental Impact Report (TASP FEIR). The TASP FEIR, certified in 2008, evaluates the environmental impacts of approximately: 1) 7,100 units of residential development; 2) 18,000 new residents; 3) 4,200 new jobs; 4) 1.0 million square feet of office space; 5) 285,000 square feet of retail space; and 6) 175,000 square feet of hotels.

[3] Federal Emergency Management Agency, 2009. FEMA Flood Map Service Center (map). Website: msc.fema.gov/portal/search?AddressQuery=2001%20Tarob%20Court%2C%20Milpitas#searchresultsanchor (accessed June 14, 2019).

[4] Milpitas, City of, 1994. *City of Milpitas General Plan*. December.

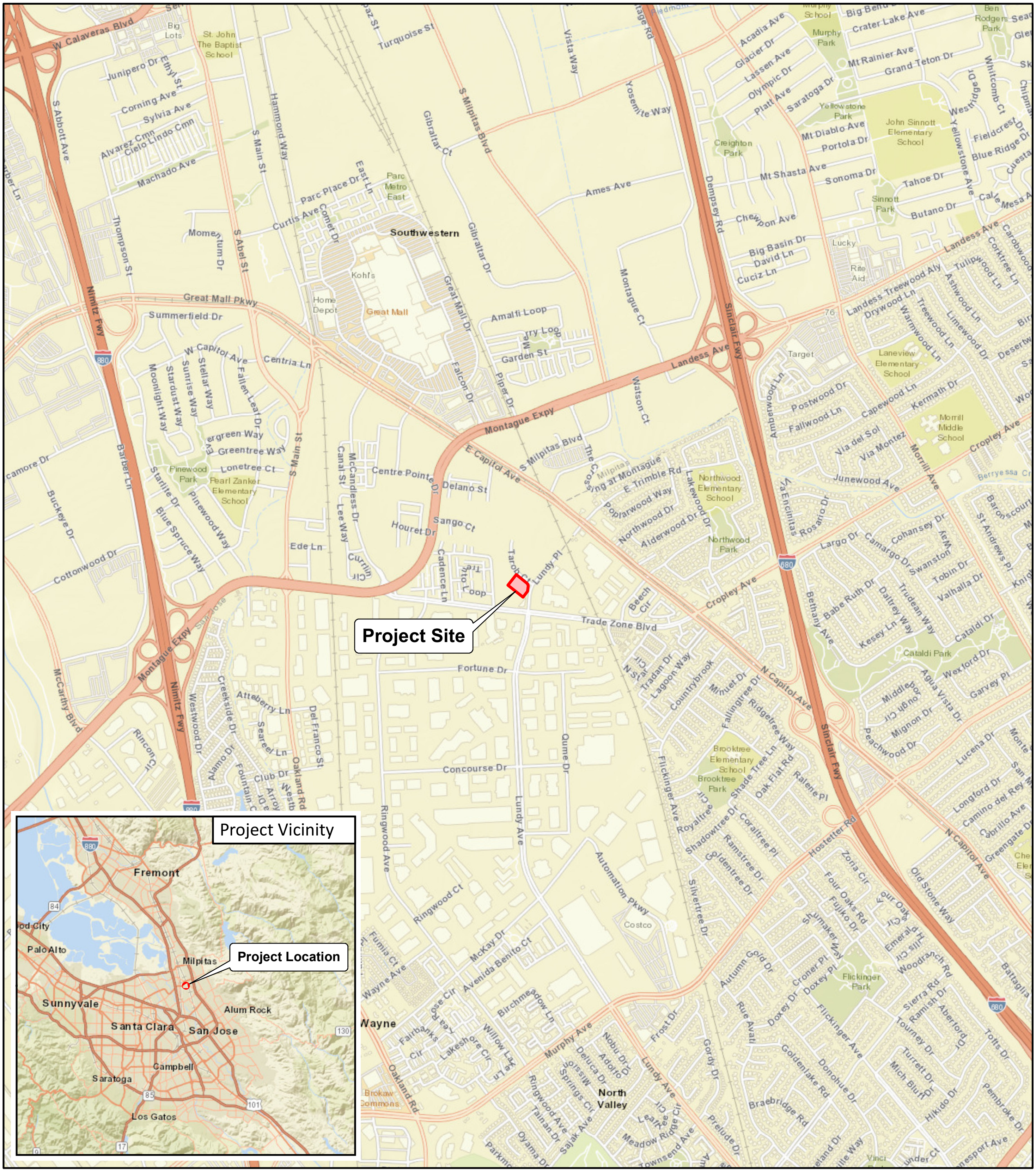

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FIGURE 1

N

0 1000 2000

Feet

2001 Tarob Court Project

Project Location and Regional Vicinity Map

SOURCE: Esri World Street Map (c)2019.

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FIGURE 2

0 250 500
FEET

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Project Site

2001 Tarob Court Project

Aerial Photograph of Project Site and Surrounding Land Uses

SOURCES: GOOGLE EARTH, 8/9/18; LSA, 2019.

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PROPOSED PROJECT

This section provides a description of the residential development project proposed for the project site as identified in the materials provided by the True Life Companies (the project applicant) dated May 2019. The project applicant proposes to demolish the existing building and pavements on the site, and construct a four-story building with a total of 40 residential units as well as associated landscaping and open space, parking and circulation, and infrastructure improvements. Figure 3 depicts the proposed site plan for the project.

The TASP FEIR evaluated the environmental impacts associated with implementation of the TASP within which the proposed project would be located. Table AA shows the housing units and population assumptions evaluated within the TASP FEIR, the number of approved units and under construction units and inclusion of the proposed project. As shown, the development associated with the proposed project is within the amount of growth evaluated and cleared within the TASP FEIR.

Table AA: Existing and Proposed Housing Units and Population within the TASP Area

	Evaluated Within the TASP FEIR	Approved	Proposed Project	Remaining Development Available
Housing Units	7,109[a]	6,875[b]	40	234
Population	17,915[a]	17,325[b]	100[b]	590[b]

Source: Lillian Hua, Associate Planner, City of Milpitas (April 2019).

[a] Milpitas, City of, 2008. Final Transit Area Specific Plan EIR.

[b] Estimated population associated with approved units, under construction units, and the proposed project was determined by using the residents per unit evaluated within the TASP FEIR (17,915 residents/7,109 units = 2.52 residents per unit).

Residential Development

The proposed project would result in the construction of 40 residential apartment units within three stories above a single-story parking garage, at a density of 32.8 dwelling units per acre. The unit mix would consist of 18 two-bedroom units ranging in size from 1,277 to 1,470 square feet, and 22 three-bedroom units ranging in size from 1,482 to 1,520 square feet. Six of the units would be designated as below market rate units. Figures 4 through 6 depict conceptual floor plans for the proposed project.

The proposed project would consist of a single building with residential units surrounding an open-air courtyard located above a ground floor parking garage. As shown in Figure 4, the ground floor would include an approximately 180-square-foot residential lobby at the northern corner of the courtyard in the center of the project site. As shown on Figure 5, an approximately 1,704-square-foot terrace would be located on the second floor at the northern end of the building. In addition, each of the residential floors would include private storage units. As noted above, the proposed building would consist of four floors and would be approximately 55 feet in height. Conceptual building elevations are shown in Figures 7 and 8.

Open Space and Landscaping

The proposed project would include a total of 0.44 acres of common open space and landscaped areas. A total of approximately 0.30 acres would consist of private common open area space for use by project residents. As shown in Figure 3, private open space would consist of the interior courtyard on the ground level of the proposed building and a walking path and landscaping along the southern portion of the building, including within the existing public utility easement. The interior courtyard would include seating areas and landscaping that would be screened from the parking garage by a dense row of columnar bamboo around each side. A designated walkway would connect the interior courtyard with the walking path and landscaping mentioned above. The remaining 0.14 acres of open space on the project site would consist of landscaped areas generally located in the northern portion of the site. A conceptual landscape plan is shown in Figure 9.

Access, Circulation, and Parking

Access to the project site would be provided by a driveway from Tarob Court at the northern corner of the project site. The driveway would provide access to an internal 26-foot access drive lane and fire lane, which would include a fire engine/garbage truck turnaround that would connect to the ground-level internal parking garage. The parking garage would provide 60 automobile parking spaces, including 27 compact parking spaces and one accessible parking space. An additional 14 automobile parking spaces would be provided along the access drive lane, including two compact spaces, one accessible parking space, and one electric vehicle parking space.

Utilities and Infrastructure

The project site is located in an urban area and is currently served by existing utilities, including: water, sanitary sewer, storm drainage, electricity, and telecommunications infrastructure. The majority of existing utilities within the boundary of the project site would be removed. Existing and proposed utility connections are discussed below.

Water

Water service in the City of Milpitas is provided by the Santa Clara Valley Water District (SCVWD). The proposed project includes the removal of all existing utilities within the project site. New water 8-inch lines within the project site would connect to existing service connections and the existing 12-inch main located within Tarob Court.

Wastewater

The San José/Santa Clara Water Pollution Control Plant (WPCP) provides wastewater treatment for Milpitas. The City of Milpitas maintains existing sanitary sewer lines within the vicinity of the site, including an 8-inch line located along Tarob Court. The proposed project includes the installation of a new on-site 8-inch wastewater line that would connect to the City's existing line.

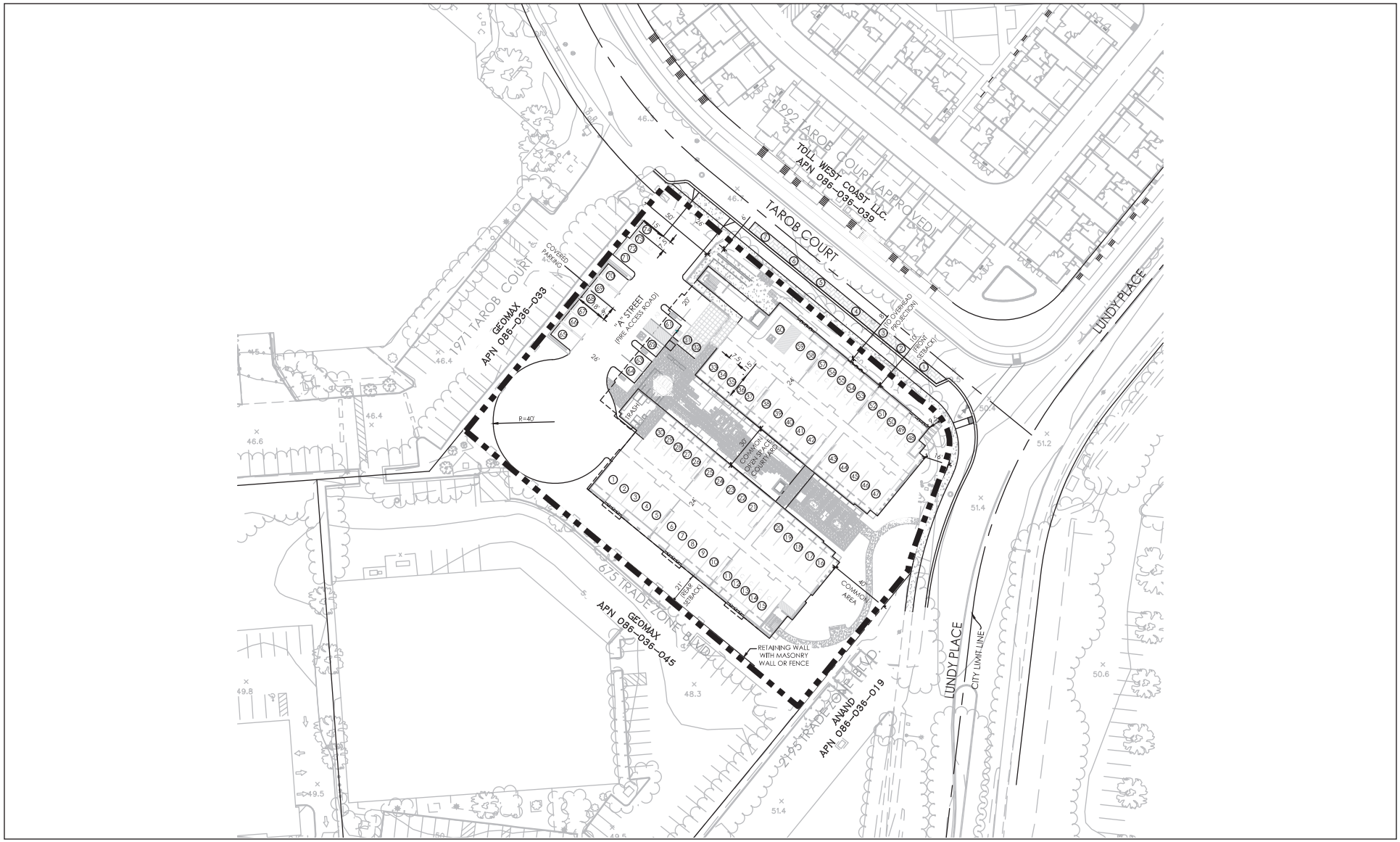

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FIGURE 3

0 60 120
FEET

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Project Site

2001 Tarob Court Project
Conceptual Site Plan

SOURCES: TRUE LIFE, WOOD RODGERS, MARCH 2019,

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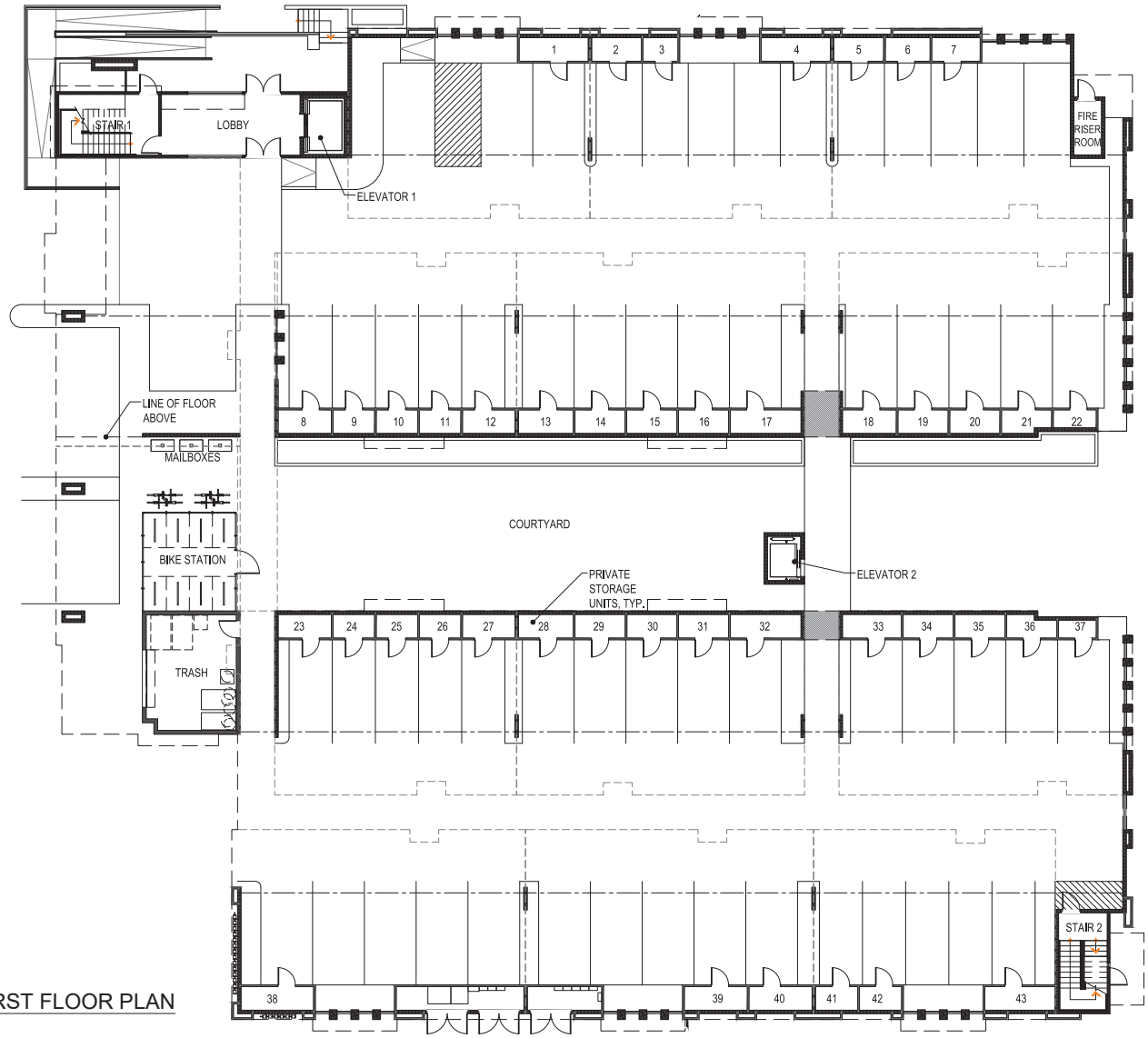

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FIGURE 4

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2001 Tarob Court Project
Conceptual First Floor Plan

SOURCES: TRUE LIFE; SDG ARCHITECTS, MARCH 2019,

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FIGURE 5

0 16 32
FEET

2001 Tarob Court Project
Conceptual Second Floor Plan

SOURCES: TRUE LIFE; SDG ARCHITECTS, MARCH 2019,

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FIGURE 6

0 16 32
FEET

2001 Tarob Court Project
Conceptual Third and Fourth Floor Plan

SOURCES: TRUE LIFE; SDG ARCHITECTS, MARCH 2019,

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North Elevation

West Elevation

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FIGURE 7

NOT TO SCALE

2001 Tarob Court Project

Conceptual Elevations - North and West

SOURCES: TRUE LIFE; SDG ARCHITECTS, MARCH 2019.

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South Elevation

East Elevation

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FIGURE 8

NOT TO SCALE

2001 Tarob Court Project

Conceptual Elevations - South and East

SOURCES: TRUE LIFE; SDG ARCHITECTS, MARCH 2019.

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FIGURE 9

0 20 40
FEET

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TREE MATRIX
TOTAL EXISTING TREES ON SITE: 34
TOTAL EXISTING TREES TO BE REMOVED: 34
TOTAL PROPOSED NEW TREES: 40

2001 Tarob Court Project
Conceptual Landscape Plan

SOURCES: TRUE LIFE; R3 STUDIOS; SDG ARCHITECTS, MARCH 2019.

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Stormwater

The proposed project would connect to the existing 12-inch municipal storm drain located at the northwest corner of the project site. The proposed project would include pervious pavers throughout the interior access driveway.

Electricity and Natural Gas

Electricity and natural gas services to the site are provided by Pacific Gas and Electric Company (PG&E). Existing underground utility connections and gas mains provide electricity and gas to the project site. The project includes removal of all existing utilities and would require the construction of new electricity and gas connections to serve the project. New electrical lines (servicing the project only) would be installed underground and connect to the existing joint trench box in the northern corner of the project site.

Demolition, Grading, and Construction

Development of the project would result in the demolition of the existing structure and pavement. A total of approximately 1,410 cubic yards of soils would be excavated and exported from the project site, and approximately 5,600 cubic yards would be filled on the project site to raise the site by approximately 4.5 feet to comply with the City's Flood Ordinance and create a level pad.

Construction of the proposed project is anticipated to occur over approximately 16 months, starting in April 2020 and ending in August 2021.

AMENDMENTS AND PERMITS

The following approvals and permits would be required for development of the proposed project:

- Site Development Permit
- Demolition Permit
- Building Permit
- Tentative Map

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ATTACHMENT B

ENVIRONMENTAL CHECKLIST
PURSUANT TO CEQA GUIDELINES SECTION 15168

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ATTACHMENT B
ENVIRONMENTAL CHECKLIST
PURSUANT TO CEQA GUIDELINES SECTION 15168

CEQA Guidelines 15168(c)(4) recommends using a written checklist or similar device to confirm whether the environmental effects of a subsequent activity were adequately covered in a program EIR. This checklist confirms that the 2001 Tarob Court Project is within the scope of the Transit Area Specific Plan[1] Final Environmental Impact Report[2] (TASP FEIR) and will have no effects and no new mitigations are required, and as such, the City can approve the 2001 Tarob Court Project as being within the scope of the TASP and covered by its FEIR and no new environmental document is required. Pursuant to Public Resources Code Section 21166 and CEQA Guidelines Section 15168, the 2001 Tarob Court Project is exempt from further review under CEQA.

1. AESTHETICS

	New Potentially Significant Impact	New Mitigation Required	Reduced Impact	No New Impact
Except as provided in Public Resources Code Section 21099, 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. In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☐	☒
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	☒

Discussion

Scenic Vistas

The project site is not located within a scenic viewshed or along a State Scenic Highway or other scenic highway. Flat topography and existing urban development constrain scenic vistas in the vicinity of the project site. Intermittent views of the Milpitas foothills to the northeast are available from the project site only when viewed from the northern edge of the project site. No on-site parks, open space lands or public lands adjacent to or in the vicinity of the proposed project have views of the foothills.

[1] Milpitas, City of, 2008a. *Milpitas Transit Area Specific Plan*. June. Amended December 2011.
[2] Milpitas, City of, 2008b. *Milpitas Transit Area Specific Plan Final Environmental Impact Report*. May.

Furthermore, as described in the TASP FEIR, the City's visual resources are outside of the TASP Area. Additionally, the proposed project would be required to comply with TASP policies and design standards related to scenic vistas. Therefore, the impacts associated with the proposed project would not result in new impacts to scenic vistas or substantially increase the severity of the less-than-significant impacts to scenic vistas identified in the TASP FEIR.

Scenic Resources

The only scenic resources located within the TASP Area are street trees located on McCandless Drive, approximately 0.5 miles west of the project site. There are no scenic resources located on the project site. Additionally, the City's Tree and Planting Ordinance (Ord. 201.1) protects significant trees and heritage trees throughout the City. Therefore, the impacts associated with the proposed project would not result in new impacts to scenic resources or substantially increase the severity of impacts than those analyzed in the TASP FEIR.

Visual Character

The TASP aims at improving the existing aesthetic value of the TASP Area and calls for new parks, trails, landscape buffers, and other design policies that would result in the enhancement of the visual character of the TASP Area. The TASP includes specific design standards to create a unified appearance to the TASP Area, consistent setbacks, landscaped buffers, street trees, and parks, which the TASP FEIR analyzed. The proposed project would conform to these design standards by providing street landscaping and landscaped setback areas.

The TASP allows buildings in the R3-TOD district up to 75 feet in height and requires a density of 21-40 dwelling units per acre. The proposed project would include construction of a four-story building that would be approximately 55 feet in height with a density of approximately 33 dwelling units per acre. Therefore, the proposed project would meet the building height limits and density standards set for in the TASP design standards, and would not conflict with zoning or other regulations governing scenic quality.

Light and Glare

Redevelopment of the TASP Area would result in the introduction of new sources of light and glare on the project site. As discussed in the TASP FEIR, development standards and policies would limit new sources of light and glare in the TASP Area. To minimize potential light and glare impacts, the proposed project would implement and be consistent with TASP development standards that address street and outdoor lighting. Therefore, the proposed project would not create impacts related to light and glare that would be new or more significant than those analyzed in the TASP FEIR.

Applicable Mitigation

No substantial changes in environmental circumstances have occurred for this topic, nor revisions to the project, nor new information that could not have been known at the time the TASP FEIR was certified leading to new or more severe significant impacts, and no new mitigation measures are required.

Applicable Policies

TASP Policies

- Development Standard: Utilities shall be underground or in subsurface conduits and accessible.

Conclusion

The TASP FEIR adequately evaluated the potential aesthetic impacts of the proposed project. Therefore, potential impacts would be less than significant and additional mitigation is not required.

2. AGRICULTURE AND FORESTRY RESOURCES

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the State's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and the forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.

	New Potentially Significant Impact	New Mitigation Required	Reduced Impact	No New Impact
Would the project:				
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), 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

The TASP FEIR did not analyze impacts to agricultural resources as the TASP Area is urban without any agricultural or forest land uses in the area or vicinity. The project site, located within the TASP Area, is also not used for agriculture. The Santa Clara County Important Farmland 2012 map designates lands within the TASP Area, including the project site, as "Urban and Built-Up Land." Thus, the TASP and the proposed project would have no impacts on agriculture or forestry resources.

Applicable Mitigation

No substantial changes in environmental circumstances have occurred for this topic, nor revisions to the project, nor new information that could not have been known at the time the TASP FEIR was

certified leading to new or more severe significant impacts, and no new mitigation measures are required.

Conclusion

The TASP FEIR adequately evaluated the agriculture and forestry impacts of the proposed project. Therefore, potential impacts would be less than significant and additional mitigation is not required.

3. AIR QUALITY

Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations.

	New Potentially Significant Impact	New Mitigation Required	Less Than Significant Impact	No New Impact
Would the project:				
a. Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
b. 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?	☐	☐	☐	☒
c. Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☐	☒
d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☐	☒

Discussion

Clean Air Plan Consistency

An air quality plan describes air pollution control strategies to be implemented by a city, county, or region classified as a non-attainment area. The main purpose of an air quality plan is to bring an area into compliance with the requirements of federal and State air quality standards.

The Bay Area Air Quality Management District (BAAQMD) guidelines were referenced to determine if a project would conflict with or obstruct implementation of an applicable air quality plan, which for the TASP FEIR was the 2005 Bay Area Ozone Strategy.[3] In forecasting future stationary and mobile source emissions and preparing the regional air quality plan, the BAAQMD uses growth projections prepared by ABAG. The BAAQMD based its 2005 Bay Area Ozone Strategy on population projections in the 2003 ABAG Projections.[4] The TASP FEIR found that population increases in the City are anticipated to exceed population increases accounted for by the 2003 ABAG Projections, thus resulting in a significant and unavoidable impact (Impact 3.6-1) related to consistency with the applicable federal Environmental Protection Agency (EPA) Clean Air Plan.

[3] Bay Area Air Quality Management District, 2006. *Bay Area 2005 Ozone Strategy*.

[4] Association of Bay Area Governments, 2003. *Projections 2003*.

The BAAQMD's current Clean Air Plan is the 2017 Clean Air Plan, which was adopted on April 19, 2017. The 2017 Clean Air Plan is a comprehensive plan to improve Bay Area air quality and protect public health. The 2017 Clean Air Plan defines control strategies to reduce emissions and ambient concentrations of air pollutants; safeguard public health by reducing exposure to air pollutants that pose the greatest heath risk, with an emphasis on protecting the communities most heavily affected by air pollution; and reduce greenhouse gas emissions to protect the climate. Consistency with the Clean Air Plan can be determined if the project does the following: 1) supports the goals of the Clean Air Plan; 2) includes applicable control measures from the Clean Air Plan; and 3) would not disrupt or hinder implementation of any control measures from the Clean Air Plan.

The proposed project would locate future residents within walking distance of public transportation, jobs, restaurants, and services. Implementation of the TASP includes policies that address transportation and land use that are consistent with the Clean Air Plan. TASP Policy 3.21 would provide continuous pedestrian sidewalks and safe bike routes throughout the TASP Area; Policy 3.22 encourages walking and biking routes to schools and major destinations; and Policy 3.33 requires new development within the TASP Area to provide incentives for alternative modes of transit, which support the Clean Air Plan. The proposed project would develop high-intensity, transit oriented residential development and would result in a building density at the project site that is similar to what was evaluated in the TASP FEIR. In addition, the population and housing units included in the proposed project would fall within the total development anticipated by the TASP FEIR, as mentioned in Section 10, Land Use and Planning. Therefore, implementation of the proposed project would not substantially increase population, vehicle trips, or VMT.

The TASP FEIR identified measures to reduce air emissions such as encouraging the use of pedestrian walkways and bikes, and designing streets for slower speeds, but concluded that air quality impacts would be significant and unavoidable. The project would implement the TASP measures and would not increase the previously-identified impacts. Thus conclusions about compliance with the Clean Air Plan in the TASP FEIR remain applicable to the project.

Regional Air Pollutant Emissions

The TASP FEIR indicates that the development of projects under the TASP could further contribute to non-attainment of air quality standards. The TASP FEIR also identified that buildout of the TASP could place sensitive land uses (land uses that could house sensitive receptors) near local intersections or roadways associated with air pollutant emissions that exceed (worsen) State or federal ambient air quality standards.

The 2001 Tarob Court Project would result in redevelopment of the site with new residential uses, similar to what the TASP envisioned. The new uses would result in mobile air quality impacts from increased vehicle trips to and from the project site and air quality impacts such as emissions generated from the use of landscaping equipment and consumer products. Emission estimates for operation of the project were calculated using CalEEMod. Model results are shown in Table BA.

The results shown in Table BA indicate that the proposed project would not exceed the significance criteria for annual ROG, NO_2, PM_{10} or $PM_{2.5}$ emissions; therefore, implementation of the proposed project would not have a significant effect on regional air quality and mitigation would not be

required. Therefore, the proposed project would not result in any new or more significant regional or local air quality impacts than described and evaluated in the TASP FEIR.

Table BA: Project Operational Emissions

	ROG	NO_x	PM_{10}	$PM_{2.5}$
Pounds Per Day				
Area Source Emissions	1.1	<0.1	<0.1	<0.1
Energy Source Emissions	<0.1	0.1	<0.1	<0.1
Mobile Source Emissions	0.3	1.2	0.5	0.1
Total Emissions	**1.5**	**1.3**	**0.5**	**0.2**
BAAQMD Thresholds	54.0	54.0	82.0	54.0
Exceed Threshold?	**No**	**No**	**No**	**No**
Tons Per Year				
Area Source Emissions	0.2	<0.1	<0.1	<0.1
Energy Source Emissions	<0.1	<0.1	<0.1	<0.1
Mobile Source Emissions	0.1	0.2	0.1	<0.1
Total Emissions	**0.3**	**0.2**	**0.1**	<0.1
BAAQMD Thresholds	10.0	10.0	15.0	10.0
Exceed Threshold?	**No**	**No**	**No**	**No**

Source: LSA (April 2019).

Construction-Related Impacts

Construction activities would cause temporary adverse effects on local air quality. Construction activities such as earthmoving, construction vehicle traffic and wind blowing over exposed earth would generate exhaust emissions and fugitive particulate matter emissions that affect local and regional air quality. Construction activities are also a source of organic gas emissions. Solvents in adhesives, non-water-based paints, thinners, some insulating materials, and caulking materials would evaporate into the atmosphere and would participate in the photochemical reaction that creates urban ozone. Asphalt used in paving is also a source of organic gases immediately after its application. Construction dust could affect local air quality at various times during construction of the project. The dry, windy climate of the area during the summer months creates a high potential for dust generation when, and if, underlying materials are exposed to the atmosphere. The effects of construction activities would be increased dustfall and locally elevated levels of particulate matter downwind of construction activity.

The TASP FEIR determined that construction of projects associated with the TASP would be less than significant with compliance with the BAAQMD's basic construction mitigation measures and TASP policies.

Construction emissions were estimated for the project using the California Emissions Estimator Model (CalEEMod) version 2016.3.2, consistent with BAAQMD recommendations. Construction of the proposed project is anticipated to occur over approximately 16 months, starting in April 2020 and ending in August 2021. Construction-related emissions are presented in Table BB. CalEEMod output sheets are included in Appendix A.

Table BB: Project Construction Emissions in Pounds Per Day

Project Construction	ROG	NO_x	Exhaust PM_{10}	Fugitive Dust PM_{10}	Exhaust $PM_{2.5}$	Fugitive Dust $PM_{2.5}$
Average Daily Emissions	2.5	10.8	0.5	0.7	0.5	0.3
BAAQMD Thresholds	54.0	54.0	54.0	BMP	82.0	BMP
Exceed Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Source: LSA (April 2019).

As shown in Table BB, construction emissions associated with the project would be less than significant for ROG, NO_x, $PM_{2.5}$, and PM_{10} exhaust emissions. Therefore, construction of the proposed project would result in similar construction-related, short-term air quality impacts as those impacts identified in the TASP FEIR. The BAAQMD requires the implementation of the BAAQMD's Basic Construction Mitigation Measures to reduce construction fugitive dust impacts to a less-than-significant level. These recommendations will be included in the conditions of approval for the proposed project:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
- All visible mud or dirt tracked-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 mph.
- All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible.
- Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
- A publicly-visible sign shall be posted with the telephone number and person to contact at the City of Milpitas regarding dust complaints. This person shall respond and take corrective action within 48 hours. The BAAQMD's phone number shall also be visible to ensure compliance with applicable regulations.

With implementation of these project conditions of approval, construction of the proposed project would result in similar construction-related, short-term air quality impacts as those impacts identified in the TASP FEIR. In addition, implementation of TASP Policy 5.16 would reduce construction-related air quality impacts; therefore, the proposed project would also not result in any new or more significant construction-related air quality impacts than were evaluated in the TASP FEIR. This impact would remain less than significant.

Localized Carbon Monoxide Impacts

The TASP FEIR identified that implementation of the TASP would have the potential to affect carbon monoxide concentrations along surface streets and near stagnation points such as major highways and heavily traveled and congested roadways. This increase in traffic would not only add more vehicles on the road but the increased congestion would cause existing non-project traffic to travel at slower, more polluting speeds. The TASP FEIR evaluated CO concentrations based on the BAAQMD's methodology for manual calculation of CO concentrations to estimate the impact of project traffic on existing and future carbon monoxide concentrations at intersections in and around the TASP Area.

The TASP FEIR found that background carbon monoxide levels are projected to be significantly lower in 2030 due to improvements in the automobile fleet, attrition of older, high-polluting vehicles, and improved fuel mixtures. Despite the addition of project and cumulative traffic, carbon monoxide concentrations at the intersections would decrease from existing to TASP buildout conditions (2030). This would be due to the beneficial effects of ongoing State and federal vehicle emissions reductions programs, which are expected to continue to generate reductions in average vehicle emissions of carbon monoxide per vehicle-mile-traveled for the foreseeable future. Therefore, the TASP FEIR determined that long-term increase in traffic due to development pursuant to the TASP would not violate any air quality standard or contribute to an existing or projected air quality violation in the vicinity of the planning area.

As discussed above, the proposed project would locate future residents within walking distance of public transportation, jobs, restaurants, and services. The proposed project would develop high-intensity, transit oriented residential development and would result in a building density at the project site that is similar to what was evaluated in the TASP FEIR. In addition, the population and housing units included in the proposed project would fall within the total development anticipated by the TASP FEIR, as mentioned in Section 11, Land Use and Planning. Therefore, implementation of the proposed project would not substantially increase vehicle trips and would not generate more vehicle trips than evaluated in the TASP FEIR. Therefore, impacts related to localized carbon monoxide would remain less than significant.

Local Community Risk and Hazard Impacts to Sensitive Receptors

The TASP FEIR identified a variety of pollutant or toxic air emissions, such as diesel exhaust and those from dry cleaning facilities, in addition to emissions that could be released from construction projects and operations associated with proposed projects. TASP Policy 5.23 requires project sponsors to inform future and/or existing sensitive receptors of any potential health impacts resulting from nearby sources of dust, odors, or toxic air contaminants, and where mitigation cannot

reduce these impacts. As identified in the TASP FEIR, this information could be disseminated through rental agreements, real property disclosure statements, and/or mailed notices to existing residents and property owners; and would include, but would not be limited to: location of dry cleaners, proximity to diesel emission from trucks and passenger vehicles, and light duty industrial operations.

Policy 5.25 requires an analysis of the impact on future sensitive receptors located within 500 feet of active rail lines or roadways if traffic exceeds 100,000 vehicles per day. The future Bay Area Rapid Transit (BART) and Montague Valley Transportation Authority (VTA) light rail is located approximately 750 feet northeast of the project site and would not generate harmful emissions at this distance. The roadways within 500 feet of the proposed project are Tarob Court, Lundy Place, and Trade Zone Boulevard; traffic on these roadways would not exceed 100,000 vehicles per day and therefore no further analysis is required. The proposed project does not include additional TAC sources in the project site; therefore implementation of the proposed project would not expose sensitive receptors to substantial pollutant concentrations.

Objectionable Odors

The TASP FEIR did not address potential odor impacts for the proposed project. The project would not include any activities or operations that would generate objectionable odors and, once operational, the project would not be a source of odors. Therefore, the project would not create objectionable odors affecting a substantial number of people. The proposed project would not increase impacts beyond those evaluated in the TASP FEIR and would have a less-than-significant impact related to odors.

Applicable Mitigation

Construction of the project would result in the temporary generation of fugitive dust emissions. Implementation of the project conditions of approval would ensure that construction of the proposed project would result in a less-than-significant impact. No new mitigation measures would be required.

Applicable Policies

General Plan Policies

- *Policy 3.d-G-2: Provide adequate bicycle parking and end-of trip support facilities for bicyclists at centers of public and private activity.*

- *Policy 3.d-I-9: Require developers to make new projects as bicycle and pedestrian "friendly" as feasible, especially through facilitating pedestrian and bicycle movements within sites and between surrounding activity centers.*

- *Policy 3.d-I-10: Encourage developer contributions toward pedestrian and bicycle capital improvement projects and end-of-trip support facilities.*

- *Policy 3.d-I-14: Include evaluation of bicycle facility needs in all planning applications for new developments and major remodeling or improvement projects.*

- *Policy 3.d-I-15: Encourage new and existing developments to provide end-of-trip facilities such as secure bicycle parking, on-site showers and clothing storage lockers, etc.*

- *Policy 2.b-I-2: Consider locating housing in close proximity to industrial developments where they can be served by existing city services and facilities.*

TASP Policies

- *Policy 3.21: Provide continuous pedestrian sidewalks and safe bike travel routes throughout the entire Transit Area and within development projects. New development shall install sidewalks per the street design standards in Chapter 5 [of the Specific Plan]. The City and/or private property owner shall install sidewalks in areas where they currently do not exist, and where new development is not anticipated during the Plan timeframe. City staff will review individual development applications to ensure that adequate pedestrian facilities are provided and are consistent with the Transit Area Plan's pedestrian improvements.*

- *Policy 3.22: Private development shall be encouraged to provide direct walking and biking routes to schools and major destinations, such as parks and shopping, through their property.*

- *Policy 3.27: Every resident of the Transit Area shall be able to safely walk and bike to the BART and VTA light rail stations. As projects are constructed, make sure that all the routes are continuous and designed to be attractive and safe for pedestrians.*

- *Policy 3.33: Require new development within the Transit Area to facilitate the use of alternative modes of transportation through programs such as carpool parking, the VTA's EcoPass Program, shuttles to transit stations and lunchtime destinations, assistance to regional and local ridesharing organizations, alternative work schedules, telecommuting, etc. Establish a Transportation Demand Management (TDM) program for this purpose, as described in Policy3.16.*

- *Policy 5.23: Require project sponsors to inform future and/or existing sensitive receptors (such as day care facilities, schools, nursing homes) of any potential health impacts resulting from nearby sources of dust, odors, or toxic air contaminants, and where mitigation cannot reduce these impacts.*

- *Policy 5.24: Allow only natural gas fireplaces, pellet stoves or EPA-Certified wood-burning fireplaces or stoves. Conventional open-hearth fireplaces shall not be permitted.*

- *Policy 5.16: During review of specific development proposals made to the City, sponsors of individual development projects under the Specific Plan shall implement the BAAQMD's approach to dust abatement. This calls for "basic" control measures that should be implemented at all construction sites, "enhanced" control measures that should be implemented in addition to the basic control measures at construction sites greater than four acres in area, and "optional"*

control measures that should be implemented on a case-by-case basis at construction sites that are large in area, located near sensitive receptors or which, for any other reason, may warrant additional emissions reductions (BAAQMD, 1999).

- *Policy 5.25: For new residential development that is proposed within 500 feet of active rail lines where vehicles emit diesel exhaust, or roadways where total daily traffic volumes from all roadways within 500 feet of such location exceed 100,000 vehicles per day, will, as part of its CEQA review, include an analysis of toxic air contaminants (which includes primarily diesel particulate matter (DPM)). If the results show that the carcinogenic human health risk exceeds the 10 people in a million standard for carcinogenic human health impacts established by the BAAQMD, the City may require upgraded ventilation systems with high efficiency filters, or other equivalent mechanisms, to minimize exposure of future residents.*

Conclusion

With implementation of the project conditions of approval, the proposed project would not result in significant air quality impacts. In addition, with implementation of the applicable TASP and General Plan Policies, the 2001 Tarob Court project would not create any new or worsening air quality impacts.

4. BIOLOGICAL RESOURCES

	New Potentially Significant Impact	New Mitigation Required	Less Than Significant Impact	No New Impact
Would the project:				
e. 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?	☐	☐	☐	☒
f. 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?	☐	☐	☐	☒
g. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
h. 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?	☐	☐	☐	☒
i. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
j. 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

Protected Plants and Wildlife

As described in the TASP FEIR, the area covered by the TASP consists of land previously altered by development. The majority of the TASP Area is covered in vacant industrial lots that have been previously developed and abandoned with structures that are partially or entirely dismantled, resulting in lots with compacted soils and ruderal (plants growing among refuse) habitats. With the exception of burrowing owls, the TASP FEIR determined that there is minimal potential for special-status species to occur due to the history of development in the TASP Area.

The only record of special-status species occurring in the area is for burrowing owls. The TASP FEIR notes that development of vacant and ruderal lots could result in a loss of burrowing owls or their nests. According to the TASP FEIR, TASP Policy 5.26 would reduce potential impacts to burrowing owls to a less-than-significant level. This policy would require preconstruction surveys, buffers during breeding season, and relocation by a qualified biologist in consultation with the California Department of Fish and Wildlife (CDFW) during the non-breeding season in conformance with all

necessary State and federal permits. With implementation of this polices, the proposed project would not result in impacts related to protected plants and wildlife that are new or more significant than those analyzed in the TASP FEIR.

Riparian Habitat

As described in the TASP FEIR, the project site is located in proximity to two drainages: Lower Penitencia Creek and east channel of Penitencia Creek. While these drainages lack high-quality riparian habitat, patches of riparian habitat exist. New development in the TASP Area could result in loss or degradation of this habitat. However, as noted in Attachment A, Project Description, the project site is not located directly adjacent to either drainage and vegetation is limited to ornamental trees, shrubs, and grasses and does not contain any riparian habitat. Therefore, the project site does not support State or federal jurisdictional habitat areas or other sensitive natural communities. Therefore, the proposed project would not create impacts related to riparian habitat that are new or more significant than those analyzed in the TASP FEIR.

Federally Protected Wetlands

As the TASP FEIR states, Penitencia Creek and the east channel of Penitencia Creek and their tributaries receive protection under Section 404 of the Clean Water Act. Wetlands associated with these drainage features also potentially receive protection under Section 404.

The TASP has specific design guidelines, including setbacks that would reduce direct impacts on creeks within the TASP Area. TASP Policy 5.29 requires setbacks from creeks to be a minimum 25 feet from top of bank or from a maintenance road, if one exists. However, as noted above, the project site is not located directly adjacent to either of the drainages within the proximity of the site. The proposed project would conform to the setback requirements and other design standards provided in the TASP, and therefore would not create impacts related to wetlands that are new or more significant than those analyzed in the TASP FEIR.

Wildlife Movement Corridors

As the TASP FEIR states, nesting habitat for non-listed special-status raptor species occurs in and near the TASP Area. Many bird species use the existing ornamental trees for cover, nesting, or stop-over locations during migration, especially with the availability of water from the drainages within the TASP Area. Removal of large, mature trees can cause direct mortality to nesting birds and their young and construction disturbance can cause nest abandonment resulting in indirect loss to avian species. Raptors also could potentially use large and/or mature trees in the TASP Area for nesting. Raptors and other common birds and their nests and eggs are protected under California Department of Fish and Game Code 3503.5. The proposed project would implement TASP Policy 5.27 which would require a qualified biologist to conduct a survey that would be considered by the U.S. Fish and Wildlife Service (USFWS) and CDFW as appropriate, on a case-by-case basis in certain conditions, to determine whether a project would require avoidance procedures. Implementation of General Plan Policies 4.b-I-4 and 4.b-I-5 and TASP Policy 5.27 would reduce potential impacts to nesting raptors and other birds to less-than-significant levels. The proposed project would conform to the above policies and therefore would not create impacts related to migrating wildlife that are new or more significant than those analyzed in the TASP FEIR.

Mature Trees

The TASP FEIR does not contain a comprehensive tree survey. The TASP FEIR recognizes that the impacts of the high intensity, transit-oriented redevelopment of the area would require removal of many trees. The loss of protected trees would be a significant impact (Impact 3.8-3) that would require compensation per the City ordinances. There are 34 trees located on the project site, none of which are protected or qualify for Heritage or Specimen status. The proposed project would result in the removal of all of the trees on the project site and the planting of approximately 40 new trees. Therefore, the proposed project would not create impacts related to mature trees that are new or more significant than those analyzed in the TASP FEIR.

Applicable Mitigation

No substantial changes in environmental circumstances have occurred for this topic, nor revisions to the project, nor new information that could not have been known at the time the TASP FEIR was certified leading to new or more severe significant impacts, and no new mitigation measures are required.

Applicable Policies

TASP Policies

- *Policy 5.26: For any project sites that are either undeveloped or vacant and support vegetation, or project sites which are adjacent to such land, a pre-construction survey shall be conducted by a qualified biologist within 30 days of the onset of construction. This survey shall include two early morning surveys and two evening surveys to ensure that all owl pairs have been located. If preconstruction surveys undertaken during the breeding season (February 1st through July 31st) locate active nest burrows, an appropriate buffer around them (as determined by the project biologist) shall remain excluded from construction activities until the breeding season is over. During the non-breeding season (August 15th through January 31st), resident owls may be relocated to alternative habitat. The relocation of resident owls shall be according to a relocation plan prepared by a qualified biologist in consultation with the California Department of Fish and Game (CDFG). This plan shall provide for the owl's relocation to nearby lands possessing available nesting habitat. Suitable development-free buffers shall be maintained between replacement nest burrows and the nearest building, pathway, parking lot, or landscaping. The relocation of resident owls shall be in conformance with all necessary state and federal permits.*

- *Policy 5.27: To mitigate impacts on non-listed special-status nesting raptors and other nesting birds, a qualified biologist will survey the site for nesting raptors and other nesting birds within 14 days prior to any ground disturbing activity or vegetation removal. Results of the surveys will be forwarded to the U.S. Fish and Wildlife Service (USFWS) and CDFG (as appropriate) and, on a case-by-case basis, avoidance procedures adopted. These can include construction buffer areas (several hundred feet in the case of raptors) or seasonal avoidance. However, if construction activities occur only during the non-breeding season between August 31 and February 1, no surveys will be required.*

- *Policy 5.29: Per Figure 5-23 G and Tables 5-1 and 5-2 [of the Specific Plan], a minimum 25 foot setback from the top of bank of any creek or drainage channel, or from a maintenance road if one exists, shall be provided.*

Conclusion

The TASP FEIR adequately evaluated the biological resources impacts of the proposed project. Therefore, potential impacts would be less than significant and additional mitigation is not required.

5. CULTURAL RESOURCES

	New Potentially Significant Impact	New Mitigation Required	Reduced Impact	No New Impact
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

Historic Resources

The project site is fully developed with a light-industrial building. The existing structure is not considered a significant historic resource under the State or federal standards for historic resources. The only historic resource in the TASP Area that is listed in the City's Register of Cultural Resources is the Old Ford Motor Assembly Plant now known as the Great Mall, which is located approximately 0.6 miles north of the project site. Therefore, the proposed project would not result in impacts to buildings that are historic resources.

Prehistoric and Historical Archaeological Resources

No archaeological resources have been identified on the project site. However, as noted in the TASP FEIR, the TASP Area is considered sensitive for archaeological resources. One Native American archaeological resource, CA-SCL-593, and a prehistoric archaeological site are located adjacent to the TASP Area. Previous archaeological studies suggest that there could be an archeological complex in and around these sites that might extend into the TASP Area. The TASP FEIR also determined that there is a moderate to high likelihood that unrecorded Native American cultural resources exist on sites within the TASP Area due to early settlements along Penitencia Creek.

While subsurface cultural resources are not anticipated to be encountered with demolition and grading of the site, there is a chance that construction activities could affect previously-unidentified

archaeological resources on the project site. The TASP FEIR identifies Policy 5.34 to reduce the impacts to previously unidentified archeological resources to a less-than-significant level through construction monitoring, and if remains are found, temporary halting of construction until development of a mitigation plan and its implementation. This measure applies to the project site, the same as it applies to the TASP.

Implementation of Policy 5.34 from the TASP would reduce impacts to previously unidentified archeological resources to a less-than-significant level. Implementing the proposed project would not lead to new or more severe impacts to archaeological resources that would occur beyond those already identified in the TASP FEIR.

Disturbance of Human Remains

All development within the TASP Area must conform to State laws pertaining to the discovery of human remains. If human remains of Native American origin are discovered during project construction, the developer and/or Planning Department would be required to comply with State laws relating to the disposition of Native American burials, which fall within the jurisdiction of the Native American Heritage Commission.

Sections 21083.2 and 21084.1 of the Public Resources Code state that if any human remains are discovered or recognized in any location on the project site, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until required conditions are met. This requirement would be applicable and would reduce impacts to potential human remains to a less-than-significant level. These potential impacts would not exceed those already identified in the TASP FEIR, and the project would not result in any new or more significant impacts to cultural resources beyond those identified in the TASP FEIR.

Applicable Mitigation

No substantial changes in environmental circumstances have occurred for this topic, nor revisions to the project, nor new information that could not have been known at the time the TASP FEIR was certified leading to new or more severe significant impacts, and no new mitigation measures are required.

Applicable Policies

Pursuant to CEQA Guidelines 15064.5 (f), if potentially significant cultural resources are discovered during ground-disturbing activities associated with project preparation, construction, or completion, work shall halt in that area until a qualified archaeologist can assess the significance of the find, and, if necessary, develop appropriate treatment measures in consultation with Santa Clara County and other appropriate agencies and interested parties. For example, a qualified archaeologist shall follow accepted professional standards in recording any find including submittal of the standard Department of Parks and Recreation (DPR) Primary Record forms (Form DPR 523) and locational information to the California Historical Resources Information Center Office (Northwest Information Center). The consulting archaeologist shall also evaluate such resources for significance per California Register of Historical Resources eligibility criteria (Public Resources Code Section 5024.1; Title 14 CCR Section 4852). If the archaeologist determines that the find does not meet the CEQA

standards of significance, construction shall proceed. However, if the archaeologist determines that further information is needed to evaluate significance, the Planning Department staff shall be notified and a data recovery plan shall be prepared.

All future development in the TASP Area will be in accordance with State laws pertaining to the discovery of human remains. Accordingly, if human remains of Native American origin are discovered during project construction, the developer and/or the Planning Department would be required to comply with State laws relating to the disposition of Native American burials, which fall within the jurisdiction of the Native American Heritage Commission (PRC Sec. 5097). Sections 21083.2 and 21084.1 of the PRC states that if any human remains are discovered or recognized in any location on the project site, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until:

- The Santa Clara County Coroner/Sheriff has been informed and has determined that no investigation of the cause of death is required; and
- If the remains are of Native American origin,
    - The descendants of the deceased Native Americans have made a recommendation to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in PRC Section 5097.98, or
    - The Native American Heritage Commission was unable to identify a descendant or the descendant failed to make a recommendation within 24 hours after being notified by the commission

TASP Policies

- *Policy 5.32: See this policy in Section 4, Biological Resources.*
- *Policy 5.34: Any future ground disturbing activities, including grading, in the Transit Area shall be monitored by a qualified archaeologist to ensure that the accidental discovery of significant archaeological materials and/or human remains is handled according to CEQA Guidelines § 15064.5 regarding discovery of archeological sites and burial sites, and Guidelines §15126.4(b) identifying mitigation measures for impacts on historic and cultural resources. (Reference CEQA § 21083.2, 21084.1.) In the event that buried cultural remains are encountered, construction will be temporarily halted until a mitigation plan can be developed. In the event that human remains are encountered, the developer shall halt work in the immediate area and contact the Santa Clara County coroner and the City of Milpitas. The coroner will then contact the Native American Heritage Commission (NAHC) which will in turn contact the appropriate Most Likely Descendent (MLD). The MLD will then have the opportunity to make a recommendation for the respectful treatment of the Native American remains and related burial goods.*

Conclusion

The TASP FEIR adequately evaluated the potential cultural resources impacts of the proposed project. Therefore, potential impacts would be less than significant and additional mitigation is not required.

6. ENERGY

	New Potentially Significant Impact	New Mitigation Required	Reduced Impact	No New Impact
Would the project:				
a. Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation?	☐	☐	☐	☒
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☐	☒

Discussion

The TASP evaluated energy in Section 3.12 Greenhouse Gases and Climate Change.

The TASP FEIR determined that buildout under the TASP would increase the total demand for electrical energy in the Transit Area. If current trends continue, total consumption of electrical energy would increase from 10 million to 169 million kilowatt hours (kWh), an increase of 159 million kWh of electrical power. The TASP FEIR found that reductions in GHG emissions associated with on-going energy efficient building standards are expected to achieve a reduction of 3 million metric tons of carbon dioxide equivalents Statewide by 2020. The TASP EIR indicated that emission reductions associated with existing energy efficient appliance standards are expected to result in a reduction of an additional 7 million metric tons of carbon dioxide equivalent emissions by 2020.

The TASP FEIR found that implementation of the TASP polices and other State requirements at the local level would reduce projected GHG emissions from electrical generation, which would ensure that the additional energy that homes and businesses consume will not impede achievement of the statewide reduction in emissions mandated by the California Climate Solutions Act of 2006. Therefore, the impact of increased energy consumption in the TASP was considered to be less than significant.

Construction-Period Energy Use

The anticipated construction schedule assumes that the proposed project would be built over 16 months. The proposed project would require demolition, grading, site preparation, and building activities during construction.

Construction of the proposed project would require energy for the manufacture and transportation of building materials, preparation of the site for demolition and grading activities, and building construction. Petroleum fuels (e.g., diesel and gasoline) would be the primary sources of energy for

these activities. In order to increase energy efficiency on the site during project construction, the project would restrict equipment idling times to 5 minutes or less and would require construction workers to shut off idle equipment, as required by the BAAQMD Basic Construction Mitigation Measures. Energy usage on the project site during construction would be temporary in nature and would be relatively small in comparison to the State's available energy sources. Therefore, construction energy impacts would be less than significant, and no mitigation would be required.

Operational Energy Use

Energy use consumed by the proposed project would be associated with natural gas use, electricity consumption, and fuel used for vehicle trips associated with the project. Energy and natural gas consumption was estimated using default energy intensities by building type in CalEEMod. In addition, the proposed buildings would be constructed to CALGreen standards, which was included in CalEEMod. Electricity and natural gas usage estimates associated with the proposed project are shown in Table BC.

In addition, the proposed project would result in energy usage associated with gasoline to fuel project-related trips. Based on the CalEEMod analysis, the proposed project would result in approximately 236,657 vehicle miles traveled (VMT) per year. The average fuel economy for light-duty vehicles (autos, pickups, vans, and SUVs) in the United States has steadily increased from about 14.9 miles per gallon (mpg) in 1980 to 22.0 mpg in 2015.[5] Therefore, using the USEPA fuel economy estimates for 2015, the proposed project would result in the consumption of approximately 10,757 gallons of gasoline per year. Table BC, below, shows the estimated potential increased electricity and natural gas demand associated with the proposed project.

Table BC: Estimated Annual Energy Use of Proposed Project

Land Use	Electricity Use (kWh per year)	Natural Gas Use (therms per year)	Gasoline (gallons per year)
Residential	164,960	346	**10,575**
Parking Structure	46,560	0	0
Parking Lot	1,960	0	0
Open Space/Landscaping	0	0	0
Total	**213,480**	**346**	**10,575**

Source: LSA (May 2019).

As shown in Table BC, the estimated potential increased electricity demand associated with the proposed project is 213,480 kWh per year. In 2017, California consumed approximately 288,614 gigawatt-hours (GWh) or 288,614,000,000 kWh.[6] Of this total, Santa Clara County consumed 17,189

[5] U.S. Department of Transportation, 2017. "Table 4-23: Average Fuel Efficiency of U.S. Light Duty Vehicles." Website: www.bts.gov/archive/publications/national_transportation_statistics/table_04_23 (accessed June 14, 2019).

[6] California Energy Commission, 2017. Energy Consumption Data Management Service. Electricity Consumption by County. Website: www.ecdms.energy.ca.gov/elecbycounty.aspx (accessed June 14, 2019).

GWh or 17,189,540,000 kWh.[7] Therefore, electricity demand associated with the proposed project would be less than 0.01 percent of Santa Clara County's total electricity demand.

In addition, as shown in Table BC, the estimated potential increased natural gas demand associated with the proposed project is 346 therms per year. In 2017, California consumed approximately 12,571 million therms or 12,571,000,000 therms, while Santa Clara County consumed approximately 445 million therms or approximately 445,979,800 therms.[8] Therefore, natural gas demand associated with the proposed project would be less than 0.01 percent of Santa Clara County's total natural gas demand.

In addition, the proposed project would result in energy usage associated with gasoline to fuel project-related trips. As shown above in Table 3, vehicle trips associated with the proposed project would consume approximately 44,369 gallons of gasoline per year. In 2015, vehicles in California consumed approximately 15.1 billion gallons of gasoline.[9] Therefore, gasoline demand generated by vehicle trips associated with the proposed project would be a minimal fraction of gasoline and diesel fuel consumption in California.

The proposed project would locate future residents within walking distance of public transportation, jobs, restaurants, and services. Implementation of the TASP includes policies that address transportation and land use. TASP Policy 3.21 would provide continuous pedestrian sidewalks and safe bike routes throughout the TASP Area; Policy 3.22 encourages walking and biking routes to schools and major destinations; and Policy 3.33 requires new development within the TASP Area to provide incentives for alternative modes of transit. The proposed project would develop high-intensity, transit oriented residential development. Therefore, the proposed project would support the ability to use alternative modes of transportation, would promote initiatives to reduce vehicle trips and vehicle miles traveled, and would increase the use of alternate means of transportation, which would allow for a decreased dependence on nonrenewable energy resources.

In addition, the proposed project would be constructed to CALGreen standards, which would help to reduce energy and natural gas consumption. Therefore, the proposed project would not result in the wasteful, inefficient, or unnecessary consumption of fuel or energy and would incorporate renewable energy or energy efficiency measures into building design, equipment use, and transportation. Impacts would be less than significant.

Conflict or Obstruct a State or Local Plan for Renewable Energy or Energy Efficiency

In 2002, the Legislature passed Senate Bill 1389, which required the California Energy Commission (CEC) to develop an integrated energy plan every two years for electricity, natural gas, and transportation fuels, for the California Energy Policy Report. The plan calls for the State to assist in the transformation of the transportation system to improve air quality, reduce congestion, and

7 Ibid.

8 California Energy Commission, 2017. Energy Consumption Data Management Service. Gas Consumption by County. Website: www.ecdms.energy.ca.gov/gasbycounty.aspx (accessed June 14, 2019).

9 California Energy Commission, 2017. California Gasoline Data, Facts, and Statistics. Website: www.energy.ca.gov/almanac/transportation_data/gasoline (accessed June 14, 2019).

increase the efficient use of fuel supplies with the least environmental and energy costs. To further this policy, the plan identifies a number of strategies, including assistance to public agencies and fleet operators in implementing incentive programs for zero emission (ZE) vehicles and their infrastructure needs, and encouragement of urban designs that reduce VMT and accommodate pedestrian and bicycle access.

The CEC recently adopted the 2017 Integrated Energy Policy Report.[10] The 2017 Integrated Energy Policy Report provides the results of the CEC's assessments of a variety of energy issues facing California. Many of these issues will require action if the State is to meet its climate, energy, air quality, and other environmental goals while maintaining energy reliability and controlling costs. The 2017 Integrated Energy Policy Report covers a broad range of topics, including implementation of Senate Bill 350, integrated resource planning, distributed energy resources, transportation electrification, solutions to increase resiliency in the electricity sector, energy efficiency, transportation electrification, barriers faced by disadvantaged communities, demand response, transmission and landscape-scale planning, the California Energy Demand Preliminary Forecast, the preliminary transportation energy demand forecast, renewable gas (in response to Senate Bill 1383), updates on Southern California electricity reliability, natural gas outlook, and climate adaptation and resiliency.

As indicated above, energy usage on the project site during construction would be temporary in nature. In addition, energy usage associated with operation of the proposed project would be relatively small in comparison to the State's available energy sources and energy impacts would be negligible at the regional level. Because California's energy conservation planning actions are conducted at a regional level, and because the project's total impact to regional energy supplies would be minor, the proposed project would not conflict with California's energy conservation plans as described in the CEC's 2017 Integrated Energy Policy Report. Thus, as shown above, the project would avoid or reduce the inefficient, wasteful, and unnecessary consumption of energy and not result in any irreversible or irretrievable commitments of energy. Therefore, the proposed project would not result in the wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation. Impacts would be less than significant. Therefore, the proposed project would not result in new or more severe impacts related to energy efficiency than were identified in the TASP FEIR.

Applicable Mitigation

No substantial changes in environmental circumstances have occurred for this topic, nor revisions to the project, nor new information that could not have been known at the time the TASP FEIR was certified leading to new or more severe significant impacts, and no new mitigation measures are required.

[10] California Energy Commission, 2017. *2017 Integrated Energy Policy Report*. California Energy Commission. Publication Number: CEC-100-2017-001-CMF.

Applicable Policies

TASP Policies

- *Policy 5.4: New commercial or institutional buildings, or tenant improvements to commercial, industrial or institutional buildings shall follow the provisions of the City's future Green Building Ordinance. In the absence of any ordinance, all new projects should be encouraged to incorporate green building measures.*

- *Policy 5.5: Coordinate with Santa Clara County and other regional agencies to establish and implement new local regulations and standards related to greenhouse gas emissions simultaneously across the region.*

  By working together at the regional level, no one jurisdiction would bear the burden of being the first to adopt new regulations.

- *Policy 5.6: Require the use of Energy Star appliances and equipment in new residential and commercial development, and new City facilities.*

- *Policy 5.7: Require at least 50 percent of all new residential development to be pre-wired for optional photovoltaic roof energy systems and/or solar water heating.*

- *Policy 5.8: Incorporate cost-effective energy conservation measures into all buildings being constructed by the City in the Transit Area, including construction, operations and maintenance. These measures can include but are not limited to:*

  - *Energy efficient light fixtures, including solar powered systems, for streetscapes, parks, and public buildings which have limited glare and spillover;*

  - *Automatic lighting systems in public buildings and offices; and*

  - *Life-cycle costing of capital projects so that the environmental, societal, and economic costs are evaluated over the project's long-term operation.*

- *Policy 5.9: Establish a program to support energy efficiency in new private development and facilitate environmentally sensitive construction practices by:*

  - *Establishing an incentive program for projects with energy-efficient design, such as expedited permit processing;*

  - *Promoting use of products that are durable and allow efficient end-of-life disposal (recyclable);*

  - *Requiring demolition permits for structures and/or pavement exceeding 7,500 square feet to submit a report on recycled materials;*

- *Promoting the purchase of locally or regionally available materials; and*
- *Promoting the use of cost-effective design.*

Conclusion

The TASP FEIR adequately evaluated the potential impacts related to energy resulting from the proposed project. Therefore, potential impacts would be less than significant and additional mitigation is not required.

7. GEOLOGY AND SOILS

	New Potentially Significant Impact	New Mitigation Required	Reduced Impact	No New Impact
Would the project:				
c. Directly or indirectly cause 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? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
ii. Strong seismic ground shaking?	☐	☐	☐	☒
iii. Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒
iv. Landslides?	☐	☐	☐	☒
d. Result in substantial soil erosion or the loss of topsoil?	☐	☐	☐	☒
e. 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?	☐	☐	☐	☒
f. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☐	☒
g. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒
h. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☒

Discussion

The information presented in this section is based on data and findings provided in the Geotechnical Investigation[11] prepared for the proposed project and geologic reports and maps by the United States Geological Survey (USGS), California Geological Survey (CGS), and others, as available.

[11] Cornerstone Earth Group, 2017. *Preliminary Geotechnical Investigation for the Tarob Court Residential Development*. November 13.

Seismicity and Seismic Hazards

Fault Rupture. Fault rupture is generally expected to occur along active fault traces that have exhibited signs of recent geological movement (i.e., within the past 11,000 years). Alquist-Priolo Earthquake Fault Zones delineate areas around active faults with potential surface fault rupture hazards that would require specific geological investigations prior to approval of certain kinds of development within the delineated area. The project site is not located within or adjacent to an Alquist-Priolo Earthquake Fault Zone. The nearest Alquist-Priolo Earthquake Fault Zone to the project site is the Crosley Fault, which is located approximately 2 miles northeast of the project site.[12,13] No known active or potentially active faults exist on the project site.[14] Therefore, the impacts associated with the proposed project would not result in new impacts related to fault rupture or substantially increase the severity of impacts than those analyzed in the TASP FEIR.

Ground Shaking. There are multiple active faults that have the potential to generate very strong ground shaking at the project site. These faults include the Monte-Vista Shannon Fault, located 1.9 miles southwest; Hayward Fault, the southeast extension of which is located approximately 2.2 miles northeast; the Calaveras Fault, located about 5.8 miles northeast; and the San Andreas Fault, located about 15 miles southwest.[15]

The Working Group on California Earthquake Probabilities and the USGS have predicted a 63 percent probability of a 6.7 magnitude (M_w, or Moment Magnitude)[16] or greater earthquake in the Bay Area region between 2007 and 2036, and a 7 percent chance California will experience an 8.0 magnitude earthquake in the next 30 years. The risk of ground shaking impacts is reduced through adherence to the design and materials standards set forth in building codes.

The City of Milpitas requires projects to comply with the 2016 California Building Code (Title 24, California Code of Regulations),[17] which provides for stringent construction requirements on projects in areas of high seismic risk based on numerous inter-related factors. It is acknowledged that seismic hazards cannot be completely eliminated, even with implementation of advanced building practices. However, the seismic design standards of the California Building Code are intended to prevent catastrophic building failure in the most severe earthquakes currently anticipated. Therefore, consistent with the findings of the TASP FEIR, compliance with the 2016 California Building Code (CBC), which is required by both the City and the State, the proposed

12 California Geological Survey, 2004. Earthquake Zones of Required Investigation, Milpitas Quadrangle. Available online at: gmw.conservation.ca.gov/SHP/EZRIM/Maps/MILPITAS_EZRIM.pdf (accessed June 14, 2019).

13 California Geological Survey, 2010. Fault Activity Map of California, 2010. Website: maps.conservation.ca.gov/cgs/fam (accessed March May 14, 2019).

14 Cornerstone Earth Group, 2017, op. cit.

15 Ibid.

16 Moment magnitude (M_W) is now commonly used to characterize seismic events as opposed to Richter Magnitude. Moment magnitude is determined from the physical size (area) of the rupture of the fault plane, the amount of horizontal and/or vertical displacement along the fault plane, and the resistance to rupture of the rock type along the fault.

17 Milpitas, City of. Code of Ordinances, Title II, Chapter 3.

project would not result in new impacts related to ground shaking or substantially increase the severity of impacts than those analyzed in the TASP FEIR.

Seismic-Related Ground Failure and Liquefaction. The potential for different types of ground failure to occur during a seismic event is discussed below.

Liquefaction Potential. Soil liquefaction is a phenomenon primarily associated with saturated soil layers located close to the ground surface. These soils lose strength during ground shaking. Due to the loss of strength, the soil may move both horizontally and vertically. In areas where sloping ground or open slope faces are present, this mobility can result in lateral spreading. Soils that are most susceptible to liquefaction are clean, loose, uniformly graded, saturated, fine-grained sands that are relatively close to the ground surface. However, loose sands that contain a significant amount of fines (silt and clay) may also liquefy.

The project site is located in an area that has been identified by the CGS as being susceptible to seismically-induced liquefaction.[18] The intent of the CGS mapping of areas susceptible to earthquake-induced liquefaction is to ensure that geotechnical consultants consider possible liquefaction hazards and perform appropriate site-specific characterization and mitigation of liquefaction hazards as outlined in the State's guiding document for seismic hazard analysis, Special Publication 117A (SP117A).[19] The Geotechnical Investigation prepared for the project, as required by the Seismic Hazard Mapping Act and CBC, addresses potential liquefaction related hazards. The Geotechnical Investigation indicates the potential for liquefaction triggering at the project site is low to very low, and that the potential liquefaction induced settlement of thin, discontinuous sand layers could result in ground surface settlement less than 0.25 inches. As discussed in SP117A, different movement for level ground sites over deep soil sites will be up to about two-thirds of the total settlement between independent foundation elements. Therefore, the Geotechnical Investigation concluded that different settlement beneath a typical residential foundation is likely to be negligible.

In addition, the Geotechnical Investigation provides site preparation (e.g., grading and fill placement) and foundation design recommendations that account for potential liquefaction induced settlement. During the design review process, the City would ensure that geotechnical recommendations are incorporated into the project designs, which would reduce potential impacts related to liquefaction. Therefore, the proposed project would not create impacts related to liquefaction that would be new or more significant than those analyzed in the TASP FEIR.

Lateral Spreading. Lateral spreading, the horizontal/lateral ground movement of relatively flat-lying soil deposits towards a free face, is typically associated with liquefaction of subsurface layer(s) near the bottom of an exposed slope. The project site is approximately 770 feet southwest of a man-made, unlined drainage channel for Penitencia Creek. Due to the distance to the site and the fact that soils encountered during explorations are mostly clays and not susceptible to liquefaction, and

18 Cornerstone Earth Group, 2017, op. cit.

19 California Geological Survey, 2008. *Special Publication 117A, Guidelines for Evaluating and Mitigating Seismic Hazards in California*. Revised and Re-adopted September 11.

therefore, the potential for lateral spreading would be low.[20] As a result, the proposed project would not create impacts related to lateral spreading that would be new or more significant than those analyzed in the TASP FEIR.

Seismic Settlement. Seismic settlement (also referred to as cyclic densification) can occur when non-saturated, cohesionless sand or gravel soil is densified by earthquake vibrations. A medium dense sand layer (likely undocumented fill) that is potentially susceptible to cyclic densification was encountered above the groundwater table in one boring location at the project site. The soil encountered at the other exploration locations is sufficiently clayey to resist cyclic densification. The anticipated total and differential ground settlement due to cyclic densification is on the order of half-an-inch, and would be less where the sand is removed or reworked for foundation construction.[21] The Geotechnical Investigation provides site preparation (e.g., grading and fill placement) and foundation design recommendations that account for potential liquefaction induced settlement.[22] During the design review process, the City would ensure that geotechnical recommendations are incorporated into the project designs, which would reduce potential impacts related to cyclic densification. Therefore, the proposed project would not create impacts related to seismic settlement that would be new or more significant than those analyzed in the TASP FEIR.

Landslides. The proposed project is located in a relatively flat area and is therefore not likely to be affected by landslides. In addition, the project site is not located in an area mapped by CGS as being susceptible to earthquake-induced landslides.[23] Therefore, the proposed project would not create impacts related to landslides that would be new or more significant than those analyzed in the TASP FEIR.

Erosion/Loss of Top Soil

The redevelopment of the project site would involve construction activities such as grading and excavation, which could result in temporary soil erosion when the disturbed soils are exposed to wind or rainfall. Because the proposed project would involve over an acre of land disturbance, it would be required to comply with the State Water Resources Control Board's Construction General Permit, which requires the preparation and implementation of a Stormwater Pollution Prevention Plan (SWPPP). Policy 5.33 of the TASP also requires construction projects that disturb 1 or more acres to prepare a SWPPP. The SWPPP would include erosion control best management practices that would minimize erosion during construction. Upon completion of construction, the project site would be covered with structures, pavement, and landscaping and would not include areas of exposed soil. Therefore, the proposed project would not create impacts related to erosion that would be new or more significant than those analyzed in the TASP FEIR.

20 Cornerstone Earth Group, 2017, op. cit.
21 Ibid.
22 Ibid.
23 California Geological Survey, 2004, op. cit.

Unstable and Expansive Soils

Unstable Soil. As previously discussed above, the project site would not be subject to liquefaction, lateral spreading, or landslides. In addition, the design and construction of the project in accordance with geotechnical recommendations would ensure these impacts would be less than significant. The proposed project would not create impacts related to unstable soil that would be new or more significant than those analyzed in the TASP FEIR.

Subsidence/Soil Collapse. Subsidence can result from the removal of subsurface water resulting in either gradual depression or catastrophic collapse of the ground surface. The proposed project would not utilize groundwater at the project site. Dewatering may be required in isolated areas of the project site during construction. Construction-related dewatering would not be expected to result in subsidence or soil collapse as the dewatering would be temporary, localized, and affect only the uppermost water-bearing zone. Therefore, the proposed project would not create impacts related to subsidence or soil collapse that would be new or more significant than those analyzed in the TASP FEIR.

Expansive Soils. Expansive soils are characterized by the potential for shrinking and swelling as the moisture content of the soil decreases and increases, respectively. The changes in soils volume can result in substantial cosmetic and structural damage to buildings and hardscape developed over expansive soils. These effects can be mitigated by moisture conditioning the expansive soil, placing non-expansive fill below slabs and foundations, designing foundations and slabs to resist ground movements associated with volume changes, supporting foundations below the zone of severe moisture change, and/or limiting moisture changes in the surficial soils by using positive drainage away from the building as well as limiting landscape watering.

The Geotechnical Investigation found that highly expansive surficial clays blanket the project site. To reduce the potential for damage to the planned structures and pavement, the Geotechnical Investigation recommends that slabs-on-grade should be supported on a layer of non-expansive fill and shallow footings should extend below the zone of seasonal moisture fluctuation. In addition, geotechnical recommendations were provided for site preparation, grading, selection/placement of engineered fill, and the design of concrete pavement, flexible asphalt pavement, drainage and landscaping, and foundation systems which account for the presence of highly expansive soil.[24] During the design review process, the City would ensure that geotechnical recommendations are incorporated into the project designs, which would reduce potential impacts related to expansive soils. Therefore, the proposed project would not create impacts related to expansive soils that would be new or more significant than those analyzed in the TASP FEIR.

Septic Tanks/Wastewater Disposal

Development of the proposed project would not involve the use of septic tanks or alternative wastewater disposal systems. Therefore, the proposed project would have no impact related to septic tanks or alternative waste water disposal systems.

[24] Cornerstone Earth Group, 2017, op. cit.

Paleontological Resources

There is the potential to encounter unidentified fossils during construction of new development. Since fossils are considered to be nonrenewable resources, such impacts would be considered significant. Adverse impacts on paleontological resource could occur when earthwork activities such as mass excavation cut into geological formations, or depths below the soil layer, which is generally 6 feet deep. The TASP FEIR determined that project-specific evaluation, monitoring during construction, temporary suspension of grading, fossil recovery in the event fossils are discovered, as identified in TASP Policy 5.35 would reduce the potential impact to such resources to less-than-significant levels. Implementing the proposed project would not lead to new or more severe impacts to paleontological resources that would occur beyond those already identified in the TASP FEIR.

Applicable Mitigation

No substantial changes in environmental circumstances have occurred for this topic, nor revisions to the project, nor new information that could not have been known at the time the TASP FEIR was certified leading to new or more severe significant impacts, and no new mitigation measures are required.

Applicable Policies

General Plan Policies

- *Policy 5.a-I-3: Require projects to comply with the guidelines prescribed in the City's Geotechnical Hazards Evaluation manual.*

TASP Policies

- *Policy 5.33: Require construction projects that disturb one or more acres to prepare a SWPPP that, when properly implemented, would reduce or eliminate impacts on surface water quality during construction.*

- *Policy 5.35: All grading plans for development projects involving ground displacement shall include a requirement for monitoring by a qualified paleontologist to review underground materials recovered. In the event fossils are encountered, construction shall be temporarily halted. The City's Planning Department shall be notified immediately, a qualified paleontologist shall evaluate the fossils, and steps needed to photo-document or to recover the fossils shall be taken. If fossils are found during construction activities, grading in the vicinity shall be temporarily suspended while the fossils are evaluated for scientific significance and fossil recovery, if warranted.*

Conclusion

The TASP FEIR adequately evaluated the potential impacts related to geology and soils resulting from the proposed project. Therefore, potential impacts would be less than significant and additional mitigation is not required.

8. GREENHOUSE GAS EMISSIONS

	New Potentially Significant Impact	New Mitigation Required	Reduced Impact	No New Impact
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?	☐	☐	☐	☒

Discussion

The TASP FEIR found that the primary sources of greenhouse gas (GHG) emissions related to urban development in the TASP Area are anticipated to continue to be from combustion of fossil fuels by motor vehicles and from electric power generation. Short-term impacts are anticipated from construction activity that would occur during the implementation of the TASP. Since the GHG emission rate is related to growth, the TASP promotes policies that reduce energy consumption and fuel usage by encouraging development patterns that would reduce the vehicles miles traveled (VMT) per capita and proposes a variety of actions and policies that can reduce emissions to less-than-significant levels.

The TASP FEIR found that the rate of increase in VMT would be less than the rate of increase in population due to the mixed-use and transit area nature of new development proposed under the TASP. The TASP FEIR found that while the population is expected to increase significantly in the area, a large percentage of that population would use transit options made available to them which in turn would reduce vehicle use. The TASP FEIR also found that the increase in VMT will not prevent the reduction of Statewide GHG emissions to 1990 levels.

Individual projects incrementally contribute toward the potential for global climate change on a cumulative basis in concert with all other past, present, and probable future projects. While individual projects are unlikely to measurably affect global climate change, each of these projects incrementally contributes toward the potential for global climate change on a cumulative basis, in concert with all other past, present, and probable future projects.

The TASP FEIR analyzed the potential GHG emissions that would result from buildout of the TASP. The TASP was designed to provide residential uses in proximity to retail and commercial uses and to transit, such as the BART station, to minimize the use of vehicles and generation of VMT. TASP policies also encourage the development of pedestrian friendly streets and bikeways to promote alternative forms of transportation. The proposed project would incorporate the TASP policies by: providing continuous pedestrian sidewalks and safe bike travel routes, consistent with Policy 3.21; providing direct walking routes to schools and major destinations such as retail developments consistent with Policy 3.22; encouraging children to walk to school by providing safe routes consistent with Policy 3.23; and providing bikeways and bike storage and providing parking areas

that encourage carpooling and use of low emission vehicles consistent with TASP Policies 3.28, 3.31, 3.33 and 3.34. The TASP FEIR concluded that implementation of these measures would reduce impacts from GHG emissions for the TASP to less-than-significant levels. As the proposed project would remain in compliance with these policies, the project's impact on GHG emissions would also be less than significant.

Regarding electricity consumption, the TASP FEIR found that the increase in total demand for electrical energy as a result of the TASP would be reduced to less-than-significant levels by requiring compliance with State, local, and TASP energy efficiency policies. These policies (outlined below) will ensure that the additional energy that homes and businesses consume would not impede achievement of the Statewide reduction in emissions mandated by the California Climate Solutions Act of 2006 and will ensure that the impact of increased energy consumption in the TASP Area would be less than significant. Additionally, the proposed project would encourage and support energy efficiency and green building techniques that would reduce energy-related GHG emissions, similar to the previously approved TASP FEIR.

GHG emissions estimates for the proposed project were calculated using CalEEMod and the results are shown in Table BD below.

Table BD: Operational GHG Emissions

Emissions Source Category	Operational Emissions (Metric Tons per Year)				
	CO_2	CH_4	N_2O	CO_2e	Percent of Total Project Emissions
Area	0.5	<0.1	0.0	0.5	0
Energy	50.3	<0.1	<0.1	50.6	30
Mobile	105.7	<0.1	0.0	105.8	62
Waste	3.7	0.2	0.0	9.3	5
Water	3.4	0.1	<0.1	5.6	3
Total Operational				**171.8**	**100**
BAAQMD Threshold				**1,100**	**-**
Exceed?				**No**	**-**

Source: LSA (May 2019).

As shown in Table BD above, the proposed project would not exceed BAAQMD thresholds. Therefore, implementation of the proposed project would not result in an increase in GHG emissions beyond those analyzed in the TASP FEIR and impacts would remain less than significant.

The TASP FEIR did not include an evaluation of the project's compliance with the City's 2013 Climate Action Plan which was not in place at the time the EIR was certified. The Climate Action Plan includes GHG reduction goals, policies, and actions for new and existing development projects. The proposed project includes transit oriented development in addition to the TASP policies listed below, which are consistent with the Climate Action Plan's transportation and land use goals. Therefore, the project would be in conformance with the City's Climate Action Plan.

The 2001 Tarob Court Project adheres to the building guidelines of the TASP, is consistent with the Milpitas Climate Action Plan, and promotes reductions in GHG emissions through high-density development in close proximity to transit. To reduce energy usage, the project would incorporate green building measures in compliance with CALGreen standard building measures for residential buildings and Title 24 requirements. Additionally, the proposed project would include a total of 0.44 acres of common open space and landscaped areas, following the City's standards, which would help offset GHG emissions. The proposed project would result in no new or more severe impacts related to GHG emissions than analyzed in the TASP FEIR and further analysis is not required.

Applicable Mitigation

No substantial changes in environmental circumstances have occurred for this topic, nor revisions to the project, nor new information that could not have been known at the time the TASP FEIR was certified leading to new or more severe significant impacts, and no new mitigation measures are required.

Applicable Policies

TASP Policies

- *Policy 3.16: Establish and implement a travel demand management (TDM) program in order to encourage alternate modes of travel and thereby reduce automobile trips. Establish a funding mechanism to pay for the costs of the program, including the cost of a transportation coordinator to administer the program. The program would include a ride-matching program, coordination with regional ride-sharing organizations, and provision of transit information; and could also include sale of discounted transit passes and provision of shuttle service to major destinations.*

- *Policy 3.21: See this policy in Section III, Air Quality.*

- *Policy 3.22: See this policy in Section III, Air Quality.*

- *Policy 3.23: Encourage children to walk or bike to school by expanding existing safe walking and bicycling routes to schools into the Transit Area.*

- *Policy 3.28: Provide continuous bicycle circulation through the project site and to adjacent areas by closing existing gaps in bicycle lanes and bicycle routes, per Figure 3-5 [of the Specific Plan].*

- *Policy 3.31: Require provision of bicycle and pedestrian facilities such as weather protected bicycle parking, direct and safe access for pedestrians and bicyclists to adjacent bicycle routes and transit stations, showers and lockers for employees at the worksite, secure short-term parking for bicycles, etc.*

- *Policy 3.33: See this policy in Section III, Air Quality.*

- *Policy 5.6: Require the use of Energy Star appliances and equipment in new residential and commercial development, and new City facilities.*

- *Policy 5.7: Require at least 50 percent of all new residential development to be pre-wired for optional photovoltaic roof energy systems and/or solar water heating.*

- *Policy 5.8: Incorporate cost-effective energy conservation measures into all buildings being constructed by the City in the Transit Area, including construction, operations and maintenance. These measures can include but are not limited to:*

    - *Energy efficient light fixtures, including solar powered systems, for streetscapes, parks, and public buildings which have limited glare and spillover;*

    - *Automatic lighting systems in public buildings and offices; and*

    - *Life-cycle costing of capital projects so that the environmental, societal, and economic costs are evaluated over the project's long-term operation.*

Conclusion

The TASP FEIR adequately evaluated the potential impacts associated with greenhouse gas resulting from the proposed project. Therefore, potential impacts would be less than significant and additional mitigation is not required.

9. HAZARDS AND HAZARDOUS MATERIALS

	New Potentially Significant Impact	New Mitigation Required	Reduced Impact	No New Impact
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 one-quarter 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 or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☐	☒

Discussion

Transport, Use, Storage, and Disposal of Hazardous Materials

The proposed project would result in demolition of the existing structure on the project site and construction of a new residential apartment building. The proposed land use would not involve transport, use, or disposal of significant quantities of hazardous materials. Generally, small quantities of hazardous materials such as paints and cleaning products would be used for routine maintenance. Therefore, a significant hazard to the public or environment through the routine transport, use, or disposal of hazardous materials would not occur and potential impacts related to operational use of hazardous materials would be less than significant.

During project construction, hazardous materials such as fuel, lubricants, paint, sealants, and adhesives would be transported and used at the project site. Consistent with the findings of the TASP FEIR, due to mandatory compliance with federal, State, and local regulations, potential impacts associated with future hazardous material use, transport, and disposal are considered less than significant and the proposed project would not result in any new or more severe impacts than those analyzed in the TASP FEIR.

Release of Hazardous Materials and Risk of Upset

The public and/or the environment could be affected by the release of hazardous materials from the project site into the environment, by 1) exposing workers and/or the public to potentially contaminated soil, groundwater, and vapors during construction and/or operation of the project; or 2) exposing workers and/or the public to hazardous building materials (e.g., polychlorinated biphenyls [PCBs], lead paint, asbestos) during demolition of the existing structure.

A Preliminary Soil, Soil Vapor, and Ground Water Quality Evaluation (Soil Evaluation) involving sampling and analysis of soil, groundwater, and soil vapor was performed for the project site to evaluate potential environmental concerns identified at the site, including the potential presence of residual pesticides from past agricultural land use, past use and storage of hazardous materials at the project site, and potential presence of naturally occurring asbestos and elevated metal concentrations. [25]

The soil quality data does not indicate the previous on-site activities significantly impacted soil quality at the locations sampled. Arsenic was detected at a concentration above its typical background concentration in one sample. However, this sample was collected at a depth of approximately 9 ½ to 10 feet and from what appeared to be undisturbed native soil. This arsenic detection likely reflects natural background variations.

Slightly elevated cobalt, chromium, and nickel concentrations were detected; however, these detected concentrations were below their respective residential screening criteria. Therefore, these do not appear to pose a significant human health risk concern for future commercial redevelopment. In addition, naturally occurring asbestos was not detected above laboratory reporting limits. Total chromium concentrations that were 10 times above its Soluble Threshold Limit Concentration (STLC) regulatory value. Disposal facilities typically require STLC testing for soil with total concentrations that exceed 10 times the STLC value. If this soil will require off-site disposal at a landfill or other facility during development, further testing may be required to properly determine its waste classification prior to landfill acceptance.

Total DDT was detected in one sample at a concentration exceeding its Total Threshold Limit Concentration (TTLC) regulatory value. This detection appears isolated as the other Total DDT concentrations were detected below the TTLC. Additional sampling would be conducted to determine if the excavation and stockpiling activities effect the Total DDT concentration. In addition, the detected DDD, DDE, and DDT concentrations were below their respective residential screening levels, and therefore are not expected to pose a significant health risk.

Policy 5.20 of the TASP was developed to address potential hazardous materials that could impact human health and require remediation of contaminated sites, and Policy 5.22 of the TASP requires a Risk Management Plan (RMP) to be developed for sites with known contamination issues (see the applicable TASP Policies listed below). In accordance with the requirements of Policy 5.20 of the TASP, the project applicant would be required to work with the appropriate agencies to ensure the

[25] Cornerstone Earth Group, 2018. *Preliminary Soil, Soil Vapor, and Ground Water Quality Evaluation for 2001 Tarob Court, Milpitas, California.* January 9.

project site to resolve issues related to contamination that could potentially impact future land uses in the project area. Because there is known contamination on the project site, compliance with Policy 5.22 of the TASP would require preparation of an RMP for the project to protect the health and safety of construction workers and the public.

Based on the age of the structure on the project site (constructed in 1982 after the 1978 ban on lead-based paint), the presence of lead-based paint is considered unlikely; however, it is possible that hazardous building materials such as asbestos-containing materials (ACMs) could be present in the structure. As indicated in the Code of Federal Regulations Title 16, Chapter II, Section 1303.3, the use of lead paint on industrial and commercial buildings is exempt from the ban on lead paint; therefore, lead paint may be present on the structure on the project site. Other hazardous building materials that could be present include PCB-containing materials and equipment, and mercury containing devices (e.g., fluorescent light bulbs and mercury switches).

Policy 5.21 of the TASP addresses hazardous materials that may be present in existing buildings such as asbestos, PCB's, or lead. The project would also be required to comply with Section 19827.5 of the California Health and Safety Code, which requires that local agencies not issue demolition or alteration permits until an applicant has demonstrated compliance with notification requirements under applicable federal regulations regarding hazardous air pollutants, including asbestos. Also required is full compliance with Title 17 and Title 8 of the California Code of Regulations, which includes work practice standards related to the evaluation and abatement of lead.

Consistent with the findings of the TASP FEIR, continued compliance with applicable local, State, and federal regulations and TASP policies, as provided below, would reduce potential exposure of people and the environment to hazardous materials associated with development of a contaminated property and demolition of older structures to a less-than significant level and the proposed project would not result in any new or more severe impacts than those analyzed in the TASP FEIR.

Emission of Hazardous Materials within 0.25 miles of a School

Stratford School, a private elementary school, is located at 341 Great Mall Parkway, approximately 1,500 feet north of the project site.[26] According to the TASP FEIR, it is possible that an elementary or K-8 school would be constructed in the vicinity of Houret Drive and McCandless Drive, which is approximately a quarter mile west of the project site. No other schools were identified within a quarter mile of the project site.[27]

The project would not involve the handling of acutely hazardous materials. As discussed above, the project would not handle significant quantities of hazardous materials during operation. Consistent with the findings of the TASP FEIR, due to mandatory compliance with federal, State, and local regulations, potential impacts associated with routine hazardous material use, transport, and disposal during construction are considered less than significant. Compliance with TASP policies, as provided below, and cleanup of the hazardous materials releases at the project site under the

[26] California Department of Education, 2019. California School Directory. Website: www.cde.ca.gov/schooldirectory (accessed on June 14, 2019).

[27] Ibid.

oversight of the Regional Water Board, as discussed above, would ensure that potential impacts related to hazardous emissions from demolition of the existing building and development of a contaminated property would be a less-than significant and the proposed project would not result in any new or more severe impacts than those analyzed in the TASP FEIR.

Hazardous Materials Site Pursuant to Government Code Section 65962.5

Although the project site is known to be impacted by releases of hazardous materials, the project site is not included on a list of hazardous materials release sites compiled pursuant to Government Code Section 65962.5. Compliance with TASP policies, as provided below, and cleanup of the hazardous materials releases at the project site under the oversight of the Regional Water Board, as discussed above, would ensure that potential impacts related to development of a contaminated property would be a less than significant, and the proposed project would not result in any new or more severe impacts than those analyzed in the TASP FEIR.

Aviation Hazards

The project site is located approximately 3 miles northeast of the San Jose International Airport. The project site is not located within the Airport Safety Zones or Airport Influence Area of the San Jose International Airport,[28] and is not located in the vicinity of a private air strip. Therefore, the project would not result in aviation-related hazards due to proximity to an airport and the proposed project would not result in any new or more severe impacts than those analyzed in the TASP FEIR.

Emergency Response or Evacuation Plan

The proposed project would comply with standard City regulations related to the provision of adequate access for emergency vehicles and secure evacuation routes. The project would not alter the existing street network; therefore, consistent with the findings of the TSP FEIR, the project would not impact the implementation of established emergency response/evacuation plans and the proposed project would not result in any new or more severe impacts than those analyzed in the TASP FEIR.

Wild Fire

The project site is located within a highly urbanized area that is not susceptible to wildfires. Therefore, the project would not result in impacts related to wildfires and the proposed project would not result in any new or more severe impacts than those analyzed in the TASP FEIR.

Applicable Mitigation

No substantial changes in environmental circumstances have occurred for this topic, nor revisions to the project, nor new information that could not have been known at the time the TASP FEIR was certified leading to new or more severe significant impacts, and no new mitigation measures are required.

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[28] Santa Clara County Airport Land Use Commission, 2016. *Comprehensive Land Use Plan, Santa Clara County, Norma Y. Mineta San Jose International Airport*. May 25.

Applicable Policies

TASP Policies

- *Policy 5.20: Property owners shall work with the City of Milpitas Fire Department, the Santa Clara County Department of Environmental Health (SCCDEH), the California Department of Toxic Substances Control (DTSC), and/or the State Water Resources Control Board (SWRCB), whichever has jurisdiction, to resolve issues related to contamination that could potentially impact future land uses in the project area. The lateral and vertical extent of contamination shall be determined, remediation activities completed, and land use restrictions implemented, as necessary, prior to the issuance of development permits on parcels with known contamination.*

- *For parcels with known contamination, appropriate human health risk assessments (HHRAs) shall be conducted based on proposed land uses by a qualified environmental professional. The HHRAs shall compare maximum soil, soil gas, and groundwater concentrations to relevant environmental screening levels (ESLs) and evaluate all potential exposure pathways from contaminated groundwater and soil. Based on the findings of the HHRAs, if appropriate, engineering controls and design measures shall be implemented to mitigate the potential risk of post-development vapor intrusion into buildings.*

- *For parcels with no identified contamination, a Phase I study shall be completed to review potential for ground water, soil, or other contamination related to previous land uses. If any potential for contamination is determined to exist that could adversely affect human health for residential uses, a Phase II level analysis shall be conducted per City, State, and Federal requirements. If contamination is found to exist, procedures for contaminated sites as described in the paragraph above shall be followed.*

- *Policy 5.21: Project applicants shall submit information to the City regarding the presence of asbestos-containing building materials, PCBs, and lead-based paint in existing buildings proposed for demolition, additions, or alterations. The information shall be verified prior to the issuance of demolition permits by the City of Milpitas Building Inspection Division for any existing structures or buildings in the project area. If it is found that painted surfaces contain lead-based paint and/or the structures contain asbestos-containing building materials, measures to ensure the safe demolition of site structures shall be incorporated into the project Demolition Plan. The Demolition Plan shall address both onsite and offsite chemical and physical hazards. Prior to demolition, hazardous building materials associated with lead-based paint and asbestos containing building materials shall be removed and appropriately disposed of in accordance with all applicable guidelines, laws, and ordinances. The demolition of buildings containing asbestos would require retaining contractors who are licensed to conduct asbestos abatement work and notifying the Bay Area Air Quality Management District (BAAQMD) ten days prior to initiating construction and demolition activities. Regarding lead-based paint, Cal-OSHA regulates all worker exposure during construction activities associated with lead-based paint. The Cal-OSHA-specified method of compliance includes respiratory protection, protective clothing, housekeeping, hygiene facilities, medical surveillance, and training.*

- *Policy 5.22: At sites with known contamination issues, a Risk Management Plan (RMP) shall be prepared to protect the health and safety of construction workers and site users adjacent to construction activities. The RMP shall include engineering controls, monitoring, and security measures to prevent unauthorized entry to the construction site and to reduce hazards outside of the construction site. The RMP shall address the possibility of encountering subsurface hazards and include procedures to protect workers and the public. The RMP shall also include procedures for managing soils and groundwater removed from the site to ensure that any excavated soils and/or dewatered groundwater with contaminants are stored, managed, and disposed of in accordance with applicable regulations and permits. Protocols for the handling, transport, and disposal of both known and previously unidentified hazardous materials that may be encountered during project development shall be specified. If prescribed exposure levels are exceeded, personal protective equipment shall be required for workers in accordance with OSHA regulations. Finally, the RMP shall also include procedures for the use, storage, disposal, of hazardous materials used during construction activities to prevent the accidental release of these materials into the environment during construction.*

Conclusion

The TASP FEIR adequately evaluated the potential hazards and hazardous materials impacts of the proposed project. Therefore, potential impacts would be less-than-significant and additional mitigation is not required.

10. HYDROLOGY AND WATER QUALITY

	New Potentially Significant Impact	New Mitigation Required	Reduced Impact	No New Impact
Would the project:				
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	☐	☐	☐	☒
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☐	☒
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:	☐	☐	☐	☒
i. Result in substantial erosion or siltation on- or off-site;	☐	☐	☐	☒
ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	☐	☒
iii. 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; or	☐	☐	☐	☒
iv. Impede or redirect flood flows?	☐	☐	☐	☒
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☐	☒

Discussion

Water Quality Standards

Construction. Construction and demolition activities of the proposed project would involve site disturbance, grading, and excavation of soil, which could result in temporary erosion and movement of sediments into the storm drain system, particularly during precipitation events. The potential for chemical releases is present at most construction sites due to the use of paints, solvents, fuels, lubricants, and other hazardous materials associated with heavy construction equipment. Once released, these hazardous materials could be transported to nearby surface waterways in stormwater runoff, wash water, and dust control water, potentially reducing the quality of the receiving waters. The release of sediments and other pollutants during construction and demolition could adversely affect water quality in receiving waters.

The proposed project would disturb greater than 1 acre of land, and therefore would be required to obtain coverage under the Construction General Permit (State Water Board Order 2009-0009-DW).[29]

[29] State Water Resources Control Board Division of Water Quality, 2009. *Construction General Permit Fact Sheet.* 2009-0009-DWQ amended by 2010-0014-DWQ & 2012-0006-DWQ.

On-site construction activities subject to the Construction General Permit include clearing, grading, excavation, and soil stockpiling. The Construction General Permit also requires the development of a Storm Water Pollution Prevention Plan (SWPPP) by a certified Qualified SWPPP Developer. A SWPPP identifies all potential pollutants and their sources, including erosion, sediments, and constructions materials and must include a list of Best Management Practices (BMPs) to reduce the discharge of construction-related stormwater pollutants. A SWPPP must include a detailed description of controls to reduce pollutants and outline maintenance and inspection procedures. Typical sediment and erosion BMPs include protecting storm drain inlets, establishing and maintaining construction exits and perimeter controls to avoid tracking sediment off-site onto adjacent roadways. A SWPPP also defines proper building material staging and storage areas, paint and concrete washout areas, describes proper equipment/vehicle fueling and maintenance practices, measures to control equipment/vehicle washing and allowable non-stormwater discharges, and includes a spill prevention and response plan. Policy 5.33 of the TASP also requires construction projects that disturb 1r more acres to prepare a SWPPP.

Temporary dewatering may be required during construction activities involving excavation. Dewatering effluent may have high turbidity and could contain contaminants. Turbid and/or contaminated groundwater could cause degradation of the receiving water quality if discharged directly to storm drains or surface water without treatment. The discharge of dewatering effluent would be subject to permits from the City of San Jose (which manages and operates the San Jose-Santa Clara Regional Wastewater Facility which treats wastewater from the project site) or the Regional Water Board, depending if the discharge were to the sanitary sewer or storm drain system, respectively. The Construction General Permit allows the discharge of dewatering effluent if the water is properly filtered or treated, using appropriate technology. If the dewatering activity is deemed by the Regional Water Board not to be covered by the Construction General Permit, then the discharger could potentially prepare a Report of Waste Discharge, and if approved by the Regional Water Board, be issued site-specific Waste Discharge Requirements (WDRs) under National Pollutant Discharge Elimination System (NPDES) regulations. If it is infeasible to meet the requirements of the Construction General Permit, acquire site-specific WDRs, or meet the City of San Jose's sewer discharge requirements, the construction contractor would be required to transport the dewatering effluent off-site for treatment and disposal.

Required compliance with State and local regulations regarding stormwater and dewatering during construction would not result in new impacts and would not substantially increase the severity of impacts than those analyzed in the TASP FEIR.

Operation. Because the project would replace over 10,000 square feet of existing impervious surface area, the project would be required to comply with Provision C.3 requirements of the San Francisco Bay Region Municipal Regional Stormwater NPDES Permit (MRP).[30] The project would result in alteration of over 50 percent of the existing impervious surface of the project site, and therefore all new and replaced impervious surfaces would require treatment under the MRP. Provision C.3 of the MRP requires implementation of low impact development (LID) source control,

[30] San Francisco Bay Regional Water Quality Control Board, 2015. San Francisco Bay Region Municipal Regional Stormwater NPDES Permit, Order No. R2-2015-0049, NPDES Permit No. CAS612008, November 19.

site design, and stormwater treatment for regulated projects. LID employs principles such as preserving and recreating natural landscape features and minimizing impervious surfaces to create functional and appealing site drainage that treats stormwater as a resource, rather than a waste product. Practices used to adhere to these LID principles include measures such as rain barrels and cisterns, green roofs, permeable pavement, preserving undeveloped open space, and biotreatment through rain gardens, bioretention units, bioswales, and planter/tree boxes. Policy 5.34 of the TASP also requires construction projects that disturb 1 or more acres to prepare a Stormwater Control Plan.

The LID stormwater controls for the proposed project would include permeable pavement, bio-retention areas, self-treating landscape areas, mechanical treatment (filtration) of runoff from asphalt pavement, and treatment of runoff using flow through planters.

Consistent with the findings of the TASP FEIR, continued compliance with applicable regulations, as described above, and TASP policies, as provided below, would not result in new impacts or substantially increase the severity of impacts than those analyzed in the TASP FEIR.

Deplete Groundwater Supplies

Dewatering may be performed during construction activities involving excavation. If performed, construction-related dewatering would be temporary and limited to areas of excavation on the project site and would not substantially contribute to depletion of groundwater supplies.

Operation of the proposed project would not involve dewatering or the use of groundwater as potable water, because potable water would be supplied to the project site by the City. The project would decrease the amount of impervious surfaces compared to the existing condition; however, as discussed in Section 7. Geology and Soils, above, impermeable membranes and sub-drains would be required to be installed below much of the proposed impervious surfaces due to the highly expansive and low permeability clay which is present throughout the project site. While the installation of impermeable membranes and sub-drains below much of the proposed impervious surfaces would prevent rainwater from infiltrating the subsurface and recharging groundwater, the majority of the project site is currently covered by impermeable surfaces; therefore the proposed project would not impede the recharge of groundwater compared to the existing condition. As a result, the proposed project would not result in new impacts to groundwater resources or substantially increase the severity of impacts than those analyzed in the TASP FEIR.

Drainage Pattern and Surface Run-Off

The project would not alter the course of a stream or river. Consistent with the findings of the TASP FEIR, compliance with applicable regulations and TASP policies, as described above and listed below, would ensure that changes to drainage patterns would result in less-than-significant impacts related to erosion and siltation.

The TASP FEIR determined that stormwater runoff would decrease with the buildout of the TASP Area, including the project site. The addition of more landscaped areas and parks would allow more precipitation to infiltrate into the ground compared with the current condition of nearly complete

coverage of impervious pavement. The TASP FEIR determined that none of the existing stormwater drainage pipelines would require expansion.

Developers are required to fund a Storm Drainage Plan for each subdistrict within the TASP Area that includes measures to reduce runoff pollutants and control pollutant sources to the maximum extent practical. Full compliance with the Santa Clara County National Pollution Discharge Elimination System (NPDES) permit guidelines for stormwater discharges and General Plan Policy 4.d.-G-1 would ensure that long-term water quality impacts would not be significant.

Flooding and Dam Failure Inundation

The project site is not located within a dam failure inundation area.[31] The project site is located in an area protected from flooding by a levee along Berryessa Creek to the northeast of the project site; however, this levee does not provide protection from a 100-year flood.[32] The project would not alter levees or dams, therefore the project would not result in flooding impacts related to dam failure or increase the likelihood of levee failure. Potential impacts of the project related to redirecting flood flows from potential levee failure along Berryessa Creek are discussed below.

The project site is located in an area designated as "Special Flood Hazard Areas Subject to Inundation By the 1 percent Annual Chance Flood" Zone AO on the current Flood Insurance Rate Map (FIRM) published by the Federal Emergency Management Agency (FEMA).[33] The Zone AO designation indicates areas that are subject to inundation by the 1-percent-annual-chance flood (also known as a 100-year flood) event with an established base flood elevation[34] or depth, and the flood depth at project site is indicated to be 1-foot.

TASP Policy 6.1 requires projects to minimize damage associated with flooding events and comply with regulations stipulated by FEMA and the National Flood Insurance Program. TASP Policy 6.2 requires new development within a FEMA-designated flood hazard zone to follow the City's construction standards for such areas, as currently laid out in Section XI-15 'Floodplain Management Regulations' of the Milpitas Municipal Code.

As noted in Attachment A, Project Description, the proposed project would raise the site by approximately 4.5 feet to comply with FEMA requirements to remove the project from the floodplain. The project would be required to apply for a Conditional Letter of Map Revision (CLOMR-F) and Letter of Map Revision (LOMR-F) based on area removal or structure removal from the effective FEMA floodplain and subsequently comply with all City floodplain ordinances.

Consistent with the findings of the TASP FEIR, the project would be required to comply with the TASP policies, which include compliance with FEMA requirements and the City of Milpitas Municipal

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31 Milpitas, City of, 1994. *General Plan, Chapter 5 – Seismic and Safety Element*.

32 Federal Emergency Management Agency, 2009. FEMA Flood Map Service Center (map). Website: msc.fema.gov/portal/search?AddressQuery=2001%20Tarob%20Court%2C%20Milpitas#searchresultsanchor (accessed June 14, 2019).

33 Ibid.

34 Base flood elevation is the regulatory requirement for the elevation or flood proofing of structures.

Code. Therefore, the proposed project would not result in new impacts related to flooding or substantially increase the severity of impacts than those analyzed in the TASP FEIR.

Inundation by Seiche, Tsunami, or Mudflow

The project site is not located in an area mapped by the California Emergency Management Agency as susceptible to tsunami inundation.[35] The project site is not located near or downgradient from water bodies (e.g., lakes or reservoirs) that could produce seiches. Seiches are not considered a hazard in the San Francisco Bay based on the basin geometry and dimensions.[36] The project site and surrounding topography is relatively flat and therefore the proposed project would not result in impacts related to mudflows (a type of landslide that occurs on slopes). Therefore, the proposed project would not result in new impacts related to inundation by tsunami, seiche, or mudflow or substantially increase the severity of impacts than those analyzed in the TASP FEIR.

Applicable Mitigation

No substantial changes in environmental circumstances have occurred for this topic, nor revisions to the project, nor new information that could not have been known at the time the TASP FEIR was certified leading to new or more severe significant impacts, and no new mitigation measures are required.

Applicable Policies

General Plan Policies

- *4.d-G-1: Protect and enhance the quality of water resources in the Planning Area.*
- *4.d-I-1: Continue implementing the NPDES requirements of the Regional Water Board – this is implemented through Chapter 16 of the City's Zoning Ordinance.*

TASP Policies

- *Policy 5.33: Require construction projects that disturb one or more acres to prepare a SWPPP that, when properly implemented, would reduce or eliminate impacts on surface water quality during construction.*
- *Policy 5.34: Require construction projects that disturb one or more acres to prepare a Stormwater Control Plan, as stipulated in Provision C.3 of the Santa Clara County NPDES permit for stormwater discharges.*
- *Policy 6.1: Minimize damage associated with flooding events and comply with regulations stipulated by FEMA and the National Flood Insurance Program.*

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35 California Emergency Management Agency, 2009. Tsunami Inundation Map for Emergency Planning, Milpitas Quadrangle, July 31.

36 Borrero, et al., 2006. *Numerical Modeling of Tsunami Effects at Marine Oil Terminals in San Francisco Bay*. Report prepared for: Marine Facilities Division of the California State Lands Commission. June 8.

- *Policy 6.2: New development within a FEMA-designated flood hazard zone must follow the City's construction standards for such areas, as currently laid out in Section XI-15 'Floodplain Management Regulations' of the Milpitas Municipal Code.*

- *Policy 6.3: New development must maintain the Transit Area's urban design standards. In particular, first floor commercial space must be within two feet of the elevation of the public sidewalk.*

- *Policy 6.4: Provide storm drain infrastructure to adequately serve new development and meet City standards.*

- *Policy 6.5: Ensure that runoff in storm drains does not lower water quality within or outside of the Transit Area by implementing BMPs in new developments within the Transit Area.*

Conclusion

The TASP FEIR adequately evaluated the potential hydrology and water quality impacts of the proposed project. Therefore, potential impacts would be less than significant and additional mitigation is not required.

11. LAND USE AND PLANNING

	New Potentially Significant Impact	New Mitigation Required	Reduced Impact	No New Impact
Would the project:				
a. Physically divide an established community?	☐	☐	☐	☒
b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒

Discussion

Divide an Established Community

Projects that have the potential to physically divide an established community include projects such as new freeways and highways, major arterials, streets, and railroad lines. The proposed project would develop a new residential use on the project site within the TASP Area that currently contains a light-industrial use and surface parking. The proposed project would provide public access by including public sidewalks throughout the project site that connect with the existing sidewalks along Tarob Court and Lundy Place. Bicycle and vehicle access would be provided by via Tarob Court as well. Therefore, the proposed project would not inhibit public connectivity, and would not physically divide a community. This impact would be less than significant and would be no more severe than analyzed in the TASP FEIR.

Conformance with Land Use Plans

The purpose of the TASP is to transition former industrial sites to primarily residential and commercial uses adjacent to nearby transit. Upon certification of the TASP FEIR, the City of Milpitas adopted amendments to the General Plan and Zoning Ordinance to ensure consistency between the planning documents. The TASP FEIR evaluated these new land use designations and associated policies and determined that impacts of the land use classifications and density of development conceived under the TASP would be less than significant. As described in the Project Description (Attachment A), the proposed project would be consistent with the existing land use and zoning designations for the project site.

The TASP requires that all projects proposed within the TASP Area are subject to a Site and Architectural Review in accordance with Chapter 42 of the City's Zoning Ordinance. Projects must demonstrate compliance with the TASP, including the Development Standards and Design Guidelines. In order to approve a project or variance, the City must find that "The proposed project conforms to the intent and the specific requirements of the TASP, including the Development Standards and Design Guidelines." As stated above, the proposed project would be consistent with the existing land use and zoning designations of the project site. The development associated with the proposed project is within the amount of growth evaluated and cleared within the TASP FEIR and is compatible with existing and future residential uses in the vicinity of the project site. Therefore, the density and intensity of the proposed project would not result in any new or more significant impacts regarding conformance with land use plans than those already identified in the TASP FEIR.

Land Use Compatibility

At buildout, the TASP assumes the overall urban design and development standards associated with changes to land use and zoning would contribute to fewer incompatible land uses in the TASP Area. Land uses proposed by the TASP are more compatible with the existing and proposed adjacent residential and commercial uses. In addition, the heights and densities of higher density residential and commercial uses will provide a transition toward lower density housing. Over the planning horizon, residential uses will be built in an existing industrial area. Therefore incompatible uses may be temporarily adjacent to each other until complete buildout. The TASP also includes a number of development standards to minimize potential impacts of incompatible land uses, such as setbacks, and building location and placement policies and standards. The full set of development standards can be found in Chapter 5 of the TASP. With implementation of these self-mitigating policies and standards in the TASP, the TASP FEIR concluded that no mitigation measures would be required to address potential land use impacts.

The proposed project would conform to the TASP policies as well as the development standards provided in Chapter 5 of the TASP. The proposed project would include land uses addressed by the TASP and would not result in any land use compatibility impacts that would be more severe than those analyzed in the TASP FEIR. Therefore, the proposed project would not conflict with established or planned land uses.

Applicable Mitigation

No substantial changes in environmental circumstances have occurred for this topic, nor revisions to the project, nor new information that could not have been known at the time the TASP FEIR was certified leading to new or more severe significant impacts, and no new mitigation measures are required.

Applicable Policies

TASP Policies

- *Policy 3.8: Allow contiguous developments to build at higher or lower residential densities, so long as their average density falls between the designated minimum and maximum.*
- *Policy 3.9: Maintain the Midtown Plan's gross floor area policy, which excludes all areas of a building devoted to parking from FAR calculations.*
- *Policy 3.38: The open space requirements of the Midtown Milpitas Specific Plan (Policy 3.2.4) shall apply to the entire area of the Transit Area Specific Plan.*
- *Policy 5.16: See policy in Section 3, Air Quality.*
- *Policy 5.17: In all rental and sale agreements, provide disclosures to future residents about all surrounding industrial uses, including UPRR train tracks and operations and the permanent rights of such industrial uses to remain. Describe potential impacts including but not limited to: noise, groundborne and airborne vibration, odors, and use of hazardous materials.*
- *Policy 5.18: Day care facilities, schools, nursing home, and other similar sensitive receptors shall be located away from sites which store or use hazardous materials, in accordance with State and City standards. Adequate buffers to protect occupants of these sensitive uses shall be provided, including but not limited to walls, fences, landscaping, large building setbacks and additional exit routs over and above minimum code requirements.*
- *Policy 5.19: Require the installation of temporary buffers-fences, walls or vegetation-when residential uses are developed adjacent to existing industrial uses. The type of buffer must be reviewed and approved by the City Planning Department. The temporary buffers may be removed if and when the adjacent site is redeveloped as a non-industrial use.*

Conclusion

The TASP FEIR adequately evaluated the potential land use impacts of the proposed project. Therefore, potential impacts would be less-than-significant and additional mitigation is not required.

12. MINERAL RESOURCES

	New Potentially Significant Impact	New Mitigation Required	Reduced Impact	No New Impact
Would the project:				
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

Discussion

The entire TASP Area, including the project site, is located in a developed urban area that does not have mineral exploration or extraction occurring in the vicinity. In addition, the TASP Area is not designated as containing mineral resource deposits of regional importance. As such the proposed project as well as the TASP would have no impacts on mineral resources.

13. NOISE

	New Potentially Significant Impact	New Mitigation Required	Reduced Impact	No New Impact
Would the project result in:				
a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☐	☒
b. Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☐	☒
c. For a project located within the vicinity of a private airstrip or 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 expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

Discussion

Construction-Period Impacts

The proposed project would be consistent with the buildout projected for the TASP, and would implement the policies identified in the TASP FEIR to reduce potential noise impacts to less-than-significant levels. Construction of the project would adhere to the noise standards and requirements set forth in the City's Municipal Code and General Plan. The project would implement the measures identified in the TASP for addressing noise, including providing disclosures to future residents per

Policy 5.17, and requiring temporary buffers if residents are placed next to existing industrial uses per Policy 5.19.

As described in the TASP FEIR, construction noise impacts would vary depending on proximity to sensitive receptors, the presence of intervening barriers, and the number, types, and duration of construction equipment used. Compliance with the General Plan and TASP policies would ensure that construction noise impacts would be less than significant.

The City's Noise Abatement Ordinance would restrict construction hours to between 7:00 a.m. and 7:00 p.m. The City's General Plan Policy 6-I-13 would minimize construction noise impacts by restricting the hours of operation, technique, and equipment used. Additionally, TASP Policy 5.15 requires that construction noise be mitigated to the extent feasible to reduce exposure of sensitive receptors.

The proposed project would not result in any new or more significant construction-period noise impacts than were described in the TASP FEIR. Implementation of the Noise Ordinance, the City of Milpitas General Plan, and the TASP, as included in the TASP FEIR, would reduce construction noise impacts to a less-than-significant level.

Groundborne Vibration Impacts

Construction activities are known sources of groundborne vibration. Vibration impacts could occur during construction of the proposed project, which would require the use of heavy excavation equipment, and the possible use of pile-driving equipment. To determine potential construction vibration impacts, an impact evaluation is described below.

When assessing annoyance from groundborne noise, vibration is typically expressed as root mean square (rms) velocity in units of decibels of 1 micro-inch per second. Vibration levels, different from noise levels, are written as vibration velocity decibels (VdB). However, construction vibration impacts on building structures are generally assessed in terms of peak particle velocity (PPV). Therefore, for purposes of this analysis, project-related impacts are expressed in terms of PPV.

Typical groundborne vibration levels measured at a distance of 25 feet from heavy construction equipment in full operation, such as vibratory rollers, range up to approximately 0.210 PPV. Based on the Federal Transit Administration (FTA) data, large bulldozers generate 0.089 PPV at 25 feet and small bulldozers generate 0.003 PPV at 25 feet. Loaded trucks generate 0.076 PPV at 25 feet, an impact pile driver generates 0.644 PPV at 25 feet, and a sonic pile driver generates 0.170 PPV at 25 feet. Except for the impact driver, these vibration levels would not be expected to cause damage to residential buildings of typical northern California construction.

As stated in the TASP FEIR, the proposed project would develop residential uses and therefore could expose sensitive receptors to unacceptable levels of groundborne vibration, specifically from operation of the VTA light rail line and BART trains along the proposed BART expansion into the TASP Area. The nearest proposed residential uses would be approximately 750 feet from the future BART/VTA light rail line.

The Santa Clara Valley Transit Authority's BART Expansion SEIR indicated that vibration impacts at existing receptors in the Planning Area and within 100 feet of the proposed tracks would be mitigated to a less-than-significant level (less than the 72 VdB significance threshold for frequent events affecting Category 2 land uses) by either using a floating slab track or by using tire derived aggregate under ballasted track.[37] As this mitigation would reduce vibration at the source, future residential uses proposed along the BART alignment would also experience less than significant vibration impacts. In addition, TASP Policies 5.13 and 5.14 would ensure that vibration levels within buildings would be less than the FTA criteria.

Therefore, the proposed project would not result in any new or more significant groundborne vibration impacts than were described in the TASP FEIR. In addition, implementation of TASP policies would reduce potential groundborne vibration impacts on future or existing sensitive receptors to less-than-significant levels.

Land Use Compatibility

The TASP FEIR requires implementation of TASP Policy 5.10 which requires new development in the TASP Area to adhere to the standards and guidelines in the Milpitas General Plan that govern noise levels, which would include implementation of General Plan Policies 6-I-2 through 6-I-16. Policy 6-1-2 requires an acoustical analysis for projects located within a "conditionally acceptable" or "normally unacceptable" exterior noise exposure area and require mitigation measures to reduce noise to acceptable levels.

The proposed project would result in an increase in people living close to transit stations which could expose sensitive receptors to higher noise levels from train and future BART activity. The noise environment at the project site is dominated by vehicle traffic noise on Trade Zone Boulevard and rail noise associated with the future BART/VTA light rail and Union Pacific Railroad. Figure 3.7-3 of the TASP FEIR shows the projected noise levels at plan buildout. Based on Figure 3.7-3, the project site is not within the 60 dB noise contours for BART or roadway noise and is within the 60 dB noise contours for the Union Pacific Railroad noise.

Based on the City's noise and land use compatibility standards, as shown in Figure 3.7-2 of the TASP FEIR, this noise level would be considered normally acceptable for multi-family residential land uses, based upon the assumption that any buildings involved are of normal conventional construction without any special noise insulation requirements. Therefore, the proposed project would meet the City's land use compatibility standards for multi-family residential land uses. The proposed project would be required to install mechanical ventilation under General Plan Policy 6-I-5 so that windows can remain closed, which would ensure the project would comply with interior noise standards. Based on standard exterior to interior noise attenuation rates, with windows closed the interior noise level of 45 dBA DNL would be met. Therefore, the proposed project would not result in any impacts that would be more severe than those analyzed in the TASP FEIR.

[37] Transportation Authority, Santa Clara Valley, 2010. *BART Silicon Valley Environmental Impact Report.* November.

Stationary Noise Source Impacts

The City of Milpitas prohibits disturbing noise that increases the noise exposure level by three dB over the local daytime ambient noise level measured from the property line of the noise source, or more than 65 dB measured from the property line of the noise source, whichever is more restrictive. At night, the City of Milpitas prohibits any disturbing noise that is audible during the hours of 10:00 p.m. to 7:00 a.m. from a distance of 50 feet from the property line of the noise source or from a distance of 100 feet from any nonstationary noise source. It shall also be prima facie violation if any disturbing noise is audible during the hours of 7:01 a.m. to 9:59 p.m. from a distance of 100 feet from the property line of the noise source or any nonstationary noise source.

The intent of the Code is to regulate noise produced by noise-generating land uses on noise-sensitive land uses, not to regulate sounds produced by one noise-sensitive residential property upon another noise-sensitive residential property. The project site is currently developed with an office/light-industrial building. Residential land uses typically generate lower noise levels than industrial and commercial land uses. The proposed project is a residential land use and would not be considered as a significant source of noise within the community that could adversely affect other nearby residential land uses. Intermittent audible sounds produced by the proposed residential project would primarily be associated with human voices, vehicles, and mechanical ventilation equipment. Such intermittent sounds would be expected in a residential area and would result in a less-than-significant impact. Therefore, the proposed project would not increase stationary source noise impacts above those analyzed in the TASP FEIR.

Aircraft Noise Source Impacts

According to the City's current and projected noise contours for San José International Airport, the project site is not within an area exposed to aircraft noise levels greater than 60 dB CNEL. Therefore, per TASP FEIR analysis, aircraft noise would have no impact on the project site.

Traffic Noise Impacts

A significant noise impact would occur if traffic generated by the project would substantially increase noise levels at sensitive receptors in the project vicinity. A substantial increase would occur if the DNL exposure at residential land uses increases by more than 3 dB or exceeds 65 dB at the residential property line, whichever is more restrictive.

Impact 3.7-1 of the Milpitas Transit Area Specific Plan identified a less-than-significant traffic noise impact upon existing and future residential land uses assuming the buildout of the Specific Plan project. The proposed project is a small subset of the Specific Plan project; therefore, the proposed project would also result in a less-than-significant impact with regard to traffic noise increases in the community. The project would not result in a doubling of traffic volumes, which would be required for existing noise levels to increase by more than 3 dBA DNL. Further, the relatively low number of project trips would not be expected to produce traffic noise levels exceeding 65 dBA DNL at nearby residential receptors; therefore, the impact is considered less than significant.

Applicable Mitigation

No substantial changes in environmental circumstances have occurred for this topic, nor revisions to the project, nor new information that could not have been known at the time the TASP FEIR was certified leading to new or more severe significant impacts, and no new mitigation measures are required.

Applicable Policies

General Plan Policies

- *Policy 6-G-1: Maintain land use compatibility with noise levels similar to those set by State guidelines.*
- *Policy 6-G-2: Minimize unnecessary, annoying, or injurious noise.*
- *Policy 6-I-2: Require an acoustical analysis for projects located within a conditionally acceptable or normally unacceptable exterior noise exposure area. Require mitigation measures to reduce noise to acceptable levels.*
- *Policy 6-I-3: Prohibit new construction where the exterior noise exposure is considered clearly unacceptable for the use proposed.*
- *Policy 6-I-4: Where actual or projected rear yard and exterior common open space noise exposure exceeds the normally acceptable levels for new single-family and multifamily residential projects, use mitigation measures to reduce sound levels in those areas to acceptable levels.*
- *Policy 6-I-5: All new residential development (single family and multifamily) and lodging facilities must have interior noise levels of 45 dB DNL or less. Mechanical ventilation will be required where use of windows for ventilation will result in higher than 45 dB DNL interior noise levels.*
- *Policy 6-I-6: Assist in enforcing compliance with noise emissions standards for all types of vehicles, established by the California Vehicle Code and by federal regulations, through coordination with the Milpitas Police Department, Santa Clara County Sheriff's Department, and the California Highway Patrol.*
- *Policy 6-I-9: Enforce the provisions of the City of Milpitas Noise Ordinance and the use of established truck routes.*
- *Policy 6-I-13: Restrict the hours of operation, technique, and equipment used in all public and private construction activities to minimize noise impact. Include noise specifications in requests for bids and equipment information.*

TASP Policies

- *Policy 5.10: New development in the Transit Area shall adhere to the standards and guidelines in the Milpitas General Plan that govern noise levels. The particular policies of note are Policies 6-I-1 through 6-I-16.*

- *Policy 5.11: Construct masonry walls to buffer residential uses from BART and UPRR train tracks. These walls will be constructed by residential developers. They may be located within the landscaped buffer along the tracks*

- *Policy 5.13: Apply the FTA groundborne vibration criteria (presented in Table 5-5) as review criteria for development projects in the vicinity of vibration sources such as BART trains and heavy rail trains.*

- *Policy 5.14: Project applicants shall conduct a vibration impact analysis for any sites adjacent to or within 300 feet of active UPRR and BART alignments to demonstrate that interior vibration levels within all new residential development (single family and multifamily) and lodging facilities would be at acceptable levels. If needed, require mitigation measure to reduce vibration to acceptable levels.*

- *Policy 5.15: Prior to issuance of building permits, applicants shall demonstrate that noise exposure to sensitive receptors from construction activities has been mitigated to the extent feasible pursuant to the City's Noise Abatement Ordinance. Mitigation may include a combination of techniques that reduce noise generated at the source, increase the noise insulation of the receptor or increase the noise attenuation rate as noise travels from the source to the receptor.*

- *Policy 5.17: In all rental and sale agreements, provide disclosures to future residents about all surrounding industrial uses, including UPRR train tracks and operations, and permanent rights of such industrial uses to remain. Describe potential impacts including but not limited to: noise, groundborne and airborne vibration, odors, and use of hazardous materials.*

- *Policy 5.18: Day care facilities, schools, nursing homes, and other similar sensitive receptors shall be located away from sites which store or use hazardous materials, in accordance with State and City standards. Adequate buffers to protect occupants of these sensitive uses shall be provided, including but not limited to walls, fences, landscaping, large building setbacks, and additional exit routes over and above minimum code requirements.*

- *Policy 5.19: Require the installation of temporary buffers—fences, walls, or vegetation—when residential uses are developed adjacent to existing industrial uses. The type of buffer must be reviewed and approved by the City Planning Department. The temporary buffers may be removed if and when an adjacent site is redeveloped as a non-industrial use.*

Conclusion

The TASP FEIR adequately evaluated the potential noise impacts of the proposed project. Therefore, potential impacts would be less than significant and additional mitigation is not required.

14. POPULATION AND HOUSING

	New Potentially Significant Impact	New Mitigation Required	Reduced Impact	No New Impact
Would the project:				
a. Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Discussion

The proposed land use changes and policy revisions under the TASP (which includes the project site) were initiated in order to develop high-intensity, transit-oriented residential and commercial redevelopment on under-utilized industrial land around existing light rail stations and the future BART station in Milpitas. Promoting such high intensity development around transit stations is a key transportation goal for the Bay Area and would meet regional objectives.

The TASP FEIR evaluated potential environmental impacts associated with approximately 7,100 residential units and 18,000 new residents within the TASP Area. The TASP FEIR assumes that the population growth is concentrated in this area and that the TASP would increase the City's housing stock by 39 percent and its population by 28 percent based on 2006 estimates from the California Department of Finance.[38]

The proposed project would include the development of the project site with a high-density residential building with up to 40 residential apartment units. The proposed project would directly generate a permanent population increase in the area. The proposed project would not displace a residential population or existing housing, as the existing structure on the project site contains light-industrial uses. Similarly, the proposed project would not result in an expansion of urban services, nor would it open additional undeveloped land for future growth. The proposed project would facilitate the reuse of underutilized land in an existing urban setting that is well served by transit facilities and services. In addition, the population and housing units included in the proposed project would fall within the total development anticipated by the TASP FEIR, as mentioned in Section 10, Land Use and Planning. Therefore, the proposed project would not result in new or more significant population growth and/or housing impacts than were analyzed and described in the TASP FEIR.

[38] Milpitas, City of, 2008b, op. cit.

Applicable Mitigation

No substantial changes in environmental circumstances have occurred for this topic, nor revisions to the project, nor new information that could not have been known at the time the TASP FEIR was certified leading to new or more severe significant impacts, and no new mitigation measures are required.

Conclusion

The TASP FEIR adequately evaluated the potential population and housing impacts of the proposed project. Therefore, potential impacts would be less-than-significant and additional mitigation is not required.

15. PUBLIC SERVICES

	New Potentially Significant Impact	New Mitigation Required	Reduced Impact	No New Impact
Would the project:				
a. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, 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 public services:				
i. Fire protection?	☐	☐	☐	☒
ii. Police protection?	☐	☐	☐	☒
iii. Schools?	☐	☐	☐	☒
iv. Parks?	☐	☐	☐	☒
v. Other public facilities?	☐	☐	☐	☒

Discussion

Fire and Police Protection

The project applicant would construct the proposed project in conformance with current building codes, which require features to reduce potential fire hazards. The Milpitas Police Department would also review project design to ensure that it incorporates appropriate safety features to minimize criminal activity.

As discussed in the TASP FEIR, full buildout of the development approved in the TASP Area, including the proposed project, would incrementally increase the need for fire and police protection services, which would create the need for additional staffing or resources, and a new fire station in the TASP Area. The TASP FEIR states that given that the TASP Area anticipated population of 18,000 new residents, there would be a need for at least one and possibly two new fire companies. Future development of new fire or police facilities in the TASP Area would require supplemental project-specific environmental review.

The TASP presents unique operational issues for the Milpitas Fire Department due to its high density residential and mixed-use structures. The increase in population, business, and vehicular traffic resulting from the buildout of the TASP Area will increase the demand in service levels and has the potential to impact response times, as well as presenting challenges to Fire Department vehicle access and firefighting operations. To maintain current levels of service, an increase in staffing and equipment will be necessary. A "standards-of-cover" analysis should be conducted to determine the precise impact on the Fire Department's staffing, equipment, and any required facility enhancements. In addition, the Milpitas Fire Department would need to write an addendum to the City's emergency management plan to address the development of the TASP Area.

As the TASP FEIR states, the buildout of the TASP Area, including the project site would require an increase in Police Department staffing to maintain current levels of service. The City currently provides a ratio of 0.9 police officers per 1,000 residents. The City estimates that an additional 0.5 police officers would be needed to maintain service levels.

The proposed project would follow policies that would reduce Fire and Police Department impacts due to TASP development to less-than-significant levels. The proposed project would not result in any new or more significant impacts to fire or police protection service beyond those identified in the TASP FEIR.

Schools

The proposed project would develop 40 residential units within the TASP Area, which would directly increase the demand for school facilities. The closest schools to the project site are Northwood Elementary and Morrill Middle School within the Berryessa Union School District and Independence High School within the East Side Union High School District. The TASP FEIR determined that buildout of the TASP, including the project site, would contribute significantly to an exceedance of school district capacity for Milpitas Unified School District and East Side Union High School District, but that Berryessa Union School District has adequate capacity for future students generated as a result of the TASP. As such, the TASP FEIR determined that the impacts of the TASP Area buildout on school facilities would be significant and unavoidable.

Polices in the General Plan and TASP would reduce the impact and include coordination with the school districts to update their comprehensive facilities plans, update school fees for developers, and consider joining use agreements for potential shared facilities. The proposed project would conform to the above policies, including TASP Policy 4.76. Impacts to schools are significant and unavoidable and the proposed project would not affect this conclusion as the number of proposed residential units and resulting students is within the amount evaluated in the TASP FEIR. The proposed project would not result in any new or more significant school impacts beyond those identified in the TASP FEIR.

Parks

Given that the TASP Area is transitioning from industrial to residential and that there are no public parks located nearby, new parks would need to be developed in the TASP Area. Since Milpitas is largely built out, no large new parks are likely to be established. Public parks in the TASP Area come

in three forms: Parks/Plazas, Linear Parks, and Landscape Buffers. The City has previously adopted a public park ratio of 2.0 acres per 1,000 residents for the Midtown Specific Plan. The TASP FEIR states that while this ratio already applies to all but 12 percent of the TASP Area, the application of this ratio can be considered to provide an adequate level of parks and open space for its residents. This policy would require approximately 35.8 acres of public park space in the TASP Area.

The TASP FEIR identifies several policies and standards that require parks to be built as designated – thereby ensuring that impacts on parkland and facilities would be less than significant.

The proposed project would conform to the TASP policies. The proposed project would provide a total of 0.44 acres of private common open space for use by project residents. As described in Attachment A, Project Description, a total of approximately 0.30 acres of private common open space for use by project residents would be provided. This would consist of the interior courtyard on the ground level of the proposed building and a walking path and landscaping along the southern portion of the building, including within the existing public utility easement. The interior courtyard would include seating areas and landscaping that would be screened from the parking garage by a dense row of columnar bamboo around each side. A designated walkway would connect the interior courtyard with the walking path and landscaping mentioned above. The remaining 0.14 acres of open space on the project site would consist of landscaped areas generally located in the northern portion of the site. Therefore, the proposed project would not result in any new or more significant impacts to park facilities beyond those identified in the TASP FEIR.

Applicable Mitigation

No substantial changes in environmental circumstances have occurred for this topic, nor revisions to the project, nor new information that could not have been known at the time the TASP FEIR was certified leading to new or more severe significant impacts, and no new mitigation measures are required.

Applicable Policies

General Plan Policies

- *Policy 2.c-I-1: Continue working with Milpitas Unified School District (MUSD), Berryessa Union High School District, and East Side Union School District in its update of the comprehensive facilities plan and to ensure adequate provision of school facilities.*

- *Policy 2.c-I-3: Work with MUSD, Berryessa Union High School District, and East Side Union School District to monitor statutory changes and modify school fees when necessary to comply with statutory changes. Following this policy will permit the MUSD to update school fees for developers to cover the cost of constructing a new school and expanding Milpitas High School.*

- *Policy 5.c-I-1 Maintain a response time of four minutes or less for all urban service areas.*

TASP Policies

- *Policy 3.38: See policy in Section 10, Land Use and Planning.*
- *Policy 3.41: Park land dedication and in-lieu fees required of new development.*
- *Policy 3.43: New development must pay for the construction of public parks and streets surrounding the parks (or half streets if bordering an adjacent development site).*
- *Policy 3.55: Complete a Trail Loop connecting the whole Transit area.*
- *Policy 3.56: Connections shall be created along Montague Expressway with overhead bridges or undercrossings to create a continuous trail network; allow pedestrians and bicyclists to cross safely; and connect neighborhoods, schools, and parks.*
- *Policy 5.3: All streets (private and public) shall be consistent with the street sections in Chapter 5 of the TASP and shall meet any additional Milpitas Fire Department fire apparatus design requirement for access and firefighting operations.*
- *Policy 6.43: Coordinate with the affected school districts on facilities needed to accommodate new students and define actions the City can take to assist or support them in their efforts.*
- *Policy 6.46: The City and the school districts located in the Specific Plan area should consider entering into a joint use agreement, allowing public use of a new school's playfields when not in use by students, and public use of rooms in the school building for community meetings and events. Any new school site should include outdoor active recreation facilities, which would be counted toward the TASP's public parks requirement. The school building should include facilities that can be accessed and used for community events.*
- *Policy 6.50: The Fire Department shall conduct a 'standards of cover" analysis to determine the Transit Plan's precise impact on the department's staffing and equipment, and any required facility needs. Identify and evaluate potential sites for an expanded or new fire station near the Transit Area if the standards of cover analysis determines it is warranted.*
- *Policy 6.51: Additional fire department staff will be hired, equipment purchased and facilities built to provide an adequate level of service – as determined by City Council – for the residents, workers, and visitors of the Transit Area. New equipment and facilities shall be funded by the Community Facilities District fee and new staff paid from the City's General Fund.*
- *Policy 6.52: If a new fire station is built to meet the service needs of the Transit Area, it must be sited and developed in such a way to not create substantial adverse physical impacts or significant environmental impacts.*
- *Policy 6.53: The Fire Department shall update the City's emergency and disaster response plans to take the location and type of new development and future traffic levels, into account.*

- *Policy 6.54: Additional police staff will be hired and equipment purchased to provide an adequate level of service – as determined by City Council – for residents, workers and visitors of the of the Transit Area. New equipment shall be funded by the Community Facilities District fee and new staff paid from the City's General Fund.*

Conclusion

The TASP FEIR adequately evaluated the potential public services impacts of the proposed project. Therefore, potential impacts would be less than significant and additional mitigation is not required.

16. RECREATION

	New Potentially Significant Impact	New Mitigation Required	Reduced Impact	No New Impact
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b. 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

As discussed above in Section 15, Public Services, the proposed project would provide a total of 0.44 acres of private common open space for use by project residents. These spaces would consist of consist of the interior courtyard on the ground level of the proposed building and a walking path and landscaping along the southern portion of the building, including within the existing public utility easement. The interior courtyard would include seating areas and landscaping that would be screened from the parking garage by a dense row of columnar bamboo around each side. A designated walkway would connect the interior courtyard with the walking path and landscaping mentioned above. The remaining 0.14 acres of open space on the project site would consist of landscaped areas generally located in the northern portion of the site. Therefore, the proposed project would not result in any new or more significant impacts to existing neighborhood or regional park facilities beyond those identified in the TASP FEIR.

Applicable Mitigation

No substantial changes in environmental circumstances have occurred for this topic, nor revisions to the project, nor new information that could not have been known at the time the TASP FEIR was certified leading to new or more severe significant impacts, and no new mitigation measures are required.

Applicable Policies

TASP Policies

- *Policy 3.38: See policy in Section X, Land Use and Planning.*
- *Policy 3.40: Locate and size parks as shown on Figure 3-6, Parks, Public Spaces, and Trails [of the Specific Plan]. Minor adjustments to the location of parks may be necessary to facilitate a better site plan, respond to site specific constraints, or to accommodate phasing of a project. Smaller parks may be combined to form a larger neighborhood park within the same subdistrict as long as there is no reduction in park area. Complete elimination or relocation of a park outside of a subdistrict requires an amendment to the Specific Plan. If a school is located on a site designated as a park, it may be counted as a park if a joint use agreement is established to allow public use of open space and buildings for recreation purposes after school hours and on weekends. If no such joint use agreement is established, an alternative park site shall be designated.*
- *Policy 3.41 and 3.43: See policies in Section 15, Public Services.*
- *Policy 3.45: Private development within the Transit Area must meet the private open space requirements on a project-by-project basis.*
- *Policies 3.55 and 3.56: See policies in Section 15, Public Services.*

Conclusion

The TASP FEIR adequately evaluated the potential recreation impacts of the proposed project. Therefore, potential impacts would be less-than-significant and additional mitigation is not required.

17. TRANSPORTATION/TRAFFIC

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No New Impact
Would the project:				
a. Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☐	☒
b. Conflict or be inconsistent with CEQA Guidelines §15064.3, subdivision (b)?	☐	☐	☐	☒
c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
d. Result in inadequate emergency access?	☐	☐	☐	☒

Discussion

This section compares traffic impacts from the proposed project with impacts identified in the TASP FEIR. A Traffic Operations Report (Traffic Study) was conducted for the proposed project, and is

included in Appendix B.[39] Unless otherwise noted, the analysis in this section is based on the findings of the Traffic Study.

Trip Generation

The magnitude of traffic produced by a new development and the locations where that traffic would appear were estimated using a three-step process: 1) trip generation; 2) trip distribution; and 3) trip assignment. In determining project trip generation, the magnitude of traffic entering and exiting the site was estimated for the AM and PM peak hours. As part of the project trip distribution step, an estimate was made of the directions to and from which the project trips would travel. In the project trip assignment step, the project trips were assigned to specific streets and intersections in the study area.

Through empirical research, data has been collected that correlate to common land uses and their propensity for producing traffic. Thus, for the most common land uses there are standard trip generation rates that can be applied to help predict the future traffic increases that would result from a new development. The trip generation estimates for the proposed project are based on rates obtained from the Institute of Transportation Engineers' (ITE) publication Trip Generation, 10th Edition.[40]

As stated previously, the project site is occupied by an office/industrial building that is currently in operation. Trips generated by existing uses on site can be credited against the proposed residential development. Based on AM and PM peak hour driveway counts conducted in May 2019, the existing land uses generate 11 AM peak hour trips and 12 PM peak hour trips. After applying these existing trip credits, the proposed project would generate 9 net AM peak hour trips and 14 net PM peak hour trips, as shown in Table BE.

Table BE: Project Trip Generation Estimates

	Size	Unit [a]	AM Peak Hour				PM Peak Hour			
			Rate	In	Out	Total	Rate	In	Out	Total
Proposed Use										
Multi-Family Housing [b]	40	DU	0.50	5	15	20	0.65	17	9	26
Existing Use										
Office/Light-Industrial [c]	16	ksf	–	9	2	11	–	3	9	12
Overall Net Project Trips				**-4**	**13**	**9**	**–**	**14**	**0**	**14**

Source: Hexagon Transportation Consultants, Inc. (2019).
[a] DU = dwelling units; ksf = 1,000 square feet
[b] Based on Fitted Curved Equations for Multifamily Housing (Low-Rise, Land Use Code 220), ITE, Trip Generation, 10th Edition.
[c] Based on AM and PM peak hour driveway counts conducted on May 2, 2019.

The trip distribution pattern for the proposed project was estimated based on the TASP, of which the proposed development would be a part of. Trips were assigned to the roadway network in

[39] Hexagon Transportation Consultants, Inc., 2019. *Traffic Operations Report for 2001 Tarob Court, Milpitas, CA*. May 28.
[40] Institute of Transportation Engineers, 2017. *Trip Generation Manual, 10th Edition.*

accordance with the TASP trip distribution for residential uses. Existing Plus Project traffic conditions are represented by existing traffic volumes plus project trips on the existing roadway network.

Background condition traffic volumes were estimated based on a list of approved and pending developments obtained from the City of Milpitas and the City of San Jose. Approved and pending project-generated traffic volumes were added to existing traffic volumes to estimate background conditions. Project trips from the site were added to background traffic volumes to estimate background plus project conditions.

Intersection Level of Service Impacts

The Traffic Study includes an analysis of AM and PM peak hour traffic conditions at the following study intersections and site driveway:

1. Lundy Avenue and Trade Zone Boulevard;
2. Lundy Avenue and Tarob Court (unsignalized); and
3. Project Driveway and Tarob Court.

Traffic conditions at the study intersections were evaluated using level of service (LOS). LOS is a qualitative description of operating conditions ranging from LOS A, or free-flow conditions with little or no delay, to LOS F, or jammed conditions with excessive delays. The signalized intersection of Lundy Avenue and Trade Zone Boulevard is under the jurisdiction of City of San Jose. The City of San Jose utilizes TRAFFIX software and the Highway Capacity Manual (HCM) 2000 methodology to evaluate intersection operations. The HCM methodology evaluates intersection operations on the basis of average delay time for all vehicles at the intersection. This average delay can then be correlated to a level of service. In San Jose, the minimum acceptable level of service is LOS D, and project impacts at signalized intersections occur when:

1. The level of service at an intersection drops below its LOS standard when project traffic is added; or

2. An intersection that is operating worse than its level of service standard under no project conditions has an increase in critical delay of four or more seconds AND the demand-to-capacity ratio (V/C) is increased by more than 0.01 when project traffic is added.

The exception to this threshold is when the addition of project traffic reduces the amount of average delay for critical movements (i.e. the change in average delay for critical movements is negative). In this case, the threshold is when the project increases the V/C value by 0.01 or more.

A significant impact at a signalized intersection is said to be satisfactorily mitigated when measures are implemented that would restore intersection levels of service to an acceptable LOS or restore the intersection to operating levels that are better than no project conditions.

The Traffic Study calculated intersection LOS with net new traffic generated by the proposed project. The result of the intersection LOS calculations for Existing Conditions and Existing Plus

Project are shown in Table BF, and the results of the Background No Project, and Background Plus Project conditions are presented in Table BG.

Table BF: Existing Plus Project Intersection Level of Service Summary

Intersection	Control	Peak Hour	Count Date	LOS Standard	Existing		Existing Plus Project			
					Avg Delay[a] (sec/veh)	LOS	Avg Delay[a] (sec/veh)	LOS	Increase in	
									Delay [c]	V/C
1. Lundy Ave and Trade Zone Blvd	Signal	AM	5/2/19	D	30.3	C	32.2	C	3.5	0.045
		PM	5/2/19	D	41.8	D	44.0	D	4.10	0.048
2. Lundy Ave and Tarob Ct	SSSC [b]	AM	5/2/19	N/A	4.8/8.9	A	5.2/8.7	A	N/A	N/A
		PM	5/2/19	N/A	6.2/8.6	A	6.4/8.6	A	N/A	N/A
3. Project Driveway and Tarob Ct	SSSC [b]	AM	5/2/19	N/A	1.2/8.4	A	2.1/8.4	A	N/A	N/A
		PM	5/2/19	N/A	1.3/8.5	A	2.3/8.5	A	N/A	N/A

Source: Hexagon Transportation Consultants, Inc. (2019).

[a] Signalized intersection level of service is based on the Highway Capacity Manual (HCM) methodology, using average control delay for the entire intersection.

[b] Side Street Stop Controlled intersection. Delays are reported for both the overall average delay/the approach with highest delay.

[c] For the signalized intersection at Lundy Ave and Trade Zone Boulevard, the increase in delay shown here represents increase in critical delay

Table BG: Background Plus Project Intersection Level of Service Summary

Intersection	Control	Peak Hour	Count Date	LOS Standard	Background		Background Plus Project			
					Avg Delay[a] (sec/veh)	LOS	Avg Delay[a] (sec/veh)	LOS	Increase in	
									Delay [c]	V/C
1. Lundy Ave and Trade Zone Blvd	Signal	AM	5/2/19	D	35.4	D	35.6	D	0.0	0.001
		PM	5/2/19	D	44.7	D	44.7	D	0.0	0.000
2. Lundy Ave and Tarob Ct	SSSC [b]	AM	5/2/19	N/A	4.9/8.9	A	5.1/8.9	A	N/A	N/A
		PM	5/2/19	N/A	57/8.8	A	5.9/8.8	A	N/A	N/A
3. Project Driveway and Tarob Ct	SSSC [b]	AM	5/2/19	N/A	0.7/8.6	A	1.3/8.6	A	N/A	N/A
		PM	5/2/19	N/A	0.8/8.7	A	1.4/8.7	A	N/A	N/A

Source: Hexagon Transportation Consultants, Inc. (2019).

[a] Signalized intersection level of service is based on the Highway Capacity Manual (HCM) methodology, using average control delay for the entire intersection.

[b] Side Street Stop Controlled intersection. Delays are reported for both the overall average delay/the approach with highest delay.

[c] For the signalized intersection at Lundy Ave and Trade Zone Boulevard, the increase in delay shown here represents increase in critical delay

As shown in Tables BE and BG above, the results of the LOS analysis show that the signalized intersection at Trade Zone Boulevard and Lundy Avenue would operate at LOS D or better under existing and background conditions with or without the proposed project. According to the City of San Jose LOS standards, the proposed project would therefore have no impacts on intersection LOS.

The study intersections of Lundy Avenue/Tarob Court and Project Driveway/Tarob Court are unsignalized and under the jurisdiction of City of Milpitas. Unlike signalized intersections, which

typically represent constraint points for the roadway network, unsignalized intersections rarely limit the potential capacity of a roadway. The determination of appropriate improvements to unsignalized intersections typically includes a qualitative and quantitative analysis of movement delay, traffic signal warrants, movement traffic volumes, availability of alternate routes, and intersection safety. For this reason, improvements to unsignalized intersections are frequently determined on the basis of professional judgment. The City of Milpitas does not apply significance thresholds to unsignalized intersections. Both unsignalized study intersections are projected to operate at LOS A under existing and background conditions, with or without the proposed project.

An assessment was conducted to determine whether the traffic volumes at the Lundy Avenue/Tarob Court intersection would warrant the installation of a traffic signal. This assessment was based on the Peak Hour Volume Signal Warrant (Warrant #3) described in the California Manual on Uniform Traffic Control Devices (CA MUTCD). This method makes no evaluation of intersection level of service, but simply provides an indication whether peak hour traffic volumes would be sufficient to justify installation of a traffic signal. The signal warrant analysis sheets are included in the Appendix to the Traffic Study. The analysis showed that the peak hour volume warrant would not be satisfied at the Lundy Avenue/Tarob Court intersection under any study scenarios during the AM and PM peak hours.

Vehicle Queuing

A vehicle queuing analysis was conducted for the eastbound left-turn movement at the Trade Zone Boulevard/Lundy Avenue intersection and the northbound left-turn at the Tarob Court/Lundy Avenue intersection. The queuing analysis was conducted for both background and background plus project conditions. Vehicle queues were estimated using a Poisson probability distribution. The basis of the analysis is as follows: 1) the Poisson probability distribution is used to estimate the 95th percentile maximum number of queued vehicles per signal cycle for a particular movement; 2) the estimated maximum number of vehicles in the queue is translated into a queue length, assuming 25 feet per vehicle; and 3) the estimated maximum queue length is compared to the existing or planned available storage capacity for the movement. This analysis thus provides a basis for estimating future storage requirements at intersections. The analysis, which is summarized in Table 3 in the Traffic Study, indicates that, with the addition of project traffic, the 95th percentile vehicle queues could be accommodated by the storage provided at the subject locations.

Site Circulation and Access

The project site would be accessed by one driveway on Tarob Court on the west end of the site, about 200 feet west of the intersection at Lundy Place and Tarob Court. The proposed driveway would be located at approximately the same location as the existing driveway on Tarob Court for the existing building at the project site. The width of the driveway entry would be 22 feet, which meets the minimum City standard for driveways. Under project conditions, it is anticipated that this driveway would serve approximately 20 AM peak hour project trips and 26 PM peak hour project trips.

There are existing driveways serving other parcels on Tarob Court adjacent to and opposite of the project frontage. The site driveway does not align with the existing driveway on the opposite side of

Tarob Court, but is offset about 25 feet. There is also another existing driveway beside the site driveway on Tarob Court about 50 feet to the west. The spacing of the site driveway, and its location relative to existing driveways, would be acceptable given the relatively low traffic volumes at the nearby driveways and Tarob Court.

According to the LOS and queuing calculations, the site driveway would operate at LOS A with queues rarely exceeding one or two vehicles during the AM and PM peak hours. The vehicle queues at the site driveway could be accommodated in the storage space provided, and the onsite queues would generally not interfere with traffic operations on Tarob Court and Lundy Avenue.

Pedestrian access to the project site is provided at locations along the frontage on Tarob Court and Lundy Place. Primary pedestrian access is provided via the main entry facing the sidewalks on Tarob Court. Besides the primary access on Tarob Court, there would be walking paths connecting the parking garage with the existing sidewalks on Lundy Place on the east side of the property. New sidewalks with curb extensions would also be installed on the project frontage on Tarob Court, providing a continuous pedestrian pathway to existing sidewalks on Trade Zone Boulevard via Lundy Place. Overall, the network of pedestrian paths and the sidewalk improvements on the project frontages would provide adequate access to the existing sidewalk network in the project vicinity.

In order to accommodate pedestrians, the following would be incorporated into the project via conditions of approval:

- One new ADA-compliant curb ramp should be added at the existing northwest curb return at Tarob Court and Lundy Place (along the project frontage). A striped crosswalk should also be provided when the opposite side of the curb return is upgraded along with the redevelopment of the parcel at 1996 Tarob Court.

The sight distance at the project driveway on Tarob Court was checked and determined to be adequate. Because the project would install a curb extension, which includes adding sidewalks on the Tarob Court frontage, the site driveway would be shifted closer to the centerline of Tarob Court, thereby further improving the sight distance for vehicles exiting the site driveway. As part of the project improvements, the radius of the existing curb return along the project frontage at the Lundy Place/Tarob Court intersection would be reduced. This improvement would help reduce vehicle speeds on Tarob Court, and therefore, improve the sight distance required for vehicles entering and exiting the driveways.

Circulation on-site would consist of an open parking lot and a parking garage on the ground level. Onsite parking areas would be accessed by one site driveway on Tarob Court. Both the open parking lot and parking garage follow a standard 90-degree parking layout. The main parking aisle and the two east-west feeder parking aisles inside the garage would be 26 and 24 feet wide, respectively, which meets the City's standard for 90-degree parking. However, the north-south parking aisle connecting the two east-west parking aisle is not dimensioned. The dimensions of the regular and compact parking spaces are 9 feet by 18 feet and 8 feet by 15 feet, respectively. Both parking space dimensions meet the minimum City standards. However, the widths of the parking garage entrances are not dimensioned.

Upon entering the garage, vehicles would follow the main drive aisle through the open parking lot and arrive at a roundabout at the southern end of the aisle. The two feeder drive aisles, which are connected at right angles to the main drive aisle, would provide access to the parking garage east of the main drive aisle. The ends of the two feeder drive aisles are connected by another drive aisle, forming a U-shape circulation pattern which makes a complete loop around of the parking garage. The layout shows no dead-end aisles.

The last two parking spaces (numbered 67 and 68) in the open parking lot located off the main drive aisle are approximately 20 feet south of the sidewalk on Tarob Court, and approximately 30 feet south of the beginning of the site driveway. Vehicles parked in these spaces would have to back out directly into the main site access aisle, potentially into the line of incoming traffic on the aisle just turning into the site driveway. However, given the low traffic volumes at the site driveway and on Tarob Court, the design would be acceptable.

The site plan shows one elevator at the front lobby that would provide residents access to the parking garage. The sidewalk on Tarob Court would be accessed directly from the front lobby while the sidewalk on Lundy Avenue would be accessed from pedestrian pathways connecting with the parking garage.

A trash collection room would be located adjacent to the roundabout at the southern entrance of the parking garage. The roundabout would have an 80-foot outside diameter and a 26-foot wide lane that would allow turnaround maneuvers of garbage trucks as noted on the site plan. Therefore, garbage trucks would perform their operations onsite within the development.

Given the above, the proposed project would not result in any new or more significant impacts beyond those identified in the TASP FEIR.

Pedestrian, Bicycle, and Transit Facilities

According to the Valley Transit Authority (who administers the Santa Clara County Congestion Management Plan) Transportation Impact Analysis Technical Guidelines, a project would create an impact on pedestrian and bike circulation if: 1) it would reduce, sever or eliminate existing or planned bike/pedestrian access and circulation in the area; 2) it would preclude, modify, or otherwise affect proposed bicycle and pedestrian projects and/or policies identified in the Lead Agency's adopted bicycle/pedestrian plan, or the plans of other agencies such as the Countywide Bicycle Plan or adjacent Cities' bicycle/pedestrian plans; or 3) it would cause a change to existing bike paths such as alignment, width of the trail right of way, or length of the trail.

The project site is located within the TASP. The TASP facilitates the redevelopment of the southern portion of the City that transforms a low-density industrial area to an urban residential and mixed-use district with an emphasis on walkability and bicycling. The plan includes a new street system that promotes walking and biking as the dominant modes for short internal trips, especially with the future Milpitas BART station and VTA light rail system within close proximity to the project site. As part of the Milpitas TASP, a future street connection and pedestrian bridge across Capitol Avenue are planned to connect Tarob Court to Milpitas Boulevard and the new BART station. A proposed

Class III bike route is also planned on Tarob Court to serve this new bicycle access route to the transit center.

As part of project improvements, curb extensions with new sidewalks would be installed along the Tarob Court and Lundy Place project frontages. In addition, the two existing driveways at the project site would be reduced into one new site driveway on Tarob Court, which would reduce the number of potential vehicle-pedestrian conflict points.

The proposed project would generate pedestrian trips to/from transit stops, recreation areas, and employment centers. Overall, the volume of pedestrian trips generated by the project is expected to be relatively low and not exceed the carrying capacity of the sidewalks and crosswalks nearby. U.S. Census data indicate that bicycle trips comprise less than one percent of the total commute mode share in the City of Milpitas. For the proposed project, this would equate to approximately one new bike trip during each of the AM and PM peak hours. The low volume of bicycle trips generated by the project would not exceed the bicycle-carrying capacity of streets surrounding the site, and the increase in bicycle trips would not by itself require new off-site bicycle facilities.

The addition of the project would not remove any existing bike/pedestrian facilities, nor would it preclude any future planned improvements. Because most intersections around the project site are signalized and have very few bike/pedestrian activities, the addition of project traffic would have a negligible effect on walking and biking in the project vicinity. Therefore, the proposed project would not create an adverse impact to bike/pedestrian circulation in the area.

According to the VTA TIA Technical Guidelines, a project would create an impact on transit if: 1) it would generate a demand for additional transit services; or 2) it would cause a permanent or temporary reduction of transit availability or interference with existing transit users, e.g., relocation/closure of a transit stop or vacation of a roadway utilized by transit.

According to the TASP, transit trips would comprise approximately 9 percent of all peak hour trips. For the proposed project, assuming 9 percent of total commute trips would be transit trips, this would generate approximately one new transit trip during the AM peak hour and two new transit trips during the PM peak hour. In addition to commute trips, there would be additional transit trips to nearby schools, parks, and shopping areas. The volume of transit trips generated by the project would not exceed the carrying capacity of the existing transit service to the site.

The addition of the project would not remove any existing transit facilities, nor would it preclude any future planned improvements. As shown in the LOS calculations, the addition of project traffic would have a negligible effect on bus delays the project vicinity. Therefore, based on the VTA Technical Guidelines, the proposed project would not create an adverse impact to transit operations in the area and no improvements to existing transit service frequencies would be necessary in conjunction with the proposed project. Therefore, the proposed project would not result in any new or more significant impacts beyond those identified in the TASP FEIR.

CEQA Guidelines §15064.3

Effective December 28, 2018, the CEQA Guidelines were updated and require the evaluation of vehicle miles transportation (VMT) as the criteria for analyzing transportation impacts for land use projects. As noted in CEQA Guidelines Section 15064.3(c), the provisions of CEQA Guidelines Section 15064.3 shall apply prospectively as described in CEQA Guidelines Section 15007. A lead agency may elect to be governed by the provisions of CEQA Guidelines Section 15064.3 immediately; however, beginning on July 1, 2020, the provisions of this section shall apply Statewide. The City of Milpitas, as lead agency, has not yet elected to be governed by the provisions of CEQA Guidelines Section 15064.3. Therefore, the proposed project would neither conflict nor be inconsistent with CEQA Guidelines Section 15064.3, and there would be no new impact.

Applicable Mitigation

No substantial changes in environmental circumstances have occurred for this topic, nor revisions to the project, nor new information that could not have been known at the time the TASP FEIR was certified leading to new or more severe significant impacts, and no new mitigation measures are required.

Applicable Policies

TASP Policies

- *Policy 3.12: Preserve adequate right-of-way along Capitol Avenue, Great Mall Parkway, and Montague Expressway to accommodate future regional roadway improvements. Final dimensions of right-of-way acquisition are not yet known. The detailed street sections in Chapter 5 [of the Specific Plan] include notes about right-of-way acquisition, to the extent that information is currently available.*

- *Policy 3.15: Review individual development applications to ensure that adequate street right-of-way, bicycle facilities, pedestrian facilities and landscaping are provided and are consistent with the Transit Area Plan circulation policies and street design standards in Chapter 5 [of the Specific Plan].*

- *Policy 3.16: Establish and implement a travel demand management (TDM) program in order to encourage alternate modes of travel and thereby reduce automobile trips. Establish a funding mechanism to pay for the costs of the program, including the cost of a transportation coordinator to administer the program. The program would include a ride-matching program, coordination with regional ride-sharing organizations, and provision of transit information; and could also include sale of discounted transit passes and provision of shuttle service to major destinations.*

- *Policy 3.17: New streets shall be located as generally shown on the Street System Map, Figure 3-2.*

- *Policy 3.18: New development must dedicate land for new public streets and pay for their construction.*

- *Policy 3.21: Provide continuous pedestrian sidewalks and safe bike travel routes throughout the entire Transit Area and within development projects.*

- *Policy 3.22: Private development shall provide direct walking and biking routes to schools and major destinations, such as parks and shopping, through their property.*

- *Policy 3.28: Provide continuous bicycle circulation through the project site and to adjacent areas by closing existing gaps in bicycle lanes and bicycle routes, per Figure 3-5 [of the Specific Plan]. Gaps exist on Capitol Avenue between Montague Expressway and Trimble Road, and on Trade Zone Boulevard between Montague Expressway and Lundy Place. Capitol Avenue only needs to be re-striped to add a bike lane. Trade Zone Boulevard generally contains sufficient width to accommodate two travel lanes and bike lanes in each direction; however, the westbound lanes on Trade Zone jog south slightly, so right-of-way acquisition will likely be required to push the curb further north to maintain a consistent section and to add bike lanes. Bike routes should be upgraded to bike lanes as part of any Montague widening project.*

- *Policy 3.29: A Class III bicycle route shall be created on the internal roadways (from the Milpitas Boulevard Extension/Capitol Avenue intersection to Tarob Court) to provide a continuous bicycle connection between Milpitas Boulevard and the existing bicycle lanes on Lundy Street, as indicated on Figure 3-5 [of the Specific Plan].*

- *Policy 3.32: Coordinate with VTA to provide sufficient amenities (such as transit shelters) at all transit stops within the Transit Area.*

- *Policy 6.32: The City shall establish and assess a transportation impact fee program, known as the Regional Traffic Fee, to contribute toward traffic improvements to be undertaken in whole or in part by the County of Santa Clara or City of San Jose. This fee will go toward the East/West Corridor Study, Montague Expressway Widening project, and Calaveras Boulevard (SR 237) Overpass Widening project, as well as other local and regional improvements.*

- *Policy 6.33: The City shall establish and assess a transportation impact fee program to provide improvements to mitigate future traffic operations on the roadway segments within the City of Milpitas. All projects within the Transit Area Plan will be required to pay this fee.*

- *Policy 6.34: The new traffic impact fee program should include fair-share payments toward the following improvement: At the West Calaveras Boulevard/I-880 northbound ramps, convert the northbound center left turn lane to a shared left-turn/right-turn lane. The City of Milpitas will coordinate with Caltrans to implement this improvement.*

- *Policy 6.35: The new traffic impact fee program should include fair-share payments toward the following improvement: At the intersection of Tasman Drive/McCarthy Boulevard, the southbound (McCarthy Boulevard) shared through/right-turn lane will be converted to an exclusive right-turn lane with overlap signal phasing. The southbound right-turn will have a green arrow and enter the intersection at the same time as the eastbound left-turn movement. Eastbound left-turns will be prohibited. The City of Milpitas will implement this improvement.*

- *Policy 6.36: The new traffic impact fee program should include fair-share payments toward the following improvement: Coordinate the traffic signals at the Tasman Drive / I-880 southbound ramps and the Great Mall Parkway/I-880 northbound ramps with one another as well as adjacent intersections, particularly Tasman Drive/Alder Drive, in order to improve operations in the Great Mall Parkway/Tasman Drive corridor north of the Transit Area. The City of Milpitas will coordinate with Caltrans to implement this improvement.*

Conclusion

The TASP FEIR adequately evaluated the transportation impacts of the proposed project. The proposed project would be required to comply with TASP policies related to transportation including traffic impact fees and City of Milpitas 2008 CFD (TASP Area) tax rates. Therefore, the proposed project would not create any new impacts related to transportation and additional mitigation is not required.

18. TRIBAL CULTURAL RESOURCES

	New Potentially Significant Impact	New Mitigation Required	Reduced Impact	No New Impact
Would the project:				
a. Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)? Or	☐	☐	☐	☒
ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☐	☐	☒

Discussion

The only site within the TASP Area that the TASP FEIR identified as potentially eligible for the California Register of Historic Resources is the Great Mall, which is not located within the project site. General Plan Policy 4.f-G-1 would reduce any potential impact to historical and cultural resources to a less-than-significant level. As previously discussed in Section 5, Cultural Resources of this checklist, the TASP FEIR determined that impacts to cultural and historic resources would be reduced to less-than-significant levels with implementation of Policy 5.34 to reduce potential impacts to previously unidentified archeological resources to a less-than-significant level through construction monitoring, and if remains are found, temporary halting of construction until development of a mitigation plan and its implementation. This finding applies to tribal cultural resources. Therefore, the proposed project would not result in any new or more severe impacts to tribal cultural resources than were identified in the TASP FEIR.

Applicable Mitigation

No substantial changes in environmental circumstances have occurred for this topic, nor revisions to the project, nor new information that could not have been known at the time the TASP FEIR was certified leading to new or more severe significant impacts, and no new mitigation measures are required.

Applicable Policies

General Plan Policies

- *Policy 4.f-G-1: Preserve existing historical and cultural resources, especially those site where an Historical Park may prove feasible.*

Conclusion

The TASP FEIR adequately evaluated the potential tribal cultural resources impacts for the proposed project. Therefore, potential impacts would be less than significant and additional mitigation is not required.

19. UTILITIES AND SERVICE SYSTEMS

	New Potentially Significant Impact	New Mitigation Required	Reduced Impact	No New Impact
Would the project:				
a. Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☐	☒
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☐	☒
c. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
d. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☐	☒
e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☐	☒

Discussion

Wastewater Treatment Requirements

As the TASP FEIR describes, the City's Main Pump Station has a wet weather capacity between 42 and 45 million gallons per day (mgd) and the City does not expect buildout of the TASP, including the project site, to cause the City's overall wet weather flow to exceed this capacity (TASP Impact 3.11-3).[41] The City plans to make improvements to the Main Sewage Pump Station, not as a result of the buildout of the TASP, but as a result of overdue maintenance and seismic deficiencies. The TASP

[41] Milpitas, City of, 2008b, op. cit.

FEIR determined that the buildout of the TASP would result in an increase in wastewater flow and several new improvement projects to sewer pipelines would be required.

The TASP FEIR also determined buildout of the TASP would create sewer flows that when combined with other cumulative growth and development within the City would exceed the City's contracted capacity at the Water Pollution Control Plant. However, because the proposed project is within the level of development evaluated in the TASP FEIR, it would not result in any new or more severe impacts related to wastewater capacity and infrastructure than those previously analyzed.

Stormwater Drainage Facilities

The TASP would require the development of new storm drainage infrastructure as outlined in the 2001 Storm Drain Master Plan.[42] The majority of existing utilities within the boundary of the project site, aside from those within the public utility easement, would be removed. The proposed project would include the installation of new storm drain lines on the project site and would connect to the existing 12-inch municipal storm drain located at the northwest corner of the project site. The potential impacts associated with storm drainage facilities from the proposed project would not be greater or more severe than those identified in the TASP FEIR.

Water Supply

The TASP FEIR determined that the buildout of the TASP, including the project site, would increase water demand at buildout by 1.1 mgd. The buildout of the TASP would exceed capacity of the existing turnout delivering water from the SCVWD system during the peak hour demand period. This increase in demand would require improvements to the existing water infrastructure both within the TASP Area and affected pressure zones.

TASP Policy 6.22 would ensure that less-than-significant impacts associated with water supply would occur. The TASP FEIR concluded that this water demand will be adequately served by water supplies from current sources in addition to offsets by the supplies available from the SCVWD, the ability to run emergency wells, and an increased use of recycled water. The TASP provides policies which require the use of recycled water.

The proposed project would conform to TASP policies that would reduce the impact to a less-than-significant level and would not result in greater growth on the project site than anticipated by the TASP FEIR. Impacts of the proposed project would not result in any greater impacts than those identified by the TASP FEIR.

Solid Waste

Buildout of the TASP Area would result in an increase in the amount of solid waste due mainly to the increase in residential uses. The TASP FEIR concluded that there is sufficient capacity in the existing solid waste disposal facilities serving the TASP Area, including the project site, for at least 30 more years. The proposed project would conform to TASP policies and would not result in any new or more severe impacts beyond those identified in the TASP FEIR.

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42 Milpitas, City of, 2001. *Storm Drain Master Plan*. July.

Applicable Mitigation

No substantial changes in environmental circumstances have occurred for this topic, nor revisions to the project, nor new information that could not have been known at the time the TASP FEIR was certified leading to new or more severe significant impacts, and no new mitigation measures are required.

Applicable Policies

TASP Policies

- *Policy 6.6: Construct the improvements within the Transit Area that were identified in the 2001 Storm Drainage Master Plan, and any other improvements identified in updates to the Master Plan.*
- *Policy 6.13: Provide water supply for the Specific Plan area from the Santa Clara Valley Water District.*
- *Policy 6.16: Reduce water consumption through a program of water conservation measures, such as use of recycled water, water-saving features, and drought-tolerant landscaping.*
- *Policy 6.17: The City of Milpitas will require that water saving devices, as required by the California Plumbing Code, be installed in all residential, commercial, industrial and institutional facilities within the Transit Area. Such devices are capable of reducing the amount of water used indoors, resulting in substantial wastewater flow reductions.*
- *Policy 6.19: Per the Midtown Specific Plan, require new development to include recycled water lines for irrigation.*
- *Policy 6.20: The City of Milpitas will require that recycled water be used to irrigate all parks, plazas, community facilities, linear parks, landscaped front yards and buffer zones. Recycled water may also be used for landscape irrigation on vegetated setbacks and private common areas. The City shall also require, where reasonable and feasible, that commercial uses, schools and non-residential mixed use developments be provided with dual plumbing to enable indoor recycled water use for non-potable uses to the extent feasible.*
- *Policy 6.21: Require existing irrigation users to convert to recycled water when it becomes available.*
- *Policy 6.23: All new development shall participate to the maximum extent practical in solid waste source reduction and diversion programs.*

Conclusion

The TASP FEIR adequately evaluated the potential utilities impacts for the proposed project. Therefore, potential impacts would be less than significant and additional mitigation is not required.

20. WILDFIRE

	New Potentially Significant Impact	New Mitigation Required	Reduced Impact	No New Impact
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☐	☒
c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☐	☒
d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	☒

Discussion

Since certification of the TASP FEIR, Appendix G of the CEQA Guidelines has been revised to include a separate section for Wildfire. Effective December 28, 2018, CEQA requires the evaluation of wildfire hazards, among other changes. Because the TASP FEIR was certified prior to December 28, 2018, a separate evaluation of wildfire impacts was not included.

However, the Hazards and Hazardous Materials section of the TASP FEIR did determine that there were no Very High Fire Hazard Severity Zones within the TASP Area. In addition, the project site is not located in or near any State responsibility areas. Therefore, the proposed project would not result in any new impacts related to wildfire hazards.

Applicable Mitigation

No substantial changes in environmental circumstances have occurred for this topic, nor revisions to the project, nor new information that could not have been known at the time the TASP FEIR was certified leading to new or more severe significant impacts, and no new mitigation measures are required.

Conclusion

The TASP FEIR adequately evaluated the potential impacts related to hazards (and by extension, wildfire) of the proposed project and no new impacts would result.

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APPENDIX A

CALEEMOD OUTPUT SHEETS

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2001 Tarob Court

Bay Area AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	40.00	Dwelling Unit	0.77	40,000.00	114
Unenclosed Parking with Elevator	60.00	Space	0.00	24,000.00	0
Parking Lot	14.00	Space	0.10	5,600.00	0
City Park	0.44	Acre	0.44	19,166.40	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2021
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	328.8	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

2001 Tarob Court - Bay Area AQMD Air District, Annual

Project Characteristics - CO2 intensity based on 5-year average, PG&E, 2015

Land Use - The project would include 40 residential units, a parking garage with 60 spaces, an additional 14 onstreet parking spaces, and 0.44 acres of open space/landscaped areas.

Construction Phase - Construction of the proposed project is anticipated to occur over approximately 16 months, starting in April 2020 and ending in August 2021.

Grading - approximately 1,410 cubic yards of soils would be excavated and exported

Demolition - The project would demolish the existing 16,463-square-foot office/light-industrial building

Vehicle Trips - Based on ITE Trip Generation Rates for land use code 220 and 9% transit trip rediction per VTA's Transportation Impact Analysis Guidelines

Water Mitigation -

Energy Mitigation -

Mobile Land Use Mitigation -

Area Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10.00	20.00
tblConstructionPhase	NumDays	200.00	250.00
tblConstructionPhase	NumDays	4.00	20.00
tblConstructionPhase	NumDays	10.00	20.00
tblConstructionPhase	NumDays	2.00	20.00
tblConstructionPhase	PhaseEndDate	3/15/2021	8/6/2021
tblConstructionPhase	PhaseEndDate	2/15/2021	6/11/2021
tblConstructionPhase	PhaseEndDate	5/11/2020	6/26/2020
tblConstructionPhase	PhaseEndDate	3/1/2021	7/9/2021
tblConstructionPhase	PhaseEndDate	5/5/2020	5/29/2020
tblConstructionPhase	PhaseStartDate	3/2/2021	7/12/2021
tblConstructionPhase	PhaseStartDate	5/12/2020	6/29/2020
tblConstructionPhase	PhaseStartDate	5/6/2020	6/1/2020
tblConstructionPhase	PhaseStartDate	2/16/2021	6/14/2021

tblGrading	AcresOfGrading	7.50	1.22
tblGrading	AcresOfGrading	10.00	1.22
tblGrading	MaterialExported	0.00	1,410.00
tblLandUse	LotAcreage	1.05	0.77
tblLandUse	LotAcreage	0.54	0.00
tblLandUse	LotAcreage	0.13	0.10
tblProjectCharacteristics	CO2IntensityFactor	641.35	328.8
tblVehicleTrips	ST_TR	6.39	6.05
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	SU_TR	5.86	6.05
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	WD_TR	6.65	6.05
tblVehicleTrips	WD_TR	1.89	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.2031	1.6725	1.2903	2.6200e-003	0.1430	0.0807	0.2236	0.0648	0.0768	0.1416	0.0000	225.6204	225.6204	0.0391	0.0000	226.5973
2021	0.4146	0.9628	0.9420	1.8600e-003	0.0288	0.0451	0.0739	7.7800e-003	0.0434	0.0512	0.0000	158.1868	158.1868	0.0241	0.0000	158.7881
Maximum	**0.4146**	**1.6725**	**1.2903**	**2.6200e-003**	**0.1430**	**0.0807**	**0.2236**	**0.0648**	**0.0768**	**0.1416**	**0.0000**	**225.6204**	**225.6204**	**0.0391**	**0.0000**	**226.5973**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.2031	1.6725	1.2903	2.6200e-003	0.1430	0.0807	0.2236	0.0648	0.0768	0.1416	0.0000	225.6202	225.6202	0.0391	0.0000	226.5971
2021	0.4146	0.9628	0.9420	1.8600e-003	0.0288	0.0451	0.0739	7.7800e-003	0.0434	0.0512	0.0000	158.1867	158.1867	0.0241	0.0000	158.7880
Maximum	**0.4146**	**1.6725**	**1.2903**	**2.6200e-003**	**0.1430**	**0.0807**	**0.2236**	**0.0648**	**0.0768**	**0.1416**	**0.0000**	**225.6202**	**225.6202**	**0.0391**	**0.0000**	**226.5971**

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	4-6-2020	7-5-2020	0.6488	0.6488
2	7-6-2020	10-5-2020	0.6081	0.6081
3	10-6-2020	1-5-2021	0.6070	0.6070
4	1-6-2021	4-5-2021	0.5470	0.5470
5	4-6-2021	7-5-2021	0.4737	0.4737
6	7-6-2021	9-30-2021	0.2962	0.2962
		Highest	0.6488	0.6488

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	0.2885	5.5700e-003	0.4254	2.7000e-004		0.0198	0.0198		0.0198	0.0198	1.8236	1.2355	3.0591	3.4000e-003	1.2000e-004	3.1799
Energy	1.8600e-003	0.0159	6.7800e-003	1.0000e-004		1.2900e-003	1.2900e-003		1.2900e-003	1.2900e-003	0.0000	50.3060	50.3060	3.1600e-003	9.2000e-004	50.6591
Mobile	0.0646	0.3124	0.7294	2.4800e-003	0.2080	2.3100e-003	0.2103	0.0558	2.1600e-003	0.0580	0.0000	227.1256	227.1256	8.6500e-003	0.0000	227.3418
Waste						0.0000	0.0000		0.0000	0.0000	3.7432	0.0000	3.7432	0.2212	0.0000	9.2735
Water						0.0000	0.0000		0.0000	0.0000	0.8268	3.2345	4.0613	0.0852	2.0600e-003	6.8066
Total	**0.3550**	**0.3339**	**1.1616**	**2.8500e-003**	**0.2080**	**0.0234**	**0.2314**	**0.0558**	**0.0233**	**0.0791**	**6.3936**	**281.9016**	**288.2951**	**0.3216**	**3.1000e-003**	**297.2609**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1962	3.4400e-003	0.2983	2.0000e-005		1.6400e-003	1.6400e-003		1.6400e-003	1.6400e-003	0.0000	0.4865	0.4865	4.7000e-004	0.0000	0.4983
Energy	1.8600e-003	0.0159	6.7800e-003	1.0000e-004		1.2900e-003	1.2900e-003		1.2900e-003	1.2900e-003	0.0000	50.2800	50.2800	3.1600e-003	9.2000e-004	50.6329
Mobile	0.0514	0.2139	0.4253	1.1500e-003	0.0881	1.1400e-003	0.0892	0.0236	1.0600e-003	0.0247	0.0000	105.6893	105.6893	5.1700e-003	0.0000	105.8186
Waste						0.0000	0.0000		0.0000	0.0000	3.7432	0.0000	3.7432	0.2212	0.0000	9.2735
Water						0.0000	0.0000		0.0000	0.0000	0.6615	2.7023	3.3638	0.0682	1.6500e-003	5.5609
Total	**0.2495**	**0.2333**	**0.7304**	**1.2700e-003**	**0.0881**	**4.0700e-003**	**0.0922**	**0.0236**	**3.9900e-003**	**0.0276**	**4.4046**	**159.1581**	**163.5627**	**0.2982**	**2.5700e-003**	**171.7843**

	ROG	NOx	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	**29.72**	**30.13**	**37.12**	**55.44**	**57.66**	**82.61**	**60.18**	**57.66**	**82.85**	**65.06**	**31.11**	**43.54**	**43.27**	**7.29**	**17.10**	**42.21**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	4/6/2020	5/1/2020	5	20	
2	Site Preparation	Site Preparation	5/2/2020	5/29/2020	5	20	
3	Grading	Grading	6/1/2020	6/26/2020	5	20	
4	Building Construction	Building Construction	6/29/2020	6/11/2021	5	250	
5	Paving	Paving	6/14/2021	7/9/2021	5	20	
6	Architectural Coating	Architectural Coating	7/12/2021	8/6/2021	5	20	

Acres of Grading (Site Preparation Phase): 1.22

Acres of Grading (Grading Phase): 1.22

Acres of Paving: 0.1

Residential Indoor: 81,000; Residential Outdoor: 27,000; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 1,776 (Architectural Coating – sqft)

OffRoad Equipment

2001 Tarob Court - Bay Area AQMD Air District, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	6.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	6.00	187	0.41
Paving	Paving Equipment	1	8.00	132	0.36
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Building Construction	Welders	3	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	5	13.00	0.00	75.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	176.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	49.00	12.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					8.1000e-003	0.0000	8.1000e-003	1.2300e-003	0.0000	1.2300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0213	0.2095	0.1466	2.4000e-004		0.0115	0.0115		0.0108	0.0108	0.0000	21.0677	21.0677	5.4200e-003	0.0000	21.2031
Total	**0.0213**	**0.2095**	**0.1466**	**2.4000e-004**	**8.1000e-003**	**0.0115**	**0.0196**	**1.2300e-003**	**0.0108**	**0.0120**	**0.0000**	**21.0677**	**21.0677**	**5.4200e-003**	**0.0000**	**21.2031**

3.2 Demolition - 2020

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	3.1000e-004	0.0110	2.2000e-003	3.0000e-005	6.3000e-004	4.0000e-005	6.7000e-004	1.7000e-004	3.0000e-005	2.1000e-004	0.0000	2.8739	2.8739	1.5000e-004	0.0000	2.8776
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.3000e-004	3.1000e-004	3.1900e-003	1.0000e-005	1.0300e-003	1.0000e-005	1.0300e-003	2.7000e-004	1.0000e-005	2.8000e-004	0.0000	0.9000	0.9000	2.0000e-005	0.0000	0.9005
Total	**7.4000e-004**	**0.0113**	**5.3900e-003**	**4.0000e-005**	**1.6600e-003**	**5.0000e-005**	**1.7000e-003**	**4.4000e-004**	**4.0000e-005**	**4.9000e-004**	**0.0000**	**3.7739**	**3.7739**	**1.7000e-004**	**0.0000**	**3.7781**

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					8.1000e-003	0.0000	8.1000e-003	1.2300e-003	0.0000	1.2300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0213	0.2095	0.1466	2.4000e-004		0.0115	0.0115		0.0108	0.0108	0.0000	21.0676	21.0676	5.4200e-003	0.0000	21.2030
Total	**0.0213**	**0.2095**	**0.1466**	**2.4000e-004**	**8.1000e-003**	**0.0115**	**0.0196**	**1.2300e-003**	**0.0108**	**0.0120**	**0.0000**	**21.0676**	**21.0676**	**5.4200e-003**	**0.0000**	**21.2030**

3.2 Demolition - 2020

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	3.1000e-004	0.0110	2.2000e-003	3.0000e-005	6.3000e-004	4.0000e-005	6.7000e-004	1.7000e-004	3.0000e-005	2.1000e-004	0.0000	2.8739	2.8739	1.5000e-004	0.0000	2.8776
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.3000e-004	3.1000e-004	3.1900e-003	1.0000e-005	1.0300e-003	1.0000e-005	1.0300e-003	2.7000e-004	1.0000e-005	2.8000e-004	0.0000	0.9000	0.9000	2.0000e-005	0.0000	0.9005
Total	**7.4000e-004**	**0.0113**	**5.3900e-003**	**4.0000e-005**	**1.6600e-003**	**5.0000e-005**	**1.7000e-003**	**4.4000e-004**	**4.0000e-005**	**4.9000e-004**	**0.0000**	**3.7739**	**3.7739**	**1.7000e-004**	**0.0000**	**3.7781**

3.3 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0533	0.0000	0.0533	0.0290	0.0000	0.0290	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0163	0.1835	0.0771	1.7000e-004		8.2100e-003	8.2100e-003		7.5500e-003	7.5500e-003	0.0000	15.1265	15.1265	4.8900e-003	0.0000	15.2488
Total	**0.0163**	**0.1835**	**0.0771**	**1.7000e-004**	**0.0533**	**8.2100e-003**	**0.0616**	**0.0290**	**7.5500e-003**	**0.0366**	**0.0000**	**15.1265**	**15.1265**	**4.8900e-003**	**0.0000**	**15.2488**

3.3 Site Preparation - 2020

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	2.7000e-004	1.9000e-004	1.9600e-003	1.0000e-005	6.3000e-004	0.0000	6.4000e-004	1.7000e-004	0.0000	1.7000e-004	0.0000	0.5538	0.5538	1.0000e-005	0.0000	0.5542
Total	**2.7000e-004**	**1.9000e-004**	**1.9600e-003**	**1.0000e-005**	**6.3000e-004**	**0.0000**	**6.4000e-004**	**1.7000e-004**	**0.0000**	**1.7000e-004**	**0.0000**	**0.5538**	**0.5538**	**1.0000e-005**	**0.0000**	**0.5542**

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					0.0533	0.0000	0.0533	0.0290	0.0000	0.0290	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0163	0.1835	0.0771	1.7000e-004		8.2100e-003	8.2100e-003		7.5500e-003	7.5500e-003	0.0000	15.1265	15.1265	4.8900e-003	0.0000	15.2488
Total	**0.0163**	**0.1835**	**0.0771**	**1.7000e-004**	**0.0533**	**8.2100e-003**	**0.0616**	**0.0290**	**7.5500e-003**	**0.0366**	**0.0000**	**15.1265**	**15.1265**	**4.8900e-003**	**0.0000**	**15.2488**

3.3 Site Preparation - 2020

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	2.7000e-004	1.9000e-004	1.9600e-003	1.0000e-005	6.3000e-004	0.0000	6.4000e-004	1.7000e-004	0.0000	1.7000e-004	0.0000	0.5538	0.5538	1.0000e-005	0.0000	0.5542
Total	**2.7000e-004**	**1.9000e-004**	**1.9600e-003**	**1.0000e-005**	**6.3000e-004**	**0.0000**	**6.4000e-004**	**1.7000e-004**	**0.0000**	**1.7000e-004**	**0.0000**	**0.5538**	**0.5538**	**1.0000e-005**	**0.0000**	**0.5542**

3.4 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0459	0.0000	0.0459	0.0249	0.0000	0.0249	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0135	0.1509	0.0645	1.4000e-004		6.8400e-003	6.8400e-003		6.3000e-003	6.3000e-003	0.0000	12.3896	12.3896	4.0100e-003	0.0000	12.4898
Total	**0.0135**	**0.1509**	**0.0645**	**1.4000e-004**	**0.0459**	**6.8400e-003**	**0.0527**	**0.0249**	**6.3000e-003**	**0.0312**	**0.0000**	**12.3896**	**12.3896**	**4.0100e-003**	**0.0000**	**12.4898**

3.4 Grading - 2020

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	7.3000e-004	0.0257	5.1700e-003	7.0000e-005	1.4900e-003	8.0000e-005	1.5700e-003	4.1000e-004	8.0000e-005	4.9000e-004	0.0000	6.7441	6.7441	3.5000e-004	0.0000	6.7528
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	2.7000e-004	1.9000e-004	1.9600e-003	1.0000e-005	6.3000e-004	0.0000	6.4000e-004	1.7000e-004	0.0000	1.7000e-004	0.0000	0.5538	0.5538	1.0000e-005	0.0000	0.5542
Total	**1.0000e-003**	**0.0259**	**7.1300e-003**	**8.0000e-005**	**2.1200e-003**	**8.0000e-005**	**2.2100e-003**	**5.8000e-004**	**8.0000e-005**	**6.6000e-004**	**0.0000**	**7.2979**	**7.2979**	**3.6000e-004**	**0.0000**	**7.3069**

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					0.0459	0.0000	0.0459	0.0249	0.0000	0.0249	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0135	0.1509	0.0645	1.4000e-004		6.8400e-003	6.8400e-003		6.3000e-003	6.3000e-003	0.0000	12.3896	12.3896	4.0100e-003	0.0000	12.4898
Total	**0.0135**	**0.1509**	**0.0645**	**1.4000e-004**	**0.0459**	**6.8400e-003**	**0.0527**	**0.0249**	**6.3000e-003**	**0.0312**	**0.0000**	**12.3896**	**12.3896**	**4.0100e-003**	**0.0000**	**12.4898**

3.4 Grading - 2020

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	7.3000e-004	0.0257	5.1700e-003	7.0000e-005	1.4900e-003	8.0000e-005	1.5700e-003	4.1000e-004	8.0000e-005	4.9000e-004	0.0000	6.7441	6.7441	3.5000e-004	0.0000	6.7528
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	2.7000e-004	1.9000e-004	1.9600e-003	1.0000e-005	6.3000e-004	0.0000	6.4000e-004	1.7000e-004	0.0000	1.7000e-004	0.0000	0.5538	0.5538	1.0000e-005	0.0000	0.5542
Total	**1.0000e-003**	**0.0259**	**7.1300e-003**	**8.0000e-005**	**2.1200e-003**	**8.0000e-005**	**2.2100e-003**	**5.8000e-004**	**8.0000e-005**	**6.6000e-004**	**0.0000**	**7.2979**	**7.2979**	**3.6000e-004**	**0.0000**	**7.3069**

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1360	0.9908	0.8836	1.4800e-003		0.0533	0.0533		0.0515	0.0515	0.0000	121.6332	121.6332	0.0226	0.0000	122.1977
Total	**0.1360**	**0.9908**	**0.8836**	**1.4800e-003**		**0.0533**	**0.0533**		**0.0515**	**0.0515**	**0.0000**	**121.6332**	**121.6332**	**0.0226**	**0.0000**	**122.1977**

3.5 Building Construction - 2020

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	3.1100e-003	0.0928	0.0233	2.2000e-004	5.2700e-003	4.5000e-004	5.7200e-003	1.5200e-003	4.3000e-004	1.9600e-003	0.0000	21.0503	21.0503	1.0900e-003	0.0000	21.0774
Worker	0.0109	7.7900e-003	0.0806	2.5000e-004	0.0259	1.7000e-004	0.0261	6.9000e-003	1.6000e-004	7.0600e-003	0.0000	22.7276	22.7276	5.5000e-004	0.0000	22.7413
Total	**0.0140**	**0.1006**	**0.1040**	**4.7000e-004**	**0.0312**	**6.2000e-004**	**0.0318**	**8.4200e-003**	**5.9000e-004**	**9.0200e-003**	**0.0000**	**43.7779**	**43.7779**	**1.6400e-003**	**0.0000**	**43.8188**

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	0.1360	0.9908	0.8836	1.4800e-003		0.0533	0.0533		0.0515	0.0515	0.0000	121.6331	121.6331	0.0226	0.0000	122.1976
Total	**0.1360**	**0.9908**	**0.8836**	**1.4800e-003**		**0.0533**	**0.0533**		**0.0515**	**0.0515**	**0.0000**	**121.6331**	**121.6331**	**0.0226**	**0.0000**	**122.1976**

3.5 Building Construction - 2020

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	3.1100e-003	0.0928	0.0233	2.2000e-004	5.2700e-003	4.5000e-004	5.7200e-003	1.5200e-003	4.3000e-004	1.9600e-003	0.0000	21.0503	21.0503	1.0900e-003	0.0000	21.0774
Worker	0.0109	7.7900e-003	0.0806	2.5000e-004	0.0259	1.7000e-004	0.0261	6.9000e-003	1.6000e-004	7.0600e-003	0.0000	22.7276	22.7276	5.5000e-004	0.0000	22.7413
Total	**0.0140**	**0.1006**	**0.1040**	**4.7000e-004**	**0.0312**	**6.2000e-004**	**0.0318**	**8.4200e-003**	**5.9000e-004**	**9.0200e-003**	**0.0000**	**43.7779**	**43.7779**	**1.6400e-003**	**0.0000**	**43.8188**

3.5 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1051	0.7909	0.7482	1.2800e-003		0.0397	0.0397		0.0383	0.0383	0.0000	105.2976	105.2976	0.0188	0.0000	105.7676
Total	**0.1051**	**0.7909**	**0.7482**	**1.2800e-003**		**0.0397**	**0.0397**		**0.0383**	**0.0383**	**0.0000**	**105.2976**	**105.2976**	**0.0188**	**0.0000**	**105.7676**

3.5 Building Construction - 2021

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	2.2100e-003	0.0727	0.0182	1.9000e-004	4.5600e-003	1.6000e-004	4.7200e-003	1.3200e-003	1.5000e-004	1.4700e-003	0.0000	18.0503	18.0503	8.9000e-004	0.0000	18.0725
Worker	8.7200e-003	6.0200e-003	0.0637	2.1000e-004	0.0225	1.5000e-004	0.0226	5.9700e-003	1.4000e-004	6.1100e-003	0.0000	18.9843	18.9843	4.3000e-004	0.0000	18.9949
Total	**0.0109**	**0.0787**	**0.0819**	**4.0000e-004**	**0.0270**	**3.1000e-004**	**0.0273**	**7.2900e-003**	**2.9000e-004**	**7.5800e-003**	**0.0000**	**37.0346**	**37.0346**	**1.3200e-003**	**0.0000**	**37.0674**

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	0.1051	0.7909	0.7482	1.2800e-003		0.0397	0.0397		0.0383	0.0383	0.0000	105.2975	105.2975	0.0188	0.0000	105.7675
Total	**0.1051**	**0.7909**	**0.7482**	**1.2800e-003**		**0.0397**	**0.0397**		**0.0383**	**0.0383**	**0.0000**	**105.2975**	**105.2975**	**0.0188**	**0.0000**	**105.7675**

3.5 Building Construction - 2021

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	2.2100e-003	0.0727	0.0182	1.9000e-004	4.5600e-003	1.6000e-004	4.7200e-003	1.3200e-003	1.5000e-004	1.4700e-003	0.0000	18.0503	18.0503	8.9000e-004	0.0000	18.0725
Worker	8.7200e-003	6.0200e-003	0.0637	2.1000e-004	0.0225	1.5000e-004	0.0226	5.9700e-003	1.4000e-004	6.1100e-003	0.0000	18.9843	18.9843	4.3000e-004	0.0000	18.9949
Total	**0.0109**	**0.0787**	**0.0819**	**4.0000e-004**	**0.0270**	**3.1000e-004**	**0.0273**	**7.2900e-003**	**2.9000e-004**	**7.5800e-003**	**0.0000**	**37.0346**	**37.0346**	**1.3200e-003**	**0.0000**	**37.0674**

3.6 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.7400e-003	0.0774	0.0886	1.4000e-004		4.1500e-003	4.1500e-003		3.8300e-003	3.8300e-003	0.0000	11.7650	11.7650	3.7300e-003	0.0000	11.8582
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	**7.8700e-003**	**0.0774**	**0.0886**	**1.4000e-004**		**4.1500e-003**	**4.1500e-003**		**3.8300e-003**	**3.8300e-003**	**0.0000**	**11.7650**	**11.7650**	**3.7300e-003**	**0.0000**	**11.8582**

3.6 Paving - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-004	2.8000e-004	2.9200e-003	1.0000e-005	1.0300e-003	1.0000e-005	1.0300e-003	2.7000e-004	1.0000e-005	2.8000e-004	0.0000	0.8684	0.8684	2.0000e-005	0.0000	0.8689
Total	**4.0000e-004**	**2.8000e-004**	**2.9200e-003**	**1.0000e-005**	**1.0300e-003**	**1.0000e-005**	**1.0300e-003**	**2.7000e-004**	**1.0000e-005**	**2.8000e-004**	**0.0000**	**0.8684**	**0.8684**	**2.0000e-005**	**0.0000**	**0.8689**

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	7.7400e-003	0.0774	0.0886	1.4000e-004		4.1500e-003	4.1500e-003		3.8300e-003	3.8300e-003	0.0000	11.7650	11.7650	3.7300e-003	0.0000	11.8582
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	**7.8700e-003**	**0.0774**	**0.0886**	**1.4000e-004**		**4.1500e-003**	**4.1500e-003**		**3.8300e-003**	**3.8300e-003**	**0.0000**	**11.7650**	**11.7650**	**3.7300e-003**	**0.0000**	**11.8582**

3.6 Paving - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-004	2.8000e-004	2.9200e-003	1.0000e-005	1.0300e-003	1.0000e-005	1.0300e-003	2.7000e-004	1.0000e-005	2.8000e-004	0.0000	0.8684	0.8684	2.0000e-005	0.0000	0.8689
Total	**4.0000e-004**	**2.8000e-004**	**2.9200e-003**	**1.0000e-005**	**1.0300e-003**	**1.0000e-005**	**1.0300e-003**	**2.7000e-004**	**1.0000e-005**	**2.8000e-004**	**0.0000**	**0.8684**	**0.8684**	**2.0000e-005**	**0.0000**	**0.8689**

3.7 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2878					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.1900e-003	0.0153	0.0182	3.0000e-005		9.4000e-004	9.4000e-004		9.4000e-004	9.4000e-004	0.0000	2.5533	2.5533	1.8000e-004	0.0000	2.5576
Total	**0.2899**	**0.0153**	**0.0182**	**3.0000e-005**		**9.4000e-004**	**9.4000e-004**		**9.4000e-004**	**9.4000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.8000e-004**	**0.0000**	**2.5576**

3.7 Architectural Coating - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.1000e-004	2.1000e-004	2.2400e-003	1.0000e-005	7.9000e-004	1.0000e-005	8.0000e-004	2.1000e-004	0.0000	2.1000e-004	0.0000	0.6680	0.6680	1.0000e-005	0.0000	0.6684
Total	**3.1000e-004**	**2.1000e-004**	**2.2400e-003**	**1.0000e-005**	**7.9000e-004**	**1.0000e-005**	**8.0000e-004**	**2.1000e-004**	**0.0000**	**2.1000e-004**	**0.0000**	**0.6680**	**0.6680**	**1.0000e-005**	**0.0000**	**0.6684**

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	0.2878					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.1900e-003	0.0153	0.0182	3.0000e-005		9.4000e-004	9.4000e-004		9.4000e-004	9.4000e-004	0.0000	2.5533	2.5533	1.8000e-004	0.0000	2.5576
Total	**0.2899**	**0.0153**	**0.0182**	**3.0000e-005**		**9.4000e-004**	**9.4000e-004**		**9.4000e-004**	**9.4000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.8000e-004**	**0.0000**	**2.5576**

3.7 Architectural Coating - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.1000e-004	2.1000e-004	2.2400e-003	1.0000e-005	7.9000e-004	1.0000e-005	8.0000e-004	2.1000e-004	0.0000	2.1000e-004	0.0000	0.6680	0.6680	1.0000e-005	0.0000	0.6684
Total	**3.1000e-004**	**2.1000e-004**	**2.2400e-003**	**1.0000e-005**	**7.9000e-004**	**1.0000e-005**	**8.0000e-004**	**2.1000e-004**	**0.0000**	**2.1000e-004**	**0.0000**	**0.6680**	**0.6680**	**1.0000e-005**	**0.0000**	**0.6684**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

Increase Diversity

Improve Walkability Design

Improve Destination Accessibility

Increase Transit Accessibility

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0514	0.2139	0.4253	1.1500e-003	0.0881	1.1400e-003	0.0892	0.0236	1.0600e-003	0.0247	0.0000	105.6893	105.6893	5.1700e-003	0.0000	105.8186
Unmitigated	0.0646	0.3124	0.7294	2.4800e-003	0.2080	2.3100e-003	0.2103	0.0558	2.1600e-003	0.0580	0.0000	227.1256	227.1256	8.6500e-003	0.0000	227.3418

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	242.00	242.00	242.00	558,925	236,657
City Park	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unenclosed Parking with Elevator	0.00	0.00	0.00		
Total	242.00	242.00	242.00	558,925	236,657

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
Apartments Mid Rise	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Unenclosed Parking with	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.575198	0.040076	0.193827	0.113296	0.016988	0.005361	0.017552	0.025197	0.002581	0.002349	0.005904	0.000881	0.000789
City Park	0.575198	0.040076	0.193827	0.113296	0.016988	0.005361	0.017552	0.025197	0.002581	0.002349	0.005904	0.000881	0.000789
Parking Lot	0.575198	0.040076	0.193827	0.113296	0.016988	0.005361	0.017552	0.025197	0.002581	0.002349	0.005904	0.000881	0.000789
Unenclosed Parking with Elevator	0.575198	0.040076	0.193827	0.113296	0.016988	0.005361	0.017552	0.025197	0.002581	0.002349	0.005904	0.000881	0.000789

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	31.8387	31.8387	2.8100e-003	5.8000e-004	32.0820
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	31.8646	31.8646	2.8100e-003	5.8000e-004	32.1082
NaturalGas Mitigated	1.8600e-003	0.0159	6.7800e-003	1.0000e-004		1.2900e-003	1.2900e-003		1.2900e-003	1.2900e-003	0.0000	18.4414	18.4414	3.5000e-004	3.4000e-004	18.5510
NaturalGas Unmitigated	1.8600e-003	0.0159	6.7800e-003	1.0000e-004		1.2900e-003	1.2900e-003		1.2900e-003	1.2900e-003	0.0000	18.4414	18.4414	3.5000e-004	3.4000e-004	18.5510

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					
Apartments Mid Rise	345578	1.8600e-003	0.0159	6.7800e-003	1.0000e-004		1.2900e-003	1.2900e-003		1.2900e-003	1.2900e-003	0.0000	18.4414	18.4414	3.5000e-004	3.4000e-004	18.5510
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
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
Unenclosed 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		**1.8600e-003**	**0.0159**	**6.7800e-003**	**1.0000e-004**		**1.2900e-003**	**1.2900e-003**		**1.2900e-003**	**1.2900e-003**	**0.0000**	**18.4414**	**18.4414**	**3.5000e-004**	**3.4000e-004**	**18.5510**

5.2 Energy by Land Use - NaturalGas

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					
Apartments Mid Rise	345578	1.8600e-003	0.0159	6.7800e-003	1.0000e-004		1.2900e-003	1.2900e-003		1.2900e-003	1.2900e-003	0.0000	18.4414	18.4414	3.5000e-004	3.4000e-004	18.5510
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
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
Unenclosed 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		**1.8600e-003**	**0.0159**	**6.7800e-003**	**1.0000e-004**		**1.2900e-003**	**1.2900e-003**		**1.2900e-003**	**1.2900e-003**	**0.0000**	**18.4414**	**18.4414**	**3.5000e-004**	**3.4000e-004**	**18.5510**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	165134	24.6283	2.1700e-003	4.5000e-004	24.8165
City Park	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	1960	0.2923	3.0000e-005	1.0000e-005	0.2946
Unenclosed Parking with Elevator	46560	6.9440	6.1000e-004	1.3000e-004	6.9971
Total		**31.8646**	**2.8100e-003**	**5.9000e-004**	**32.1082**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	164960	24.6023	2.1700e-003	4.5000e-004	24.7904
City Park	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	1960	0.2923	3.0000e-005	1.0000e-005	0.2946
Unenclosed Parking with Elevator	46560	6.9440	6.1000e-004	1.3000e-004	6.9971
Total		**31.8387**	**2.8100e-003**	**5.9000e-004**	**32.0820**

6.0 Area Detail

6.1 Mitigation Measures Area

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.1962	3.4400e-003	0.2983	2.0000e-005		1.6400e-003	1.6400e-003		1.6400e-003	1.6400e-003	0.0000	0.4865	0.4865	4.7000e-004	0.0000	0.4983
Unmitigated	0.2885	5.5700e-003	0.4254	2.7000e-004		0.0198	0.0198		0.0198	0.0198	1.8236	1.2355	3.0591	3.4000e-003	1.2000e-004	3.1799

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	0.0288					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1583					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0923	2.1200e-003	0.1271	2.5000e-004		0.0182	0.0182		0.0182	0.0182	1.8236	0.7490	2.5726	2.9300e-003	1.2000e-004	2.6815
Landscaping	9.0800e-003	3.4400e-003	0.2983	2.0000e-005		1.6400e-003	1.6400e-003		1.6400e-003	1.6400e-003	0.0000	0.4865	0.4865	4.7000e-004	0.0000	0.4983
Total	**0.2885**	**5.5600e-003**	**0.4254**	**2.7000e-004**		**0.0198**	**0.0198**		**0.0198**	**0.0198**	**1.8236**	**1.2355**	**3.0591**	**3.4000e-003**	**1.2000e-004**	**3.1799**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0288					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1583					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	9.0800e-003	3.4400e-003	0.2983	2.0000e-005		1.6400e-003	1.6400e-003		1.6400e-003	1.6400e-003	0.0000	0.4865	0.4865	4.7000e-004	0.0000	0.4983
Total	**0.1962**	**3.4400e-003**	**0.2983**	**2.0000e-005**		**1.6400e-003**	**1.6400e-003**		**1.6400e-003**	**1.6400e-003**	**0.0000**	**0.4865**	**0.4865**	**4.7000e-004**	**0.0000**	**0.4983**

7.0 Water Detail

7.1 Mitigation Measures Water

Use Reclaimed Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Turf Reduction

Use Water Efficient Irrigation System

Use Water Efficient Landscaping

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	3.3638	0.0682	1.6500e-003	5.5609
Unmitigated	4.0613	0.0852	2.0600e-003	6.8066

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	2.60616 / 1.64301	3.7876	0.0852	2.0600e-003	6.5309
City Park	0 / 0.524252	0.2737	2.0000e-005	0.0000	0.2758
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unenclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**4.0613**	**0.0852**	**2.0600e-003**	**6.8066**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	2.08493 / 1.48108	3.1171	0.0682	1.6500e-003	5.3124
City Park	0 / 0.472582	0.2467	2.0000e-005	0.0000	0.2486
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unenclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**3.3638**	**0.0682**	**1.6500e-003**	**5.5609**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	3.7432	0.2212	0.0000	9.2735
Unmitigated	3.7432	0.2212	0.0000	9.2735

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	18.4	3.7350	0.2207	0.0000	9.2534
City Park	0.04	8.1200e-003	4.8000e-004	0.0000	0.0201
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unenclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Total		**3.7432**	**0.2212**	**0.0000**	**9.2735**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	18.4	3.7350	0.2207	0.0000	9.2534
City Park	0.04	8.1200e-003	4.8000e-004	0.0000	0.0201
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unenclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Total		**3.7432**	**0.2212**	**0.0000**	**9.2735**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

2001 Tarob Court

Bay Area AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	40.00	Dwelling Unit	0.77	40,000.00	114
Unenclosed Parking with Elevator	60.00	Space	0.00	24,000.00	0
Parking Lot	14.00	Space	0.10	5,600.00	0
City Park	0.44	Acre	0.44	19,166.40	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2021
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	328.8	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

2001 Tarob Court - Bay Area AQMD Air District, Summer

Project Characteristics - CO2 intensity based on 5-year average, PG&E, 2015

Land Use - The project would include 40 residential units, a parking garage with 60 spaces, an additional 14 onstreet parking spaces, and 0.44 acres of open space/landscaped areas.

Construction Phase - Construction of the proposed project is anticipated to occur over approximately 16 months, starting in April 2020 and ending in August 2021.

Grading - approximately 1,410 cubic yards of soils would be excavated and exported

Demolition - The project would demolish the existing 16,463-square-foot office/light-industrial building

Vehicle Trips - Based on ITE Trip Generation Rates for land use code 220 and 9% transit trip rediction per VTA's Transportation Impact Analysis Guidelines

Water Mitigation -

Energy Mitigation -

Mobile Land Use Mitigation -

Area Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10.00	20.00
tblConstructionPhase	NumDays	200.00	250.00
tblConstructionPhase	NumDays	4.00	20.00
tblConstructionPhase	NumDays	10.00	20.00
tblConstructionPhase	NumDays	2.00	20.00
tblConstructionPhase	PhaseEndDate	3/15/2021	8/6/2021
tblConstructionPhase	PhaseEndDate	2/15/2021	6/11/2021
tblConstructionPhase	PhaseEndDate	5/11/2020	6/26/2020
tblConstructionPhase	PhaseEndDate	3/1/2021	7/9/2021
tblConstructionPhase	PhaseEndDate	5/5/2020	5/29/2020
tblConstructionPhase	PhaseStartDate	3/2/2021	7/12/2021
tblConstructionPhase	PhaseStartDate	5/12/2020	6/29/2020
tblConstructionPhase	PhaseStartDate	5/6/2020	6/1/2020
tblConstructionPhase	PhaseStartDate	2/16/2021	6/14/2021

tblGrading	AcresOfGrading	7.50	1.22
tblGrading	AcresOfGrading	10.00	1.22
tblGrading	MaterialExported	0.00	1,410.00
tblLandUse	LotAcreage	1.05	0.77
tblLandUse	LotAcreage	0.54	0.00
tblLandUse	LotAcreage	0.13	0.10
tblProjectCharacteristics	CO2IntensityFactor	641.35	328.8
tblVehicleTrips	ST_TR	6.39	6.05
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	SU_TR	5.86	6.05
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	WD_TR	6.65	6.05
tblVehicleTrips	WD_TR	1.89	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	2.2463	22.0478	15.2195	0.0294	5.3997	1.1567	6.2211	2.9209	1.0801	3.6765	0.0000	2,753.3897	2,753.3897	0.6155	0.0000	2,763.4444
2021	29.0261	14.9682	14.3954	0.0292	0.4838	0.6896	1.1733	0.1302	0.6657	0.7959	0.0000	2,736.0304	2,736.0304	0.4134	0.0000	2,745.5858
Maximum	**29.0261**	**22.0478**	**15.2195**	**0.0294**	**5.3997**	**1.1567**	**6.2211**	**2.9209**	**1.0801**	**3.6765**	**0.0000**	**2,753.3897**	**2,753.3897**	**0.6155**	**0.0000**	**2,763.4444**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	2.2463	22.0478	15.2195	0.0294	5.3997	1.1567	6.2211	2.9209	1.0801	3.6765	0.0000	2,753.3897	2,753.3897	0.6155	0.0000	2,763.4444
2021	29.0261	14.9682	14.3954	0.0292	0.4838	0.6896	1.1733	0.1302	0.6657	0.7959	0.0000	2,736.0304	2,736.0304	0.4134	0.0000	2,745.5858
Maximum	**29.0261**	**22.0478**	**15.2195**	**0.0294**	**5.3997**	**1.1567**	**6.2211**	**2.9209**	**1.0801**	**3.6765**	**0.0000**	**2,753.3897**	**2,753.3897**	**0.6155**	**0.0000**	**2,763.4444**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	17.5765	0.4019	25.0491	0.0421		3.1038	3.1038		3.1038	3.1038	334.8339	154.1937	489.0275	0.4640	0.0237	507.6804
Energy	0.0102	0.0873	0.0371	5.6000e-004		7.0500e-003	7.0500e-003		7.0500e-003	7.0500e-003		111.3870	111.3870	2.1300e-003	2.0400e-003	112.0489
Mobile	0.4063	1.6623	4.1560	0.0144	1.1875	0.0127	1.2002	0.3177	0.0119	0.3296		1,456.2190	1,456.2190	0.0527		1,457.5362
Total	**17.9930**	**2.1515**	**29.2422**	**0.0570**	**1.1875**	**3.1235**	**4.3110**	**0.3177**	**3.1227**	**3.4404**	**334.8339**	**1,721.7997**	**2,056.6335**	**0.5188**	**0.0257**	**2,077.2654**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.1261	0.0383	3.3149	1.7000e-004		0.0183	0.0183		0.0183	0.0183	0.0000	5.9584	5.9584	5.8000e-003	0.0000	6.1034
Energy	0.0102	0.0873	0.0371	5.6000e-004		7.0500e-003	7.0500e-003		7.0500e-003	7.0500e-003		111.3870	111.3870	2.1300e-003	2.0400e-003	112.0489
Mobile	0.3321	1.1530	2.2721	6.6800e-003	0.5028	6.2000e-003	0.5090	0.1345	5.8000e-003	0.1403		676.4867	676.4867	0.0306		677.2518
Total	**1.4683**	**1.2785**	**5.6241**	**7.4100e-003**	**0.5028**	**0.0315**	**0.5343**	**0.1345**	**0.0311**	**0.1657**	**0.0000**	**793.8320**	**793.8320**	**0.0385**	**2.0400e-003**	**795.4041**

	ROG	NOx	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	**91.84**	**40.58**	**80.77**	**87.00**	**57.66**	**98.99**	**87.61**	**57.66**	**99.00**	**95.19**	**100.00**	**53.90**	**61.40**	**92.57**	**92.07**	**61.71**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	4/6/2020	5/1/2020	5	20	
2	Site Preparation	Site Preparation	5/2/2020	5/29/2020	5	20	
3	Grading	Grading	6/1/2020	6/26/2020	5	20	
4	Building Construction	Building Construction	6/29/2020	6/11/2021	5	250	
5	Paving	Paving	6/14/2021	7/9/2021	5	20	
6	Architectural Coating	Architectural Coating	7/12/2021	8/6/2021	5	20	

Acres of Grading (Site Preparation Phase): 1.22

Acres of Grading (Grading Phase): 1.22

Acres of Paving: 0.1

Residential Indoor: 81,000; Residential Outdoor: 27,000; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 1,776 (Architectural Coating – sqft)

OffRoad Equipment

2001 Tarob Court - Bay Area AQMD Air District, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	6.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	6.00	187	0.41
Paving	Paving Equipment	1	8.00	132	0.36
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Building Construction	Welders	3	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	5	13.00	0.00	75.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	176.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	49.00	12.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.8103	0.0000	0.8103	0.1227	0.0000	0.1227			0.0000			0.0000
Off-Road	2.1262	20.9463	14.6573	0.0241		1.1525	1.1525		1.0761	1.0761		2,322.3127	2,322.3127	0.5970		2,337.2363
Total	**2.1262**	**20.9463**	**14.6573**	**0.0241**	**0.8103**	**1.1525**	**1.9628**	**0.1227**	**1.0761**	**1.1988**		**2,322.3127**	**2,322.3127**	**0.5970**		**2,337.2363**

3.2 Demolition - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0309	1.0742	0.2135	2.9800e-003	0.0655	3.5100e-003	0.0690	0.0180	3.3600e-003	0.0213		319.0438	319.0438	0.0160		319.4428
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0452	0.0274	0.3488	1.0700e-003	0.1068	6.9000e-004	0.1075	0.0283	6.4000e-004	0.0290		106.7010	106.7010	2.5700e-003		106.7652
Total	**0.0761**	**1.1015**	**0.5623**	**4.0500e-003**	**0.1723**	**4.2000e-003**	**0.1765**	**0.0463**	**4.0000e-003**	**0.0503**		**425.7448**	**425.7448**	**0.0185**		**426.2081**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.8103	0.0000	0.8103	0.1227	0.0000	0.1227			0.0000			0.0000
Off-Road	2.1262	20.9463	14.6573	0.0241		1.1525	1.1525		1.0761	1.0761	0.0000	2,322.3127	2,322.3127	0.5970		2,337.2363
Total	**2.1262**	**20.9463**	**14.6573**	**0.0241**	**0.8103**	**1.1525**	**1.9628**	**0.1227**	**1.0761**	**1.1988**	**0.0000**	**2,322.3127**	**2,322.3127**	**0.5970**		**2,337.2363**

3.2 Demolition - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0309	1.0742	0.2135	2.9800e-003	0.0655	3.5100e-003	0.0690	0.0180	3.3600e-003	0.0213		319.0438	319.0438	0.0160		319.4428
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0452	0.0274	0.3488	1.0700e-003	0.1068	6.9000e-004	0.1075	0.0283	6.4000e-004	0.0290		106.7010	106.7010	2.5700e-003		106.7652
Total	**0.0761**	**1.1015**	**0.5623**	**4.0500e-003**	**0.1723**	**4.2000e-003**	**0.1765**	**0.0463**	**4.0000e-003**	**0.0503**		**425.7448**	**425.7448**	**0.0185**		**426.2081**

3.3 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.3340	0.0000	5.3340	2.9034	0.0000	2.9034			0.0000			0.0000
Off-Road	1.6299	18.3464	7.7093	0.0172		0.8210	0.8210		0.7553	0.7553		1,667.4119	1,667.4119	0.5393		1,680.8937
Total	**1.6299**	**18.3464**	**7.7093**	**0.0172**	**5.3340**	**0.8210**	**6.1550**	**2.9034**	**0.7553**	**3.6587**		**1,667.4119**	**1,667.4119**	**0.5393**		**1,680.8937**

3.3 Site Preparation - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0278	0.0168	0.2146	6.6000e-004	0.0657	4.3000e-004	0.0661	0.0174	3.9000e-004	0.0178		65.6621	65.6621	1.5800e-003		65.7017
Total	**0.0278**	**0.0168**	**0.2146**	**6.6000e-004**	**0.0657**	**4.3000e-004**	**0.0661**	**0.0174**	**3.9000e-004**	**0.0178**		**65.6621**	**65.6621**	**1.5800e-003**		**65.7017**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.3340	0.0000	5.3340	2.9034	0.0000	2.9034			0.0000			0.0000
Off-Road	1.6299	18.3464	7.7093	0.0172		0.8210	0.8210		0.7553	0.7553	0.0000	1,667.4119	1,667.4119	0.5393		1,680.8937
Total	**1.6299**	**18.3464**	**7.7093**	**0.0172**	**5.3340**	**0.8210**	**6.1550**	**2.9034**	**0.7553**	**3.6587**	**0.0000**	**1,667.4119**	**1,667.4119**	**0.5393**		**1,680.8937**

3.3 Site Preparation - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0278	0.0168	0.2146	6.6000e-004	0.0657	4.3000e-004	0.0661	0.0174	3.9000e-004	0.0178		65.6621	65.6621	1.5800e-003		65.7017
Total	**0.0278**	**0.0168**	**0.2146**	**6.6000e-004**	**0.0657**	**4.3000e-004**	**0.0661**	**0.0174**	**3.9000e-004**	**0.0178**		**65.6621**	**65.6621**	**1.5800e-003**		**65.7017**

3.4 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.5892	0.0000	4.5892	2.4909	0.0000	2.4909			0.0000			0.0000
Off-Road	1.3498	15.0854	6.4543	0.0141		0.6844	0.6844		0.6296	0.6296		1,365.7183	1,365.7183	0.4417		1,376.7609
Total	**1.3498**	**15.0854**	**6.4543**	**0.0141**	**4.5892**	**0.6844**	**5.2736**	**2.4909**	**0.6296**	**3.1205**		**1,365.7183**	**1,365.7183**	**0.4417**		**1,376.7609**

3.4 Grading - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0726	2.5207	0.5010	7.0000e-003	0.1537	8.2400e-003	0.1620	0.0421	7.8800e-003	0.0500		748.6895	748.6895	0.0375		749.6259
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0278	0.0168	0.2146	6.6000e-004	0.0657	4.3000e-004	0.0661	0.0174	3.9000e-004	0.0178		65.6621	65.6621	1.5800e-003		65.7017
Total	**0.1004**	**2.5375**	**0.7156**	**7.6600e-003**	**0.2195**	**8.6700e-003**	**0.2281**	**0.0596**	**8.2700e-003**	**0.0678**		**814.3516**	**814.3516**	**0.0390**		**815.3275**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.5892	0.0000	4.5892	2.4909	0.0000	2.4909			0.0000			0.0000
Off-Road	1.3498	15.0854	6.4543	0.0141		0.6844	0.6844		0.6296	0.6296	0.0000	1,365.7183	1,365.7183	0.4417		1,376.7609
Total	**1.3498**	**15.0854**	**6.4543**	**0.0141**	**4.5892**	**0.6844**	**5.2736**	**2.4909**	**0.6296**	**3.1205**	**0.0000**	**1,365.7183**	**1,365.7183**	**0.4417**		**1,376.7609**

3.4 Grading - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0726	2.5207	0.5010	7.0000e-003	0.1537	8.2400e-003	0.1620	0.0421	7.8800e-003	0.0500		748.6895	748.6895	0.0375		749.6259
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0278	0.0168	0.2146	6.6000e-004	0.0657	4.3000e-004	0.0661	0.0174	3.9000e-004	0.0178		65.6621	65.6621	1.5800e-003		65.7017
Total	**0.1004**	**2.5375**	**0.7156**	**7.6600e-003**	**0.2195**	**8.6700e-003**	**0.2281**	**0.0596**	**8.2700e-003**	**0.0678**		**814.3516**	**814.3516**	**0.0390**		**815.3275**

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0305	14.7882	13.1881	0.0220		0.7960	0.7960		0.7688	0.7688		2,001.1595	2,001.1595	0.3715		2,010.4467
Total	**2.0305**	**14.7882**	**13.1881**	**0.0220**		**0.7960**	**0.7960**		**0.7688**	**0.7688**		**2,001.1595**	**2,001.1595**	**0.3715**		**2,010.4467**

3.5 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0455	1.3676	0.3262	3.3100e-003	0.0812	6.7000e-003	0.0879	0.0234	6.4100e-003	0.0298		350.0497	350.0497	0.0172		350.4806
Worker	0.1703	0.1031	1.3147	4.0400e-003	0.4025	2.6100e-003	0.4051	0.1068	2.4000e-003	0.1092		402.1805	402.1805	9.6900e-003		402.4228
Total	**0.2158**	**1.4707**	**1.6409**	**7.3500e-003**	**0.4838**	**9.3100e-003**	**0.4931**	**0.1302**	**8.8100e-003**	**0.1390**		**752.2302**	**752.2302**	**0.0269**		**752.9034**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0305	14.7882	13.1881	0.0220		0.7960	0.7960		0.7688	0.7688	0.0000	2,001.1595	2,001.1595	0.3715		2,010.4467
Total	**2.0305**	**14.7882**	**13.1881**	**0.0220**		**0.7960**	**0.7960**		**0.7688**	**0.7688**	**0.0000**	**2,001.1595**	**2,001.1595**	**0.3715**		**2,010.4467**

3.5 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0455	1.3676	0.3262	3.3100e-003	0.0812	6.7000e-003	0.0879	0.0234	6.4100e-003	0.0298		350.0497	350.0497	0.0172		350.4806
Worker	0.1703	0.1031	1.3147	4.0400e-003	0.4025	2.6100e-003	0.4051	0.1068	2.4000e-003	0.1092		402.1805	402.1805	9.6900e-003		402.4228
Total	**0.2158**	**1.4707**	**1.6409**	**7.3500e-003**	**0.4838**	**9.3100e-003**	**0.4931**	**0.1302**	**8.8100e-003**	**0.1390**		**752.2302**	**752.2302**	**0.0269**		**752.9034**

3.5 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608		2,001.2200	2,001.2200	0.3573		2,010.1517
Total	**1.8125**	**13.6361**	**12.8994**	**0.0221**		**0.6843**	**0.6843**		**0.6608**	**0.6608**		**2,001.2200**	**2,001.2200**	**0.3573**		**2,010.1517**

3.5 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0372	1.2401	0.2924	3.2700e-003	0.0812	2.6900e-003	0.0839	0.0234	2.5700e-003	0.0260		346.7503	346.7503	0.0163		347.1571
Worker	0.1576	0.0921	1.2036	3.8900e-003	0.4025	2.5300e-003	0.4051	0.1068	2.3300e-003	0.1091		388.0602	388.0602	8.6700e-003		388.2770
Total	**0.1948**	**1.3322**	**1.4960**	**7.1600e-003**	**0.4838**	**5.2200e-003**	**0.4890**	**0.1302**	**4.9000e-003**	**0.1351**		**734.8104**	**734.8104**	**0.0249**		**735.4341**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608	0.0000	2,001.2200	2,001.2200	0.3573		2,010.1517
Total	**1.8125**	**13.6361**	**12.8994**	**0.0221**		**0.6843**	**0.6843**		**0.6608**	**0.6608**	**0.0000**	**2,001.2200**	**2,001.2200**	**0.3573**		**2,010.1517**

3.5 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0372	1.2401	0.2924	3.2700e-003	0.0812	2.6900e-003	0.0839	0.0234	2.5700e-003	0.0260		346.7503	346.7503	0.0163		347.1571
Worker	0.1576	0.0921	1.2036	3.8900e-003	0.4025	2.5300e-003	0.4051	0.1068	2.3300e-003	0.1091		388.0602	388.0602	8.6700e-003		388.2770
Total	**0.1948**	**1.3322**	**1.4960**	**7.1600e-003**	**0.4838**	**5.2200e-003**	**0.4890**	**0.1302**	**4.9000e-003**	**0.1351**		**734.8104**	**734.8104**	**0.0249**		**735.4341**

3.6 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7739	7.7422	8.8569	0.0135		0.4153	0.4153		0.3830	0.3830		1,296.8664	1,296.8664	0.4111		1,307.1442
Paving	0.0131					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.7870**	**7.7422**	**8.8569**	**0.0135**		**0.4153**	**0.4153**		**0.3830**	**0.3830**		**1,296.8664**	**1,296.8664**	**0.4111**		**1,307.1442**

3.6 Paving - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0418	0.0244	0.3193	1.0300e-003	0.1068	6.7000e-004	0.1075	0.0283	6.2000e-004	0.0290		102.9547	102.9547	2.3000e-003		103.0123
Total	**0.0418**	**0.0244**	**0.3193**	**1.0300e-003**	**0.1068**	**6.7000e-004**	**0.1075**	**0.0283**	**6.2000e-004**	**0.0290**		**102.9547**	**102.9547**	**2.3000e-003**		**103.0123**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7739	7.7422	8.8569	0.0135		0.4153	0.4153		0.3830	0.3830	0.0000	1,296.8664	1,296.8664	0.4111		1,307.1442
Paving	0.0131					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.7870**	**7.7422**	**8.8569**	**0.0135**		**0.4153**	**0.4153**		**0.3830**	**0.3830**	**0.0000**	**1,296.8664**	**1,296.8664**	**0.4111**		**1,307.1442**

3.6 Paving - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0418	0.0244	0.3193	1.0300e-003	0.1068	6.7000e-004	0.1075	0.0283	6.2000e-004	0.0290		102.9547	102.9547	2.3000e-003		103.0123
Total	**0.0418**	**0.0244**	**0.3193**	**1.0300e-003**	**0.1068**	**6.7000e-004**	**0.1075**	**0.0283**	**6.2000e-004**	**0.0290**		**102.9547**	**102.9547**	**2.3000e-003**		**103.0123**

3.7 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	28.7750					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309
Total	**28.9939**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**		**281.4481**	**281.4481**	**0.0193**		**281.9309**

3.7 Architectural Coating - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0322	0.0188	0.2456	7.9000e-004	0.0822	5.2000e-004	0.0827	0.0218	4.8000e-004	0.0223		79.1960	79.1960	1.7700e-003		79.2402
Total	**0.0322**	**0.0188**	**0.2456**	**7.9000e-004**	**0.0822**	**5.2000e-004**	**0.0827**	**0.0218**	**4.8000e-004**	**0.0223**		**79.1960**	**79.1960**	**1.7700e-003**		**79.2402**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	28.7750					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309
Total	**28.9939**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**	**0.0000**	**281.4481**	**281.4481**	**0.0193**		**281.9309**

3.7 Architectural Coating - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0322	0.0188	0.2456	7.9000e-004	0.0822	5.2000e-004	0.0827	0.0218	4.8000e-004	0.0223		79.1960	79.1960	1.7700e-003		79.2402
Total	**0.0322**	**0.0188**	**0.2456**	**7.9000e-004**	**0.0822**	**5.2000e-004**	**0.0827**	**0.0218**	**4.8000e-004**	**0.0223**		**79.1960**	**79.1960**	**1.7700e-003**		**79.2402**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

Increase Diversity

Improve Walkability Design

Improve Destination Accessibility

Increase Transit Accessibility

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.3321	1.1530	2.2721	6.6800e-003	0.5028	6.2000e-003	0.5090	0.1345	5.8000e-003	0.1403		676.4867	676.4867	0.0306		677.2518
Unmitigated	0.4063	1.6623	4.1560	0.0144	1.1875	0.0127	1.2002	0.3177	0.0119	0.3296		1,456.2190	1,456.2190	0.0527		1,457.5362

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	242.00	242.00	242.00	558,925	236,657
City Park	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unenclosed Parking with Elevator	0.00	0.00	0.00		
Total	242.00	242.00	242.00	558,925	236,657

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
Apartments Mid Rise	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Unenclosed Parking with	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.575198	0.040076	0.193827	0.113296	0.016988	0.005361	0.017552	0.025197	0.002581	0.002349	0.005904	0.000881	0.000789
City Park	0.575198	0.040076	0.193827	0.113296	0.016988	0.005361	0.017552	0.025197	0.002581	0.002349	0.005904	0.000881	0.000789
Parking Lot	0.575198	0.040076	0.193827	0.113296	0.016988	0.005361	0.017552	0.025197	0.002581	0.002349	0.005904	0.000881	0.000789
Unenclosed Parking with Elevator	0.575198	0.040076	0.193827	0.113296	0.016988	0.005361	0.017552	0.025197	0.002581	0.002349	0.005904	0.000881	0.000789

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0102	0.0873	0.0371	5.6000e-004		7.0500e-003	7.0500e-003		7.0500e-003	7.0500e-003		111.3870	111.3870	2.1300e-003	2.0400e-003	112.0489
NaturalGas Unmitigated	0.0102	0.0873	0.0371	5.6000e-004		7.0500e-003	7.0500e-003		7.0500e-003	7.0500e-003		111.3870	111.3870	2.1300e-003	2.0400e-003	112.0489

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	946.789	0.0102	0.0873	0.0371	5.6000e-004		7.0500e-003	7.0500e-003		7.0500e-003	7.0500e-003		111.3870	111.3870	2.1300e-003	2.0400e-003	112.0489
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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
Unenclosed 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
Total		**0.0102**	**0.0873**	**0.0371**	**5.6000e-004**		**7.0500e-003**	**7.0500e-003**		**7.0500e-003**	**7.0500e-003**		**111.3870**	**111.3870**	**2.1300e-003**	**2.0400e-003**	**112.0489**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	0.946789	0.0102	0.0873	0.0371	5.6000e-004		7.0500e-003	7.0500e-003		7.0500e-003	7.0500e-003		111.3870	111.3870	2.1300e-003	2.0400e-003	112.0489
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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
Unenclosed 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
Total		**0.0102**	**0.0873**	**0.0371**	**5.6000e-004**		**7.0500e-003**	**7.0500e-003**		**7.0500e-003**	**7.0500e-003**		**111.3870**	**111.3870**	**2.1300e-003**	**2.0400e-003**	**112.0489**

6.0 Area Detail

6.1 Mitigation Measures Area

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.1261	0.0383	3.3149	1.7000e-004		0.0183	0.0183		0.0183	0.0183	0.0000	5.9584	5.9584	5.8000e-003	0.0000	6.1034
Unmitigated	17.5765	0.4019	25.0491	0.0421		3.1038	3.1038		3.1038	3.1038	334.8339	154.1937	489.0275	0.4640	0.0237	507.6804

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1577					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8675					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	16.4504	0.3637	21.7342	0.0419		3.0855	3.0855		3.0855	3.0855	334.8339	148.2353	483.0691	0.4582	0.0237	501.5770
Landscaping	0.1009	0.0383	3.3149	1.7000e-004		0.0183	0.0183		0.0183	0.0183		5.9584	5.9584	5.8000e-003		6.1034
Total	**17.5765**	**0.4019**	**25.0491**	**0.0420**		**3.1038**	**3.1038**		**3.1038**	**3.1038**	**334.8339**	**154.1937**	**489.0275**	**0.4640**	**0.0237**	**507.6804**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1577					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8675					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1009	0.0383	3.3149	1.7000e-004		0.0183	0.0183		0.0183	0.0183		5.9584	5.9584	5.8000e-003		6.1034
Total	**1.1261**	**0.0383**	**3.3149**	**1.7000e-004**		**0.0183**	**0.0183**		**0.0183**	**0.0183**	**0.0000**	**5.9584**	**5.9584**	**5.8000e-003**	**0.0000**	**6.1034**

7.0 Water Detail

7.1 Mitigation Measures Water

Use Reclaimed Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Turf Reduction

Use Water Efficient Irrigation System

Use Water Efficient Landscaping

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

2001 Tarob Court

Bay Area AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	40.00	Dwelling Unit	0.77	40,000.00	114
Unenclosed Parking with Elevator	60.00	Space	0.00	24,000.00	0
Parking Lot	14.00	Space	0.10	5,600.00	0
City Park	0.44	Acre	0.44	19,166.40	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2021
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	328.8	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

2001 Tarob Court - Bay Area AQMD Air District, Winter

Project Characteristics - CO2 intensity based on 5-year average, PG&E, 2015

Land Use - The project would include 40 residential units, a parking garage with 60 spaces, an additional 14 onstreet parking spaces, and 0.44 acres of open space/landscaped areas.

Construction Phase - Construction of the proposed project is anticipated to occur over approximately 16 months, starting in April 2020 and ending in August 2021.

Grading - approximately 1,410 cubic yards of soils would be excavated and exported

Demolition - The project would demolish the existing 16,463-square-foot office/light-industrial building

Vehicle Trips - Based on ITE Trip Generation Rates for land use code 220 and 9% transit trip rediction per VTA's Transportation Impact Analysis Guidelines

Water Mitigation -

Energy Mitigation -

Mobile Land Use Mitigation -

Area Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10.00	20.00
tblConstructionPhase	NumDays	200.00	250.00
tblConstructionPhase	NumDays	4.00	20.00
tblConstructionPhase	NumDays	10.00	20.00
tblConstructionPhase	NumDays	2.00	20.00
tblConstructionPhase	PhaseEndDate	3/15/2021	8/6/2021
tblConstructionPhase	PhaseEndDate	2/15/2021	6/11/2021
tblConstructionPhase	PhaseEndDate	5/11/2020	6/26/2020
tblConstructionPhase	PhaseEndDate	3/1/2021	7/9/2021
tblConstructionPhase	PhaseEndDate	5/5/2020	5/29/2020
tblConstructionPhase	PhaseStartDate	3/2/2021	7/12/2021
tblConstructionPhase	PhaseStartDate	5/12/2020	6/29/2020
tblConstructionPhase	PhaseStartDate	5/6/2020	6/1/2020
tblConstructionPhase	PhaseStartDate	2/16/2021	6/14/2021

tblGrading	AcresOfGrading	7.50	1.22
tblGrading	AcresOfGrading	10.00	1.22
tblGrading	MaterialExported	0.00	1,410.00
tblLandUse	LotAcreage	1.05	0.77
tblLandUse	LotAcreage	0.54	0.00
tblLandUse	LotAcreage	0.13	0.10
tblProjectCharacteristics	CO2IntensityFactor	641.35	328.8
tblVehicleTrips	ST_TR	6.39	6.05
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	SU_TR	5.86	6.05
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	WD_TR	6.65	6.05
tblVehicleTrips	WD_TR	1.89	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	2.2585	22.0806	15.2147	0.0290	5.3997	1.1568	6.2211	2.9209	1.0802	3.6765	0.0000	2,734.2863	2,734.2863	0.6161	0.0000	2,749.6891
2021	29.0280	15.0006	14.3616	0.0288	0.4838	0.6897	1.1734	0.1302	0.6658	0.7959	0.0000	2,696.6455	2,696.6455	0.4133	0.0000	2,706.2196
Maximum	**29.0280**	**22.0806**	**15.2147**	**0.0290**	**5.3997**	**1.1568**	**6.2211**	**2.9209**	**1.0802**	**3.6765**	**0.0000**	**2,734.2863**	**2,734.2863**	**0.6161**	**0.0000**	**2,749.6891**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	2.2585	22.0806	15.2147	0.0290	5.3997	1.1568	6.2211	2.9209	1.0802	3.6765	0.0000	2,734.2863	2,734.2863	0.6161	0.0000	2,749.6891
2021	29.0280	15.0006	14.3616	0.0288	0.4838	0.6897	1.1734	0.1302	0.6658	0.7959	0.0000	2,696.6455	2,696.6455	0.4133	0.0000	2,706.2196
Maximum	**29.0280**	**22.0806**	**15.2147**	**0.0290**	**5.3997**	**1.1568**	**6.2211**	**2.9209**	**1.0802**	**3.6765**	**0.0000**	**2,734.2863**	**2,734.2863**	**0.6161**	**0.0000**	**2,749.6891**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	17.5765	0.4019	25.0491	0.0421		3.1038	3.1038		3.1038	3.1038	334.8339	154.1937	489.0275	0.4640	0.0237	507.6804
Energy	0.0102	0.0873	0.0371	5.6000e-004		7.0500e-003	7.0500e-003		7.0500e-003	7.0500e-003		111.3870	111.3870	2.1300e-003	2.0400e-003	112.0489
Mobile	0.3529	1.7486	4.2060	0.0135	1.1875	0.0128	1.2003	0.3177	0.0120	0.3297		1,362.8204	1,362.8204	0.0538		1,364.1653
Total	**17.9396**	**2.2377**	**29.2922**	**0.0561**	**1.1875**	**3.1236**	**4.3111**	**0.3177**	**3.1228**	**3.4405**	**334.8339**	**1,628.4010**	**1,963.2349**	**0.5199**	**0.0257**	**1,983.8945**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.1261	0.0383	3.3149	1.7000e-004		0.0183	0.0183		0.0183	0.0183	0.0000	5.9584	5.9584	5.8000e-003	0.0000	6.1034
Energy	0.0102	0.0873	0.0371	5.6000e-004		7.0500e-003	7.0500e-003		7.0500e-003	7.0500e-003		111.3870	111.3870	2.1300e-003	2.0400e-003	112.0489
Mobile	0.2798	1.1859	2.5269	6.2500e-003	0.5028	6.3000e-003	0.5091	0.1345	5.9000e-003	0.1404		631.7799	631.7799	0.0328		632.5994
Total	**1.4160**	**1.3114**	**5.8788**	**6.9800e-003**	**0.5028**	**0.0316**	**0.5344**	**0.1345**	**0.0312**	**0.1657**	**0.0000**	**749.1252**	**749.1252**	**0.0407**	**2.0400e-003**	**750.7517**

	ROG	NOx	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	**92.11**	**41.40**	**79.93**	**87.56**	**57.66**	**98.99**	**87.60**	**57.66**	**99.00**	**95.18**	**100.00**	**54.00**	**61.84**	**92.17**	**92.07**	**62.16**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	4/6/2020	5/1/2020	5	20	
2	Site Preparation	Site Preparation	5/2/2020	5/29/2020	5	20	
3	Grading	Grading	6/1/2020	6/26/2020	5	20	
4	Building Construction	Building Construction	6/29/2020	6/11/2021	5	250	
5	Paving	Paving	6/14/2021	7/9/2021	5	20	
6	Architectural Coating	Architectural Coating	7/12/2021	8/6/2021	5	20	

Acres of Grading (Site Preparation Phase): 1.22

Acres of Grading (Grading Phase): 1.22

Acres of Paving: 0.1

Residential Indoor: 81,000; Residential Outdoor: 27,000; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 1,776 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	6.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	6.00	187	0.41
Paving	Paving Equipment	1	8.00	132	0.36
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Building Construction	Welders	3	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	5	13.00	0.00	75.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	176.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	49.00	12.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.8103	0.0000	0.8103	0.1227	0.0000	0.1227			0.0000			0.0000
Off-Road	2.1262	20.9463	14.6573	0.0241		1.1525	1.1525		1.0761	1.0761		2,322.3127	2,322.3127	0.5970		2,337.2363
Total	**2.1262**	**20.9463**	**14.6573**	**0.0241**	**0.8103**	**1.1525**	**1.9628**	**0.1227**	**1.0761**	**1.1988**		**2,322.3127**	**2,322.3127**	**0.5970**		**2,337.2363**

3.2 Demolition - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0318	1.1005	0.2298	2.9300e-003	0.0655	3.5700e-003	0.0691	0.0180	3.4200e-003	0.0214		313.6851	313.6851	0.0168		314.1042
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0478	0.0338	0.3276	9.9000e-004	0.1068	6.9000e-004	0.1075	0.0283	6.4000e-004	0.0290		98.2885	98.2885	2.4000e-003		98.3486
Total	**0.0796**	**1.1343**	**0.5574**	**3.9200e-003**	**0.1723**	**4.2600e-003**	**0.1766**	**0.0463**	**4.0600e-003**	**0.0503**		**411.9736**	**411.9736**	**0.0192**		**412.4528**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.8103	0.0000	0.8103	0.1227	0.0000	0.1227			0.0000			0.0000
Off-Road	2.1262	20.9463	14.6573	0.0241		1.1525	1.1525		1.0761	1.0761	0.0000	2,322.3127	2,322.3127	0.5970		2,337.2363
Total	**2.1262**	**20.9463**	**14.6573**	**0.0241**	**0.8103**	**1.1525**	**1.9628**	**0.1227**	**1.0761**	**1.1988**	**0.0000**	**2,322.3127**	**2,322.3127**	**0.5970**		**2,337.2363**

3.2 Demolition - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0318	1.1005	0.2298	2.9300e-003	0.0655	3.5700e-003	0.0691	0.0180	3.4200e-003	0.0214		313.6851	313.6851	0.0168		314.1042
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0478	0.0338	0.3276	9.9000e-004	0.1068	6.9000e-004	0.1075	0.0283	6.4000e-004	0.0290		98.2885	98.2885	2.4000e-003		98.3486
Total	**0.0796**	**1.1343**	**0.5574**	**3.9200e-003**	**0.1723**	**4.2600e-003**	**0.1766**	**0.0463**	**4.0600e-003**	**0.0503**		**411.9736**	**411.9736**	**0.0192**		**412.4528**

3.3 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.3340	0.0000	5.3340	2.9034	0.0000	2.9034			0.0000			0.0000
Off-Road	1.6299	18.3464	7.7093	0.0172		0.8210	0.8210		0.7553	0.7553		1,667.4119	1,667.4119	0.5393		1,680.8937
Total	**1.6299**	**18.3464**	**7.7093**	**0.0172**	**5.3340**	**0.8210**	**6.1550**	**2.9034**	**0.7553**	**3.6587**		**1,667.4119**	**1,667.4119**	**0.5393**		**1,680.8937**

3.3 Site Preparation - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0294	0.0208	0.2016	6.1000e-004	0.0657	4.3000e-004	0.0661	0.0174	3.9000e-004	0.0178		60.4852	60.4852	1.4800e-003		60.5222
Total	**0.0294**	**0.0208**	**0.2016**	**6.1000e-004**	**0.0657**	**4.3000e-004**	**0.0661**	**0.0174**	**3.9000e-004**	**0.0178**		**60.4852**	**60.4852**	**1.4800e-003**		**60.5222**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.3340	0.0000	5.3340	2.9034	0.0000	2.9034			0.0000			0.0000
Off-Road	1.6299	18.3464	7.7093	0.0172		0.8210	0.8210		0.7553	0.7553	0.0000	1,667.4119	1,667.4119	0.5393		1,680.8937
Total	**1.6299**	**18.3464**	**7.7093**	**0.0172**	**5.3340**	**0.8210**	**6.1550**	**2.9034**	**0.7553**	**3.6587**	**0.0000**	**1,667.4119**	**1,667.4119**	**0.5393**		**1,680.8937**

3.3 Site Preparation - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0294	0.0208	0.2016	6.1000e-004	0.0657	4.3000e-004	0.0661	0.0174	3.9000e-004	0.0178		60.4852	60.4852	1.4800e-003		60.5222
Total	**0.0294**	**0.0208**	**0.2016**	**6.1000e-004**	**0.0657**	**4.3000e-004**	**0.0661**	**0.0174**	**3.9000e-004**	**0.0178**		**60.4852**	**60.4852**	**1.4800e-003**		**60.5222**

3.4 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.5892	0.0000	4.5892	2.4909	0.0000	2.4909			0.0000			0.0000
Off-Road	1.3498	15.0854	6.4543	0.0141		0.6844	0.6844		0.6296	0.6296		1,365.7183	1,365.7183	0.4417		1,376.7609
Total	**1.3498**	**15.0854**	**6.4543**	**0.0141**	**4.5892**	**0.6844**	**5.2736**	**2.4909**	**0.6296**	**3.1205**		**1,365.7183**	**1,365.7183**	**0.4417**		**1,376.7609**

3.4 Grading - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0746	2.5826	0.5393	6.8800e-003	0.1537	8.3800e-003	0.1621	0.0421	8.0200e-003	0.0502		736.1144	736.1144	0.0393		737.0978
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0294	0.0208	0.2016	6.1000e-004	0.0657	4.3000e-004	0.0661	0.0174	3.9000e-004	0.0178		60.4852	60.4852	1.4800e-003		60.5222
Total	**0.1040**	**2.6034**	**0.7409**	**7.4900e-003**	**0.2195**	**8.8100e-003**	**0.2283**	**0.0596**	**8.4100e-003**	**0.0680**		**796.5996**	**796.5996**	**0.0408**		**797.6200**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.5892	0.0000	4.5892	2.4909	0.0000	2.4909			0.0000			0.0000
Off-Road	1.3498	15.0854	6.4543	0.0141		0.6844	0.6844		0.6296	0.6296	0.0000	1,365.7183	1,365.7183	0.4417		1,376.7609
Total	**1.3498**	**15.0854**	**6.4543**	**0.0141**	**4.5892**	**0.6844**	**5.2736**	**2.4909**	**0.6296**	**3.1205**	**0.0000**	**1,365.7183**	**1,365.7183**	**0.4417**		**1,376.7609**

3.4 Grading - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0746	2.5826	0.5393	6.8800e-003	0.1537	8.3800e-003	0.1621	0.0421	8.0200e-003	0.0502		736.1144	736.1144	0.0393		737.0978
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0294	0.0208	0.2016	6.1000e-004	0.0657	4.3000e-004	0.0661	0.0174	3.9000e-004	0.0178		60.4852	60.4852	1.4800e-003		60.5222
Total	**0.1040**	**2.6034**	**0.7409**	**7.4900e-003**	**0.2195**	**8.8100e-003**	**0.2283**	**0.0596**	**8.4100e-003**	**0.0680**		**796.5996**	**796.5996**	**0.0408**		**797.6200**

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0305	14.7882	13.1881	0.0220		0.7960	0.7960		0.7688	0.7688		2,001.1595	2,001.1595	0.3715		2,010.4467
Total	**2.0305**	**14.7882**	**13.1881**	**0.0220**		**0.7960**	**0.7960**		**0.7688**	**0.7688**		**2,001.1595**	**2,001.1595**	**0.3715**		**2,010.4467**

3.5 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0479	1.3829	0.3732	3.2200e-003	0.0812	6.8200e-003	0.0880	0.0234	6.5200e-003	0.0299		341.1927	341.1927	0.0187		341.6588
Worker	0.1802	0.1274	1.2347	3.7200e-003	0.4025	2.6100e-003	0.4051	0.1068	2.4000e-003	0.1092		370.4721	370.4721	9.0600e-003		370.6986
Total	**0.2280**	**1.5103**	**1.6079**	**6.9400e-003**	**0.4838**	**9.4300e-003**	**0.4932**	**0.1302**	**8.9200e-003**	**0.1391**		**711.6647**	**711.6647**	**0.0277**		**712.3574**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0305	14.7882	13.1881	0.0220		0.7960	0.7960		0.7688	0.7688	0.0000	2,001.1595	2,001.1595	0.3715		2,010.4467
Total	**2.0305**	**14.7882**	**13.1881**	**0.0220**		**0.7960**	**0.7960**		**0.7688**	**0.7688**	**0.0000**	**2,001.1595**	**2,001.1595**	**0.3715**		**2,010.4467**

3.5 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0479	1.3829	0.3732	3.2200e-003	0.0812	6.8200e-003	0.0880	0.0234	6.5200e-003	0.0299		341.1927	341.1927	0.0187		341.6588
Worker	0.1802	0.1274	1.2347	3.7200e-003	0.4025	2.6100e-003	0.4051	0.1068	2.4000e-003	0.1092		370.4721	370.4721	9.0600e-003		370.6986
Total	**0.2280**	**1.5103**	**1.6079**	**6.9400e-003**	**0.4838**	**9.4300e-003**	**0.4932**	**0.1302**	**8.9200e-003**	**0.1391**		**711.6647**	**711.6647**	**0.0277**		**712.3574**

3.5 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608		2,001.2200	2,001.2200	0.3573		2,010.1517
Total	**1.8125**	**13.6361**	**12.8994**	**0.0221**		**0.6843**	**0.6843**		**0.6608**	**0.6608**		**2,001.2200**	**2,001.2200**	**0.3573**		**2,010.1517**

3.5 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0394	1.2508	0.3361	3.1900e-003	0.0812	2.7800e-003	0.0840	0.0234	2.6600e-003	0.0260		337.9526	337.9526	0.0176		338.3928
Worker	0.1669	0.1137	1.1261	3.5900e-003	0.4025	2.5300e-003	0.4051	0.1068	2.3300e-003	0.1091		357.4730	357.4730	8.0900e-003		357.6752
Total	**0.2063**	**1.3645**	**1.4622**	**6.7800e-003**	**0.4838**	**5.3100e-003**	**0.4891**	**0.1302**	**4.9900e-003**	**0.1351**		**695.4255**	**695.4255**	**0.0257**		**696.0679**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608	0.0000	2,001.2200	2,001.2200	0.3573		2,010.1517
Total	**1.8125**	**13.6361**	**12.8994**	**0.0221**		**0.6843**	**0.6843**		**0.6608**	**0.6608**	**0.0000**	**2,001.2200**	**2,001.2200**	**0.3573**		**2,010.1517**

3.5 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0394	1.2508	0.3361	3.1900e-003	0.0812	2.7800e-003	0.0840	0.0234	2.6600e-003	0.0260		337.9526	337.9526	0.0176		338.3928
Worker	0.1669	0.1137	1.1261	3.5900e-003	0.4025	2.5300e-003	0.4051	0.1068	2.3300e-003	0.1091		357.4730	357.4730	8.0900e-003		357.6752
Total	**0.2063**	**1.3645**	**1.4622**	**6.7800e-003**	**0.4838**	**5.3100e-003**	**0.4891**	**0.1302**	**4.9900e-003**	**0.1351**		**695.4255**	**695.4255**	**0.0257**		**696.0679**

3.6 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7739	7.7422	8.8569	0.0135		0.4153	0.4153		0.3830	0.3830		1,296.8664	1,296.8664	0.4111		1,307.1442
Paving	0.0131					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.7870**	**7.7422**	**8.8569**	**0.0135**		**0.4153**	**0.4153**		**0.3830**	**0.3830**		**1,296.8664**	**1,296.8664**	**0.4111**		**1,307.1442**

3.6 Paving - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0443	0.0302	0.2988	9.5000e-004	0.1068	6.7000e-004	0.1075	0.0283	6.2000e-004	0.0290		94.8398	94.8398	2.1500e-003		94.8934
Total	**0.0443**	**0.0302**	**0.2988**	**9.5000e-004**	**0.1068**	**6.7000e-004**	**0.1075**	**0.0283**	**6.2000e-004**	**0.0290**		**94.8398**	**94.8398**	**2.1500e-003**		**94.8934**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7739	7.7422	8.8569	0.0135		0.4153	0.4153		0.3830	0.3830	0.0000	1,296.8664	1,296.8664	0.4111		1,307.1442
Paving	0.0131					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.7870**	**7.7422**	**8.8569**	**0.0135**		**0.4153**	**0.4153**		**0.3830**	**0.3830**	**0.0000**	**1,296.8664**	**1,296.8664**	**0.4111**		**1,307.1442**

3.6 Paving - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0443	0.0302	0.2988	9.5000e-004	0.1068	6.7000e-004	0.1075	0.0283	6.2000e-004	0.0290		94.8398	94.8398	2.1500e-003		94.8934
Total	**0.0443**	**0.0302**	**0.2988**	**9.5000e-004**	**0.1068**	**6.7000e-004**	**0.1075**	**0.0283**	**6.2000e-004**	**0.0290**		**94.8398**	**94.8398**	**2.1500e-003**		**94.8934**

3.7 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	28.7750					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309
Total	**28.9939**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**		**281.4481**	**281.4481**	**0.0193**		**281.9309**

3.7 Architectural Coating - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0341	0.0232	0.2298	7.3000e-004	0.0822	5.2000e-004	0.0827	0.0218	4.8000e-004	0.0223		72.9537	72.9537	1.6500e-003		72.9949
Total	**0.0341**	**0.0232**	**0.2298**	**7.3000e-004**	**0.0822**	**5.2000e-004**	**0.0827**	**0.0218**	**4.8000e-004**	**0.0223**		**72.9537**	**72.9537**	**1.6500e-003**		**72.9949**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	28.7750					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309
Total	**28.9939**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**	**0.0000**	**281.4481**	**281.4481**	**0.0193**		**281.9309**

3.7 Architectural Coating - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0341	0.0232	0.2298	7.3000e-004	0.0822	5.2000e-004	0.0827	0.0218	4.8000e-004	0.0223		72.9537	72.9537	1.6500e-003		72.9949
Total	**0.0341**	**0.0232**	**0.2298**	**7.3000e-004**	**0.0822**	**5.2000e-004**	**0.0827**	**0.0218**	**4.8000e-004**	**0.0223**		**72.9537**	**72.9537**	**1.6500e-003**		**72.9949**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

Increase Diversity

Improve Walkability Design

Improve Destination Accessibility

Increase Transit Accessibility

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.2798	1.1859	2.5269	6.2500e-003	0.5028	6.3000e-003	0.5091	0.1345	5.9000e-003	0.1404		631.7799	631.7799	0.0328		632.5994
Unmitigated	0.3529	1.7486	4.2060	0.0135	1.1875	0.0128	1.2003	0.3177	0.0120	0.3297		1,362.8204	1,362.8204	0.0538		1,364.1653

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	242.00	242.00	242.00	558,925	236,657
City Park	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unenclosed Parking with Elevator	0.00	0.00	0.00		
Total	242.00	242.00	242.00	558,925	236,657

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
Apartments Mid Rise	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Unenclosed Parking with	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.575198	0.040076	0.193827	0.113296	0.016988	0.005361	0.017552	0.025197	0.002581	0.002349	0.005904	0.000881	0.000789
City Park	0.575198	0.040076	0.193827	0.113296	0.016988	0.005361	0.017552	0.025197	0.002581	0.002349	0.005904	0.000881	0.000789
Parking Lot	0.575198	0.040076	0.193827	0.113296	0.016988	0.005361	0.017552	0.025197	0.002581	0.002349	0.005904	0.000881	0.000789
Unenclosed Parking with Elevator	0.575198	0.040076	0.193827	0.113296	0.016988	0.005361	0.017552	0.025197	0.002581	0.002349	0.005904	0.000881	0.000789

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0102	0.0873	0.0371	5.6000e-004		7.0500e-003	7.0500e-003		7.0500e-003	7.0500e-003		111.3870	111.3870	2.1300e-003	2.0400e-003	112.0489
NaturalGas Unmitigated	0.0102	0.0873	0.0371	5.6000e-004		7.0500e-003	7.0500e-003		7.0500e-003	7.0500e-003		111.3870	111.3870	2.1300e-003	2.0400e-003	112.0489

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	946.789	0.0102	0.0873	0.0371	5.6000e-004		7.0500e-003	7.0500e-003		7.0500e-003	7.0500e-003		111.3870	111.3870	2.1300e-003	2.0400e-003	112.0489
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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
Unenclosed 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
Total		**0.0102**	**0.0873**	**0.0371**	**5.6000e-004**		**7.0500e-003**	**7.0500e-003**		**7.0500e-003**	**7.0500e-003**		**111.3870**	**111.3870**	**2.1300e-003**	**2.0400e-003**	**112.0489**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	0.946789	0.0102	0.0873	0.0371	5.6000e-004		7.0500e-003	7.0500e-003		7.0500e-003	7.0500e-003		111.3870	111.3870	2.1300e-003	2.0400e-003	112.0489
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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
Unenclosed 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
Total		**0.0102**	**0.0873**	**0.0371**	**5.6000e-004**		**7.0500e-003**	**7.0500e-003**		**7.0500e-003**	**7.0500e-003**		**111.3870**	**111.3870**	**2.1300e-003**	**2.0400e-003**	**112.0489**

6.0 Area Detail

6.1 Mitigation Measures Area

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.1261	0.0383	3.3149	1.7000e-004		0.0183	0.0183		0.0183	0.0183	0.0000	5.9584	5.9584	5.8000e-003	0.0000	6.1034
Unmitigated	17.5765	0.4019	25.0491	0.0421		3.1038	3.1038		3.1038	3.1038	334.8339	154.1937	489.0275	0.4640	0.0237	507.6804

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1577					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8675					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	16.4504	0.3637	21.7342	0.0419		3.0855	3.0855		3.0855	3.0855	334.8339	148.2353	483.0691	0.4582	0.0237	501.5770
Landscaping	0.1009	0.0383	3.3149	1.7000e-004		0.0183	0.0183		0.0183	0.0183		5.9584	5.9584	5.8000e-003		6.1034
Total	**17.5765**	**0.4019**	**25.0491**	**0.0420**		**3.1038**	**3.1038**		**3.1038**	**3.1038**	**334.8339**	**154.1937**	**489.0275**	**0.4640**	**0.0237**	**507.6804**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1577					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8675					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1009	0.0383	3.3149	1.7000e-004		0.0183	0.0183		0.0183	0.0183		5.9584	5.9584	5.8000e-003		6.1034
Total	**1.1261**	**0.0383**	**3.3149**	**1.7000e-004**		**0.0183**	**0.0183**		**0.0183**	**0.0183**	**0.0000**	**5.9584**	**5.9584**	**5.8000e-003**	**0.0000**	**6.1034**

7.0 Water Detail

7.1 Mitigation Measures Water

Use Reclaimed Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Turf Reduction

Use Water Efficient Irrigation System

Use Water Efficient Landscaping

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

APPENDIX B

TRAFFIC OPERATIONS REPORT

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Memorandum

Date: May 28, 2019

To: Mr. Steve Chan, P.E.

From: Brett Walinski, T.E.
Eric Tse, P.E.

Subject: Traffic Operations Report for 2001 Tarob Court, Milpitas, CA

Hexagon Transportation Consultants, Inc. has completed this traffic operations report for the proposed residential development located at 2001 Tarob Court in Milpitas, California. The site location is shown on Figure 1. The existing site is occupied by a 16,463 sq. ft. office/industrial building. The project proposes to demolish the existing building and construct 40 condominium units. Primary access to the site would be provided via a single driveway on the northern portion of the site on Tarob Court. The site plan is shown on Figure 2.

Scope of Study

The purpose of this study is to evaluate the operations at the site driveway and at key intersections near the site. The traffic study includes an analysis of AM and PM peak hour traffic conditions at the following study intersections and site driveway (See Figure 1).

1. Lundy Avenue and Trade Zone Boulevard
2. Lundy Avenue and Tarob Court (unsignalized)
3. Project Driveway and Tarob Court (unsignalized)

The impacts of the project were evaluated during the weekday AM and PM peak hours. The AM peak hour of traffic is typically between 7:00 AM and 9:00 AM and the PM peak hour is typically between 4:00 PM and 6:00 PM. It is during these periods that the most congested traffic conditions occur on an average weekday. Traffic conditions were evaluated for the following scenarios:

Scenario 1: *Existing Conditions.* Existing conditions are represented by existing peak-hour traffic volumes on the existing roadway network. Existing traffic volumes were obtained from recent traffic counts conducted in May 2019.

Scenario 2: *Existing Plus Project Conditions*. Project trips from the site were added to existing traffic volumes to estimate existing plus project conditions. Existing plus project conditions were evaluated relative to existing conditions in order to determine potential project impacts.

Scenario 3: *Background Conditions.* A list of approved and pending developments was obtained from the Cities of Milpitas and San Jose (described in greater detail in the subsequent *Intersection Level of Service Analysis* section). Approved and pending project-generated traffic volumes were added to existing traffic volumes to estimate background conditions. The roadway network was assumed to be unchanged from existing conditions for this scenario.

Scenario 4: *Background Plus Project Conditions*. Project trips from the site were added to background traffic volumes to estimate background plus project conditions. Background plus project conditions were evaluated relative to background conditions in order to determine potential project impacts.

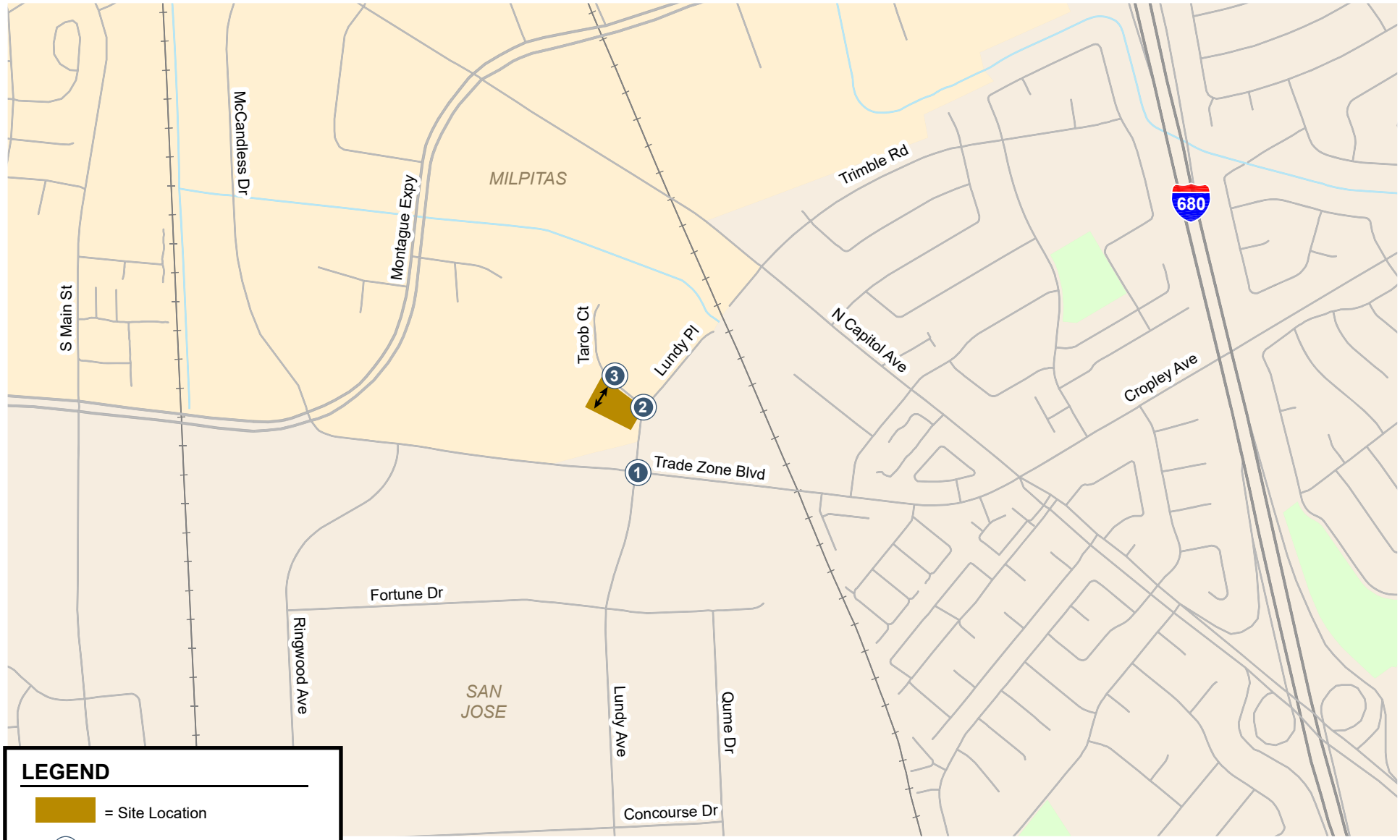
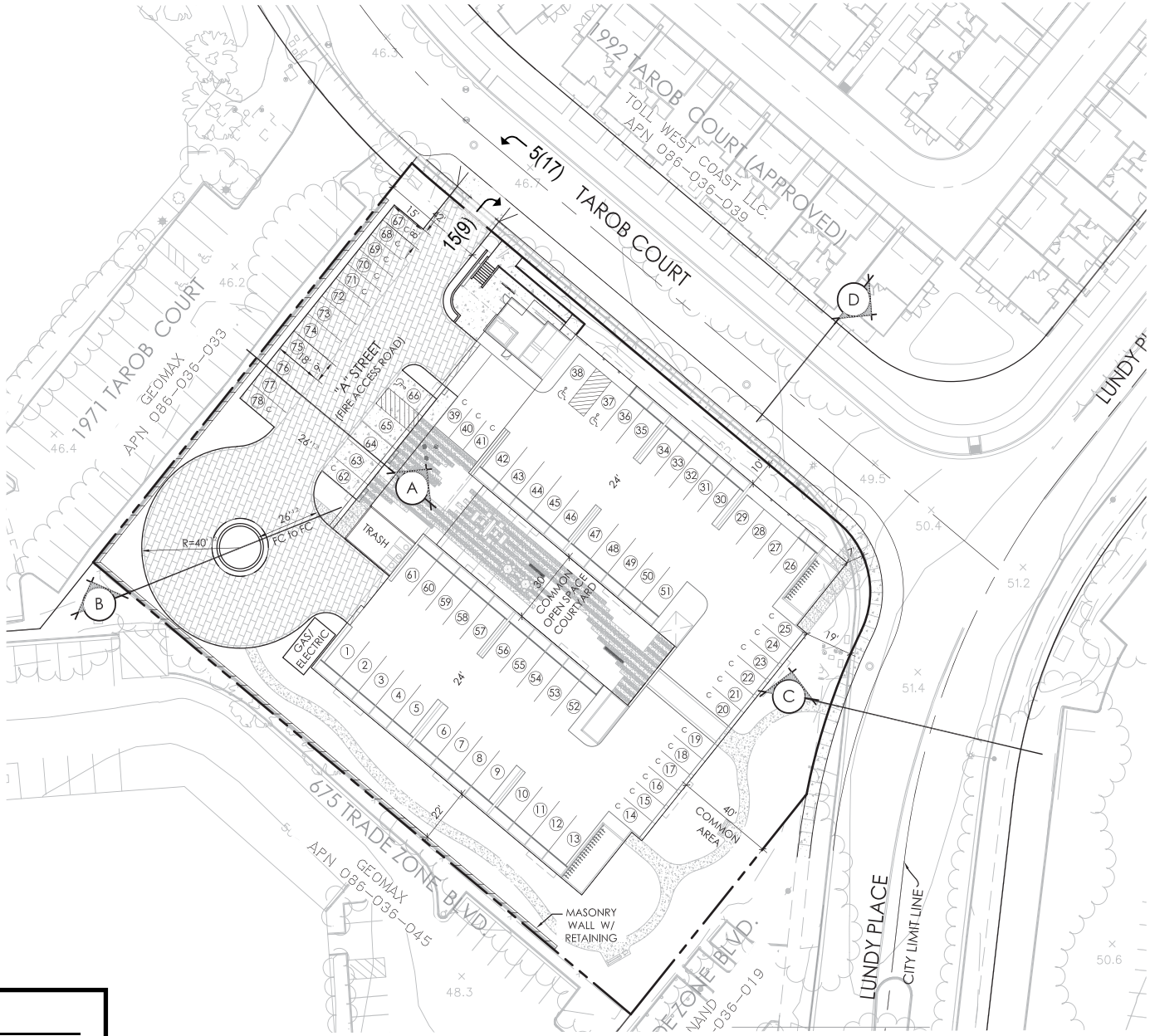


Figure 1
Site Location

NORTH
Not to Scale



LEGEND

XX(XX) = AM(PM) Peak-Hour Gross Trips

Figure 2
Site Plan

HEXAGON

NORTH
Not to Scale

A Congestion Management Program (CMP) analysis was not required because the project is estimated to generate fewer than 100 peak-hour trips. This report also includes the following analyses:

- Vehicle queuing analysis at high demand turn movements
- Project site access and circulation evaluation
- Impacts to transit, bikes, and pedestrians

Intersection operations were evaluated using the Highway Capacity Manual (HCM) level of service methodology during the peak hours.

Existing Transportation Setting

Regional access to the project site is provided via Montague Expressway and North Capitol Avenue. Local acces to the project site is provided by Lundy Place, Trade Zone Boulevard, and Tarob Court. These roadways are described below.

> *Lundy Place* is a north-south, two-lane roadway extending from the Union Pacific Railroad tracks in the north to Trade Zone Avenue in the south, where it becomes Lundy Avenue. Lundy Place terminates in a cul-de-sac approximately 650 feet north of Tarob Court.
>
> *Trade Zone Boulevard* is an east-west, four-lane collector street extending from Montague Expressway in the west to Capitol Avenue in the east.
>
> *Tarob Court* is a two-lane roadway extending west from Lundy Place. It provides access to the office/industrial buildings located to the west of Lundy Place and terminates in a cul-de-sac approximately 800 feet west of Lundy Place. Tarob Court provides direct access to the project site via a single driveway.

Existing bicycle access to the project vicinity is provided primarily via a network of nearby Class II bike lanes and Class III bike routes which are shared with vehicular traffic. Buffered Class II bike lanes are provided along Trade Zone Boulevard from Ringwood Avenue to Lundy Avenue. Conventional Class II bike lanes are present on Lundy Avenue south of Trade Zone Boulevard, McCandless Drive, and East Capitol Avenue. Currently, there are no bike facilities on Lundy Place or on Trade Zone Boulevard between Lundy Avenue and East Capitol Avenue. Existing Class III bike routes are present on Montague Expressway and Trade Zone Boulevard between Montague Expressway and Lundy Avenue.

Majority of the streets in the project vicinity have sidewalks, except the following street sections:

- South side of Trade Zone Boulevard between Montague Expressway and Ringwood Avenue
- Both sides of Trade Zone Boulevard between Lundy Avenue and Autumnvale Drive
- West side of Lundy Place
- Both sides of Tarob Court

The signalized intersection of Trade zone Boulevard and Lundy Avenue has crosswalks on all approaches. There are no crosswalks at the unsignalized intersection of Lundy Place and Tarob Court.

Existing transit service in the area includes VTA buses and VTA light rail. One VTA bus stop is located about 500 feet south of the project site at the intersection of Trade Zone Boulevard and Lundy Avenue and is currently served by two bus routes: Route 77 and Route 831.

Route 77 is a VTA bus line that provides service between Eastridge Transit Center and Great Mall/Main Transit Center via King Road. Route 77 operates between 6:00 AM and 9:00 PM on weekdays, with headways between 15 and 20 minutes. Route 77 also provides weekend service.

Route 831 is an ACE line that provides service between the Great America ACE station and the Lundy Avenue/Commerce Drive intersection. Eastbound service is provided during weekday mornings between 6:00 AM and 9:00 AM with 45 to 60 minutes headways. Westbound service is provided during weekday afternoons between 3:00 PM and 6:00 PM with 45 to 60 minutes headways. No service is provided during weekends.

VTA light-rail runs in the median of Great Mall Parkway/North Capitol Avenue. The closest light rail station (Cropley Station) is located near the Trade Zone Boulevard and North Capitol Avenue intersection, which is only 0.6 miles east of the project site.

In the future, BART service will be provided to the study area. As part of the BART extension to the South Bay, BART will pass through Milpitas, with the Milpitas Station located at the southeast corner of the Great Mall Parkway and Montague Expressway intersection. The station will be located approximately one-half mile north of the project site.

Observed Existing Traffic Conditions

Traffic conditions in the field were observed in order to identify existing operational deficiencies and to confirm the accuracy of calculated levels of service. The purpose of this effort was (1) to identify any existing traffic problems that may not be directly related to intersection level of service, and (2) to identify any locations where the level of service calculation does not accurately reflect level of service in the field. The field observations revealed that the level of service analysis generally reflects actual existing traffic conditions. A summary of the observations is provided below.

Intersection at Lundy Avenue and Trade Zone Boulevard. During the AM peak hour, field observations showed that the queues for the westbound left-turn movement extended past the left-turn lane into the adjacent through lane on Trade Zone Boulevard. However, the long vehicular queues were able to clear in a single cycle. During the PM peak hour, long vehicular queues were observed on eastbound Trade Zone Boulevard. However, the eastbound through movement received adequate green time and all traffic was able to clear in one cycle. It should be noted that the proposed project would not add any trips to either of these movements.

Project Traffic Estimates

The magnitude of traffic produced by a new development and the locations where that traffic would appear were estimated using a three-step process: (1) trip generation, (2) trip distribution, and (3) trip assignment. In determining project trip generation, the magnitude of traffic entering and exiting the site was estimated for the AM and PM peak hours. As part of the project trip distribution step, an estimate was made of the directions to and from which the project trips would travel. In the project trip assignment step, the project trips were assigned to specific streets and intersections in the study area. These procedures are described further in the following paragraphs.

Through empirical research, data has been collected that correlate to common land uses their propensity for producing traffic. Thus, for the most common land uses there are standard trip generation rates that can be applied to help predict the future traffic increases that would result from a new development. The trip generation estimates for the proposed project are based on rates obtained from the Institute of Transportation Engineers' (ITE) publication *Trip Generation*, 10th Edition. Based on trip generation rates for low-rise multi-family housing, the project would generate 20 trips during the AM peak hour and 26 trips during the PM peak hour. The project trip generation estimates are presented in Table 1.

As stated previously, the existing site is occupied by an office/industrial building that is currently in operation. Trips generated by existing uses on site can be credited against the proposed residential development. Based on AM and PM peak hour driveway counts conducted by Hexagon in May 2019, the existing land uses generate 11 AM peak hour trips and 12 PM peak hour trips. After applying these existing trip credits, the proposed project would generate 9 net AM peak hour trips and 14 net PM peak hour trips.

Table 1
Project Trip Generation Estimates

			AM Peak Hour				PM Peak Hour			
Land Use	**Size**	**Unit**	**Rate**	**In**	**Out**	**Total**	**Rate**	**In**	**Out**	**Total**
Proposed Uses										
Multi-Family Housing[1]	40	DU	0.50	5	15	20	0.65	17	9	26
Existing Use										
Office/Light-Industrial [2]	16	ksf		9	2	11		3	9	12
Overall Net Project Trips				**-4**	**13**	**9**		**14**	**0**	**14**

Notes:
DU - Dwelling Units; ksf - 1,000 square feet
1. Based on Fitted Curved Equations for Multifamily Housing (Low-Rise, Land Use Code 220), Institute of Transportation Engineers, Trip Generation, 10th Edition.
2. Based on AM and PM peak hour driveway counts conducted on May 2, 2019.

The trip distribution pattern for the proposed project was estimated based on the City of Milpitas Transit Area Specific Plan (TASP), of which the proposed development would be a part of. Trips were assigned to the roadway network in accordance with the TASP trip distribution for residential uses. The project trip distribution and net project trip assignment are shown on Figure 3.

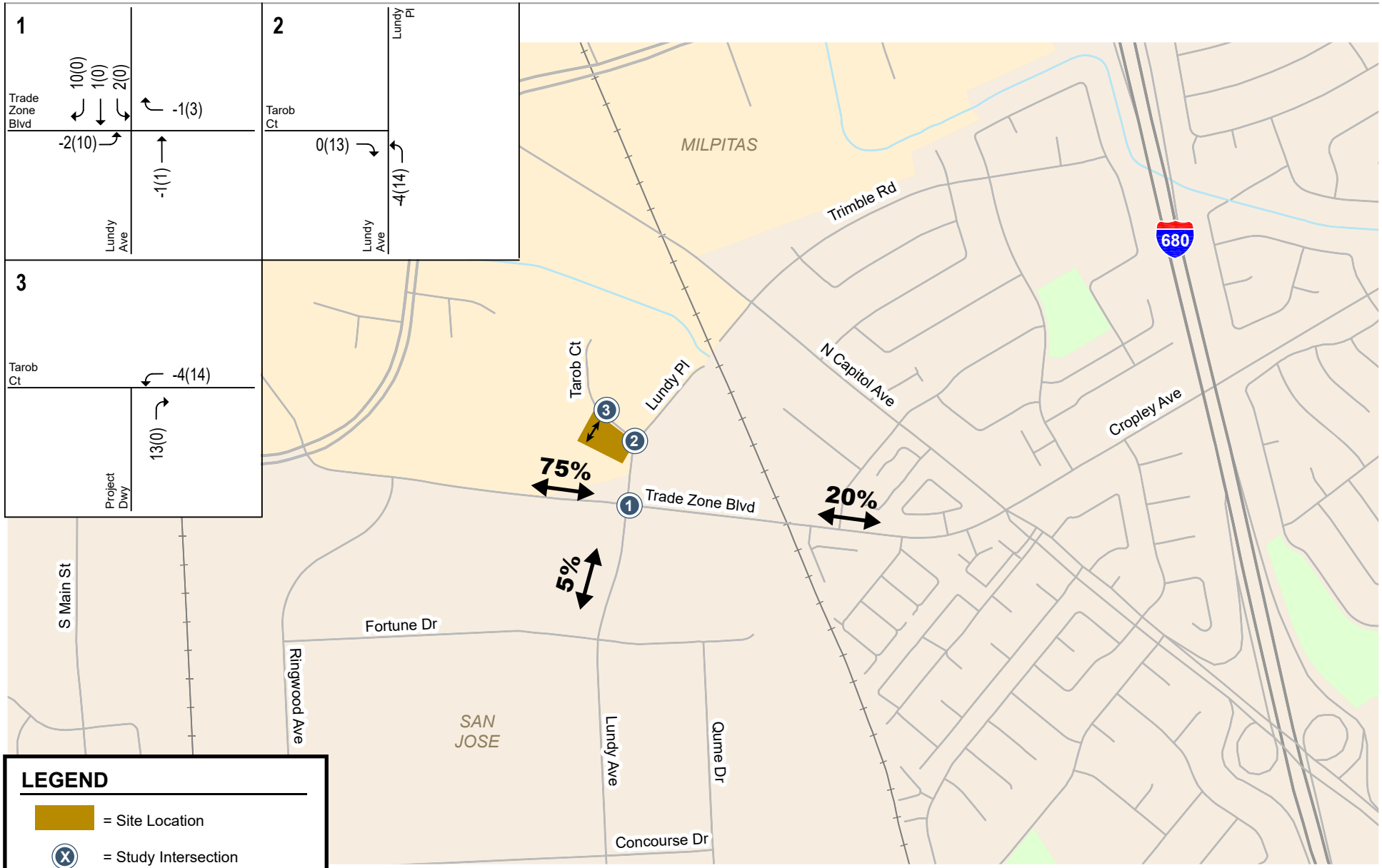


Figure 3
Project Trip Distribution and Net Project Trip Assignment

Intersection Level of Service Analysis

Traffic volumes for existing conditions were determined from existing traffic counts conducted in May 2019. Traffic volumes for background conditions were estimated by adding to the existing traffic volumes the trips generated by approved and pending developments, which were estimated using the following three components:

1. Background growth traffic volumes used in the Tarob Master Plan[1],
2. Nearby development projects, and
3. City of San Jose Approved Trips Inventory.

The traffic volumes for the study scenarios are shown in Figures 4 through 7. The roadway geometries and traffic control at the study intersections were assumed to remain unchanged under all study scenarios.

Traffic conditions at the study intersections were evaluated using level of service (LOS). *Level of Service* is a qualitative description of operating conditions ranging from LOS A, or free-flow conditions with little or no delay, to LOS F, or jammed conditions with excessive delays. The signalized intersection of Lundy Avenue and Trade Zone Boulevard is under the jurisdiction of City of San Jose. The City of San Jose utilizes TRAFFIX software and the Highway Capacity Manual (HCM) 2000 methodology to evaluate intersection operations. The HCM methodology evaluates intersection operations on the basis of average delay time for all vehicles at the intersection. This average delay can then be correlated to a level of service. In San Jose, the minimum acceptable level of service is LOS D, and project impacts at signalized intersections occur when:

1. The level of service at an intersection drops below its LOS standard when project traffic is added; or

2. An intersection that is operating worse than its level of service standard under no project conditions has an increase in critical delay of four or more seconds AND the demand-to-capacity ratio (V/C) is increased by more than 0.01 when project traffic is added.

The exception to this threshold is when the addition of project traffic reduces the amount of average delay for critical movements (i.e. the change in average delay for critical movements is negative). In this case, the threshold is when the project increases the V/C value by 0.01 or more.

A significant impact at a signalized intersection is said to be satisfactorily mitigated when measures are implemented that would restore intersection levels of service to an acceptable LOS or restore the intersection to operating levels that are better than no project conditions

The results of the intersection level of service analysis are summarized in Table 2. The level of service calculation sheets are included in Appendix B. The results show that the signalized intersection at Trade Zone Boulevard and Lundy Avenue would operate at LOS D or better under existing and background conditions with or without the proposed project. According to City of San Jose level of service standards, the project would therefore have no impacts on intersection level of service.

[1] Focused Transportation Impact Analysis for the Tarob Master Plan in Milpitas, California, dated December 16, 2016 by Fehr and Peers.

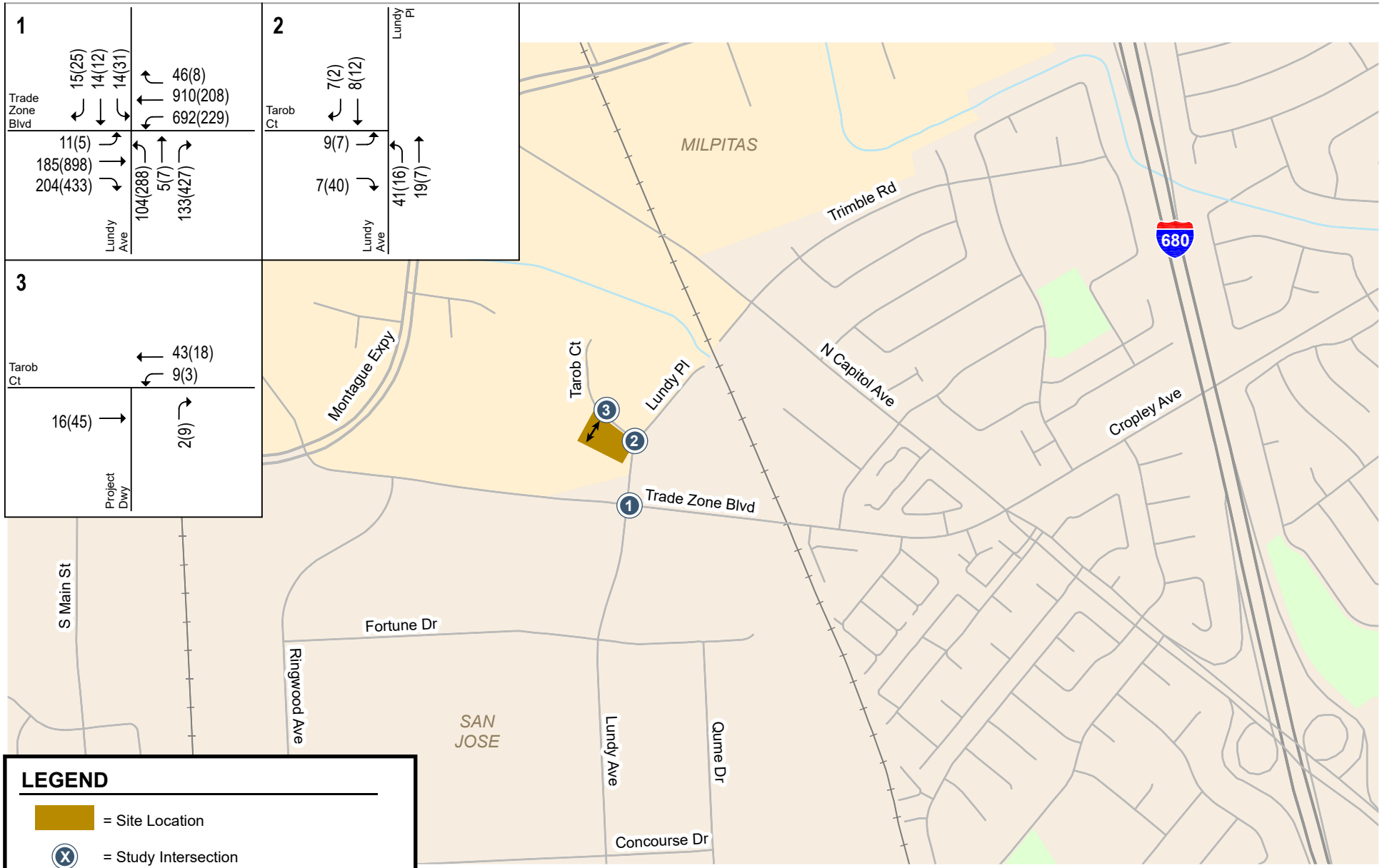


Figure 4
Existing Traffic Volumes

HEXAGON

NORTH
Not to Scale

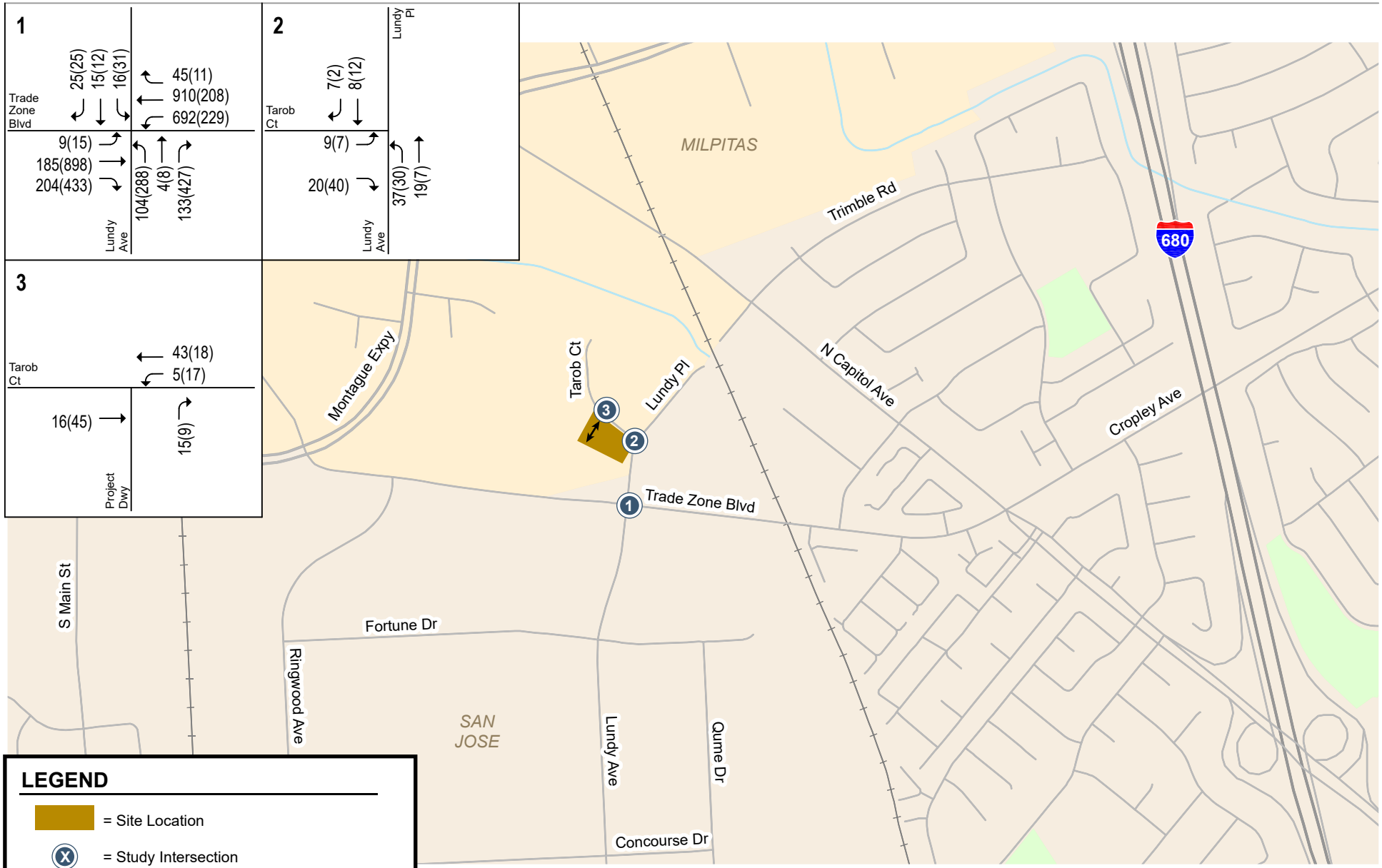


Figure 5
Existing Plus Project Traffic Volumes

HEXAGON

NORTH
Not to Scale

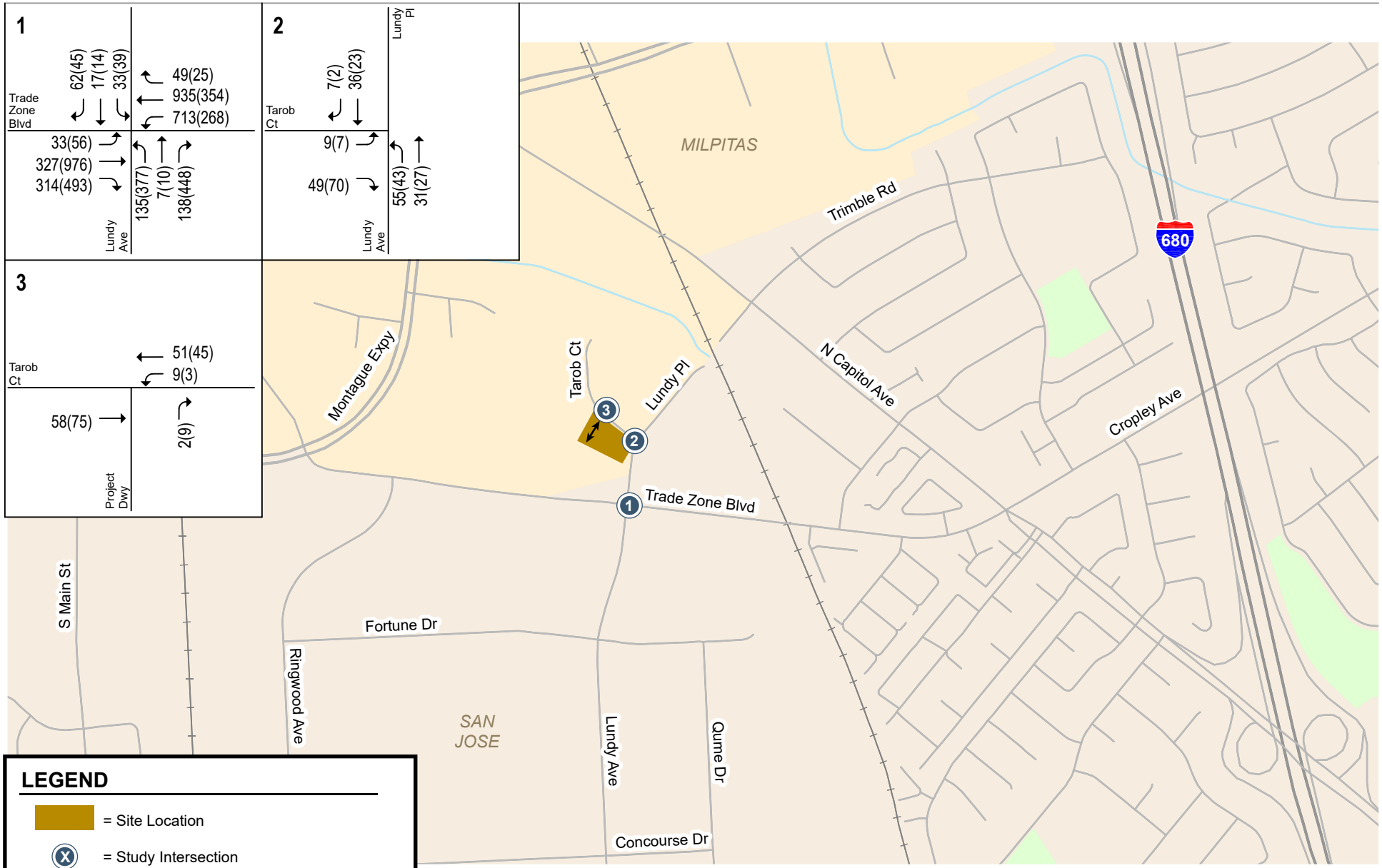


Figure 6
Background Traffic Volumes

HEXAGON

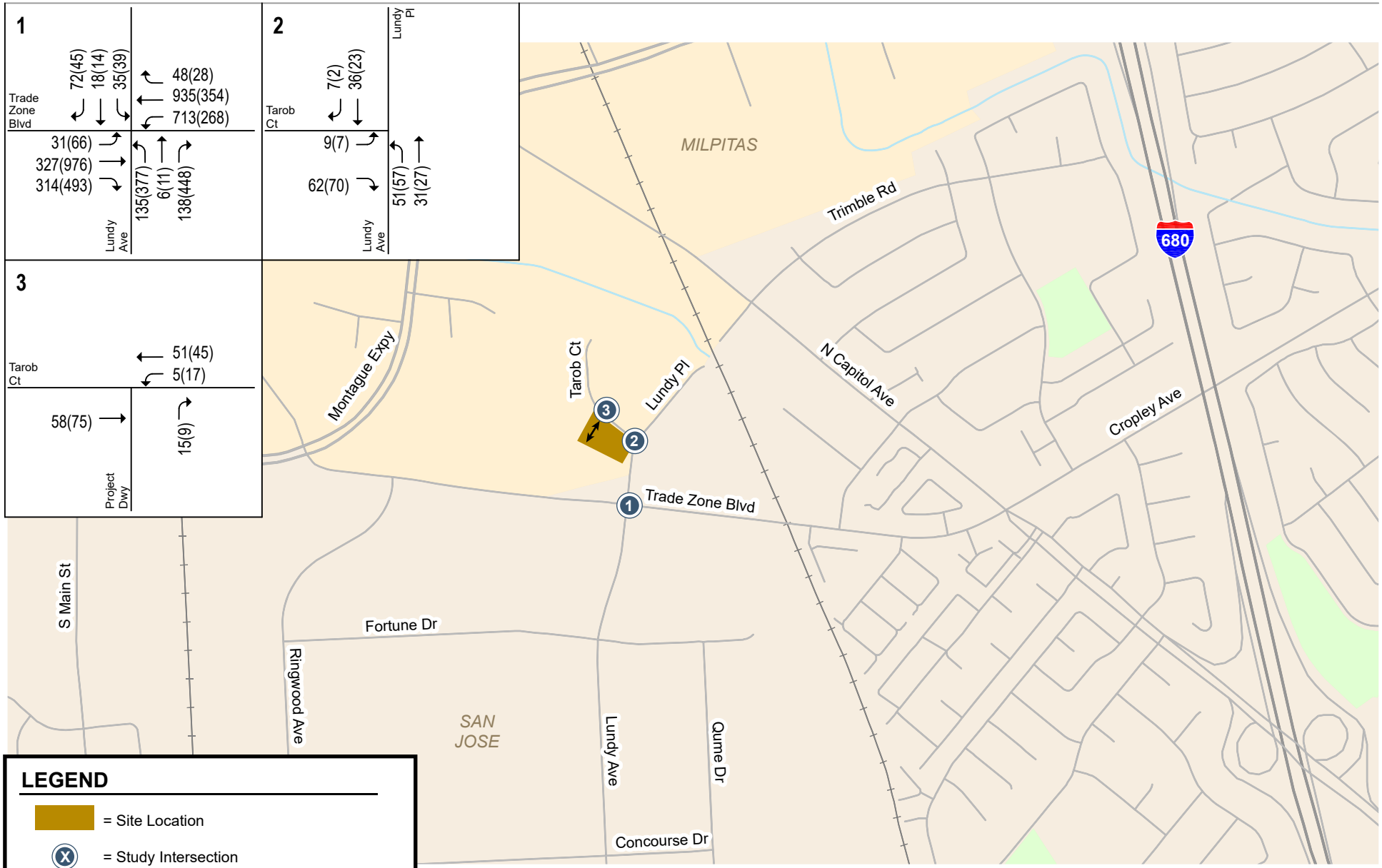


Figure 7
Background Plus Project Traffic Volumes

Table 2
Intersection Level of Service Summary

Intersection	Control	Peak Hour	Count Date	LOS Standard	Existing Avg Delay[1] (sec/veh)	Existing LOS	Existing + Project Avg Delay[1] (sec/veh)	Existing + Project LOS	Increase in Delay[3]	Increase in V/C	Background Avg Delay[1] (sec/veh)	Background LOS	Background + Project Avg Delay[1] (sec/veh)	Background + Project LOS	Increase in Delay[3]	Increase in V/C
1. Lundy Ave and Trade Zone Blvd	Signal	AM	05/02/19	D	30.3	C	32.2	C	3.50	0.045	35.4	D	35.6	D	0.0	0.001
		PM	05/02/19	D	41.8	D	44.0	D	4.10	0.048	44.7	D	44.7	D	0.0	0.000
2. Lundy Ave and Tarob Ct	SSSC [2]	AM	05/02/19	N/A	4.8/8.9	A	5.2/8.7	A	N/A	N/A	4.9/8.9	A	5.1/8.9	A	N/A	N/A
		PM	05/02/19	N/A	6.2/8.6	A	6.4/8.6	A	N/A	N/A	5.7/8.8	A	5.9/8.8	A	N/A	N/A
3. Project Driveway and Tarob Ct	SSSC [2]	AM	05/02/19	N/A	1.2/8.4	A	2.1/8.4	A	N/A	N/A	0.7/8.6	A	1.3/8.6	A	N/A	N/A
		PM	05/02/19	N/A	1.3/8.5	A	2.3/8.5	A	N/A	N/A	0.8/8.7	A	1.4/8.7	A	N/A	N/A

[1] Signalized intersection level of service is based on the Highway Capacity Manual (HCM) methodology, using average control delay for the entire intersection.
[2] Side Street Stop Controlled intersection. Delays are reported for both the overall average delay / the approach with highest delay.
[3] For the signalized intersection at Lundy Ave. and Trade Zone Blvd., the increase in delay shown here represents increase in critical delay.

The study intersections of Lundy Avenue/Tarob Court and Project Driveway/Tarob Court are unsignalized and under the jurisdiction of City of Milpitas. Unlike signalized intersections, which typically represent constraint points for the roadway network, unsignalized intersections rarely limit the potential capacity of a roadway. The determination of appropriate improvements to unsignalized intersections typically includes a qualitative and quantitative analysis of movement delay, traffic signal warrants, movement traffic volumes, availability of alternate routes, and intersection safety. For this reason, improvements to unsignalized intersections are frequently determined on the basis of professional judgment. The City of Milpitas does not apply significance thresholds to unsignalized intersections. Both unsignalized study intersections are projected to operate at LOS A under existing and background conditions, with or without the proposed project.

An assessment was conducted to determine whether the traffic volumes at the Lundy Avenue/Tarob Court intersection would warrant the installation of a traffic signal. This assessment was based on the Peak Hour Volume Signal Warrant (Warrant #3) described in the *California Manual on Uniform Traffic Control Devices (CA MUTCD)*. This method makes no evaluation of intersection level of service, but simply provides an indication whether peak hour traffic volumes would be sufficient to justify installation of a traffic signal. The signal warrant analysis sheets are included in the Appendix. The analysis showed that the peak hour volume warrant would not be satisfied at the Lundy Avenue/Tarob Court intersection under any study scenarios during the AM and PM peak hours.

Vehicle Queuing Analysis

A vehicle queuing analysis was conducted for the eastbound left-turn movement at the Trade Zone Boulevard/Lundy Avenue intersection and the northbound left-turn at the Tarob Court/Lundy Avenue intersection. The queuing analysis was conducted for both background and background plus project conditions. Vehicle queues were estimated using a Poisson probability distribution. The basis of the analysis is as follows: (1) the Poisson probability distribution is used to estimate the 95th percentile maximum number of queued vehicles per signal cycle for a particular movement; (2) the estimated maximum number of vehicles in the queue is translated into a queue length, assuming 25 feet per vehicle; and (3) the estimated maximum queue length is compared to the existing or planned available storage capacity for the movement. This analysis thus provides a basis for estimating future storage requirements at intersections. The results of this analysis are summarized below and in Table 3 for the AM and PM peak hours. The analysis indicates that, with the addition of project traffic, the 95th percentile vehicle queues could be accommodated by the storage provided at the subject locations.

Table 3
Vehicle Queuing Analysis

Measurement	Trade Zone Blvd and Lundy Ave EB Left Turn	Lundy Place and Tarob Ct NB Left Turn
Background (AM)		
Cycle/Delay[1] (sec)	116	7.4
Volume (vph)	33	55
Avg. Queue (veh)	1.1	0.1
Avg. Queue (ft.) [2]	27	3
95th %. Queue (veh)	3	1
95th %. Queue (ft.) [2]	75	25
Storage	130	125
Adequate (Y/N)	Y	Y
Background (PM)		
Cycle/Delay[1] (sec)	116	7.3
Volume (vph)	56	43
Avg. Queue (veh)	1.8	0.1
Avg. Queue (ft.) [2]	45	2
95th %. Queue (veh)	4	1
95th %. Queue (ft.) [2]	100	25
Storage	130	125
Adequate (Y/N)	Y	Y
Background + Project (AM)		
Cycle/Delay[1] (sec)	116	7.4
Volume (vph)	31	51
Avg. Queue (veh)	1.0	0.1
Avg. Queue (ft.) [2]	25	3
95th %. Queue (veh)	3	1
95th %. Queue (ft.) [2]	75	25
Storage	130	125
Adequate (Y/N)	Y	Y
Background + Project (PM)		
Cycle/Delay[1] (sec)	116	7.3
Volume (vph)	66	57
Avg. Queue (veh)	2.1	0.1
Avg. Queue (ft.) [2]	53	3
95th %. Queue (veh)	5	1
95th %. Queue (ft.) [2]	125	25
Storage	130	125
Adequate (Y/N)	Y	Y

[1] Vehicle queue calculations based on signal cycle length for signalized intersections and average movement delay for unsignalized intersections.

[2] Assumes 25 feet per vehicle queued

Impacts to Transit, Bikes, and Pedestrians

According to the VTA (Santa Clara County CMP) Transportation Impact Analysis Technical Guidelines, a project would create an impact on pedestrian and bike circulation if: (1) it would reduce, sever or eliminate existing or planned bike/pedestrian access and circulation in the area; (2) it would preclude, modify, or otherwise affect proposed bicycle and pedestrian projects and/or policies identified in the Lead Agency's adopted bicycle/pedestrian plan, or the plans of other agencies such as the Countywide Bicycle Plan or adjacent Cities' bicycle/pedestrian plans; or (3) it would cause a change to existing bike paths such as alignment, width of the trail ROW, or length of the trail.

The project site is located within the City of Milpitas Transit Area Specific Plan (TASP). The plan oversees the redevelopment of the southern portion of the City that transforms a low-density industrial area to an urban residential and mixed-use district with an emphasis on walkability and bicycling. The plan includes a new street system that promotes walking and biking as the dominant modes for short internal trips, especially with the future Milpitas BART station and VTA light rail system within close proximity to the project site. As part of the Milpitas TASP, a future street connection and pedestrian bridge across Capitol Avenue are planned to connect Tarob Court to Milpitas Boulevard and the new BART station. A proposed Class III bike route is also planned on Tarob Court to serve this new bicycle access route to the transit center.

As part of project improvements, curb extensions with new sidewalks would be installed along the Tarob Court and Lundy Place project frontages. In addition, the two existing driveways at the project site will be reduced into one new site driveway on Tarob Court, which would reduce the number of potential vehicle-pedestrian conflict points.

The proposed project would generate pedestrian trips to/from transit stops, recreation areas, and employment centers. Overall, the volume of pedestrian trips generated by the project is expected to be relatively low and not exceed the carrying capacity of the sidewalks and crosswalks nearby. U.S. Census data indicate that bicycle trips comprise less than one percent of the total commute mode share in the City of Milpitas. For the proposed project, this would equate to approximately one new bike trip during each of the AM and PM peak hours. The low volume of bicycle trips generated by the project would not exceed the bicycle-carrying capacity of streets surrounding the site, and the increase in bicycle trips would not by itself require new off-site bicycle facilities.

The addition of the project would not remove any existing bike/pedestrian facilities, nor would it preclude any future planned improvements. Because most intersections around the project site are signalized and have very few bike/pedestrian activities, the addition of project traffic would have a negligible effect on walking and biking in the project vicinity. Therefore, the proposed project would not create an adverse impact to bike/pedestrian circulation in the area.

According to the VTA TIA Technical Guidelines, a project would create an impact on transit if: (1) it would generate a demand for additional transit services; or (2) it would cause a permanent or temporary reduction of transit availability or interference with existing transit users, e.g., relocation/closure of a transit stop or vacation of a roadway utilized by transit.

According to the Milpitas TASP, transit trips would comprise approximately 9% of all peak hour trips. For the proposed project, assuming 9 percent of total commute trips would be transit trips, this would generate approximately 1 new transit trip during the AM peak hour and 2 new transit trips during the PM peak hour. In addition to commute trips, there will be additional transit trips to nearby schools, parks, and shopping areas. The volume of transit trips generated by the project would not exceed the carrying capacity of the existing transit service to the site.

The addition of the project would not remove any existing transit facilities, nor would it preclude any future planned improvements. As shown in the LOS calculations, the addition of project traffic would have a negligible effect on bus delays the project vicinity. Therefore, based on the VTA Technical Guidelines, the proposed project would not create an adverse impact to transit operations in the area and no

improvements to existing transit service frequencies would be necessary in conjunction with the proposed project.

Site Access

This site access and circulation review is based on the site plan (dated October 2018) provided to Hexagon (see Figure 2). The site would be accessed by one driveway on Tarob Court on the west end of the property, about 200 feet west of the intersection at Lundy Place and Tarob Court. The proposed site driveway would be located at approximately the same location as the existing driveway on Tarob Court for the existing building at the project site. The width of the site driveway entry is 22 feet, which meets the minimum City standard for driveways. Under project conditions, it is anticipated that this driveway would serve approximately 20 AM peak hour project trips and 26 PM peak hour project trips. The project condition traffic volumes at the site driveway are shown on Figure 2.

There are existing driveways serving other parcels on Tarob Court adjacent to and opposite of the project frontage. The site driveway does not align with the existing driveway on the opposite side of Tarob Court, but is offset about 25 feet. There is also another existing driveway beside the site driveway on Tarob Court about 50 feet to the west. The spacing of the site driveway, and its location relative to existing driveways, are acceptable given the relatively low traffic volumes at the nearby driveways and Tarob Court.

According to the level of service and queuing calculations, the site driveway would operate at LOS A with queues rarely exceed one or two vehicles during the AM and PM peak hours. The vehicle queues at the site driveway could be accommodated in the storage space provided, and the onsite queues would generally not interfere with traffic operations on Tarob Court and Lundy Avenue.

Pedestrian access to the project site is provided at locations along the frontage on Tarob Court and Lundy Place. Primary pedestrian access is provided via the main entry facing the sidewalks on Tarob Court. Besides the primary access on Tarob Court, there would be walking paths connecting the parking garage with the existing sidewalks on Lundy Place on the east side of the property. As mentioned previously, new sidewalks with curb extensions will also be installed on the project frontage on Tarob Court, providing a continuous pedestrian pathway to existing sidewalks on Trade Zone Boulevard via Lundy Place. Overall, the network of pedestrian paths and the sidewalk improvements on the project frontages provide adequate access to the existing sidewalk network in the project vicinity.

> **Recommendation 1:** To accommodate pedestrians, the project should consider adding one new ADA-compliant curb ramp at the existing northwest curb return at Tarob Court and Lundy Place (along the project frontage). A striped crosswalk is also recommended when the opposite side of the curb return would be upgraded with a new curb ramp along with the redevelopment of the parcel at 1996 Tarob Court.

Currently, the Tarob Court approach at the Tarob Court/Lundy Place intersection is yield controlled. If the striped crosswalk described above were to be added, the Tarob Court approach should also be converted to a stop-controlled approach in order to improve safety for crossing pedestrians.

The sight distance at the project driveway on Tarob Court was checked and determined to be adequate. Because the project would install a curb extension, which includes adding sidewalks on the Tarob Court frontage, the site driveway would be shifted closer to the centerline of Tarob Court, thereby further improving the sight distance for vehicles exiting the site driveway. As part of the project improvements, the radius of the existing curb return along the project frontage at the Lundy Place/Tarob Court intersection would be reduced. This improvement would help reduce vehicle speeds on Tarob Court, and therefore, improve the sight distance required for vehicles entering and exiting the driveways.

> **Recommendation 2:** Prior to final design, the placement of any landscaping, monuments, and signs within the sight triangles of the site driveway should be reviewed by Public Works staff to ensure adequate corner sight distance.

Recommendation 3: As a result of the proposed curb extensions on Tarob Court and Lundy Avenue, the cross-section widths for both streets would be reduced and on-street parking would not be able to be accommodated. Therefore, on-street parking along the project frontages on Tarob Court and Lundy Avenue should be restricted.

Site Circulation

The project site includes an open parking lot and a parking garage on the ground level. Onsite parking areas would be accessed by one site driveway on Tarob Court. Both the open parking lot and parking garage follow a standard 90-degree parking layout. The main parking aisle and the two east-west feeder parking aisles inside the garage are 26 and 24 feet wide, respectively, which meets the City's standard for 90-degree parking. However, the north-south parking aisle connecting the two east-west parking aisle is not dimensioned. The dimensions of the regular and compact parking spaces are 9 feet by 18 feet and 8 feet by 15 feet, respectively. Both parking space dimensions meet the minimum City standards. However, the widths of the parking garage entrances are not dimensioned.

Upon entering the garage, vehicles would follow the main drive aisle through the open parking lot and arrive at a roundabout at the southern end of the aisle. The two feeder drive aisles, which are connected at right angles to the main drive aisle, would provide access to the parking garage east of the main drive aisle. The ends of the two feeder drive aisles are connected by another drive aisle, forming a U-shape circulation pattern which makes a complete loop around of the parking garage. The layout shows no dead-end aisles.

Recommendation 4: Because the proposed site plan is conceptual, prior to final design, the design and layout of the parking garage, drive aisles and driveways, should be reviewed by Public Works staff.

The last two parking spaces (numbered 67 and 68) in the open parking lot located off the main drive aisle are approximately 20 feet south of the sidewalk on Tarob Court, and approximately 30 feet south of the beginning of the site driveway. Vehicles parked in these spaces would have to back out directly into the main site access aisle, potentially into the line of incoming traffic on the aisle just turning into the site driveway. However, given the low traffic volumes at the site driveway and on Tarob Court, the design is acceptable.

The site plan shows one elevator at the front lobby that would provide residents access to the parking garage. The sidewalk on Tarob Court would be accessed directly from the front lobby while the sidewalk on Lundy Avenue would be accessed from pedestrian pathways connecting with the parking garage. No bicycle parking facilities are shown on the site plan.

Recommendation 5: The project applicant should demonstrate that adequate short term and long term bicycle parking is provided in accordance with City of Milpitas parking code requirements.

A trash collection room is located adjacent to the roundabout at the southern entrance of the parking garage. The roundabout has a 80-foot outside diameter and a 26 feet wide lane that would allow turnaround maneuvers of garbage trucks as noted on the site plan. Therefore, garbage trucks would perform their operations onsite within the development. The site plan does not show a designated loading area for delivery trucks.

Recommendation 6: The project should indicate on the site plan loading locations for delivery trucks.

Conclusions & Recommendations

The impacts of the proposed project were evaluated in accordance with the procedures and guidelines specified by the City of Milpitas. The analysis resulted in the following key findings:

- The proposed project would not result in any level of service impacts to the study intersections.
- The proposed project would not result in any queuing storage deficiencies at the study intersections.
- The project would not create any impacts on pedestrian, bike, or transit facilities.

The analysis also produced the following recommendations:

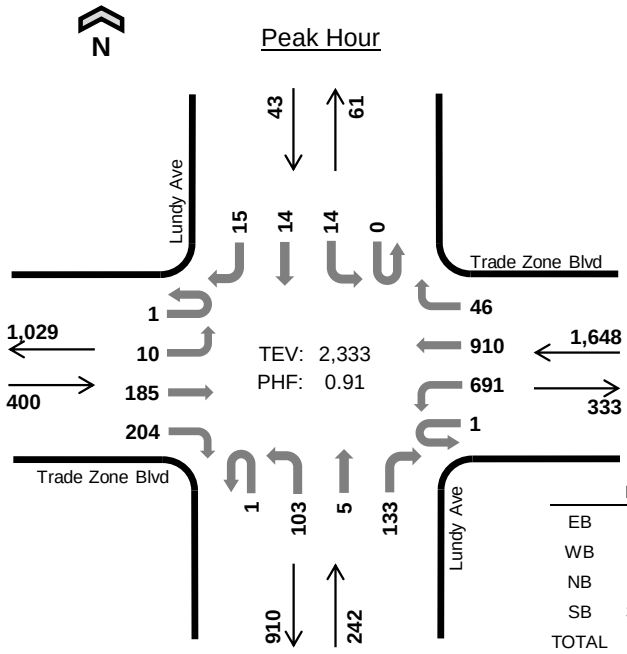
- To accommodate pedestrians, the project should consider adding one new ADA-compliant curb ramp along the project frontage curb return at the Tarob Court and Lundy Place intersection. A striped crosswalk is also recommended when the opposite side of the curb return would be upgraded with a new curb ramp along with the redevelopment of the parcel at 1996 Tarob Court.
- Prior to final design, the placement of any landscaping, monuments, and signs within the sight triangles of the site driveway should be reviewed by Public Works staff to ensure adequate corner sight distance.
- As a result of the proposed curb extensions on Tarob Court and Lundy Place, the cross-section widths for both streets would be reduced and on-street parking would not be able to be accommodated. Therefore, on-street parking along the project frontages on Tarob Court and Lundy Place should be restricted.
- Because the proposed site plan is conceptual, prior to final design, the design and layout of the parking garage, drive aisles and driveways, should be reviewed by Public Works staff.
- The project applicant should demonstrate that adequate short term and long term bicycle parking is provided in accordance with City of Milpitas parking code requirements.
- The project should indicate on the site plan loading locations for delivery trucks.

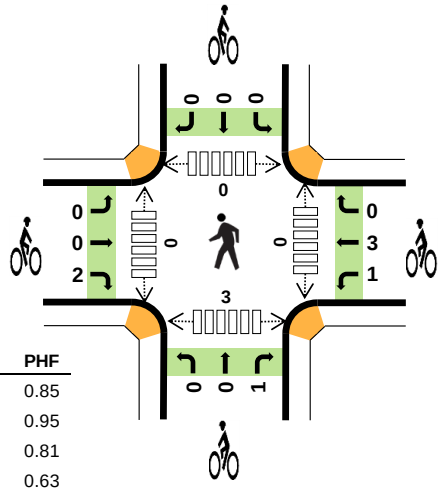
APPENDIX

Traffic Counts

Lundy Ave
Trade Zone Blvd

Date: 05-02-2019
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 8:00 AM to 9:00 AM





	HV %:	PHF
EB	4.0%	0.85
WB	1.5%	0.95
NB	5.0%	0.81
SB	34.9%	0.63
TOTAL	2.9%	0.91

Two-Hour Count Summaries

Interval Start	Trade Zone Blvd Eastbound				Trade Zone Blvd Westbound				Lundy Ave Northbound				Lundy Ave Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	1	2	43	27	0	46	207	9	0	27	3	29	0	1	1	3	399	0
7:15 AM	0	7	36	40	0	76	216	13	0	15	1	25	0	0	0	3	432	0
7:30 AM	0	5	46	39	0	102	207	7	0	36	0	34	0	0	0	3	479	0
7:45 AM	0	1	43	54	0	135	214	14	0	22	2	33	0	4	0	2	524	1,834
8:00 AM	**0**	**3**	**40**	**44**	**0**	**140**	**225**	**13**	**0**	**27**	**2**	**42**	**0**	**2**	**2**	**3**	**543**	1,978
8:15 AM	**0**	**2**	**41**	**45**	**1**	**176**	**249**	**9**	**1**	**21**	**0**	**25**	**0**	**3**	**3**	**3**	**579**	2,125
8:30 AM	**0**	**2**	**48**	**57**	**0**	**184**	**217**	**6**	**0**	**21**	**2**	**26**	**0**	**3**	**2**	**5**	**573**	2,219
8:45 AM	**1**	**3**	**56**	**58**	**0**	**191**	**219**	**18**	**0**	**34**	**1**	**40**	**0**	**6**	**7**	**4**	**638**	**2,333**
Count Total	2	25	353	364	1	1,050	1,754	89	1	203	11	254	0	19	15	26	4,167	0
Peak Hour All	**1**	**10**	**185**	**204**	**1**	**691**	**910**	**46**	**1**	**103**	**5**	**133**	**0**	**14**	**14**	**15**	**2,333**	**0**
Peak Hour HV	**0**	**2**	**2**	**12**	**0**	**4**	**10**	**11**	**0**	**8**	**1**	**3**	**0**	**7**	**1**	**7**	**68**	**0**
Peak Hour HV%	**0%**	**20%**	**1%**	**6%**	**0%**	**1%**	**1%**	**24%**	**0%**	**8%**	**20%**	**2%**	**-**	**50%**	**7%**	**47%**	**3%**	**0**

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	4	2	3	1	*10*	0	0	0	0	*0*	0	0	0	0	*0*
7:15 AM	3	2	3	1	*9*	0	0	0	0	*0*	1	0	0	2	*3*
7:30 AM	4	5	5	1	*15*	1	0	0	0	*1*	0	1	1	0	*2*
7:45 AM	4	8	3	2	*17*	0	0	0	0	*0*	0	0	0	0	*0*
8:00 AM	**4**	**7**	**1**	**2**	***14***	**0**	**1**	**0**	**0**	***1***	**0**	**0**	**0**	**0**	*0*
8:15 AM	**3**	**4**	**3**	**3**	***13***	**0**	**2**	**0**	**0**	***2***	**0**	**0**	**0**	**1**	*1*
8:30 AM	**5**	**6**	**3**	**5**	***19***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**2**	*2*
8:45 AM	**4**	**8**	**5**	**5**	***22***	**2**	**1**	**1**	**0**	***4***	**0**	**0**	**0**	**0**	***0***
Count Total	31	42	26	20	*119*	3	4	1	0	*8*	1	1	1	5	*8*
Peak Hour	**16**	**25**	**12**	**15**	***68***	**2**	**4**	**1**	**0**	***7***	**0**	**0**	**0**	**3**	***3***

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	Trade Zone Blvd				Trade Zone Blvd				Lundy Ave				Lundy Ave				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	1	2	1	0	0	2	0	0	1	0	2	0	0	0	1	10	0
7:15 AM	0	2	0	1	0	0	1	1	0	1	0	2	0	0	0	1	9	0
7:30 AM	0	0	1	3	0	1	3	1	0	5	0	0	0	0	0	1	15	0
7:45 AM	0	0	3	1	0	1	3	4	0	1	0	2	0	2	0	0	17	51
8:00 AM	**0**	**0**	**1**	**3**	**0**	**2**	**1**	**4**	**0**	**1**	**0**	**0**	**0**	**2**	**0**	**0**	**14**	55
8:15 AM	**0**	**1**	**1**	**1**	**0**	**0**	**3**	**1**	**0**	**2**	**0**	**1**	**0**	**1**	**1**	**1**	**13**	59
8:30 AM	**0**	**1**	**0**	**4**	**0**	**1**	**3**	**2**	**0**	**1**	**1**	**1**	**0**	**2**	**0**	**3**	**19**	63
8:45 AM	**0**	**0**	**0**	**4**	**0**	**1**	**3**	**4**	**0**	**4**	**0**	**1**	**0**	**2**	**0**	**3**	**22**	**68**
Count Total	0	5	8	18	0	6	19	17	0	16	1	9	0	9	1	10	119	0
Peak Hour	**0**	**2**	**2**	**12**	**0**	**4**	**10**	**11**	**0**	**8**	**1**	**3**	**0**	**7**	**1**	**7**	**68**	**0**

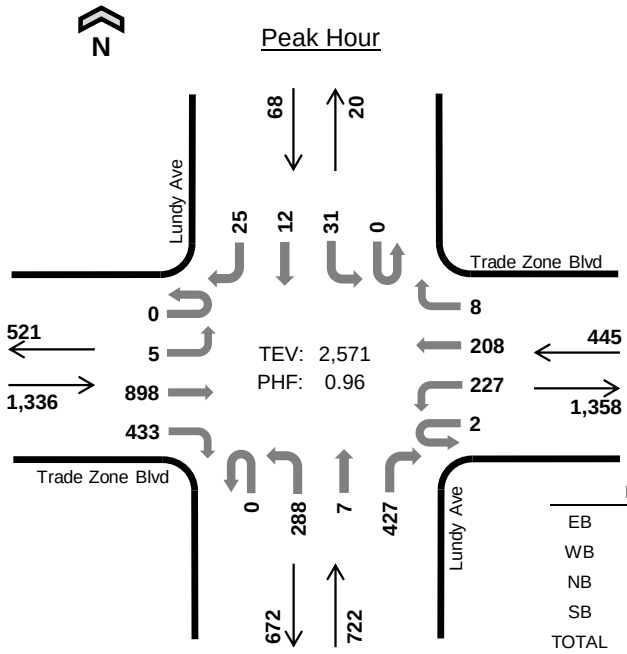
Two-Hour Count Summaries - Bikes

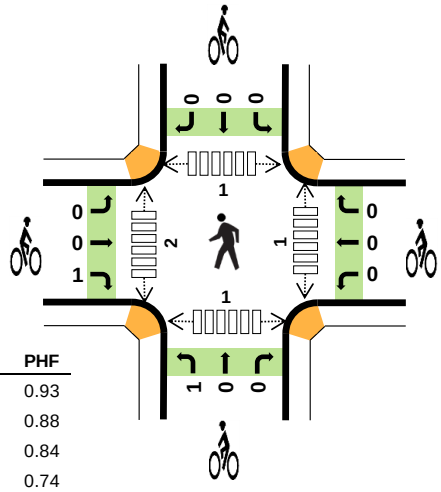
Interval Start	Trade Zone Blvd			Trade Zone Blvd			Lundy Ave			Lundy Ave			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	1	0	0	0	0	0	0	0	0	0	1	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:00 AM	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	2
8:15 AM	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	4
8:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	3
8:45 AM	**0**	**0**	**2**	**1**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**4**	**7**
Count Total	0	0	3	1	3	0	0	0	1	0	0	0	8	0
Peak Hour	**0**	**0**	**2**	**1**	**3**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**7**	**0**

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Lundy Ave
Trade Zone Blvd

Date: 05-02-2019
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 5:00 PM to 6:00 PM





	HV %:	PHF
EB	1.2%	0.93
WB	0.9%	0.88
NB	1.2%	0.84
SB	2.9%	0.74
TOTAL	1.2%	0.96

Two-Hour Count Summaries

Interval Start	Trade Zone Blvd Eastbound				Trade Zone Blvd Westbound				Lundy Ave Northbound				Lundy Ave Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	4	176	93	0	47	36	3	0	51	1	89	0	6	5	8	519	0
4:15 PM	0	4	214	100	0	49	42	2	0	63	3	91	0	4	4	8	584	0
4:30 PM	1	2	248	102	0	60	47	2	0	65	0	102	0	7	1	2	639	0
4:45 PM	1	4	230	106	0	41	58	1	1	64	0	102	0	6	1	4	619	2,361
5:00 PM	**0**	**1**	**186**	**105**	**0**	**54**	**47**	**3**	**0**	**97**	**2**	**117**	**0**	**15**	**3**	**4**	**634**	2,476
5:15 PM	**0**	**2**	**241**	**116**	**1**	**45**	**46**	**1**	**0**	**51**	**0**	**95**	**0**	**10**	**5**	**8**	**621**	2,513
5:30 PM	**0**	**0**	**226**	**118**	**0**	**63**	**62**	**1**	**0**	**80**	**2**	**104**	**0**	**4**	**2**	**7**	**669**	2,543
5:45 PM	**0**	**2**	**245**	**94**	**1**	**65**	**53**	**3**	**0**	**60**	**3**	**111**	**0**	**2**	**2**	**6**	**647**	**2,571**
Count Total	2	19	1,766	834	2	424	391	16	1	531	11	811	0	54	23	47	4,932	0
Peak Hour All	**0**	**5**	**898**	**433**	**2**	**227**	**208**	**8**	**0**	**288**	**7**	**427**	**0**	**31**	**12**	**25**	**2,571**	**0**
Peak Hour HV	**0**	**1**	**4**	**11**	**0**	**2**	**2**	**0**	**0**	**8**	**0**	**1**	**0**	**0**	**0**	**2**	**31**	**0**
Peak Hour HV%	**-**	**20%**	**0%**	**3%**	**0%**	**1%**	**1%**	**0%**	**-**	**3%**	**0%**	**0%**	**-**	**0%**	**0%**	**8%**	**1%**	**0**

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	4	1	7	1	*13*	0	0	0	0	*0*	0	0	0	0	*0*
4:15 PM	5	2	3	2	*12*	0	0	0	0	*0*	0	0	0	0	*0*
4:30 PM	7	4	2	0	*13*	0	0	0	0	*0*	0	0	0	0	*0*
4:45 PM	2	3	4	1	*10*	0	0	0	0	*0*	0	0	0	0	*0*
5:00 PM	**6**	**2**	**2**	**0**	***10***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:15 PM	**5**	**2**	**3**	**0**	***10***	**1**	**0**	**0**	**0**	***1***	**1**	**1**	**0**	**0**	*2*
5:30 PM	**0**	**0**	**1**	**1**	***2***	**0**	**0**	**1**	**0**	***1***	**0**	**1**	**0**	**1**	*2*
5:45 PM	**5**	**0**	**3**	**1**	***9***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**1**	**0**	***1***
Count Total	34	14	25	6	*79*	1	0	1	0	*2*	1	2	1	1	*5*
Peak Hour	**16**	**4**	**9**	**2**	***31***	**1**	**0**	**1**	**0**	***2***	**1**	**2**	**1**	**1**	***5***

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	Trade Zone Blvd				Trade Zone Blvd				Lundy Ave				Lundy Ave				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	4	0	0	0	1	0	6	0	1	0	0	0	1	13	0
4:15 PM	0	0	2	3	0	0	2	0	0	2	0	1	0	0	0	2	12	0
4:30 PM	0	1	2	4	0	3	0	1	0	1	0	1	0	0	0	0	13	0
4:45 PM	0	0	0	2	0	0	3	0	0	4	0	0	0	0	0	1	10	48
5:00 PM	**0**	**0**	**2**	**4**	**0**	**1**	**1**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**10**	45
5:15 PM	**0**	**0**	**1**	**4**	**0**	**1**	**1**	**0**	**0**	**2**	**0**	**1**	**0**	**0**	**0**	**0**	**10**	43
5:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**2**	32
5:45 PM	**0**	**1**	**1**	**3**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**1**	**9**	**31**
Count Total	0	2	8	24	0	5	7	2	0	21	0	4	0	0	0	6	79	0
Peak Hour	**0**	**1**	**4**	**11**	**0**	**2**	**2**	**0**	**0**	**8**	**0**	**1**	**0**	**0**	**0**	**2**	**31**	**0**

Two-Hour Count Summaries - Bikes

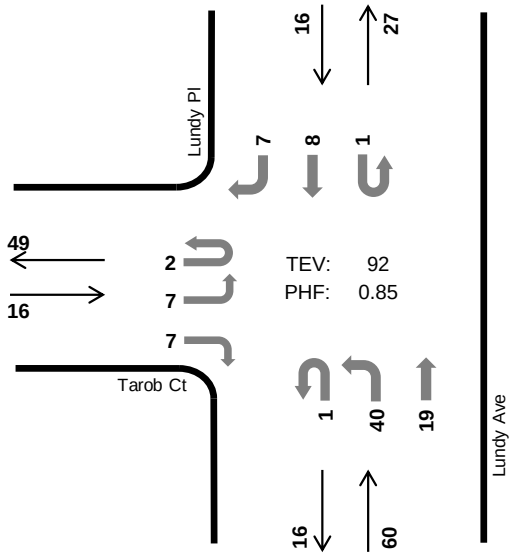
Interval Start	Trade Zone Blvd			Trade Zone Blvd			Lundy Ave			Lundy Ave			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
5:15 PM	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	1
5:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	2
5:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**
Count Total	0	0	1	0	0	0	1	0	0	0	0	0	2	0
Peak Hour	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**2**	**0**

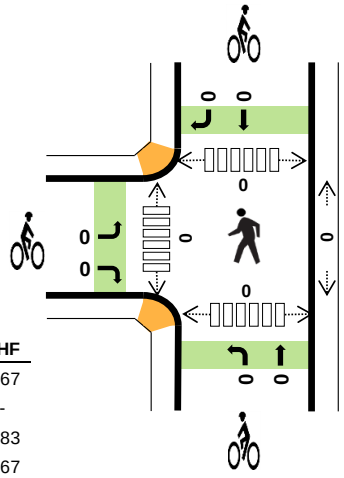
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Lundy Ave
Tarob Ct

Date: 05-02-2019
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:15 AM to 8:15 AM

Peak Hour





	HV %:	PHF
EB	37.5%	0.67
WB	-	-
NB	20.0%	0.83
SB	31.3%	0.67
TOTAL	25.0%	0.85

Two-Hour Count Summaries

Interval Start		Tarob Ct Eastbound				n/a Westbound				Lundy Ave Northbound				Lundy Pl Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	1	0	2	0	0	0	0	0	8	5	0	0	0	1	1	18	0
7:15 AM		**0**	**2**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**11**	**7**	**0**	**0**	**0**	**0**	**6**	**27**	0
7:30 AM		**0**	**2**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**7**	**4**	**0**	**0**	**0**	**1**	**1**	**16**	0
7:45 AM		**1**	**1**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**13**	**4**	**0**	**1**	**0**	**5**	**0**	**27**	88
8:00 AM		**1**	**2**	**0**	**3**	**0**	**0**	**0**	**0**	**1**	**9**	**4**	**0**	**0**	**0**	**2**	**0**	**22**	**92**
8:15 AM		0	0	0	2	0	0	0	0	0	3	3	0	0	0	5	0	13	78
8:30 AM		0	0	0	2	0	0	0	0	0	8	3	0	0	0	7	2	22	84
8:45 AM		0	1	0	3	0	0	0	0	0	5	6	0	0	0	3	0	18	75
Count Total		2	9	0	16	0	0	0	0	1	64	36	0	1	0	24	10	163	0
Peak Hour	**All**	**2**	**7**	**0**	**7**	**0**	**0**	**0**	**0**	**1**	**40**	**19**	**0**	**1**	**0**	**8**	**7**	**92**	**0**
	HV	**2**	**2**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**6**	**6**	**0**	**1**	**0**	**4**	**0**	**23**	**0**
	HV%	**100%**	**29%**	**-**	**29%**	**-**	**-**	**-**	**-**	**0%**	**15%**	**32%**	**-**	**100%**	**-**	**50%**	**0%**	**25%**	**0**

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	1	0	1	2	*4*	0	0	0	0	*0*	0	0	0	0	*0*
7:15 AM	**1**	**0**	**3**	**0**	***4***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:30 AM	**2**	**0**	**1**	**0**	***3***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:45 AM	**1**	**0**	**4**	**3**	***8***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
8:00 AM	**2**	**0**	**4**	**2**	***8***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
8:15 AM	0	0	1	4	*5*	0	0	0	0	*0*	0	0	0	0	*0*
8:30 AM	0	0	5	8	*13*	0	0	0	0	*0*	1	0	0	0	*1*
8:45 AM	3	0	3	2	*8*	0	0	0	0	*0*	0	0	1	0	*1*
Count Total	10	0	22	21	*53*	0	0	0	0	*0*	1	0	1	0	*2*
Peak Hr	**6**	**0**	**12**	**5**	***23***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	Tarob Ct				n/a				Lundy Ave				Lundy Pl				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	1	1	4	0
7:15 AM	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	0
7:30 AM	**0**	**1**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	0
7:45 AM	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**3**	**0**	**1**	**0**	**2**	**0**	**8**	19
8:00 AM	**1**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**3**	**0**	**0**	**0**	**2**	**0**	**8**	**23**
8:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	4	0	5	24
8:30 AM	0	0	0	0	0	0	0	0	0	2	3	0	0	0	6	2	13	34
8:45 AM	0	1	0	2	0	0	0	0	0	0	3	0	0	0	2	0	8	34
Count Total	2	4	0	4	0	0	0	0	0	9	13	0	1	0	17	3	53	0
Peak Hour	**2**	**2**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**6**	**6**	**0**	**1**	**0**	**4**	**0**	**23**	**0**

Two-Hour Count Summaries - Bikes

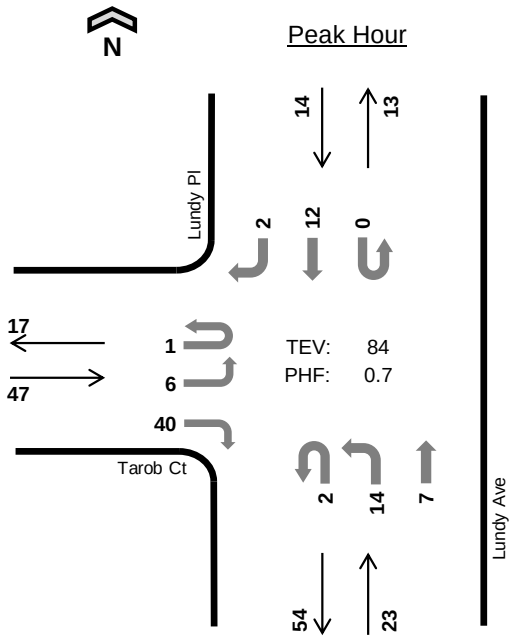
Interval Start	Tarob Ct			0			Lundy Ave			Lundy Pl			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
7:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
7:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

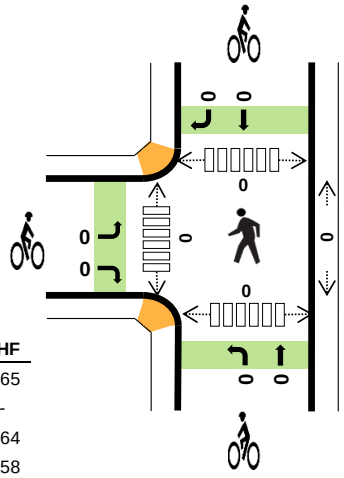
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Lundy Ave
Tarob Ct

Date: 05-02-2019
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:00 PM to 5:00 PM

Peak Hour





	HV %:	PHF
EB	10.6%	0.65
WB	-	-
NB	13.0%	0.64
SB	14.3%	0.58
TOTAL	11.9%	0.70

Two-Hour Count Summaries

Interval Start		Tarob Ct Eastbound				n/a Westbound				Lundy Ave Northbound				Lundy Pl Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		**0**	**3**	**0**	**15**	**0**	**0**	**0**	**0**	**0**	**3**	**4**	**0**	**0**	**0**	**5**	**0**	**30**	0
4:15 PM		**0**	**1**	**0**	**11**	**0**	**0**	**0**	**0**	**1**	**7**	**1**	**0**	**0**	**0**	**2**	**0**	**23**	0
4:30 PM		**0**	**1**	**0**	**6**	**0**	**0**	**0**	**0**	**0**	**3**	**1**	**0**	**0**	**0**	**4**	**2**	**17**	0
4:45 PM		**1**	**1**	**0**	**8**	**0**	**0**	**0**	**0**	**1**	**1**	**1**	**0**	**0**	**0**	**1**	**0**	**14**	**84**
5:00 PM		0	1	0	15	0	0	0	0	1	2	1	0	0	0	4	3	27	81
5:15 PM		1	1	0	13	0	0	0	0	0	3	0	0	0	0	5	1	24	82
5:30 PM		0	0	0	10	0	0	0	0	0	0	2	0	0	0	1	0	13	78
5:45 PM		0	1	0	8	0	0	0	0	1	4	2	0	0	0	1	1	18	82
Count Total		2	9	0	86	0	0	0	0	4	23	12	0	0	0	23	7	166	0
Peak Hour	**All**	**1**	**6**	**0**	**40**	**0**	**0**	**0**	**0**	**2**	**14**	**7**	**0**	**0**	**0**	**12**	**2**	**84**	**0**
	HV	**0**	**2**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**1**	**2**	**0**	**0**	**0**	**1**	**1**	**10**	**0**
	HV%	**0%**	**33%**	**-**	**8%**	**-**	**-**	**-**	**-**	**0%**	**7%**	**29%**	**-**	**-**	**-**	**8%**	**50%**	**12%**	**0**

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	**2**	**0**	**1**	**1**	***4***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
4:15 PM	**1**	**0**	**0**	**0**	***1***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
4:30 PM	**1**	**0**	**2**	**1**	***4***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
4:45 PM	**1**	**0**	**0**	**0**	***1***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
5:00 PM	1	0	0	1	*2*	0	0	0	0	*0*	0	0	0	0	*0*
5:15 PM	0	0	0	0	*0*	0	0	0	0	*0*	1	0	0	0	*1*
5:30 PM	1	0	0	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
5:45 PM	0	0	1	1	*2*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	7	0	4	4	*15*	0	0	0	0	*0*	1	0	0	0	*1*
Peak Hr	**5**	**0**	**3**	**2**	***10***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	Tarob Ct				n/a				Lundy Ave				Lundy Pl				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	**0**	**1**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**0**	**4**	0
4:15 PM	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	0
4:30 PM	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**1**	**4**	0
4:45 PM	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**10**
5:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	8
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
5:30 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	4
5:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	5
Count Total	0	3	0	4	0	0	0	0	0	1	3	0	0	0	2	2	15	0
Peak Hour	**0**	**2**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**1**	**2**	**0**	**0**	**0**	**1**	**1**	**10**	**0**

Two-Hour Count Summaries - Bikes

Interval Start	Tarob Ct			0			Lundy Ave			Lundy Pl			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
4:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
4:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
4:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
4:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

IDAX Data Solutions
19205 - Milpitas - Tarob Court Counts
5/2/2019

	Driveway 1: Lundy Ave			
	In		Out	
Time:	NB L	SB R	EB R	EB L
7:00	1	0	0	0
7:15	1	0	2	0
7:30	1	0	0	0
7:45	1	0	0	0
8:00	0	0	0	0
8:15	1	1	1	0
8:30	0	0	0	0
8:45	0	0	1	0
16:00	0	0	1	0
16:15	0	0	0	0
16:30	0	0	0	0
16:45	1	0	2	0
17:00	1	0	2	0
17:15	0	0	2	0
17:30	0	1	1	0
17:45	1	0	1	0
AM Peak	4	0	2	0
PM Peak	2	1	7	0
Total:	6	1	9	0

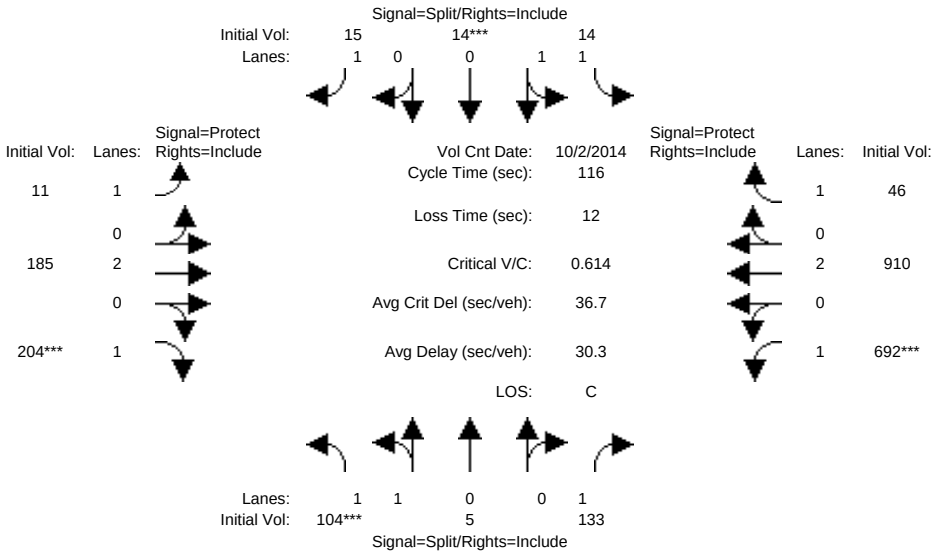
	Driveway 2: Tarob Ct			
	In		Out	
Time:	EB R	WB L	NB R	NB L
7:00	0	0	0	0
7:15	0	4	0	0
7:30	0	0	0	0
7:45	0	1	0	0
8:00	0	0	0	0
8:15	0	0	1	0
8:30	0	0	1	0
8:45	0	1	0	0
16:00	0	0	1	0
16:15	0	0	0	0
16:30	0	0	1	0
16:45	0	0	0	0
17:00	0	0	2	0
17:15	0	0	0	0
17:30	0	0	0	0
17:45	0	0	0	0
AM Peak	0	5	0	0
PM Peak	0	0	2	0
Total:	0	5	2	0

LOS Calculations

2001 Tarob Court

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing AM

Intersection #1: LUNDY/TRADE ZONE



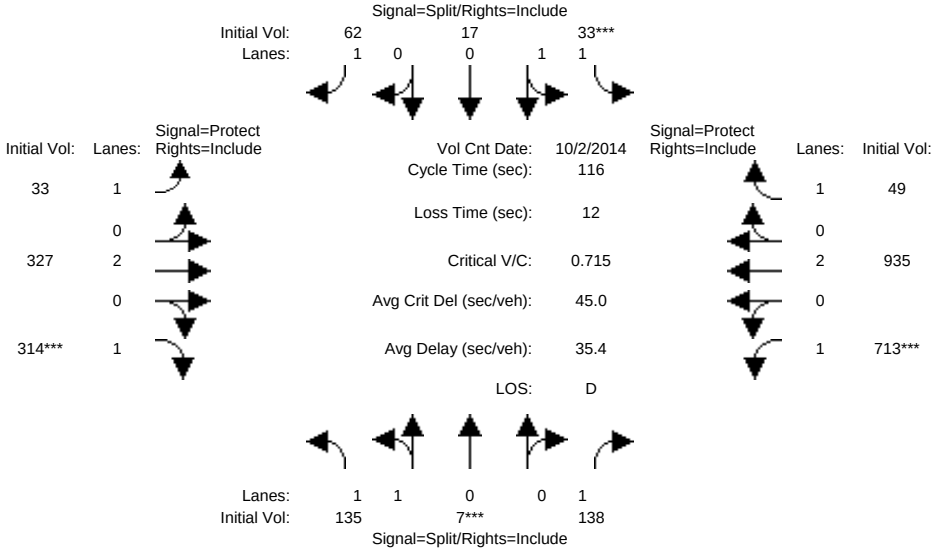
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 2 Oct 2014 << 7:50-8:50												
Base Vol:	104	5	133	14	14	15	11	185	204	692	910	46
Growth 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
Initial Bse:	104	5	133	14	14	15	11	185	204	692	910	46
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	104	5	133	14	14	15	11	185	204	692	910	46
User 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
PHF 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
PHF Volume:	104	5	133	14	14	15	11	185	204	692	910	46
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	104	5	133	14	14	15	11	185	204	692	910	46
PCE 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
MLF 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
FinalVolume:	104	5	133	14	14	15	11	185	204	692	910	46
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.92	0.08	1.00	1.04	0.96	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3352	161	1750	1822	1822	1750	1750	3800	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.03	0.03	0.08	0.01	0.01	0.01	0.01	0.05	0.12	0.40	0.24	0.03
Crit Moves:	****				****				****	****		
Green/Cycle:	0.12	0.12	0.12	0.09	0.09	0.09	0.14	0.16	0.16	0.53	0.55	0.55
Volume/Cap:	0.25	0.25	0.61	0.09	0.09	0.10	0.05	0.31	0.75	0.75	0.44	0.05
Delay/Veh:	47.3	47.3	60.6	49.4	49.4	50.2	43.7	44.8	63.6	26.6	16.2	12.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	47.3	47.3	60.6	49.4	49.4	50.2	43.7	44.8	63.6	26.6	16.2	12.2
LOS by Move:	D	D	E	D	D	D	D	D	E	C	B	B
HCM2kAvgQ:	2	2	6	1	1	1	0	3	9	22	9	1

Note: Queue reported is the number of cars per lane.

2001 Tarob Court

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background AM

Intersection #1: LUNDY/TRADE ZONE



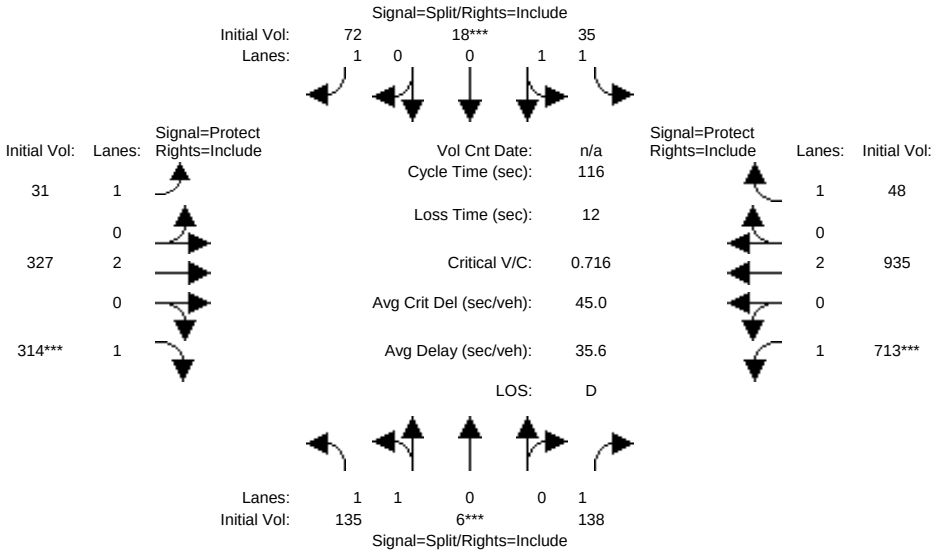
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 2 Oct 2014 << 7:50-8:50												
Base Vol:	135	7	138	33	17	62	33	327	314	713	935	49
Growth 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
Initial Bse:	135	7	138	33	17	62	33	327	314	713	935	49
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	135	7	138	33	17	62	33	327	314	713	935	49
User 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
PHF 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
PHF Volume:	135	7	138	33	17	62	33	327	314	713	935	49
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	135	7	138	33	17	62	33	327	314	713	935	49
PCE 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
MLF 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
FinalVolume:	135	7	138	33	17	62	33	327	314	713	935	49
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.91	0.09	1.00	1.36	0.64	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3340	173	1750	2374	1223	1750	1750	3800	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.04	0.04	0.08	0.01	0.01	0.04	0.02	0.09	0.18	0.41	0.25	0.03
Crit Moves:		****		****					****	****		
Green/Cycle:	0.11	0.11	0.11	0.09	0.09	0.09	0.14	0.21	0.21	0.49	0.56	0.56
Volume/Cap:	0.37	0.37	0.72	0.16	0.16	0.41	0.14	0.40	0.84	0.84	0.44	0.05
Delay/Veh:	50.5	50.5	70.1	50.2	50.2	58.3	45.1	40.7	63.3	35.5	15.4	11.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	50.5	50.5	70.1	50.2	50.2	58.3	45.1	40.7	63.3	35.5	15.4	11.5
LOS by Move:	D	D	E	D	D	E	D	D	E	D	B	B
HCM2kAvgQ:	3	3	7	1	1	3	1	5	14	26	10	1

Note: Queue reported is the number of cars per lane.

2001 Tarob Court

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background + Project AM

Intersection #1: LUNDY/TRADE ZONE



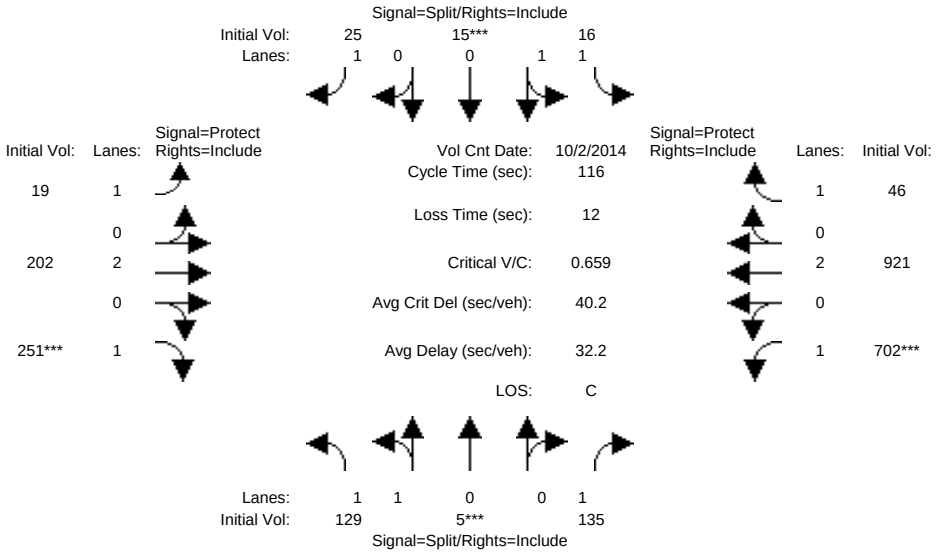
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	135	6	138	35	18	72	31	327	314	713	935	48
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	135	6	138	35	18	72	31	327	314	713	935	48
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	135	6	138	35	18	72	31	327	314	713	935	48
User 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
PHF 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
PHF Volume:	135	6	138	35	18	72	31	327	314	713	935	48
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	135	6	138	35	18	72	31	327	314	713	935	48
PCE 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
MLF 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
FinalVolume:	135	6	138	35	18	72	31	327	314	713	935	48
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.92	0.08	1.00	1.36	0.64	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3362	149	1750	2375	1221	1750	1750	3800	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.04	0.04	0.08	0.01	0.01	0.04	0.02	0.09	0.18	0.41	0.25	0.03
Crit Moves:		****			****				****	****		
Green/Cycle:	0.11	0.11	0.11	0.09	0.09	0.09	0.14	0.21	0.21	0.49	0.56	0.56
Volume/Cap:	0.36	0.36	0.72	0.17	0.17	0.48	0.13	0.40	0.84	0.84	0.44	0.05
Delay/Veh:	50.5	50.5	70.1	50.3	50.3	60.9	45.0	40.7	63.3	35.5	15.4	11.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	50.5	50.5	70.1	50.3	50.3	60.9	45.0	40.7	63.3	35.5	15.4	11.5
LOS by Move:	D	D	E	D	D	E	D	D	E	D	B	B
HCM2kAvgQ:	3	3	7	1	1	3	1	5	14	26	10	1

Note: Queue reported is the number of cars per lane.

2001 Tarob Court

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing+Project AM

Intersection #1: LUNDY/TRADE ZONE



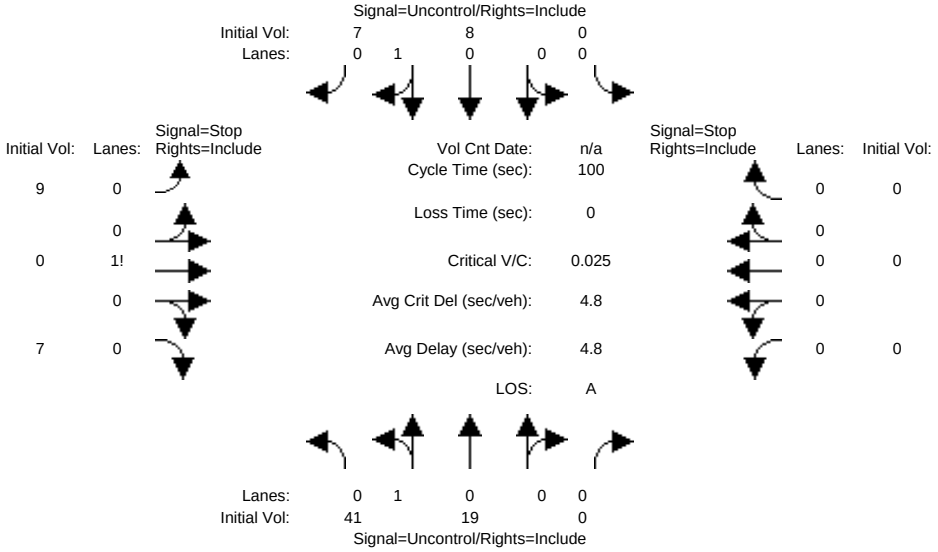
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 2 Oct 2014 << 7:50-8:50												
Base Vol:	104	4	133	16	15	25	9	185	204	692	910	45
Growth 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
Initial Bse:	104	4	133	16	15	25	9	185	204	692	910	45
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	25	1	2	0	0	0	10	17	47	10	11	1
Initial Fut:	129	5	135	16	15	25	19	202	251	702	921	46
User 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
PHF 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
PHF Volume:	129	5	135	16	15	25	19	202	251	702	921	46
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	129	5	135	16	15	25	19	202	251	702	921	46
PCE 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
MLF 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
FinalVolume:	129	5	135	16	15	25	19	202	251	702	921	46
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.93	0.07	1.00	1.07	0.93	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3379	131	1750	1878	1761	1750	1750	3800	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.04	0.04	0.08	0.01	0.01	0.01	0.01	0.05	0.14	0.40	0.24	0.03
Crit Moves:		****			****				****	****		
Green/Cycle:	0.12	0.12	0.12	0.09	0.09	0.09	0.14	0.18	0.18	0.51	0.56	0.56
Volume/Cap:	0.33	0.33	0.66	0.10	0.10	0.17	0.08	0.29	0.79	0.79	0.44	0.05
Delay/Veh:	49.1	49.1	64.5	49.5	49.5	51.5	44.2	42.0	62.7	30.1	15.8	11.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	49.1	49.1	64.5	49.5	49.5	51.5	44.2	42.0	62.7	30.1	15.8	11.9
LOS by Move:	D	D	E	D	D	D	D	D	E	C	B	B
HCM2kAvgQ:	3	3	6	1	1	1	1	3	11	23	9	1

Note: Queue reported is the number of cars per lane.

2001 Tarob Court

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing AM

Intersection #2: LUNDY/TAROB CT



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Volume Module:												
Base Vol:	41	19	0	0	8	7	9	0	7	0	0	0
Growth 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
Initial Bse:	41	19	0	0	8	7	9	0	7	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	41	19	0	0	8	7	9	0	7	0	0	0
User 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
PHF 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
PHF Volume:	41	19	0	0	8	7	9	0	7	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	41	19	0	0	8	7	9	0	7	0	0	0
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2	xxxxx	xxxx	xxxxx
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	15	xxxx	xxxxx	xxxx	xxxx	xxxxx	113	113	12	xxxx	xxxx	xxxxx
Potent Cap.:	1616	xxxx	xxxxx	xxxx	xxxx	xxxxx	889	781	1075	xxxx	xxxx	xxxxx
Move Cap.:	1616	xxxx	xxxxx	xxxx	xxxx	xxxxx	871	761	1075	xxxx	xxxx	xxxxx
Volume/Cap:	0.03	xxxx	xxxx	xxxx	xxxx	xxxx	0.01	0.00	0.01	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	7.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	950	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	0.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.1	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	7.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	8.9	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	A	*	*	*	*	*	*	A	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			8.9			xxxxxx		
ApproachLOS:	*			*			A			*		

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

****

Intersection #2 LUNDY/TAROB CT

****

Future Volume Alternative: Peak Hour Warrant NOT Met


```
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  1  0  0  0    0  0  0  1  0    0  0  1! 0  0    0  0  0  0  0
Initial Vol:   41   19     0     0    8     7     9    0     7     0    0     0
ApproachDel:    xxxxxx           xxxxxx              8.9           xxxxxx
------------|---------------||---------------||---------------||---------------|
Approach[eastbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=16]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=91]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
                Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #2 LUNDY/TAROB CT
********************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  1  0  0  0    0  0  0  1  0    0  0  1! 0  0    0  0  0  0  0
Initial Vol:   41   19     0     0    8     7     9    0     7     0    0     0
------------|---------------||---------------||---------------||---------------|
Major Street Volume:              75
Minor Approach Volume:            16
Minor Approach Volume Threshold: 910
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

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a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```
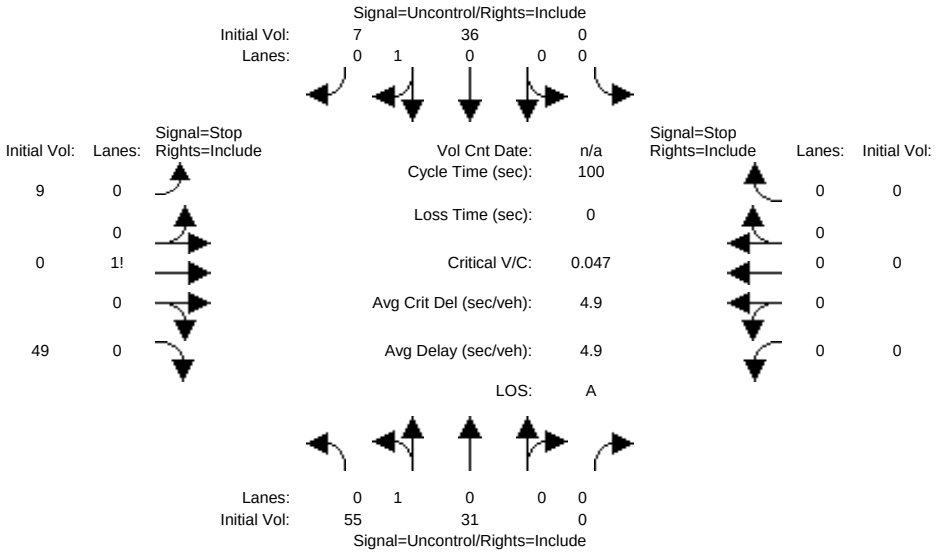

2001 Tarob Court

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Background AM

Intersection #2: LUNDY/TAROB CT



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Volume Module:												
Base Vol:	55	31	0	0	36	7	9	0	49	0	0	0
Growth 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
Initial Bse:	55	31	0	0	36	7	9	0	49	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	55	31	0	0	36	7	9	0	49	0	0	0
User 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
PHF 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
PHF Volume:	55	31	0	0	36	7	9	0	49	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	55	31	0	0	36	7	9	0	49	0	0	0
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2	xxxxx	xxxx	xxxxx
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	43	xxxx	xxxxx	xxxx	xxxx	xxxxx	181	181	40	xxxx	xxxx	xxxxx
Potent Cap.:	1579	xxxx	xxxxx	xxxx	xxxx	xxxxx	814	717	1038	xxxx	xxxx	xxxxx
Move Cap.:	1579	xxxx	xxxxx	xxxx	xxxx	xxxxx	791	691	1038	xxxx	xxxx	xxxxx
Volume/Cap:	0.03	xxxx	xxxx	xxxx	xxxx	xxxx	0.01	0.00	0.05	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	7.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	990	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	0.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.2	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	7.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	8.9	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	A	*	*	*	*	*	*	A	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			8.9			xxxxxx		
ApproachLOS:	*			*			A			*		

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

****

Intersection #2 LUNDY/TAROB CT

****

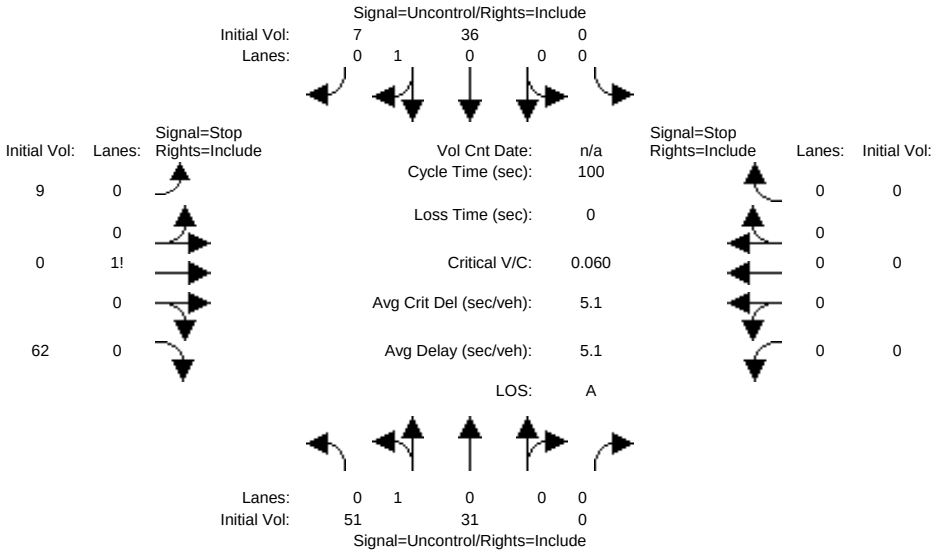
Future Volume Alternative: Peak Hour Warrant NOT Met


```
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  1  0  0  0    0  0  0  1  0    0  0  1! 0  0    0  0  0  0  0
Initial Vol:   55   31     0     0   36     7     9    0    49     0    0     0
ApproachDel:    xxxxxx           xxxxxx              8.9           xxxxxx
------------|---------------||---------------||---------------||---------------|
Approach[eastbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=58]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=187]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
                Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #2 LUNDY/TAROB CT
********************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  1  0  0  0    0  0  0  1  0    0  0  1! 0  0    0  0  0  0  0
Initial Vol:   55   31     0     0   36     7     9    0    49     0    0     0
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             129
Minor Approach Volume:           58
Minor Approach Volume Threshold: 766
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```

2001 Tarob Court

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Background + Project AM

Intersection #2: LUNDY/TAROB CT



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Volume Module:												
Base Vol:	51	31	0	0	36	7	9	0	62	0	0	0
Growth 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
Initial Bse:	51	31	0	0	36	7	9	0	62	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	51	31	0	0	36	7	9	0	62	0	0	0
User 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
PHF 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
PHF Volume:	51	31	0	0	36	7	9	0	62	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	51	31	0	0	36	7	9	0	62	0	0	0
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2	xxxxx	xxxx	xxxxx
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	43	xxxx	xxxxx	xxxx	xxxx	xxxxx	173	173	40	xxxx	xxxx	xxxxx
Potent Cap.:	1579	xxxx	xxxxx	xxxx	xxxx	xxxxx	822	724	1038	xxxx	xxxx	xxxxx
Move Cap.:	1579	xxxx	xxxxx	xxxx	xxxx	xxxxx	801	700	1038	xxxx	xxxx	xxxxx
Volume/Cap:	0.03	xxxx	xxxx	xxxx	xxxx	xxxx	0.01	0.00	0.06	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	7.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	1000	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	0.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.2	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	7.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	8.9	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	A	*	*	*	*	*	*	A	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			8.9			xxxxxx		
ApproachLOS:	*			*			A			*		

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

****

Intersection #2 LUNDY/TAROB CT

****

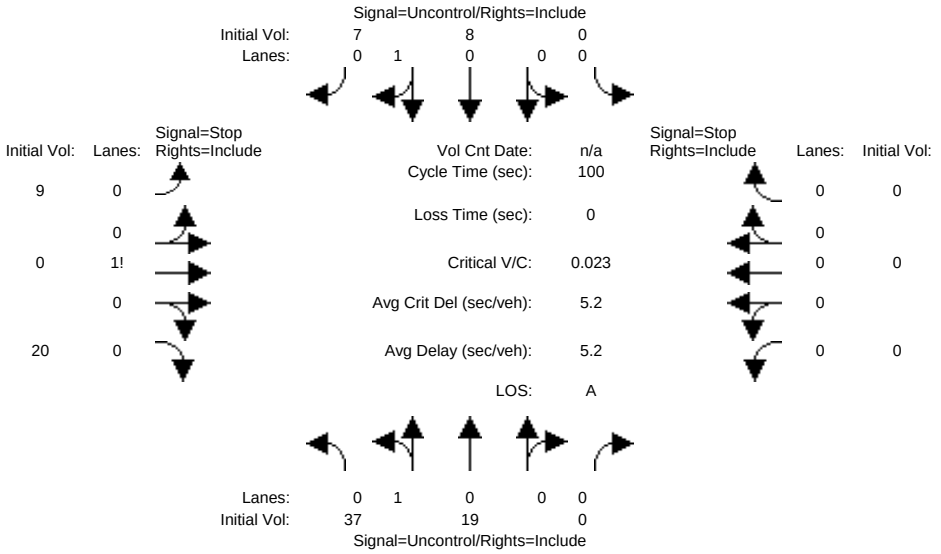
Future Volume Alternative: Peak Hour Warrant NOT Met


```
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  1  0  0  0    0  0  0  1  0    0  0  1! 0  0    0  0  0  0  0
Initial Vol:   51   31     0     0   36     7     9    0    62     0    0     0
ApproachDel:    xxxxxx           xxxxxx              8.9           xxxxxx
------------|---------------||---------------||---------------||---------------|
Approach[eastbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.2]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=71]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=196]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
                Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #2 LUNDY/TAROB CT
********************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  1  0  0  0    0  0  0  1  0    0  0  1! 0  0    0  0  0  0  0
Initial Vol:   51   31     0     0   36     7     9    0    62     0    0     0
------------|---------------||---------------||---------------||---------------|
Major Street Volume:              125
Minor Approach Volume:            71
Minor Approach Volume Threshold: 774
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```


2001 Tarob Court

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing+Project AM

Intersection #2: LUNDY/TAROB CT



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Volume Module:												
Base Vol:	37	19	0	0	8	7	9	0	20	0	0	0
Growth 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
Initial Bse:	37	19	0	0	8	7	9	0	20	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	37	19	0	0	8	7	9	0	20	0	0	0
User 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
PHF 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
PHF Volume:	37	19	0	0	8	7	9	0	20	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	37	19	0	0	8	7	9	0	20	0	0	0
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2	xxxxx	xxxx	xxxxx
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	15	xxxx	xxxxx	xxxx	xxxx	xxxxx	105	105	12	xxxx	xxxx	xxxxx
Potent Cap.:	1616	xxxx	xxxxx	xxxx	xxxx	xxxxx	898	789	1075	xxxx	xxxx	xxxxx
Move Cap.:	1616	xxxx	xxxxx	xxxx	xxxx	xxxxx	882	771	1075	xxxx	xxxx	xxxxx
Volume/Cap:	0.02	xxxx	xxxx	xxxx	xxxx	xxxx	0.01	0.00	0.02	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	7.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	1007	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	0.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.1	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	7.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	8.7	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	A	*	*	*	*	*	*	A	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			8.7			xxxxxx		
ApproachLOS:	*			*			A			*		

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

****

Intersection #2 LUNDY/TAROB CT

****

Future Volume Alternative: Peak Hour Warrant NOT Met


```
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  1  0  0  0    0  0  0  1  0    0  0  1! 0  0    0  0  0  0  0
Initial Vol:   37   19     0     0    8     7     9    0    20     0    0     0
ApproachDel:    xxxxxx           xxxxxx              8.7           xxxxxx
------------|---------------||---------------||---------------||---------------|
Approach[eastbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=29]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=100]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
--------------------------------------------------------------------------------
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a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
                Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #2 LUNDY/TAROB CT
********************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  1  0  0  0    0  0  0  1  0    0  0  1! 0  0    0  0  0  0  0
Initial Vol:   37   19     0     0    8     7     9    0    20     0    0     0
------------|---------------||---------------||---------------||---------------|
Major Street Volume:              71
Minor Approach Volume:            29
Minor Approach Volume Threshold: 925
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```
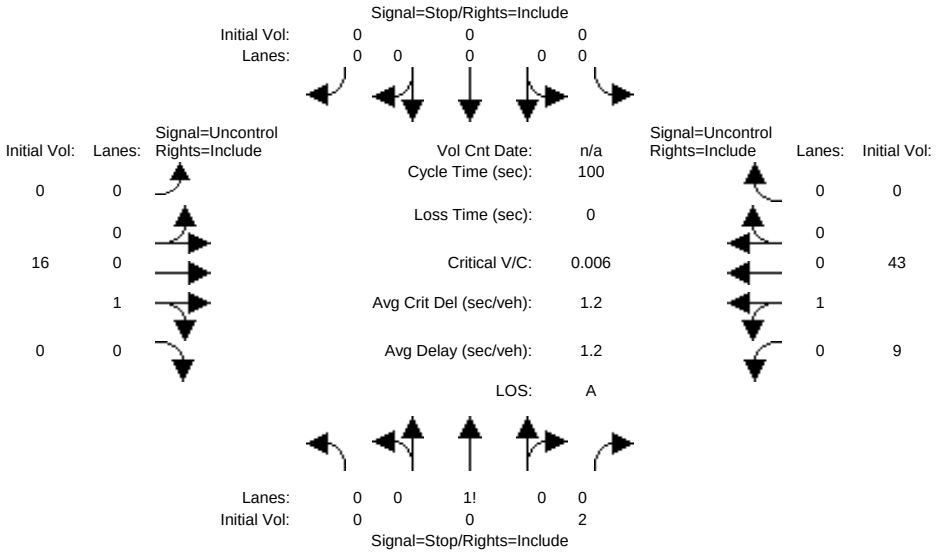

2001 Tarob Court

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing AM

Intersection #3: PROJECT DRWY/TAROB CT



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Volume Module:												
Base Vol:	0	0	2	0	0	0	0	16	0	9	43	0
Growth 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
Initial Bse:	0	0	2	0	0	0	0	16	0	9	43	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	2	0	0	0	0	16	0	9	43	0
User 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
PHF 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
PHF Volume:	0	0	2	0	0	0	0	16	0	9	43	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	2	0	0	0	0	16	0	9	43	0
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	6.2	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	16	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	16	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	1069	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1615	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	1069	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1615	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	0.00	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.01	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	0.0	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx
Control Del:	xxxxx	xxxx	8.4	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.2	xxxx	xxxxx
LOS by Move:	*	*	A	*	*	*	*	*	*	A	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.2	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	A	*	*
ApproachDel:		8.4			xxxxxx			xxxxxx			xxxxxx	
ApproachLOS:		A			*			*			*	

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

****

Intersection #3 PROJECT DRWY/TAROB CT

****

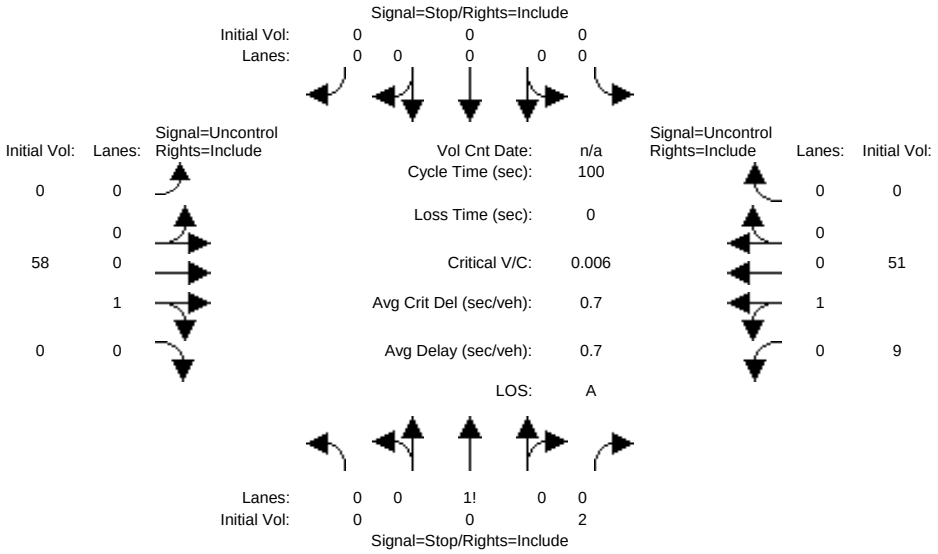
Future Volume Alternative: Peak Hour Warrant NOT Met


```
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  0  0  1    0  0  0  0  0    0  0  1  0  0    0  1  0  0  0
Initial Vol:    0    0     2     0    0     0     0   16     0     9   43     0
ApproachDel:       8.4           xxxxxx           xxxxxx           xxxxxx
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=2]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=70]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
                Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #3 PROJECT DRWY/TAROB CT
********************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  0  0  1    0  0  0  0  0    0  0  1  0  0    0  1  0  0  0
Initial Vol:    0    0     2     0    0     0     0   16     0     9   43     0
------------|---------------||---------------||---------------||---------------|
Major Street Volume:              68
Minor Approach Volume:            2
Minor Approach Volume Threshold: 936
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```


2001 Tarob Court

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Background AM

Intersection #3: PROJECT DRWY/TAROB CT



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Volume Module:												
Base Vol:	0	0	2	0	0	0	0	58	0	9	51	0
Growth 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
Initial Bse:	0	0	2	0	0	0	0	58	0	9	51	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	2	0	0	0	0	58	0	9	51	0
User 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
PHF 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
PHF Volume:	0	0	2	0	0	0	0	58	0	9	51	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	2	0	0	0	0	58	0	9	51	0
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	6.2	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	58	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	58	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	1014	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1559	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	1014	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1559	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	0.00	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.01	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	0.0	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx
Control Del:	xxxxx	xxxx	8.6	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.3	xxxx	xxxxx
LOS by Move:	*	*	A	*	*	*	*	*	*	A	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.3	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	A	*	*
ApproachDel:	8.6			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	A			*			*			*		

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

****

Intersection #3 PROJECT DRWY/TAROB CT

****

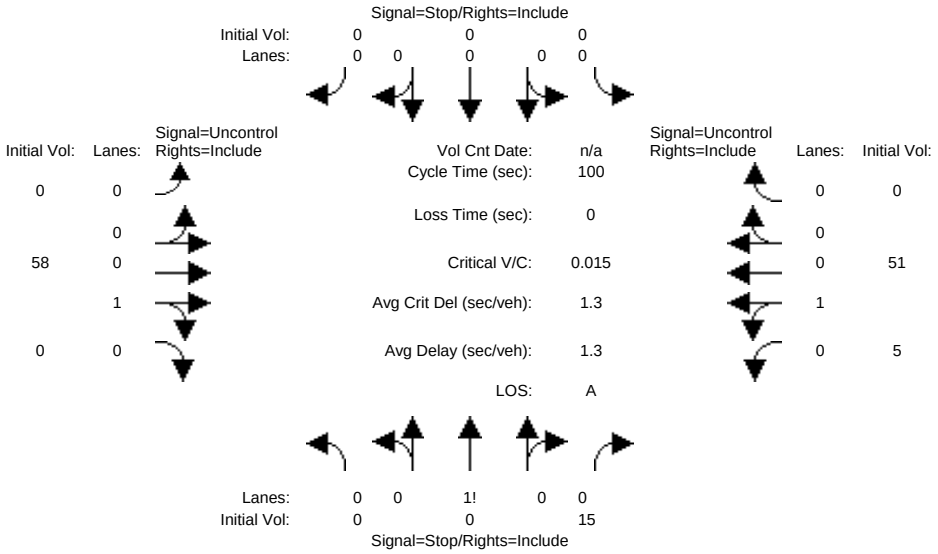
Future Volume Alternative: Peak Hour Warrant NOT Met


```
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  0  0  1    0  0  0  0  0    0  0  1  0  0    0  1  0  0  0
Initial Vol:    0    0     2     0    0     0     0   58     0     9   51     0
ApproachDel:       8.6           xxxxxx           xxxxxx           xxxxxx
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=2]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=120]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
                Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #3 PROJECT DRWY/TAROB CT
********************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  0  0  1    0  0  0  0  0    0  0  1  0  0    0  1  0  0  0
Initial Vol:    0    0     2     0    0     0     0   58     0     9   51     0
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             118
Minor Approach Volume:           2
Minor Approach Volume Threshold: 789
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```


2001 Tarob Court

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Background + Project AM

Intersection #3: PROJECT DRWY/TAROB CT



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Volume Module:												
Base Vol:	0	0	15	0	0	0	0	58	0	5	51	0
Growth 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
Initial Bse:	0	0	15	0	0	0	0	58	0	5	51	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	15	0	0	0	0	58	0	5	51	0
User 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
PHF 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
PHF Volume:	0	0	15	0	0	0	0	58	0	5	51	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	15	0	0	0	0	58	0	5	51	0
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	6.2	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	58	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	58	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	1014	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1559	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	1014	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1559	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	0.01	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.00	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	0.0	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx
Control Del:	xxxxx	xxxx	8.6	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.3	xxxx	xxxxx
LOS by Move:	*	*	A	*	*	*	*	*	*	A	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.3	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	A	*	*
ApproachDel:	8.6			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	A			*			*			*		

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

****

Intersection #3 PROJECT DRWY/TAROB CT

****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0 0 0 1			0 0 0 0 0			0 0 1 0 0			0 1 0 0 0		
Initial Vol:	0	0	15	0	0	0	0	58	0	5	51	0
ApproachDel:	8.6			xxxxxx			xxxxxx			xxxxxx		

Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=15]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=129]
FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #3 PROJECT DRWY/TAROB CT

****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0 0 0 1			0 0 0 0 0			0 0 1 0 0			0 1 0 0 0		
Initial Vol:	0	0	15	0	0	0	0	58	0	5	51	0

Major Street Volume: 114
Minor Approach Volume: 15
Minor Approach Volume Threshold: 799

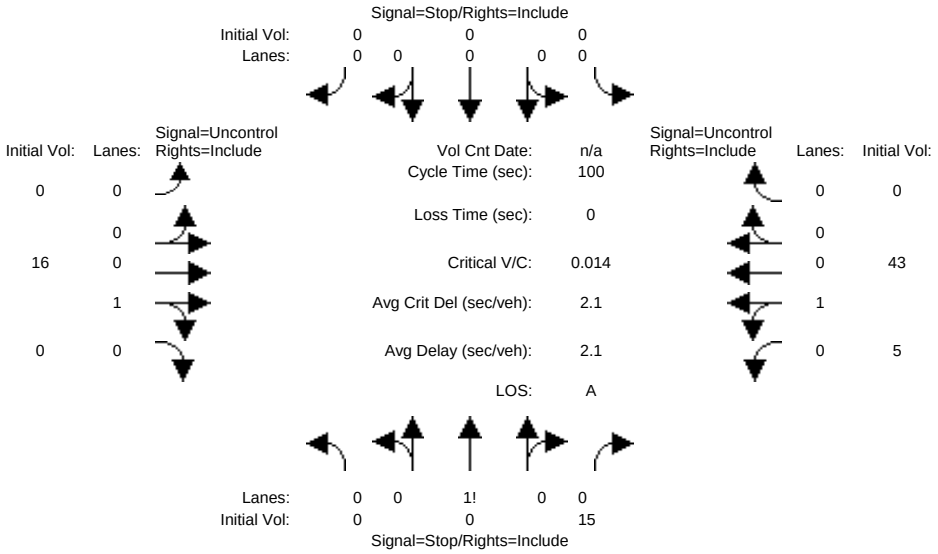
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

2001 Tarob Court

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing+Project AM

Intersection #3: PROJECT DRWY/TAROB CT



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Volume Module:												
Base Vol:	0	0	15	0	0	0	0	16	0	5	43	0
Growth 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
Initial Bse:	0	0	15	0	0	0	0	16	0	5	43	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	15	0	0	0	0	16	0	5	43	0
User 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
PHF 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
PHF Volume:	0	0	15	0	0	0	0	16	0	5	43	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	15	0	0	0	0	16	0	5	43	0
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	6.2	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	16	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	16	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	1069	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1615	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	1069	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1615	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	0.01	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.00	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	0.0	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx
Control Del:	xxxxx	xxxx	8.4	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.2	xxxx	xxxxx
LOS by Move:	*	*	A	*	*	*	*	*	*	A	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.2	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	A	*	*
ApproachDel:		8.4			xxxxxx			xxxxxx			xxxxxx	
ApproachLOS:		A			*			*			*	

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

****

Intersection #3 PROJECT DRWY/TAROB CT

****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0 0 0 1			0 0 0 0 0			0 0 1 0 0			0 1 0 0 0		
Initial Vol:	0	0	15	0	0	0	0	16	0	5	43	0
ApproachDel:	8.4			xxxxxx			xxxxxx			xxxxxx		

Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=15]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=79]
FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #3 PROJECT DRWY/TAROB CT

****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0 0 0 1			0 0 0 0 0			0 0 1 0 0			0 1 0 0 0		
Initial Vol:	0	0	15	0	0	0	0	16	0	5	43	0

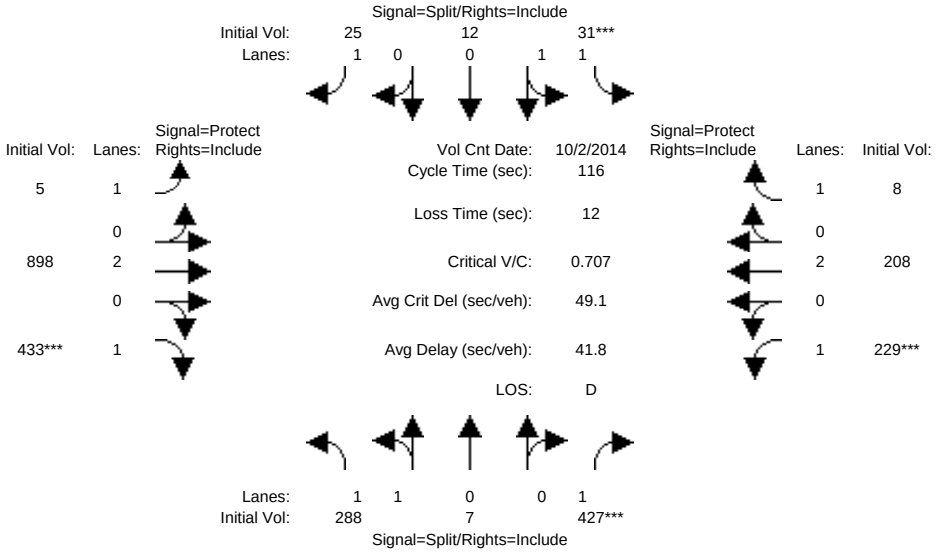
Major Street Volume: 64
Minor Approach Volume: 15
Minor Approach Volume Threshold: 953

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing PM

Intersection #1: LUNDY/TRADE ZONE



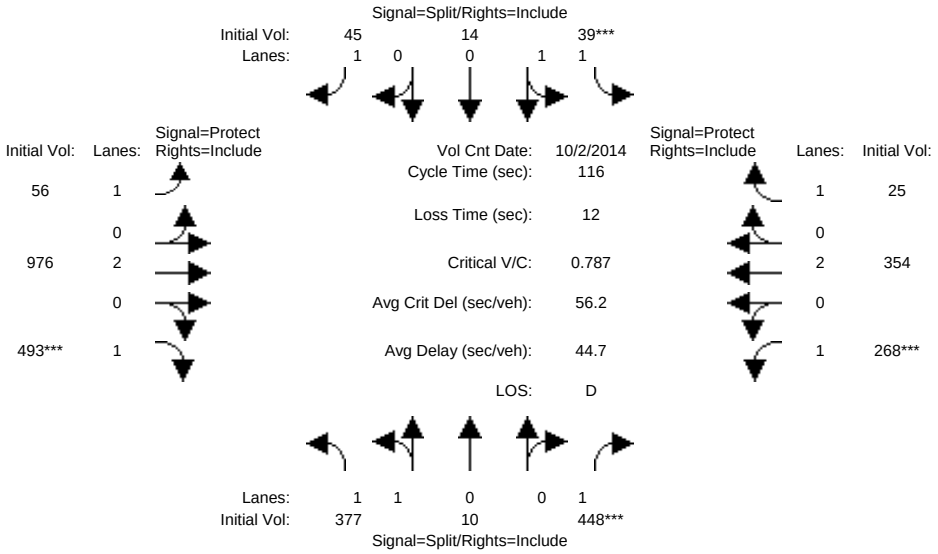
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 2 Oct 2014 << 4:50-5:50												
Base Vol:	288	7	427	31	12	25	5	898	433	229	208	8
Growth 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
Initial Bse:	288	7	427	31	12	25	5	898	433	229	208	8
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	288	7	427	31	12	25	5	898	433	229	208	8
User 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
PHF 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
PHF Volume:	288	7	427	31	12	25	5	898	433	229	208	8
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	288	7	427	31	12	25	5	898	433	229	208	8
PCE 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
MLF 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
FinalVolume:	288	7	427	31	12	25	5	898	433	229	208	8
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.96	0.04	1.00	1.47	0.53	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3423	83	1750	2580	999	1750	1750	3800	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.08	0.08	0.24	0.01	0.01	0.01	0.00	0.24	0.25	0.13	0.05	0.00
Crit Moves:			****	****					****	****		
Green/Cycle:	0.32	0.32	0.32	0.09	0.09	0.09	0.20	0.32	0.32	0.17	0.29	0.29
Volume/Cap:	0.26	0.26	0.77	0.14	0.14	0.17	0.01	0.73	0.77	0.77	0.19	0.02
Delay/Veh:	30.1	30.1	45.5	50.0	50.0	51.5	37.0	38.8	45.1	63.1	31.3	29.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	30.1	30.1	45.5	50.0	50.0	51.5	37.0	38.8	45.1	63.1	31.3	29.4
LOS by Move:	C	C	D	D	D	D	D	D	D	E	C	C
HCM2kAvgQ:	4	4	16	1	1	1	0	15	16	10	3	0

Note: Queue reported is the number of cars per lane.

2001 Tarob Court

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background PM

Intersection #1: LUNDY/TRADE ZONE



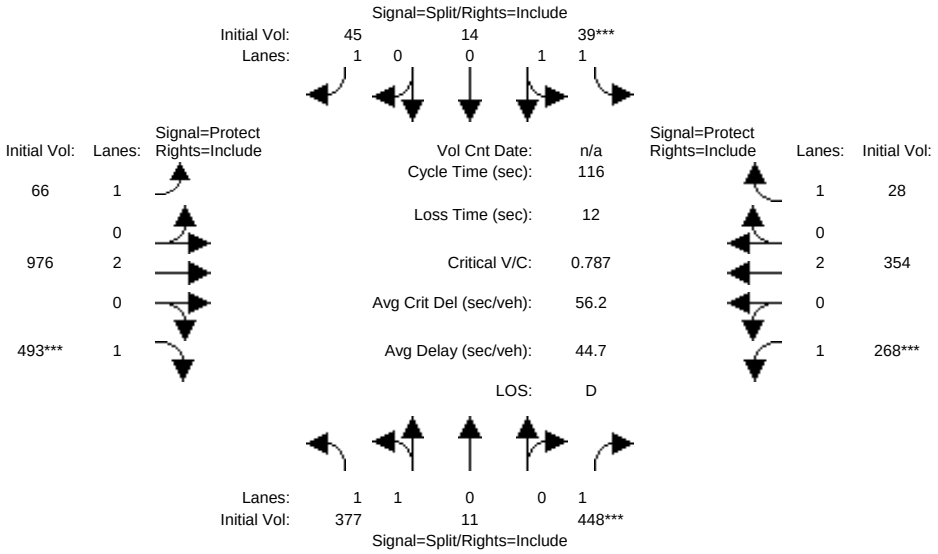
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 2 Oct 2014 << 4:50-5:50												
Base Vol:	377	10	448	39	14	45	56	976	493	268	354	25
Growth 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
Initial Bse:	377	10	448	39	14	45	56	976	493	268	354	25
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	377	10	448	39	14	45	56	976	493	268	354	25
User 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
PHF 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
PHF Volume:	377	10	448	39	14	45	56	976	493	268	354	25
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	377	10	448	39	14	45	56	976	493	268	354	25
PCE 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
MLF 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
FinalVolume:	377	10	448	39	14	45	56	976	493	268	354	25
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.95	0.05	1.00	1.50	0.50	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3417	91	1750	2630	944	1750	1750	3800	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.11	0.11	0.26	0.01	0.01	0.03	0.03	0.26	0.28	0.15	0.09	0.01
Crit Moves:			****	****					****	****		
Green/Cycle:	0.30	0.30	0.30	0.09	0.09	0.09	0.20	0.33	0.33	0.18	0.31	0.31
Volume/Cap:	0.37	0.37	0.85	0.17	0.17	0.30	0.16	0.78	0.85	0.85	0.30	0.05
Delay/Veh:	32.9	32.9	54.1	50.4	50.4	54.7	39.3	39.8	50.9	70.3	31.1	28.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	32.9	32.9	54.1	50.4	50.4	54.7	39.3	39.8	50.9	70.3	31.1	28.2
LOS by Move:	C	C	D	D	D	D	D	D	D	E	C	C
HCM2kAvgQ:	6	6	19	1	1	2	2	17	20	13	5	1

Note: Queue reported is the number of cars per lane.

2001 Tarob Court

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background + Project PM

Intersection #1: LUNDY/TRADE ZONE



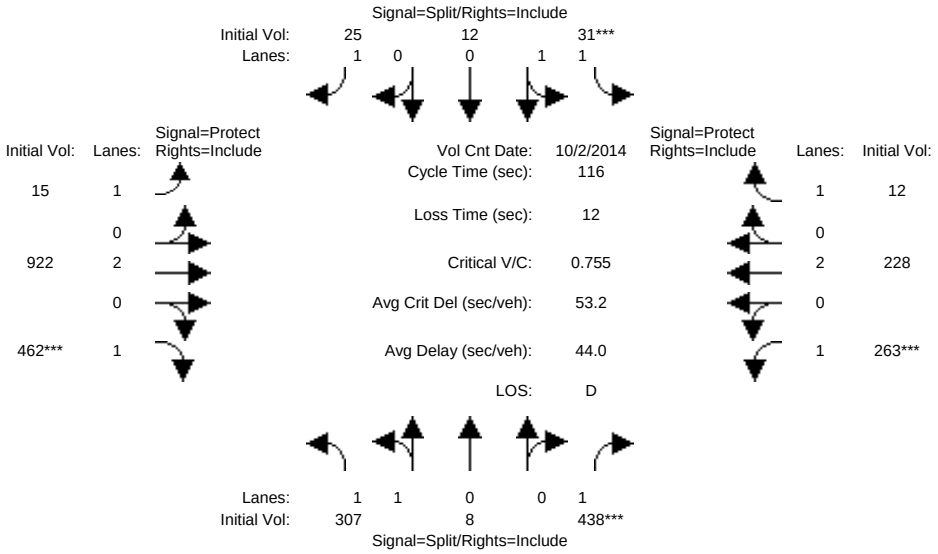
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	377	11	448	39	14	45	66	976	493	268	354	28
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	377	11	448	39	14	45	66	976	493	268	354	28
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	377	11	448	39	14	45	66	976	493	268	354	28
User 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
PHF 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
PHF Volume:	377	11	448	39	14	45	66	976	493	268	354	28
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	377	11	448	39	14	45	66	976	493	268	354	28
PCE 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
MLF 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
FinalVolume:	377	11	448	39	14	45	66	976	493	268	354	28
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.95	0.05	1.00	1.50	0.50	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3408	99	1750	2630	944	1750	1750	3800	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.11	0.11	0.26	0.01	0.01	0.03	0.04	0.26	0.28	0.15	0.09	0.02
Crit Moves:			****	****					****	****		
Green/Cycle:	0.30	0.30	0.30	0.09	0.09	0.09	0.20	0.33	0.33	0.18	0.31	0.31
Volume/Cap:	0.37	0.37	0.85	0.17	0.17	0.30	0.19	0.78	0.85	0.85	0.30	0.05
Delay/Veh:	32.9	32.9	54.1	50.4	50.4	54.7	39.7	39.8	50.9	70.3	31.1	28.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	32.9	32.9	54.1	50.4	50.4	54.7	39.7	39.8	50.9	70.3	31.1	28.3
LOS by Move:	C	C	D	D	D	D	D	D	D	E	C	C
HCM2kAvgQ:	6	6	19	1	1	2	2	17	20	13	5	1

Note: Queue reported is the number of cars per lane.

2001 Tarob Court

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing+Project PM

Intersection #1: LUNDY/TRADE ZONE



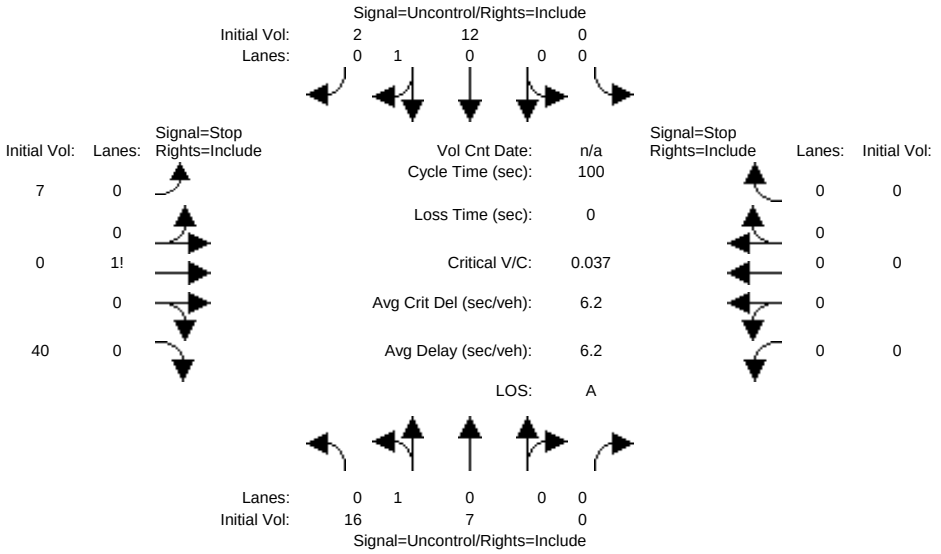
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 2 Oct 2014 << 4:50-5:50												
Base Vol:	288	8	427	31	12	25	15	898	433	229	208	11
Growth 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
Initial Bse:	288	8	427	31	12	25	15	898	433	229	208	11
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	19	0	11	0	0	0	0	24	29	34	20	1
Initial Fut:	307	8	438	31	12	25	15	922	462	263	228	12
User 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
PHF 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
PHF Volume:	307	8	438	31	12	25	15	922	462	263	228	12
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	307	8	438	31	12	25	15	922	462	263	228	12
PCE 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
MLF 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
FinalVolume:	307	8	438	31	12	25	15	922	462	263	228	12
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.95	0.05	1.00	1.47	0.53	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3418	89	1750	2580	999	1750	1750	3800	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.09	0.09	0.25	0.01	0.01	0.01	0.01	0.24	0.26	0.15	0.06	0.01
Crit Moves:			****	****					****	****		
Green/Cycle:	0.31	0.31	0.31	0.09	0.09	0.09	0.21	0.32	0.32	0.18	0.30	0.30
Volume/Cap:	0.29	0.29	0.82	0.14	0.14	0.17	0.04	0.75	0.82	0.82	0.20	0.02
Delay/Veh:	31.5	31.5	50.6	50.0	50.0	51.5	36.9	39.5	48.8	66.0	30.9	28.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	31.5	31.5	50.6	50.0	50.0	51.5	36.9	39.5	48.8	66.0	30.9	28.9
LOS by Move:	C	C	D	D	D	D	D	D	D	E	C	C
HCM2kAvgQ:	5	5	18	1	1	1	0	16	19	12	3	0

Note: Queue reported is the number of cars per lane.

2001 Tarob Court

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing PM

Intersection #2: LUNDY/TAROB CT



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Volume Module:												
Base Vol:	16	7	0	0	12	2	7	0	40	0	0	0
Growth 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
Initial Bse:	16	7	0	0	12	2	7	0	40	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	16	7	0	0	12	2	7	0	40	0	0	0
User 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
PHF 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
PHF Volume:	16	7	0	0	12	2	7	0	40	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	16	7	0	0	12	2	7	0	40	0	0	0
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2	xxxxx	xxxx	xxxxx
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	14	xxxx	xxxxx	xxxx	xxxx	xxxxx	52	52	13	xxxx	xxxx	xxxxx
Potent Cap.:	1617	xxxx	xxxxx	xxxx	xxxx	xxxxx	962	843	1073	xxxx	xxxx	xxxxx
Move Cap.:	1617	xxxx	xxxxx	xxxx	xxxx	xxxxx	954	835	1073	xxxx	xxxx	xxxxx
Volume/Cap:	0.01	xxxx	xxxx	xxxx	xxxx	xxxx	0.01	0.00	0.04	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	7.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	1054	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.1	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	7.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	8.6	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	A	*	*	*	*	*	*	A	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			8.6			xxxxxx		
ApproachLOS:	*			*			A			*		

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

****

Intersection #2 LUNDY/TAROB CT

****

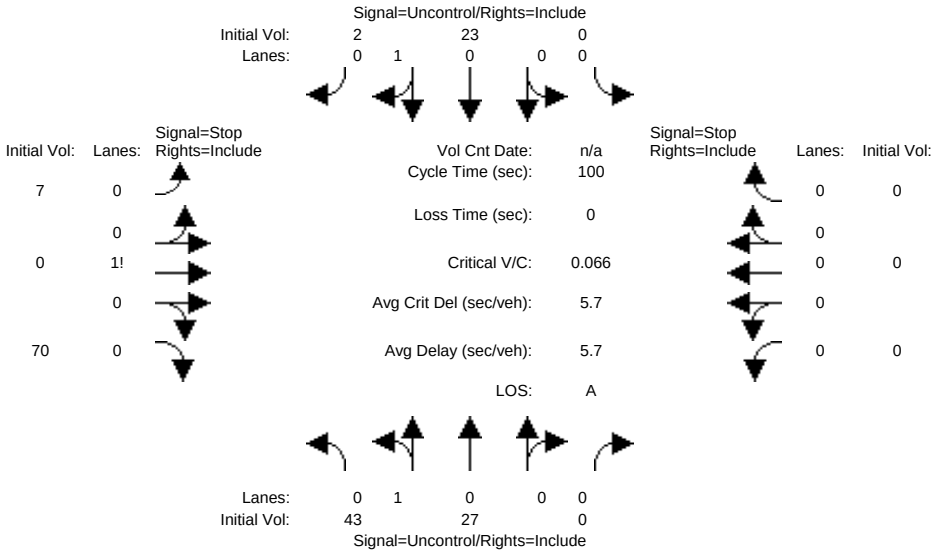
Future Volume Alternative: Peak Hour Warrant NOT Met


```
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  1  0  0  0    0  0  0  1  0    0  0  1! 0  0    0  0  0  0  0
Initial Vol:   16    7     0     0   12     2     7    0    40     0    0     0
ApproachDel:    xxxxxx           xxxxxx              8.6           xxxxxx
------------|---------------||---------------||---------------||---------------|
Approach[eastbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=47]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=84]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
                Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #2 LUNDY/TAROB CT
********************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  1  0  0  0    0  0  0  1  0    0  0  1! 0  0    0  0  0  0  0
Initial Vol:   16    7     0     0   12     2     7    0    40     0    0     0
------------|---------------||---------------||---------------||---------------|
Major Street Volume:              37
Minor Approach Volume:            47
Minor Approach Volume Threshold: 1099
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```

2001 Tarob Court

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Background PM

Intersection #2: LUNDY/TAROB CT



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Volume Module:												
Base Vol:	43	27	0	0	23	2	7	0	70	0	0	0
Growth 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
Initial Bse:	43	27	0	0	23	2	7	0	70	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	43	27	0	0	23	2	7	0	70	0	0	0
User 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
PHF 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
PHF Volume:	43	27	0	0	23	2	7	0	70	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	43	27	0	0	23	2	7	0	70	0	0	0
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2	xxxxx	xxxx	xxxxx
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	25	xxxx	xxxxx	xxxx	xxxx	xxxxx	137	137	24	xxxx	xxxx	xxxxx
Potent Cap.:	1603	xxxx	xxxxx	xxxx	xxxx	xxxxx	861	758	1058	xxxx	xxxx	xxxxx
Move Cap.:	1603	xxxx	xxxxx	xxxx	xxxx	xxxxx	843	737	1058	xxxx	xxxx	xxxxx
Volume/Cap:	0.03	xxxx	xxxx	xxxx	xxxx	xxxx	0.01	0.00	0.07	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	7.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	1034	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	0.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.2	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	7.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	8.8	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	A	*	*	*	*	*	*	A	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			8.8			xxxxxx		
ApproachLOS:	*			*			A			*		

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

****

Intersection #2 LUNDY/TAROB CT

****

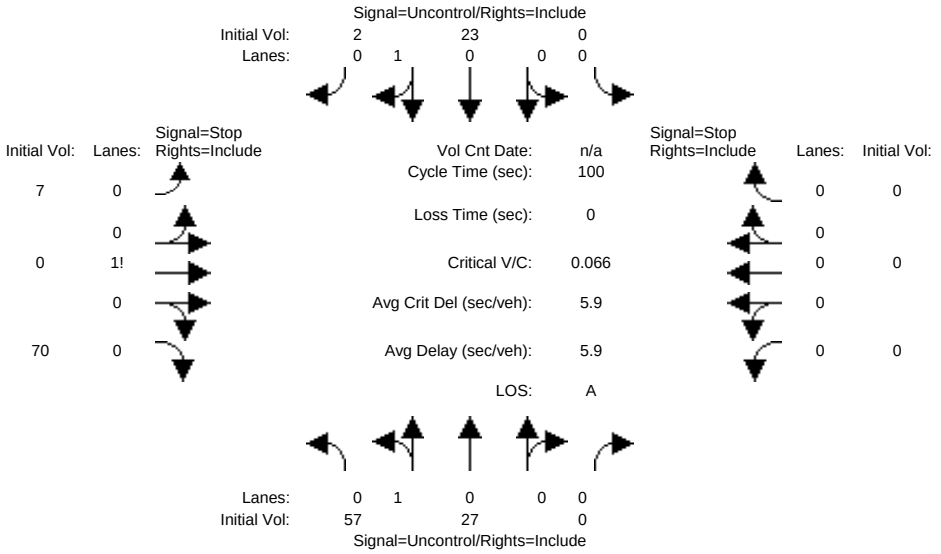
Future Volume Alternative: Peak Hour Warrant NOT Met


```
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  1  0  0  0    0  0  0  1  0    0  0  1! 0  0    0  0  0  0  0
Initial Vol:   43   27     0     0   23     2     7    0    70     0    0     0
ApproachDel:    xxxxxx           xxxxxx              8.8           xxxxxx
------------|---------------||---------------||---------------||---------------|
Approach[eastbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.2]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=77]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=172]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
                Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #2 LUNDY/TAROB CT
********************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  1  0  0  0    0  0  0  1  0    0  0  1! 0  0    0  0  0  0  0
Initial Vol:   43   27     0     0   23     2     7    0    70     0    0     0
------------|---------------||---------------||---------------||---------------|
Major Street Volume:              95
Minor Approach Volume:            77
Minor Approach Volume Threshold: 847
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```

2001 Tarob Court

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Background + Project PM

Intersection #2: LUNDY/TAROB CT



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Volume Module:												
Base Vol:	57	27	0	0	23	2	7	0	70	0	0	0
Growth 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
Initial Bse:	57	27	0	0	23	2	7	0	70	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	57	27	0	0	23	2	7	0	70	0	0	0
User 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
PHF 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
PHF Volume:	57	27	0	0	23	2	7	0	70	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	57	27	0	0	23	2	7	0	70	0	0	0
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2	xxxxx	xxxx	xxxxx
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	25	xxxx	xxxxx	xxxx	xxxx	xxxxx	165	165	24	xxxx	xxxx	xxxxx
Potent Cap.:	1603	xxxx	xxxxx	xxxx	xxxx	xxxxx	830	731	1058	xxxx	xxxx	xxxxx
Move Cap.:	1603	xxxx	xxxxx	xxxx	xxxx	xxxxx	807	704	1058	xxxx	xxxx	xxxxx
Volume/Cap:	0.04	xxxx	xxxx	xxxx	xxxx	xxxx	0.01	0.00	0.07	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	7.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	1029	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	0.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.2	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	7.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	8.8	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	A	*	*	*	*	*	*	A	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			8.8			xxxxxx		
ApproachLOS:	*			*			A			*		

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

****

Intersection #2 LUNDY/TAROB CT

****

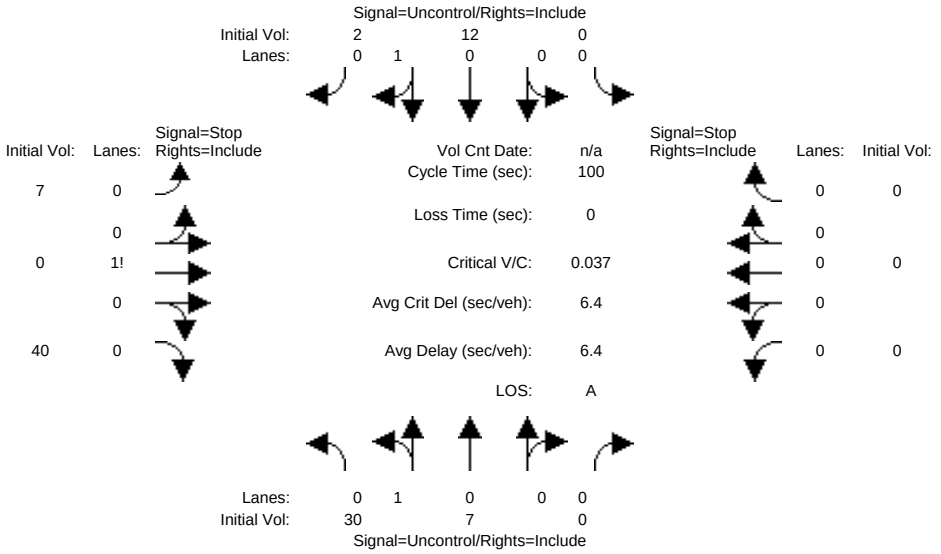
Future Volume Alternative: Peak Hour Warrant NOT Met


```
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  1  0  0  0    0  0  0  1  0    0  0  1! 0  0    0  0  0  0  0
Initial Vol:   57   27     0     0   23     2     7    0    70     0    0     0
ApproachDel:    xxxxxx           xxxxxx              8.8           xxxxxx
------------|---------------||---------------||---------------||---------------|
Approach[eastbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.2]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=77]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=186]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
                Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #2 LUNDY/TAROB CT
********************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  1  0  0  0    0  0  0  1  0    0  0  1! 0  0    0  0  0  0  0
Initial Vol:   57   27     0     0   23     2     7    0    70     0    0     0
------------|---------------||---------------||---------------||---------------|
Major Street Volume:              109
Minor Approach Volume:            77
Minor Approach Volume Threshold: 811
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```


2001 Tarob Court

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing+Project PM

Intersection #2: LUNDY/TAROB CT



Approach:	North Bound						South Bound						East Bound						West Bound					
Movement:	L	-	T	-	R		L	-	T	-	R		L	-	T	-	R		L	-	T	-	R	
Volume Module:																								
Base Vol:	30		7		0		0		12		2		7		0		40		0		0		0	
Growth 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	
Initial Bse:	30		7		0		0		12		2		7		0		40		0		0		0	
Added Vol:	0		0		0		0		0		0		0		0		0		0		0		0	
PasserByVol:	0		0		0		0		0		0		0		0		0		0		0		0	
Initial Fut:	30		7		0		0		12		2		7		0		40		0		0		0	
User 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	
PHF 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	
PHF Volume:	30		7		0		0		12		2		7		0		40		0		0		0	
Reduct Vol:	0		0		0		0		0		0		0		0		0		0		0		0	
FinalVolume:	30		7		0		0		12		2		7		0		40		0		0		0	
Critical Gap Module:																								
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx							6.4		6.5		6.2	xxxxx	xxxx	xxxxx				
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx							3.5		4.0		3.3	xxxxx	xxxx	xxxxx				
Capacity Module:																								
Cnflict Vol:	14	xxxx	xxxxx	xxxx	xxxx	xxxxx							80		80		13	xxxx	xxxx	xxxxx				
Potent Cap.:	1617	xxxx	xxxxx	xxxx	xxxx	xxxxx							927		814		1073	xxxx	xxxx	xxxxx				
Move Cap.:	1617	xxxx	xxxxx	xxxx	xxxx	xxxxx							914		799		1073	xxxx	xxxx	xxxxx				
Volume/Cap:	0.02	xxxx	xxxx	xxxx	xxxx	xxxx							0.01		0.00		0.04	xxxx	xxxx	xxxx				
Level Of Service Module:																								
2Way95thQ:	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx												
Control Del:	7.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx												
LOS by Move:	A	*	*	*	*	*	*	*	*	*	*	*												
Movement:	LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT	
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	1046	xxxxx	xxxx	xxxx	xxxxx												
SharedQueue:	0.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.1	xxxxx	xxxxx	xxxx	xxxxx												
Shrd ConDel:	7.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	8.6	xxxxx	xxxxx	xxxx	xxxxx												
Shared LOS:	A	*	*	*	*	*	*	A	*	*	*	*												
ApproachDel:	xxxxxx			xxxxxx				8.6			xxxxxx													
ApproachLOS:	*			*				A			*													

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

****

Intersection #2 LUNDY/TAROB CT

****

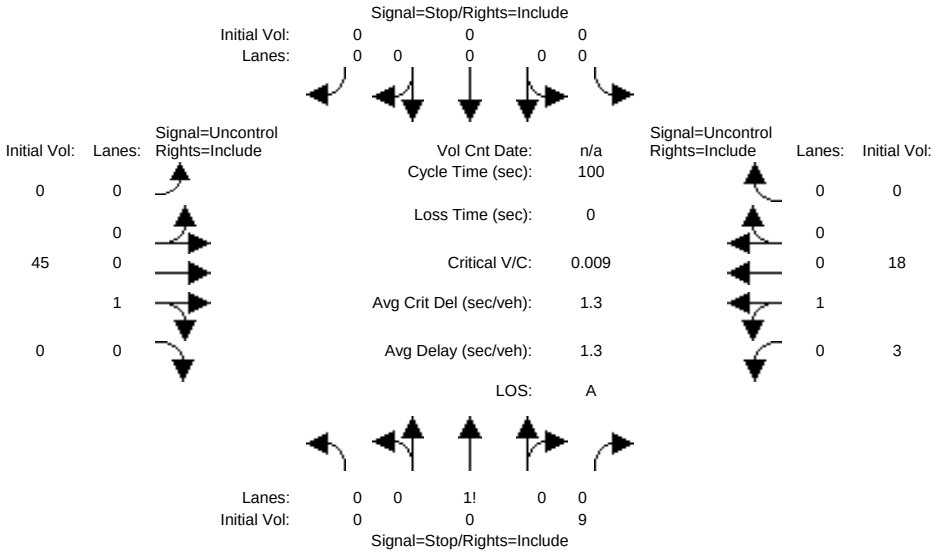
Future Volume Alternative: Peak Hour Warrant NOT Met


```
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  1  0  0  0    0  0  0  1  0    0  0  1! 0  0    0  0  0  0  0
Initial Vol:   30    7     0     0   12     2     7    0    40     0    0     0
ApproachDel:    xxxxxx           xxxxxx              8.6           xxxxxx
------------|---------------||---------------||---------------||---------------|
Approach[eastbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=47]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=98]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
                Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #2 LUNDY/TAROB CT
********************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  1  0  0  0    0  0  0  1  0    0  0  1! 0  0    0  0  0  0  0
Initial Vol:   30    7     0     0   12     2     7    0    40     0    0     0
------------|---------------||---------------||---------------||---------------|
Major Street Volume:              51
Minor Approach Volume:            47
Minor Approach Volume Threshold: 1013
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```


2001 Tarob Court

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing PM

Intersection #3: PROJECT DRWY/TAROB CT



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Volume Module:												
Base Vol:	0	0	9	0	0	0	0	45	0	3	18	0
Growth 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
Initial Bse:	0	0	9	0	0	0	0	45	0	3	18	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	9	0	0	0	0	45	0	3	18	0
User 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
PHF 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
PHF Volume:	0	0	9	0	0	0	0	45	0	3	18	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	9	0	0	0	0	45	0	3	18	0
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	6.2	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	45	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	45	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	1031	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1576	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	1031	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1576	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	0.01	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.00	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	0.0	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx
Control Del:	xxxxx	xxxx	8.5	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.3	xxxx	xxxxx
LOS by Move:	*	*	A	*	*	*	*	*	*	A	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.3	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	A	*	*
ApproachDel:	8.5			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	A			*			*			*		

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

****

Intersection #3 PROJECT DRWY/TAROB CT

****

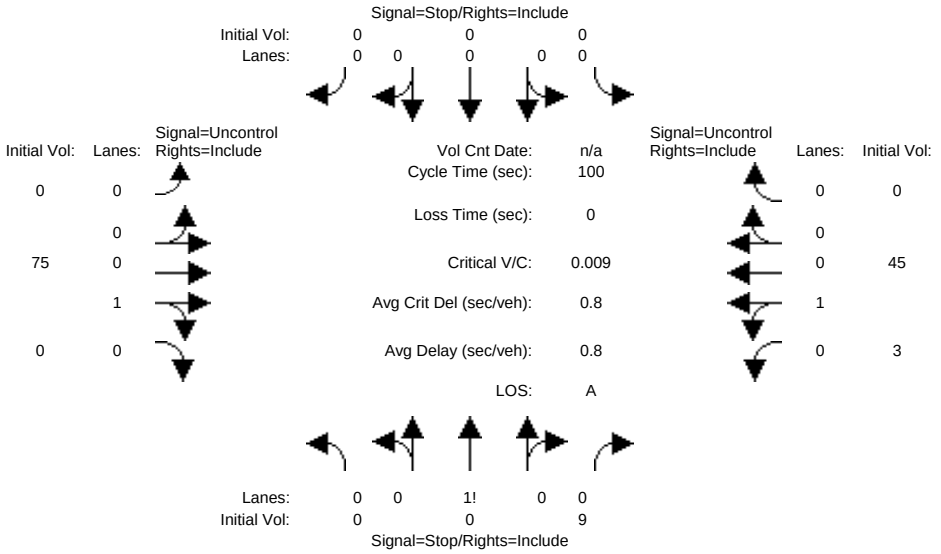
Future Volume Alternative: Peak Hour Warrant NOT Met


```
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  0  0  1    0  0  0  0  0    0  0  1  0  0    0  1  0  0  0
Initial Vol:    0    0     9     0    0     0     0   45     0     3   18     0
ApproachDel:       8.5           xxxxxx           xxxxxx           xxxxxx
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=9]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=75]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
                Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #3 PROJECT DRWY/TAROB CT
********************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  0  0  1    0  0  0  0  0    0  0  1  0  0    0  1  0  0  0
Initial Vol:    0    0     9     0    0     0     0   45     0     3   18     0
------------|---------------||---------------||---------------||---------------|
Major Street Volume:              66
Minor Approach Volume:            9
Minor Approach Volume Threshold: 944
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```


2001 Tarob Court

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Background PM

Intersection #3: PROJECT DRWY/TAROB CT



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Volume Module:												
Base Vol:	0	0	9	0	0	0	0	75	0	3	45	0
Growth 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
Initial Bse:	0	0	9	0	0	0	0	75	0	3	45	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	9	0	0	0	0	75	0	3	45	0
User 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
PHF 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
PHF Volume:	0	0	9	0	0	0	0	75	0	3	45	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	9	0	0	0	0	75	0	3	45	0
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	6.2	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	75	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	75	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	992	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1537	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	992	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1537	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	0.01	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.00	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	0.0	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx
Control Del:	xxxxx	xxxx	8.7	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.3	xxxx	xxxxx
LOS by Move:	*	*	A	*	*	*	*	*	*	A	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.3	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	A	*	*
ApproachDel:	8.7			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	A			*			*			*		

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

****

Intersection #3 PROJECT DRWY/TAROB CT

****

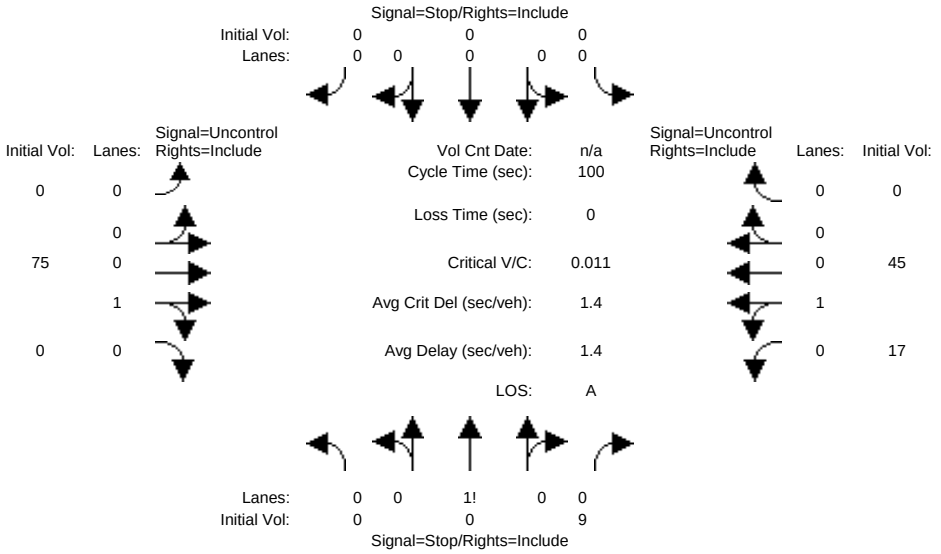
Future Volume Alternative: Peak Hour Warrant NOT Met


```
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  0  0  1    0  0  0  0  0    0  0  1  0  0    0  1  0  0  0
Initial Vol:    0    0     9     0    0     0     0   75     0     3   45     0
ApproachDel:       8.7           xxxxxx           xxxxxx           xxxxxx
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=9]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=132]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
              Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #3 PROJECT DRWY/TAROB CT
********************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  0  0  1    0  0  0  0  0    0  0  1  0  0    0  1  0  0  0
Initial Vol:    0    0     9     0    0     0     0   75     0     3   45     0
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             123
Minor Approach Volume:           9
Minor Approach Volume Threshold: 778
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```


2001 Tarob Court

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Background + Project PM

Intersection #3: PROJECT DRWY/TAROB CT



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Volume Module:												
Base Vol:	0	0	9	0	0	0	0	75	0	17	45	0
Growth 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
Initial Bse:	0	0	9	0	0	0	0	75	0	17	45	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	9	0	0	0	0	75	0	17	45	0
User 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
PHF 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
PHF Volume:	0	0	9	0	0	0	0	75	0	17	45	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	9	0	0	0	0	75	0	17	45	0
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	6.2	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	75	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	75	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	992	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1537	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	992	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1537	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	0.01	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.01	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	0.0	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx
Control Del:	xxxxx	xxxx	8.7	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.4	xxxx	xxxxx
LOS by Move:	*	*	A	*	*	*	*	*	*	A	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.4	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	A	*	*
ApproachDel:	8.7			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	A			*			*			*		

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

****

Intersection #3 PROJECT DRWY/TAROB CT

****

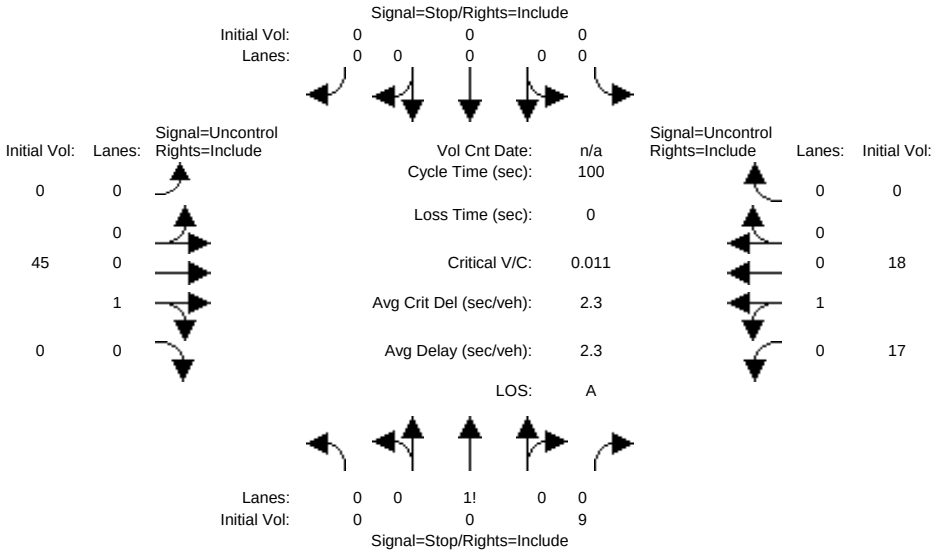
Future Volume Alternative: Peak Hour Warrant NOT Met


```
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  0  0  1    0  0  0  0  0    0  0  1  0  0    0  1  0  0  0
Initial Vol:    0    0     9     0    0     0     0   75     0    17   45     0
ApproachDel:       8.7           xxxxxx           xxxxxx           xxxxxx
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=9]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=146]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
                Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #3 PROJECT DRWY/TAROB CT
********************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  0  0  1    0  0  0  0  0    0  0  1  0  0    0  1  0  0  0
Initial Vol:    0    0     9     0    0     0     0   75     0    17   45     0
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             137
Minor Approach Volume:           9
Minor Approach Volume Threshold: 750
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```


2001 Tarob Court

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing+Project PM

Intersection #3: PROJECT DRWY/TAROB CT



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Volume Module:												
Base Vol:	0	0	9	0	0	0	0	45	0	17	18	0
Growth 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
Initial Bse:	0	0	9	0	0	0	0	45	0	17	18	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	9	0	0	0	0	45	0	17	18	0
User 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
PHF 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
PHF Volume:	0	0	9	0	0	0	0	45	0	17	18	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	9	0	0	0	0	45	0	17	18	0
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	6.2	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	45	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	45	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	1031	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1576	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	1031	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1576	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	0.01	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.01	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	0.0	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx
Control Del:	xxxxx	xxxx	8.5	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.3	xxxx	xxxxx
LOS by Move:	*	*	A	*	*	*	*	*	*	A	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.3	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	A	*	*
ApproachDel:	8.5			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	A			*			*			*		

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

****

Intersection #3 PROJECT DRWY/TAROB CT

****

Future Volume Alternative: Peak Hour Warrant NOT Met


```
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  0  0  1    0  0  0  0  0    0  0  1  0  0    0  1  0  0  0
Initial Vol:    0    0     9     0    0     0     0   45     0    17   18     0
ApproachDel:       8.5           xxxxxx           xxxxxx           xxxxxx
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=9]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=89]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
                Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #3 PROJECT DRWY/TAROB CT
********************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  0  0  1    0  0  0  0  0    0  0  1  0  0    0  1  0  0  0
Initial Vol:    0    0     9     0    0     0     0   45     0    17   18     0
------------|---------------||---------------||---------------||---------------|
Major Street Volume:              80
Minor Approach Volume:            9
Minor Approach Volume Threshold: 893
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

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a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```
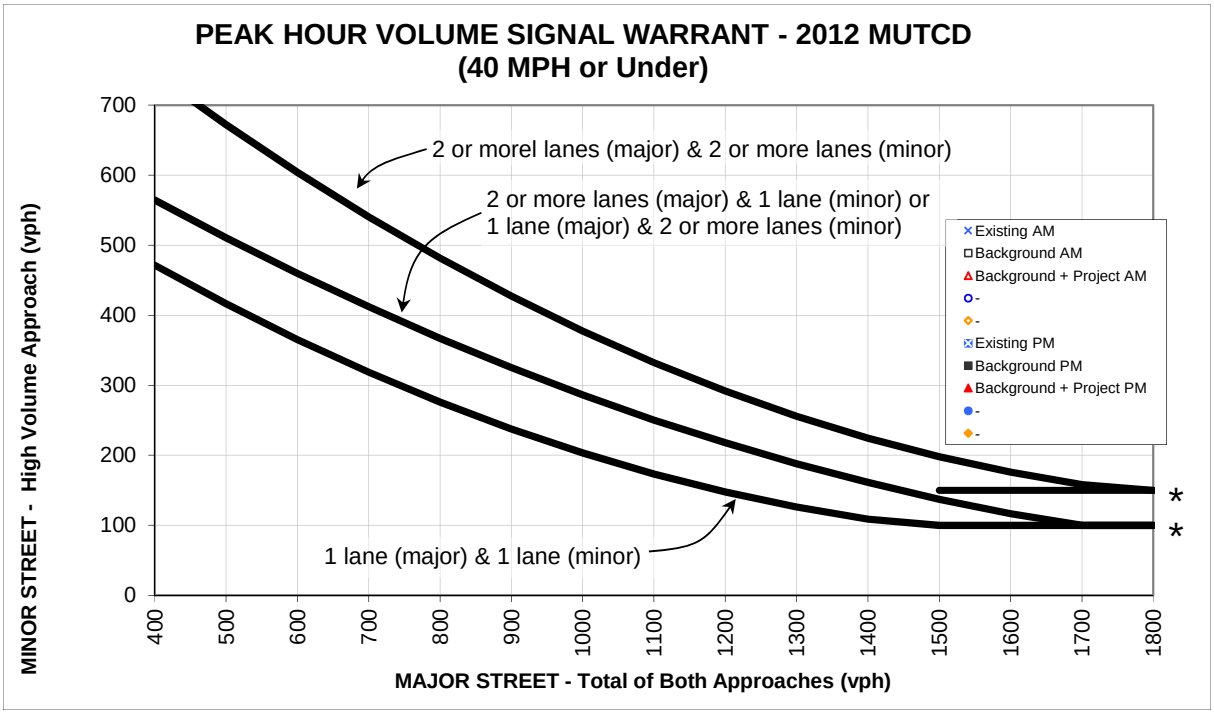


Traffic Signal Warrant

Lundy Avenue and Tarob Court



* NOTE: 150 vph applies as the lower threshold volume for a minor street approach with 2 or more lanes and 100 vph applies as the lower threshold volume for a minor street approach with 1 lane.

Peak Hour Volume Warrant Per 2012 MUTCD- 40 MPH or Under

AM Peak Hour Volumes

		Approach Lanes: One	Approach Lanes: 2 or More	Existing AM	Background AM	Background + Project AM		
Major Street - Both Approaches	Lundy Avenue	x		75	129	125		
Minor Street - Highest Approach	Tarob Court	x		16	58	71		
	Warrant Met?			N	N	N		

PM Peak Hour Volumes

		Approach Lanes: One	Approach Lanes: 2 or More	Existing PM	Background PM	Background + Project PM		
Major Street - Both Approaches	Lundy Avenue	x		37	95	109		
Minor Street - Highest Approach	Tarob Court	x		47	77	77		
	Warrant Met?			N	N	N		