Environmental Assessment

for

Agua Caliente Fuel – Palm Springs

September 2024

Prepared for:
Agua Caliente Band of Cahuilla Indians
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1.0 <u>PURPOSE AND NEED</u>

Introduction
The purpose of the Environmental Assessment (EA) is to comply with the Agua Caliente Band of Cahuilla Indians (the "Tribe") Tribal Environmental Policy Act (TEPA; Tribal Code 27.02.03(D)). The EA will evaluate and determine the Project's environmental significance on a number of criteria. The document will assist the Tribe in their planning and decision-making process, as required by TEPA (Tribal Code 27.02.10(D)).

Agua Caliente Fuel – Palm Springs (the "Project), is a proposed gas station and convenience store located on the northwest corner of Dinah Shore Drive and Lawrence Crossley Road in Palm Springs, Riverside County, California. The Project occupies approximately 3.6 acres (or about 155,000 square feet (sf)), net of public right-of-way easements, of vacant land with sparse desert vegetation. At full buildout, the convenience store accounts for 9,500 square feet (sf) and the remaining square footage is distributed between the fuel dispensing area, electric vehicle (EV) charging stations, parking spaces, and landscaping areas. The Project's development is proposed on Tribal land, requiring its compliance with the Agua Caliente Tribal Code.

The Project is located within Section 20, Township 4 South, Range 5 East, San Bernardino Base and Meridian (SBBM), California. Section 20 is defined by Ramon Road (north), Dinah Shore Drive (south), Vella Road (west) and Landau Boulevard (east) on Tribal land within the Agua Caliente Indian Reservation, thus the Tribal government has jurisdiction over the Project and will serve as lead agency.

Purpose and Need
The Project is proposed by the Tribe to diversify its financial portfolio, develop Indian lands, and generate interest in their other business ventures. Overall, the Tribe intends to increase capital value, create new revenue streams, and support the Tribe's goal for self-sufficiency and self-governance.

Proposed Project (Preferred Alternative)
The Tribe proposes a gas station on the northwest corner of Dinah Shore Drive and Lawrence Crossley Road in the city of Palm Springs, Riverside County, California. The Project site is approximately 3.6 acres. The surrounding environment to the south, east, and immediately to the west, appear similar to the Project site (undeveloped and vacant with few desert plants), and there are commercial buildings to the north. Notable landmarks in proximity to the Project site include the Tribe's Administration Plaza located at 5401 Dinah Shore Drive (southwest), Highway 111 (HW-111, west), the Whitewater River (east), and Interstate 10 (I-10, north). Please see Exhibits 1 through 3.

On the Project site's north half, an 8,600-sf convenience store is proposed, consisting of a food service/commercial shop and a Class II gaming space with slot machines. Additionally, in service to the convenience store, 90 parking spaces along the store's east, west and south sides are proposed of which 12 will be Level 3 EV charging stalls. On the south half, a fuel station with 12 multi-product dispensers (MPDs), allowing a maximum occupancy of 24 cars at a given time, is found immediately across from the convenience store. The Project also includes the potential to expand the convenience store/gaming area up to 900-sf, that would bring the total square footage of the convenience store to 9,500-sf.

The Project site is bound on the south by Dinah Shore Drive, on the east by Lawrence Crossley Road, on the north by Indian Springs Road, and on the west by undeveloped land and San Luis Rey Drive beyond. The site plan for the Project indicates three separate entrances/exits at the southwest corner along Dinah Shore Drive, central to the Project site on its east boundary onto Lawrence Crossley Road, and at the northwest corner along Indian Springs Road (see Exhibit 4).

In terms of landscaping, all four sides of the Project site are proposed to have drought tolerant vegetation, consistent with Palm Springs Zoning Code Section 92.21.1.05. In addition, a retention area is proposed along Dinah Shore Drive. Table 1 provides a summary of the Project components.

Table 1
Project Summary Table

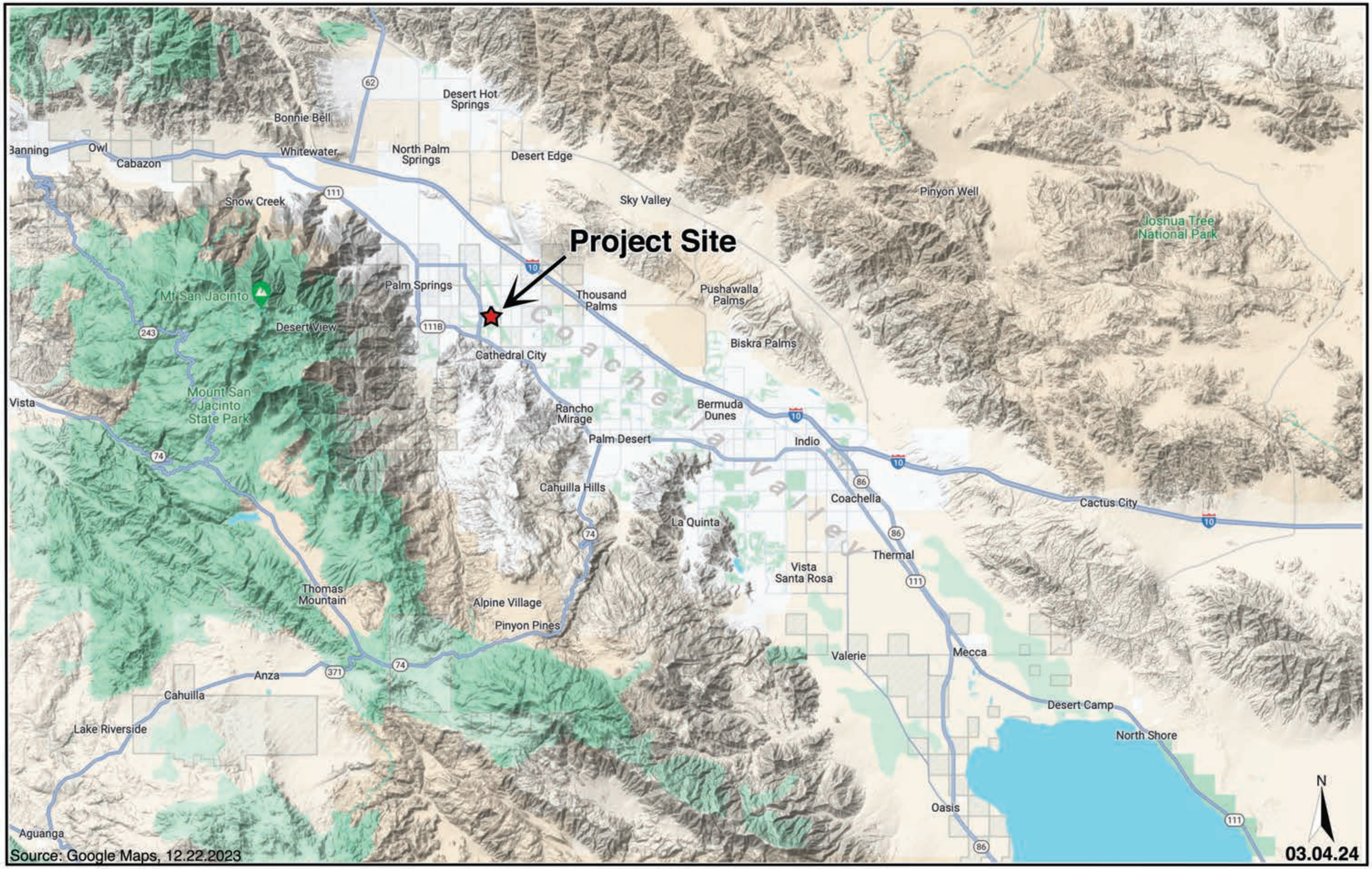
Project Site Area	3.6 acres (or approximately 155,000-sf)
Number of MPDs	12
Number of EV charging stalls	12
Number of Parking Spaces (excluding EV)	78
Other On-Site Amenities	Convenience retail, food, and gaming space

Timeframe
The Project's construction is anticipated to occur within the next year, with an estimated time of one year for construction. It is anticipated an additional six months of construction would be required for the future expansion. Therefore, the total construction time for the Project is eighteen months.

General Setting
The Project's site is approximately 3.6-acres of vacant land with sparse desert vegetation. It is located on the northwest corner of intersection Dinah Shore Drive and Lawrence Crossley Road in Palm Springs. The Project site's surrounding environment consists of undeveloped and vacant land to the east across Lawrence Crossley Road, south across Dinah Shore Drive, and immediately to the west, and commercial buildings to the north across Indian Springs Road. The Project is located within an urban area with multiple industrial and commercial buildings in its vicinity.

On a larger scope, the Project is located in Palm Springs within the western portion of the Coachella Valley that is geographically bound by the San Jacinto Mountains to the west, the Santa Rosa Mountains to the south, Little San Bernardino Mountains and San Bernardino Mountains to the north, and Indian Canyons to the southwest. On a larger scope, the Project is part of the Colorado Desert and Riverside County.

The Project site is part of the Section 20, Township 4 South, Range 5 East, San Bernardino Base and Meridian, allotted for the Tribe as Indian reservation land. The Agua Caliente Indian Reservation totals to approximately 34,000 acres throughout the western Coachella Valley including the cities of Palm Springs, Cathedral City, Rancho Mirage, and unincorporated areas of Riverside County.



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Agua Caliente Fuel - Palm Springs
Regional Location Map
Palm Springs, California

Exhibit
1

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Agua Caliente Fuel - Palm Springs
Project Vicinity Map
Palm Springs, California

Exhibit
2

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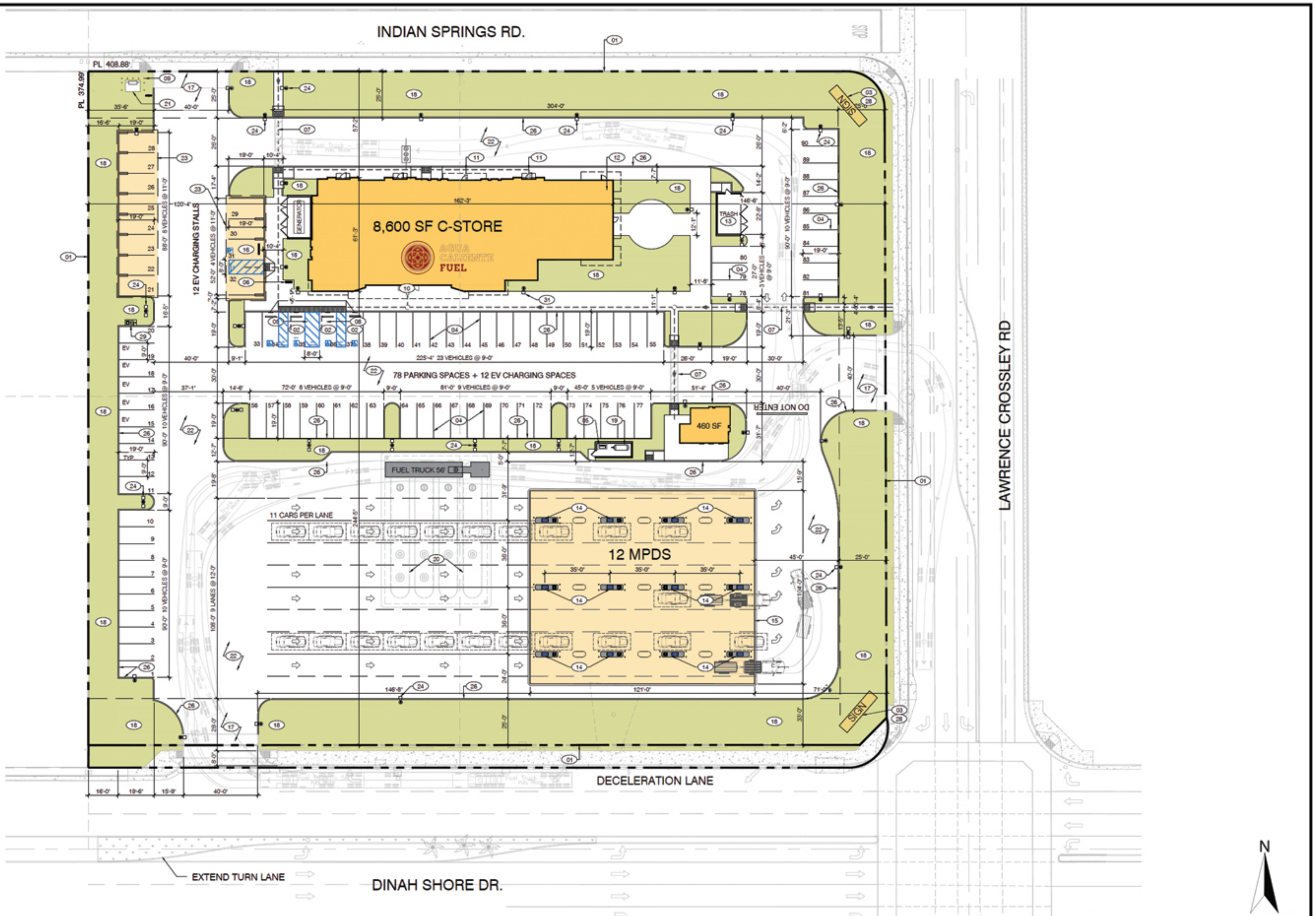
Agua Caliente Fuel - Palm Springs
Project Location
Palm Springs, California

Exhibit
3



Source: Marks Architects, 08.02.2024

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Agua Caliente Fuel - Palm Springs
Project Site Plan
Palm Springs, California

Exhibit
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2.0 PROJECT ALTERNATIVES AND COMPARISON

2.1 No Action Alternative

The No Action Alternative would leave the Project site in its existing vacant and undeveloped condition. This Alternative would not diversify Tribal enterprises and would not increase the Tribe's long term income opportunities. This alternative would not support the Tribe's economic development goals, but provides a baseline for the analysis of the other alternatives considered in this Environmental Assessment.

2.2 Business Park Alternative

The Project is located on Tribal land and is subject to the Tribal Land Use Ordinance. According to this ordinance, the Project site is zoned Tribal Enterprise, where allowable uses are subject to Tribal Council determination. The rest of Section 20, in which the Project site is located, is subject to city land use control per the Tribe's Land Use Contract with Palm Springs. According to the Palm Springs Zoning Code, the subject site is situated in the service/manufacturing zone (M-1). This zone is intended for commercial and industrial uses, as well as industrial fabrication, manufacturing, and processing uses. This alternative assumes that the Project site would be developed with a business park at the maximum permitted intensity allowed in the M-1 zone. This would include a building footprint of approximately 93,000 SF at a site coverage of 60%, a maximum building height of 40 feet, and 25-foot front setbacks.

This Alternative would allow the diversification of Tribal businesses, but would have a lesser positive financial benefit to the Tribe.

This Alternative proposes a more intense use of the subject site, and therefore would have greater impacts than the Preferred Alternative, such as traffic, noise, and air quality impacts. The Business Park Alternative would, however, result in the same site disturbance as the Preferred Alternative, and therefore impacts to biological, cultural, and land resources would be similar under both alternatives.

Land Resources

Both the Preferred and Business Park Alternatives would result in disturbance of the entire site, and would require similar quantities of grading and compliance with seismic requirements. Soils, geology, and topography would be impacted comparably under the two Alternatives.

Water Resources

Both the Preferred and the Business Park Alternative would involve disturbance of the entire site, and would require preparation of a Hydrology Study, Water Quality Management Plan, and Stormwater Pollution Prevention Plan. Implementation of these plans would ensure that the impacts to surface water and flooding would be similar under either alternative.

Air Quality

The Business Park Alternative proposes more intense land uses than the Preferred Alternative, and would therefore be expected to generate more emissions over the course of construction. Given that the Preferred Alternative is a less intense land use and associated traffic would largely be pass-by trips, while the Business Park Alternative would likely increase the number of heavy trucks traveling to and from the site, it would be expected to generate lower operational air quality emissions.

Living Resources
There are no agricultural lands in Palm Springs, so impacts to those resources would not occur under any alternative. Both the Preferred and Business Park Alternatives would result in disturbance of the entire site, and therefore would have comparable impacts to wildlife and wilderness resources.

Cultural Resources
Potential impacts on historical, archaeological, and religious resources will be similar for both the Preferred Alternative and the Business Park Alternative, as both Alternatives require disturbance of the entire site. The Alternatives are not located on or near a historical, archaeological, or religiously significant area. However, both Alternatives would require consultation with the Tribal Historic Preservation Office prior to disturbance. The Tribal Historic Preservation Office standards require an Agua Caliente Cultural Monitor to be present for all ground-disturbing activities for either of the two Alternatives.

Socioeconomic Conditions
The Preferred Alternative would result in greater economic benefit to the Tribe compared to the Business Park Alternative. The Preferred Alternative also creates new employment opportunities for the residents of Palm Springs and surrounding areas. The Business Park Alternative would also generate jobs in a variety of fields, including potentially manufacturing and construction related fields.

Resource Use Patterns
Neither the Preferred Alternative nor the Business Park Alternative would disturb a hunting, timber, or mineral resource. The site's existing condition is undeveloped with sparse desert vegetation, and therefore the presence of these resources is absent. The physical landscape (soil, water retention, location) of the site is not viable for hunting, timber, or mining of mineral resources.

Transportation
Both the Preferred Alternative and the Business Park Alternative would have an impact on traffic due to the site's geographical location, surrounding commercial and industrial buildings, and the nature of gas stations and business parks. Both Alternatives would operate adjacent to Dinah Shore Drive and Lawrence Crossley Road and require roadway modifications that include a deceleration lane and median divider to manage traffic, in accordance with the City of Palm Springs traffic standards and requirements. According to the traffic report, the Preferred Alternative will shorten trips by operating a gas station for existing travelers and would have less than significant impact on area roadways. The Business Park Alternative would generate additional trips, and potentially heavy truck trips, depending on the users of the business park.

Other Values
The Preferred Alternative would cause greater light pollution than the Business Park Alternative, due to its operation hours during the evening. However, consistent with the City of Palm Springs Zoning, light pollution will be mitigated with shades to redirect the light downwards, preventing light from illuminating the sky unnecessarily.

2.3 Preferred Alternative
As detailed in Section 3 of this document, the Preferred Alternative would not result in any significant impacts to the human environment. The No Action Alternative would have no impact on the human environment because the site would remain as it currently exists, vacant with spare desert growth. The No Action Alternative, in comparison to the Preferred Alternative, would have adverse effects because it limits the Tribe’s opportunity for development and the establishment of new revenue streams. The Preferred Alternative, in this case, would diversify the Tribe’s financial portfolio, increase the value of their assets, and create a new revenue output to support the Tribe’s goal for self-sufficiency and independence.

The Preferred Alternative would provide consumers with additional fuel, convenience retail, food, and entertainment opportunities, potentially reducing their current driving distance and/or travel time to existing facilities providing these goods and services. The Preferred Alternative is therefore the most effective in meeting the purpose and need for the Project.

3.0 ENVIRONMENTAL IMPACTS

3.1 Land Resources

The Project site is undeveloped and vacant with sparse desert vegetation. The surrounding environment shares the site's attributes (undeveloped and vacant), apart from the commercial builds to the north beyond Indian Springs Road.

A. Topography

The Coachella Valley (the "Valley") is a rift valley and is part of the Colorado Desert's southern region. The Valley is geographically defined by the San Jacinto Mountains and Santa Rosa Mountains to the west, Orocopia Mountains to the east, the San Bernardino Mountains and Little San Bernardino Mountains to the north, and the Salton Sea to the south. On the Valley floor, the region's elevation on the north reaches a maximum of 1,600-feet (ft) above sea level and the lower elevations to the south reach a minimum of 250-ft below sea level.

The Project is located on the east side of Palm Springs, near the city limit neighboring Cathedral City. The City of Palm Springs is surrounded by the San Jacinto Mountains (west), Santa Rosa Mountains (south), Little San Bernardino Mountains and San Bernardino Mountains (north), and Indian Canyons (southwest). The Project site is relatively flat with a 0-5% slope and an elevation of approximately 360-ft. above mean sea level (AMSL). According to biological field investigation, the site is composed of stable or partially stable dunes. The stabilization is likely the result of commercial development to the north and west disrupting aeolian sand deposits that would otherwise have created active sand dunes and sand field.

At the site, no stream, springs, or other bodies of water, active drifts, rock outcrops, rocky area, or clay lenses were observed. The site is vacant, currently comprised of sand, desert vegetation, and paved roadways. The nearest waterway is the Whitewater River (east) and the Palm Canyon Wash (south), at a distance of approximately 0.4 miles and 0.5 miles, respectively.

Groundwater

The City of Palm Springs is home to the Whitewater River watershed, and Indio- and the Mission Creek-Subbasin, all of which are part of the Coachella Valley Groundwater Basin.

The Whitewater River watershed is the main source of groundwater for the Coachella Valley, spreading across cities including Palm Springs, Cathedral, Rancho Mirage, Palm Desert, Indian Wells, La Quinta, Indio, and Coachella. The watershed's water capacity is 39 million acre-feet (af). [1] The Mission Creek Subbasin is located in the northwest portion of the Valley and has a water capacity of 2.6 million af.[2]

Desert Water Agency (DWA) services a 325-square mile area including Desert Hot Springs, Palm Springs, and part of Cathedral City. In the city of Palm Springs, DWA owns and manages 29 active wells, connecting to 392 miles of pipeline in which water is pumped from the Indio- and Mission

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1 California Department of Water Resource, Coachella Valley Groundwater Basin, Indo Subbasin (accessed December 2023)

2 California Department of Water Resource, Coachella Valley Groundwater Basin, Mission Creek Subbasin (accessed December 2023)

Creek-Subbasins and delivered to 23,000 active connections, servicing a population of approximately 72,000 (including seasonal population). The water is a source for urban, industrial, and golf course use. DWA ensures water quality is in accordance with regulations by the State Water Resource Control Board (SWRCB) Division of Drinking Water and the U.S. Environmental Protection Agency (EPA), as their latest 2022 water quality report indicates.

In terms of groundwater management, DWA works with Coachella Valley Water District to replenish the Whitewater River watershed and Mission Creek subbasin. This partnership is driven by conservation measures to prevent the groundwater basins from being in overdraft. The basins are recharged by groundwater replenishment facilities drawing water from the Colorado River Aqueduct via the Coachella Branch of the All-American Canal. In conjunction with these efforts, DWA practices sustainability by capturing water from mountain streams including Chino Creek, Snow Creek, and Fall Creek.

The Project is not located on or near a water source. The Whitewater River Channel is approximately 0.4 miles east.

B. Soils

The site's soil is Myoma fine sand.[3] Myoma fine sand is formed by wind-blown sand from recent alluvium carried across the Valley floor. Although the site is sandy and is in an area historically subject to sand dune formation, the soil appears to be stable or becoming stable. There are no indications of active sand dunes, although the Tribal Habitat Conservation Plan (THCP) classifies the site as "Active Sand Fields". A potential reason for the stabilization of the site is the result of existing and ongoing development to the north and west, interrupting aeolian sand deposits that would have likely caused active sand dunes and sand fields.

C. Geologic Hazards

The Coachella Valley is categorized as a seismically active zone by its proximity to the San Andreas Fault and San Jacinto Fault, which is known to be active.

Seismic Faults

The Coachella Valley is a fault-bound depression, where the San Andreas Fault system runs along the northern margin. The San Andreas Fault zone starts east, near the Salton Sea, and continues north along the San Bernardino Mountains, and east beyond the Valley along the San Gabriel Mountains. The zone outlines where the Pacific and North American tectonic plates meet and move laterally in opposite directions (northwest and southwest, respectively). Additionally, the Banning Fault is a subordinate fault to the San Andreas Fault that runs east to west through the Valley between the San Andreas Fault and the San Jacinto Fault to the west.

In relation to the Project, the San Andreas and Banning Faults run to the north. The Garnet Hill Fault, a strand of the San Andreas Fault, is the nearest to the Project's site on the north. The fault is a north-dipping right lateral strike slip fault. The fault has the potential for a 6.0-7.0 moment magnitude (Mw).[4]

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3 WSP USA Environment and Infrastructure, Inc. (accessed December 2023)

4 Southern California Earthquake Data Center, https://scedc.caltech.edu/earthquake/garnethill.html (accessed December 2023)

Seismic Groundshaking
The Project is subject to seismic groundshaking from the San Andreas Fault and related fault networks including the Banning, San Jacinto, and the Garnet Faults. The seismic activity affecting the site is dependent on four factors: intensity, duration, proximity, and geologic conditions of the site and surrounding area. The Tribal Building and Safety Code amends the latest California and International Building Standards Codes and is applicable to tribal lands, as in the case of the Project. The building standards require collapse-resistant design to ensure related impacts from seismic groundshaking are less than significant.

Liquefaction
Liquefaction occurs when loosely packed or water-lodged sediments become saturated with groundwater (generally less than 50 feet below the surface), losing their strength during an earthquake. The soil's instability gives in to the pressure from infrastructure, causing the collapse of buildings and bridges during a seismic groundshaking episode. The Valley's western portion, including Palm Springs, does not have liquefaction zones.[5] The Project is on fine-grained sediments susceptible to liquefaction, but water under the site occurs at a depth greater than 50 feet. The site is not located on or near a liquefaction zone.

Paleontological Resources
Paleontological resources are fossils, remains, impressions, or traces of living organisms preserved in rocks and sediments. A significant paleontological resource is a site with a rare or previously unknown species that can generate greater information about the history and trajectory of life on Earth. The degree of significance for a paleontological resource site is determined by the Potential Classification Yield Classification System (PFYC). The classification is ranged from least to most significant:

- Class 1: Site does not contain paleontological resources.
- Class 2: Site is not likely to have paleontological resources.
- Class 3: Site paleontological resources ranges in significance.
- Class 4: Site paleontological resources is high.
- Class 5: Site paleontological resources are high with a degree of significance.
- Class U: Site paleontological resources is unknown.

The Project occurs within a Class 2 classification.

Conclusion
Overall, the construction of the Project on the northwest corner of Dinah Shore Drive and Lawrence Crossley Road does not pose a geological hazard nor does it disrupt paleontological resources.

[5] California State Geoportal, Liquefaction Zones, https://gis.data.ca.gov/maps/ (accessed December 2023)

3.2 Water Resources

Surface Water and Drainage

The Project site is relatively flat, at an elevation of approximately 109 meters (360 feet) above mean sea level. No streams, washes, drainages, or other bodies of water occur on the subject site. The nearest mapped waterways are the Whitewater River, located approximately 0.4 miles to the east, and Palm Canyon Wash, located approximately 0.5 miles south of the site. The Project property is currently bound by existing public roadways to the north, east, and south.

An on-site retention basin will be provided along the Project's northern frontage with Indian Springs Road. This retention basin will be required to have adequate capacity for all additional run-off resulting from impervious surfaces added to the site by the proposed development. Prior to the issuance of grading permits, the Tribe will require the preparation a of hydrology study. This study must assure that on-site retention will be designed to accommodate the 100-year storm, and will be consistent with the Tribe's and the City's requirements on the on-site retention of storm flows. This will ensure that impacts to drainage will be less than significant.

Prior to development of the proposed Project, a water quality management plan (WQMP) and Stormwater Pollution Protection Plan (SWPPP) will also be required to protect the water quality of storm flows. The WQMP and SWPPP will include Best Management Practices (BMPs) to ensure that storm flows are free from pollution resulting from construction and operation of the Project, before the flows enter the groundwater system. These BMPs will be approved by the Tribe during the grading permit process, ensuring that impacts to surface water will be less than significant.

Flooding

According to the FEMA flood insurance rate map (FIRM) Number 06065C1586G, the subject site is in Zone X, denoting an area of minimal flood hazard. The Project's hydrology study will be required to set forth a design ensuring that the Project and adjacent streets and lands will be protected from the 100-year storm event, and that the proposed development will not result in on- or off-site flooding.

Groundwater

The Whitewater River/Indio Subbasin is the primary groundwater source for Palm Springs. Desert Water Agency provides domestic water service to most of Palm Springs, including the subject site. DWA participates in joint groundwater basin management with the Coachella Valley Water District (CVWD) for the Indio Subbasin, as described above. Natural recharge to the groundwater basin occurs through surface runoff and recharge. DWA and CVWD provide groundwater replenishment using water imported via the State Water Project (SWP).

Local and regional water agencies have developed and are implementing long-range plans and programs to assure the availability and provision of adequate high-quality water for the future. For example, the 2022 Indio Subbasin Water Management Plan Update was prepared for DWA, CVWD, the Coachella Water Authority, and the Indio Water Authority pursuant to the Sustainable Groundwater Management Act.

Water Use
The subject site is within the service boundary for the DWA, which participated in the preparation of the Coachella Valley Regional Urban Water Management Plan (RUWMP) in 2020 to meet State reporting requirements. DWA uses groundwater and local surface water to provide potable water, as well as recycle water and local surface water for non-potable uses.

The Project would use water for indoor commercial purposes as well as for irrigation of landscaped areas. Indoor water demand was calculated using the water consumption factor for supermarkets from the Water Research Foundation (WRF) Commercial and Industrial End Uses of Water (2000). While the water consumption factor for supermarkets may overstate the water demand expected from the convenience store and Class II Gaming area, this estimate conservatively accounts for food and product sales at the convenience store. Using the WRF factor of 52 gallons per square foot per year, and the ultimate buildout of up to 9,500 square feet (including potential future phases of development), the Project is expected in generate an indoor water demand of 1.52 acre-feet per year (AFY).

Based on the minimum requirement of 25% landscaped area in the M-1 zone according to the Palm Springs Zoning Code, the Project site is assumed to include approximately 39,000 square feet of landscaped area. This landscaped area is estimated to consume 1.97 AFY of water, as shown in Table 2, below.

Table 2
Water Demand at Project Buildout

Proposed Land Use	Quantity	Water Consumption Factor	Water Demand (gpd)	Total Water Demand at Buildout (AFY)
Commercial	9,500 SF	52 gallons per SF per year	1,353.42	1.52
Landscaping	39,000 SF	58.87 ETo (in/yr) x 0.45 ETAF x 0.62 conversion factor (gal/SF)	1,754.97	1.97
		TOTAL	3,113.39	3.49
Commercial water consumption factor based on WRF Commercial and Industrial End Uses of Water (2000).				

As shown in the above table, the Project is estimated to consume approximately 3,100 gallons per day or 3.5 acre-feet per year of water for indoor and outdoor uses. The proposed development will be required to comply with the water efficiency requirements provided in the Tribe's Land Use Ordinance and Building and Safety Code.

According to the Coachella Valley RUWMP, DWA's actual water supply was 33,207 AFY in 2020, and its projected water supply in 2025 is 39,641 AFY. The RUWMP demonstrates that with the reliability of its groundwater, surface water, and recycled water supplies, DWA can meet demands through 2045 during normal, single dry year, and multiple dry year periods. The Project's estimated water demand of 3.5 AFY would represent approximately 0.1% of the 6,434 AFY of planned increases in the DWA's water supplies between 2020 and 2025. Water use associated with the proposed Project is therefore anticipated to have less than significant impacts.

Water Quality
The US Environmental Protection Agency (EPA) administers and implements the Clean Water Act of 1972, as amended. The purpose of the Act is to protect water quality from the discharge of pollutants generated by the man-made environment. The programs established under the Act

include the National Pollution Discharge Elimination System (NPDES), which is a program that protects receiving waters from surface water pollution. Although the Tribe is not required to be a permittee under the NPDES, the Project will generate surface water flows which will enter the City of Palm Springs' drainage system, and the City will require that these flows comply with its permit requirements. The City operates under the Whitewater River Watershed plan (MS4), under permit by the Colorado River Basin region of the Water Quality Control Board.

These regulatory requirements will require the preparation of a Project-specific Water Quality Management Plan (WQMP) and Stormwater Pollution Prevention Plan (SWPPP). Both required documents will include Best Management Practices (BMPs) to control and minimize pollution in surface waters. These measures will ensure that the proposed development will have less than significant impacts on water quality.

3.3 Air Quality

The Project site is within the Riverside County portion of the Salton Sea Air Basin (referred to as Coachella Valley Planning Area or Coachella Valley), under the jurisdiction of the South Coast Air Quality Management District (SCAQMD).

The State of California and the EPA have established ambient air quality standards (AAQS) for the seven most common air pollutants, known as criteria pollutants: ground-level ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulate matter with a diameter of 10 microns or less (PM_{10}), and particulate matter less than 2.5 microns ($PM_{2.5}$), and lead (Pb). California has also set limits for sulfates, hydrogen sulfide (H2S), vinyl chloride, and visibility-reducing particles.

SCAQMD operates three air quality monitoring stations in Source Receptors Area (SRA) 30 (Coachella Valley): Indio, Palm Springs, and Mecca. These stations measure existing air quality in the Coachella Valley, which is evaluated in the context of the ambient air quality standards. The Riverside County portion of the Salton Sea Air Basin (SSAB) is federally designated as being in non-attainment for ozone (non-attainment – extreme) and for PM_{10} (non-attainment – serious).[6] In order to achieve attainment for PM_{10} in the region, the 2003 Coachella Valley PM_{10} Management Plan was adopted, which established strict standards for dust management for development projects.

Regulatory Setting

National Environmental Policy Act (NEPA)
The National Environmental Policy Act of 1969 requires federal agencies to evaluate the environmental and related social and economic effects of a proposed action, including the potential to significantly impact air quality. To determine the level of significance under NEPA, the annual direct and indirect project-related emissions of all criteria pollutants resulting from the Project's construction and operational activities were compared to the applicable EPA General Conformity de minimis levels. De minimis levels are defined in 40 CFR § 93.153 as the minimum threshold

[6] U.S EPA, Nonattainment Areas for Criteria Pollutants (Green Book), https://www.epa.gov/green-book (accessed December 2023).

for which a conformity determination must be performed for various criteria pollutants in a nonattainment or maintenance area. (See the General Conformity and De Minimis Levels discussion, below).

Federal Clean Air Act (CAA)

The Federal Clean Air Act (CAA), as amended, is the primary federal law that governs air quality. The CAA, and related regulations by EPA, set standards for the concentration of pollutants in the air known as National Ambient Air Quality Standards (NAAQS). The EPA has established NAAQS for six common criteria pollutants that have been linked to potential health concerns, including carbon monoxide (CO), lead (Pb), ground-level ozone (O_3), particulate matter (PM_{10} and $PM_{2.5}$), nitrogen dioxide (NO_2), and sulfur dioxide (SO_2). The NAAQS are set at levels that protect public health with a margin of safety, and are subject to periodic review and revision.

Federal air quality standards and regulations provide the basic scheme for project-level air quality analysis under NEPA.

General Conformity and De Minimis Levels

The General Conformity Rule is established under section 176(c) of the CAA and requires Federal agencies to assure that their actions conform to applicable implementation plans for achieving and maintaining the NAAQS for criteria pollutants. Under this Rule, federal agencies must work with state, tribal and local governments in a nonattainment or maintenance area to ensure that federal actions conform to the air quality plans established in the applicable state or tribal implementation plan. Conformity requirements apply only in nonattainment and "maintenance" (former nonattainment) areas for the NAAQS, and only for the specific NAAQS that are or were violated. U.S. EPA regulations at 40 Code of Federal Regulations (CFR) 93 govern the conformity process.

The General Conformity Rule applies to all federally funded or approved actions within nonattainment or maintenance areas with three exceptions: (1) actions covered by the Transportation Conformity rule, (2) actions with associated emissions below specified de minimis levels; and (3) other actions which are either exempt or presumed to conform. Exempt actions include: (1) federal actions covered by the Transportation Conformity; (2) actions with total direct and indirect emissions below specified de minimis levels; (3) actions specifically listed as exempt in the rule; or (4) actions included on any list of Presumed-to-Conform actions. Conformity requirements do not apply in unclassifiable/attainment areas for NAAQS.

Tribal Authority Rule (TAR)

The EPA is responsible for the implementation of the Clean Air Act on Tribal lands. The EPA's Tribal Authority Rule (TAR) provides federally recognized tribes the opportunity to develop and implement only those parts of the Clean Air Act that are appropriate for their lands, including air quality management programs. Indian Tribes are not required to adhere to state or local agency implementation plans, such as the California Air Resources Board or SCAQMD. Instead, a tribe may voluntarily comply with state/local regulations as they see fit.

Greenhouse Gases

The Council on Environmental Quality (CEQ) was established under NEPA and provides guidance and recommendations in line with national policies and goals intended to improve environmental quality. Consistent with Executive Order (EO) 13990, Protecting Public Health and the

Environment and Restoring Science to Table the Climate Crisis, CEQ has issued an interim NEPA Guidance on Consideration of Greenhouse Gas Emissions and Climate Change (issued January 9, 2023), which is currently under review for consistency with current law, and is the standard upon which NEPA review of greenhouse gases is conducted.

Existing Conditions

Meteorological conditions in the Project vicinity are largely attributable to the low desert geographic setting and the mountains surrounding the region that isolate the Coachella Valley from moderating coastal influences and create a hot and dry low-lying desert condition. As the desert heats up a large area of thermal low pressure develops, which draws dense, cooler coastal air through the narrow San Gorgonio Pass and into the Valley, generating strong winds that cross the most active fluvial (water-related) erosion zones in the Valley. These strong winds sweep up, suspend and transport large quantities of sand and dust, reducing visibility, damaging property, and constituting a significant health threat. The region is also subject to seasonal northeasterly Santa Ana winds that are associated with high pressure parked over Nevada and the four corners region.

Air inversions, where a layer of stagnant air is trapped near the ground and is loaded with pollutants from motor vehicles and other sources, occasionally occur in the Coachella Valley due to local geological and climatic conditions. Inversions create conditions of haziness caused by suspended water vapor, dust, and a variety of chemical aerosols. Due to local climactic conditions, inversion layers generally form at elevations of 6,000 to 8,000 feet.

Alternative Transportation

As discussed in the Transportation section of this document, the Project site is lined by existing sidewalks along Indian Springs Road to the north, Lawrence Crossley Road to the east, and Dinah Shore Drive to the south. Existing on-street bike lanes occur on Lawrence Crossley Road. According to the City's Recreational Trails Map and Bikeways Map, as provided in the Circulation Element, a bike path is also proposed for Dinah Shore Drive.

SunLine Transit Agency currently provides bus service to Palm Springs. The nearest route to the subject site is Route 2, which runs along Ramon Road approximately 2,120 feet north of the Project. SunLine uses clean/alternative fuel vehicles.

Project Emissions

The Project proposes the development of a 8,600 square foot convenience store and gas station, including Class II gaming uses within the convenience store. The gas station would include 24 vehicle fueling positions. A total of 90 parking spaces will be provided on-site, including 12 Level 3 electric vehicle charging spaces. For the purpose of analysis, it is assumed that 25% of the total site area will be landscaped, consistent with the minimum landscaped area requirements per the Palm Springs property development standards for zone M-1.

A future phase of development on the Project site may result in up to an additional 900 square feet added to the convenience store and Class II Gaming area. To account for this potential future addition, the air quality modeling assumed a total of 9,500 square feet of built area.

The Transportation Analysis report prepared for the proposed development calculated the trip generation for the Project using the Institute of Transportation Engineers (ITE) Trip Generation land use codes for Convenience Store/Gas Station (LU Code 945) and Casino/Video Lottery Entertainment (LU Code 473). According to the Transportation Analysis report, these land uses would generate 5,011 average daily trips (ADT) at buildout.

The proposed Project is expected to generate criteria pollutant emissions during construction and operations. The California Emissions Estimator Model (CalEEMod) Version 2022.1.1.21 was used to project air quality emissions that will be generated by the Project (Appendix A). Table 3 summarizes short-term construction-related emissions, and Table 4 summarizes ongoing emissions generated during operation.

Impact Significance Considerations

Construction Impacts

Construction of the Project will involve site preparation, grading, paving, building construction, and application of architectural coatings. The Project is expected to be developed in phases, with the initial 8,600 square foot convenience store and gas station development first, and the potential addition of up to 900 square feet at a later stage. However, for the purpose of air quality modeling, it is assumed that construction of the entire Project would be continuous and occurring over a 1.5-year period. This includes approximately one year for development of the convenience store, 24 gasoline/diesel fuel dispensers, and 90 parking spaces, including 12 Level 3 electric vehicle charging spaces. The additional 6-months of construction time represents the potential future development of the addition to the convenience store building.

Table 3 shows that maximum daily (pounds per day) and annual (tons per year) unmitigated emissions resulting from the 18-month construction period. The analysis of construction emissions assumes that earthwork will be balanced on-site. Development of the proposed Project will be subject to the implementation of a dust control and management plan consistent with SCAQMD Rule 403.1, as well as the use of low-VOC architectural coatings as required by SCAQMD Rule 1113. As shown in Table 3, emissions resulting from Project-related construction would not exceed the SCAQMD thresholds.

Table 3
Maximum Daily/Annual Construction-Related Emissions Summary

Construction Emissions	**CO**	**NO_x**	**ROG**	**SO_2**	**PM_{10}[1]**	**$PM_{2.5}$[1]**
Daily Maximum[1] (pounds/day)	34.7	36.1	3.74	0.05	21.5	11.6
SCAQMD Thresholds	**550.00**	**100.00**	**75.00**	**150.00**	**150.00**	**55.00**
Exceeds?	**No**	**No**	**No**	**No**	**No**	**No**
Annual Maximum (tons/yr)	1.86	1.43	0.21	<0.005	0.20	0.12
De minimis levels (40 CFR § 93.153)	**-**	**10**	**10[2]**	**-**	**70[3]**	**-**
Exceeds?	**-**	**No**	**No**	**-**	**No**	**-**

[1] Standard dust control measures have been applied to the PM emissions.
[2] The most strict standard is 10 tons/year for Extreme NAAs.
[3] The most strict standard is 70 tons/year for Serious NAAs.
Emission Source: CalEEMod model, version 2022.1.1.18

Table 3 also shows the de minimis levels for ozone and PM_{10} emissions. The Coachella Valley is designated as an Extreme non-attainment area for ozone, and a Serious non-attainment area for PM_{10}. As defined in 40 CFR §93.153, de minimis levels are the minimum thresholds for which a conformity determination must be performed for criteria pollutants in a non-attainment or maintenance area. Project actions with total direct and indirect emissions below the applicable de minimis levels are assumed to conform with the Federal Implementation Plan and are not subject to a conformity determination. As shown in the table, the Project's construction emissions of ozone pre-cursors (NO_x and ROG/VOC) and PM_{10} would be below the General Conformity de minimis levels, and therefore a conformity determination is not required.

Construction of the proposed Project will also comply with applicable policies in the City of Palm Springs General Plan and Tribal Code requirements. These standard requirements include Tier 1 or higher construction equipment and the preparation of dust control management plans. Given that emissions resulting from construction of the proposed development are projected to be below the de minimis levels and that Project construction will comply with standard regulations, air quality impacts resulting from construction will be less than significant.

Operational Impacts

Operational emissions are the ongoing emissions that will occur over the life of the Project. They include area source emissions (e.g., architectural coatings), emissions from energy demand (electricity), and mobile source emissions (from vehicles). As previously stated, the Project is expected to generate 5,011 average daily trips during operations according to the Transportation Analysis report.

Table 4 shows the maximum daily (pounds per day) and annual (tons per year) unmitigated emissions projected to result from operation of the Project at buildout. As shown in the table below, maximum daily operational emissions will not exceed SCAQMD thresholds of significance for any criteria pollutants. The Project's annual operational emissions of ozone precursors (NO_x and ROG/VOC) and PM_{10} would also be below the federal General Conformity de minimis levels, and therefore a conformity determination is not required. Project operational impacts would therefore be expected to be less than significant.

Table 4
Maximum Daily Operational-Related Emissions Summary
(pounds per day)

Operational Emissions	**CO**	**NOx**	**ROG**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
Daily Total (pounds/day)[1]	160	17.9	20.1	<0.005	27.9	7.26
SCAQMD Thresholds	**550.00**	**55.00**	**55.00**	**150.00**	**150.00**	**55.00**
Exceeds?	**No**	**No**	**No**	**No**	**No**	**No**
Annual Total (tons/yr)	13.3	1.90	2.84	0.03	2.19	0.57
De minimis levels (40 CFR § 93.153)	**-**	**10**	**10**[2]	**-**	**70**[3]	**-**
Exceeds?	**-**	**No**	**No**	**-**	**No**	**-**

[1] Maximum daily emissions.
[2] The most strict standard is 10 tons/year for Extreme NAAs.
[3] The most strict standard is 70 tons/year for Serious NAAs.
Emission Source: CalEEMod model, version 2022.1.1.18.

Toxic Air Contaminant (TAC) Emissions
Refueling activities at gas stations result in the release of benzene emissions. Benzene is a carcinogen and is identified by the California Air Resources Board (CARB) as a toxic air contaminant. According to the CARB Air Quality and Land Use Handbook, a well-maintained vapor recovery system can decrease benzene emissions by more than 90%.[7] SCAQMD Rule 461 (Gasoline Transfer and Dispensing) requires the use of CARB certified vapor recovery systems at all gas stations. The Project will comply with Rule 461, thereby minimizing potential benzene emissions.

Air pollution levels associated with gas stations decrease with distance from the facility. The CARB Air Quality and Land Use Handbook provides recommended separations for siting sensitive receptor land uses relative to gas stations. CARB recommends a 50-foot separation for typical gasoline dispensing facilities, and a minimum of 300-feet of separation for large gasoline dispensing facilities. The nearest sensitive receptor land uses to the Project are the residences located approximately 1,400 feet south of the subject site. This distance far exceeds the standard, and will assure that surrounding residents are not impacted by the facility.

The proposed convenience store and gas station will also be subject to applicable federal gasoline regulations, as established by the EPA through the Clean Air Act. Compliance with these regulations and SCAQMD Rule 461, combined with the Project's distance from any sensitive receptor land uses, will ensure that the proposed development has less than significant impacts relating to air emissions.

Objectionable Odors
The Project may generate odors on a short-term basis during construction, and on a long-term basis during operations. Construction odors could result from the use of heavy equipment, asphalt or tar installation, and other construction activities. These odors would dissipate quickly, and would be short in duration.

During operations, the proposed development would not be expected to generate substantial odor emissions. SCAQMD lists the following land uses as being prone to generating odors: agriculture, chemical plants, composting operations, dairies, fiberglass molding, landfills, refineries, rendering plants, rail yards, and wastewater treatment plants.[8] The Project does not propose any land uses identified by SCAQMD as being prone to odor emissions. As previously stated, the proposed gas station would conform to SCAQMD Rule 461 (Gasoline Transfer and Dispensing) which establishes requirements to control gasoline vapor emissions.

The Project site is approximately 1,400 feet (427 meters) from the nearest sensitive receptor land uses. Therefore, any objectionable odors generated by the Project, during construction or operation, would be expected to dissipate over this distance. Construction and operational odors are expected to result in less than significant impacts.

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7 California Environmental Protection Agency and California Air Resources Board, Air Quality and Land Use Handbook: A Community Health Perspective (April 2005).

8 South Coast Air Quality Management District, Air Quality Guidance Document (May, 2005).

Cumulative Impacts
A significant impact could occur if the Project would make a considerable cumulative contribution to pollutants for which the region is in federal or State non-attainment. The Coachella Valley portion of the SSAB is classified as a non-attainment area for PM10 and ozone. Given the dispersing nature of pollutant emissions and aggregate impacts from surrounding jurisdictions and air management districts, cumulative air quality analysis is evaluated on a regional scale. Any project resulting in emissions of PM_{10}, ozone, or ozone precursors (including CO, NOx, and ROG) will contribute, to some extent, to regional non-attainment designations for ozone and PM_{10}.

The SCAQMD does not currently recommend quantified analyses of construction and operational emissions from multiple development projects, nor does it provide methodologies or thresholds of significance for assessing the significance of cumulative emissions from multiple projects. However, it is recommended that a project's potential contribution to cumulative impacts should be assessed using the same significance criteria as those used for project-specific impacts. Furthermore, SCAQMD states that if an individual development project generates less than significant construction or operational emissions, then the project would not generate a cumulatively considerable increase in emissions for those pollutants for which the Basin is in nonattainment.

As shown in Tables 3 and 4 above, the Project's emissions of PM_{10}, CO, NO_X, and ROG emissions are projected to be below established SCAQMD thresholds. The annual maximum pollutant emissions levels are also projected to be below the General Conformity de minimis levels. Therefore, the Project would result in incremental, but not cumulatively considerable, impacts to regional PM10 and ozone levels.

3.4 Living Resources
The Project's site is vacant with minimal desert vegetation. The surrounding environment to the south, east, and immediately to the west also consists of undeveloped land and sparce desert growth. There are commercial buildings to the north. Although the site is unoccupied by development, its location in a commercial and industrial area directly and indirectly impacts its living resources.

Regulatory Background
The Bureau of Land Management (BLM) manages the Palm Springs-South Coast Field Office which encompass 1.7 million-acres of Southern California coast and desert, including the Coachella Valley. Under BLM, the use of public lands must stay consistent with the Federal Land Policy and Management Act (FLPMA). Additionally, the U.S. Fish and Wildlife Service (USFWS) enforces the Endangered Species Act (ESA) by recording and monitoring designated endangered species. These two regulatory bodies concentrate on the environmentally sustainability of a development project, ensuring the preservation of native land and species.

In compliance to the ESA, Palm Springs, and other cities in the Coachella Valley, adopted the Coachella Valley Multi-Species Habitat Conservation Plan (CVMSHCP). The CVMSHCP is a program to protect species and their habitat from development projects through the payment of Local Development Mitigation Fee.

The Project location at the northwest intersection of Dinah Shore Drive and Lawrence Crossley Road in Palm Springs is within Section 20 and part of the Tribe's jurisdiction. The site's status as Indian sovereign territory requires its compliance with the Tribal Habitat Conservation Plan (THCP), which is a companion document to the CVMSHCP. The THCP implements a program to manage and protect natural resources and habitats including the mountains, foothill, canyons, wetlands, alluvial fans, and sandy desert flats for a variety of plants and creatures considered by USFWS and the Tribe as necessary to conserve.

The THCP is applicable to all Agua Caliente Indian Reservation land. It provides permits and development pathways to protect and conserve federally listed endangered species and those considered "special status species" by the Tribe. The THCP lists three plants, two invertebrates, one amphibian, three reptiles, nine birds, and four mammals as Covered Species (collective term referring to the "special status species"), totaling to 22 species.

The THCP divides the Agua Caliente Indian Reservation geographically between the Mountains and Canyons Conservation Area, and Valley Floor Planning Area where the Project is located.

A. Wildlife

A biological resources assessment was conducted for the site.[9] The assessment reports the absence of a diverse or abundant wildlife population. The observations identify nine species common to the region, consisting of four reptiles and five birds.

The reptiles observed were the western whiptail, the zebra-tailed lizard, the desert iguana, and the side-blotched lizard. Other common reptiles that were not detected but could occur, include but are not limited to, the desert glossy snake, the Colorado Desert shovel-nosed snake, the red racer, and the Colorado Desert sidewinder.

The birds detected on-site were the Eurasian collared dove, the mourning dove, the common raven, the verdin, and the northern mockingbird. Other bird species with the potential to occur include the house finch, Costa's hummingbird, the great-tailed grackle, the red-tailed hawk, the American kestrel, and the house sparrow.

During the assessment, no mammal species was detected, however based on the site's conditions there is potential for five species to occur including the Botta's pocket gopher, the desert cottontail, the white-tailed antelope squirrel, the black-tailed jackrabbit, and the coyote.

No special status wildlife species were detected on-site or adjacent to the site. However, there is a total of 31 special status wildlife species that have the potential to occur in the vicinity. Of those, 10 are considered to occur at a very low to low potential: the Crotch bumble bee, the Coachella giant sand treated cricket, the Coachella Valley Jerusalem cricket, the northern red diamond rattlesnake, the flat-tailed horned lizard, the Coachella Valley fringe-toed lizard, the burrowing owl, the pallid San Diego pocket mouse, the Palm Springs pocket mouse, and the Coachella Valley (Palm Springs) round-tailed ground squirrel.

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9 WSP USA Environment and Infrastructure, Inc., Biological Resource Assessment Report (accessed December 2023)

All 10 special status wildlife species are very unlikely or unlikely to occur at the site due to lack of acceptable habitat, and therefore the Project poses no significant impact to their self-sustaining population. Only burrowing owl would require a focused survey to conclusively determine their absence from the site and thus comply with the THCP requirement to avoid direct loss to the greatest extent possible. In order to reduce impact to burrowing owl, a mitigation measure has been included in Section 4 requiring a pre-construction survey to assure the species is not present, or if it is to allow for its relocation. With the implementation of this mitigation measure and the payment of the THCP mitigation fee, impacts to sensitive wildlife will be reduced to less than significant levels.

B. Vegetation

The Project site consists of mature and sparse Sonoran creosote bush scrub vegetation community, a dominant native plant species. Three other perennials were observed: the white bur-sage, the four-wing saltbush, and the indigo bush. Additionally, there are native and non-native herbaceous species on-site. The native species are the desert dicoria, and the Spanish needles. The non-native species are the Mediterranean grass, the Sahara mustard, and the redstem filaree.

No special status plant species were detected during the field assessment. However, the site is suitable for 10 special status plants including the chaparral sand-verbena, singlewhorl burrobush, the Borrego milk-vetch, the Coachella Valley milk-vetch, the Arizona spurge, the flat-seeded spurge, the ribbed cryptantha, the winged cryptantha, the Little San Bernardino Mountains linanthus, and the slender cottonhead.

All 10 special status plant species are unlikely to occur on the site and the site is very unlikely to sustain a significant population, thus the Project is not expected to result in significant impacts to these species.

No natural wetlands, riparian, or other special status vegetation community was observed on the Project's site. No impacts to sensitive natural communities will occur.

C. Ecosystems

The Project's open space and vegetation makes it suitable to sustain wildlife and vegetation. Currently, the site's ecosystem consists of common species from the region including, but not limited to, western whiptail, the zebra-tailed lizard, Eurasian collared dove, the mourning dove, the desert dicoria, and the Spanish needles. The on-site species do not appear in abundance. In addition, special status species have the potential (very low to low) to occupy the site. During the field assessment, no special status species, or sign of them were detected.

D. Agriculture

The Project is in Palm Springs, a high-density urban area with residential, commercial, industrial, and recreational space. Neither on the site nor anywhere near its vicinity is there domestic agricultural production.

Conclusion
Overall, the Project site is unlikely to cause adverse biological or agricultural effects. However, mitigation measures including pre-construction surveys for burrowing owl and mitigation fee payments to reduce impact related to development and ensure the Project's compliance with the THCP's regulation standards have been provided in Section 4 to reduce Project impacts to living resources.

3.5 Cultural Resources

Southern California is home of the Native American Cahuilla Tribe. The Cahuilla tribe were hunters and gathers, expanding over the San Bernardino basin, the San Jacinto Mountains, the Coachella Valley, and the southern portion of the Mojave Desert. The geographical landscapes consisting of tall mountains, deep valleys, and rocky canyons which divided the tribe into three independent groups made up by the Desert, Mountain, and Western (Pass) Cahuilla. All three groups spoke the Cahuilla language and shared similar lifestyles, traditions, and practices.

The Agua Caliente Band of Cahuilla Indians is part of the Western Cahuilla subgroup. The Tribe's Traditional Use Area included areas south of the Borrego Desert, north of the San Bernardino Mountains, east of the Colorado River, and west including the City of Riverside. The Tribe spoke the Cahuilla language as well as their own unique dialect. The Tribe lived by hot mineral springs where they had access to clean water and a space for ceremonial rituals. According to dated archeological finds, the Tribe has lived in the Palm Springs area for at least 7,000 years. At the time of European settlement in the area, the Tribe was severely impacted by conflict, disease, and displacement.

Under Presidential Executive Order by Ulysses S. Grant, in 1876 the Tribe was allotted territory in Palm Springs (Section 14 and part of Section 22). The following year, Rutherford B. Hayes issued an Executive Order that expanded the Agua Caliente Indian Reservation to generally include the even numbered sections in three townships, totaling to 34,000-acres.

Cultural Setting
The Coachella Valley has evolved in its cultural landscape. Three defining prehistoric periods of the area include the Paleoindian, Archaic, and Late Prehistoric period.

The Paleoindian period (12000-8000 B.P.) is characterized by the Clovis Paleo-Indians, who were small groups of hunters and gathers settled in modern-day United States and Mexico. They were not the first North American settlers but were amongst the first to dominate the region. This anthropocentric period is poorly understood due to the lack of evidence available. However, the lack of archeological artifacts in the northern region of the Coachella Valley (encompassing Palm Springs) may signal a lack of habitat for large game hunting by the Clovis people.

The Archaic period (8000-1500 B.P.) experienced hot and dry climate, leaving the Coachella Valley abandoned. Not until Late Archaic, did temperatures settle and the Colorado Desert was reoccupied, as archeological findings in the northern Coachella Valley indicate. The settlements where temporary as people lived in highly mobile bands to take advantage of the seasonal food resources throughout the area.

The Late Prehistoric period (1500-200 B.P.) is defined by the Yuman (or Patayan), who were agricultural groups by the Colorado River. Either from diffusion or migration, long-distance trade networks were established to connect the Coachella Valley and the Colorado River. During this process, agricultural crops were introduced to the southern region of the Coachella Valley, where domesticated crops became a fundamental component of the Yuman diet.

In relation to modern day, the Late Prehistoric period tribal groups found in the Coachella Valley are the closest ancestors to the Tribe. Their occupation in the region marks an increase of settlements in the Coachella Valley.

Ethnohistoric and Historic Context

During the Historical period, the Western Cahuilla occupied the West Coachella Valley. The Western Cahuilla settlement on the valley floor took advantage of the desert resources. These resources were often found near or around water, therefore the Cahuilla hand-excavated walk-in wells to access potable water. In having found an ideal environment, the Tribe would build permanent settlements and once the village was established, it was added to a complex system of trails connecting it with other villages.

The Western Cahuilla optimized native resources by using more than 150 species of plants for food, fiber, medicine, manufacture, and dyes. Additionally, corn, beans, and squash crops, introduced by trade along the Colorado River to the east, were irrigated from springs. The Western Cahuilla would hunt a variety of mountain and desert animals including deer, mountain sheep, pronghorn, and smaller animals like rabbits and rodents.

The first Western Cahuilla and European interaction occurred in the winter of 1823-1824 with the expedition of Jose Romero. During these expeditions, surveys were conducted in which the Coachella Valley's landscape was documented as a Native American agricultural valley. The Western Cahuilla were exposed to smallpox and measles which they had never come across before, triggering an epidemic and decimating their population.

In 1876, the Agua Caliente Indian Reservation was founded and the following year, the Tribe was allotted approximately 34,000-acres of reservation land, consisting of all even-numbered sections and unsurveyed portions of Township 4 South, Ranges 4 and 5 East, and Township 5 South, Range 4 East, on San Bernardino Base and Meridian, except for sections already given out by the government.

The Coachella Valley was predominantly an agricultural valley but after the construction of the state highway, it transitioned to commercial development. By the mid-twentieth century, hotels, resorts, and golf clubs began to appear throughout the Valley and its popularity as a vacation destination began to grow.

Cultural Resource Impacts at the Project Site

The Project's location in relation to historic landmarks is 12 miles east of Tahquitz Canyon and 7 miles northeast of Indian Canyon. These two landmarks are classified under the National Register of Historic Places. In addition, archeological studies of the historical period Cahuilla consist of excavations at the former Mission Creek Indian Reservation, approximately 26 miles northwest of the Project's site and Tahquitz Canyon, 12 miles west of the Project.

A cultural survey was conducted for the site.[10] The cultural survey reports the absence of historical-period structures and features on-site and its vicinity. No cultural resources were identified in the Project area. However, the Project area is considered sensitive for buried prehistoric cultural resources and therefore the Tribe's standard conditions for the presence of a Tribal monitor during earth moving activities will be implemented, as detailed in Section 4.

3.6 Socioeconomic Conditions

A. Employment and Income

According to the United States Census Bureau's 2022 American Community Survey (ACS) for Palm Springs, the population subgroup eligible for civilian work (16 years and older) is 22,611. The workforce population generated a median household income of $67,451.[11]

The Tribe through its multiple business ventures in casinos, real estate, and gas stations (as the Project proposes), generates a constant stream of revenue for the Tribe. These developments support and further the Tribe's goal for economic diversification and independence.

B. Demographic Trends

The ACS estimates a population size of 45,223 for Palm Springs. The population consists primarily of the 18 to 64 age group (56.7%), where the remaining is split amongst 65 years and older (39.6%), and 17 years and younger (10.1%).

As relates to race and ethnicity, the majority is White, accounting for 71.1% of the total population (32,154), followed by Hispanics and Latinos with 23.3% (10,536), African Americans with 5.7% (2,577), Asians with 5.2% (2,351), and Native Americans with 1% (452).

C. Lifestyle and Cultural Values

The city of Palm Springs lifestyle centers on the desert oasis aesthetic with warm weather 365-days a year and dramatic desert landscapes. Palm Springs is a vacation destination with resorts and hotels, natural springs, golf clubs, and outdoor recreational spaces.

The Tribe has significantly influenced the development of Palm Springs into a popular destination city with the development of three casinos: the Agua Caliente Palm Springs, Agua Caliente Rancho Mirage, and Agua Caliente Cathedral City. These properties in the Coachella Valley offer their own unique experience with gaming access, concerts, performative shows, and luxury accommodations.

D. Community Infrastructure

Public Safety Services

The Project receives public services from the Palm Springs Fire Department and the Palm Springs Police Department. The Departments service all of Palm Springs, including Reservation lands.

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10 Statistical Research, Inc. Cultural Resource Survey (accessed December 2023)

11 U.S. Census Bureau, 2022 Palm Springs, https://www.census.gov/quickfacts/palmspringscitycalifornia (accessed December 2023)

The Palm Springs Fire Department protects the city's population (permanent and seasonal) within their 96 square mile jurisdiction. The department manages five fire stations spread across the main urban region of Palm Springs. The department offers emergency response that includes but is not limited to fire suppression, paramedic emergency, hazardous material response, and confined space rescue. Additionally, the department offers community risk reduction and emergency management.

The Project's location on the intersection of Dinah Shore Drive and Lawrence Crossley Road, places the Palm Spring Fire Department Station No.5 on 5800 Bolero Road, 1.1 miles southeast from the site. Fire Station No.5 is the primary responder for areas including Ramon Road to the north, Gene Autry Trial to the west, and South Ridge to the south.

The City's Police Department is located at 200 S Civic Drive, 2.6 miles northwest of the project's site.

The Project will result in a convenience store and fuel station. The Project will be reviewed by both the Fire and Police departments for compliance with their standards, which are consistent with Tribal Building and Safety Code requirements.

Utilities

The Project will be served by Desert Water Agency. DWA uses 29 wells to pump water from the Whitewater River and Mission Creek groundwater basins located underneath the Palm Springs area. The system includes 23,000 active water connections throughout 392 miles of pipeline that supplies domestic water to a population of approximately 72,000. The aquifer has a water capacity of approximately 39-million acre-feet. The basins are the main source of domestic water for the City of Palm Springs and the rest of the Coachella Valley, therefore DWA actively replenishes the aquifer with water from the Colorado River Aqueduct to maintain constant groundwater levels.

Besides servicing portable water, DWA also manages the wastewater recycling system for Palm Springs (including the site). Palm Springs and DWA entered an agreement to enhance groundwater conservation by recycling wastewater. The Wastewater Treatment Plant located on 4375 E. Mesquite Avenue, Palm Springs, receives sewage from residential, hospital, commercial, and industrial buildings through a network of pipes. The wastewater is treated and about 75% is sent to DWA for further filtration and disinfection. Once the wastewater meets state and federal recycled water standards, DWA provides the recycled water to various locations for irrigation purposes. DWA recycled water capacity is 10 million gallons per day, lessening the pressure on the aquifer to supply all water needs. The remaining 25% from the treated water from the Wastewater Treatment Plant flows into percolation ponds where it seeps into the ground to recharge groundwater.

Palm Springs Disposal Service (PSDS) offers residential, commercial, and industrial waste collection for the City and Project. PSDS temporary unloads waste onto the Edom Hill landfill, located on 70-100 Edom Hill, Cathedral City, approximately eight miles away from the Project's location. After sorting at the Edom Hill landfill, the waste is transported to the Lamb Canyon facility in Beaumont for further processing. The Lamb Canyon Landfill has a remaining solid waste capacity of 19 million cubic yards with a maximum permit capacity of approximately 39 million cubic yards. As shown in Table 5, the Project will generate 1.125 tons per year of solid waste. The Project's solid waste will account for less than 1% of the overall solid waste capacity per year. No significant impact to the facility is anticipated.

Table 5
Estimated Solid Waste Disposal at Project Buildout

Land Use	CIWMB Disposal Rates*	Proposed	Solid Waste Disposal (pounds per day)	Solid Waste Disposal (tons per year)
3.6 acres	Commercial 13 lb/1000 sq ft/day	9,500-sq ft	12.35 lb/day	2.25 tons/yr
			TOTAL (with 50% diversion)	1.125 tons/yr

*Estimated Solid Waste Generation Rates by CalRecycle, https://www2.calrecycle.ca.gov/WasteCharacterization/General/Rates, accessed August 2023.

The Project receives electricity from Southern California Edison (SCE). SCE is one of the nation's largest providers, servicing a 50,000-square mile of central, coastal, and southern California (including all the Coachella Valley) for a population of 15 million. The company generates electricity from natural gas, hydropower, nuclear, and solar. SCE also sources energy from third parties from cogeneration, biomass, small hydropower, wind, and geothermal.

The California Energy Commission (CEC) 2021 Total System Electric Generation reports California's in-house energy generation came from natural gas (50.2%), nuclear power (8.5%), and large hydropower (6.2%).

The Project will receive utilities from the providers listed above. All have capacity to serve the Project, and less than significant impacts are expected.

E. Environmental Justice

The CalEnviroScreen 4.0 is a report analyzing data from California's Census regarding environmental, public health, and socioeconomic conditions. The purpose of the report is to generate a regional landscape highlighting the cumulative population burden and vulnerability in communities. The regional landscape conveys the disproportional burden placed onto low income and disadvantaged communities of color.

CalEnviroScreen scores an area in terms of pollution threat and population vulnerability. The pollution threat variable is the average of exposure and environmental effect. The population vulnerability variable is the average of sensitive population and socioeconomic factors. The two variables are calculated and scored on a scale of 100. A score of 75 or more is classified as a disadvantaged community with disproportional effects of pollution.

The Palm Springs region receives a score of 23, which is lower than the score of 75 identifying a disadvantaged community[12]. The Project will not be impacting disadvantaged communities.

[12] CalEnviroScreen 4.0, https://experience.arcgis.com/experience/ (accessed December 2023)

3.7 Resource Use Pattern

A. Hunting, Fishing, Gathering

The Project's site is vacant with sparse desert vegetation. The Project is in Palm Springs, a high-density urban city in which the site is centered amongst commercial and industrial buildings. At the site, there is no opportunity for hunting, fishing, or gathering. The Project does not disturb hunting, fishing, or gathering on-site or in surrounding areas.

B. Timber Harvesting

The Project's site does not have any timber resources on or in its vicinity. Timber will not be removed from the site. The Project does not pose an impact to timber harvesting.

C. Agriculture

The Coachella Valley has been noted as an agricultural valley in the past. Now however, the Valley has diversified its land-use to include development, agriculture, and conservation areas. The agricultural production is concentrated in the southeastern region of the Valley, encompassing cities like Indio and Coachella, whose proximity to the Salton Sea, low elevation, and fine soil content, makes the area ideal for agriculture.

The Project site is in the western region of the Coachella Valley, where commercial, industrial, and residential development is dominant. The Project site is vacant with minimal desert vegetation. The site's soil (Myoma fine sand) has a low water holding capacity, making it incompatible with domestic agricultural production. The Project does not impact potential or existing agricultural lands.

D. Minerals

The San Jacinto Mountains and Santa Rosa Mountains, bordering the Coachella Valley to the west, have been mined and produced asbestos, beryllium, gold, limestone, tungsten, copper, garnet, and tourmaline.[13]

The Palm Springs Production-Consumption (P-C) Region is a 631-square mile area that encompasses land east of Cabazon, south of Morongo Valley and Joshua Tree National Park, west of Mecca Hills, and north of the community of Mecca. The P-C Region includes 30,071-acres that is considered to have significant mineral deposits.[14] The P-C focuses on mining aggregate (collective term for large amounts of sand and gravel). Aggregate is a key component in asphalt, concrete, road base, stucco, plaster, and other similar construction materials.

The CGS, in accordance with the California Surface Mining and Reclamation Act (SMARA), classifies regional significance of mineral resources. Mineral Resource Zones (MRZs) designated by CGS are determined based on the presence and significance of mineral deposits within an area. The MRZs designations are:

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[13] City of Palm Springs General Plan (accessed December 2023)

[14] California Geological Survey, Department of Conservation (accessed December 2023)

- MRZ-1: Area has a low presence of significance mineral resources.
- MRZ-2: Area definitively has or there is a high likelihood of significance mineral resources, based on geologic information and data.
- MRZ-3: Area has the presence of mineral resource with undetermined significance. Additional information is unlikely to shift the categorization to a MRZ-1 or MRZ-2.

The Project's site is designated as MRZ-3. The city of Palm Springs does not designate the site's location as a significant mineral resource area. The Project will not impact mineral resources.

E. Recreation

The City of Palm Springs owns and manages 156-acres of developed parkland, 160-acres of city owned golf course, and miles of greenbelt and hiking trails in major mountain and hill regions. The parks and recreational amenities are open and available to the public. The Indian Canyons Golf Resort, owned by the Tribe, is a recreational space located three miles southwest of the Project site.

The Project proposes the development of a convenience store and fuel stations on approximately 3.6 acres. The convenience store will account for 9,500 sf in which a food service/commercial shop and a Class II gaming area with slot machines will operate. No adverse impacts to the Palm Spring's recreational space will be caused by the Project.

F. Transportation

The Project is located at the northwestern corner of Lawrence Crossley Road and Dinah Shore Drive. The site is surrounded by existing paved roads on three sides: Indian Springs Road to the north, Crossley Road to the east, and Dinah Shore Drive to the south. The lands adjacent to the subject site to the west are currently vacant.

According to the Palm Springs General Plan Circulation Element, Dinah Shore Drive is classified as a Secondary thoroughfare (4-lane divided) with a raised center median, and Lawrence Crossley Road is classified as a Secondary Thoroughfare, with one lane in each direction, a center striped median, and on-street bike lanes.

Other noteworthy roadways in the Project vicinity are Ramon Road and Sunny Dunes Road, both of which run parallel to Dinah Shore Drive and Indian Springs Road, north of the Project area. According to the City's Circulation Element, Ramon Road is classified as a Major Thoroughfare that can accommodate six lanes, and Sunny Dunes Road is classified as a Collector, typically with two lanes.

A Traffic Analysis report was prepared for the Project by Urban Crossroads (November 2023). The study area analyzed in this report included nine intersections in the Project vicinity:

1. Lawrence Crossley Road / Dinah Shore Drive
2. San Luis Drive / Dinah Shore Drive
3. Gene Autry Trail (Highway 111) / Dinah Shore Drive
4. Lawrence Crossley Road / Indian Springs Road
5. Lawrence Crossley Road / Sunny Dunes Road

6. Lawrence Crossley Road / Ramon Road
7. Lawrence Crossley Road / Driveway 1
8. Driveway 2 / Dinah Shore Drive
9. Driveway 3 / Indian Springs Road

Alternative Transportation

SunLine Transit Agency currently provides bus service to Palm Springs. The nearest route to the subject site is Route 2, which runs along Ramon Road approximately 2,120 feet north of the Project.

The Project site is lined by existing sidewalks along Indian Springs Road to the north, Lawrence Crossley Road to the east, and Dinah Shore Drive to the south. Existing on-street bike lanes occur on Crossley Road. According to the City's Recreational Trails Map and Bikeways Map, as provided in the Circulation Element, a bike path is also proposed for Dinah Shore Drive.

Existing Daily Level of Service (LOS)

Level of service (LOS) describes traffic flow based on factors including speed, travel time, delay, and freedom to maneuver. LOS ranges from LOS A, which represents free-flow conditions, to LOS F, which represents stop-and-go conditions. The City's General Plan recommends a minimum LOS of LOS D or better. The City of Palm Springs Traffic Impact Analysis Guidelines (July 2020) provide additional criteria to determine whether project-related traffic at a study intersection would result in a LOS deficiency:

- For signalized intersections:
    - Intersection operating at an acceptable LOS D or better without project traffic in which the addition of project traffic causes the intersection to degrade to a LOS E or F shall identify improvements to improve operations to LOS D or better.
    - Intersection that is operating at LOS E or F without project traffic where the project increases delay by 5.0 or more seconds shall identify improvements to offset the increase in delay.

- For unsignalized intersections:
    - Addition of project related traffic causes the intersection to degrade from an acceptable LOS D or better to LOS E or F. (case a)
    - The project adds 5.0 seconds or more of delay to an intersection that is already projected to operate without project traffic at a LOS E or F. (case b)
    - The intersection meets the peak hour traffic signal warrant after the addition of project traffic. (case c)
    - If the conditions above are satisfied, improvements should be identified that achieve LOS D or better for case a) above or to pre-project LOS and delay for case b) above.

Table 6 **Intersection Analysis for Existing (2023) Conditions**					
Intersection	Traffic Control	Delay		Level of Service	
		AM	PM	AM	PM
Lawrence Crossley Rd. / Dinah Shore Dr.	TS	**58.7**	**58.2**	**E**	**E**
San Luis Dr. / Dinah Shore Dr.	TS	19.3	17.1	B	B
Gene Autry Tr. (Hwy. 111) / Dinah Shore Dr.	TS	37.1	37.6	D	D
Lawrence Crossle Rd. / Indian Springs Rd.	CSS	13.2	13.5	B	B
Lawrence Crossley Rd. / Sunny Dunes Rd.	CSS	13.9	13.1	B	B
Lawrence Crossley Rd. / Ramon Rd.	TS	18.8	34.8	B	C
Lawrence Crossley Rd. / Dwy. 1	Future Intersection				
Dwy. 2 / Dinah Shore Dr.	Future Intersection				
Dwy. 3 / Indian Springs Rd.	Future Intersection				
TS = Traffic Signal; CSS = Cross-Street Stop **BOLD** = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).					

As shown in the above table, the study intersection of Lawrence Crossley Road/Dinah Shore Drive is currently operating at an unacceptable LOS during AM and PM peak hours. According to the Traffic Analysis report prepared for the Project, a separate westbound right turn lane at this intersection would provide acceptable LOS.

Project and Cumulative Impacts to LOS

The Traffic Analysis calculated future traffic on the study area intersections based on the proposed full buildout of a 9,500 square foot convenience store that will include up to 4,000 square feet of Class II gaming space and 24 gasoline/diesel fuel dispensers. These conditions assume buildout of the initial 24 gasoline/diesel fuel dispensers and 8,600 square feet that would house the convenience store and gaming space, as well as future buildout of up to 900 additional square feet of convenience store/gaming space. Based on trip generation rates from the Institute of Transportation Engineers (ITE) Trip Generation Manual (11th Edition), the Project is projected to generate 5,011 net daily trips with 263 AM peak hour vehicle trips and 271 PM peak hour vehicle trips.

The Project's potential impacts to the nine study area intersections were analyzed for Existing plus Project conditions (E+P), and Existing plus Ambient plus Project plus Cumulative (EAPC) (2025) conditions.

As summarized in Table 7, under Existing plus Project (E+P) conditions, the Lawrence Crossley Road/Dinah Shore Drive intersection would continue to operate at an unacceptable LOS without provision of the westbound right turn lane.

Table 7 **Intersection Analysis for Existing plus Project (2023) Conditions**					
Intersection	Traffic Control	Delay		Level of Service	
		AM	PM	AM	PM
Lawrence Crossley Rd. / Dinah Shore Dr.	TS	**58.7**	**60.1**	**E**	**E**
• With improvements	TS	33.8	34.0	C	C
San Luis Dr. / Dinah Shore Dr.	TS	20.8	17.5	C	B
Gene Autry Tr. (Hwy. 111) / Dinah Shore Dr.	TS	39.1	40.9	D	D
Lawrence Crossley Rd. / Indian Springs Rd.	CSS	19.9	19.1	C	C
Lawrence Crossley Rd. / Sunny Dunes Rd.	CSS	14.8	13.7	B	B
Lawrence Crossley Rd. / Ramon Rd.	TS	20.5	37.9	C	D
Lawrence Crossley Rd. / Dwy. 1	**CSS**	14.3	12.5	B	B
Dwy. 2 / Dinah Shore Dr.	**CSS**	14.6	12.7	B	B
Dwy. 3 / Indian Springs Rd.	**CSS**	9.5	9.5	A	A
TS = Traffic Signal; CSS = Cross-Street Stop BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).					

As summarized in Table 8 and Table 9 below, the Lawrence Crossley Road/Dinah Shore Drive and Lawrence Crossley Road/Ramon Road intersections would operate at an unacceptable LOS during peak hours under EAC (2025) and EAPC (2025) conditions, with or without Project traffic.

Table 8 **Intersection Analysis for Existing plus Ambient plus Cumulative (2025) Conditions**					
Intersection	Traffic Control	Delay		Level of Service	
		AM	PM	AM	PM
Lawrence Crossley Rd. / Dinah Shore Dr.	TS	**59.6**	**61.9**	**E**	**E**
• With improvements	TS	36.6	40.9	D	D
San Luis Dr. / Dinah Shore Dr.	TS	21.9	19.3	C	B
Gene Autry Tr. (Hwy. 111) / Dinah Shore Dr.	TS	39.2	41.1	D	D
Lawrence Crossley Rd. / Indian Springs Rd.	CSS	13.9	14.4	B	B
Lawrence Crossley Rd. / Sunny Dunes Rd.	CSS	14.8	13.9	B	B
Lawrence Crossley Rd. / Ramon Rd.	TS	27.7	**57.5**	C	**E**
• With improvements	TS	23.4	34.8	C	C
Lawrence Crossley Rd. / Dwy. 1	Future Intersection				
Dwy. 2 / Dinah Shore Dr.	Future Intersection				
Dwy. 3 / Indian Springs Rd.	Future Intersection				
TS = Traffic Signal; CSS = Cross-Street Stop **BOLD** = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).					

Table 9 Intersection Analysis for Existing plus Ambient plus Project plus Cumulative (2025) Conditions					
Intersection	Traffic Control	Delay		Level of Service	
		AM	PM	AM	PM
Lawrence Crossley Rd. / Dinah Shore Dr.	TS	**60.8**	**62.3**	**E**	**E**
• With improvements	TS	40.0	41.6	D	D
San Luis Dr. / Dinah Shore Dr.	TS	24.4	19.8	C	B
Gene Autry Tr. (Hwy. 111) / Dinah Shore Dr.	TS	39.8	41.6	D	D
Lawrence Crossley Rd. / Indian Springs Rd.	CSS	21.8	21.0	C	C
Lawrence Crossley Rd. / Sunny Dunes Rd.	CSS	15.8	14.6	C	B
Lawrence Crossley Rd. / Ramon Rd.	TS	30.0	**61.3**	C	**E**
• With improvements	TS	25.9	36.1	C	D
Lawrence Crossley Rd. / Dwy. 1	**CSS**	15.3	13.2	C	B
Dwy. 2 / Dinah Shore Dr.	**CSS**	15.1	13.0	C	B
Dwy. 3 / Indian Springs Rd.	**CSS**	9.5	9.5	A	A
TS = Traffic Signal; CSS = Cross-Street Stop **BOLD** = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).					

As detailed in Section 4 of this document, the Project will be required to provide improvements to address traffic impacts under the existing (E+P 2023) and cumulative (EAPC 2025) conditions, as described below.

The following improvements, and the Project's share of these improvements, will be required for the off-site intersections of Lawrence Crossley Road/Dinah Shore Drive and Lawrence Crossley Road/Ramon Road in order to address intersection operation deficiencies for opening year (2025) conditions, which will be needed with or without the Project.

Lawrence Crossley Road/Dinah Shore Drive

- Provide separate westbound right turn lane (minimum of 150-foot turn pocket length).
- Project Fair Share: 55.8%

Lawrence Crossley Road/Ramon Road

- Provide separate northbound left turn lane (minimum of 150-foot turn pocket length).
- Provide overlap phase for existing northbound right turn lane.
- Project Fair Share: 14.8%

Implementation of the above improvements will ensure that the proposed Project has less than significant impacts on the LOS at intersections in the study area.

Project Access

Access to the Project would be provided from Lawrence Crossley Road (right-in/right-out access), Dinah Shore Drive (right-in/right-out access) and Indian Springs Road (full access). Roadway improvements will also be necessary to provide access to the subject site and on-site circulation. The Traffic Analysis recommends the following access intersection traffic controls:

Lawrence Crossley Road/Driveway 1

- Restrict left turn movements to/from Lawrence Crossley Road by providing raised median from Indian Springs Road to Dinah Shore Drive.
- Provide single eastbound right turn lane within driveway with cross-street stop control.

Driveway 2/Dinah Shore Drive

- Provide single southbound right turn lane within driveway with cross-street stop control.
- Provide a separate westbound right turn lane (150-foot turn pocket length).

Driveway 3/Indian Springs Road

- Provide single northbound shared left-right lane within driveway with cross-street stop control.

The Traffic Analysis report also recommends that the raised median to be constructed along Lawrence Crossley Road between Indian Springs and Dinah Shore Drive include a 150 foot southbound left turn pocket onto Dinah Shore Drive and 100 foot northbound left turn pocket onto Indian Springs Road.

Vehicle Miles Traveled

The City of Palm Spring's analytical procedures, screening tools, and impact thresholds for vehicle miles traveled (VMT) are documented in the City's Traffic Impact Analysis Guidelines (July 2020). According to the screening tools provided in the City's Guidelines, local serving retail uses of less than 50,000 square feet, including gas stations and shopping centers, are presumed to have less than significant impacts related to VMT absent substantial evidence to the contrary. The proposed fuel station and 9,500 square foot convenience store and Class II gaming space therefore meets the criteria for local serving retail. The Project provides a service to existing travelers on Dinah Shore Drive and Lawrence Crossley Road, and therefore would shorten trips that will occur. The Project-type screening criteria is therefore met, and the proposed development would have less than significant impacts related to VMT.

G. Land Use Plan

The Project proposes the development of a 9,500 square foot convenience store and Class II Gaming space with 24 gasoline/diesel fuel dispensers. The Project is located on Tribal land and is subject to the Tribal Land Use Ordinance. According to this ordinance, the Project site is zoned Tribal Enterprise, where allowable uses are subject to Tribal Council Determination. The rest of Section 20, in which the Project site is located, is subject to city land use control per the Tribe's Land Use Contract with Palm Springs.

According to the Palm Springs Zoning Code, the subject site is situated in the service/manufacturing zone (M-1). This zone is intended for commercial and industrial uses, as well as industrial fabrication, manufacturing, and processing uses. All uses in the retail business zone (C-1) are also allowed in the M-1 Zone, and convenience store and gas station uses are permitted subject to the approval of a conditional use permit in the C-1 Zone. The M-1 zone also permits a variety of industrial uses that could have more intense environmental impacts than a gas station and convivence store. The proposed development is therefore expected to be generally compatible with the intended use for the site.

According to the Palm Springs Zoning Code, the Project site is in the N Overlay Zone for the Palm Springs International Airport. The N Noise Impact and Nonsuit Covenant Combining Zone applies to properties which may be affected by noise, vibration, odors, smoke, air quality changes, or other impacts associated with the airport. This zoning overlay requires additional soundproofing for residential uses, and prohibits the development of certain sensitive receptor land uses. Given that the Project does not propose any sensitive receptor land uses, it will not be impacted by this overlay.

According to the Airport Land Use Compatibility Plan (ALUCP) for the Palm Springs International Airport, the northwestern portion of the site is in Airport Land Use Compatibility Zone B1, and the southeastern portion of the site is in Zone C. Table 9 shows the requirements for Zone B1 and C.

Table 10
Riverside County Airport Land Use Compatibility Plan
Basic Compatibility Criteria

Zone / Location	Maximum Intensities (people/acre)			Required Open Land	Additional Criteria	
	Average	Single Acre	with Bonus		Prohibited Uses	Other Development Conditions
B1 (Inner Approach / Departure Zone)	25	50	65	30%	- Children's schools, day care centers, libraries - Hospitals, nursing homes Places of worship - Buildings with > 2 aboveground habitable floors - Highly noise-sensitive outdoor nonresidential uses - Aboveground bulk storage or hazardous materials - Critical community infrastructure facilities - Hazards to flight	- Locate structures maximum distance from extended runway centerline - Minimum NLR of 25 dB in residences (including mobile homes) and office buildings - Airspace review required for objects > 35 feet tall - Avigation easement dedication
C (Extended Approach / Departure Zone)	75	150	195	20%	- Children's schools, day care centers, libraries - Hospitals, nursing homes - Buildings with >3 aboveground habitable floors - Highly noise-sensitive outdoor nonresidential uses - Hazards to flight	- Minimum NLR of 20 dB in residences and office buildings - Airspace review required for objects > 70 feet tall - Deed notice required

Source: Riverside County Airport Land Use Compatibility Plan Policy document (October 2004), Table 2A.

The Project proposes the development of up 9,500 square feet of commercial/Class II Gaming space and a 24-pump fuel station on the 3.6-acre site. Assuming, for analysis purposes, that the fuel canopy would occupy 9,500 square feet, then the combined built area would leave approximate 88% of the site as open land. The proposed land uses are not noise-sensitive, and would not generate a hazard to flight. Fuels stored on-site will be in underground storage tanks (USTs). Given the commercial nature of the site, it is expected that most customers will be on the property temporarily, and intensity of the development is not expected to exceed the maximum people per acre for the permitted zones.

The development standards for the M-1 zone, according to the Palm Springs Zoning Code, permit building heights of up to 40 feet, provided that any portion of the building exceeding 30 feet is set back one foot from the property line for every one foot of vertical rise. Provided the proposed convenience store is constructed in the Zone C portion of the property, this maximum building height will comply with the ALUC requirements.

Overall, the Project will comply with the Tribe's land use requirements and the Palm Springs Zoning Code. The proposed development is also expected to generally be consistent with the compatibility criteria for the ALUCP. Impacts would be less than significant.

3.8 Other Values

A. Wilderness

The Project site is located of lands that are under the jurisdiction of the Agua Caliente Band of Cahuilla Indians, within the city of Palm Springs. The subject site is within the planning area for the Agua Caliente Tribal Habitat Conservation Plan (THCP) but is not within a THCP-designated conservation area or target acquisition area.

The approximately 3.6 acre subject site is surrounded on three sides by existing public roadways: Indian Springs Road to the north, Lawrence Crossley Road to the east, and Dinah Shore Drive to the south. Lands immediately adjacent to the west of the subject site are occupied by similarly undeveloped, natural open space as the Project site. Additional undeveloped open space occurs south and east of the Project site, across Dinah Shore Drive and Lawrence Crossley Road.

The nearest federally-recognized wildernesses near the Project site are the Coachella Valley National Wildlife Refuge, located approximately 7.3 miles east of the subject site, and the Santa Rosa and San Jacinto Mountains National Monument, located approximately 8 miles west of the subject site. These wilderness areas are managed by the U.S Fish and Wildlife Service and the U.S. Forest Service (with the Bureau of Land Management), respectively.

The Project site is also approximately six miles northeast of the Tribe's Indian Canyons. These lands hold biological, cultural, and ethnographic resources of significance to the Tribe.

As previously stated, the Project site is not within a THCP-designated conservation area or target acquisition area. Development of the proposed Project would therefore not impact the implementation of the THCP. As described in the Living Resources section of this document, the proposed development is not expected to impact any special status plants or animals, with the implementation of the mitigation measures contained in Section 4.

The THCP divides the Agua Caliente Indian Reservation into the Mountains and Canyons Conservation Area and the Valley Floor Planning Area (VFPA). The VFPA includes most of the

Reservation that is below 800 feet above mean sea level, including the Project site. Covered Projects in the VFPA are subject to a $2,371 per acre development mitigation fee. Funds collected from this fee support Tribal acquisition and management of replacement habitat. Payment of the THCP mitigation fee and implementation of mitigation measures will ensure that impacts to wilderness are less than significant.

B. Noise

Noise is defined as unwanted or disturbing sound. According to the EPA, excessive noise levels can have health effects, such as stress related illnesses, high blood pressure, speech interference, hearing loss, and sleep disruption.[15] The U.S. Department of Housing and Urban Development (HUD) considers 65 dBA L_{dn} to be a normally acceptable noise level for HUD-supported or assisted housing projects. Likewise, the State of California uses 65 dBA CNEL as the exterior noise standard for residential properties.

Noise levels from a particular source generally decline as distance to the receptor increases. For traffic noise, the noise level is generally reduced by 3 dBA with every doubling of distance from the source. Noise from stationary or point sources is generally reduced by 6 dBA for every doubling of distance.

According to the EIR for the City of Palm Springs General Plan Update (2007), the existing noise level at Lawrence Crossley Road north of Dinah Shore Drive is 69.9 dBA CNEL at 50 feet from the centerline.[16]

Airport Noise

According to the Palm Springs Zoning Code, the Project site is in the N Overlay Zone for the Palm Springs International Airport. The N Noise Impact and Nonsuit Covenant Combining Zone applies to properties which may be affected by noise, vibration, odors, smoke, air quality changes, or other impacts associated with the airport. The Project does not propose any sensitive receptor land uses that would be subject to the limitations of the N Overlay Zone.

According to the Airport Land Use Compatibility Plan for the Palm Springs International Airport, the Project site is outside of the 60 CNEL noise contour for the airport's actual and projected operations. The northwestern portion of the site is in Airport Land Use Compatibility Zone B1, and the southeastern portion of the site is in Zone C. Given that the Project does not propose any residential or other noise sensitive uses, and that the site is outside of the 60 dBA CNEL noise contour, it is not expected to be subject to significant noise impacts from the airport.

Construction Noise

Construction of the proposed Project will generate noise on a temporary and intermittent basis. The level of construction noise will vary depending on the construction phase and equipment being used. Noise would be generated by heavy equipment, such as graders, bulldozers, and heavy-duty trucks, as well as by lighter equipment such as generators, tools, and painting equipment. The nearest sensitive receptor land use are the residences approximately 1,400 feet south of the Project site. This intervening distance would reduce the level of construction noise from the Project experienced at the existing sensitive receptors.

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15 U.S. Environmental Protection Agency, Clean Air Act Title IV – Noise Pollution https://www.epa.gov/clean-air-act-overview/clean-air-act-title-iv-noise-pollution (accessed December 2023).

16 City of Palm Springs General Plan Update EIR (March 2007), Table 5.11-9.

The City provides exemption for construction noise in recognition that control of construction noise can be difficult. Section 8.04.220 of the City of Palm Springs Municipal Code permits construction activities on weekdays from 7 a.m. to 7 p.m., and Saturdays from 8 a.m. to 5 p.m. Construction is not permitted on Sundays or on federal holidays. Compliance with the permitted construction hours will ensure that noise impacts related to Project construction would be less than significant.

Operational Noise
The primary on-site noise sources during Project operations would be vehicular movements in the Project site and the use of landscaping equipment. The lands surrounding the Project site are either vacant, or occupied by commercial uses. None of the land uses surrounding the Project site are sensitive receptors, and the nearest sensitive receptor is the residential development approximately 1,400 feet south of the subject site. Therefore, the stationary sources of noise generated on the subject site would not be expected to have any impacts resulting from increases in ambient noise levels on these properties.

Dinah Shore Drive and Lawrence Crossley Road are both designated as Secondary Thoroughfares in the City's Circulation Element. These roadways would be expected to be subject to a moderate level of traffic noise. Given that the proposed Project is generally consistent with the neighborhood/community commercial land use designation, traffic impacts resulting from the proposed development would be expected to be comparable to those studied in the Palm Springs General Plan EIR. According to the Traffic Analysis prepared for the Project, a significant portion of the trips associated with the proposed development would be existing pass-by traffic, as opposed to the Project being the primary destination. This would reduce the number of trips generated by the Project, thereby reducing associated noise impacts. Furthermore, as shown in Exhibit 4-1 and 4-2 in the Traffic Analysis, most trips to and from the Project site would use Lawrence Crossley Road north of Dinah Shore Drive and Dinah Shore Drive west of Crossley Road. Therefore, the roadway segments subject to the biggest traffic, and therefore traffic noise, increase from the Project would not be in proximity to the nearest sensitive receptor site, the residential development off Lawrence Crossley Road approximately 1,400 feet south of the Project. Traffic noise generated by the Project would therefore be expected to have less than significant impacts.

C. Visual and Light
The Project is located in the eastern portion of the City's core. Other than existing public roadways, the Project site is surrounded by undeveloped lands on three sides. From the subject property, the San Jacinto Mountains are prominently visible to the west, the Santa Rosa Mountains are visible to the south, the Little San Bernardino Mountains are visible to the north, and Mount San Gorgonio is visible to the northwest. Development of the proposed convenience store and gas station will partially obstruct these views from certain positions on surrounding roadways. Views of the San Jacinto Mountains may be partially obstructed from Lawrence Crossley Road, and views of the Little San Bernardino Mountains may be partially obstructed from Dinah Shore Drive. However, the proposed development will result in a significantly lower site coverage than the maximum of 60% permitted in the M-1 zone. The site plan also proposes building setbacks of more than 70 feet, which are significantly larger than the required 25 foot front yard setbacks required by the City's Zoning Code. As a result of this low site coverage and ample setbacks, the Project will provide a significant amount of on-site space for view corridors. Impacts to surrounding scenic resources are therefore expected to be less than significant.

Although the Tribe has land use jurisdiction, it is anticipated that the proposed convenience store and gas station will be in general conformance with the City's development standards. Given that the subject site is zoned for service and manufacturing uses (M-1), the proposed development would not be expected to have significant impacts on the aesthetic character of the area.

The Project site is currently vacant. Development of the proposed convenience store and gas station will generate new sources of light and glare. Additional light sources will include landscape and parking lot lighting as well as headlights from vehicles accessing the site. All outdoor lighting will be subject to outdoor lighting standards provided in §93.21.00 of the Palm Springs Zoning Code, including shielding requirements to prevent light pollution.

The use of glass and other potentially reflective materials may result in glare on the subject site. However, it is anticipated that the proposed development will be in general conformance with the City's development standards, ensuring that any glare generated on the site will not be excessive, and that impacts will be less than significant.

D. Public Health and Safety

The Palm Springs Fire Department serves the City, including Reservation lands. The Fire Department provides fire and rescue operations, paramedic emergency medical service, and educational services. The Fire Department operates five stations. The Project site is in the primary response area for Station 5, which is defined by the City limits to the east and south, Ramon Road to the north, and Gene Autry Trail to the west. Station 5 is located at 5800 Bolero Road, approximately one mile south of the subject site. The Project will be reviewed by the Fire Department for compliance with safety their regulations, which are consistent with Tribal Building and Safety Code requirements.

The Project site will also be served by the Palm Springs Police Department. The Police Department is currently staffed with 93 sworn officers, including the Chief, two captains, four lieutenants, and 14 sergeants.

Emergency access to the site will be provided along Crossley Road, Dinah Shore Drive, and Indian Springs Road. The proposed development of a convenience store with Class II Gaming and 24 fuel pumping stations is not expected to significantly increase demand for fire or police service. The Project would not introduce any permanent population onto the site, and would result in a limited number of employees. Compliance with applicable building and fire codes will ensure that impacts to public health and safety would be less than significant.

E. Climate Change (Greenhouse Gasses)

Greenhouse gas is a broad term referring to chemicals and substances found to cause changes in the atmosphere and the changing of the earth's climate. While these are not the only greenhouse gases, the California Air Resources Board is required to monitor and regulate seven GHGs: carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), sulfur hexafluoride (SF_6), nitrogen trifluoride (NF_3), perfluorocarbons (PFCs), and hydrofluorocarbons (HFCs).[17] The latter four gases, all of which contain fluorine, are sometimes collectively referred to as high global warming potential greenhouse gases (high-GWP gases).

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17 California Health and Safety Code § 38505 (g).

State laws such as Assembly Bill 32 (AB 32) and Senate Bill 32 (SB 32) require all cities to reduce greenhouse gas emissions to 1990 levels by the year 2020. SB 32 is the extension of AB 32 which requires the state to reduce greenhouse gas emissions to 40 percent below 1990 levels by 2030.

GHG Thresholds

On December 5, 2008, the SCAQMD formally adopted a greenhouse gas significance threshold of 10,000 $MTCO_2e$/yr that only applies to industrial uses' stationary sources where SCAQMD is the lead agency (SCAQMD Resolution No. 08-35). This threshold was adopted based upon an October 2008 staff report and draft interim guidance document that also recommended a threshold for all projects using a tiered approach. It was recommended by SCAQMD staff that a project's greenhouse gas emissions would be considered significant if it could not comply with at least one of the following "tiered" tests:

- Tier 1: Is there an applicable exemption?
- Tier 2: Is the project compliant with a greenhouse gas reduction plan that is, at a minimum, consistent with the goals of AB 32?
- Tier 3: Is the project below an absolute threshold (10,000 MTCO2e/year for industrial projects; 3,000 MTCO2e/year for residential and commercial projects)?
- Tier 4: Is the project below a (yet to be set) performance threshold?
- Tier 5: Would the project achieve a screening level with off-site mitigation?

Impact Significance Considerations

As described in the Air Quality section above, the California Emissions Estimator Model (CalEEMod) Version 2022.1.1.20 was used to quantify the Project's air quality emissions, including greenhouse gas emissions (Appendix A). The proposed development will generate GHG emissions during both construction and operations.

Construction of the Project will result in short term GHG emissions associated with the operation of construction equipment, construction employee commutes, material hauling, and other ground disturbing activities. As shown in Table 10, the Project is projected to generate 498 metric tons of CO2e over the 1.5-year construction period. There are currently no GHG thresholds for construction projects of this nature. To determine if the Project's construction emissions would result in a cumulatively considerable impact, construction GHG emissions were amortized over a 30-year period and added to annual operational emissions to be compared to applicable GHG thresholds (see Table 10, below).

During operations, five emissions source categories contribute to the Project's ongoing operational GHG emissions. These source categories are: mobile emissions (vehicle emissions), area emissions (pavement and architectural coating off-gassing), energy/electricity usage, water usage, solid waste disposal, and refrigerants. As shown in Table 12, below, the Project is projected to generate 2,961.2 metric tons of CO_2e per year during operations, including amortized construction emissions.

Table 11 Projected GHG Emissions Summary (Metric Tons)	
Phase	**CO_2e (MT/YR)**
Construction	
2024	190
2025	308
Construction Total	498
Operation	
Mobile	2,522
Area	0.14
Energy	86.3
Water	2.33
Water	8.91
Refrigerants	326
Construction (30-year amortized)[1]	16.6
Total:	**2,961.6**
SCAQMD threshold	**3,000**
Exceeds?	No
[1] Buildout construction GHG emissions were amortized over 30 years then added to buildout operational GHG emissions. 498/30 = 16.6	

The proposed Project is comparable to the SCAQMD threshold of 3,000 $MTCO_2e$ per year for residential and commercial projects. As summarized in the above table, the proposed development would result in a projected 2,961.6 metric tons of CO_2e from short-term construction and annual operational activities. Emissions would not exceed the 3,000 $MTCO_2e$ threshold, and therefore the Project complies with the SCAQMD Tier 3 threshold. Impacts will be less than significant.

F. Indian Trust Assets

As a parcel of land with monetary value beneficially owned by the Tribe, the Project site is an Indian Trust Asset. Surrounding parcels are Allotted and Not Leased (parcels to the west) and Allotted and Leased (parcels to the north, east, and south).

The Tribe will operate the gas station and convenience store. The land will remain Tribal Trust land, and will generate income to the Tribe from the sale of fuel, as well as revenues from the convenience store and gaming area. Buildout of the proposed development will expand the Tribe's portfolio of assets by adding recurring revenues. This Indian Trust Asset is therefore expected to positively impact the Tribe.

G. Hazardous Materials

According to the GeoTracker database from the California State Water Resources Control Board, the Project site is not a hazardous waste or substance site, and no such sites occur within ¼ mile of the subject property. The nearest hazardous waste or substance sites are a LUST Cleanup Site (RB Case #: 7T2234033) at 67510 Ramon Road and a LUST Cleanup Site (RB Case #: 7T2262037) at 1200 South Gene Autry Trail, both of which are approximately 0.4 miles from the Project site. Both sites are designated as "Completed – Case Closed". According to the California Department of Toxic Substances Control EnviroStor database, the Project site is not a hazardous waste site. The nearest hazardous waste or substance site listed in this database is the former Palm Springs Landfill (33490086) located at the intersection of Gene Autry Trail and Ramon Road, approximately 0.6 miles from the subject site. This site is under a voluntary cleanup agreement with the DTSC, and is subject to land use restrictions. It is not anticipated to post a hazard to the Project site.

During construction of the Project, hazardous materials such as asphalt, paints, and solvents may be used and stored on the property. Likewise, small quantities of hazardous materials such as cleaning products, solvents, landscaping products, might be used and stored on-site. The use, storage, and disposal of these materials, during construction and operations, must be in accordance with the labels of the products, as well as all City, County, state, and federal standards applicable to hazardous materials.

The Project proposes the development of a convenience store with 24 gasoline/diesel fuel dispensers. The Project will involve storage of gasoline and diesel fuels on-site, which are expected to be stored in underground storage tanks (USTs). The construction and operation of USTs is overseen by the Riverside County Department of Health Hazardous Materials Management Branch (HMMB). In accordance with California Code of Regulations Title 23, Division 3, Chapter 16, California Health and Safety Code §25280 – 25299.8 and Riverside County Ordinance 617, a permit is required to operate a UST system. These regulations also require the testing and regular inspection of UST systems. Compliance with local, state, and federal regulations pertaining to hazardous materials and USTs will ensure that the proposed development has less than significant impacts related to hazardous materials.

4.0 MITIGATION

As defined in CEQ Regulations (40 CFR 1508.20) mitigation can include:

1. Avoiding the impact altogether by not taking a certain action or parts of an action.
2. Minimizing impact by limiting the degree of magnitude of the action and its implementation.
3. Rectifying the impact by repairing, rehabilitating, or restoring the affected environment.
4. Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.
5. Compensating for the impact by replacing or providing substitute resources or environments.

Unless provided otherwise by Federal regulations (e.g. Clean Water Act, Clean Air Act, etc.) the enforceability of the following mitigation measures will be achieved through Project approval by the Agua Caliente Band of Cahuilla Indians. This section also includes standard conditions which the Tribe imposes on projects, and which it will impose on this Project.

4.1 Air Quality Mitigation

Pollutant emissions resulting from construction and operation of the Project are not projected to exceed the federal de minimis level. Mitigation will therefore not be required. The Project will be subject to standard requirements, including the preparation of a Fugitive Dust (PM10) Control Plan which must be reviewed and approved prior to the issuance of a grading permit. The Tribe will also obtain a Minor New Source Permit through the Environmental Protection Agency prior to the issuance of any grading permit.

4.2 Living Resources Mitigation

***Standard Condition for Living Resources*:**

- Prior to issuance of any grading permit for the Project, the Project proponent shall pay the THCP VFPA fee that will be used to acquire and manage habitat preserve lands.

Mitigation for Living Resources:

- Prior to any ground or habitat disturbance on the Project site, a pre-disturbance survey will be conducted by a Qualified Biologist for the presence of burrowing owls consistent with the guidance provided in THCP:

    1. Surveys and relocation, if applicable, shall be conducted between September 1 and January 31 if possible. Relocation, if necessary, should, at a minimum, comply with the standards of the California Department of Fish and Wildlife Staff Report on Burrowing Owl Mitigation (March 7, 2012).

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4.3 Cultural Resources Mitigation

The site is categorized sensitive for buried prehistoric cultural resources. The Tribe implements the following standard conditions for all projects:

Standard Conditions for Cultural Resources:

- **ACBCI THPO Monitor Required.** Approved Agua Caliente Native American Cultural Resource Monitor(s) shall be present during all ground disturbing activities. Should buried cultural deposits be encountered, the Monitor may request that destructive construction halt and the Monitor shall notify a qualified Archaeologist (secretary of the Interior's Standards and Guidelines) to investigate and, if necessary, prepare a mitigation plan for submission to the Agua Caliente Tribal Historic Preservation Office.

- **ARPA Compliance.** To the extent a portion of Project development is located on **"public lands"** or **"Indian lands,"** as those terms are defined in 16 U.S.C. § 470bb, Client shall not excavate, remove, damage, or otherwise alter or deface, or attempt to excavate, remove, damage, or otherwise alter or deface any archaeological resource located on said lands unless such activity is pursuant to a permit issued under 43 C.F.R. § 7.8 or exempted by 43 C.F.R. § 7.5(b). As used in this Section, the term **"archaeological resource"** has the meaning ascribed to it in 16 U.S.C. § 470bb.

- **NAGPRA Compliance.** To the extent a portion of Project development is located on **"federal lands"** or **"tribal lands"** as those terms are defined in 25 U.S.C. § 3001, Project contractor shall comply with the requirements of the Native American Graves Protection and Repatriation Act (25 U.S.C. §§ 3001 *et seq.*), as implemented by 43 C.F.R. §§ 10.4 to 10.6, which include, but are not limited to: (i) compliance with the requirements for the intentional removal from or excavation of Native American cultural items from federal or tribal lands for the purposes of discovery, study, or removal of such items; and, in the case of inadvertent discovery, (ii) notification in writing of the applicable Secretary of the federal department, or head of any other agency or instrumentality of the United States, having primary management authority with respect to federal lands and the appropriate Indian tribe with respect to tribal lands, if known or ascertainable, if the Project contractor knows or has reason to know that it has discovered Native American cultural items on federal or tribal lands; and (iii) cessation of activities in connection with the discovery in in the area of discovery. As used in this Section, the term **"cultural items"** has the meaning ascribed to it in 25 U.S.C. § 3001.

  Although no known resources have been identified, excavation is likely to occur to a greater depth and area. Should human remains be discovered during construction of the proposed Project, the Project contractor would be subject to the Tribe's "Treatment of Human Rights Policy" (ACBCI Tribal Historic Preservation Organization and Policies, 2004) which is consistent with NAGPRA regarding the discovery and disturbance of human remains. In that circumstance the Cultural Monitor has the authority to halt destructive activities in the immediate area and the THPO will work with Tribal Council on treatment and disposition of the remains.

4.4 Resource Use Mitigation

Mitigation for Transportation:

- The following improvements, or the Project's share of these improvements, will be required for the off-site intersections of Lawrence Crossley Road/Dinah Shore Drive and Lawrence Crossley Road/Ramon Road in order to address intersection operation deficiencies for opening year (2025) conditions, which would be needed with or without the Project:

  Lawrence Crossley Road/Dinah Shore Drive
    - Provide separate westbound right turn lane (minimum of 150-foot turn pocket length).
    - Project Fair Share: 55.8%

  Lawrence Crossley Road/Ramon Road
    - Provide separate northbound left turn lane (minimum of 150-foot turn pocket length).
    - Provide overlap phase for existing northbound right turn lane.
    - Project Fair Share: 14.8%

- Consistent with the recommendations provided in the Traffic Study the following site access intersection traffic controls will be required:

  Lawrence Crossley Road/Driveway 1
    - *Restrict left turn movements to/from Lawrence Crossley Road by providing raised median from Indian Springs Road to Dinah Shore Drive.*
    - *Provide single right turn lane within driveway with cross-street stop control.*

  Driveway 2/Dinah Shore Drive
    - *Provide single southbound right turn lane within driveway with cross-street stop control.*
    - *Provide a separate westbound right turn lane (150-foot turn pocket length).*

  Driveway 3/Indian Springs Road
    - *Provide single northbound shared left-right lane within driveway with cross-street stop control.*

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Appendix A

Air Quality and Greenhouse Gas Emission Outputs

CalEEMod Version 2022.1.1.18

ACBCI - V3 Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	ACBCI - V3
Construction Start Date	6/3/2024
Operational Year	2025
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.30
Precipitation (days)	10.0
Location	33.80934112395771, -116.484992856588
County	Riverside-Salton Sea
City	Palm Springs
Air District	South Coast AQMD
Air Basin	Salton Sea
TAZ	5672
EDFZ	11
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.21

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description

Convenience Market with Gas Pumps	9.50	1000sqft	3.25	9,500	38,851	—	—	—
Parking Lot	48.0	Space	0.43	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	4.44	3.74	36.1	34.7	0.05	1.60	19.9	21.5	1.47	10.2	11.6	—	5,561	5,561	0.23	0.05	1.32	5,583
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.46	3.64	18.0	24.3	0.04	0.75	0.32	1.07	0.69	0.08	0.76	—	4,230	4,230	0.17	0.05	0.03	4,249
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.04	1.13	7.83	10.2	0.02	0.32	0.86	1.11	0.30	0.43	0.66	—	1,850	1,850	0.07	0.02	0.15	1,858
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.19	0.21	1.43	1.86	< 0.005	0.06	0.16	0.20	0.05	0.08	0.12	—	306	306	0.01	< 0.005	0.02	308

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	4.44	3.74	36.1	34.7	0.05	1.60	19.9	21.5	1.47	10.2	11.6	—	5,561	5,561	0.23	0.05	0.99	5,583
2025	2.33	1.99	17.1	24.1	0.04	0.72	0.31	1.03	0.66	0.07	0.74	—	4,140	4,140	0.17	0.05	1.32	4,160
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	1.45	1.22	11.3	13.3	0.02	0.50	0.05	0.55	0.46	0.01	0.47	—	2,487	2,487	0.10	0.03	0.01	2,498
2025	2.46	3.64	18.0	24.3	0.04	0.75	0.32	1.07	0.69	0.08	0.76	—	4,230	4,230	0.17	0.05	0.03	4,249
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.72	0.61	5.65	6.38	0.01	0.25	0.86	1.11	0.23	0.43	0.66	—	1,144	1,144	0.05	0.01	0.07	1,149
2025	1.04	1.13	7.83	10.2	0.02	0.32	0.07	0.40	0.30	0.02	0.31	—	1,850	1,850	0.07	0.02	0.15	1,858
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.13	0.11	1.03	1.17	< 0.005	0.05	0.16	0.20	0.04	0.08	0.12	—	189	189	0.01	< 0.005	0.01	190
2025	0.19	0.21	1.43	1.86	< 0.005	0.06	0.01	0.07	0.05	< 0.005	0.06	—	306	306	0.01	< 0.005	0.02	308

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	21.3	20.1	16.6	160	0.35	0.25	27.7	27.9	0.24	7.02	7.26	16.7	35,976	35,993	3.18	1.67	2,087	38,658
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	17.0	15.8	17.9	112	0.31	0.25	27.7	27.9	0.24	7.02	7.26	16.7	32,043	32,060	3.28	1.72	1,973	34,627

Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	16.1	15.6	10.4	72.6	0.15	0.12	11.9	12.0	0.12	3.01	3.13	16.7	15,431	15,448	2.77	0.95	1,992	17,790
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.95	2.84	1.90	13.3	0.03	0.02	2.17	2.19	0.02	0.55	0.57	2.77	2,555	2,558	0.46	0.16	330	2,945

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	21.2	19.8	16.5	160	0.35	0.25	27.7	27.9	0.24	7.02	7.25	—	35,447	35,447	1.47	1.67	118	36,098
Area	0.07	0.30	< 0.005	0.41	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.70	1.70	< 0.005	< 0.005	—	1.71
Energy	< 0.005	< 0.005	0.04	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	519	519	0.03	< 0.005	—	521
Water	—	—	—	—	—	—	—	—	—	—	—	1.35	8.28	9.63	0.14	< 0.005	—	14.1
Waste	—	—	—	—	—	—	—	—	—	—	—	15.4	0.00	15.4	1.54	0.00	—	53.8
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,970	1,970
Total	21.3	20.1	16.6	160	0.35	0.25	27.7	27.9	0.24	7.02	7.26	16.7	35,976	35,993	3.18	1.67	2,087	38,658
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	17.0	15.6	17.9	112	0.31	0.25	27.7	27.9	0.24	7.02	7.25	—	31,515	31,515	1.57	1.71	3.06	32,068
Area	—	0.23	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	< 0.005	< 0.005	0.04	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	519	519	0.03	< 0.005	—	521
Water	—	—	—	—	—	—	—	—	—	—	—	1.35	8.28	9.63	0.14	< 0.005	—	14.1
Waste	—	—	—	—	—	—	—	—	—	—	—	15.4	0.00	15.4	1.54	0.00	—	53.8
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,970	1,970

Total	17.0	15.8	17.9	112	0.31	0.25	27.7	27.9	0.24	7.02	7.26	16.7	32,043	32,060	3.28	1.72	1,973	34,627
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	16.1	15.3	10.4	72.4	0.15	0.12	11.9	12.0	0.11	3.01	3.13	—	14,903	14,903	1.06	0.94	22.0	15,231
Area	0.04	0.26	< 0.005	0.20	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.84	0.84	< 0.005	< 0.005	—	0.84
Energy	< 0.005	< 0.005	0.04	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	519	519	0.03	< 0.005	—	521
Water	—	—	—	—	—	—	—	—	—	—	—	1.35	8.28	9.63	0.14	< 0.005	—	14.1
Waste	—	—	—	—	—	—	—	—	—	—	—	15.4	0.00	15.4	1.54	0.00	—	53.8
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,970	1,970
Total	16.1	15.6	10.4	72.6	0.15	0.12	11.9	12.0	0.12	3.01	3.13	16.7	15,431	15,448	2.77	0.95	1,992	17,790
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	2.94	2.79	1.89	13.2	0.03	0.02	2.17	2.19	0.02	0.55	0.57	—	2,467	2,467	0.18	0.16	3.64	2,522
Area	0.01	0.05	< 0.005	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.14	0.14	< 0.005	< 0.005	—	0.14
Energy	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	86.0	86.0	0.01	< 0.005	—	86.3
Water	—	—	—	—	—	—	—	—	—	—	—	0.22	1.37	1.59	0.02	< 0.005	—	2.33
Waste	—	—	—	—	—	—	—	—	—	—	—	2.55	0.00	2.55	0.25	0.00	—	8.91
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	326	326
Total	2.95	2.84	1.90	13.3	0.03	0.02	2.17	2.19	0.02	0.55	0.57	2.77	2,555	2,558	0.46	0.16	330	2,945

3. Construction Emissions Details

3.1. Site Preparation (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	4.34	3.65	36.0	32.9	0.05	1.60	—	1.60	1.47	—	1.47	—	5,296	5,296	0.21	0.04	—	5,314
Dust From Material Movement	—	—	—	—	—	—	19.7	19.7	—	10.1	10.1	—	—	—	—	—	—	—
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.10	0.99	0.90	< 0.005	0.04	—	0.04	0.04	—	0.04	—	145	145	0.01	< 0.005	—	146
Dust From Material Movement	—	—	—	—	—	—	0.54	0.54	—	0.28	0.28	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.18	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	24.0	24.0	< 0.005	< 0.005	—	24.1
Dust From Material Movement	—	—	—	—	—	—	0.10	0.10	—	0.05	0.05	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11	0.10	0.10	1.81	0.00	0.00	0.23	0.23	0.00	0.05	0.05	—	266	266	0.01	0.01	0.99	269

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.62	6.62	< 0.005	< 0.005	0.01	6.71
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.10	1.10	< 0.005	< 0.005	< 0.005	1.11
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.3. Grading (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.26	1.90	18.2	18.8	0.03	0.84	—	0.84	0.77	—	0.77	—	2,958	2,958	0.12	0.02	—	2,969
Dust From Material Movement	—	—	—	—	—	—	7.08	7.08	—	3.42	3.42	—	—	—	—	—	—	—
Onsite truck	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	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.08	0.75	0.77	< 0.005	0.03	—	0.03	0.03	—	0.03	—	122	122	< 0.005	< 0.005	—	122
Dust From Material Movement	—	—	—	—	—	—	0.29	0.29	—	0.14	0.14	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.01	0.14	0.14	< 0.005	0.01	—	0.01	0.01	—	0.01	—	20.1	20.1	< 0.005	< 0.005	—	20.2
Dust From Material Movement	—	—	—	—	—	—	0.05	0.05	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.09	1.55	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	228	228	0.01	0.01	0.85	231
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	8.51	8.51	< 0.005	< 0.005	0.02	8.62
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.41	1.41	< 0.005	< 0.005	< 0.005	1.43
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Building Construction (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.44	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.44	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.50	0.42	3.89	4.54	0.01	0.17	—	0.17	0.16	—	0.16	—	830	830	0.03	0.01	—	833

Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.08	0.71	0.83	< 0.005	0.03	—	0.03	0.03	—	0.03	—	137	137	0.01	< 0.005	—	138
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.31	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	46.1	46.1	< 0.005	< 0.005	0.17	46.8
Vendor	< 0.005	< 0.005	0.05	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	50.1	50.1	< 0.005	0.01	0.14	52.3
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.02	0.18	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	39.2	39.2	< 0.005	< 0.005	< 0.005	39.7
Vendor	< 0.005	< 0.005	0.06	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	50.2	50.2	< 0.005	0.01	< 0.005	52.3
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.08	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	14.5	14.5	< 0.005	< 0.005	0.03	14.7
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	17.4	17.4	< 0.005	< 0.005	0.02	18.1
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.41	2.41	< 0.005	< 0.005	< 0.005	2.44
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.87	2.87	< 0.005	< 0.005	< 0.005	3.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Building Construction (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.86	0.72	6.64	8.29	0.01	0.27	—	0.27	0.25	—	0.25	—	1,525	1,525	0.06	0.01	—	1,530
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16	0.13	1.21	1.51	< 0.005	0.05	—	0.05	0.05	—	0.05	—	252	252	0.01	< 0.005	—	253
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.29	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	45.1	45.1	< 0.005	< 0.005	0.16	45.8
Vendor	< 0.005	< 0.005	0.05	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	49.3	49.3	< 0.005	0.01	0.14	51.4
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.02	0.16	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	38.4	38.4	< 0.005	< 0.005	< 0.005	38.9
Vendor	< 0.005	< 0.005	0.06	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	49.3	49.3	< 0.005	0.01	< 0.005	51.3
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.13	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	26.1	26.1	< 0.005	< 0.005	0.04	26.5
Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	31.4	31.4	< 0.005	< 0.005	0.04	32.7
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.32	4.32	< 0.005	< 0.005	0.01	4.38
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.19	5.19	< 0.005	< 0.005	0.01	5.41
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Paving (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.85	0.71	6.52	8.84	0.01	0.29	—	0.29	0.26	—	0.26	—	1,351	1,351	0.05	0.01	—	1,355
Paving	—	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.85	0.71	6.52	8.84	0.01	0.29	—	0.29	0.26	—	0.26	—	1,351	1,351	0.05	0.01	—	1,355
Paving	—	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	0.11	0.98	1.33	< 0.005	0.04	—	0.04	0.04	—	0.04	—	204	204	0.01	< 0.005	—	204
Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.18	0.24	< 0.005	0.01	—	0.01	0.01	—	0.01	—	33.7	33.7	< 0.005	< 0.005	—	33.8
Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11	0.11	0.10	1.91	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	297	297	0.01	0.01	1.03	301
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.11	1.08	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	253	253	0.01	0.01	0.03	256
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.02	0.20	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	40.7	40.7	< 0.005	< 0.005	0.07	41.2
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.74	6.74	< 0.005	< 0.005	0.01	6.83
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Architectural Coating (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.13	0.88	1.14	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134

Architectural	—	1.56	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.02	0.15	0.19	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	21.9	21.9	< 0.005	< 0.005	—	22.0
Architectural Coatings	—	0.26	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.03	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.63	3.63	< 0.005	< 0.005	—	3.65
Architectural Coatings	—	0.05	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.68	7.68	< 0.005	< 0.005	< 0.005	7.78
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.35	1.35	< 0.005	< 0.005	< 0.005	1.37
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.22	0.22	< 0.005	< 0.005	< 0.005	0.23
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Convenience Market with Gas Pumps	21.2	19.8	16.5	160	0.35	0.25	27.7	27.9	0.24	7.02	7.25	—	35,447	35,447	1.47	1.67	118	36,098
Parking Lot	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	0.00
Total	21.2	19.8	16.5	160	0.35	0.25	27.7	27.9	0.24	7.02	7.25	—	35,447	35,447	1.47	1.67	118	36,098
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Convenience Market with Gas Pumps	17.0	15.6	17.9	112	0.31	0.25	27.7	27.9	0.24	7.02	7.25	—	31,515	31,515	1.57	1.71	3.06	32,068
Parking Lot	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	0.00
Total	17.0	15.6	17.9	112	0.31	0.25	27.7	27.9	0.24	7.02	7.25	—	31,515	31,515	1.57	1.71	3.06	32,068
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Convenience Market with Gas Pumps	2.94	2.79	1.89	13.2	0.03	0.02	2.17	2.19	0.02	0.55	0.57	—	2,467	2,467	0.18	0.16	3.64	2,522
Parking Lot	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	0.00
Total	2.94	2.79	1.89	13.2	0.03	0.02	2.17	2.19	0.02	0.55	0.57	—	2,467	2,467	0.18	0.16	3.64	2,522

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	—	444	444	0.03	< 0.005	—	446
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	24.0	24.0	< 0.005	< 0.005	—	24.1

Total	—	—	—	—	—	—	—	—	—	—	—	—	468	468	0.03	< 0.005	—	470
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	—	444	444	0.03	< 0.005	—	446
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	24.0	24.0	< 0.005	< 0.005	—	24.1
Total	—	—	—	—	—	—	—	—	—	—	—	—	468	468	0.03	< 0.005	—	470
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	—	73.5	73.5	< 0.005	< 0.005	—	73.8
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	3.98	3.98	< 0.005	< 0.005	—	3.99
Total	—	—	—	—	—	—	—	—	—	—	—	—	77.5	77.5	< 0.005	< 0.005	—	77.8

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Convenience Market with Gas Pumps	< 0.005	< 0.005	0.04	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	51.1	51.1	< 0.005	< 0.005	—	51.2

Parking Lot	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
Total	< 0.005	< 0.005	0.04	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	51.1	51.1	< 0.005	< 0.005	—	51.2
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Convenience Market with Gas Pumps	< 0.005	< 0.005	0.04	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	51.1	51.1	< 0.005	< 0.005	—	51.2
Parking Lot	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
Total	< 0.005	< 0.005	0.04	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	51.1	51.1	< 0.005	< 0.005	—	51.2
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Convenience Market with Gas Pumps	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.46	8.46	< 0.005	< 0.005	—	8.48
Parking Lot	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
Total	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.46	8.46	< 0.005	< 0.005	—	8.48

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Consumer	—	0.20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.07	0.07	< 0.005	0.41	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.70	1.70	< 0.005	< 0.005	—	1.71
Total	0.07	0.30	< 0.005	0.41	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.70	1.70	< 0.005	< 0.005	—	1.71
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	0.23	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.01	0.01	< 0.005	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.14	0.14	< 0.005	< 0.005	—	0.14
Total	0.01	0.05	< 0.005	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.14	0.14	< 0.005	< 0.005	—	0.14

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	1.35	8.28	9.63	0.14	< 0.005	—	14.1
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	1.35	8.28	9.63	0.14	< 0.005	—	14.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	1.35	8.28	9.63	0.14	< 0.005	—	14.1
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	1.35	8.28	9.63	0.14	< 0.005	—	14.1
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	0.22	1.37	1.59	0.02	< 0.005	—	2.33
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

Total	—	—	—	—	—	—	—	—	—	—	—	0.22	1.37	1.59	0.02	< 0.005	—	2.33

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	15.4	0.00	15.4	1.54	0.00	—	53.8
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	15.4	0.00	15.4	1.54	0.00	—	53.8
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	15.4	0.00	15.4	1.54	0.00	—	53.8
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	15.4	0.00	15.4	1.54	0.00	—	53.8
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	2.55	0.00	2.55	0.25	0.00	—	8.91
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	2.55	0.00	2.55	0.25	0.00	—	8.91

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,970	1,970
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,970	1,970
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,970	1,970
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,970	1,970
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	326	326
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	326	326

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequest	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	6/3/2024	6/15/2024	5.00	10.0	—
Grading	Grading	6/17/2024	7/5/2024	5.00	15.0	—
Building Construction	Building Construction	7/8/2024	11/21/2025	5.00	360	—
Paving	Paving	9/1/2025	11/14/2025	5.00	55.0	—
Architectural Coating	Architectural Coating	10/6/2025	12/26/2025	5.00	60.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37

Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Paving	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Paving	Cement and Mortar Mixers	Diesel	Average	2.00	6.00	10.0	0.56
Paving	Pavers	Diesel	Average	1.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	6.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	6.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	—	10.2	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	15.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	—	10.2	HHDT,MHDT

Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	3.04	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	1.56	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	20.0	18.5	LDA,LDT1,LDT2
Paving	Vendor	—	10.2	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	0.61	18.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00	0.00	14,250	4,750	1,129

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Preparation	—	—	15.0	0.00	—
Grading	—	—	15.0	0.00	—
Paving	0.00	0.00	0.00	0.00	0.43

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Convenience Market with Gas Pumps	0.00	0%
Parking Lot	0.43	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2024	0.00	532	0.03	< 0.005
2025	0.00	532	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year

Convenience Market with Gas Pumps	5,011	5,011	5,011	1,829,002	8,030	39,155	39,155	6,176,730
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	14,250	4,750	1,129

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Convenience Market with Gas Pumps	304,757	532	0.0330	0.0040	159,455
Parking Lot	16,484	532	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Convenience Market with Gas Pumps	703,689	729,063
Parking Lot	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Convenience Market with Gas Pumps	28.5	—
Parking Lot	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Convenience Market with Gas Pumps	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Convenience Market with Gas Pumps	Supermarket refrigeration and condensing units	R-404A	3,922	26.5	16.5	16.5	18.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	20.9	annual days of extreme heat
Extreme Precipitation	0.85	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	1.26	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	1	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A

Drought	0	0	0	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	1	1	1	2
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	1	1	1	2
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	88.7
AQ-PM	6.53
AQ-DPM	57.4
Drinking Water	31.9
Lead Risk Housing	15.8
Pesticides	10.1
Toxic Releases	5.98
Traffic	45.1
Effect Indicators	—
CleanUp Sites	0.00
Groundwater	0.00
Haz Waste Facilities/Generators	54.6
Impaired Water Bodies	0.00
Solid Waste	9.67
Sensitive Population	—
Asthma	16.6
Cardio-vascular	35.6
Low Birth Weights	67.2
Socioeconomic Factor Indicators	—
Education	17.2
Housing	59.3
Linguistic	11.3
Poverty	65.1
Unemployment	85.0

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	31.695111
Employed	12.21609136
Median HI	16.46349288
Education	—
Bachelor's or higher	62.03002695
High school enrollment	23.31579623
Preschool enrollment	32.52919287
Transportation	—
Auto Access	30.23225972
Active commuting	40.74169126
Social	—
2-parent households	6.13370974
Voting	75.83728988
Neighborhood	—
Alcohol availability	73.10406775
Park access	5.941229308
Retail density	33.90221994
Supermarket access	59.36096497
Tree canopy	26.76761196
Housing	—
Homeownership	73.73283716
Housing habitability	70.05004491
Low-inc homeowner severe housing cost burden	22.86667522

Low-inc renter severe housing cost burden	62.46631592
Uncrowded housing	88.2586937
Health Outcomes	—
Insured adults	38.59874246
Arthritis	0.0
Asthma ER Admissions	57.7
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	30.7
Cognitively Disabled	19.2
Physically Disabled	1.4
Heart Attack ER Admissions	74.1
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	73.5
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—

Wildfire Risk	4.9
SLR Inundation Area	0.0
Children	96.1
Elderly	0.6
English Speaking	74.6
Foreign-born	27.4
Outdoor Workers	79.7
Climate Change Adaptive Capacity	—
Impervious Surface Cover	42.6
Traffic Density	50.3
Traffic Access	23.0
Other Indices	—
Hardship	60.5
Other Decision Support	—
2016 Voting	88.1

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	24.0
Healthy Places Index Score for Project Location (b)	26.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Characteristics: Project Details	Project is in Palm Springs.
Land Use	Per Project site plans, assumes 7,000 square foot convenience store and gas station on a 3.68-acre site, with potential future development of additional 1,500 SF. Based on PS zoning code, minimum 25% landscaped area is assumed.
Construction: Construction Phases	Assumes 1 year buildout for the Project, with an additional 6-months for potential second phase of development.
Operations: Vehicle Data	Trip lengths adjusted based on comparable convenience market with gas pumps in Coachella Valley.

Appendix B

Biological Resource Study

DRAFT BIOLOGICAL RESOURCES ASSESSMENT REPORT & AGUA CALIENTE TRIBAL HABITAT CONSERVATION PLAN CONSISTENCY ANALYSIS

AGUA CALIENTE FUEL PALM SPRINGS

Assessor's Parcel Numbers: 680-564-014 (0.8 acres), 680-564-017 (0.92 acres), 680-564-002 (0.92 acres), 680-564-018 (1.05 acres)

City of Palm
Springs Riverside
County California

Submitted to:
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1.0 INTRODUCTION

At the request of Terra Nova Planning & Research, this biological resources assessment report (BRAR) and Agua Caliente Tribal Habitat Conservation Plan (THCP) consistency analysis was prepared by WSP USA Environment & Infrastructure, Inc. (WSP) for the proposed development of a new gas station and convenience store (project) on the 3.7-acre site (site) in Palm Springs, Riverside County, California (Appendix C, Figure 1). Information contained herein is intended to be used for compliance with the THCP and other relevant environmental regulations.

2.0 SITE / PROJECT DESCRIPTION

The 3.7-acre site is located on lands that are under the jurisdiction of the Agua Caliente Band of Cahuilla Indians (Tribe) northwest of the junction of Lawrence Crossley Road and Dinah Shore Drive in the city of Palm Springs, Riverside County, California. The four Assessor's Parcel Numbers (APNs) include APN 680-564-002 (0.92 acre), APN 680-564-014 (0.80 acre), 680-564-017 (0.92 acre) and APN 680-564-018 (1.05 acres). It is also located within Section 20, Township 4 South, Range 5 East, United States Geological Survey (USGS) 7.5' Cathedral City, Calif. Quadrangle. Elevation within the site is consistent at approximately 114 meters (m) (370 feet [ft]) above mean sea level (Appendix C, Figure 2).

The proposed project includes the development and operation of a new fueling station and, convenience store on the 3.7-acre, currently vacant and undeveloped site. The site is surrounded on three sides by existing public roadways (Indian Springs Road to the north, Lawrence Crossley Road to the east and Dinah Shore Drive to the south). Undeveloped, natural open space, similar to what is currently present on-site, is located immediately adjacent, west of the site, while other undeveloped, natural open species is also located to the south and east of the site, across Dinah Shore Drive and Lawrence Crossley Road, respectively.

3.0 REGULATORY FRAMEWORK

3.1 Federal

Federal Endangered Species Act

The United States Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service are the designated federal agencies accountable for administering the federal Endangered Species Act (FESA). The FESA defines species as "endangered" or "threatened" and provides regulatory protection at the federal level.

- Section 9 of the FESA prohibits the "take" of listed (i.e., endangered or threatened) species. The FESA definition of take is "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct." Recognizing that take cannot always be avoided, Section 10(a) includes provisions for take that is incidental to, but not the purpose of, otherwise lawful activities. Specifically, Section 10(a)(1)(A) permits (authorized take permits) are issued for scientific purposes Section 10(a)(1)(B) permits (incidental take permits) are issued for the incidental take of listed species that does not jeopardize the species.

- Section 7 (a)(2) requires federal agencies to evaluate the proposed project with respect to listed or proposed listed, species and their respective critical habitat (if applicable). Federal agencies must employ programs for the conservation of listed species and are prohibited from authorizing, funding, or carrying out any action that would jeopardize a listed species or destroy or modify its "critical habitat." As defined by the FESA, "individuals, organizations, states, local governments, and other nonfederal entities are affected by the designation of critical habitat only if their actions occur on federal lands, require a federal permit, license, or other authorization, or involve federal funding.
- Section 10(a) of the FESA authorizes the issuance of incidental take permits and establishes standards for the content of habitat conservation plans (HCP). The THCP is an HCP, see discussion below.

Federal Migratory Bird Treaty Act

Treaties signed by the United States, Great Britain, Mexico, Japan, and the countries of the former Soviet Union make it unlawful to pursue, capture, kill, and/or possess, or attempt to engage in any such conduct to any migratory bird, nest, egg, or parts thereof listed in this document. The Secretary of the Interior can issue permits for incidental take of migratory bird species. The Migratory Bird Treaty Act (MBTA) also allows the Secretary of the Interior to grant permits for specific actions for the incidental take of these protected migratory bird species, but this rarely occurs.

National Environmental Policy Act

When portions of a proposed project fall under the jurisdiction of a federal agency (i.e., U.S. Army Corps of Engineers [USACE]) they are subject to environmental review pursuant to the National Environmental Policy Act (NEPA). The NEPA establishes certain criteria that must be adhered to for any project that is "financed, assisted, conducted or approved" by a federal agency. The federal lead agency is required to "determine whether the proposed action will significantly affect the quality of the human environment."

Clean Water Act

In 1972, Congress enacted the Federal Water Pollution Control Act Amendments of 1972, also known as Public Law 92–500, 86 Stat. 816, as amended, 33 U.S.C. 1251 et seq., commonly referred to as the "Clean Water Act" or simply the "Act." The Clean Water Act's central concept is the definition of "navigable waters," which encompasses the waters of the United States, including the territorial seas, as defined in 33 U.S.C. 1362(7). On January 18, 2023, the final rule titled "Revised Definition of 'Waters of the United States'" was published in the Federal Register, and it became effective on March 20, 2023.

In 2006, the Supreme Court addressed the scope of "waters of the United States (WUS)" in Rapanos v. United States, 547 U.S. 715 (2006) ("Rapanos"). The Court noted that no single position in Rapanos commanded a majority, but all nine members agreed that the term "WUS" includes some waters not traditionally considered navigable. A plurality in Rapanos defined it as covering "relatively permanent, standing or continuously flowing bodies of water" connected to traditional navigable waters, as well as wetlands with a "continuous surface connection" to such waterbodies. Justice Kennedy's concurring opinion emphasized the need for a "significant nexus" to waters that are or were navigable in fact.

The 2023 Final Rule incorporated the two jurisdictional standards from Rapanos into the definition of WUS. The "relatively permanent standard" identifies various types of waters connected to traditional navigable waters, while the "significant nexus standard" assesses their impact on the chemical, physical, or biological integrity of navigable waters.

The term "adjacent" was defined in line with longstanding regulatory practices. "Adjacent" was defined as "bordering, contiguous, or neighboring," and it included wetlands separated from other WUS by man-made dikes or barriers, natural river berms, beach dunes, and similar features.

On May 25, 2023, the Supreme Court decided Sackett v. Environmental Protection Agency (EPA). While the 2023 Rule was not directly before the Court, the Court considered the jurisdictional standards set forth in that rule. The enterprise of the 2023 Rule, to define WUS, was the same as the Supreme Court's enterprise in Sackett: "to identify with greater clarity what the Act means by WUS. The Supreme Court recognized the agencies' definition and utilization of "adjacent" and "significant nexus" "as set out in [the agencies'] the most recent rule," the 2023 Rule, but concluded that the significant nexus standard was "inconsistent with the text and structure of the Clean Water Act."

As a result, the involved regulatory agencies revised the 2023 Rule to remove the significant nexus standard and to amend its definition of "adjacent" as these provisions are invalid under the Supreme Court's interpretation of the Clean Water Act in Sackett.

WUS are no longer considered jurisdictional under the Clean Water Act based on the significant nexus standard, and wetlands are not defined as "adjacent" or jurisdictional under the Act solely because they are "bordering, contiguous, or neighboring... [or] separated from other 'waters of the United States' by man-made dikes or barriers, natural river berms, beach dunes and the like." Furthermore, as a result of the decision in Sackett invalidating the significant nexus standard, the provision for assessment of streams and wetlands under the additional waters provision of paragraph (a)(5) is no longer valid, as any jurisdictional streams and wetlands are covered by paragraphs (a)(1) through (4) of the 2023 Rule.

Finally, the agencies are removing "interstate wetlands" from the 2023 Rule to conform with the decision in Sackett. The Supreme Court in Sackett examined the Clean Water Act and its statutory history and found the predecessor statute to the Act covered and defined "interstate waters" as "all rivers, lakes, and other waters that flow across or form a part of State boundaries." The Court concluded that the use of the term "waters" refers to such "open waters" and not wetlands. As a result, under Sackett, the provision authorizing wetlands to be jurisdictional simply because they are interstate is invalid.

The USACE delineates non-wetland waters in the Arid West Region by identifying the ordinary high-water mark (OHWM) in ephemeral and intermittent channels (USACE 2008a). The OHWM is defined in 33 CFR 328.3(e) as:

> "...that line on the shore established by the fluctuations of water and indicated by physical characteristics such as clear, natural line impresses on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas."

Identification of the OHWM involves assessments of stream geomorphology and vegetation response to the dominant stream discharge. Determining whether any non-wetland water is a jurisdictional WUS involves further assessment in accordance with the regulations, case law, and clarifying guidance as discussed below.

Wetlands are defined at 33 CFR 328.3(b) as "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas."

Special aquatic sites are geographic areas, large or small, possessing special ecological characteristics of productivity, habitat, wildlife protection, or other important and easily disrupted ecological values. These areas are generally recognized as significantly influencing or positively contributing to the general overall environmental health or vitality of the entire ecosystem of a region. Special aquatic sites include sanctuaries and refuges, wetlands, mud flats, vegetated shallows, coral reefs, and riffle and pool complexes. They are defined in 40 CFR 230 Subpart E.

3.2 Regional

3.2.1 Agua Caliente Tribal Environmental Policy

The Agua Caliente Band of Cahuilla Indians (Tribe) set forth the Tribal Environmental Policy Act (TEPA) with the adoption and enactment of Ordinance Number 28 on 7 March 2000. The TEPA established the basic process of conducting environmental review of major Tribal actions which have the potential to significantly affect the quality of the environment. The purpose of the TEPA is to protect the natural resources and environment within the Agua Caliente Indian Reservation (Reservation) while promoting the highest and best use and development of lands within the Tribe's jurisdiction, while establishing minimum standards for the review and consideration of environmental impacts associated with Tribal actions, including development of Tribal lands.

3.2.2 Agua Caliente Tribal Habitat Conservation Plan

The Reservation, home of the (Tribe, consists of approximately 31,500 acres of land in Riverside County, California. The Reservation occurs within portions of the cities of Palm Springs, Cathedral City and Rancho Mirage, respectively, and is comprised of a checkerboard pattern of landholdings that include Tribal trust land, allotted trust land and fee land. The Reservation supports valuable natural resources and habitats, including mountains, foothills, canyons, wetlands, alluvial fans, and sandy desert flats providing habitat for a wide variety of plants and animals considered by the United States Fish and Wildlife Service (USFWS), as well as the Tribe, to warrant protection (Helix 2010).

The Tribe has protected and managed the areas and resources within its jurisdictional territory for hundreds of years. The purpose of the Tribal Habitat Conservation Plan (THCP or Plan) is to continue to exercise the Tribe's history as the manager and steward of the lands and natural resources on and in the vicinity of the Reservation and to establish a consistent and streamlined permitting process in respect to protected natural resources for the Tribe and third parties participating in the development of the Reservation and other Tribal Lands through the establishment of the permitting process, overseen and implemented by the Tribe (Helix 2010).

The THCP provides the mechanisms for the protection and contributes to the conservation of Federally listed species as well as those species considered as sensitive or designated as otherwise "special status species" by the Tribe and/or the USFWS and that may require listing in the future. These listed and/or special status species are collectively referred to as the "Covered Species" by the THCP. The Plan recognizes 22 Covered Species, two plants and 19 animals, including eight federally listed species. The THCP provides the means to permit and guide development, manage conservation priorities and objectives, complimenting other existing and on-going and future conservation efforts in the region and serves as an adaptive tool, allowing the Tribe to update and/or revise baseline biological resources data (Helix 2010).

Incorporating and integrating the Tribe's existing preservation efforts, the main conservation mechanism provided by the THCP is the conservation and protection of significant areas of Covered Species' habitats through the implementation of new development standards and the creation of a Habitat Preserve that would be managed by the Tribe and/or its third-party designee(s). Assembly, management, and maintenance of the Habitat Preserve is achieved through: (1) authorization of certain activities, including development, which is subject to conservation requirements and guidelines, standards, and mitigation measures; and (2) payment of project or development mitigation fees.

The THCP provides the mechanism for conservation, minimization, and mitigation resulting from unavoidable impacts to the species covered by the Plan resulting, or potentially resulting, from a variety of actions, as long as such actions are consistent with the provisions of the THCP. These actions include (1) covered projects, including construction/development undertaken by the Tribe and/or Third Parties operating within the Plan area (including on non-Tribal fee lands) under a development permit issued by or under Tribal discretion; (2)(a) covered maintenance actions undertaken by or at Tribal discretion within the geographic area of the Plan, including the on-going use, operation, and maintenance of existing public and private facilities within current disturbance footprints; (b) use, operation and maintenance of future public and private facilities provided they are in accordance with the provisions of the Plan; and (c) temporary maintenance activities that are outside of the project/activity disturbance footprint areas that would contribute to the recovery of native habitats in the short term; and (3) covered conservation efforts, including management and monitoring of the existing habitat preserve as well as the management of existing Tribal conservation programs, whether by the Tribe, agents or employees of the Tribe and/or any person acting directly under Tribal guidance or authority (Helix 2010).

The 22 species covered under the THCP include: three plants (Coachella Valley milk-vetch [*Astragalus lentiginosus* var. *coachellae*], triple-ribbed milk-vetch [*Astragalus tricarinatus*] and Little San Bernardino Mountains linanthus [*Linanthus maculatus*]); two invertebrates (Coachella giant sand-treader cricket [*Macrobaenetes valgum*] and Coachella Valley Jerusalem cricket [*Stenopelmatus cahuilaensis*]); one amphibian (southern mountain yellow-legged frog [*Rana muscosa*]); three reptiles (Mojave desert tortoise [*Gopherus agassizii*], flat-tailed horned lizard [*Phrynosoma mcallii*] and Coachella Valley fringe-toed lizard [*Uma inornata*]); nine birds (burrowing owl [*Athene cunicularia*], southwestern willow flycatcher [*Empidonax traillii extimus*], yellow-breasted chat [*Icteria virens*], summer tanager [*Piranga rubra*], yellow warbler [*Setophaga petechia*], crissal thrasher [*Toxostoma crissale*], LeConte's thrasher [*Toxostoma lecontei*], least Bell's vireo [*Vireo bellii pusillus*] and gray vireo [*Vireo vicinior*]); and four mammals (southern yellow bat [*Lasiurus ega*], Peninsular big-horn sheep [*Ovis canadensis nelsoni*], Palm Springs pocket mouse [*Perognathus longimembris bangsi*] and Coachella Valley [Palm Springs] round-tailed ground squirrel [*Spermophilus tereticaudus chlorus*]) (Helix 2010).

3.3.3.1 THCP Planning Areas

The THCP Action Area is divided into a Mountains and Canyons Conservation Area (MCCA) and a Valley Floor Planning Area (VFPA). The MCCA includes all portions of the San Jacinto and Santa Rosa Mountains within the action area, generally above the 800-foot elevation contour. The VFPA consists of the balance of the Plan area, generally including the portions of the Plan area lying below 800 feet AMSL and on the floor of the Coachella Valley. Several off-Reservation target Acquisition Areas are identified to the north and east of the VFPA. Together with the VFPA, these areas are referred to as the Valley Floor.

4.0 METHODS

4.1 Literature Review

In preparation for the field assessment, a literature search was conducted to identify special status biological resources known from the vicinity of the site. In the context of this report, and for the purpose of this assessment, vicinity is defined as areas within a 5-mile radius of the site.

The literature search included a review of the following documents:

- California Natural Diversity Data Base (CNDDB) RareFind 5 (CDFW 2023a)
- Special Animals List (CDFW 2023b)
- California Native Plant Society's (CNPS) Inventory of Rare, Threatened, and Endangered Plants of California (CNPS 2023a)
- THCP (Helix 2010)
- United States Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS). Web Soil Survey (USDA, NRCS 2023a)
- USDA NRCS. The Plants Database (USDA, NRCS 2023b)
- USGS 7.5' *Cathedral City, Palm Springs, Rancho Mirage* and *Seven Palms Valley, Calif.* quadrangles (USGS 2021a, 2023, 2021b, 2021c)

Scientific nomenclature for this document follows standard reference sources: For plant communities, Sawyer et. al. (2009), Holland (1986) and THCP (Helix 2010); for flora, Jepson eFlora (2023) and the USDA NRCS PLANTS Database (2023); for amphibians, reptiles, and mammals, CDFW (2016); and for birds, California Bird Records Committee (2023).

4.2 Field Assessment

The field assessment was conducted between the hours of 1115 and 1230 on 6 September 2023 by WSP senior biologist Michael D. Wilcox. On-site suitable habitat was assessed based on the presence of constituent habitat elements (e.g., soils, vegetation, and topography) characteristic of the potentially occurring special status biological resources determined by the literature review. The entire site was assessed on foot with parallel pedestrian belt transects spaced at approximately 10 m. (30 ft.) intervals to record pertinent field data, current site conditions and compile a detected flora and fauna species list. Where present, adjacent undeveloped areas within an approximate 150-meter (m) (~500-foot [ft]) buffer zone are also assessed visually, from the project site, for burrowing owl. All on-site flora and fauna observed or otherwise detected (e.g., vocalizations, presence of scat, tracks, and/or bones) during the assessment were recorded in field notes and are included in Appendices A and B. General weather and site conditions were also recorded at the beginning and end of the survey. Temperatures and wind speeds were recorded with a handheld Kestrel 3500 anemometer. Percent cloud cover was visually estimated. Digital time, date and latitude/longitude-stamped photographs were taken and are included in Appendix D.

5.0 RESULTS

The unfenced, 3.7-acre site currently exhibits undeveloped, natural open space. Vegetation is generally sparse, consisting of a mixture of native and non-native plant species. Soils are sandy, potentially becoming stabilized. Existing site disturbances included evidence of minor dumping, offroad vehicular activity and accumulation of roadside trash (Appendix D, Photos 1-6).

Existing commercial development occurs to the north, while undeveloped natural open space, similar to the habitat present on-site, is located to the east, west and south. The existing Dinah Shore Drive and Crossley Road border the site to the south and east, respectively. The Whitewater River is located approximately 0.4 mile to the east of the site. Palm Canyon Wash is located approximately 0.5 mile to the south of the site.

5.1 Agua Caliente Tribal Habitat Conservation Plan

The project site is within the Tribes' Reservation and within the planning area of the THCP. The site is not within any THCP-designated conservation areas or within any target acquisition areas for any of the species covered under the Plan. Upon project approval, the proposed development of the site would be considered a covered activity under the THCP and thus subject to the requirements and conditions of the Plan.

5.1.1 Valley Floor Planning Area (VFPA)

According to the THCP, there are 12 covered species that either currently inhabit or have the potential to inhabit the VFPA. These species include the desert tortoise, burrowing owl, Coachella Valley fringe-toed lizard, flat-tailed horned lizard, Palm Springs ground squirrel, Palm Springs pocket mouse, Coachella Valley giant sand treader cricket, Coachella Valley Jerusalem cricket, crissal thrasher, Le Conte's thrasher, Little San Bernardino Mountains linanthus and Coachella Valley milk-vetch. Approximately 56 percent of the VFPA, which amounts to 8,726 acres, has already been developed and no longer serves as habitat for native flora and fauna. The remaining areas that still support native vegetation are fragmented and mostly surrounded by existing development, making them unsuitable for long-term viability. However, there are active and ephemeral sand fields that offer long-term preservation benefits to the covered species, located in a small portion of the VFPA in Section 6 (Township 4 South, Range 5 East).

5.2 Weather Conditions

Weather conditions during the assessment included clear skies (0% cloud cover). The temperature was 88-91 degrees Fahrenheit. Winds were light with speeds ranging from 1 to 5 miles per hour (mph).

5.3 Topography, Soils and Waters

The elevation of the site is approximately 109 m (360 ft.) AMSL. Existing topography is relatively flat. Mapped soils (USDA NRCS 2023) are Myoma fine sand (MaB), 0-5% slopes (Appendix C, Figure 3). Myoma series soils are fine to very fine sands that range from nearly level to rolling and hummocky in some areas. These soils were formed in wind-blown sand from recent alluvium at elevations of -61 m (-200 ft), below sea level to 549 m (1,800 ft) above sea level.

On-site soils are sandy but appear that they are becoming stabilized or partially stabilized (Appendix D, Photos 1-6). The THCP maps the area of the site as “Active Sand Fields” on one figure and “Stabilized and Partially Stabilized Shielded Sand Fields” on another figure (Helix 2010). Although the site is sandy, it does not appear to currently contain active sand dunes. Stabilization of the soils on the site is likely as a result of existing and ongoing development to the north and west interrupting the source of much of the aeolian sand deposits that would otherwise contribute to the dynamics of what were likely once active sand dunes and sand fields. No streams, washes, springs, bodies of water, active drifts, rock outcrops, rocky areas, or clay lenses were observed. The nearest mapped waterways include the Whitewater River (~0.4 mile to the east) and Palm Canyon Wash (~0.5 mile to the south).

5.4 Vegetation

The on-site vegetation community aligns with *Larrea tridentata* shrubland alliance (creosote bush scrub) as described by Sawyer et. al. (2009) (Appendix C, Figure 4). Holland (1986) and the THCP refer to this community as Sonoran creosote bush scrub. The dominant native perennial plant species observed was mature but sparse creosote bush (*Larrea tridentata*). Other perennials observed were very sparse but included white bur-sage (*Ambrosia dumosa*), four-wing saltbush (*Atriplex canescens*) and indigo bush (*Psorothamnus* cf. *emoryi*). Dominant native herbaceous species observed were also relatively sparse but included fan-leaf tiquilia (*Tiquilia plicata*), California croton (*Croton californica*), pygmy poppy (*Eschscholzia minutiflora*) desert dicoria (*Dicoria canescens*) and Spanish needles (*Palafoxia arida*). The herbaceous non-native annuals Mediterranean grass (*Schismus barbatus*), Sahara mustard (*Brassica tournefortii*) and redstem filaree (*Erodium cicutarium*) were also present. Sonoran creosote bush scrub is the predominant vegetation community occurring below 762 m (2500 ft) in the Colorado Desert from the Little San

Bernardino Mountains south and eastward into Arizona and Mexico (Holland 1986).

No natural wetland, riparian or otherwise special status vegetation communities were observed on the project site. A full list of the plant species observed during the surveys, including common and scientific names, is appended to this report (Appendix A).

5.5 Wildlife

Vertebrate wildlife directly observed and/or detected otherwise (e.g., scat, bones, tracks, feathers, burrows, etc.) during the surveys was not diverse or abundant, limited to only nine species common to the region. This included four reptiles and five birds (Appendix B). No mammals or amphibians were detected.

The four reptiles detected on-site were the western whiptail (*Aspidoscelis tigris*), zebra-tailed lizard (*Callisaurus draconoides*), desert iguana (*Dipsosaurus dorsalis*) and side-blotched lizard (*Uta stansburiana*). All of these species are common in the Coachella Valley and Colorado Desert. Other common reptiles that may occur on-site include, but are not limited to, desert glossy snake (*Arizona elegans eburnata*), Colorado Desert shovel-nosed snake (*Chionactis annulata annulata*), red racer (*Coluber flagellum piceus*) and Colorado Desert sidewinder (*Crotalus cerastes laterorepens*).

The five bird species observed on-site included: Eurasian collared dove (*Streptopelia decaocto*), mourning dove (*Zenaida macroura*), common raven (*Corvus corax*), verdin (*Auriparus flaviceps*) and northern mockingbird (*Mimus polyglottos*). Other common avian species that may also occur include but are not limited to house finch (*Haemorhous mexicanus*), Costa's hummingbird (*Calypte costae*), great-tailed grackle (*Quiscalus mexicanus*), red-tailed hawk (*Buteo jamaicensis*), American kestrel (*Falco sparverius*) and house sparrow (*Passer domesticus*).

Although no mammals were detected on-site, common mammal species that may occur include, but are not limited to, Botta's pocket gopher (*Thomomys bottae*), desert cottontail (*Sylvilagus audubonii*), white-tailed antelope squirrel (*Ammospermophilus leucurus*), black-tailed jackrabbit (*Lepus californicus*) and coyote (*Canis latrans*).

It should be noted that relatively short-term biological studies of this nature are often limited by the seasonality of annual plants, the migratory habits of many birds, the fossorial and nocturnal habits of many mammals and reptiles, and the timing of field surveys. A complete inventory of the wildlife on the site would require extensive year-round surveys for birds, amphibians, and reptiles, and additional surveys, such as placement of scent stations or tracking stations, for the detection of nocturnal mammals. Knowledge of habitat associations, natural history, seasonality, and distribution is essential in the assessment of the potential for occurrence of the various special status plants and animals known to occur throughout the Coachella Valley. For these reasons, other common and special status species that were not observed on-site may also have the potential to occur based on their geographic distribution, habitat preferences, and the regional location of the site. The following section summarizes information on sensitive species known to occur in the vicinity of the project site.

5.6 Special Status Biological Resources

Plant or animal taxa may be considered "sensitive" or as having “special status” due to declining populations, vulnerability to habitat change, or because they have restricted ranges. Some are listed as threatened or endangered by the USFWS and are protected by the federal Endangered Species Act. Others have been identified as sensitive or as special status species by the USFWS, or by private conservation organizations, including the CNPS. In some cases, impacts to unlisted sensitive species that do not have formal federal status may nevertheless still be considered significant under the NEPA and TEPA. The THCP provides conservation for 22 imperiled plant and animal species (three plants, two insects, one amphibian, three reptiles, nine birds, and four mammals). These include federal-listed species, species designated with special status by federal resource agencies, and species on the CNPS sensitive species lists. THCP covered species are designated on the tables below. The site is not within designated critical habitat for any special status plants or wildlife. The nearest designated critical habitat is for Casey’s June beetle (*Dinacoma caseyi*), located approximately 0.5-mile to the southwest, within the Palm Canyon Wash.

The review of the CNDDB, CNPS Online Inventory of Rare Plants, other biological reports from the vicinity, and consultation with other experienced biologists/naturalists resulted in the identification of 78 special status biological resources known to occur in the vicinity (generally within an approximate 5-mile radius) of the project site. 51 of these have no federal conservation status and were therefore omitted due to the lack of jurisdiction over Tribal lands. The remaining 27 federal and/or THCP-designated e federal and/or THCP-designated special status biological resources, their associated legal status, and their respective on-site occurrence potentials.

No special status plant species were detected on-site during the field assessment. The site does, however, contain at least marginally (potentially) suitable habitat for 10 of the special status plant species that have been previously reported from the vicinity. These include Coachella Valley milk-vetch and Little San Bernardino Mountains linanthus.

No special status wildlife species were observed on-site or adjacent to the site during the assessment. The review of the CNDDB, CNPS and other biological reports from the vicinity resulted in a total of 25 federal and/or THCP-designated special status wildlife species known to occur in the vicinity. Of these, 10 are considered to have some (mostly very low to low) potential of occurrence on the site. Limited, at least marginally (potentially) suitable habitat is present for Coachella giant sand treaded cricket, Coachella Valley Jerusalem cricket, flat-tailed horned lizard, Coachella Valley fringe-toed lizard, burrowing owl, Palm Springs pocket mouse and Coachella Valley (Palm Springs) round-tailed ground squirrel.

Tables 1 through 6 summarize information on all special status species that have been reported within the vicinity (~5-mile radius) or that occur or are considered to have some potential to occur on-site based on geographic distribution and presence of potentially suitable habitat. Occurrence probability is based on the best available information and the collective expertise of WSP biologists. These tables provide the names, legal or conservation status, general habitat associations, and the probability of occurrence for each of these species.

Table 1. Special Status Plants

Species	Status	Habitat	Probability
Astragalus lentiginosus var. *coachellae* Coachella Valley milk-vetch	F: END C: None CNPS: 1B.2 State Rank: S1 THCP: Yes	Sonoran Desert scrub; sandy flats, washes, outwash fans, sometimes on dunes; 40-665 m (131-2182 ft); B: Jan–Sep	High Suitable habitat present, species tolerant of disturbance and known from immediate vicinity, 0.5 mi. E (2020), 0.6 mi. SE (2020). Nearest designated critical habitat located approx. 3.8 mi. north.
Linanthus maculatus Little San Bernardino Mountains linanthus	F: ND C: ND CNPS List: 1B.2 State Rank: S1.2 THCP: Yes	Desert dunes, Sonoran Desert scrub, Joshua tree woodland, often associated w/ sandy wash habitats between 20-2073 m (64-6800 ft); B: Mar-May	Very Low Suitable habitat limited, disturbed, and likely becoming stabilized. Nearest CNDDB record ~3.6 mi. NW (1889) & 5 mi. N (1952). Per the THCP, impacts to habitats occupied (as determined by surveys conducted and/or required by the Tribe) by Little San Bernardino Mountains gilia (*Linanthus maculatus*) must be avoided to the maximum extent practicable. For these reasons, although the species is covered under the THCP, focused surveys may nevertheless be required. Any impacts to this species occupied habitat requires habitat conservation at a mitigation ratio of 3:1 per the THCP.

Table 2. Special Status Invertebrates

Species	Status	Habitat	Probability
Danius plexippus, pop. 1 monarch butterfly, California overwintering population	F: C C: ND State Rank: S2S3 THCP: No	In California, generally known to overwinter in wind-protected tree groves (*Eucalyptus* sp., Monterey pine [*Pinus radiata*], cypress) along the coast with nectar and water sources nearby. During breeding season, adults widespread but scarce in the desert. Larvae require milkweed (*Asclepias* sp.). Larval hostplant and important nectar sources include milkweeds (Apocynaceae)	Overwintering: Absent (No trees present. With few exceptions, Monarchs generally overwinter on coast). Foraging: Low (May temporarily occur and nectar on-site but potential nectar sources are very limited and not diverse. Larval host plants (milkweed) not detected)
Dinacoma caseyi Casey's June beetle	F: END C: None State Rank: S1 THCP: No	Appears to be entirely restricted to the mouth and alluvial floodplain of Palm Canyon Wash and Tahquitz Creek in Palm Springs, in association with deposits of fine silts, sands and gravels	Absent Soils on-site are aeolian deposits, not alluvial. Site is not within designated critical habitat for this species. Closest current records ~0.6 mi. SW near Palm Canyon Wash (pers. obs.)
Macrobaenetes valgum Coachella giant sand treader cricket	F: None C: None State Rank: S1S2 THCP: Yes	Active sand dune hummocks and ridges, sites favorable to permanent habitation include spring-moistened sand.	Low Suitable habitat present but limited and becoming stabilized. Closest CNDDB record 2.1 mi. ENE (1960).
Stenopelmatus cahuilaensis Coachella Valley Jerusalem cricket	F: None C: None State Rank: S1S2 THCP: Yes	Sandy, moist soils in Coachella Valley	Low Marginally suitable habitat present but limited, disturbed. likely becoming stabilized and not notably moist. Closet CNDDB record 1.4 mi. NW (1968).

Table 3. Special Status Amphibians

Species	Status	Habitat	Probability
California red-legged frog *Rana draytonii*	F: THR C: SSC State Rank: S2S3 THCP: No	Permanent sources of deep water (must last 11-20 weeks for larval development) in lowlands and foothills, with dense shrubby or emergent vegetation	Absent Aquatic habitats lacking. Nearest CNDDB record ~5 mi. SW
southern mountain yellow-legged frog *Rana muscosa*	F: END C: END State Rank: S1 THCP: Yes	Rocky mountain streams with deep pools for adults and larvae to overwinter.	Absent Aquatic habitats lacking. Nearest CNDDB record 4.2 mi. W (1967)

Table 4. Special Status Reptiles

Species	Status	Habitat	Probability
Gopherus agassizi desert tortoise	F: THR C: THR State Rank: S2 THCP: Yes	Creosote bush scrub, Joshua tree woodland, saltbush scrub); washes, arroyos, bajadas, rocky hillsides, open flat desert.	Very Low/Remote/Likely Absent Marginally suitable habitat limited and disturbed. Site immediately adjacent to existing roadways (E and S) and development (N). Tortoise sign (burrows, scat, remains, etc.) not detected. In Coachella Valley, tortoises are primarily limited to peripheral foothills and associated alluvial areas, generally not associated with the floor of the Coachella Valley. Site is not within designated critical habitat and not within THCP or CVMSHCP modeled habitat for desert tortoise. Nearest CNDDB record 7.8 mi. S (1997). A focused survey for desert tortoise is not recommended but may be required to conclusively determine absence.

Species	Status	Habitat	Probability
Phrynosoma mcallii flat-tailed horned lizard	F: None C: SSC State Rank: S2 THCP: Yes	Sandy and gravelly areas in desert washes, edges of dunes and desert flats; requires vegetative cover, ants & fine sand.	Very Low Marginally suitable habitat present but limited, disturbed, and appears to be stabilizing. Site adjacent to busy roadways and existing development. Nearest CNDDB record ~1.6 mi. SE (1957). More recently reported from ~1.9 mi. NW (1997).
Uma inornata Coachella Valley fringe-toed lizard	F: THR C: END State Rank: S1 THCP: Yes	Requires fine, loose, windblown sand (dunes) interspersed with hardpan & widely spaced desert shrubs. Known only from the Coachella Valley.	Low Marginally suitable habitat present but limited, disturbed, and appears to be stabilizing. Nearest CNDDB record 0.4 mi. SW (1975).

Table 5. Special Status Birds

Species	Status	Habitat	Probability
Athene cunicularia burrowing owl	F: MBTA, BCC C: SSC (burrows), FGC State Rank: S2 THCP: Yes*	Open, dry annual or perennial grassland, deserts & scrublands characterized by low-growing vegetation. Burrow sites essential.	Breeding: Low Habitat suitable and suitable burrows present. No sign (i.e., whitewash, pellets, feathers, prints, burrow adornments, etc.) not observed. Foraging: Low-Moderate Same as above. Adjacent open space suitable and potentially occupied. CNDDB records ~4.5 mi. NE (2006).
Calypte costae Costa's hummingbird	F: MBTA, BCC C: None State Rank: S4 THCP: No	Desert and semi-desert, arid brushy foothills, and chaparral, in migration and winter also in adjacent mountains and in open meadows and gardens	Nesting: Absent Suitable tree & shrub nesting habitat lacking. Foraging: Moderate-High May nest nearby and forage over site.

Species	Status	Habitat	Probability
Cypseloides niger black swift	F:MBT A, C: SSC State Rank: S2 THCP: No	Breeds in small colonies behind or adjacent to waterfalls in deep canyons	Nesting: Absent Nesting habitat lacking. Foraging: Low Known to nest at several locations in the San Jacinto Mountains and could potentially forage over site. Closest CNDDB record 4.4 mi. W (1986); species forages widely from nesting habitat)
Empidonax traillii extimus southwestern willow flycatcher	F: END, MBTA C: END State Rank: S1 THCP: Yes*	Breeds in dense riparian areas.	Nesting: Absent Suitable riparian habitat lacking. Foraging: Very Low Occurs in many habitats during migration. Nearest CNDDB record more than 5 mi. NE (2002).
Falco mexicanus prairie falcon	F: MBTA, BCC C: SSC (nesting), FGC State Rank: S3 THCP: No	Inhabits dry, open terrain, either level or hilly. Breeding sites located on cliffs, but forages far afield.	Breeding: Absent Suitable nesting habitat lacking. Foraging: Low May nest or winter nearby & forage over site. CNDDB records suppressed but known from project quadrangle.
Lanius ludovicianus loggerhead shrike	F: MBTA, BCC C: SSC (nesting), FGC State Rank: S4 THCP: No	Open fields with scattered trees or shrubs, open country with short vegetation, pastures, old orchards, cemeteries, golf courses, riparian areas & open woodlands.	Breeding: Absent Suitable nesting habitat lacking. Foraging: Moderate May nest or winter nearby & forage over site. Nearest CNDDB record from more than 5 mi. E (2005)
Polioptila californica californica coastal California gnatcatcher	F: THR C: ND State Rank: S2 THCP: No	Primarily inhabits coastal sage scrub below an elevation of 2,000 feet.	Breeding: Absent Suitable nesting habitat lacking. Foraging: Absent Suitable habitat lacking. Nearest CNDDB record from 2.7 mi. NW (1918).

Species	Status	Habitat	Probability
Polioptila melanura black-tailed gnatcatcher	F: MBT A C: ND State rank: S3S4 THCP: No	Nests in wooded desert wash habitat containing mesquite, palo verde, ironwood, and acacia. May also occur in areas with salt cedar, especially when adjacent to native wooded desert wash habitat. Also occurs in desert scrub habitat in winter.	Breeding: Absent Suitable nesting habitat lacking. Foraging: Moderate May forage or move through site from nearby areas. Nearest known occurrence 3.9 miles SW (pers. Obs.)
Pyrocephalus rubinus vermilion flycatcher	F: MBTA C: SSC (nesting) State Rank: S2S3 THCP: No	During nesting, inhabits desert riparian adjacent to irrigated fields, irrigation ditches, pastures, & other open, mesic areas with nest in cottonwood, willow, mesquite, or other large desert riparian trees.	Nesting: Absent Suitable nesting habitat lacking. Foraging: Low Known from ~1 mi. SW (pers. obs.).
Toxostoma crissale crissal thrasher	F: MBTA C: SSC State Rank: S3 THCP: Yes*	Resident of SE deserts in desert riparian and wash habitats, nests in dense mesquite, ironwood, catclaw, arrowweed.	Nesting: Absent Suitable nesting habitat lacking Foraging: Very low May nest or winter nearby and/or forage on-site. CNDDB record 4.1 mi. NW (1920).
Toxostoma lecontei LeConte's thrasher	F: MBTA, BCC C: SSC (nesting), FGC State Rank: S3 THCP: Yes*	Desert resident; primarily of open desert wash, desert scrub, alkali desert scrub, and desert succulent scrub habitats. Nest in dense, spiny shrub or densely branched cactus in desert wash habitat, usually 2-8 feet above ground.	Breeding: Absent Suitable nesting habitat lacking. Foraging: Very Low May nest or winter nearby and/or forage on-site. Closest CNDDB record ~0.7 mi. NE (1920); 3.8 mi. ENE (1921)
Vireo bellii pusillus least Bell's vireo	F: END C: END State Rank: S2 THCP: Yes*	Summer resident in southern California in low willow riparian near water or dry river bottoms.	Nesting: Absent Suitable habitat lacking. Foraging: Low Occurs in many habitats during migration. Closest CNDDB record 4.9 mi. SW (1990).

* Species conserved under the THCP, but is still protected by the MBTA and FGC

Table 6. Special Status Mammals

Species	Status	Habitat	Probability
Lasiurus xanthinus western yellow bat	F: None C: SSC State Rank: S3 WBWG: H THCP: Yes	Found in a variety of habitats: Valley foothill riparian, desert riparian, desert wash, and palm oasis habitats	Roosting: Absent Suitable tree-roosting habitat lacking. Foraging: Moderate May roost nearby and forage on-site. Nearest CNDDB record ~4.1 mi. NW (1989).
Ovis canadensis nelsoni (Pop. 2) Peninsular bighorn sheep DPS	F: END C: THR State Rank: S1 THCP: Yes	Eastern slopes of the Peninsular Ranges below 4,600 feet. Optimal habitat includes steep-walled canyons/ridges bisected by rocky or sandy washes w/ available water	Absent Suitable mountainous rocky habitat lacking. Known from San Jacinto and Santa Rosa Mountains S of site. Nearest record ~4 mi. SW
Perognathus longimembris bangsi Palm Springs pocket mouse	F: None C: SSC State Rank: S2 THCP: Yes	Inhabits flat or gently sloping areas with sparse vegetative cover and packed or sandy soils.	Low Limited suitable habitat present but disturbed. Most recent CNDDB record is 11 mi. NW (2017).
Xerospermophilus tereticaudus chlorus Coachella Valley (Palm Springs) round-tailed ground squirrel	F: None C: SSC State Rank: S1S2 THCP: Yes	Prefers open, flat, grassy areas in fine-textured, sandy soil in desert succulent scrub, desert wash, desert scrub, alkali scrub, & levees.	Low Habitat suitable but limited and disturbed. Potential ground squirrel burrows observed. Nearest CNDDB record 4.1 mi. NW (1916); ~5 mi. E (1954).

Definitions of status designations and occurrence probabilities for Tables 1-6

Definitions for Species
Italics – Scientific name (*i.e., Genus species subspecies*)
Bold – Standard common name
[*Genus*] – Previous genus, relatively recent taxonomic revision
var. – variety (plants only)
DPS – Distinct Population Segment

Definitions of occurrence probability:
Occurs: Observed or detected on-site by WSP or recently reported by another reliable source.
High: Observed in similar habitat in region by qualified biologists, or habitat on-site is a type often utilized by the species and the site is within the known range of the species.
Moderate: Reported sightings in surrounding region, or site is within the known range of the species and habitat on-site is a type occasionally used by the species.
Low: Site is within the known range of the species but habitat on-site is rarely used by the species
Very Low: Habitat is of marginal suitability and/or site is at the edge of species known range or distribution.

Absent: A focused study failed to detect the species, suitable habitat not present, or site is outside the geographic distribution of the species.

Unknown: No focused surveys have been performed in the region, & the species' distribution & habitat are poorly known.

THCP designations
Yes: Conserved by the THCP
No: Not Specifically Conserved by the THCP

Federal designations: (F = federal Endangered Species Act or USFWS designations)
END: Federally listed, Endangered
THR: Federally listed, Threatened
CAN: Candidate for Federal listing
MBTA: Migratory Bird Treaty Act
BEPA: Bald Eagle Protection Act (also protects Golden Eagles)
BCC: Birds of Conservation Concern
None: No designation

State designations: (C = California Endangered Species Act or CDFG designations)
END: State listed, Endangered
THR: State listed, Threatened
CAN: Candidate for State listing
RARE: State listed, Rare
FP: Fully Protected Species
SSC: Species of Special Concern
FGC: Fish and Game Code
WL: Watch List Species

CDFW state rankings are a reflection of the overall condition of an element throughout its California range. The number after the decimal point represents a threat designation attached to the rank:

S1 = Critically Imperiled. Less than (<) 6 Element Occurrences (EOs) OR < 1,000 individuals OR < 2,000 acres
- S1.1 = very threatened
- S1.2 = threatened
- S1.3 = no current threats known

S2 = Imperiled. 6-20 EOs OR 1,000-3,000 individuals OR 2,000-10,000 acres
- S2.1 = very threatened
- S2.2 = threatened
- S2.3 = no current threats known

S3 = Vulnerable. 21-80 EOs OR 3,000-10,000 individuals OR 10,000-50,000 acres
- S3.1 = very threatened
- S3.2 = threatened
- S3.3 = no current threats known

S4 = Apparently Secure. Uncommon but not rare in the state; some cause for long-term concern.
S5 = Secure. Common, widespread, and abundant in the state.
SH = All known California sites are historical, not extant

? = Qualifier: Inexact or Uncertain - A question mark represents a rank qualifier, denoting an inexact or uncertain numeric rank.

California Native Plant Society (CNPS) designations:

Primary Categories
LIST 1A: Plants Presumed Extirpated in California and Either Rare or Extinct Elsewhere
LIST 1B: Plants Rare, Threatened, or Endangered in California and Elsewhere
LIST 2A: Plants Presumed Extirpated in California, But Common Elsewhere
LIST 2B: Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere
LIST 3: Plants About Which More Information is Needed - A Review List
LIST 4: Plants of Limited Distribution - A Watch List

Subdivisions within Categories
0.1: Seriously threatened in California
0.2: Moderately threatened in California
0.3: Not very threatened in California

Western Bat Working Group (WBWG) designations:
The Western Bat Working Group is comprised of agencies, organizations and individuals interested in bat research, management, and conservation from the 13 western states and provinces. Its goals are (1) to facilitate communication among interested parties and reduce risks of species decline or extinction; (2) to provide a mechanism by which current information on bat ecology, distribution and research techniques can be readily accessed; and (3) to develop a forum to discuss conservation strategies, provide technical assistance and encourage education programs.

- H: High: Species which are imperiled or are at high risk of imperilment based on available information on distribution, status, ecology and known threats.
- M: Medium: Species which warrant a medium level of concern and need closer evaluation, more research, and conservation actions of both the species and possible threats. A lack of meaningful information is a major obstacle in adequately assessing these species' status and should be considered a threat.
- L: Low: Species for which most of the existing data support stable populations, and for which the potential for major changes in status in the near future is considered unlikely. There may be localized concerns, but the overall status of the species is believed to be secure. Conservation actions would still apply for these bats, but limited resources are best used on High and Medium status species.
- P: Periphery: This designation indicates a species on the edge of its range, for which no other designation has been determined.

6.0 DISCUSSION

The proposed development of the project site would result in the permanent loss of 3.7 acres of relatively natural open space in the Coachella Valley (Appendix C, Figure 5). The habitat currently present on-site is a somewhat disturbed desert sand field vegetated with creosote bush scrub. The presence of existing adjacent commercial development to the north and the adjacent paved, public thoroughfares, Crossley Road, and Dinah Shore Drive, to the east and south, have greatly reduced the likelihood of some of the special status species occurrence and limited the connectivity of habitat to adjacent areas. Additionally, ongoing soil stabilization, off-road vehicle use, dumping, and trash accumulation on the site has further decreased the chances of these species being present.

The THCP was designed to streamline the permitting process and to mitigate potential impacts resulting from covered projects and the lawful activities of permittees through payment of the requisite development fee and participation in the requirements of the Plan. A few species, which are not covered, or are not yet adequately conserved by the THCP (e.g., Little San Bernardino Mountains linanthus, desert tortoise, burrowing owl, nesting birds) may require additional consideration and/or actions, which are detailed below.

6.1 Discussion of the Special Status Biological Resources Tables

A review of the CNDDB, CNPS, digital WSP library and the collective knowledge of WSP senior biologists resulted in a total of 27 federal and/or Tribal-designated special status biological resources that are known from the vicinity of the project site (Tables 1-7). These include: two plants, four invertebrates, two amphibians, three reptiles, 12 birds and four mammals. Of these, 18 are considered to be absent from the site due toa lack of suitable habitat and/or the site being outside of elevational ranges, or as in the case of flying animals (birds and bats), they may only occur on-site to forage (no nesting or roosting habitat present), therefore are not anticipated to be directly impacted by project implementation. The resources that are considered to be absent from the site and/or are not anticipated to be directly impacted include: pygmy lotus overwintering monarch butterfly (*Danius plexippus* [pop. 1]), Casey's June beetle, California red-legged frog (*Rana draytonii*), southern mountain yellow-legged frog, desert tortoise, nesting Costa's hummingbird (*Calypte costae*), nesting black swift (*Cypseloides niger*), nesting southwestern willow flycatcher, nesting prairie falcon (*Falco mexicanus*), nesting loggerhead shrike (*Lanius ludovicianus*), nesting coastal California gnatcatcher (*Polioptila californica californica*), nesting black-tailed gnatcatcher (*Polioptila melanura*), nesting vermilion flycatcher (*Pyrocephalus rubinus*), nesting crissal thrasher, nesting LeConte's thrasher, nesting least Bell's vireo, roosting southern yellow bat and Peninsular bighorn sheep DPS. With a few exceptions, these special status biological resources will not be discussed further.

Eight of the remaining nine species are fully covered and conserved under the THCP. Participation in the THCP and payment of the requisite development fee is expected to fully mitigate project related impacts (if any) to these species. These species include: Coachella Valley milk-vetch, Little San Bernardino Mountains linanthus, Coachella giant sand treader cricket, Coachella Valley Jerusalem cricket, flat-tailed horned lizard, Coachella Valley fringe-toed lizard, Palm Springs pocket mouse and Coachella Valley (Palm Springs) round-tailed ground squirrel. These fully covered species will not be discussed further.

The remaining species, which are not covered, or not fully covered, under the THCP are discussed separately below.

6.1.1 Potentially Occurring Plant Species Not Covered, or Not Fully Covered, Under the THCP

There is a very low potential for Little San Bernardino Mountains linanthus to occur on-site as stabilized sand fields and Sonoran Desert scrub are present on-site. This species was not detected during the field assessment; however the assessment was conducted outside of this species blooming period (Mar-May). Little San Bernardino Mountains linanthus is not listed as threatened or endangered by either the USFWS or CDFW; it is, however, designated as S1.2 by the CDFW meaning that this species is considered to be "Critically Imperiled" and "Threatened" by the CDFW and is a CNPS List 1B.2 species meaning that it is considered by the CNPS to be "rare, threated or endangered in California and elsewhere" and "moderately threatened in California". Little San Bernardino Mountains linanthus is a covered species under the THCP. The Plan requires avoidance of impacts to habitat that is occupied by this species (to the maximum extent practicable). Although WSP considered there to be a very low potential for Little San Bernardino Mountains linanthus to occur, the only way to conclusively determine whether the species occurs on-site or not is to conduct a focused survey during the species blooming period, which is March through May.

6.1.2 Potentially Occurring Special Status Wildlife Not Covered Under, or Not Fully Covered Under the THCP

6.1.2.1 Invertebrates

Although Casey's June beetle is considered to be absent from the project site due to the lack of alluvial substrates and the fact that the site is not within the floodplains of any drainages, the proximity of the site to known occupied habitat warrants further discussion. This species is not a covered species under the THCP and therefore is afforded no protection by the existing Plan. Casey's June beetle was federally listed as endangered on 24 October 2011. Critical habitat for this species was also designated at that time. The project site is not located within designated critical habitat for Casey's June beetle and the site is located just outside of the mapped currently known geographic range of the species (USFWS website, interactive map 2023). Little is known of Casey's June beetle larval ecology, however, like other members of the Melolonthinae (June beetle subfamily), it is suspected that the larvae feed on the roots of a variety of native plants and/or unground decomposing organic material. Larval development occurs underground within alluvial-derived Coachella fine sand series (CpA) and Myoma fine sands (MaB), although other soils types such as Carsitas sand series and Riverwash soils may also be suitable. These soil classifications are associated with alluvial (water-deposited) terraces, rather than aeolian (wind) deposits. Soils that have been significantly modified, compacted, or are too isolated for females to recolonize by crawling are not likely to support Casey's June beetle (USFWS 2013). Adults emerge from pupal cells located beneath the surface of the sand to begin their annual flight and courtship activities. Females are flightless and emit pheromones that attract the flying males. Males are attracted to lights.

Extant populations of Casey's June beetle are known from Palm Canyon Wash and its associated floodplain which runs through the southern part of the City of Palm Springs, south of the project site. The species also occurs on portions of Agua Caliente Indian Tribal lands and along Tahquitz Creek and within its associated floodplain. Based on currently available data, the beetle's distribution is confined to an area of less than 800 acres. The closest known records of Casey's June beetle relative to the project site are from approximately 0.6 mile to the southwest, in Palm Canyon Wash, just east of the Gene Autry Trail bridge (pers. obs). The floodplain of the Whitewater River occurs approximately 0.4 mile to the east of the project site may also contain suitable Casey's June beetle habitat.

Although the project site is within approximately 0.6 mile from known occupied Casey's June beetle habitat within Palm Canyon Wash to the southwest and approximately 0.4 mile from potentially suitable habitat within the Whitewater River to the east, the site is located outside of the historic floodplains of these, or any other drainages. Soils on-site appear to consist entirely of aeolian (wind-blown) deposits (MaB) that are becoming stabilized and do not appear to be alluvial (water deposited), of which Casey's June beetle is typically associated. For these reasons, it is the opinion of WSP that the project site is unlikely to be occupied by Casey's June beetle. For these reasons, focused surveys for Casey's June beetle are not recommended or anticipated to be required at this time.

6.1.2.2 Vertebrates

The desert tortoise is federally and state listed as threatened by the CDFW and USFWS. The site is not within designated critical habitat for the desert tortoise and not within modeled habitat as mapped by the THCP (Helix 2010, Figure 16) or by the CVMSHCP within their adjacent jurisdiction. Records of desert tortoise on the Reservation are limited to the vicinity of Chino Canyon and Little Eagle Canyon (Helix 2010). This species is a covered species under the THCP, however, further actions may be required in potentially occupied habitat to ensure that take is entirely avoided and/or minimized to the greatest extent possible. No live desert tortoises or sign thereof (i.e., burrows, scat, prints, carcass remains, courtship rings, drinking depressions) were observed on-site during the assessment. The site is relatively small (3.7 acres) and connected to other similar habitat to the east, south and west. It should be noted, however, that existing roadways (i.e., Crossley Road and Dinah Shore Drive), which are busy thoroughfares through the area, are present between the site and other available undeveloped open space to the east and south. Although detrimental to any desert tortoise attempting to cross, these existing roads are not considered to be impenetrable barriers, should desert tortoises occur in the adjacent areas. Additionally, on-site soils are sandy, formerly part of an extensive sand dune system in the Coachella Valley. Desert tortoises are largely absent from the floor of the Coachella Valley, where this large dune system generally occurs. For these reasons, although the vegetation community (i.e., Sonoran creosote bush scrub) is technically suitable for the desert tortoise, other existing site conditions (i.e., sandy soils, adjacent development to the north and adjacent roadways) have resulted in a site that is of low habitat value for the desert tortoise, and as a result this species is not expected to occur on-site. Although creosote bush scrub, one of the desert tortoises preferred vegetation communities, is present on-site, it is highly unlikely that this species would occur on this site given the relatively small size, the disturbed nature of the site, the proximity to busy roadways and existing development; and when considering the extremely low density of the species on the valley floor of the Coachella Valley, especially on dune systems or former dune systems. For these reasons, WSP considers there to be a very low/remote potential for desert tortoise to occur on the project site. In all likelihood, the desert tortoise does not occur on the project site. A focused surveys and/or a take avoidance survey (at a minimum) may, however, be required to conclusively determine the species absence on the site and to ensure total avoidance of direct loss of, or impacts to desert tortoises as required by the THCP. If fresh sign of desert tortoise (i.e., scat, burrows, tracks, carcass remains, courtship rings, drinking depressions) is found to be present on-site, the site must be fenced with tortoise-proof exclusion fencing and a more intensive clearance survey conducted during the clearance window (15 February through 31 October) to locate all live tortoises on the project site for monitoring and potential relocation. If required, desert tortoise surveys, construction monitoring and relocation would need to be conducted in accordance with the Guidelines for Handling Desert Tortoises During Construction Projects prepared by the Desert Tortoise Council (USFWS 1994, USFWS 1999) or the currently accepted protocol (if revised in the interim). If detected on-site, live tortoises would likely require relocation, as required by the THCP and in accordance with current handling guidelines to an appropriate location as determined by the Tribe.

If found on-site, relocation in accordance with the THCP would be required to avoid injury, mortality/direct loss and minimize project impacts to the desert tortoise. If required, a focused desert tortoise survey and/or the take avoidance survey could most likely be conducted concurrent with surveys required for other species (i.e., rare plants, burrowing owl and nesting birds) at no to little extra cost.

The burrowing owl is not listed as threatened or endangered by the USFWS or CDFW. It is, however, managed as a Bird of Conservation Concern (BCC) by the USFWS, designated as an SSC by the CDFW, protected from take by the MBTA and FGC. The burrowing owl is also designated and managed as a sensitive species by the Tribe. This species is uniquely vulnerable to ground disturbing activities since it both nests and roosts underground. It occurs in open, dry annual or perennial grasslands, deserts and scrublands characterized by low-growing vegetation (Haug et al. 2011). In southern California, burrowing owls are not only found in undisturbed natural areas, but also fallow agricultural fields, margins of active agricultural areas, livestock farms, airports, and vacant lots. It is a subterranean nester, typically utilizing existing burrows of other animals (e.g., ground squirrels, kit fox, desert tortoise, etc.) as well as using man-made structures (e.g., drainpipes, culverts, piles of debris, etc.). Burrows occupied by burrowing owls can be recognized by sign which includes whitewash, tracks, molted feathers, cast pellets, prey remains, eggshell fragments, burrow adornments (e.g., paper, foil, plastic items, livestock, or other animal dung, etc.) (CDFG 2012). The species is active both day and night and may be seen perching conspicuously at the entrance of their burrows or on the top of fence posts, rocks, or other elevated structures.

Although the burrowing owl is a covered species under the THCP, and payment of the requisite mitigation fee is generally intended to mitigate some of the impacts to covered species, the burrowing owl is one of the species that requires additional, specific measures for full THCP compliance. Although no burrowing owls, or sign thereof, were detected on-site during the assessment, potentially suitable habitat (i.e., sparse Sonoran creosote bush scrub) and burrows of suitable size (i.e., ground squirrel burrows) were detected on-site (Appendix D). For these reasons, and in accordance with the THCP, a focused burrowing owl survey is recommended and will likely be required to conclusively determine the species status on-site and if present, what level of impact minimization and/or mitigation would subsequently be required. Similar to the desert tortoise discussed above, all covered activities within the VFPA of the THCP must minimize unavoidable impacts to burrowing owl to the greatest extent possible. Impact minimization (if required) may include relocation, as described in section 4.8.4.2(g) of the THCP.

Prior to the commencement of any ground or habitat disturbance, the THCP requires that a pre-disturbance presence/absence survey of the site for the burrowing owl be conducted. The survey is required to be conducted between September 1 and January 31. If burrowing owl is found to be present on-site, relocation may be required, in accordance with the currently accepted relocation protocol. The Tribe and USFWS currently are working together to develop appropriate relocation protocols. It is anticipated that these protocols will, at a minimum, reflect the standards of the CDFG Staff Report on Burrowing Owl Mitigation (1995, as summarized below). Owls shall be excluded from burrows within the approved limit of disturbance and an appropriate buffer zone as determined by a qualified biologist by installing one-way doors in burrow entrances or other techniques as deemed appropriate by the Tribe. The biological monitor must ensure through appropriate means (e.g., monitoring for owl use, excavating burrows) that the burrows to be impacted are not being used. If active relocation methods are employed, the destination will be selected by the Tribe on a case by-case basis to provide the greatest long-term conservation potential for the species (regardless of whether it is within the action area). Factors to be considered include habitat characteristics, long-term viability, and the presence/status of existing populations of this species on the available sites based on available information or a site reconnaissance by a qualified biologist. Artificial burrows will be constructed at the receptor site under supervision of the qualified biologist. Artificial burrows shall not be required for passive relocation unless there is already conserved land immediately adjacent to the parcel from which the owls will be passively relocated. Occupied burrows shall not be disturbed during the nesting season unless a qualified biologist verifies through non-invasive methods that either the birds have not begun egg laying and incubation or juveniles from the occupied burrows are foraging independently and capable of independent survival.

6.1.3 Additional Bird Species Protected by the Migratory Bird Treaty Act

Although the site does not support trees or shrubs sufficient to support the potential nesting of any of the special status bird species known from the vicinity, some ground-nesting common species, such as mourning dove, killdeer (*Charadrius vociferus*) and lesser nighthawk (*Chordeiles acutipennis*), have the potential to nest on-site. Mourning doves were the most abundant species observed on-site during the assessment. Additionally, a large billboard is present on the southern portion of the project site and provides suitable nesting structure for common raven (*Corvus corax*). This billboard structure was inspected during the assessment and no common raven nests, or any nesting materials of any kind, were observed at that time. All common nesting bird species are excluded from coverage under the THCP, are protected by the MBTA, and any impact to a nesting native bird species need to be avoided. Avoidance of impacts to nesting migratory and resident bird species is a requirement of the federal permit issued for the THCP. In order to avoid potentially impacting nesting birds, either avoidance of the initial project-related disturbance (i.e., grading, vegetation removal, operation of heavy equipment, construction, etc.) during the nesting season (1 February through 31 August) or if the initial project-related site construction activities cannot be avoided during the nesting season, a nesting bird clearance survey conducted by a qualified ornithologist or biologist immediately prior to scheduled on-site disturbance is recommended. If nesting birds are found, no work buffer zones would be recommended until young have fledged. While there is no established protocol for nest avoidance, avoidance buffers of about 100–300 feet for unlisted songbirds and 500 feet for listed songbirds and raptors are generally recommended.

6.2 Jurisdictional Areas

The project site is located in an upland area with stabilized sand fields. There appears to be no potentially jurisdictional waters within the site. The nearest likely jurisdictional water, Whitewater River and Tahquitz Creek, are approximately 0.5 miles to the east and south of the project site, respectively. There is no direct connection between the project site and these waters. No additional measures related to jurisdictional water resources are anticipated to be required.

7.0 CONCLUSION

The proposed project site is located on lands that are under the jurisdiction of the Agua Caliente Band of Cahuilla Indians. The main regulatory mechanism for tribal lands is the THCP (Helix 2010). Therefore, payment of the required development fees for approved projects, with some exceptions, are anticipated to mitigate the impacts and/or potential impacts to covered species resulting from the loss/conversion of the natural open space present on-site. Covered species that are considered to have at least some potential of on-site occurrence include: Coachella Valley milk-vetch, Little San Bernardino Mountains linanthus, Coachella giant sand treader cricket, Coachella Valley Jerusalem cricket, flat-tailed horned lizard, Coachella Valley fringe-toed lizard, Palm Springs pocket mouse, and Coachella Valley (Palm Springs) round-tailed ground squirrel. Impacts to these species (if present) and their respective habitat, would be fully covered, and mitigated under the THCP with the payment of the requisite development fee and participation in the requirements of the Plan, with one exception for Little San Bernardino Mountains linanthus. Although Little San Bernardino Mountains linanthus is a covered species under the THCP, the Plan requires avoidance of impacts (to the maximum extent practicable) or mitigation in the form of habitat preservation at a 3:1 ratio where this species occurs. The only way to conclusively determine if Little San Bernardino Mountains linanthus occurs on-site is to conduct a focused survey during the species blooming period (Mar-May). For these reasons, and despite the very low occurrence potential conclusion, a focused survey for Little San Bernardino Mountains linanthus may be considered warranted and therefore may be required.

Although WSP considers the potential for desert tortoise occurrence on the project site to be extremely low, a presence/absence survey and/or a take avoidance survey (at a minimum) conducted in accordance with the currently accepted USFWS desert tortoise survey protocol would conclusively determine that the species status on-site and ensure that no impacts potentially occur as a result of project implementation. The survey could very likely be conducted concurrent with the surveys for other species (i.e., Little San Bernardino Mountains linanthus, burrowing owl and/or nesting birds [where required]). If no sign of desert tortoise is observed, no further actions relative to the desert tortoise are anticipated.

Although no sign (i.e., whitewash, pellets, tracks, feathers, or burrow adornments) was detected, burrows suitable for burrowing owl were observed and the species is therefore considered to have the potential to occur on-site at any time. For these reasons, and in accordance with the THCP, WSP recommends (at a minimum) that a pre-construction (take avoidance) survey for burrowing owl be conducted to ensure potential impacts to and take of burrowing owl is entirely avoided. If burrowing owls are detected on-site, relocation may be required, in coordination with the CVCC and CDFW.

Like burrowing owl, impacts to other bird species protected by the MBTA while nesting, including but not limited to ground-nesting species such as mourning, killdeer and lesser nighthawk, require 100% avoidance. If initial project activities (i.e., site grading, vegetation removal/trimming, earthwork, etc.) are conducted during the nesting season (i.e., generally between 1 February and 31 August), a nesting bird clearance survey conducted by a qualified ornithologist or biologist immediately prior to scheduled disturbance is recommended to ensure impacts to nesting birds are entirely avoided. If project activities are conducted outside of the nesting season, a nesting bird clearance survey could likely be avoided. If nesting birds are found, no work buffer zones would need to be established and observed where no work would be permitted until young have fledged. Periodic monitoring of the nests is also recommended to document the status of the nest(s) and determine when the young have fledged and construction could proceed without impacting nesting birds. While there is no established protocol for nest avoidance, avoidance buffers of about 100–300 feet for unlisted songbirds and 500 feet for listed songbirds and raptors are generally recommended. If active bird nests are found, at any time, proposed project activities would need to be halted and postponed until young have fledged the nest and impacts to nesting birds are entirely avoided.

Covered Projects in the VFPA will be required to pay a mitigation fee that will fund Tribal acquisition and management of replacement habitat. The mitigation fee is $2,371 for each developed acre, collected prior to issuance of any permits allowing ground disturbance (typically grading permits or building permits).

With participation in and compliance with the requirements of the THCP and implementation of the recommendations above, impacts to special status biological resources are anticipated to be mitigated to a less than significant level.

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Appendix A Vascular Plants

APPENDIX A
Species List: Vascular Plants

This list reports only plants observed on the site by this study. Other species may have been overlooked or undetectable due to their growing season. [†= *special status species,* * = non-native species, sp. = identified only to genus, *cf*= compares favorably with]

Asteraceae	Sunflower Family
Dicoria canescens	desert dicoria
Palafoxia arida	Spanish needles
Boraginaceae	Borage Family
Johnstonella angustifolia	narrow-leaved johnstonella
Brassicaceae	Mustard Family
*Brassica tournefortii**	Saraha mustard*
Chenopodiaceae	Goosefoot Family
Atriplex canescens	four-wing saltbush
*Salsola tragus**	Russian thistle*
Ehretiaceae	Ehretia Family
Tiquilia plicata	fan-leaved tiquilia
Euphorbiaceae	Spurge Family
Croton californicus	California croton
Stillingia spinulosa	broad leaved stillingia
Fabaceae	Pea Family
Psorothamnus cf. emoryi	Emory's indigo bush
Papaveraceae	Poppy Family
cf. Eschscholtzia minutiflora	pygmy poppy
Zygophyllaceae	Caltrop family
Larrea tridentata	creosote bush
Poaceae	Grass family
*Schismus cf. barbatus**	Mediterranean grass*

Appendix B Vertebrate Animals

APPENDIX B

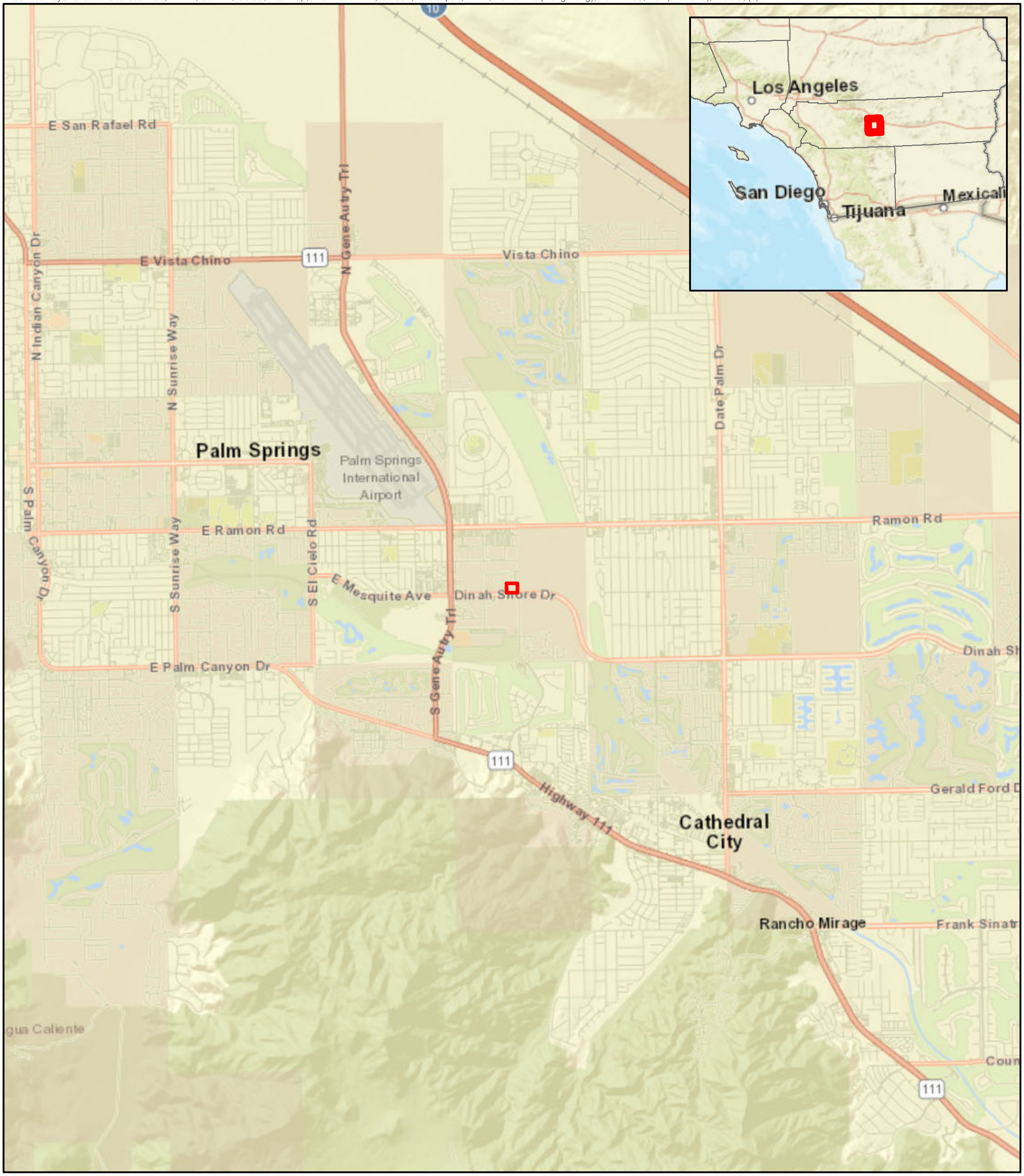
Species List: Vertebrate Animals

This list reports only the vertebrate animals observed or detected by WSP during the field assessment. Other species may have been overlooked or undetectable due to their activity patterns or weather conditions. [†= *special status species,* * = non-native species, sp. = identified only to genus, *cf* = compares favorably with]

VERTEBRATES	
REPTILIA	REPTILES
Iguanidae	Iguanas
Dipsosaurus dorsalis	desert iguana
Phrynosomatidae	Spiny Lizards & Relatives
Callisaurus draconoides	zebra-tailed lizard
Uta stansburiana	side-blotched lizard
Teiidae	Whiptails, Racerunners and Allies
Aspidoscelis tigris	western whiptail
AVES	BIRDS
Columbidae	Pigeons & Doves
*Streptopelia decaocto**	Eurasian collared-dove*
Zenaida macroura	mourning dove
Corvidae	Crows & Ravens
Corvus corax	common raven
Remizidae	Penduline Tits & Verdins
Auriparus flaviceps	verdin
Mimidae	Mockingbirds & Thrashers
Mimus polyglottos	northern mockingbird

Appendix C Figures

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c)



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1 inch = 1 miles

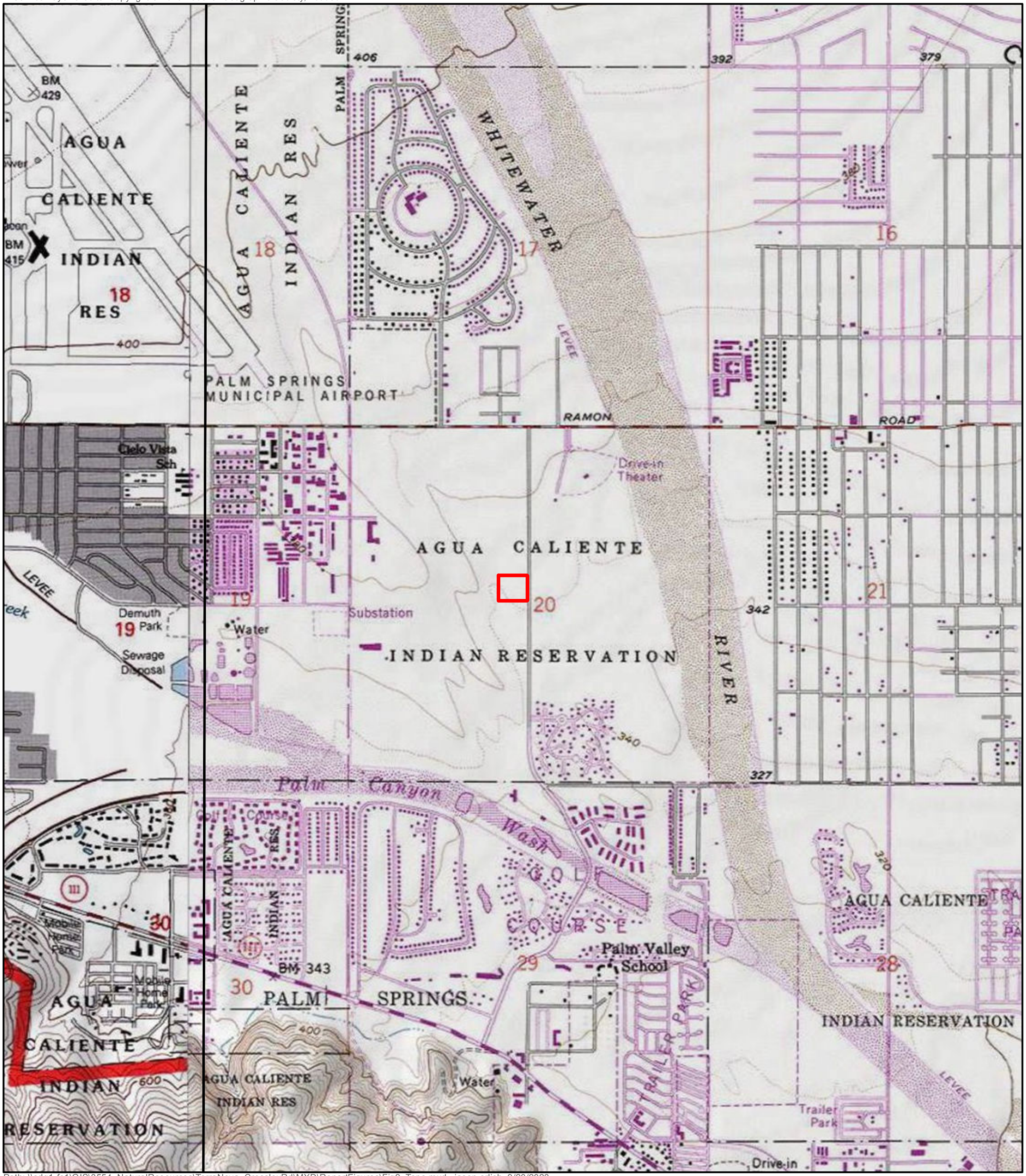
0 0.5 1 Miles

Project Boundary

wsp

FIGURE 1
Project Location
Crossley Road Gas Station
and Convenience Store Project
Riverside County, California

Service Layer Credits: Copyright:© 2013 National Geographic Society, i-cubed



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1 inch = 2,000 feet

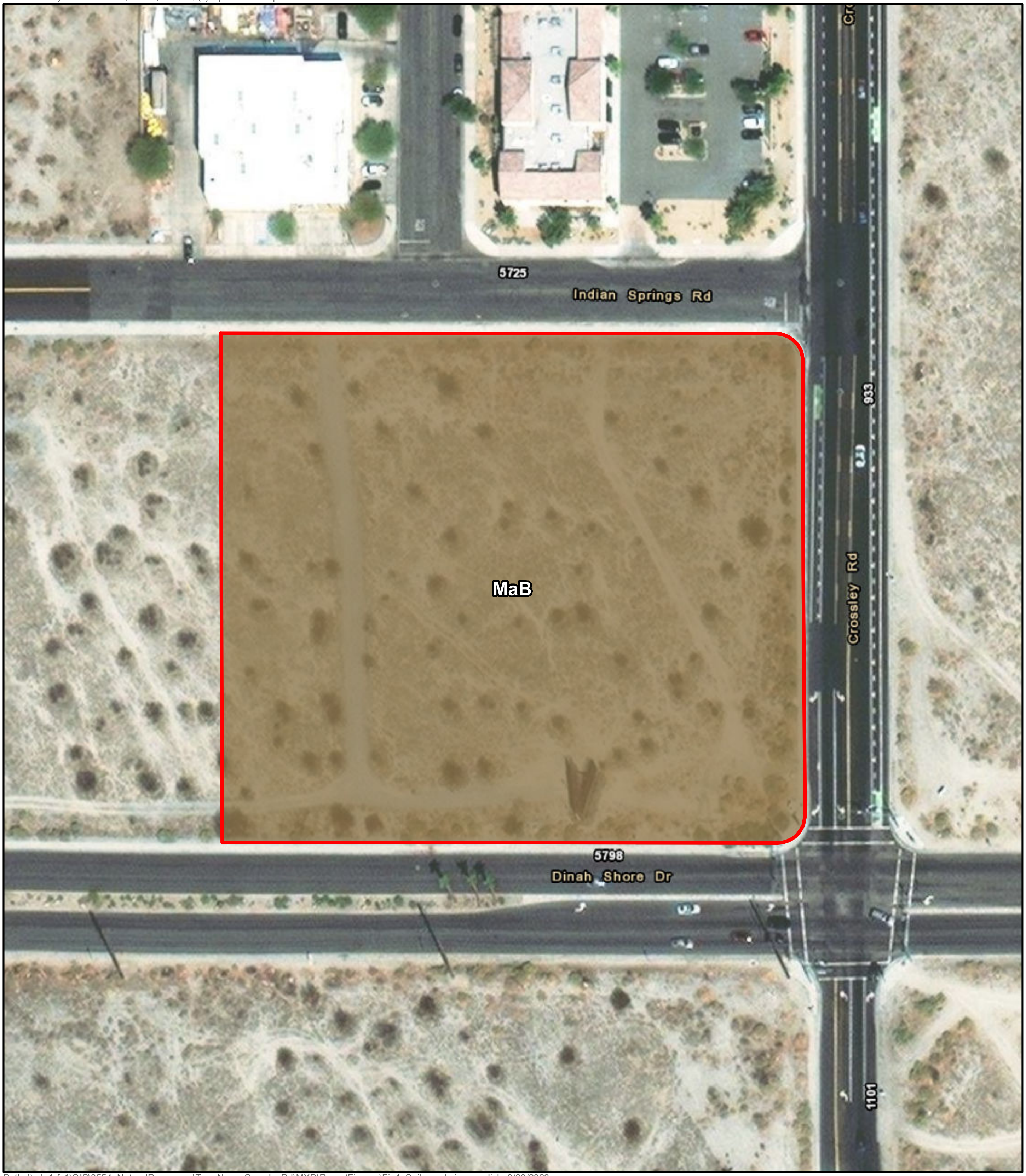
0 1,000 2,000 Feet

Project Boundary

FIGURE 2

USGS 7.5' Topo Quad: Cathedral City
Crossley Road Gas Station
and Convenience Store Project
Riverside County, California

Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors



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1 inch = 100 feet

0 50 100 Feet

Project Boundary

MaB - Myoma fine sand, 0 to 5 percent slopes

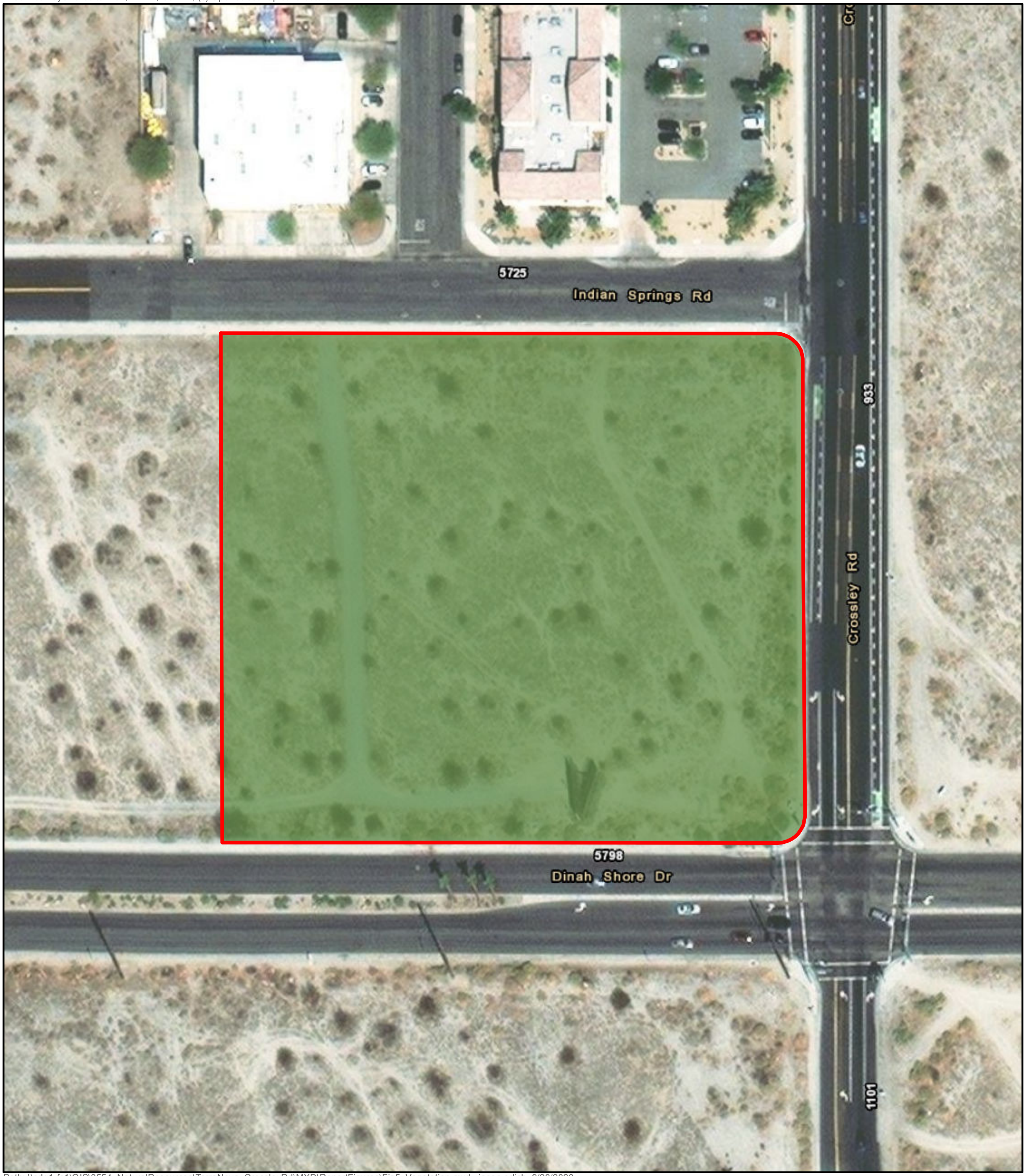
FIGURE 3

Soils

Crossley Road Gas Station and Convenience Store Project

Riverside County, California

Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors



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1 inch = 100 feet

0 50 100 Feet

wsp

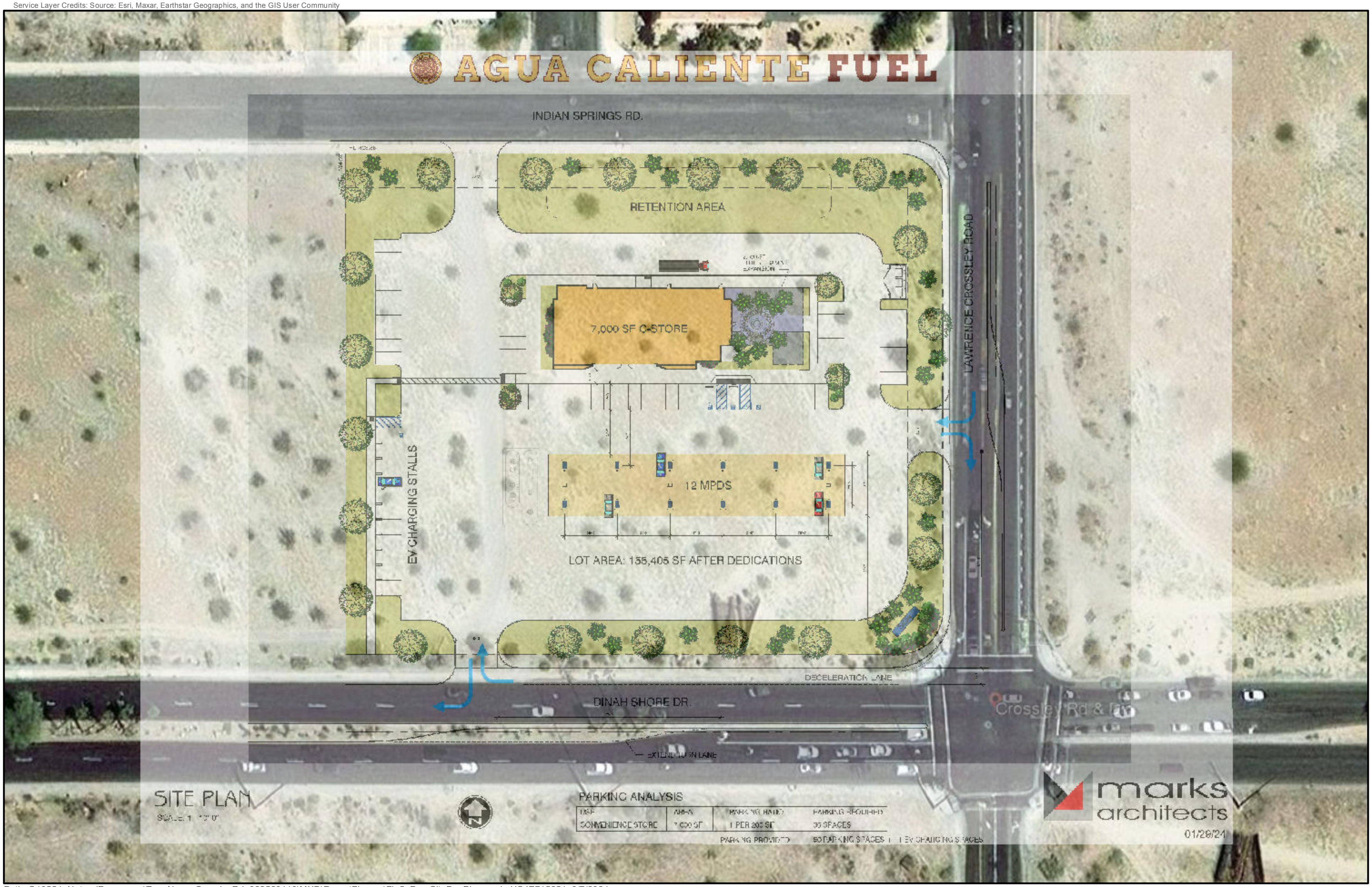
Project Boundary

Sonoran Creosote Bush Scrub

FIGURE 4

Vegetation Communities
Crossley Road Gas Station
and Convenience Store Project
Riverside County, California

Service Layer Credits: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community



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No Scale

FIGURE 5

Proposed Site Development Plan
Crossley Road Gas Station
and Convenience Store Project
Riverside County, California

Appendix D Photographic Exhibits

Photograph 1 - Representative condition of site, soils, and vegetation

Photograph 2-Representative condition of site, soils, and vegetation

Photograph 3 – Potentially suitable burrow for burrowing owl

Photograph 4 – Potentially suitable burrow for burrowing owl

Photograph 5 – Representative condition of site, soils, and vegetation

Photograph 6 – Representative condition of site, soils, and vegetation

Appendix C

Cultural Resource Study

Cultural Resource Survey in Support of the Proposed Agua Caliente Fuel Palm Springs Gas Station at the Intersection of Dinah Shore Drive and Crossley Road in Palm Springs, California

Felicia V. De Peña, Alyssa Canoff, and James J. Clark

Prepared for

Nicole Criste
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Technical Report 23-89
Statistical Research, Inc.
Redlands, California

Cultural Resource Survey in Support of the Proposed Agua Caliente Fuel Palm Springs Gas Station at the Intersection of Dinah Shore Drive and Crossley Road in Palm Springs, California

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February 2024

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Statistical Research, Inc. (SRI), conducted a cultural resource study in support of the proposed gas station and convenience store at the intersection of Dinah Shore Drive and Lawrence Crossley Road (the Project). The Project area is in Section 20 of Township 4 South, Range 5 East, San Bernardino Base and Meridian, on the 2015 Cathedral City, California, 7.5-minute U.S. Geological Survey topographic quadrangle. The Project is at the northwest corner of the Dinah Shore Drive and Lawrence Crossley Road intersection, on four parcels of Agua Caliente Reservation fee land (Assessor's Parcel Nos. 680-564-002, 680-564-014, 680-564-017, and 680-564-018) covering approximately 3.7 acres in Palm Springs, California.

The cultural resource study began with a records search and literature review for the 3.68-acre Project area. The records search identified 1 previously recorded historical-period resource within the 1-mile (1.6-km) records-search buffer around the Project area, but no previously recorded resources were identified within the Project area. The records search revealed that 100 percent of the Project area has been previously surveyed for cultural resources. Based on geoarchaeological analysis of soil maps of the Project area and the presence of nearby water features, there is a high probability of buried cultural resources in the Project area.

After the records search, SRI surveyed the 3.69-acre Project area, which was dominated by sandy alluvium and sparse desert vegetation and displayed good ground visibility. No prehistoric or historical-period artifacts or sites were identified in the project area during the survey.

Although no cultural resources were identified in the Project area, it is still sensitive for buried prehistoric cultural resources. SRI recommends that a Secretary of the Interior– (SOI-) qualified archaeologist and an Agua Caliente Cultural Monitor be present for all ground-disturbing activities related to the development.

Introduction

Statistical Research, Inc. (SRI), conducted a cultural resource study in support of the proposed gas station and convenience store at the intersection of Dinah Shore Drive and Lawrence Crossley Road (the Project). The Project area is in Section 20 of Township 4 South, Range 5 East, San Bernardino Base and Meridian, on the 2015 Cathedral City, California, 7.5-minute U.S. Geological Survey (USGS) topographic quadrangle (Figure 1). The Project is at the northwest corner of the Dinah Shore Drive and Lawrence Crossley Road intersection, on four parcels of Agua Caliente Reservation fee land (Assessor's Parcel Nos. 680-564-002, 680-564-014, 680-564-017, and 680-564-018) covering approximately 3.7 acres in Palm Springs, California (Figure 2).

Regulatory Context

The proposed Project is subject to the National Environmental Policy Act of 1969, as amended (NEPA; 42 *U.S. Code* [USC] 4321 *et seq.*), and its implementing regulations (40 *Code of Federal Regulations* [CFR] 1500–1508). Under the NEPA, a federal agency must determine whether its proposed major actions will significantly impact the environment, including impacts to cultural, historical, and tribal resources. There are currently no conditions of approval for the Project; instead, this cultural resource survey was requested by the Agua Caliente Band of Cahuilla Indians (ACBCI) and will be a component of a future Environmental Assessment submittal for the Project, in compliance with both the ACBCI Tribal Environmental Policy Act and the NEPA (42 USC 4321 *et seq.*), for permitting of the construction of the proposed gas station at the intersection of Dinah Shore Drive and Lawrence Crossley Road.

The NEPA enacted a continuing federal policy that directs "a systematic, interdisciplinary approach" to planning and decision-making and requires environmental statements for "major Federal actions significantly affecting the quality of the human environment" (42 USC 4332[2][a–b]). The Council on Environmental Quality's implementing regulations (40 CFR 1500–1508) require federal agencies to identify and assess reasonable alternatives to proposed actions that will restore and enhance the quality of the human environment and that will avoid or minimize adverse environmental impacts. Federal agencies are further directed to emphasize significant environmental issues in project planning and to integrate impact studies required by other environmental laws and Executive Orders (EOs) into the NEPA process. The NEPA process should therefore be seen as an overall framework for the environmental evaluation of federal actions.

Project Personnel

All SRI personnel meet the Secretary of the Interior's (SOI's) Professional Qualifications Standards in their respective disciplines. The personnel involved with the implementation of this Project have extensive experience in the region and have worked on a number of cultural resource surveys across southern California.

- James Clark, M.A., Registered Professional Archaeologist (RPA), principal investigator
- Felicia V. De Peña, Ph.D., RPA, senior project director
- Alyssa Canoff, M.A., RPA, project director

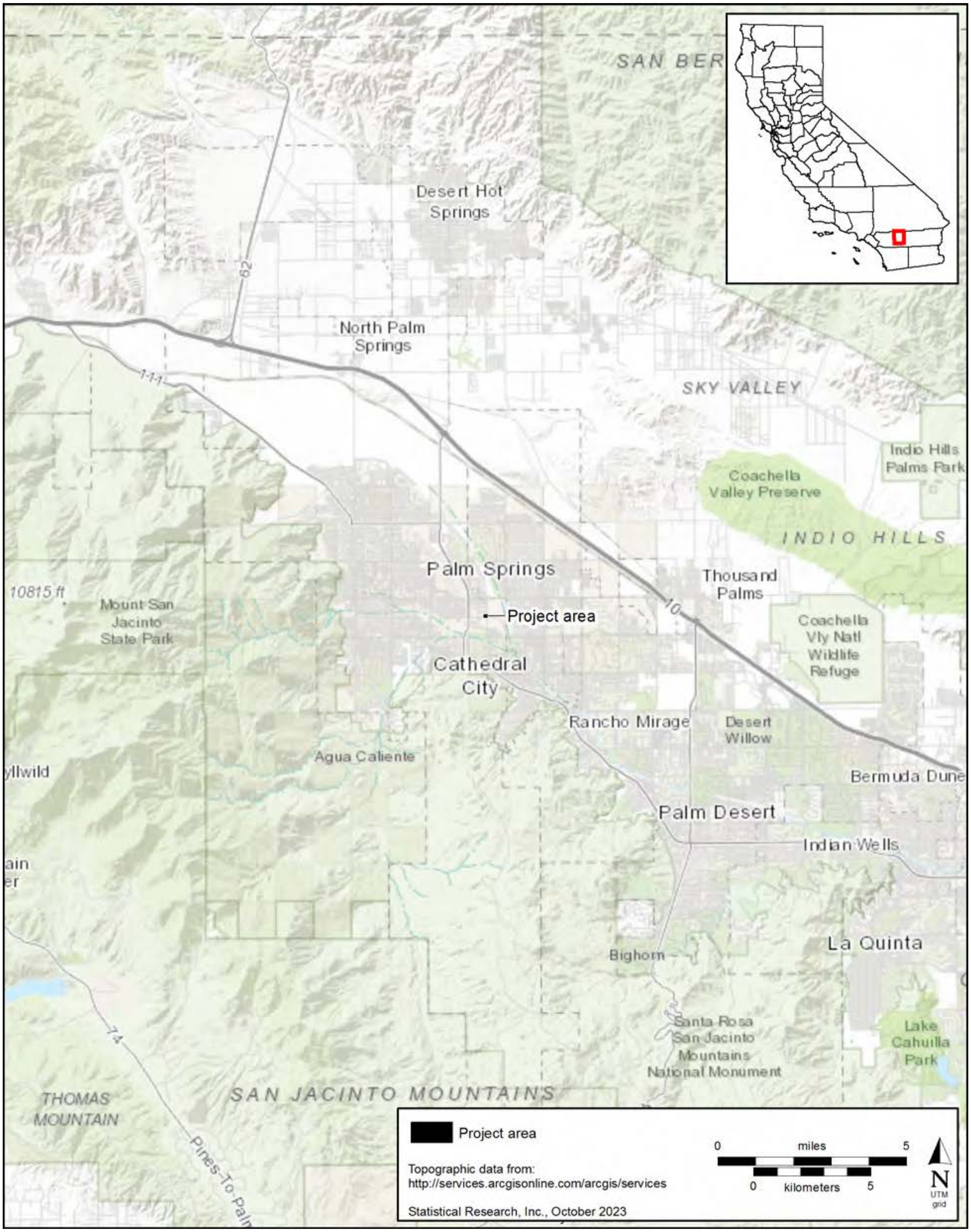

Figure 1. Project vicinity map.

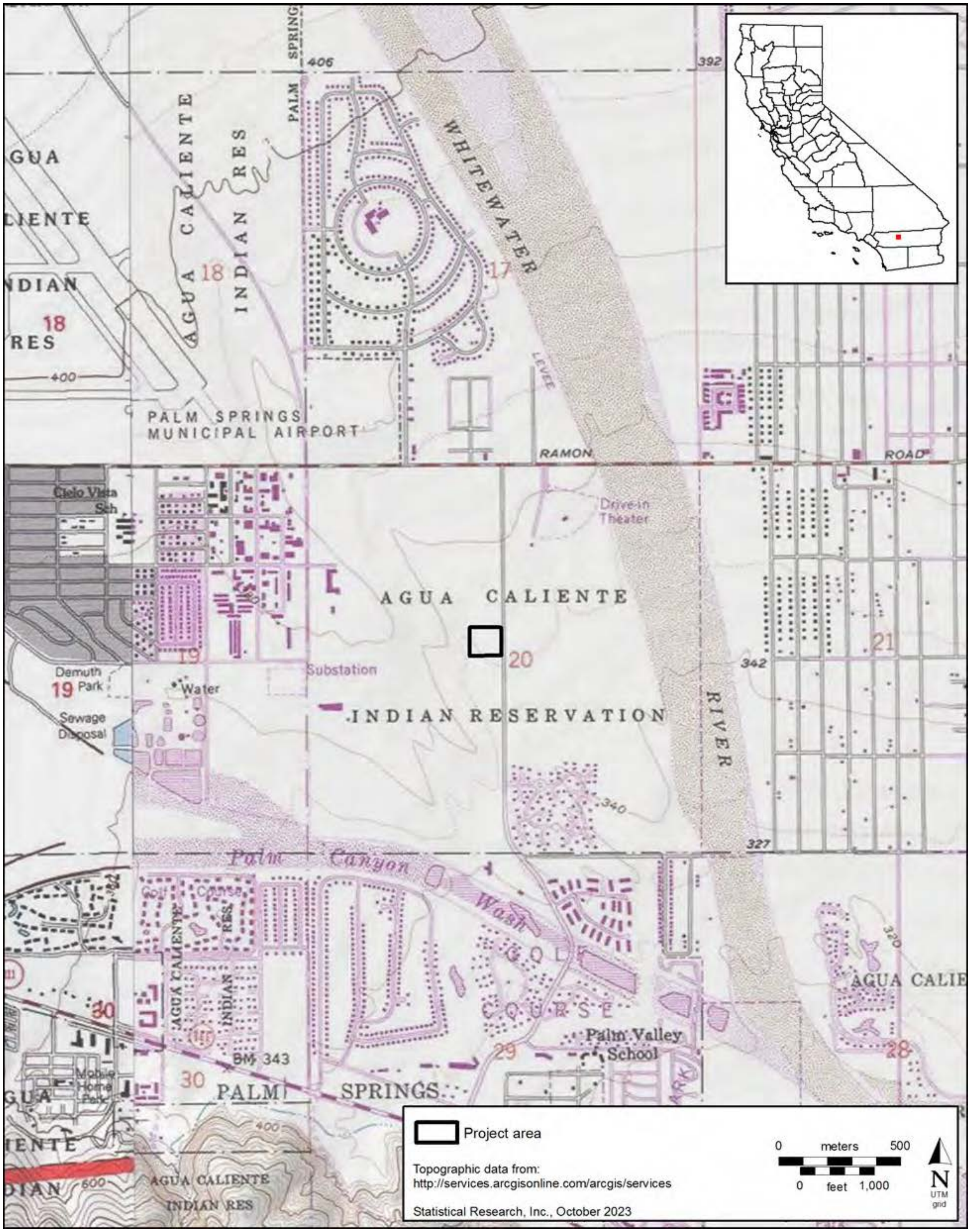

Figure 2. Project location map.

Environmental Setting

The Project area is in the western part of the Coachella Valley, a low valley sandwiched between the Santa Rosa Mountains to the south and southeast and the Little San Bernardino Mountains to the north. The valley is part of the Colorado Desert geomorphic province, an area that includes both sides of the lower Colorado River and the Coachella and Imperial Valleys of California (Jenkins 1980).

High temperatures during the summer months average between 38°C and 42°C (100°F and 108°F, respectively). During the winter, the mean temperature falls to about 24°C (75°F) during the day, and lows reach near 4°C (40°F) at night. The average annual precipitation in the area is 14.4 cm (5.7 inches), most of which falls between December and March (WorldClimate.com 2021), although occasional summer thunderstorms in August and September provide additional rainfall.

Geology

The Coachella Valley forms the northern extent of the Salton Trough, a northwest–southeast-trending depression that reaches from the San Gorgonio Pass to the Gulf of California 280 km (174 miles) to the south. The valley has been heavily shaped by tectonic forces that involve the interaction of the Pacific and the North American Plates along the San Andreas Fault system (Harden 2004). The valley is a fault-bound depression, and the San Andreas Fault runs along its northern margin. The Banning Fault, a subordinate fault to the San Andreas Fault, runs east–west through the valley between the San Andreas Fault and the San Jacinto Fault to the west. Folding in the earth's crust caused by the faults has blocked the flow of underground aquifers and resulted in numerous springs and pools. These water sources were crucial resources for prehistoric groups (Wilke 1978). The Whitewater River was the other major source of water in the Coachella Valley. The river starts on the flanks on Mount San Gorgonio and enters the Coachella Valley through the Banning Pass, running along the southern edge of the valley approximately 1 km (0.61 mile) south of the Project area.

The mountain ranges surrounding the Coachella Valley are uplifted blocks of continental crust. The Santa Rosa Mountains are at the northern end of the Peninsular Ranges, a series of mountain ranges running from the Los Angeles Basin southeastward to the tip of the Baja Peninsula (Jahns 1954:3). The valley forms a natural border between the coastal areas to the west and the deserts to the east. The mountains are composed of plutonic intrusions that have been uplifted through tectonic activity. The highest point is San Jacinto Mountain, at 3,307 m (10,849 feet) above mean sea level (AMSL), towering above the present-day city of Palm Springs. The Little San Bernardino Mountains are part of the Transverse Ranges, a series of east–west-trending mountain ranges similar in composition to the Peninsular Ranges and including large masses of Mesozoic Era plutonic rocks. The summits of the Transverse Ranges exceed 3,500 m (11,483 feet) AMSL at San Gorgonio Peak (Bailey and Jahns 1954).

Much of the valley bottom is at or below sea level, and the deepest areas dip to 80 m (263 feet) below sea level. The Project area is in the middle of the valley, at an elevation of approximately 75 m (246 feet) AMSL. Both alluvial and aeolian sediments are present in the valley. Geologic mapping of Quaternary sediments in the area by Lundstrom et al. (2001) indicated that alluvial-fan surfaces of probable late Holocene age are extensive and show very weak, nonoxidized soils. Recent aeolian sand is also common in the area and has been mapped as dunes and sand ramps forming mantles on slopes in the valley (Lundstrom et al. 2001).

The hot and dry climate of the Coachella Valley would normally place significant restrictions on human activities. However, the valley has been inundated repeatedly in the past—a result of flooding brought on by changes in the course of the Colorado River. Over many episodes, the river left its banks and flooded the Salton Trough, resulting in the creation of ancient Lake Cahuilla, also referred to as Blake's Sea or Lake LaConte (Wilke 1978). At its maximum, the lake reached 184 km (114 miles) long, 54 km (34 miles) wide, and 96 m (315 feet) deep, inundating a considerable portion of the valley. When the Colorado River resumed its normal course, the lake began to dry. Recent studies have suggested that it would have taken approximately 56 years for the lake to be completely dry after having reached the high-water mark (Laylander 1997).

Between 800 and 300 B.P., there have been at least three documented cycles of flooding and desiccation, but it is not clear whether the lake at that time was primarily full and experienced only minor drying episodes, mostly empty and only occasionally inundated, or somewhere in-between (Laylander 1997; Waters 1983; Wilke 1978; see also Schaefer and Laylander 2007). The most-recent stand of Lake Cahuilla may have been brief, occurring between 700 and 500 B.P.

Much of the prehistoric occupation of the Coachella Valley appears to have been correlated to the presence of Lake Cahuilla. The earliest known sites in the valley date to the Late Archaic period, roughly 4000–1500 B.P. (Love and Dahdul 2002). Most of these sites are at or near the ancient lakeshore, as are several sites dating to the Late Prehistoric period (Sutton and Wilke 1988; Wilke 1978). The Project area is approximately 10 km (6 miles) northwest of the maximum shoreline of Lake Cahuilla. Instead of the lacustrine resources available at the lakeside, human use of the Project area would have focused primarily on resources available in the desert, nearby oases, and along the Whitewater River wash.

Plant Communities

The Coachella Valley is part of the Sonoran Life Zone and is characterized by the Creosote Bush Scrub plant community (Hall and Grinnell 1919; Munz 1974; Schoenherr 1992). This life zone is characterized by the presence of creosote bush (*Larrea tridentata*), mesquite (*Prosopis glandulosa*), brittlebush (*Encelia farinosa*), cholla and prickly pear cacti (*Opuntia* spp.), chuparosa (*Beloperone californica*), desert lavender (*Hyptis emoryi*), sage (*Salvia* spp.), and various grasses. California fan palms (*Washingtonia filifera*), the only species of palm native to California, are also present at oases surrounding the valley. Desert oases also provide habitat for a number of other species, including screwbean mesquite (*Prosopis pubescens*) and Fremont cottonwood (*Populus fremontii*). Many of the plants known to the historical-period Cahuilla (the cultural group that occupied the Coachella Valley at the time of European contact) were medicinal or therapeutic in nature (for a detailed discussion, see Bean and Saubel 1972).

Animal Communities

A number of desert animals inhabit the greater Coachella Valley. They include mammals, such as coyotes (*Canis latrans*), gray foxes (*Urocyon cinereoargenteus*), various mouse species (*Peromyscus* spp. and *Perognathus* spp.), squirrels (*Spermophilus* [*Citellus*] spp.), and lagomorphs (*Lepus californicus* and *Sylvilagus audubonii*); reptiles, including rattlesnakes (*Crotalus* spp.) and a variety of lizards (*Crotaphytus* spp., *Dipsosaurus* spp., *Sceloporus* spp., *Streptosaurus* spp., and *Urosaurus* spp.); and birds, such as turkey vultures (*Cathartes aura*), red-tailed hawks (*Buteo jamaicensis*), mourning doves (*Zenaida macroura*), and ravens (*Corvus corax*). During prehistoric times and up to the early twentieth century, pronghorns (*Antilocapra americana*) were common in the Coachella Valley, but they have since been pushed out by modern development (Jaeger 1965). Besides representing sources of food, many of the animals were important components of Cahuilla rituals, and their bones have been found in ritual contexts at sites in Tahquitz Canyon (see Bean et al. 1995).

Cultural Setting

The following section describes the general chronological sequence of cultural development in the Colorado Desert, as it is currently understood.

Prehistoric Background

The prehistory of the Colorado Desert, including the northern Coachella Valley, is poorly understood, although a number of recent studies have greatly improved our knowledge. Treatments of the region include the classic work of Rogers (1945, 1966) and the more-recent works of Schaefer (1994), Love and Dahdul (2002), and Schaefer and Laylander (2007). Schaefer (1994) defined three principal prehistoric periods: the Paleoindian, Archaic, and Late Prehistoric periods (see also Love and Dahdul 2002); that sequence is generally followed below.

The Paleoindian Period (12,000–8000 B.P.)

Paleoindian period groups, probably with Clovis complex technology, occupied much of California beginning about 12,000 years ago. However, there is very little evidence of Paleoindian period occupation of the northern Coachella Valley. The reasons for this are unclear but may be related to a lack of habitat for the large game hunted by Clovis people.

Across much of western North America, the Clovis complex developed into the Western Stemmed Point tradition or Western Pluvial Lakes tradition after 10,000 B.P. (Bedwell 1973), probably in response to the warming and drying climate of the early Holocene. This tradition is characterized by crescents and large stemmed, shouldered, and lanceolate points (Willig and Aikens 1988:3). This cultural assemblage is commonly called San Dieguito in southern California and had an economy presumably based on the exploitation of marsh plants, fish, freshwater shellfish, and large and small game (Rogers 1966). Rogers had originally defined three distinct phases associated with the San Dieguito cultures, but further excavations at the sites where he worked have failed to find evidence to support these distinctions (Vaughan 1982; Warren 1967:171).

There is little evidence of a San Dieguito presence in the northern Coachella Valley—probably just a few "small, mobile bands exploiting small and large game and collecting seasonally available wild plants" (Schaefer 1994:63; see also Schaefer and Laylander 2007). The reasons for this are unclear, but the lack of an early occupation may indicate that Lake Cahuilla was not inundated during this time period.

The Archaic Period (8000–1500 B.P.)

Beginning about 8,000 years ago, the climate became hotter and drier, and it appears that the northern Coachella Valley was basically abandoned at that time (Schaefer 1994:64). At best, the record suggests only minor occupation by relatively few people. It appears that when the climate began to cool after about 4,000 years ago, during the Late Archaic period, the Colorado Desert was reoccupied (Love and Dahdul 2002; Schaefer 1994:64), and several archaeological sites in the northern Coachella Valley are dated to that time. It seems that as with later occupation, much of the occupation centered on the shores of Lake Cahuilla. However, very little is known about overall Late Archaic period adaptations or social structure.

One of the best-documented Late Archaic period sites in the Colorado Desert is the Indian Hill Rockshelter, near Anza-Borrego State Park (McDonald 1992; Wilke et al. 1986), approximately 55 km (34 miles) south of the Project area. Excavators found a number of rock-lined storage pits as well as hearths and Elko Eared projectile points. Radiocarbon dates from these levels indicated that they had been occupied approximately 4,000 years ago. McDonald (1992) postulated that the site was a base camp for hunter-gatherers who likely roamed over a large area in search of food. A rockshelter from Tahquitz Canyon also contained rock-lined pits and similar artifacts, but no radiocarbon dates were taken at the site; so, its true age is unclear (Schaefer 2002). Taken together, these two sites suggest that people lived in highly mobile bands and took advantage of a variety of resources in the area.

Excavations at two sites (CA-RIV-1827 and CA-RIV-2642) near Desert Hot Springs, 20 km (12 miles) northwest of the Project area, encountered deposits dating to the transition from the Late Archaic period to the Late Prehistoric period, approximately 1200–1000 B.P. (Dahdul et al. 2008; Drover 1982, 1988; Hogan et al. 2010). These sites contained evidence to suggest habitation, including hearth features; activity surfaces and a variety of artifact types, such as flaked stone debitage; faunal remains; and possible human remains. These sites are adjacent to the ethnohistorically known Seven Palms Rancheria (CA-RIV-154), and it is likely that they represent an early occupation of the village.

The Late Prehistoric Period (1500–200 B.P.)

Beginning about 1500 B.P., Yuman (or Patayan) agricultural groups in the Colorado River area began to influence Colorado Desert groups, particularly in the Coachella Valley. This Patayan pattern included a preceramic phase (Rogers 1945:170; Warren 1984; Waters 1982a, 1982b) and three ceramic phases, Patayan I (ca. 1500–1000 B.P.), Patayan II (ca. 1000–500 B.P.), and Patayan III (after ca. 500 B.P.). After about 1000 B.P. (Patayan II), a number of cultural traits, including new ceramic types, small triangular points, and cremations, moved westward from the Colorado River, either through diffusion or perhaps carried by some migrating Yuman people. Whichever the case, long-distance trade networks were established between the Coachella Valley and the Colorado River.

Agricultural crops were also probably introduced into the area during this time period. Along the Colorado River, domesticated crops constituted up to half the Yuman diet (Castetter and Bell 1951). Ethnographically (see below), the Cahuilla were known to have large, walk-in wells that could have been used in pot irrigation (Bean and Mason 1962), although small check dams and other simple irrigation technologies likely also were used (Wilke and Lawton 1975:28).

The Late Prehistoric period groups that occupied the Coachella Valley were the direct ancestors of the ethnographic Cahuilla. This period represents a significant increase in human occupation of the valley, and several large archaeological sites from this period have been identified (for examples, see Bean et al. 1995; Schaefer 1994; Sutton and Wilke 1988; Wilke 1978).

Ethnographic Background

The aboriginal group that occupied the northern Coachella Valley during the historical period was the Desert Cahuilla. The Desert, Mountain, and Pass Cahuilla constituted the ethnographic Cahuilla. The Cahuilla spoke a language of the Takic branch of Northern Uto-Aztecan (see Goddard 1996:Table 3), and the Desert Cahuilla spoke a distinct dialect of Cahuilla. Descriptions of Cahuilla culture are present in works by Barrows (1900), Hooper (1920), Curtis (1926), Strong (1929), and Bean (1972, 1978). There have been few archaeological studies of the historical-period Cahuilla, but testing at the former Mission Creek Indian Reservation, approximately 42 km (26 miles) northwest of the Project area, identified occupations stretching from the Late Prehistoric period into the early twentieth century (Altschul 1986). Similarly, excavations at Tahquitz Canyon (Bean et al. 1995), 20 km (12 miles) west of the Project area, found a large village complex dating between A.D. 1600 and 1870.

Villages were located in areas with access to a number of resources, either at springs or where wells could be easily dug. As a result, most villages relied on hand-excavated walk-in wells for water. These wells were dug to depths of about 6 m (20 feet), to reach the water table. Villages were loose clusters of houses spread over an area up to 1 km (0.6 mile) across. Some of the houses were large (e.g., 6 m [20 feet] in length), and others were smaller, and at least one large ceremonial structure was present in each village (Bean 1972:72). Once established, villages were considered permanent (Bean 1972:74) and were occupied by lineages. Villages were connected to each other by a complex system of trails.

The Cahuilla were organized into moieties and tribelets (i.e., clans) and then into lineages. The two moieties were the *túktem* (Wildcats) and *'istam* (Coyotes; Bean 1978; Garcia et al. 2011). The lineages were landholding groups, and each occupied its own village. The adjacent lineage, with its own village, would generally belong to the other moiety. That arrangement served to ensure access to different habitats. Each village was economically independent.

The Desert Cahuilla exploited a large number of plant species (Barrows 1900; Bean and Saubel 1972), and mesquite (*Prosopis* spp.) on the valley floor was the primary staple. Other important resources, such as agave (*Agave deserti*), pinyon (*Pinus* spp.), and acorns (*Quercus* spp.), were obtained in the mountains to the west. More than 150 species of plants were used for foods, fibers, medicines, manufactures, and dyes. The Cahuilla exploited a variety of animals, including deer (*Odocoileus* sp.) and mountain sheep (*Ovis canadensis*) from mountain habitats and pronghorn and smaller animals, such as rabbits and rodents, from desert habitats.

The Desert Cahuilla also grew a few agricultural crops—namely, corn, beans, and squash—that were probably obtained from Native peoples along the Colorado River to the east. Crops were irrigated from springs (Wilke and Lawton 1975). With the arrival of Europeans, wheat, melons, barley, and fruit trees were added (Bean and Mason 1962; Lawton and Bean 1968). By the late eighteenth century, the Cahuilla had adopted ranching as an important industry and also worked as wage laborers on the railroads and on farms and ranches.

After the smallpox and measles epidemic of 1863, the Cahuilla population, originally perhaps as many as 3,000 people, declined rapidly. In addition, the emigration of young people seeking work in the metropolitan areas of southern California resulted in the movement of many Cahuilla away from their traditional areas (Harvey 1967). In 1974, approximately 900 people claimed Cahuilla descent, and most of them lived on one of the many Cahuilla reservations in inland southern California (Garcia et al. 2011:21).

The ACBCI was founded in 1876 by an EO of President Ulysses S. Grant and was expanded in 1877 and 1907. The reservation covers roughly 31,420 acres and consists of all even-numbered sections and all unsurveyed portions of Township 4 South, Ranges 4 and 5 East, and Township 5 South, Range 4 East, on the San Bernardino Meridian, with the exception of sections already given out by the government (Garcia et al. 2011:21). The odd-numbered sections had already been given to railroads as an incentive to develop cross-country rail lines, and so, the reservation appears as a checkerboard pattern on maps. In 1891, the U.S. Congress passed the Mission Indian Relief Act, which authorized allotments of reservation land to be given to individuals. The allotment elections were finally approved by the SOI as part of the Agua Caliente Equalization Act of 1959 (25 USC 951 *et seq.*]), which finalized the individual Native American allotments and set aside certain lands for Tribal use and cemeteries. The ACBCI is currently the largest single landowner in the City of Palm Springs. The Tribe is actively acquiring other nonreservation land.

Historical-Period Background

The extreme aridity of the Colorado Desert acted as a deterrent to many early explorers. The earliest recorded European visit to the Coachella Valley was made in the winter of 1823–1824 by José Romero, the leader of an expedition attempting to reach the Colorado River by a new route (Bean and Mason 1962). Until the mid-nineteenth century, however, most nonnative forays into the area were confined to the established prehistoric trail systems. A number of prehistoric trails passed through the western Coachella Valley, including the important Cocomaricopa Trail, which connected Arizona with the cultures along the southern California coast (Bean and Vane 1995).

In 1853, William P. Blake (1857) described the Coachella Valley during the Pacific Railroad Survey expedition, recorded the general environment, noted the locations of Native American villages, described Native American agriculture in the valley, and recorded some oral traditions of the Native Americans concerning life around ancient Lake Cahuilla. In 1855 and 1856, the U.S. Land Office Survey surveyed the valley and divided it into townships and sections (Wilke and Lawton 1975).

European settlement of the valley intensified after the completion of the Southern Pacific Railroad in 1877 (Heath 1945). The Edom siding was located on the rail line, approximately 5.8 km (3.6 miles) northwest of the Project area, where there was a grove of trees and four dwellings to house section hands and their families (Moore 1968:13; Thousand Palms Chamber of Commerce 2023). In the 1880s, the Homestead Act and the Desert Land Act opened much public land in the area to private development. Farming was the primary economic activity in the valley and was supported by a variety of wells that accessed sizable underground water resources. In 1948–1949, construction of the Coachella Canal supplied additional water to the valley. Much of the area to the east of the Project area, around the City of Indio, is still an important agricultural center. Vegetables, cotton, citrus, and particularly dates were, and still are, important cash crops.

The development of the state highway system in the early twentieth century opened the valley to further development. State Route 99 (now Varner Road) was completed through the area in 1912. The Coachella Valley became a popular vacation spot for the well-to-do in the Los Angeles Basin. Resorts and hotels, equestrian centers, and, by the mid-twentieth century, country clubs appeared throughout the valley. In particular, the Palm Springs area was made famous by Cary Grant, Bob Hope, and Lucille Ball, among others. Ramon Road was graded between Palm Springs and Edom in 1942 (Thousand Palms Chamber of Commerce 2023). When Interstate 10 was completed along its current alignment in 1957, it bypassed the Edom business district. Access was improved in 1962, the settlement of Edom was renamed Thousand Palms, and development quickly followed (Thousand Palms Chamber of Commerce 2023). The City of Rancho Mirage developed as a resort community after World War II and was incorporated in 1973 (Newman et al. 2008:21).

During the late twentieth century, development in the Coachella valley expanded rapidly, and scores of country clubs and housing developments appeared along U.S. Highway 111 and Interstate 10. The advent of Native American gaming initiatives has also driven economic development in the valley: at least three casino resorts are present in the valley, and several others are located nearby.

Cultural Resource Records Search

A cultural resource records-search update was conducted by SRI for the Project area at the California Historical Resources Information System (CHRIS) Eastern Information Center (EIC), Department of Anthropology, University of California, Riverside. The records search included examination of all reports from previous archaeological surveys conducted within a 1-mile (1.6-km) radius of the Project area, as well as all previously recorded historical-period and prehistoric cultural resources within the same 1-mile (1.6-km) radius.

In addition to the research conducted at the CHRIS EIC, archival studies were conducted at other libraries, research institutions, and government agencies. Valuable data were gathered from these repositories in regard to both prehistoric and historical-period resources within the Project area. Historical maps were consulted for information regarding specific historical-period land use in and around the Project area. The resources consulted also included historical USGS topographic maps and historic aerial photography.

Records-Search Results

The records search indicated that five previously conducted projects included work in portions of the Project area (Figure 3; Table 1). Together, these studies included 100 percent of the current Project area. Another 32 reports were related to areas within the 1-mile (1.6-km) records-search buffer.

Within the Project area, the first documented archaeological work occurred in 1978, when Jennifer Taschek-Ball (1978) with the Department of Anthropology at San Diego State University conducted a 1,975-acre survey on behalf of the Agua Caliente Band of Cahuilla Indians. Three cultural resources were identified, all of which were either lithic scatters or lithic isolates.

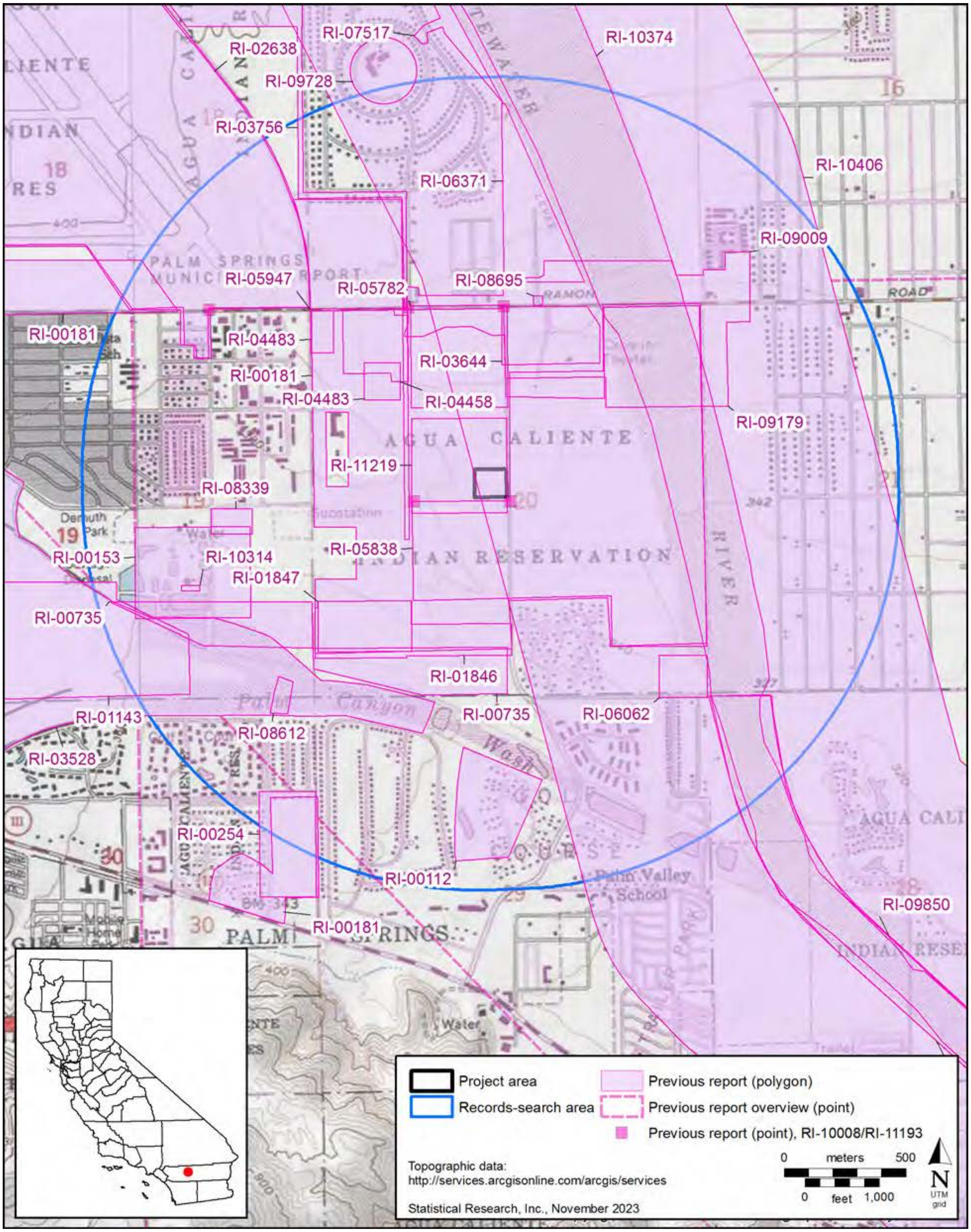

Figure 3. Map showing the locations of selected previous cultural resource studies conducted within the Project records-search area.

Table 1. Previously Conducted Cultural Resource Studies in the Project Area

Report No.	Report Author(s)	Report Year	Report Type	Project Location
RI-00112	Philip J. Wilke	1973	archaeological, field study	records-search area
RI-00153	Leslie E. Wildesen	1974	archaeological, field study	records-search area
RI-00181	Jennifer Taschek-Ball	1978	archaeological, field study	Project area
RI-00254	Donald E. Lipp	1977	archaeological, field study	records-search area
RI-00735	James D. Swenson	1979	archaeological, field study	records-search area
RI-01143	Westec Services, Inc.	1980	archaeological, field study	records-search area
RI-01846	Swenson, James D.	1985	archaeological, field study	records-search area
RI-01847	Swenson, James D.	1984	archaeological, field study	records-search area
RI-02638	Bruce Love and Bai “Tom” Tang	1994	architectural/historical	records-search area
RI-03528	Blodgett, Leslie J.	1992	archaeological, field study	records-search area
RI-03644	Steven A. Moffitt	1993	archaeological, field study	records-search area
RI-03756	Bruce Love and Steven A. Moffitt	1994	archaeological, field study	records-search area
RI-04458	Robert S. White and Laurie S. White	1999	archaeological, field study	records-search area
RI-04483	Andrew R. Pigniolo and Stephanie Murray	2002	archaeological, field study	records-search area
RI-05782	Bruce Love, Bai “Tom” Tang, Daniel Ballester, and Mariam Dahdul	2002	archaeological, field study	records-search area
RI-05838	Bruce Love, Bai “Tom” Tang, Mariam Dahdul, and Adrian Moreno Sanchez	2001	archaeological, field study	Project area
RI-05947	Bai “Tom” Tang, Michael Hogan, Casey Tibbet, and Daniel Ballester	2003	archaeological, field study	records-search area
RI-06062	Patrick McGinnis, and Michael Baksh	2004	archaeological, field study	records-search area
RI-06371	Bai “Tom” Tang, Michael Hogan, Matthew Wetherbee, Daniel Ballester, and John J. Eddy	2005	archaeological, field study	records-search area
RI-07517	Scott Crull	2007	archaeological, field study	records-search area
RI-08339	Deidre Encarnacion and Daniel Ballester	2010	archaeological, evaluation, field study, literature search	records-search area
RI-08612	Antonina M. Delu	2010	archaeological, monitoring	records-search area
RI-08695	Wayne H. Bonner and Arabesque Said	2011	archaeological, field study	records-search area
RI-09009	Bai “Tom” Tang	2014	archaeological, evaluation, field study, literature search	records-search area
RI-09179	Michael Hogan	2014	architectural/historical, field study	records-search area
RI-09728	Josh Smallwood	2015	archaeological, architectural/historical, literature search	records-search area
RI-09850	Joan George, Dennis McDougall, and Vanesa Mirro	2017	archaeological, literature search	records-search area

continued on next page

Report No.	Report Author(s)	Report Year	Report Type	Project Location
RI-10008	Amy Glover, Sherri Gust, Melinda C. Horne, and Janell Mort	2012	other research	Project area
RI-10314	Bai “Tom” Tang and Daniel Ballester	2017	archaeological, architectural/historical, field study	records-search area
RI-10374	Joan George and Venessa Mirro	2013	archaeological, literature search	records-search area
RI-10406	Michael Mirro	2012	archaeological, literature search	records-search area
RI-11193	Melinda C. Horne	2012	architectural/historical, evaluation, field study	Project area
RI-11219	Tierra Environmental Services, Inc.	2003	archaeological field study, literature search	Project area

In 2001, Love and colleagues (2002) with CRM Tech conducted a 280-acre survey in support of a proposed Mid-Valley Center project, which included construction of a hotel, a golf resort, business units, and an office park. No cultural resources were identified.

In 2003, Tierra Environmental Services, Inc. (2003), conducted a 40-acre survey in support of a business park adjacent to the Indian Oasis Resort. No cultural resources were identified.

In 2012, Glover and colleagues (2012) conducted a survey of 76 traffic signals to determine the potential effects that construction related to a traffic-signal-improvement project would have on cultural and historical resources. No cultural resources were identified as a result of the survey.

In 2012, Melinda Home (2012) of Cogstone completed a survey in support of the expansion of Palm Springs’ Intelligent Transportation System. In total, 34 discontinuous areas were surveyed, each measuring approximately 3 by 5 feet. No cultural resources were identified as a result of the survey.

The records search also indicated that in total, one cultural resource had been previously identified within the records-search area: a historical-period building (Table 2). It is a mixed-use commercial and residential building constructed in the Two-Part Commercial Block or Monterey style (Conroy et al. in progress) between 1929 and 1939. The building was moved to its current location in 1937.

Table 2. Previously Recorded Archaeological Site within the Project Area

Primary No.	Type	Age	Description	Location
P-33-029138	built environment	historical period	historical-period mixed-use commercial and residential	records-search area

Previous Archaeological Research in the Coachella Valley

A great deal of archaeological research has been carried out in the Coachella Valley and the Colorado Desert since the early twentieth century. The earliest work was that of Malcolm Rogers (1929, 1939, 1945, 1958, 1966), who investigated the earliest occupations in southern California, the San Dieguito cultural assemblages, as well as later Yuman occupations along the lower Colorado River. Although more-recent research has refined his original conclusions, Rogers's work has formed the basis of much of the culture history of the region. In the Coachella Valley, extensive surveys were carried out by the Archaeological Survey Association of Southern California (ASA) in the 1950s (McCown et al. 2001). Although their results were not well reported, the ASA recorded many sites that have since been destroyed by modern development.

Much of the research over the last 35 years has focused on the ancient shorelines of Lake Cahuilla, which has formed on numerous occasions during the last 15,000 years (and before [Weide 1976]). Some of that research has focused on the lake itself, and a number of studies have helped to refine the timing of the cycles of inundation and desiccation, particularly over the last 2,000 years (Waters 1983; Weide 1976; Wilke 1978). Earlier models suggested a single, stable lake level spanning several centuries, but the lake is now understood to have fluctuated considerably, and at least three or four cycles of inundation and desiccation over the last 2 millennia have been documented (Laylander 1997).

Human adaptation to the cycles of lake infilling and desiccation is of great interest, and a model of changing settlement and subsistence was proposed by Wilke (1978:103–107), based primarily on ethnographic analogy and paleofecal data from several sites. When the lake was present, people would have had a stable economic base capable of supporting a substantial population, permanent lakeshore villages, and seasonal camps to exploit terrestrial resources. After the lake disappeared, Wilke (1978) argued, desert conditions dominated, but the settlement/subsistence pattern remained basically the same, aside from being centered on permanent springs rather than the lake. The economic focus would have shifted from aquatic resources to terrestrial ones, similar to the terrestrial subsistence patterns documented during the ethnohistoric period. That would have resulted in increased utilization of the mountains to the west (see O'Connell et al. 1974; Wilke 1978:113), perhaps with people moving to the lower Colorado River to the southeast, a region densely occupied during the early historical period.

Excavations at the La Quinta site (CA-RIV-1179; Sutton 1993; Sutton and Wilke 1988), along the northwestern shoreline of Lake Cahuilla, revealed a seasonal pattern of resource use that did not support the Wilke model. A further reanalysis of the paleofecal data from the La Quinta sites and other sites (Sutton 1998) suggested that the La Quinta site was not occupied throughout the year. A study of faunal bones, macrobotanical remains, and other sensitive seasonal indicators suggested that sites along the shoreline were either not occupied during the winter months or only sporadically occupied. Sutton (1998) proposed that the lakeshore would have been intensively occupied only during the spring and summer months, and during the winter, groups would have moved to other areas that, to date, have not been identified archaeologically.

Questions about the impact of Lake Cahuilla on settlement and subsistence and the occupation of the Coachella Valley remain important research topics. It appears possible that the last major stand of Lake Cahuilla could have served as a major attractant to populations in and near the Peninsular Ranges of southern California and, as first suggested by Cochran (1965:87; see also Laylander 2007), may have been related to the eastward movement of the Takic, specifically the ethnogenesis of the Desert Cahuilla as they moved eastward from southern California coastal areas and western basins into the northern Coachella Valley.

There has been a relative paucity of archaeological studies focused on desert sites away from the shoreline of Lake Cahuilla. The most-studied areas of the northern part of the Coachella Valley were conducted in Tahquitz Canyon (Bean et al. 1995; Schaefer 2002; Wilke et al. 1975:45–73) and in Andreas and Murray Canyons (Cultural Systems Research 1983), near present-day Palm Springs. Excavations at sites in those areas recorded immense cultural deposits containing a variety of features and artifact types. Feature types included house pits, hearths, storage areas, human cremations, and ritual caches and offerings. Most of the occupations at these sites dated to the Late Prehistoric and ethnohistorical periods.

Analysis of artifacts from these sites suggested that the inhabitants exploited a variety of resource areas, such as springs and oases, alpine and mountain environments, and the desert. Numerous bedrock mortars and other milling features indicated increasing use of seeds and nuts (including acorns), in contrast to earlier periods. Likewise, the presence of faunal remains from animals that live at higher elevations, such as deer (*Odocoileus* spp.) and mountain sheep (*Ovis canadensis*), indicated the importance of montane and other resources.

Recently, in 2018, SRI, in collaboration with the ACBCI, conducted archaeological data recovery and monitoring in support of the Agua Caliente Cultural Center and Spa, located approximately 0.8 km (0.5 mile) west of the Project area, at the site of the Agua Caliente Hot Mineral Spring (CA-RIV-162), which is known as *Séc-he* in the Cahuilla language meaning "the sound of boiling water" in Cahuilla (Scott Kremkau, personal communication 2023; Lacy Padilla, personal communication 2024). This hot mineral spring is an important cultural resource that the Tribe has cherished and celebrated for thousands of years as a crucial water source for bathing and drinking as well as for spiritual, healing, and cultural practices. Prior to the current architectural landscape of Palm Springs, this site was the location of the Palm Springs Spa Hotel and, before that, several small residential structures as well as a bath house constructed in the late nineteenth century at the hot spring. Major excavations at that site in the 1990s found that the majority of the features and other elements of the site dated to the Late Prehistoric period, within the last 1,000 years. The results of the archaeological investigations at *Séc-he* conducted in 2018, however, revealed that the site had been used for thousands of years, and intact deposits dating to 8400–7300 cal B.P. were discovered 4 m (12 feet) below the modern ground surface, making CA-RIV-162 one of the oldest inland sites in southern California and, by far, the oldest site in the Coachella Valley.

Within the Project area, the first documented archaeological work occurred in 1978, when Jennifer Taschek-Ball (1978) with the Department of Anthropology at San Diego State University conducted a 1,975-acre survey on behalf of the Agua Caliente Band of Cahuilla Indians. Three cultural resources were identified, all of which were either lithic scatters or lithic isolates.

Archival Research

SRI examined historical-period aerial images and USGS topographic maps to help identify any possible historical-period structures within the Project area. No historical-period structures or features were identified within the Project area in aerial imagery from 1944 (Historic Aerials 1944). Also, no historical-period structures or features were observed within the main Project area on the 1904 Indio, California, 7.5-minute USGS topographic map.

Native American Heritage Commission Sacred Lands File Search

Part of the records search and literature review involved contacting the Native American Heritage Commission (NAHC) for a list of traditional-use areas or sacred sites within the Project area and a list of specific Native American groups or individuals who could provide additional information on cultural resources within the Project area. The NAHC record search resulted in negative findings and a list of Tribal contacts who may have additional information about sacred sites within the Project area was provided by the NAHC and is included in Appendix A of this report.

Survey Methods

For this Project, the entire Project area was surveyed using 15-m (49.2-foot) transects. A Geode handheld Global Navigation Satellite System (GNSS) unit was used to track transects and mark the presence of surface finds. Photographs were taken during the survey, to record topography and modern disturbances.

Survey Results

Pedestrian survey of the Project area was conducted on September 28, 2023, by an SOI-qualified archaeologist. Creosote bush scrub and fine sand were consistent across the surface of the site and resulted in a high surface visibility of 90–95 percent. No cultural resources were identified by the archaeologist during the pedestrian survey. Modern disturbances, such as a dirt road and a billboard, were recorded by the archaeologist as present in the Project area (Figures 4–6).

Management Recommendations

No cultural resources were identified in the Project area. However, the Project area is still sensitive for buried prehistoric cultural resources. For this reason, SRI recommends that an SOI-qualified archaeologist and an Agua Caliente Cultural Monitor be present for all ground-disturbing activities related to the development.

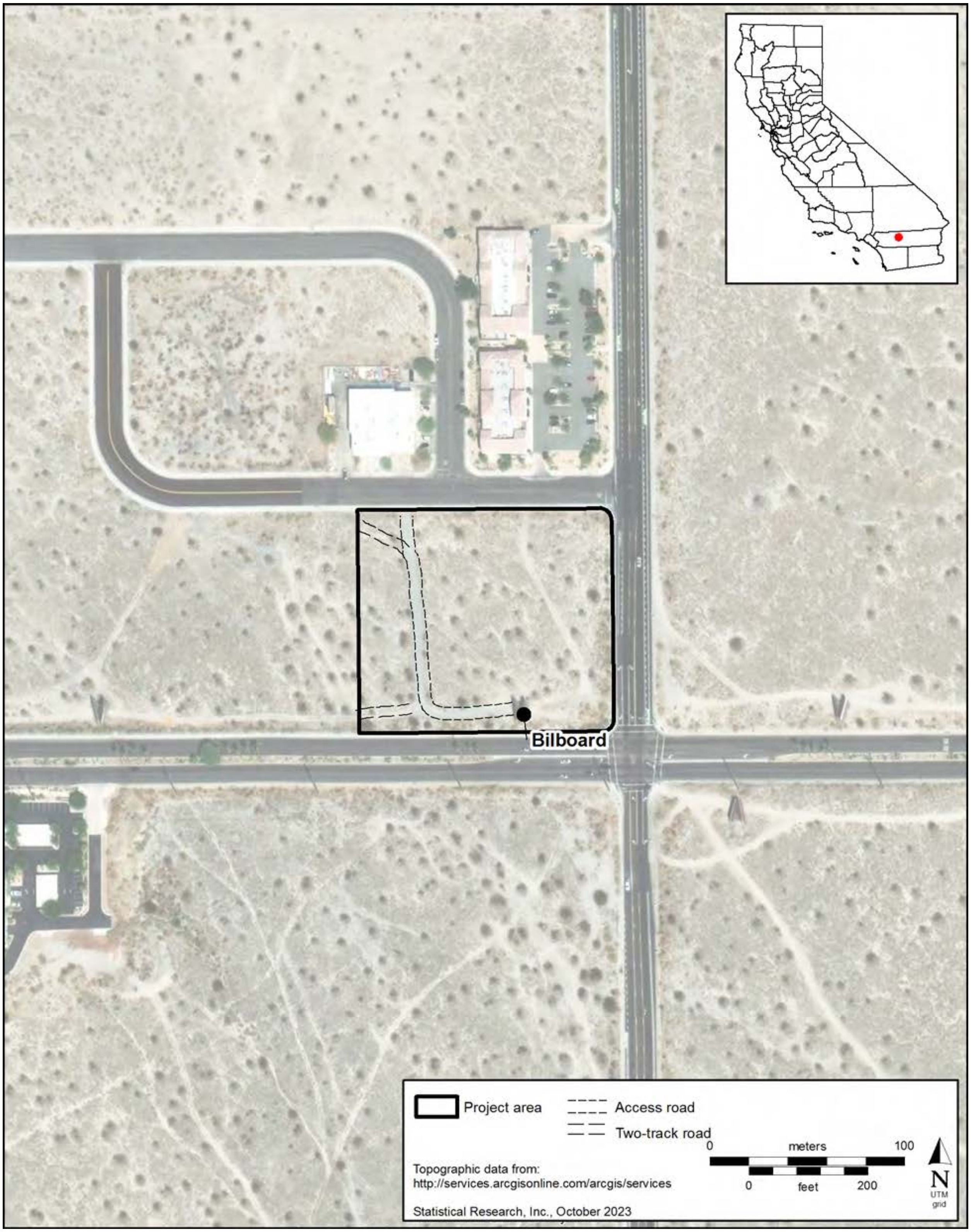

Figure 4. Results map showing modern disturbances.

Figure 5. Project area overview showing modern disturbances, view to the southwest.

Figure 6. Project area overview showing modern disturbances, view to the south.

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APPENDIX A

Native American Heritage Commission Tribal-Consultation Documentation

NATIVE AMERICAN HERITAGE COMMISSION

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

November 14, 2023

Felicia De Pena
Statistical Research, Inc.

Via Email to: fdepena@sricrm.com

Re: Cultural Resources Study for the Proposed Gas Station at Dinah Shore Dr. and Crossley Road in Palm Springs, CA Project, Riverside County

Dear Dr. De Pena:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were negative. However, the absence of specific site information in the SLF does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated; if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify me. With your assistance, we can assure that our lists contain current information.

If you have any questions or need additional information, please contact me at my email address: Andrew.Green@nahc.ca.gov.

Sincerely,

Andrew Green

Andrew Green
Cultural Resources Analyst

Attachment

Native American Heritage Commission
Native American Contact List
Riverside County
11/14/2023

Tribe Name	Fed (F) Non-Fed (N)	Contact Person	Contact Address	Phone #	Fax #	Email Address	Cultural Affiliation	Counties	Last Updated
Agua Caliente Band of Cahuilla Indians	F	Patricia Garcia, Director of Historic Preservation	5401 Dinah Shore Drive Palm Springs, CA, 92264	(760) 699-6907	(760) 699-6919	pagarcia@aguacaliente.net	Cahuilla	Imperial,Riverside,San Bernardino,San Diego	7/20/2023
Augustine Band of Cahuilla Mission Indians	F	Amanda Vance, Chairperson	84-001 Avenue 54 Coachella, CA, 92236	(760) 398-4722	(760) 369-7161	hhaines@augustinetribe.com	Cahuilla	Imperial,Riverside,San Bernardino,San Diego	
Cabazon Band of Mission Indians	F	Doug Welmas, Chairperson	84-245 Indio Springs Parkway Indio, CA, 92203	(760) 342-2593	(760) 347-7880	jstapp@cabazonindians-nsn.gov	Cahuilla	Imperial,Riverside,San Bernardino,San Diego	
Cahuilla Band of Indians	F	Anthony Madrigal, Tribal Historic Preservation Officer	52701 CA Highway 371 Anza, CA, 92539	(951) 763-5549		anthonymad2002@gmail.com	Cahuilla	Imperial,Riverside,San Bernardino,San Diego	6/28/2023
Cahuilla Band of Indians	F	Daniel Salgado, Chairperson	52701 CA Highway 371 Anza, CA, 92539	(951) 972-2568	(951) 763-2808	chairman@cahuilla-nsn.gov	Cahuilla	Imperial,Riverside,San Bernardino,San Diego	6/28/2023
Cahuilla Band of Indians	F	BobbyRay Esaprza, Cultural Director	52701 CA Highway 371 Anza, CA, 92539	(951) 763-5549		besparza@cahuilla-nsn.gov	Cahuilla	Imperial,Riverside,San Bernardino,San Diego	6/28/2023
Los Coyotes Band of Cahuilla and Cupeño Indians	F	Ray Chapparosa, Chairperson	P.O. Box 189 Warner Springs, CA, 92086-0189	(760) 782-0711	(760) 782-0712		Cahuilla	Imperial,Riverside,San Bernardino,San Diego	
Morongo Band of Mission Indians	F	Ann Brierty, THPO	12700 Pumarra Road Banning, CA, 92220	(951) 755-5259	(951) 572-6004	abrierty@morongo-nsn.gov	Cahuilla Serrano	Imperial,Los Angeles,Riverside,San Bernardino,San Diego	
Morongo Band of Mission Indians	F	Robert Martin, Chairperson	12700 Pumarra Road Banning, CA, 92220	(951) 755-5110	(951) 755-5177	abrierty@morongo-nsn.gov	Cahuilla Serrano	Imperial,Los Angeles,Riverside,San Bernardino,San Diego	
Quechan Tribe of the Fort Yuma Reservation	F	Jordan Joaquin, President, Quechan Tribal Council	P.O.Box 1899 Yuma, AZ, 85366	(760) 919-3600		executivesecretary@quechantribe.com	Quechan	Imperial,Kern,Los Angeles,Riverside,San Bernardino,San Diego	5/16/2023
Quechan Tribe of the Fort Yuma Reservation	F	Manfred Scott, Acting Chairman - Kw'ts'an Cultural Committee	P.O. Box 1899 Yuma, AZ, 85366	(928) 210-8739		culturalcommittee@quechantribe.com	Quechan	Imperial,Kern,Los Angeles,Riverside,San Bernardino,San Diego	5/16/2023
Quechan Tribe of the Fort Yuma Reservation	F	Jill McCormick, Historic Preservation Officer	P.O. Box 1899 Yuma, AZ, 85366	(928) 261-0254		historicpreservation@quechantribe.com	Quechan	Imperial,Kern,Los Angeles,Riverside,San Bernardino,San Diego	5/16/2023

Native American Heritage Commission
Native American Contact List
Riverside County
11/14/2023

Tribe Name	Fed (F) Non-Fed (N)	Contact Person	Contact Address	Phone #	Fax #	Email Address	Cultural Affiliation	Counties	Last Updated
Ramona Band of Cahuilla	F	John Gomez, Environmental Coordinator	P. O. Box 391670 Anza, CA, 92539	(951) 763-4105	(951) 763-4325	jgomez@ramona-nsn.gov	Cahuilla	Imperial,Riverside,San Bernardino,San Diego	8/16/2016
Ramona Band of Cahuilla	F	Joseph Hamilton, Chairperson	P.O. Box 391670 Anza, CA, 92539	(951) 763-4105	(951) 763-4325	admin@ramona-nsn.gov	Cahuilla	Imperial,Riverside,San Bernardino,San Diego	
Santa Rosa Band of Cahuilla Indians	F	Lovina Redner, Tribal Chair	P.O. Box 391820 Anza, CA, 92539	(951) 659-2700	(951) 659-2228	lsaul@santarosa-nsn.gov	Cahuilla	Imperial,Los Angeles,Orange,Riverside,San Bernardino,San Diego	
Soboba Band of Luiseno Indians	F	Jessica Valdez, Cultural Resource Specialist	P.O. Box 487 San Jacinto, CA, 92581	(951) 663-6261	(951) 654-4198	jvaldez@soboba-nsn.gov	Cahuilla Luiseno	Imperial,Los Angeles,Orange,Riverside,San Bernardino,San Diego	7/14/2023
Soboba Band of Luiseno Indians	F	Joseph Ontiveros, Tribal Historic Preservation Officer	P.O. Box 487 San Jacinto, CA, 92581	(951) 663-5279	(951) 654-4198	jontiveros@soboba-nsn.gov	Cahuilla Luiseno	Imperial,Los Angeles,Orange,Riverside,San Bernardino,San Diego	7/14/2023
Torres-Martinez Desert Cahuilla Indians	F	Mary Belardo, Cultural Committee Vice Chair	P.O. Box 1160 Thermal, CA, 92274	(760) 397-0300		belardom@gmail.com	Cahuilla	Imperial,Riverside,San Bernardino,San Diego	10/30/2023
Torres-Martinez Desert Cahuilla Indians	F	Thomas Tortez, Chairperson	P.O. Box 1160 Thermal, CA, 92274	(760) 397-0300	(760) 397-8146	thomas.tortez@tmdci.org	Cahuilla	Imperial,Riverside,San Bernardino,San Diego	10/30/2023
Torres-Martinez Desert Cahuilla Indians	F	Alesia Reed, Cultural Committee Chairwoman	P.O. Box 1160 Thermal, CA, 92274	(760) 397-0300		lisareed990@gmail.com	Cahuilla	Imperial,Riverside,San Bernardino,San Diego	10/30/2023
Torres-Martinez Desert Cahuilla Indians	F	Abraham Becerra, Cultural Coordinator	P.O. Box 1160 Thermal, CA, 92274	(760) 397-0300		abecerra@tmdci.org	Cahuilla	Imperial,Riverside,San Bernardino,San Diego	10/30/2023
Torres-Martinez Desert Cahuilla Indians	F	Gary Resvaloso, TM MLD	P.O. Box 1160 Thermal, CA, 92274	(760) 777-0365		grestmtm@gmail.com	Cahuilla	Imperial,Riverside,San Bernardino,San Diego	10/30/2023

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed Cultural Resources Study for the Proposed Gas Station at Dinah Shore Dr. and Crossley Road in Palm Springs, CA Project, Riverside County.

Record: PROJ-2023-005356
Report Type: List of Tribes
Counties: Riverside
NAHC Group: All

Appendix D

Traffic Impact Study

URBAN | CROSSROADS

AGUA CALIENTE FUEL – PALM SPRINGS

TRAFFIC ANALYSIS

PREPARED BY: Janette Cachola | jcachola@urbanxroads.com
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John Kain, AICP | jkain@urbanxroads.com

Reference Number	Agency	Date
15579-04 TA Report.docx	City of Palm Springs	September 6, 2024

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LIST OF ABBREVIATED TERMS

(1)	Reference
ADT	Average Daily Traffic
CAMUTCD	California Manual on Uniform Traffic Control Devices
Caltrans	California Department of Transportation
EAC	Existing Plus Ambient Plus Cumulative
EAPC	Existing Plus Ambient Plus Project Plus Cumulative
HCM	Highway Capacity Manual
ITE	Institute of Transportation Engineers
LOS	Level of Service
PHF	Peak Hour Factor
Project	Agua Caliente Fuel – Palm Springs
sf	Square Feet
TA	Traffic Analysis

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1 INTRODUCTION

This report presents the results of the traffic analysis (TA) for Agua Caliente Fuel – Palm Springs ("Project"), located on Agua Caliente Indian Reservation property at the northwest corner of Lawrence Crossley Road and Dinah Shore Drive in the City of Palm Springs, as shown on Exhibit 1-1.

The purpose of this TA is to evaluate the potential circulation system deficiencies that may result from the development of the proposed Project, and recommend improvements to achieve acceptable circulation system operational conditions. This TA has been prepared based in accordance with the City of Palm Springs TIA Guidelines (July 2020). (1) Urban Crossroads, Inc. prepared a traffic study scoping package for review by City staff prior to the preparation of this report. The Scope (included in Appendix 1.1) provides an outline of the Project study area, trip generation, trip distribution, and analysis methodology.

1.1 PROJECT OVERVIEW

The Project is proposed to consist of 24 gasoline/diesel fuel pumps with up to 9,500 square feet of convenience store of which 4,000 square feet would be Class II gaming space. It is anticipated that the Project would open by year 2025. A draft site plan of the proposed Project is shown in Exhibit 1-1. Access to the Project will be provided along Lawrence Crossley Road (right-in/right-out access), Dinah Shore Drive (right-in/right-out access), and Indian Springs Road (full access).

In order to develop the traffic characteristics of the proposed Project, trip-generation rates provided in the *Institute of Transportation Engineers (ITE) Trip Generation* (11th Edition, 2021) are utilized.

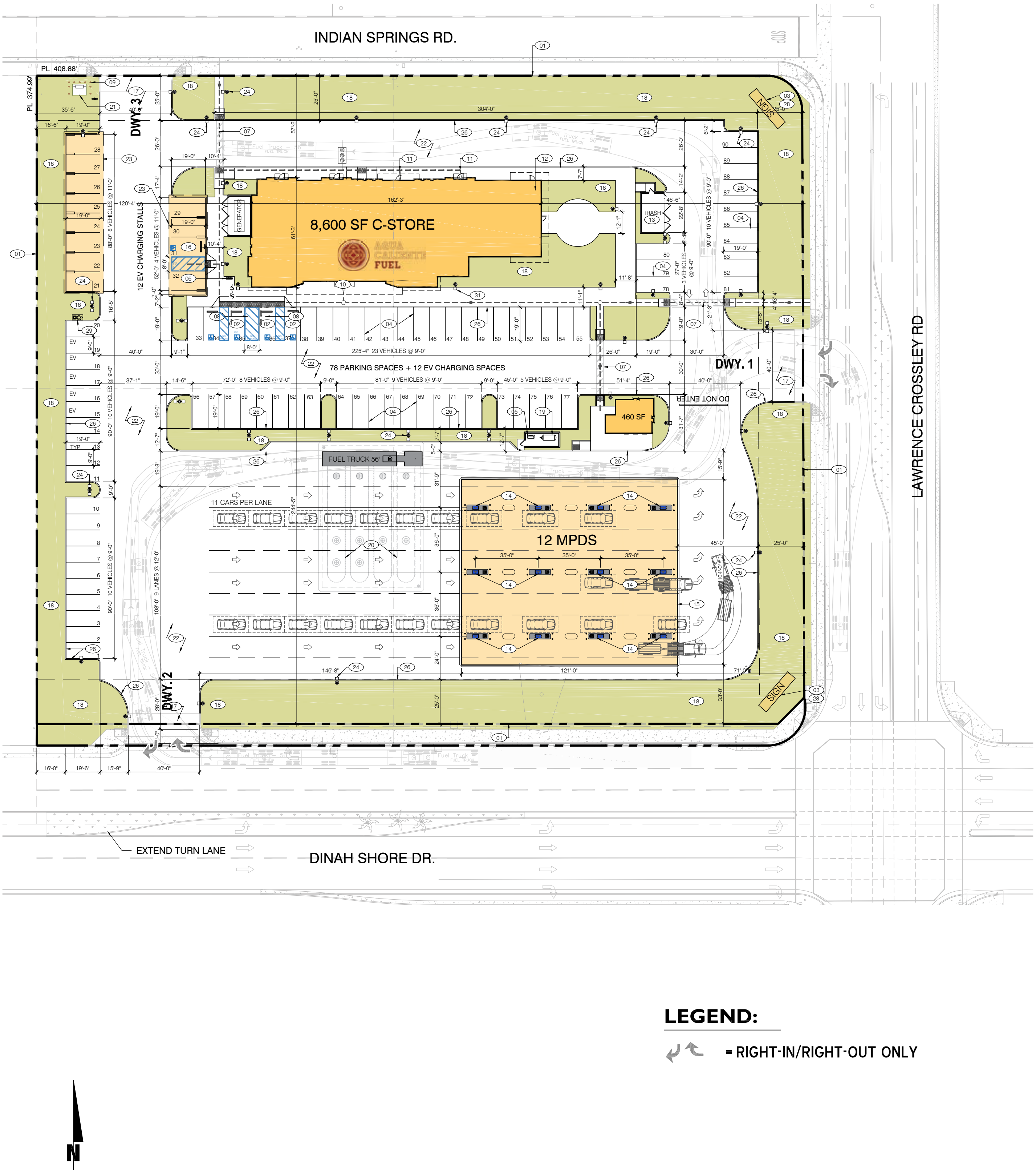
The Project is anticipated to generate a total of 5,011 net added vehicle trip-ends per day with 263 added AM peak vehicle hour trips and 271 added PM peak hour vehicle trips. The assumptions and methods used to estimate the Project's trip generation characteristics are discussed in greater detail in Section 4.1 *Project Trip Generation* of this report.

1.2 ANALYSIS SCENARIOS

For the purposes of this traffic study, potential deficiencies to traffic and circulation have been assessed for each of the following conditions:

- Existing (2023) Conditions
- Existing Plus Project Conditions
- Background Conditions: Existing plus Ambient plus Cumulative (EAC) (2025) Conditions
- Background Plus Project Conditions: Existing plus Ambient plus Project plus Cumulative (EAPC) (2025) Conditions

EXHIBIT 1-1: SITE PLAN



For the existing study area intersections, traffic count data has been collected in October, 2023 during the AM peak period of 7:00 AM to 9:00 AM and PM peak period of 4:00 PM to 6:00 PM.

The Existing plus Project (E+P) conditions analysis determines traffic deficiencies that would occur on the existing roadway system with the addition of Project traffic.

The Existing plus Ambient plus Cumulative (EAC) conditions analysis determines the potential near-term cumulative circulation system deficiencies without the Project. To account for background traffic growth, an ambient growth factor from Existing conditions of 4.04% (2% per year, compounded annually over 2 years) is included for EAC (2025) traffic conditions. The ambient growth is consistent with the growth used by other projects in the area within the City of Palm Springs. The cumulative project list was compiled from information provided by the City of Palm Springs.

The Existing plus Ambient plus Project plus Cumulative (EAPC) (2025) traffic conditions analysis determines the potential cumulative circulation system deficiencies, including the Project.

1.3 STUDY AREA

The Project study area was defined in coordination with the City of Palm Springs. Consistent with City of Palm Springs TIA Guidelines, the study area includes any intersection of "Collector" or higher classification street, with "Collector" or higher classification streets, at which the proposed project will add 50 or more peak hour trips. Exhibit 1-2 presents the study area and intersection analysis locations. The intersections listed in Table 1-1 were selected for this TA with City of Palm Springs technical staff concurrence.

TABLE 1-1: INTERSECTION ANALYSIS LOCATIONS

#	Intersection	#	Intersection
1	Lawrence Crossley Rd. / Dinah Shore Dr.	6	Lawrence Crossley Rd. / Ramon Rd.
2	San Luis Dr. / Dinah Shore Dr.	7	Lawrence Crossley Rd. / Dwy. 1
3	Gene Autry Tr. (Hwy. 111) / Dinah Shore Dr.	8	Dwy. 2 / Dinah Shore Dr.
4	Lawrence Crossley Rd. / Indian Springs Rd.	9	Dwy. 3 / Indian Springs Rd.
5	Lawrence Crossley Rd. / Sunny Dunes Rd.		

1.4 ANALYSIS FINDINGS

This section provides a summary of the analysis results for Existing (2023), Existing Plus Project, EAC (2025), and EAPC (2025) conditions. Table 1-2 presents a summary of study area LOS conditions for each analysis scenario.

EXHIBIT 1-2: TRAFFIC ANALYSIS STUDY AREA

1.4.1 EXISTING (2023) CONDITIONS

For Existing (2023) traffic conditions, the study intersection of Lawrence Crossley Road / Dinah Shore Drive (#1) is currently operating at an unacceptable LOS (LOS "E" or worse) during AM and PM peak hours. A separate westbound right turn lane at this intersection would provide acceptable LOS.

No unsignalized study area intersections currently meet the volume warrants for installation of a traffic signal based upon existing traffic counts.

1.4.2 EXISTING PLUS PROJECT CONDITIONS

For Existing Plus Project (E+P) traffic conditions, the Lawrence Crossley Road / Dinah Shore Drive (#1) intersection operates at an unacceptable LOS, as indicated for Existing conditions. The separate westbound right turn lane at this intersection, needed to serve existing conditions, would provide acceptable LOS for E+P conditions.

1.4.3 BACKGROUND (2025) CONDITIONS

For EAC (2025) and EAPC (2025) traffic conditions, the Lawrence Crossley Road / Dinah Shore Drive (#1) and Lawrence Crossley Road / Ramon Road (#6) intersections are found to operate at an unacceptable LOS (i.e., LOS "E" or worse) during peak hours, with or without the addition of Project traffic. For EAC and EAPC conditions, no other study area intersections meet the volume warrants for installation of a traffic signal.

Improvements discussed in Section 8.1 for the off-site intersections of Lawrence Crossley Road / Dinah Shore Drive (#1) and Lawrence Crossley Road / Ramon Road (#6) address intersection operational deficiencies for opening year (2025) conditions, needed without or with the Project.

Detailed Project fair share calculations, for each peak hour, are provided in Table 8-1 for these two intersections.

Roadway improvements necessary to provide site access are enumerated in Section 8.2.

TABLE 1-2: LEVEL OF SERVICE (LOS) SUMMARY

#	Intersection	Existing (2023)		E+P		EAC (2025)		EAPC (2025)	
		AM	PM	AM	PM	AM	PM	AM	PM
1	Lawrence Crossley Rd. / Dinah Shore Dr.								
	- Without Improvements	🟡	🟡	🟡	🟡	🟡	🟡	🟡	🟡
	- With Improvements	N/A	N/A	🟢	🟢	🟢	🟢	🟢	🟢
2	San Luis Dr. / Dinah Shore Dr.	🟢	🟢	🟢	🟢	🟢	🟢	🟢	🟢
3	Gene Autry Tr. (Hwy. 111) / Dinah Shore Dr.	🟢	🟢	🟢	🟢	🟢	🟢	🟢	🟢
4	Lawrence Crossley Rd. / Indian Springs Rd.	🟢	🟢	🟢	🟢	🟢	🟢	🟢	🟢
5	Lawrence Crossley Rd. / Sunny Dunes Rd.	🟢	🟢	🟢	🟢	🟢	🟢	🟢	🟢
6	Lawrence Crossley Rd. / Ramon Rd.								
	- Without Improvements	🟢	🟢	🟢	🟢	🟢	🟡	🟢	🟡
	- With Improvements	N/A	N/A	N/A	N/A	🟢	🟢	🟢	🟢
7	Lawrence Crossley Rd. / Dwy. 1	N/A	N/A	🟢	🟢	N/A	N/A	🟢	🟢
8	Dwy. 2 / Dinah Shore Dr.	N/A	N/A	🟢	🟢	N/A	N/A	🟢	🟢
9	Cook St. / Gerald Ford Dr.	N/A	N/A	🟢	🟢	N/A	N/A	🟢	🟢

Legend:

🟢 = A - D 🟡 = E 🔴 = F

F:\UXRjobs_15100-15500_15500\15579\Excel\[15579 - Report.xlsx]1-2_LOS Summary

2 METHODOLOGIES

This section of the report presents the methodologies used to perform the traffic analyses summarized in this report. The methodologies described are consistent with the City of Palm Springs TIA Guidelines. (1)

2.1 LEVEL OF SERVICE

Traffic operations of roadway facilities are described using the term "Level of Service" (LOS). LOS is a qualitative description of traffic flow based on several factors, such as speed, travel time, delay, and freedom to maneuver. Six levels are typically defined ranging from LOS A, representing completely free-flow conditions, to LOS F, representing breakdown in flow resulting in stop-and-go conditions. LOS E represents operations at or near Capacity, an unstable level where vehicles are operating with the minimum spacing for maintaining uniform flow.

2.2 INTERSECTION CAPACITY ANALYSIS

The definitions of LOS for interrupted traffic flow (flow restrained by the existence of traffic signals and other traffic control devices) differ slightly depending on the type of traffic control. The LOS is typically dependent on the quality of traffic flow at the intersections along a roadway. The 6th Edition Highway Capacity Manual (HCM) methodology expresses the LOS at an intersection in terms of delay time for the various intersection approaches. (2)The HCM uses different procedures depending on the type of intersection control.

2.2.1 SIGNALIZED INTERSECTIONS

The City of Palm Springs requires signalized intersection operations analysis based on the methodology described in the HCM. (2) Intersection LOS operations are based on an intersection's average control delay. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. For signalized intersections LOS is related to the average control delay per vehicle and is correlated to a LOS designation as described on Table 2-1.

The traffic modeling and signal timing optimization software package Synchro (Version 11) has been utilized to analyze signalized intersections. Synchro is a macroscopic traffic software program that is based on the signalized intersection capacity analysis as specified in the HCM. Macroscopic level models represent traffic in terms of aggregate measures for each movement at the study intersections. Equations are used to determine measures of effectiveness such as delay and queue length. The level of service and Capacity analysis performed by Synchro takes into consideration optimization and coordination of signalized intersections within a network.

A saturation flow rate of 1900 has been utilized for all study area intersections located within the study area. The peak hour traffic volumes are adjusted using a peak hour factor (PHF) to reflect peak 15-minute volumes. Common practice for LOS analysis is to use a peak 15-minute rate of flow. However, flow rates are typically expressed in vehicles per hour. The PHF is the relationship between the peak

15-minute flow rate and the full hourly volume (e.g. PHF = [Hourly Volume] / [4 x Peak 15-minute Flow Rate]). The use of a 15-minute PHF produces a more detailed analysis as compared to analyzing vehicles per hour. Existing PHFs have been used for all analysis scenarios. Per the HCM, PHF values over 0.95 often are indicative of high traffic volumes with capacity constraints on peak hour flows while lower PHF values are indicative of greater variability of flow during the peak hour. (2)

TABLE 2-1: SIGNALIZED INTERSECTION LOS THRESHOLDS

Description	Average Control Delay (Seconds), V/C ≤ 1.0	Level of Service, V/C ≤ 1.0[1]
Operations with very low delay occurring with favorable progression and/or short cycle length.	0 to 10.00	A
Operations with low delay occurring with good progression and/or short cycle lengths.	10.01 to 20.00	B
Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	20.01 to 35.00	C
Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, or high V/C ratios. Many vehicles stop and individual cycle failures are noticeable.	35.01 to 55.00	D
Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences. This is considered to be the limit of acceptable delay.	55.01 to 80.00	E
Operation with delays unacceptable to most drivers occurring due to over saturation, poor progression, or very long cycle lengths.	80.01 and up	F

Source: HCM, 6th Edition

[1] If V/C is greater than 1.0 then LOS is F per HCM.

2.2.2 UNSIGNALIZED INTERSECTIONS

The City of Palm Springs requires the operations of unsignalized intersections be evaluated using the methodology described in the HCM. (2) The LOS rating is based on the weighted average control delay expressed in seconds per vehicle (see Table 2-2). At two-way or side-street stop-controlled intersections, LOS is calculated for each controlled movement and for the left turn movement from the major street, as well as for the intersection as a whole. For approaches composed of a single lane, the delay is computed as the average of all movements in that lane. Delay for the intersection is reported for the worst individual movement at a two-way stop-controlled intersection.

TABLE 2-2: UNSIGNALIZED INTERSECTION LOS THRESHOLDS

Description	Average Control Delay (Seconds), V/C ≤ 1.0	Level of Service, V/C ≤ 1.0[1]
Little or no delays.	0 to 10.00	A
Short traffic delays.	10.01 to 15.00	B
Average traffic delays.	15.01 to 25.00	C
Long traffic delays.	25.01 to 35.00	D
Very long traffic delays.	35.01 to 50.00	E
Extreme traffic delays with intersection capacity exceeded.	> 50.00	F

Source: HCM, 6th Edition

[1] If V/C is greater than 1.0 then LOS is F per HCM.

2.3 TRAFFIC SIGNAL WARRANT ANALYSIS METHODOLOGY

The term "signal warrants" refers to the list of established criteria used by Caltrans and other public agencies to quantitatively justify or determine the potential need for installation of a traffic signal at an otherwise unsignalized intersection. This TA uses the signal warrant criteria presented in the latest edition of the Caltrans California Manual on Uniform Traffic Control Devices (CA MUTCD). (3)

The signal warrant criteria for Existing study area intersections are based upon several factors, including volume of vehicular and pedestrian traffic, frequency of accidents, and location of school areas. The CA MUTCD indicates that the installation of a traffic signal should be considered if one or more of the signal warrants are met. (3) Specifically, this TA utilizes the Peak Hour Volume-based Warrant 3 as the appropriate representative traffic signal warrant analysis for existing traffic conditions and for all future analysis scenarios for existing unsignalized intersections. Warrant 3 is appropriate to use for this TA because it provides specialized warrant criteria for intersections with rural characteristics. For the purposes of this study, the speed limit was the basis for determining whether Urban or Rural warrants were used for a given intersection. Urban warrants have been used as posted speed limits on the major roadways with unsignalized intersections are 40 miles per hour or below and rural warrants have been used on roadways with speeds greater than 40 miles per hour.

Future intersections that do not currently exist have been assessed regarding the potential need for new traffic signals based on future average daily traffic (ADT) volumes, using the Caltrans planning level ADT-based signal warrant analysis worksheets. Similarly, the speed limit has been used as the basis for determining the use of Urban and Rural warrants.

Traffic signal warrant analyses were performed for the following unsignalized study area intersection shown in Table 2-3:

TABLE 2-3: TRAFFIC SIGNAL WARRANT ANALYSIS LOCATIONS

#	Intersection	#	Intersection
4	Lawrence Crossley Rd. / Indian Springs Rd.	9	Dwy. 3 / Indian Springs Rd.
5	Lawrence Crossley Rd. / Sunny Dunes Rd.		

The Existing conditions traffic signal warrant analysis is presented in the subsequent section, Section 3 *Area Conditions* of this report. The traffic signal warrant analyses for future conditions are presented in Section 6 EAC *(2025) Traffic Conditions* and Section 7 *EAPC (2025) Traffic Conditions* of this report.

It is important to note that a signal warrant defines the minimum condition under which the installation of a traffic signal might be warranted. Meeting this threshold condition does not require that a traffic control signal be installed at a particular location, but rather, that other traffic factors and conditions be evaluated in order to determine whether the signal is truly justified. It should also be noted that signal warrants do not necessarily correlate with LOS. An intersection may satisfy a signal warrant condition and operate at or above acceptable LOS or operate below acceptable LOS and not meet a signal warrant.

2.4 MINIMUM ACCEPTABLE LEVELS OF SERVICE (LOS)

The City of Palm Springs' General Plan recommends a minimum LOS standard of LOS D or better. If during the LOS evaluations an intersection or roadway segment is found to not meet the requisite LOS standard as established by the' General Plan, improvement modifications will be evaluated to bring the forecasted deficiency to within acceptable LOS thresholds.

The following deficiency criteria has been utilized for the City of Palm Springs to determine whether the addition of project-related traffic at a study intersection would result in a deficiency:

- For signalized intersections:
  - Intersection operating at an acceptable LOS D or better without project traffic in which the addition of project traffic causes the intersection to degrade to a LOS E or F shall identify improvements to improve operations to LOS D or better.
  - Intersection that is operating at LOS E or F without project traffic where the project increases delay by 5.0 or more seconds shall identify improvements to offset the increase in delay.
- For unsignalized intersections:
  - Addition of project related traffic causes the intersection to degrade from an acceptable LOS D or better to LOS E or F. (case a)
  - The project adds 5.0 seconds or more of delay to an intersection that is already projected to operate without project traffic at a LOS E or F. (case b)
  - The intersection meets the peak hour traffic signal warrant after the addition of project traffic. (case c)
  - If the conditions above are satisfied, improvements should be identified that achieve LOS D or better for case a) above or to pre-project LOS and delay for case b) above.

3 AREA CONDITIONS

This section provides a summary of the existing circulation network, the City of Palm Springs General Plan Circulation Network, and a review of existing peak hour intersection operations and traffic signal warrant analyses.

3.1 EXISTING CIRCULATION NETWORK

Pursuant to the Project scope (Appendix 1.1), the study area includes 6 existing and 3 future intersections as shown previously on Exhibit 1-2, where the Project is anticipated to contribute 50 or more peak hour trips or has been added at the direction of City staff. Exhibit 3-1 illustrates the number of through traffic lanes for existing roadways and traffic controls for study area intersections.

3.2 CITY OF PALM SPRINGS GENERAL PLAN CIRCULATION ELEMENT

As noted previously, the Project site is located on Agua Caliente Indian Reservation property at the northwest corner of Lawrence Crossley Road and Dinah Shore Drive in the City of Palm Springs. Exhibit 3-2 shows the City of Palm Springs General Plan Circulation Element, with planned roadway classifications. Exhibit 3-3 illustrates the City of Palm Springs General Plan roadway cross-sections.

Ramon Road is classified as a Major Thoroughfare which can accommodate six travel lanes in the study area.

Sunny Dunes Road is classified as a Collector within the study area. A Collector typically has two travel lanes.

Dinah Shore Drive is classified as a Secondary Thoroughfare (4-lane divided) within the study area, which typically have two travel lanes in each direction with a center raised median.

Lawrence Crossley Road is classified as a Secondary Thoroughfare within the study area, with one lane in each direction, a center striped median, and on-street bike lanes.

3.3 TRANSIT SERVICE

The City of Palm Springs is currently served by the SunLine Transit Agency; currently, Route 2 is located along Ramon Road to the north. Transit service is reviewed and updated by Sunline periodically to address ridership, budget and community demand needs. Changes in land use can affect these periodic adjustments which may lead to either enhanced or reduced service where appropriate.

3.4 PEDESTRIAN AND BICYCLE FACILITIES

Exhibits 3-4 and 3-5 illustrates the City of Palm Springs recreational trails map and bikeway system, respectively.

EXHIBIT 3-1: EXISTING NUMBER OF THROUGH LANES AND INTERSECTION CONTROLS

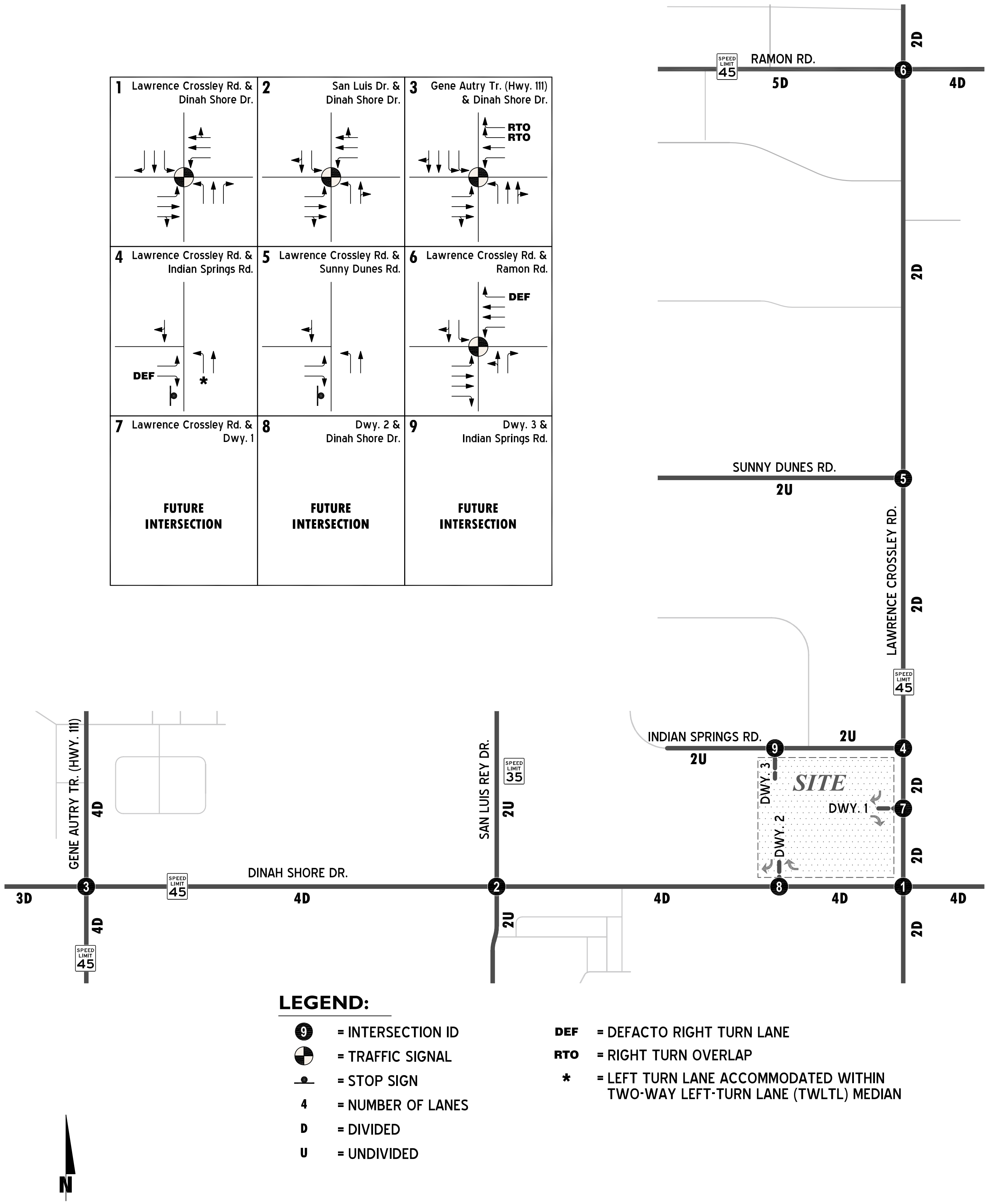
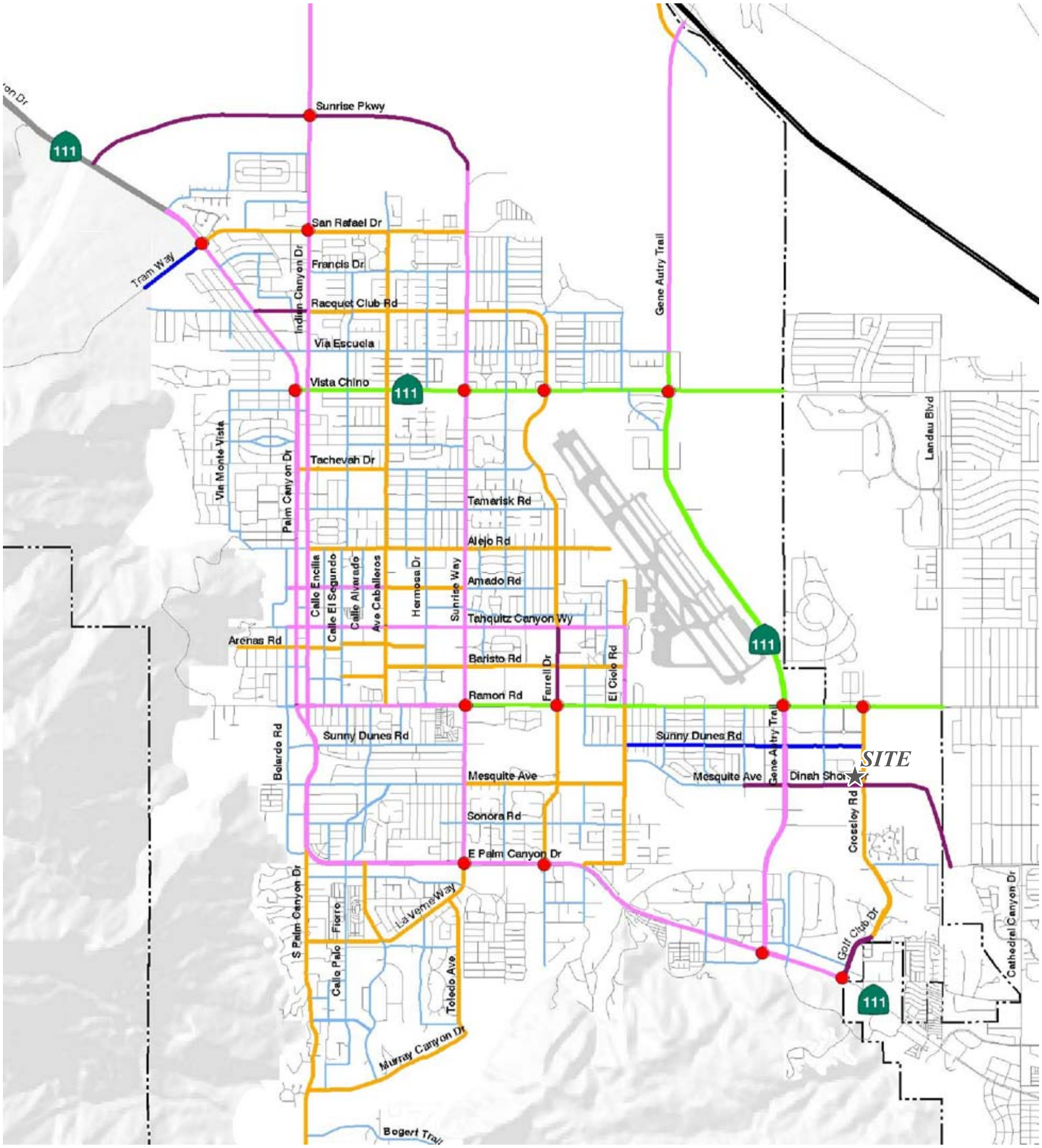


EXHIBIT 3-2: CITY OF PALM SPRINGS CIRCULATION PLAN



SOURCE: CITY OF PALM SPRINGS GENERAL PLAN (2007)

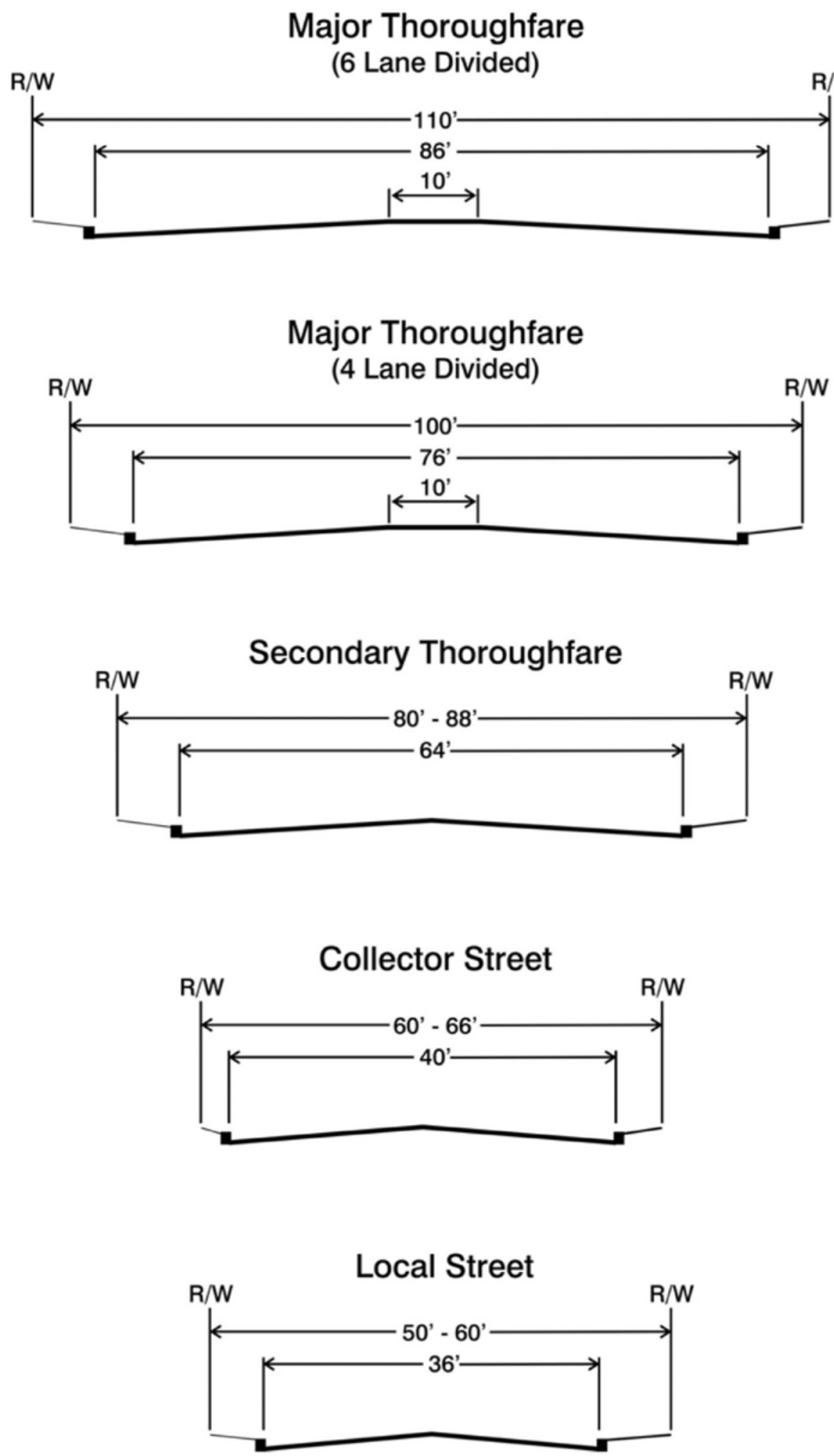
LEGEND:

- Freeway
- Expressway
- Major Thoroughfare (6 - lane divided)
- Major Thoroughfare (4 - lane divided)
- Secondary Thoroughfare (4 - lane divided)
- Secondary Thoroughfare
- Collector (2 - lane divided)
- Collector (2 - lane undivided)
- Local
- City Boundary
- Sphere of Influence
- Critical Intersection*

*Intersection improvements required to maintain acceptable LOS.

N

EXHIBIT 3-3: CITY OF PALM SPRINGS TYPICAL STREET CROSS-SECTIONS



SOURCE: CITY OF PALM SPRINGS GENERAL PLAN (2007)

The existing pedestrian facilities within the study area are shown on Exhibit 3-6. As shown on Exhibit 3-6, existing on-street bike lanes are located along Lawrence Crossley Road. Sidewalks exist on some portions along Ramon Road, Dinah Shore Drive (including adjacent to the Project), west side of Lawrence Crossley Road from north of Ramon Road to Dinah Shore Drive, east side of Lawrence Crossley Road from north of Ramon Road to the southerly Walmart Access, and east side San Luis Del Rey Drive. Sidewalks also exist on both sides along Sunny Dunes Road, Indian Springs Road, and Gene Autry Trail within the study area.

Shared lane markings for "sharrows" are provided on Sunny Dunes Road to indicate a shared lane environment for bicycles and automobiles.

3.5 EXISTING (2023) TRAFFIC COUNTS

The intersection LOS analysis is based on the traffic volumes observed during the peak hour conditions using traffic count data collected in October 2023. The City of Palm Springs experiences seasonal population variations over the course of the year, with relatively higher populations during the winter months from January to the end of March. To compensate for the discrepancy, counts not taken during this peak winter period (January 2 to March 31) require seasonal adjustments. A 10% increase is applied to counts taken in October to estimate peak season. This factor is consistent with other nearby jurisdictions within the Coachella Valley area.

The following peak hours were selected for analysis:

- Weekday AM Peak Hour (peak hour between 7:00 AM and 9:00 AM)
- Weekday PM Peak Hour (peak hour between 4:00 PM and 6:00 PM)

The raw manual peak hour turning movement traffic count data sheets are included in Appendix 3.1.

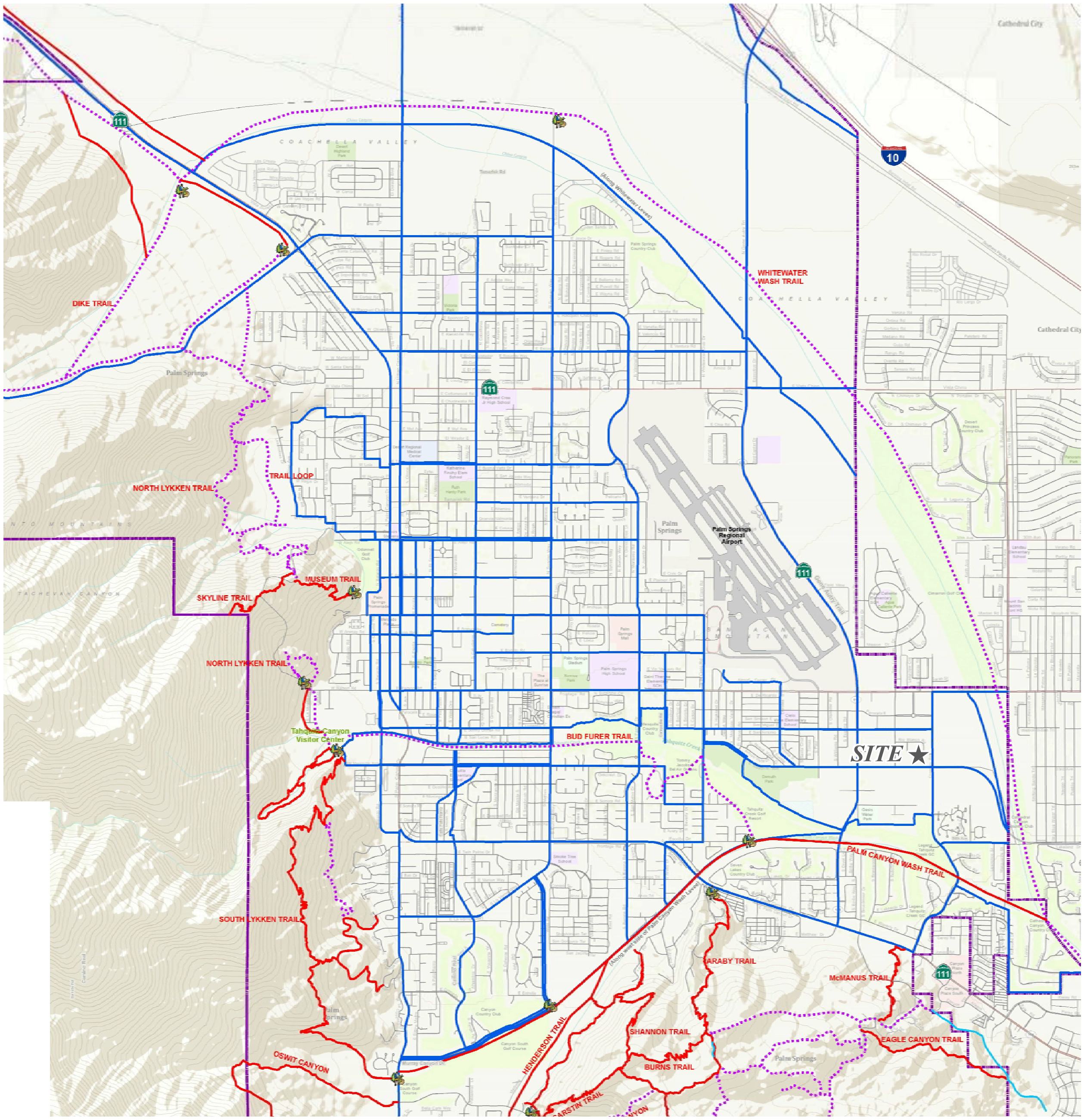
The weekday AM and PM peak hour count data are representative of typical peak hour traffic conditions in the study area. There were no observations made in the field that would indicate atypical traffic conditions on the count dates, such as construction activity that would prevent or limit roadway access and detour routes. These raw turning volumes have been flow conserved between intersections with limited access, no access and where there are currently no uses generating traffic. Existing weekday peak hour intersection volumes are shown on Exhibit 3-7.

Existing weekday ADT volumes are also shown on Exhibit 3-7. Where actual 24-hour tube count data was not available, Existing ADT volumes were based upon factored intersection peak hour counts collected by Urban Crossroads, Inc. using the following formula for each intersection leg:

Weekday PM Peak Hour (Approach Volume + Exit Volume) x 12.987 = Leg Volume

A comparison of the PM peak hour and daily traffic volumes of various roadway segments within the study area indicated that the peak-to-daily relationship is approximately 7.70 percent. As such, the above equation utilizing a factor of 12.987 estimates the ADT volumes on the study area roadway segments assuming a peak-to-daily relationship of approximately 7.70 percent (i.e., 1/0.0770 = 12.987) and was assumed to sufficiently estimate average daily traffic (ADT) volumes for planning-level analyses.

EXHIBIT 3-4: CITY OF PALM SPRINGS RECREATIONAL TRAILS MAP



SOURCE: CITY OF PALM SPRINGS GENERAL PLAN

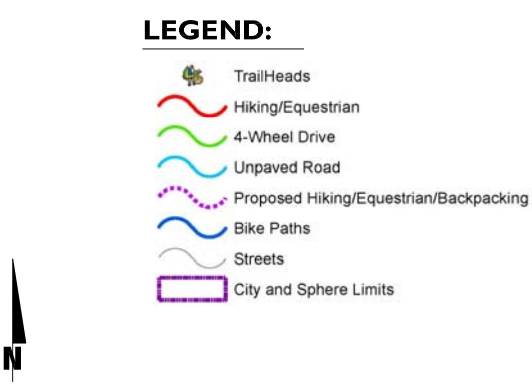
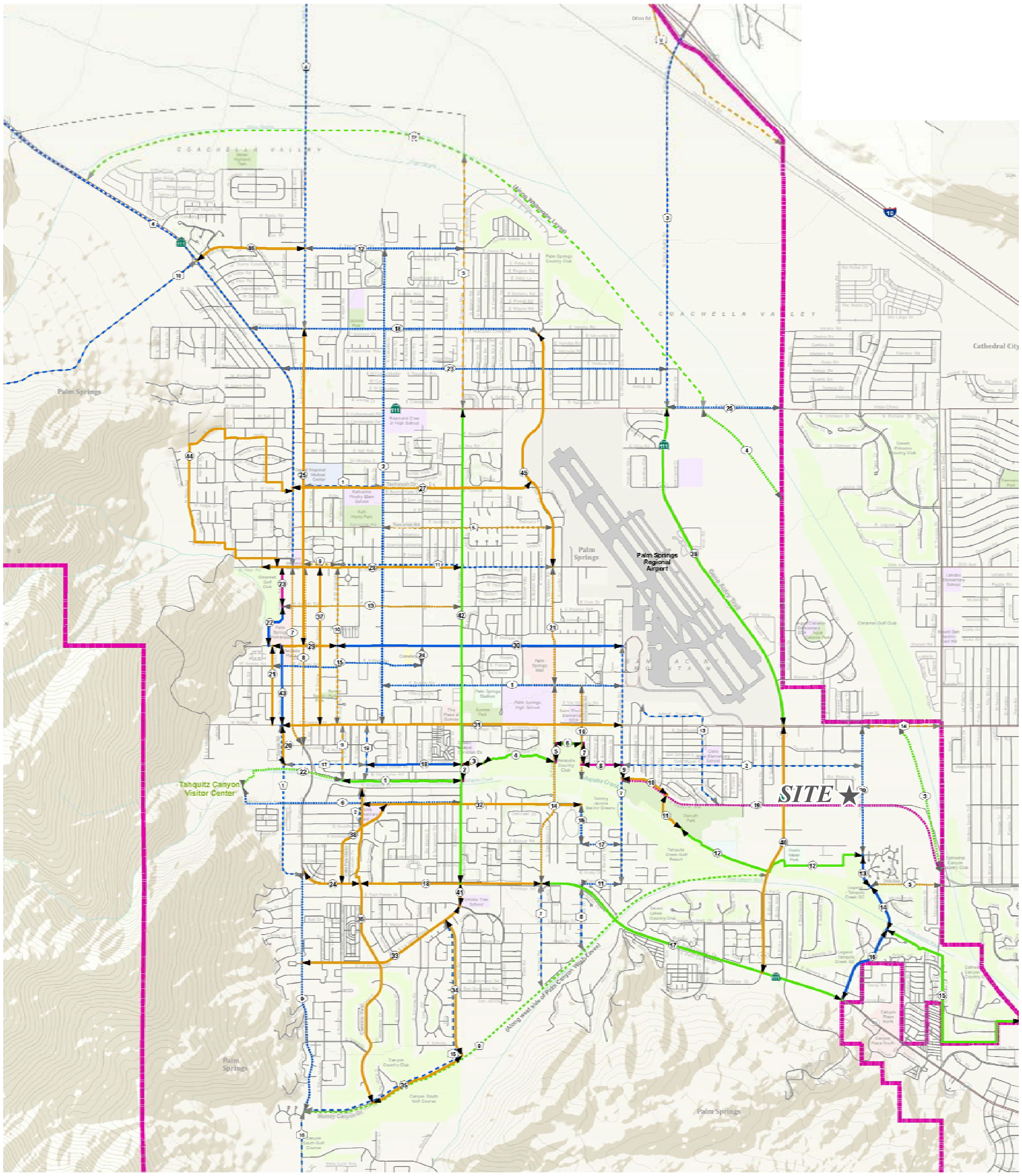


EXHIBIT 3-5: CITY OF PALM SPRINGS BIKEWAYS MAP



SOURCE: CITY OF PALM SPRINGS GENERAL PLAN

LEGEND:

Existing Bikeways	Top Priority Projects	2nd Priority Projects	3rd Priority Projects
Class I, Bike Path	Class I, Bike Path	Class I, Bike Path	Class I, Bike Path
Class II, Bike Lane	Class II, Bike Lane	Class II, Bike Lane	Class II, Bike Lane
Class III, Bike Route	Class III, Bike Route	Class III, Bike Route	Class III, Bike Route
Mixed Use Bike Route	Mixed Use II		Streets
			City and Sphere Limits

N

EXHIBIT 3-6: EXISTING PEDESTRIAN AND BIKE FACILITIES

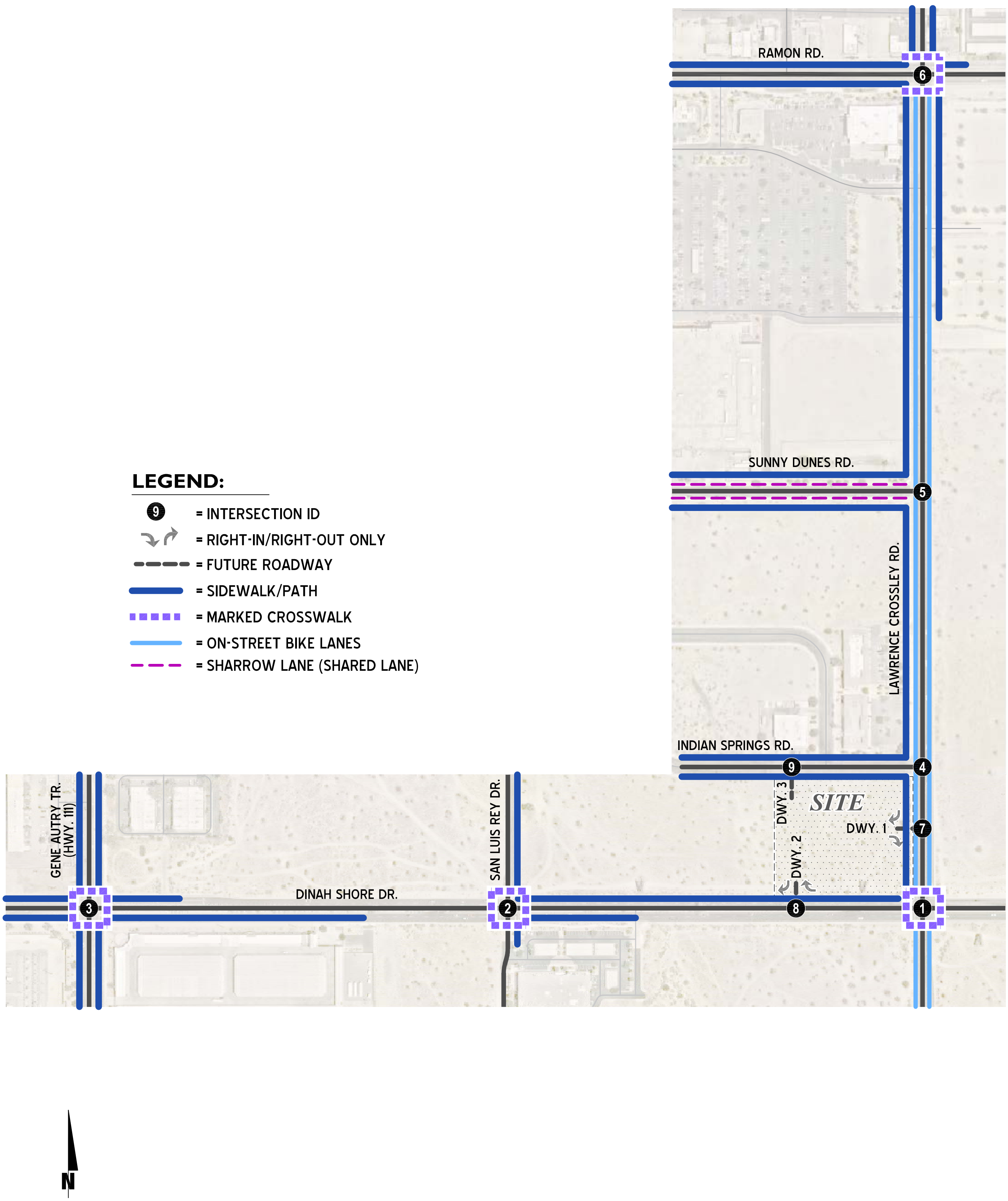
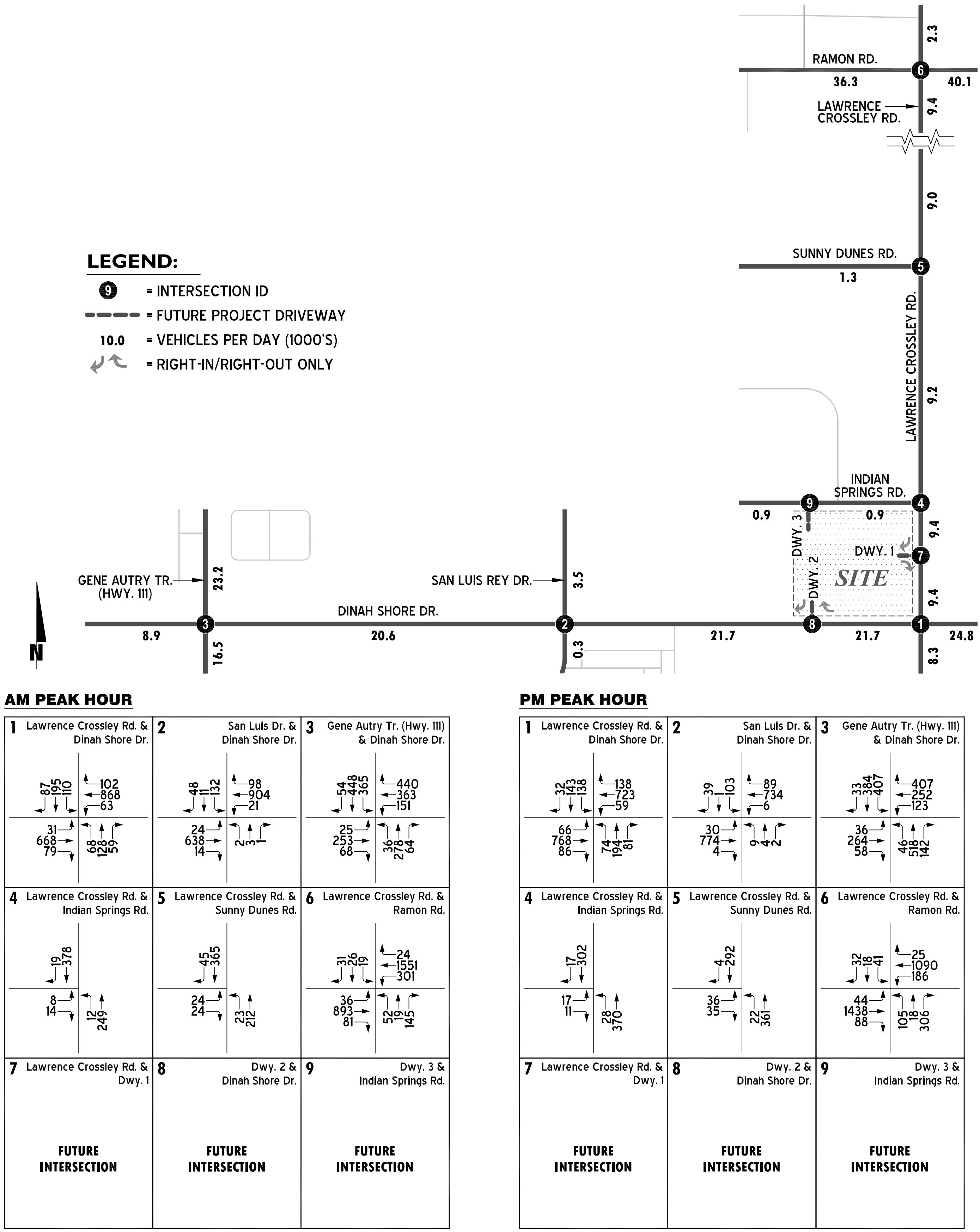


EXHIBIT 3-7: EXISTING (2023) TRAFFIC VOLUMES



3.6 INTERSECTION OPERATIONS ANALYSIS

Existing peak hour traffic operations have been evaluated for the study area intersections based on the analysis methodologies presented in Section 2.2 *Intersection Capacity Analysis* of this report. The intersection operations analysis results are summarized on Table 3-1, which indicates that Lawrence Crossley Road / Dinah Shore Drive (#1) operates at unacceptable LOS (LOS "E" or worse). The intersection operations analysis worksheets are included in Appendix 3.2 of this TA.

3.7 TRAFFIC SIGNAL WARRANTS ANALYSIS

Traffic signal warrants for Existing traffic conditions are based on 2023 peak hour intersection turning volumes (see Appendix 3.3). For Existing (2023) traffic conditions, unsignalized study area intersections are not anticipated to meet volume warrants for installation of a traffic signal.

TABLE 3-1: INTERSECTION ANALYSIS FOR EXISTING (2023) CONDITIONS

#	Intersection	Traffic Control[1]	Intersection Approach Lanes[2] Northbound L	T	R	Southbound L	T	R	Eastbound L	T	R	Westbound L	T	R	Delay[3] (secs.) AM	PM	Level of Service AM	PM
1	Lawrence Crossley Rd. / Dinah Shore Dr.	TS	1	1	1	1	1	1	1	2	0	1	2	0	**58.7**	**58.2**	**E**	**E**
2	San Luis Dr. / Dinah Shore Dr.	TS	1	1	0	1	1	0	1	2	0	1	2	0	19.3	17.1	B	B
3	Gene Autry Tr. (Hwy. 111) / Dinah Shore Dr.	TS	1	2	0	2	2	0	1	2	0	1	1	2>	37.1	37.6	D	D
4	Lawrence Crossley Rd. / Indian Springs Rd.	CSS	1*	1	0	0	1	0	1	0	d	0	0	0	13.2	13.5	B	B
5	Lawrence Crossley Rd. / Sunny Dunes Rd.	CSS	1	1	0	0	1	0	1	0	1	0	0	0	13.9	13.1	B	B
6	Lawrence Crossley Rd. / Ramon Rd.	TS	0.5	0.5	1	1	1	0	1	2	1	1	2	d	18.8	34.8	B	C
7	Lawrence Crossley Rd. / Dwy. 1		Future Intersection															
8	Dwy. 2 / Dinah Shore Dr.		Future Intersection															
9	Dwy. 3 / Indian Springs Rd.		Future Intersection															

1 TS = Traffic Signal; CSS = Cross-Street Stop

2 When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right; d = Defacto Right Turn Lane; 0.5 = Shared Lane; 1! = Shared Left/Through/Right lane;

> = Right-Turn Overlap Phasing; * = Turn lane accommodated within two-way left-turn lane (TWLTL) striped median

3 Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

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4 PROJECTED FUTURE TRAFFIC

This section presents the traffic volumes estimated to be generated by the Project, as well as the Project's trip assignment onto the study area roadway network. The Project is proposed to consist of 24 gasoline/diesel fuel pumps with up to 9,500 square feet of convenience store, of which 4,000 square feet would be Class II gaming space.

It is anticipated that the Project would open by year 2025. Access to the Project will be provided along Lawrence Crossley Road (right-in/right-out access), Dinah Shore Drive (right-in/right-out access), and Indian Springs Road (full access).

4.1 PROJECT TRIP GENERATION

Trip generation represents the amount of traffic which is both attracted to and produced by a development. Determining traffic generation for a specific project is therefore based upon forecasting the amount of traffic that is expected to be both attracted to and produced by the specific land uses being proposed for a given development.

In order to develop the traffic characteristics of the proposed project, the trip generation rates provided in the *Institute of Transportation Engineers (ITE) Trip Generation* (11th Edition, 2021) have been utilized (4).

Table 4-1 shows the vehicle trip generation rates for the Project, as well as the vehicle trip generation summary with daily and peak hour trip generation estimates. As shown on Table 4-1, the Project is anticipated to generate a total of 5,011 net added vehicle trip-ends per day with 263 added AM peak vehicle hour trips and 271 added PM peak hour vehicle trips.

4.2 PROJECT TRIP DISTRIBUTION

The Project trip distribution and assignment process represents the directional orientation of traffic to and from the Project site. The trip distribution pattern is heavily influenced by the geographical location of the site, the location of surrounding uses, and proximity to the surrounding highway network. Trip distribution patterns proposed for the Project for inbound and outbound conditions are illustrated on Exhibits 4-1 and 4-2, respectively.

4.3 MODAL SPLIT

The potential for Project trips to be reduced by the use of public transit, walking or bicycling have not been included as part of the Project's estimated trip generation. Essentially, the Project's traffic projections are "conservative" in that these alternative travel modes would reduce the forecasted traffic volumes.

TABLE 4-1: PROJECT TRIP GENERATION SUMMARY

Trip Generation Rates[1]

Land Use	ITE LU Code	Quantity[2]		AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	Daily
Casino/Video Lottery Entertainment	473	4.0	TSF	11.37	8.94	20.31	14.15	13.06	27.21	388.18
Convenience Store/Gas Station - GFA (5.5-10k)	945	24	VFP	15.80	15.80	31.60	13.45	13.45	26.90	345.75

Trip Generation Results

Land Use	ITE LU Code	Quantity[2]		AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	Daily
Casino/Video Lottery Entertainment	473	4.0	TSF	45	36	81	57	52	109	1,553
Convenience Store/Gas Station - GFA (5.5-10k)	945	24	VFP	379	379	758	323	323	646	8,298
Project Subtotal				424	415	839	380	375	755	9,851
ITE 945 Pass-By (76% AM; 75% PM)[3]				*(288)*	*(288)*	*(576)*	*(242)*	*(242)*	*(484)*	*(4,840)*
PROJECT TOTAL ADDED TRIPS				**136**	**127**	**263**	**138**	**133**	**271**	**5,011**

[1] Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, 11th Edition (2021).

[2] VFP = Vehicle Fueling Position; TSF = Thousand Square Feet

[3] Source: 2021 Pass-By Tables for ITE Trip Generation Appendices

4.4 PROJECT TRIP ASSIGNMENT

The assignment of traffic from the Project area to the adjoining roadway system is based upon the Project trip generation, trip distribution, and the arterial highway and local street system improvements that would be in place by the time of initial occupancy of the Project. Based on the identified Project traffic generation and trip distribution patterns, Project weekday ADT and weekday peak hour intersection turning movement volumes are shown on Exhibit 4-3.

4.5 BACKGROUND TRAFFIC

Future year traffic forecasts have been based upon background (ambient) growth at 2% per year for 2025 traffic conditions. The total ambient growth is 4.04% for 2025 traffic conditions. This ambient growth rate is added to existing traffic volumes to account for area-wide growth not reflected by cumulative development projects. Ambient growth has been added to daily and peak hour traffic volumes on surrounding roadways, in conjunction with traffic generated by the development of future projects that have been approved but not yet built and/or for which development applications have been filed and are under consideration by governing agencies.

EXHIBIT 4-1: PROJECT TRIP DISTRIBUTION (OUTBOUND)

EXHIBIT 4-2: PROJECT TRIP DISTRIBUTION (INBOUND)

EXHIBIT 4-3: PROJECT ONLY TRAFFIC VOLUMES

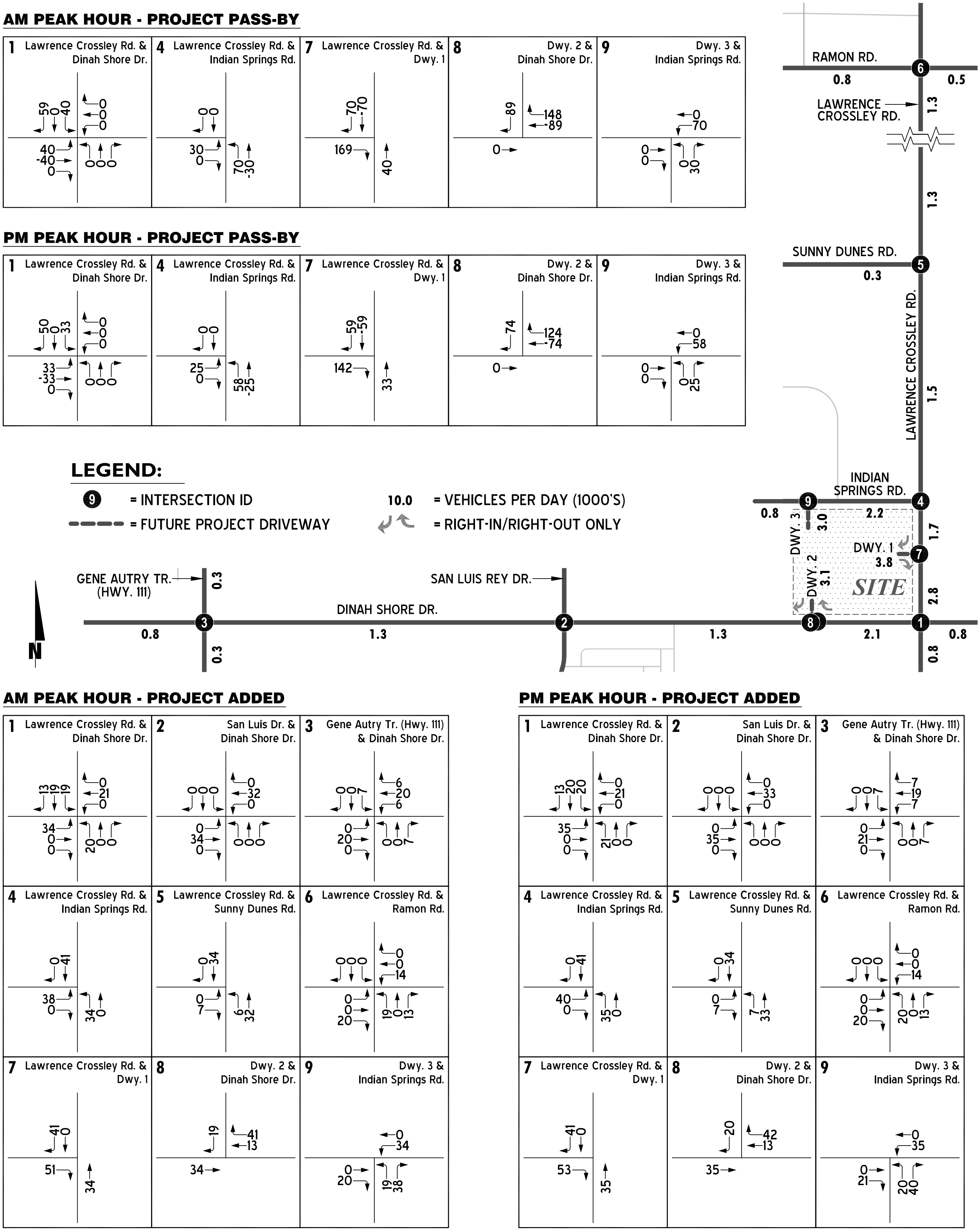

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Exhibit 4-4 illustrates the cumulative development location map. The cumulative projects listed are those that would generate traffic and would contribute traffic to study area intersections. A summary of cumulative development projects and their proposed land uses are shown on Table 4-2. If applicable, the traffic generated by individual cumulative projects was manually added to the Opening Year Cumulative forecasts to ensure that traffic generated by the listed cumulative development projects on Table 4-2 are reflected as part of the background traffic. Cumulative ADT and peak hour intersection turning movement volumes are shown on Exhibit 4-5.

The near-term traffic analysis includes the following traffic conditions, with the various traffic components:

- EAC (2025)
    - Existing (2023) volumes
    - Ambient growth traffic (4.04% over 2 years)
    - Cumulative development traffic
- EAPC (2025)
    - Existing (2023) volumes
    - Ambient growth traffic (4.04% over 2 years)
    - Project traffic
    - Cumulative development traffic

The traffic generated by the proposed Project was then manually added to the base volume to determine EAC/EAPC forecasts.

EXHIBIT 4-4: CUMULATIVE DEVELOPMENT LOCATION MAP

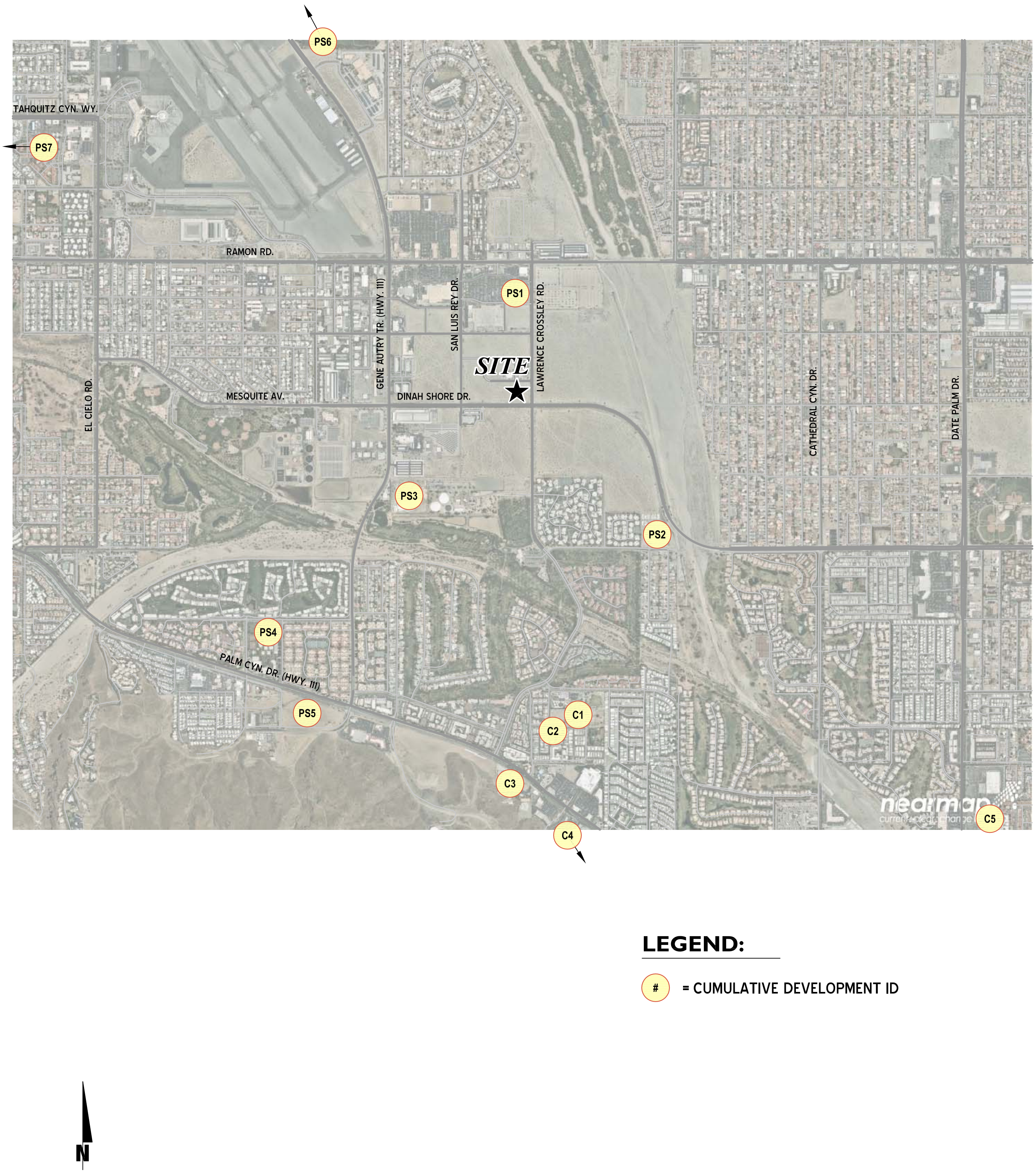


TABLE 4-2: CUMULATIVE DEVELOPMENT LAND USE SUMMARY

ID	Project Name	Land Use[1]	Quantity	Units[2]
		City of Palm Springs		
PS1	Walmart Station	Convenience Store/Gas Station	16	VFP
PS2	Lumen (previously Vibrante)	Condominium	41	DU
PS3	Palm Springs Surf Club (rehabilitation/expansion of existing water park)	Water Park	7.746	TSF
PS4	Parker Hotel Expansion	Hotel	32	RM
PS5	Canyon View	Single Family Detached Residential	80	DU
PS6	West Coast Self Storage	RV/boat Storage	61.658	TSF
PS7	College of the Desert (Phase 1)	Junior/Community College	2,949	STU
		City of Cathedral City		
C1	Horizon Hotel (Conversion of existing senior facility to 68-unit hotel)	Hotel	68	RM
C2	District East	Single Family Detached Residential	43	DU
C3	Cree Gas Station	Convenience Store w/ Gas Station	8	VFP
C4	Nirvana Estates	Single Family Detached Residential	103	DU
C5	Cathedral City Events Center	Event Center	80.0	TSF

[1] DU = Dwelling Unit; RM = Room; TSF = Thousand Square Feet; VFP = Vehicle Fueling Positions

5 EXISTING PLUS PROJECT CONDITIONS TRAFFIC CONDITIONS

This section discusses the traffic forecasts for Existing plus Project (E+P) conditions and the resulting intersection operations and traffic signal warrant analyses.

5.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for E+P conditions are consistent with those shown previously on Exhibit 3-1, with the exception of Project driveways and those facilities assumed to be constructed by the Project to provide site access (e.g., intersection and roadway improvements at the Project's frontage and driveways).

5.2 E+P TRAFFIC VOLUME FORECASTS

This scenario includes Existing traffic volumes plus the addition of Project traffic. The weekday ADT and weekday peak hour intersection turning movement volumes which can be expected for E+P traffic conditions are shown on Exhibit 5-1.

5.3 INTERSECTION OPERATIONS ANALYSIS

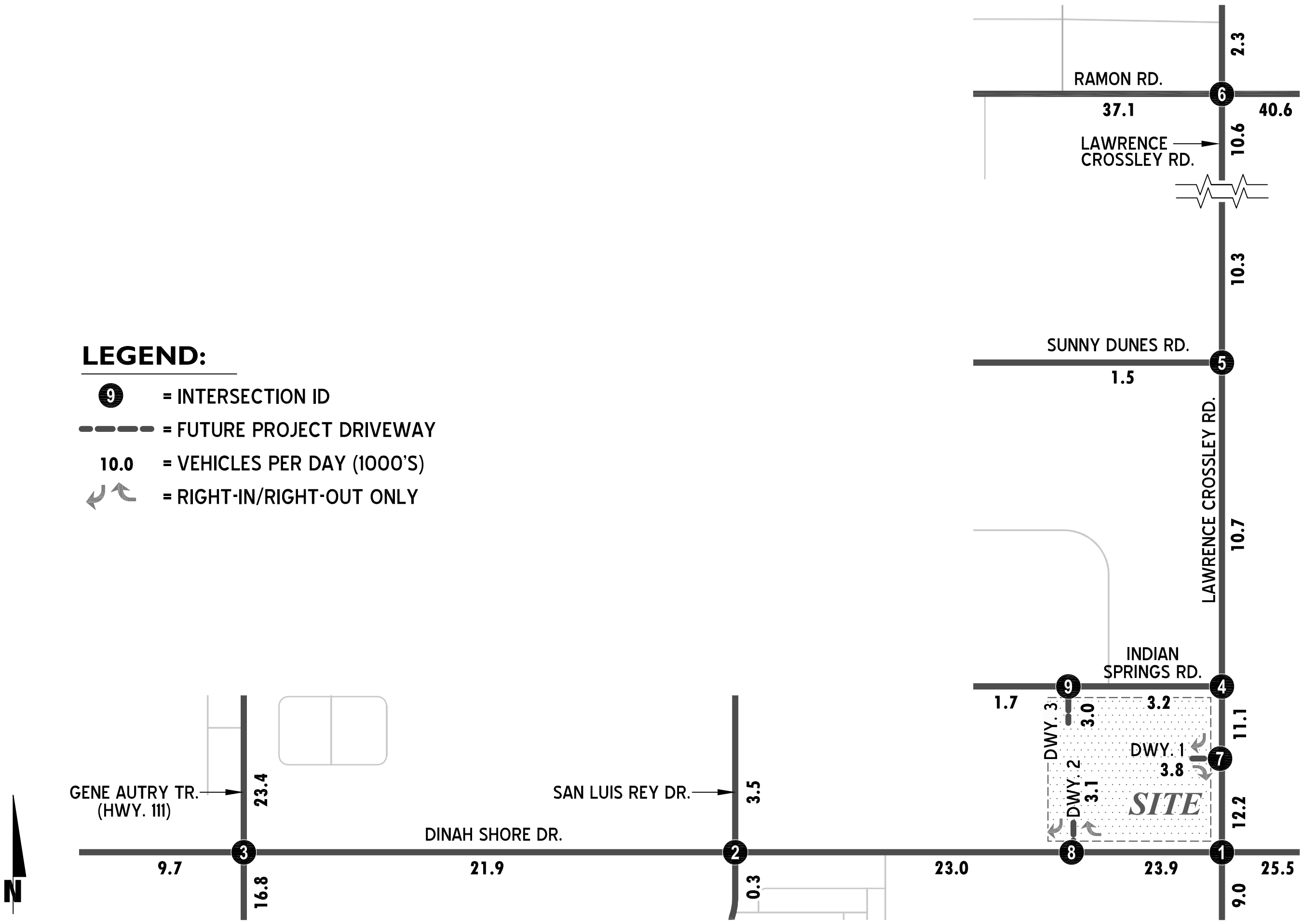
E+P peak hour traffic operations have been evaluated for the study area intersections based on the analysis methodologies presented in Section 2 Methodologies of this TA. The intersection analysis results are summarized in Table 5-1, which indicates that the existing LOS deficiency at Lawrence Crossley Road / Dinah Shore Drive (#1) continues to operate at an unacceptable LOS under E+P conditions. The Project increases the intersection delay at this location by a maximum of 2.3 seconds, which is below the City criteria for determination of full Project responsibility. The intersection operations analysis worksheets for E+P traffic conditions is included in Appendix 5.1 of this TA.

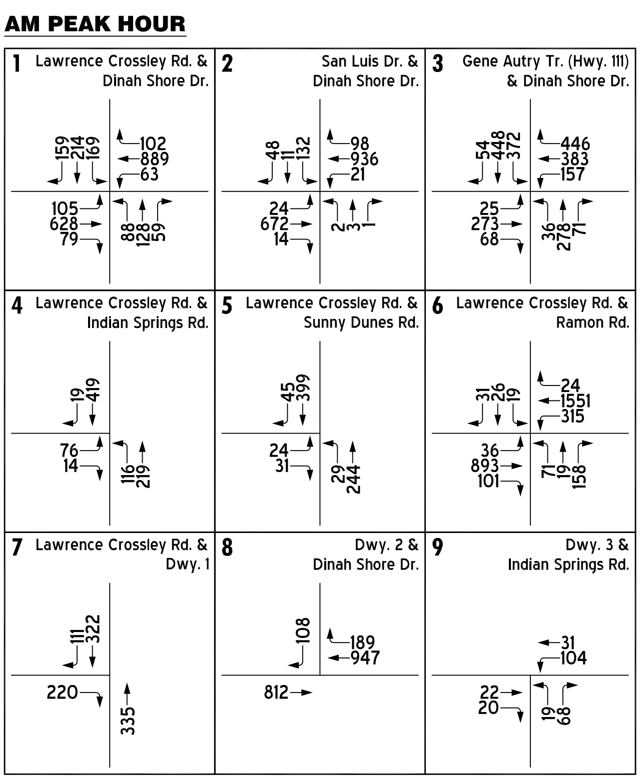
Providing a separate westbound right turn lane at the off-site deficient intersection of Lawrence Crossley Road / Dinah Shore Drive (#1) addresses the intersection operational deficiency for existing , as well as E+P conditions. The effectiveness of the recommended improvements at this location is presented in Table 5-1 for E+P traffic conditions. The intersection operations analysis worksheets for E+P traffic conditions, with improvements, are included in Appendix 5.1 of this TA.

5.4 TRAFFIC SIGNAL WARRANTS ANALYSIS

The traffic signal warrant analysis for E+P traffic conditions provided in Appendix 3.3. As noted previously, unsignalized study area intersections are not anticipated to meet volume-based warrants for a traffic signal. The remaining unsignalized intersections are not anticipated to meet peak hour volume-based warrants and daily volume-based warrants with the addition of Project traffic (see Appendix 3.3).

EXHIBIT 5-1: EXISTING PLUS PROJECT TRAFFIC VOLUMES





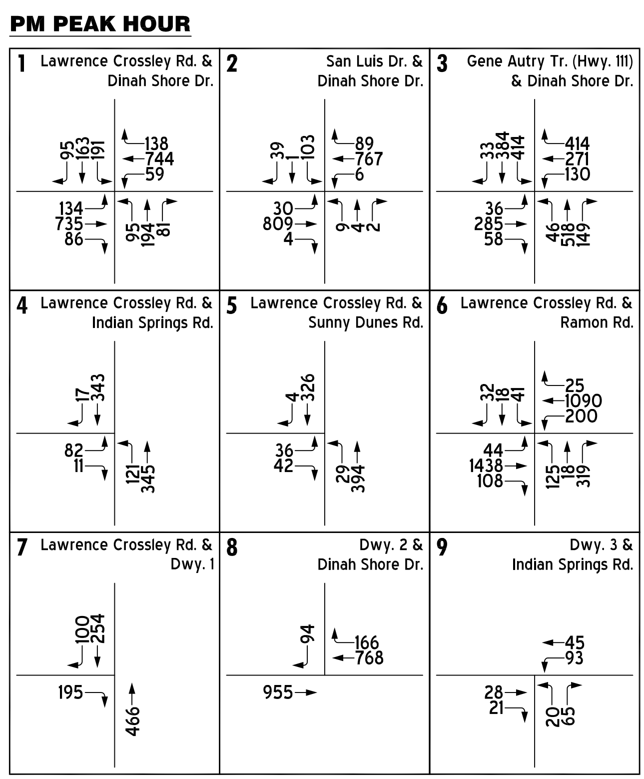


TABLE 5-1: INTERSECTION ANALYSIS FOR EXISTING PLUS PROJECT CONDITIONS

#	Intersection	Traffic Control[1]	Intersection Approach Lanes[2]												Delay[3] (secs.)		Level of Service[3]	
			Northbound			Southbound			Eastbound			Westbound						
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
1	Lawrence Crossley Rd. / Dinah Shore Dr.	TS	1	1	1	1	1	1	1	2	0	1	2	0	**58.7**	**60.1**	**E**	**E**
	- With Improvements	TS	1	1	1	1	1	1	1	2	0	1	2	**1**	33.8	34.0	C	C
2	San Luis Dr. / Dinah Shore Dr.	TS	1	1	0	1	1	0	1	2	0	1	2	0	20.8	17.5	C	B
3	Gene Autry Tr. (Hwy. 111) / Dinah Shore Dr.	TS	1	2	0	2	2	0	1	2	0	1	1	2>	39.1	40.9	D	D
4	Lawrence Crossley Rd. / Indian Springs Rd.	CSS	1*	1	0	0	1	0	1	0	d	0	0	0	19.9	19.1	C	C
5	Lawrence Crossley Rd. / Sunny Dunes Rd.	CSS	1	1	0	0	1	0	1	0	1	0	0	0	14.8	13.7	B	B
6	Lawrence Crossley Rd. / Ramon Rd.	TS	0.5	0.5	1	1	1	0	1	2	1	1	2	d	20.5	37.9	C	D
7	Lawrence Crossley Rd. / Dwy. 1	**CSS**	0	1	0	0	1	0	0	0	**1**	0	0	0	14.3	12.5	B	B
8	Dwy. 2 / Dinah Shore Dr.	**CSS**	0	0	0	0	0	**1**	0	2	0	0	2	**1**	14.6	12.7	B	B
9	Dwy. 3 / Indian Springs Rd.	**CSS**	0	**1!**	0	0	0	0	0	1	d	0.5	0.5	0	9.5	9.5	A	A

1 TS = Traffic Signal; CSS = Cross-Street Stop

2 When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.
L = Left; T = Through; R = Right; d = Defacto Right Turn Lane; 0.5 = Shared Lane; 1! = Shared Left/Through/Right lane;
\> = Right-Turn Overlap Phasing; * = Turn lane accommodated within two-way left-turn lane (TWLTL) striped median; **1** = Improvement

3 Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.
BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

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6 EAC (2025) TRAFFIC CONDITIONS

This section discusses the traffic forecasts for Existing plus Ambient plus Cumulative (EAC) conditions and the resulting intersection operations and traffic signal warrant analyses.

The lane configurations and traffic controls assumed to be in place for EAC (2025) conditions are consistent with those shown previously on Exhibit 3-1, with the exception driveways and those facilities assumed to be constructed by cumulative projects to provide site access are also assumed to be in place for EAC (2025) conditions only (e.g., intersection and roadway improvements at the cumulative projects' frontage and driveways).

6.1 EAC TRAFFIC VOLUME FORECASTS

This scenario includes Existing traffic volumes plus an ambient growth factor of 4.04% and the addition of cumulative projects traffic. The weekday ADT and weekday peak hour intersection turning movement volumes which can be expected for EAC (2025) traffic conditions are shown on Exhibit 6-1.

6.2 INTERSECTION OPERATIONS ANALYSIS

EAC peak hour traffic operations have been evaluated for the study area intersections based on the analysis methodologies presented in Section 2 Methodologies of this TA. The intersection analysis results summarized in Table 6-1, indicate that the Lawrence Crossley Road / Dinah Shore Drive (#1) and Lawrence Crossley Road / Ramon Road (#6) intersections are found to operate at an unacceptable LOS (i.e., LOS "E" or worse) under EAC conditions without improvements. The intersection operations analysis worksheets for EAC traffic conditions is included in Appendix 6.1 of this TA.

6.3 TRAFFIC SIGNAL WARRANTS ANALYSIS

The traffic signal warrant analysis for EAC (2024) traffic conditions provided in Appendix 3.3. Unsignalized study area intersections are not anticipated to meet peak hour volume-based warrants and daily volume-based warrants for a traffic signal for background conditions (see Appendix 3.3).

6.4 CUMULATIVE IMPROVEMENTS

The following improvements address off-site intersection operational deficiencies for EAC (2025) conditions.

Lawrence Crossley Road / Dinah Shore Drive (#1)

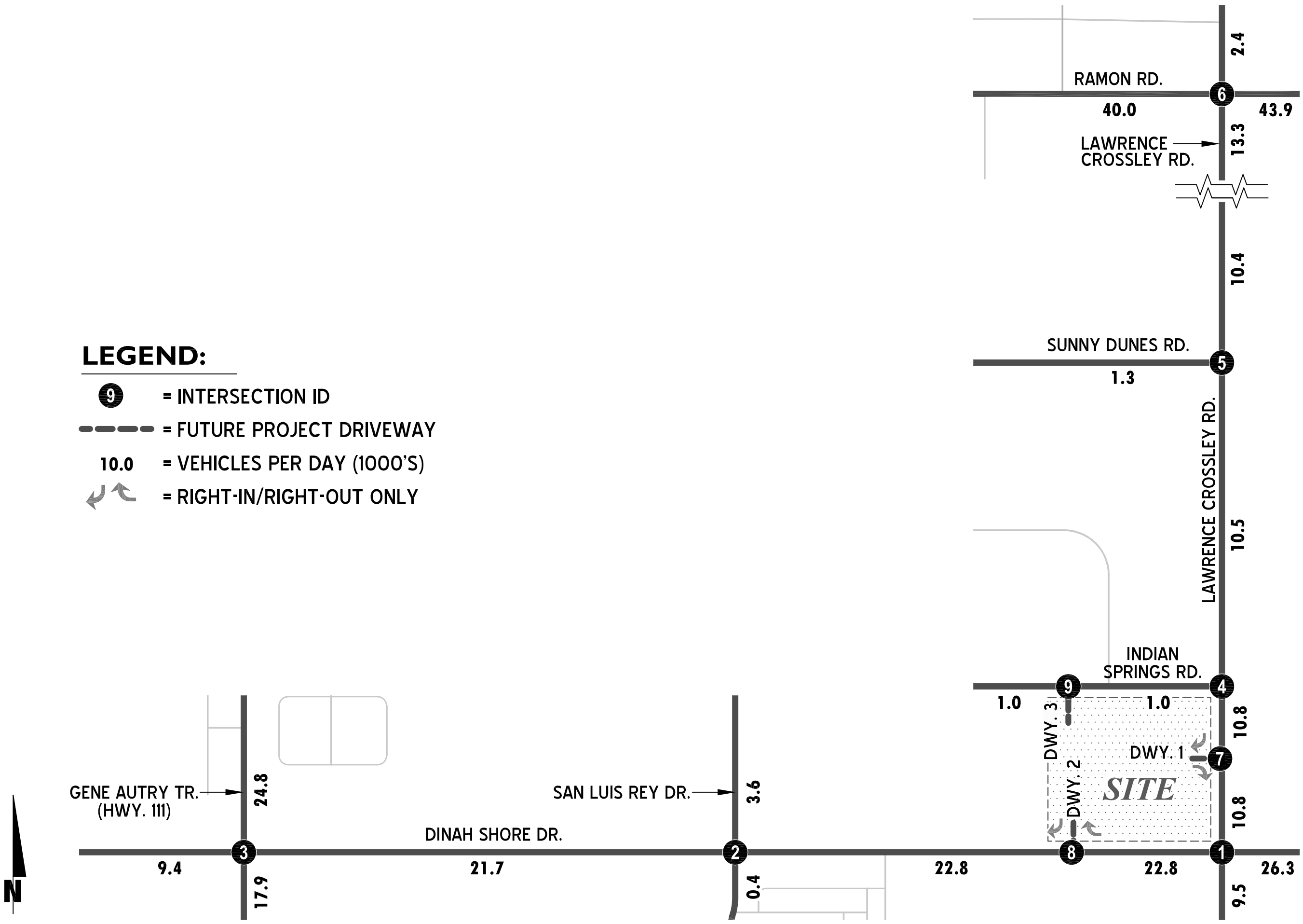
- Provide separate westbound right turn lane.

Lawrence Crossley Road / Ramon Road (#6)

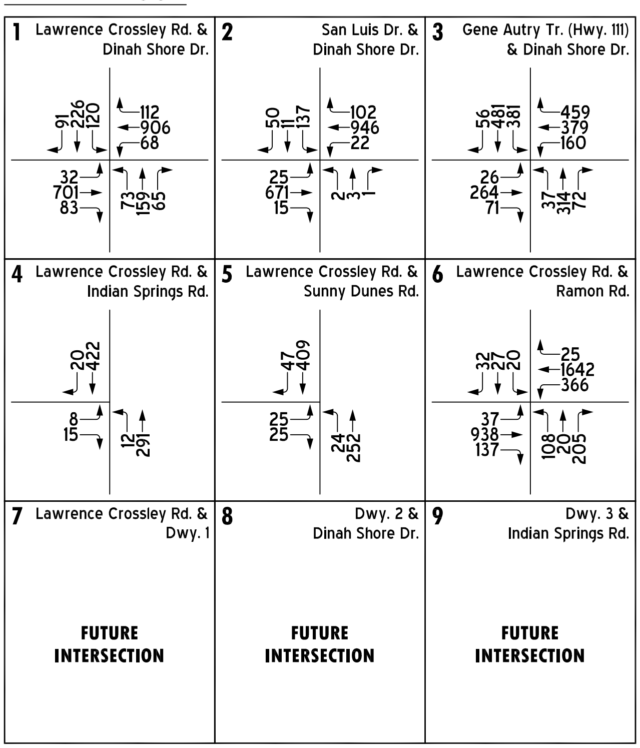
- Provide separate northbound left turn lane.
- Provide overlap phase for existing northbound right turn lane

The effectiveness of the recommended improvements at these locations is presented in Table 6-1 for EAC (2025) traffic conditions. The intersection operations analysis worksheets for EAC (2025) traffic conditions, with intersection improvements, are included in Appendix 6.1 of this TA.

EXHIBIT 6-1: EAC (2025) TRAFFIC VOLUMES



AM PEAK HOUR



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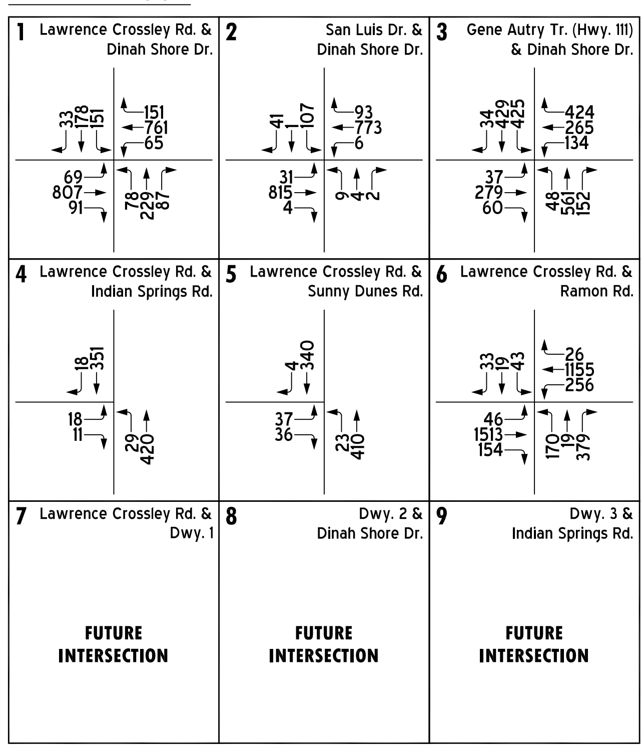

TABLE 6-1: INTERSECTION ANALYSIS FOR EAC (2025) CONDITIONS

#	Intersection	Traffic Control[1]	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R	Delay[3] (secs.) AM	Delay[3] (secs.) PM	Level of Service AM	Level of Service PM
1	Lawrence Crossley Rd. / Dinah Shore Dr.	TS	1	1	1	1	1	1	1	2	0	1	2	0	**59.6**	**61.9**	**E**	**E**
	- With Improvements	TS	1	1	1	1	1	1	1	2	0	1	2	**1**	36.6	40.9	D	D
2	San Luis Dr. / Dinah Shore Dr.	TS	1	1	0	1	1	0	1	2	0	1	2	0	21.9	19.3	C	B
3	Gene Autry Tr. (Hwy. 111) / Dinah Shore Dr.	TS	1	2	0	2	2	0	1	2	0	1	1	2>	39.2	41.1	D	D
4	Lawrence Crossley Rd. / Indian Springs Rd.	CSS	1*	1	0	0	1	0	1	0	d	0	0	0	13.9	14.4	B	B
5	Lawrence Crossley Rd. / Sunny Dunes Rd.	CSS	1	1	0	0	1	0	1	0	1	0	0	0	14.8	13.9	B	B
6	Lawrence Crossley Rd. / Ramon Rd.	TS	0.5	0.5	1	1	1	0	1	2	1	1	2	d	27.7	**57.5**	C	**E**
	- With Improvements	TS	**1**	1	**1>**	1	1	0	1	2	1	1	2	d	23.4	34.8	C	C
7	Lawrence Crossley Rd. / Dwy. 1		Future Intersection															
8	Dwy. 2 / Dinah Shore Dr.		Future Intersection															
9	Dwy. 3 / Indian Springs Rd.		Future Intersection															

Intersection Approach Lanes[2]

[1] TS = Traffic Signal; CSS = Cross-Street Stop

[2] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right; d = Defacto Right Turn Lane; 0.5 = Shared Lane; 1! = Shared Left/Through/Right lane;
> = Right-Turn Overlap Phasing; * = Turn lane accommodated within two-way left-turn lane (TWLTL) striped median; **1** = Improvement

[3] Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

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7 EAPC (2025) TRAFFIC CONDITIONS

This section discusses the methods used to develop Existing plus Ambient plus Project plus Cumulative (EAPC) (2025) traffic forecasts, and the resulting intersection operations and traffic signal warrant analyses.

The lane configurations and traffic controls assumed to be in place for EAPC (2025) conditions are consistent with those shown previously on Exhibit 3-1, with the exception of the following:

- Project driveways and those facilities assumed to be constructed by the Project to provide site access are also assumed to be in place for EAPC conditions only (e.g., intersection and roadway improvements along the Project's frontage and driveways).
- If applicable, driveways and those facilities assumed to be constructed by cumulative developments to provide site access are also assumed to be in place for EAPC conditions (e.g., intersection and roadway improvements along the cumulative development's frontages and driveways).

7.1 EAPC (2025) TRAFFIC VOLUME FORECASTS

This scenario adds Project traffic to cumulative background conditions (existing traffic volumes plus an ambient growth factor of 4.04% plus traffic from pending and approved but not yet constructed known development projects in the area). The weekday ADT and weekday peak hour volumes which can be expected for EAPC (2025) traffic conditions are shown on Exhibit 7-1.

7.2 INTERSECTION OPERATIONS ANALYSIS

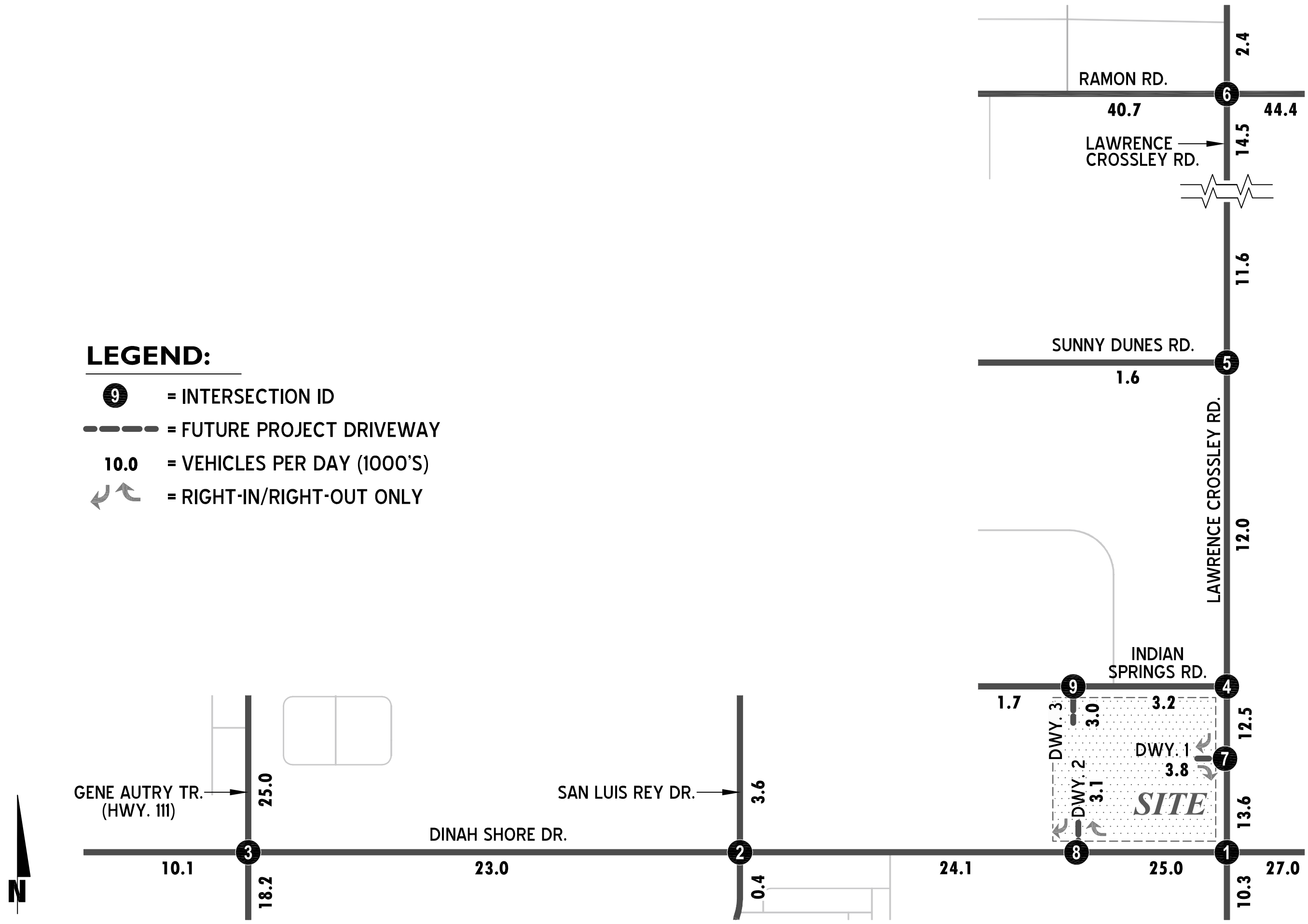
The intersection analysis results are summarized in Table 7-1, which indicates that the LOS deficiency at the Lawrence Crossley Road / Dinah Shore Drive (#1) and Lawrence Crossley Road / Ramon Road (#6) continues to operate at an unacceptable LOS under EAPC conditions. The Project increases the intersection delay at the Lawrence Crossley Road / Dinah Shore Drive (#1) by a maximum of 1.2 seconds and at the Lawrence Crossley Road / Ramon Road (#6) intersection by a maximum of 3.8 seconds, which are below the City criteria for determination of full Project responsibility.

Cumulative intersection improvements at the Lawrence Crossley Road / Dinah Shore Drive (#1) and Lawrence Crossley Road / Ramon Road (#6) intersections were previously listed in Section 6.4. These background intersection improvements also accommodate EAPC conditions, as indicated in Table 7.1. The intersection operations analysis worksheets for EAPC traffic conditions without and with improvements are included in Appendix 7.1 of this TA.

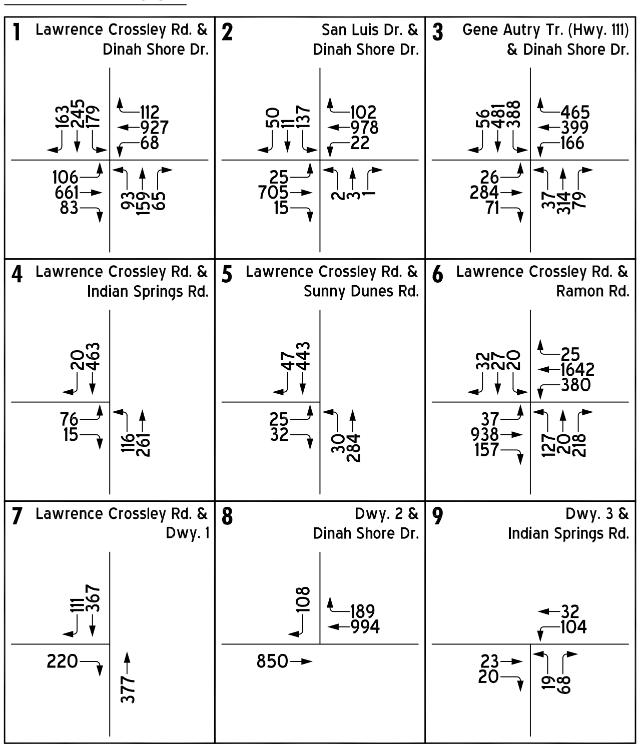
7.3 TRAFFIC SIGNAL WARRANTS ANALYSIS

The traffic signal warrant analysis for EAPC (2025) traffic conditions provided in Appendix 3.3. As noted previously, unsignalized study area intersections are not anticipated to meet peak hour volume-based warrants and daily volume-based warrants for a traffic signal with the addition of Project traffic (see Appendix 3.3).

EXHIBIT 7-1: EAPC (2025) TRAFFIC VOLUMES



AM PEAK HOUR



PM PEAK HOUR

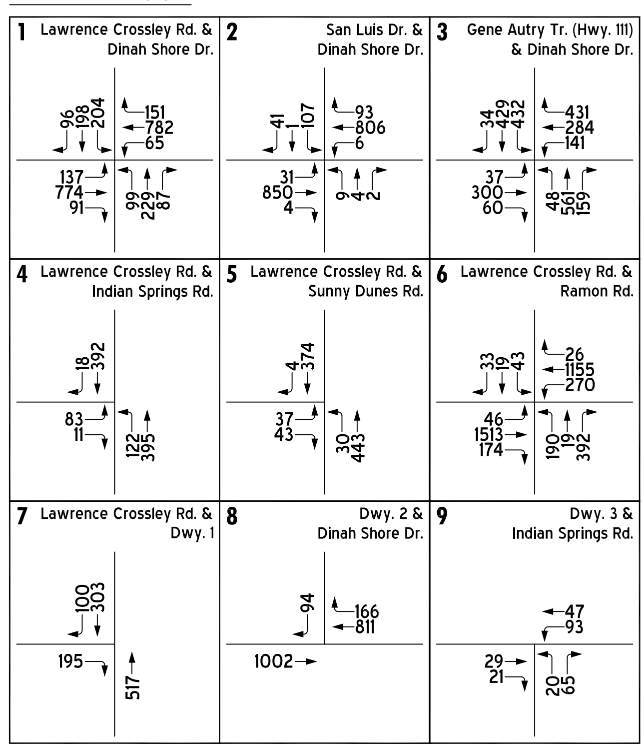


TABLE 7-1: INTERSECTION ANALYSIS FOR EAPC (2025) CONDITIONS

#	Intersection	Traffic Control[1]	Intersection Approach Lanes[2] Northbound L	T	R	Southbound L	T	R	Eastbound L	T	R	Westbound L	T	R	Delay[3] (secs.) AM	PM	Level of Service AM	PM
1	Lawrence Crossley Rd. / Dinah Shore Dr.	TS	1	1	1	1	1	1	1	2	0	1	2	0	**60.8**	**62.3**	**E**	**E**
	- With Improvements	TS	1	1	1	1	1	1	1	2	0	1	2	**<u>1</u>**	40.0	41.6	D	D
2	San Luis Dr. / Dinah Shore Dr.	TS	1	1	0	1	1	0	1	2	0	1	2	0	24.4	19.8	C	B
3	Gene Autry Tr. (Hwy. 111) / Dinah Shore Dr.	TS	1	2	0	2	2	0	1	2	0	1	1	2>	39.8	41.6	D	D
4	Lawrence Crossley Rd. / Indian Springs Rd.	CSS	1*	1	0	0	1	0	1	0	d	0	0	0	21.8	21.0	C	C
5	Lawrence Crossley Rd. / Sunny Dunes Rd.	CSS	1	1	0	0	1	0	1	0	1	0	0	0	15.8	14.6	C	B
6	Lawrence Crossley Rd. / Ramon Rd.	TS	0.5	0.5	1	1	1	0	1	2	1	1	2	d	30.0	**61.3**	C	**E**
	- With Improvements	TS	**<u>1</u>**	1	**<u>1></u>**	1	1	0	1	2	1	1	2	d	25.9	36.1	C	D
7	Lawrence Crossley Rd. / Dwy. 1	**<u>CSS</u>**	0	1	0	0	1	0	0	0	**<u>1</u>**	0	0	0	15.3	13.2	C	B
8	Dwy. 2 / Dinah Shore Dr.	**<u>CSS</u>**	0	0	0	0	0	**<u>1</u>**	0	2	0	0	2	**<u>1</u>**	15.1	13.0	C	B
9	Dwy. 3 / Indian Springs Rd.	**<u>CSS</u>**	0	**<u>1!</u>**	0	0	0	0	0	1	d	0.5	0.5	0	9.5	9.6	A	A

[1] TS = Traffic Signal; CSS = Cross-Street Stop

[2] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right; d = Defacto Right Turn Lane; 0.5 = Shared Lane; 1! = Shared Left/Through/Right lane;

\> = Right-Turn Overlap Phasing; * = Turn lane accommodated within two-way left-turn lane (TWLTL) striped median; **<u>1</u>** = Improvement

[3] Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

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8 CUMULATIVE AND SITE ACCESS IMPROVEMENTS

Exhibit 8-1 depicts the intersection approach lanes needed to address cumulative conditions as well as Project access.

8.1 RECOMMENDED CUMULATIVE IMPROVEMENTS

Improvements at the off-site intersections of Lawrence Crossley Road / Dinah Shore Drive (#1) and Lawrence Crossley Road / Ramon Road (#6) address intersection operational deficiencies for opening year (2025) conditions.

Detailed fair share calculations, for each peak hour, are provided in Table 8-1 for these two intersections.

The following off-site improvements are recommended to address cumulative traffic capacity needs:

Lawrence Crossley Road / Dinah Shore Drive (#1)

- Provide separate westbound right turn lane (minimum of 150 foot turn pocket length).
- Project Fair Share: 55.8%

Lawrence Crossley Road / Ramon Road (#6)

- Provide separate northbound left turn lane (minimum of 150 foot turn pocket length).
- Provide overlap phase for existing northbound right turn lane.
- Project Fair Share 14.8%

TABLE 8-1: EXISTING PLUS AMBIENT PLUS PROJECT PLUS CUMULATIVE (EAPC) (2025) FAIR SHARE CALCULATIONS

#	Intersection	Existing (2023) Traffic	EAPC (2025) Traffic[3]	Project Only Traffic	Total New Traffic[1]	Project Fair Share (%)[2]
1	Lawrence Crossley Rd. / Dinah Shore Dr.					
	• AM Peak Hour	2,458	2,861	225	403	**55.8%**
	• PM Peak Hour	2,502	2,913	213	411	51.8%
6	Lawrence Crossley Rd. / Ramon Rd.					
	• AM Peak Hour	3,178	3,623	66	445	**14.8%**
	• PM Peak Hour	3,391	3,880	67	489	13.7%

1 Total New Traffic = (EAPC 2025 - Existing Traffic)
2 Project Fair Share % = (Project Only Traffic / Total New Traffic)
3 Existing Plus Ambient Plus Project Plus Cumulative (2025) Conditions

8.2 SITE ACCESS IMPROVEMENTS

Access to the Project will be provided along Lawrence Crossley Road (right-in/right-out access), Dinah Shore Drive (right-in/right-out access), and Indian Springs Road (full access). Roadway improvements necessary to provide site access and on-site circulation are assumed to be constructed in conjunction with site development and are described below.

The following access intersection traffic controls are recommended:

Lawrence Crossley Road / Driveway 1 (#7)

- Restrict left turn movements to/from Lawrence Crossley Road by providing raised median from Indian Springs Road to Dinah Shore Drive.
- Provide single eastbound right turn lane within driveway with cross-street stop control.

Driveway 2 / Dinah Shore Drive (#8)

- Provide single southbound right turn lane within driveway with cross-street stop control.
- Provide a separate westbound right turn lane (150 foot turn pocket length).

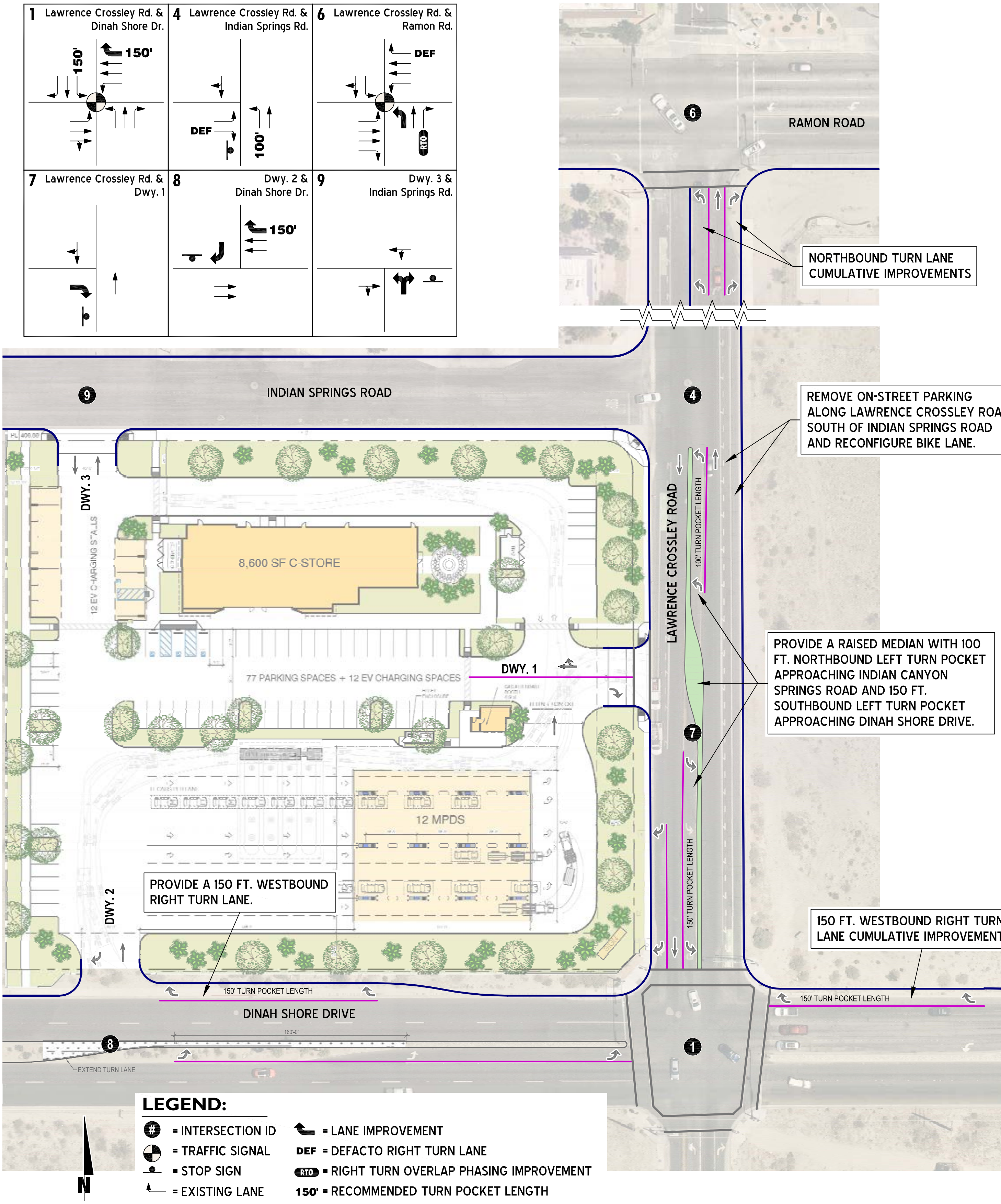
Driveway 3 / Indian Springs Road (#9)

- Provide single northbound shared left-right lane within driveway with cross-street stop control.

The raised median to be constructed along Lawrence Crossley Road between Indian Springs and Dinah Shore Drive is recommended to include a 150 foot southbound left turn pocket and 100 foot northbound left turn pocket.

Vehicles entering the Project site at Driveway 1 shall be restricted from making an immediate westbound left maneuver into the gas pump exiting drive isle as shown on Exhibit 8-1.

EXHIBIT 8-1: SITE ACCESS AND OFF-SITE CUMULATIVE IMPROVEMENTS



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9 REFERENCES

1. **Fehr & Peers.** *City of Palm Springs Traffic Impact Analysis Guidelines.* City of Palm Springs : s.n., July 2020.
2. **Transportation Research Board.** *Highway Capacity Manual (HCM), 6th Edition.* s.l. : National Academy of Sciences, 2016.
3. **California Department of Transportation.** California Manual on Uniform Traffic Control Devices (CA MUTCD). [book auth.] California Department of Transportation. *California Manual on Uniform Traffic Control Devices (CA MUTCD).* 2014, Updated March 30, 2021 (Revision 6).
4. **Institute of Transportation Engineers.** Trip Generation Manual. 11th Edition, 2021.

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APPENDIX 1.1: TRAFFIC STUDY SCOPE

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Project Scoping Form

This scoping form shall be submitted to the City of Palm Springs to assist in identifying infrastructure improvements that may be required to support traffic from the proposed project.

Project Identification:

Case Number:	
Related Cases:	
SP No.	
EIR No.	
GPA No.	
CZ No.	
Project Name:	Crossley/Dinah Shore Gas Station/Gaming
Project Address:	northwest corner of Crossley Road and Dinah Shore Drive
Project Opening Year:	
Project Description:	24 gasoline/diesel fuel pumps with a 5,500 square foot convenience store,
	and 4,000 square feet of Class II gaming space

	Consultant:	Developer:
Name:	Urban Crossroads, Inc. - Marlie Whiteman, P.E.	Dan Malcolm - Agua Caliente Band of Cahullia Indians
Address:	1133 Camelback St., #8329	5401 Dinah Shore Drive
	Newport Beach, CA 92658	Palm Springs, CA 92264
Telephone:	(714) 585-0574	(760) 883-1945
Fax/Email:	mwhiteman@urbanxroads.com	dmalcolm@aguacaliente.net

Trip Generation Information:

Trip Generation Data Source: Institute of Transportation Engineers (ITE) Trip Generation (11th Edition, 2021)

Current General Plan Land Use: Neighborhood/Community Commercial

Proposed General Plan Land Use: Neighborhood/Community Commercial

Current Zoning: M1 IL (Service/Manufacturing Zone, Indian Land)

Proposed Zoning: M1 IL (Service/Manufacturing Zone, Indian Land)

	Existing Trip Generation			Proposed Trip Generation		
	In	Out	Total	In	Out	Total
AM Trips	0	0	0	136	127	263
PM Trips	0	0	0	138	133	271

Trip Internalization: ☐ Yes ☑ No (______% Trip Discount)

Pass-By Allowance: ☑ Yes ☐ No (76%/75%% Trip Discount) on gas station, not gaming space

Potential Screening Checks

Is your project screened from specific analyses (see Page 11 of the guidelines related to LOS assessment and Pages 24-26).

Is the project screened from LOS assessment? ☐ Yes ☑ No

LOS screening justification (see Page 11 of the guidelines): ____________________

Is the project screened from VMT assessment? ☑ Yes ☐ No

VMT screening justification (see Pages 24-26 of the guidelines): ____________________

See attached VMT screening assessment memo

Level of Service Scoping

- Proposed Trip Distribution (Attach Graphic for Detailed Distribution): See attached traffic scoping letter, dated October 24, 2023

North	South	East	West
%	%	%	%

- Attach list of Approved and Pending Projects that need to be considered (provided by the City of Palm Springs and adjacent agencies)
- Attach list of study intersections/roadway segments
- Attach site plan
- Not other specific items to be addressed:
  - ✔ Site access
  - ✔ On-site circulation
  - o Parking
  - ✔ Consistency with Plans supporting Bikes/Peds/Transit
  - ✔ Other signal warrants
- Date of Traffic Counts October 2023
- Attach proposed analysis scenarios (years plus proposed forecasting approach)
- Attach proposed phasing approach (if the project is phased)

VMT Scoping

For projects that are not screened, identify the following:

- Travel Demand Forecasting Model Used ______________________________
- Attach Screening VMT Assessment output or describe why it is not appropriate for use
- Attach proposed Model Land Use Inputs and Assumed Conversion Factors (attach)

Detailed VMT Forecasting Information

Most trip-based models generate daily person trip-ends for each TAZ across various trip purposes (HBW, HBO, and NHB, for example) based on population, household, and employment variables. This may create challenges for complying with the VMT guidance because trip generation is not directly tied to specific land use categories. The following methodology addresses this particular challenge among others.

Production and attraction trip-ends are separately calculated for each zone, and generally: production trip-ends are generated by residential land uses and attraction trip-ends are generated by non-residential land uses. OPR's guidance addresses residential, office, and retail land uses. Focusing on residential and office land uses, the first step to forecasting VMT requires translating the land use into model terms, the closest approximations are:

- Residential: home-based production trips
- Office: home-based work attraction trips

Note that this excludes all non-home-based trips including work-based other and other-based other trips.

The challenges with computing VMT for these two types of trips in a trip-based model are 1) production and attraction trip-ends are not distinguishable after the PA to OD conversion process and 2) trip purposes are not maintained after the mode choice step. For these reasons, it not possible to use the VMT results from the standard vehicle assignment (even using a select zone re-assignment). A separate post-process must be developed to re-estimate VMT for each zone that includes trip-end types and trip purposes.

The procedure for extracting VMT from the model is described below:

- Re-skim final loaded congested networks for each mode and time period
- Run a custom PA to OD process that replicates actual model steps, but:
    - Keeps departure and return trips separate
    - Keeps trip purpose and mode separate
    - Converts person trips to vehicle trips based on auto occupancy rates and isolates automobile trips
    - Factors vehicle trips into assignment time periods
- Multiply appropriate distance skim matrices by custom OD matrices to estimate VMT
- Sum matrices by time period, mode, and trip purpose to calculate daily automobile VMT
- Calculate automobile VMT for individual TAZs using marginal totals:
    - Residential (home-based) - row of departure matrix plus column of return matrix
    - Office (home-based work) - column of departure matrix plus row of return matrix

Appropriateness Checks

Regardless of which method is used, the number of vehicle trips from the custom PA to OD process and the total VMT should match as closely as possible with the results from the traditional model process. The estimated results should be checked against the results from a full model run to understand the degree of accuracy. Note that depending on how each model is setup, these custom processes may or may not include IX/XI trips, truck trips, or special generator trips (airport, seaport, stadium, etc.).

When calculating VMT for comparison at the study area, citywide, or regional geography, the same methodology that was used to estimate project-specific VMT should be used. The VMT for these comparisons can be easily calculated by aggregating the row or column totals for all zones that are within the desired geography.

ATTACHMENTS:
* TRAFFIC SCOPING LETTER
* VMT SCREENING EVALUATION LETTER

October 24, 2023

Mr. Rick Minjares
City of Palm Springs
3200 E. Tahquitz Canyon Way
Palm Springs, CA 92262

CROSSLEY/DINAH SHORE GAS STATION/GAMING LOS ANALYSIS SCOPE

Dear Mr. Rick Minjares:

On behalf of Terra Nova Planning & Research and Agua Caliente Band of Cahuilla Indians, Urban Crossroads, Inc. is pleased to submit this traffic analysis Level of Service (LOS) scope to City of Palm Springs regarding the proposed Crossley/Dinah Shore Gas Station/Gaming Area development ("Project"). The purpose of this transmittal is to provide you with an opportunity to comment before we begin this work on behalf of the Agua Caliente Band of Cahuilla Indians. The Project is located on Agua Caliente Indian Reservation property at the northwest corner of Crossley Road and Dinah Shore Drive in the City of Palm Springs. The project consists of 24 gasoline/diesel fuel pumps with a 5,500 square foot convenience store, and 4,000 square feet of Class II gaming space.

The remainder of this letter describes the proposed analysis methodology, Project trip generation, trip distribution, and Project traffic assignment/project trips on the surrounding roadway network. The following scoping assumptions have been prepared in accordance with the City of Palm Springs TIA Guidelines (July 2020).

A preliminary site plan for the proposed Project is shown on Exhibit 1. Exhibit 2 depicts the location of the proposed project in relation to the existing roadway network. It is anticipated that the Project would be fully developed by year 2025. Access to the Project will be provided along Crossley Road (right-in/right-out access), Dinah Shore Drive (right-in/right-out access), and Indian Springs Road (full access).

TRIP GENERATION

In order to develop the traffic characteristics of the Project, trip-generation statistics published in the *Institute of Transportation Engineers (ITE) Trip Generation* (11th Edition, 2021) are used. Table 1 shows the vehicle trip generation rates for the Project, as well as the vehicle trip generation summary with daily and peak hour trip generation estimates.

As shown on Table 1, the Project is anticipated to generate a total of 5,011 net added vehicle trip-ends per day with 263 added AM peak vehicle hour trips and 271 added PM peak hour vehicle trips.

EXHIBIT 1: PRELIMINARY SITE PLAN

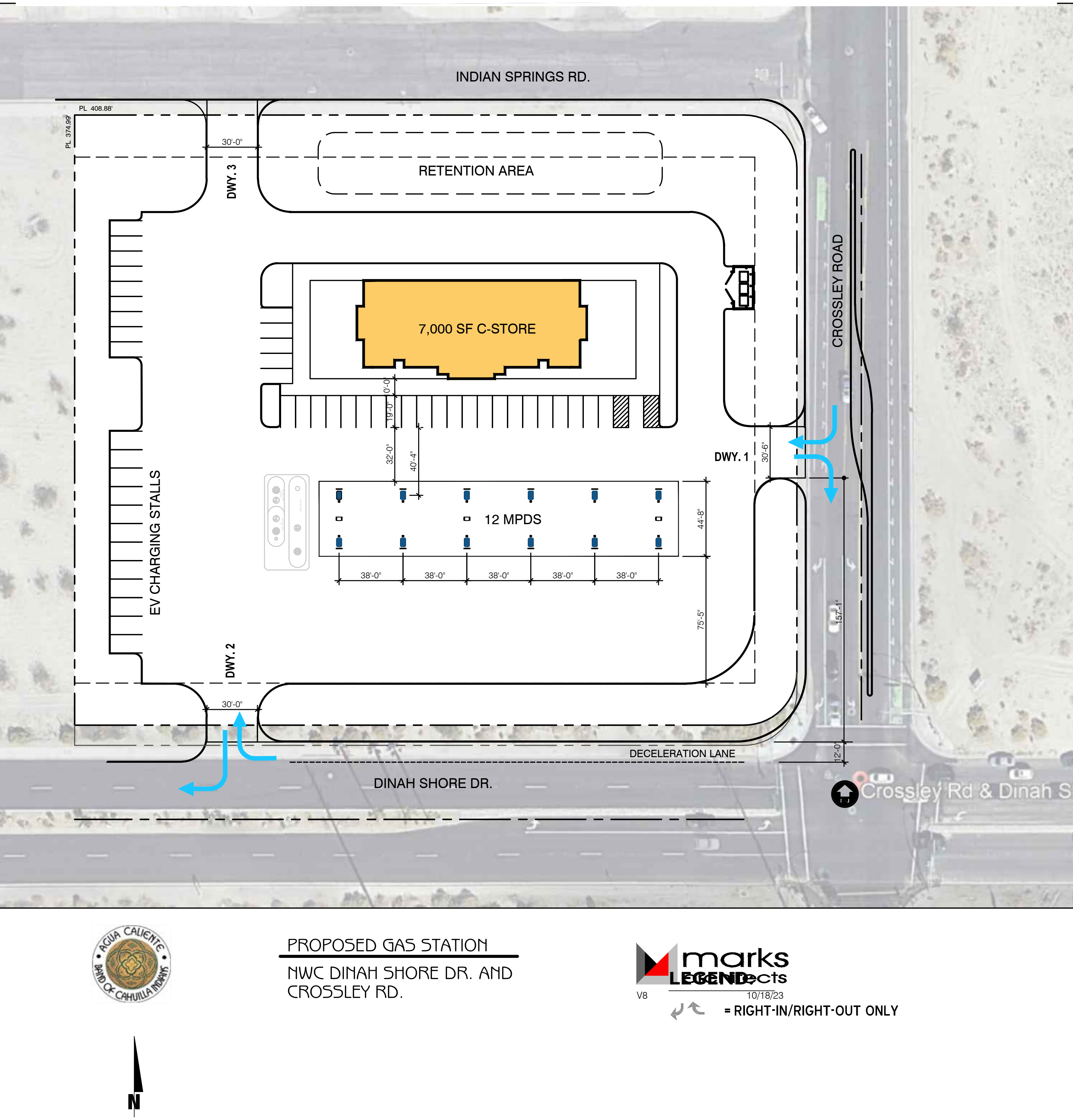


EXHIBIT 2: TRAFFIC ANALYSIS STUDY AREA

The Project will also interact with pass-by vehicle trips which occur on adjacent roads with or without the development. Pass-by trips are attracted from traffic passing the site on adjacent streets that offer direct access to the Project. These pass-by trips are included in the driveway volumes, but not added to the surrounding street system because they're already included in the background traffic off-site.

TABLE 1: PROJECT TRIP GENERATION SUMMARY

Trip Generation Rates[1]

Land Use	ITE LU Code	Quantity[2]		AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	Daily
Casino/Video Lottery Entertainment	473	4.0	TSF	11.37	8.94	20.31	14.15	13.06	27.21	388.18
Convenience Store/Gas Station (GFA 5.5-10k)	945	24	VFP	15.80	15.80	31.60	13.45	13.45	26.90	345.75

Trip Generation Results

Land Use	ITE LU Code	Quantity[2]		AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	Daily
Casino/Video Lottery Entertainment	473	4.0	TSF	45	36	81	57	52	109	1,553
Convenience Store/Gas Station (GFA 5.5-10k)	945	24	VFP	379	379	758	323	323	646	8,298
Project Subtotal				424	415	839	380	375	755	9,851
ITE 945 Pass-By (76% AM; 75% PM)[3]				*(288)*	*(288)*	*(576)*	*(242)*	*(242)*	*(484)*	*(4,840)*
PROJECT TOTAL ADDED TRIPS				**136**	**127**	**263**	**138**	**133**	**271**	**5,011**

[1] Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, 11th Edition (2021).

[2] VFP = Vehicle Fueling Position; TSF = Thousand Square Feet

[3] Source: 2021 Pass-By Tables for ITE Trip Generation Appendices

TRIP DISTRIBUTION AND TRIP ASSIGNMENT

The trip distribution pattern is heavily influenced by the geographical location of the site and the location of surrounding commercial and residential uses. Exhibits 3 and 4 shows the Project trip distribution patterns for outbound and inbound conditions, respectively.

Based on the identified Project traffic generation and trip distribution patterns, Project peak hour intersection turning movement and daily volumes are shown on Exhibit 5.

GENERAL PLAN CIRCULATION ELEMENT

The City of Palm Springs General Plan Circulation Element is depicted on Exhibit 6, while the accompanying roadway cross-sections are presented on Exhibit 7.

EXHIBIT 3: PROJECT TRIP DISTRIBUTION (OUTBOUND)

EXHIBIT 4: PROJECT TRIP DISTRIBUTION (INBOUND)

EXHIBIT 5: PROJECT ONLY TRAFFIC VOLUMES

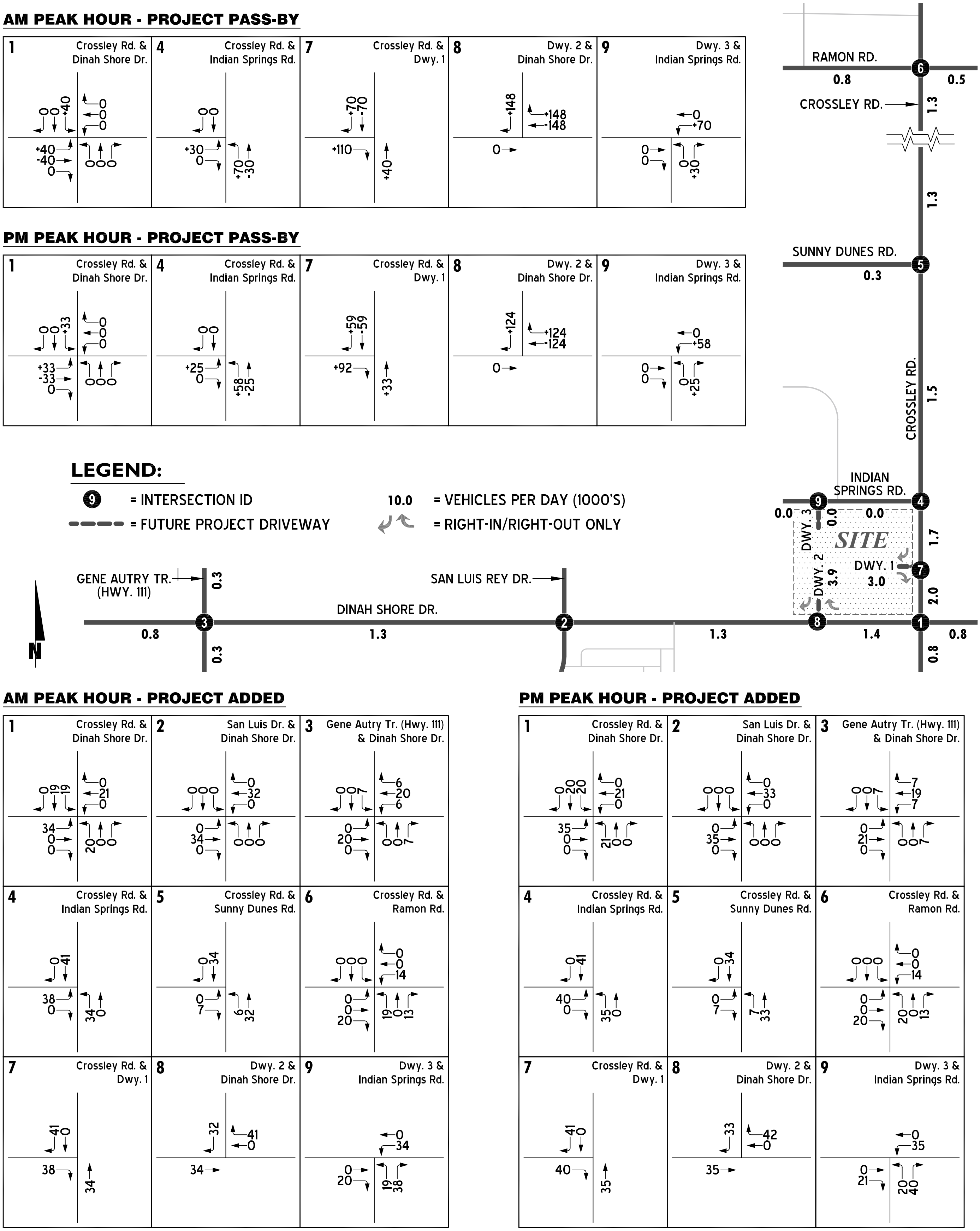
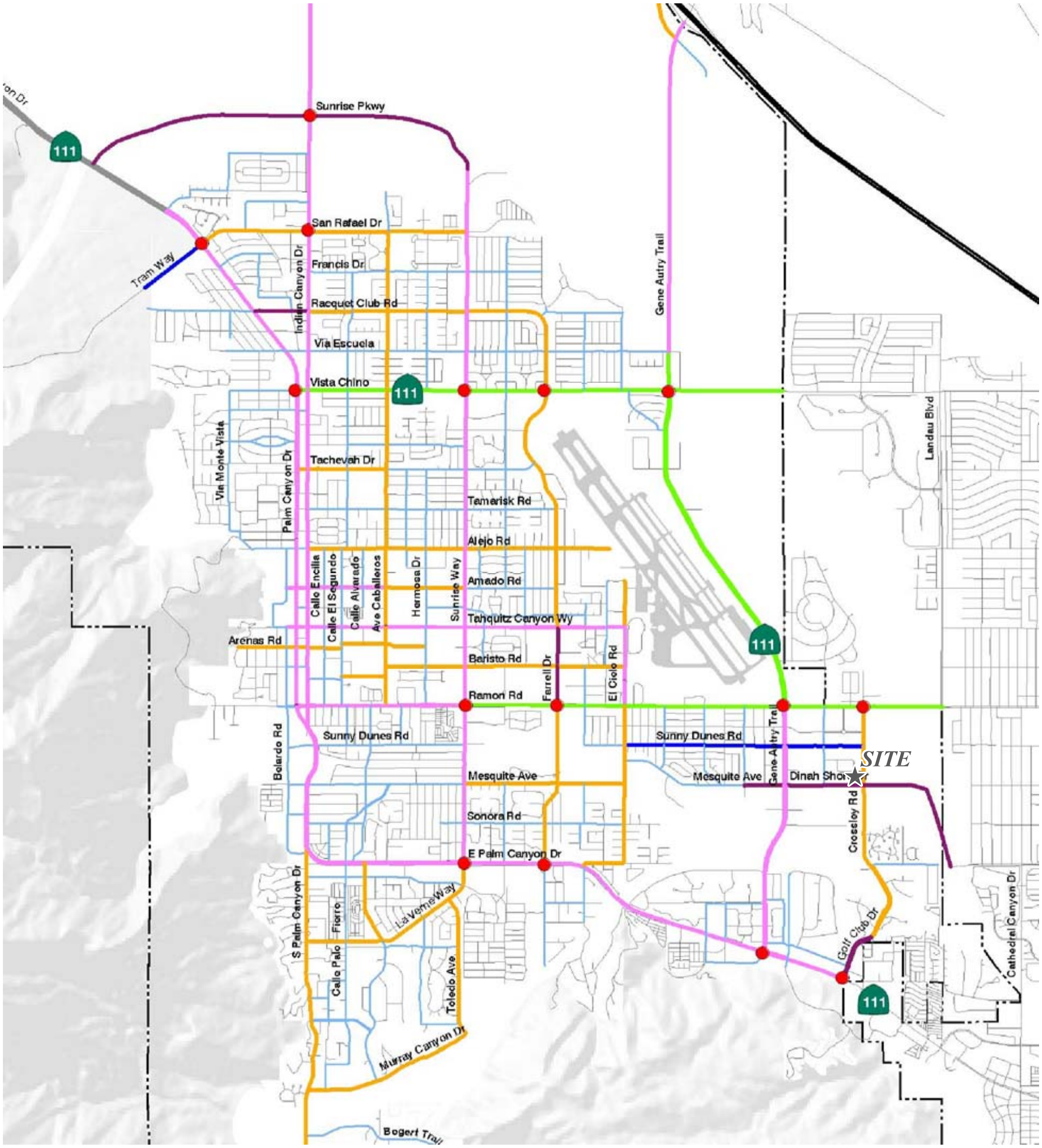


EXHIBIT 6: CITY OF PALM SPRINGS CIRCULATION PLAN



SOURCE: CITY OF PALM SPRINGS GENERAL PLAN (2007)

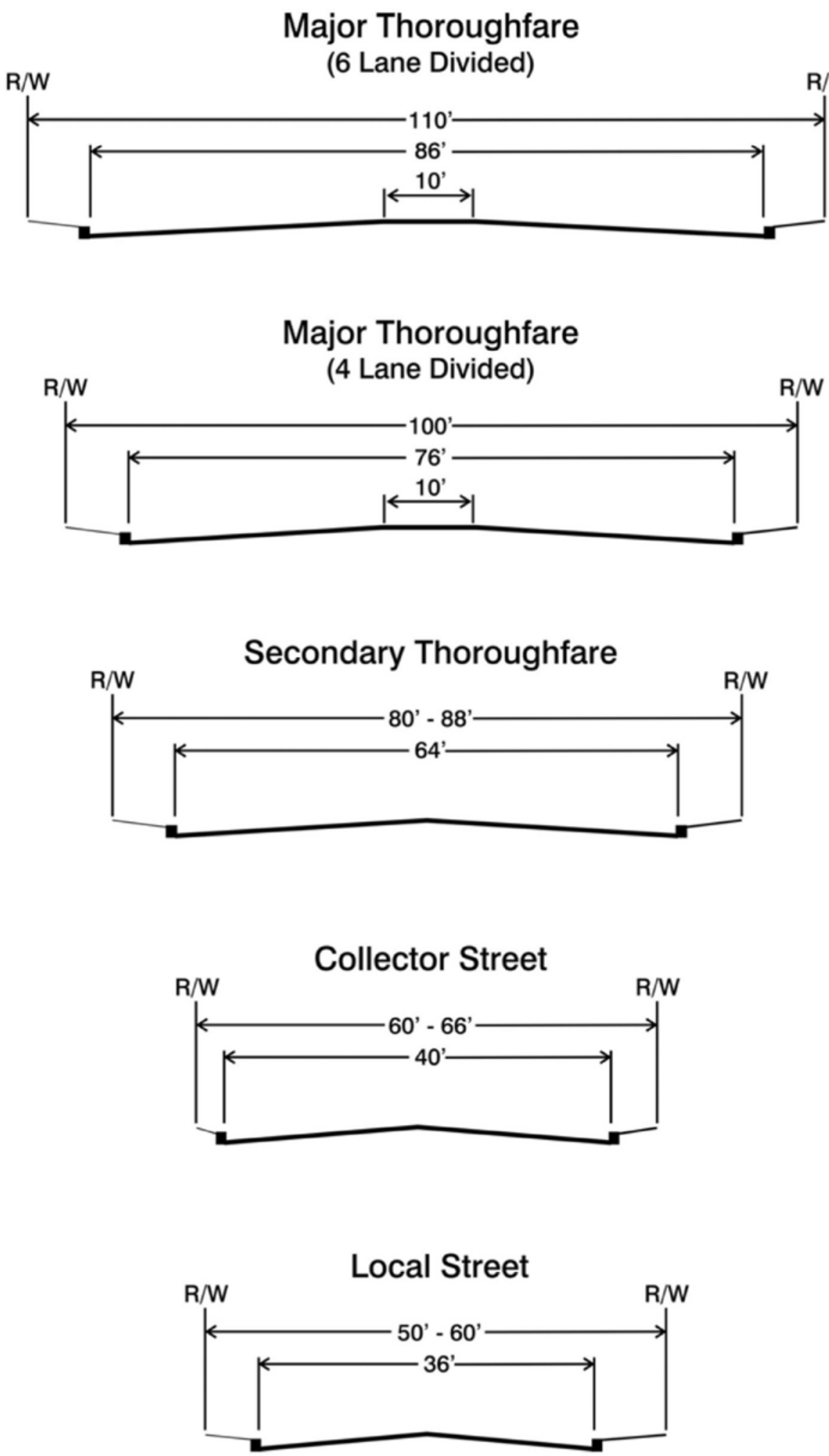
LEGEND:

- Freeway
- Expressway
- Major Thoroughfare (6 - lane divided)
- Major Thoroughfare (4 - lane divided)
- Secondary Thoroughfare (4 - lane divided)
- Secondary Thoroughfare (4 - lane undivided)
- Collector (2 - lane divided)
- Collector (2 - lane undivided)
- Local
- City Boundary
- Sphere of Influence
- Critical Intersection*

*Intersection improvements required to maintain acceptable LOS.

N

EXHIBIT 7: CITY OF PALM SPRINGS TYPICAL STREET CROSS-SECTIONS



SOURCE: CITY OF PALM SPRINGS GENERAL PLAN (2007)

ANALYSIS SCENARIOS

Consistent with the City's TA guidelines, intersection analysis will be provided for the following analysis scenarios:

- Existing (2023) Conditions
- Existing Plus Project Conditions
- Background Conditions: Existing plus Ambient plus Cumulative (EAC) (2025)
- Background Plus Project Conditions: Existing plus Ambient plus Project plus Cumulative (EAPC) (2025)

STUDY AREA

The traffic impact study area was defined in conformance with the requirements of City of Palm Springs TIA Guidelines. Consistent with the City's TIA guidelines, study area intersections have been identified for the Project based on the contribution of 50 or more peak hour trips. Based on this criterion, anticipated trip generation and trip distribution, the following intersections will be evaluated:

#	Intersection	#	Intersection
1	Crossley Rd. / Dinah Shore Dr.	6	Crossley Rd. / Ramon Rd.
2	San Luis Dr. / Dinah Shore Dr.	7	Crossley Rd. / Dwy. 1
3	Gene Autry Tr. (Hwy. 111) / Dinah Shore Dr.	8	Dwy. 2 / Dinah Shore Dr.
4	Crossley Rd. / Indian Springs Rd.	9	Dwy. 3 / Indian Springs Rd.
5	Crossley Rd. / Sunny Dunes Rd.		

Exhibit 2 identifies the proposed study area intersection analysis locations.

LEVEL OF SERVICE (LOS) CRITERIA

Per the City of Palm Springs's General Plan, LOS D as the threshold for acceptable traffic conditions on the circulation network.

ANALYSIS METHODOLOGY

For the purposes of this analysis, signalized intersection operations analysis will be based on the methodology described in the Highway Capacity Manual (6th Edition). Intersection LOS operations are based on an intersection's average control delay. Unsignalized intersections will be evaluated using the methodology described in the HCM 6th Edition. At two-way or side-street stop-controlled intersections, LOS is calculated for each controlled movement and for the left turn movement from the major street, as well as for the intersection as a whole. For approaches composed of a single lane, the delay is computed as the average of all movements in that lane.

TRAFFIC COUNTS

Traffic count data have been collected on October 4th, 2023 during the AM peak period of 7:00 AM to 9:00 AM and PM peak period of 4:00 PM to 6:00 PM.

The City of Palm Springs experiences seasonal population variations over the course of the year, with relatively higher populations during the winter months from January to the end of March. To compensate for the discrepancy, counts not taken during this peak winter period (January 2 to March 31) require seasonal adjustments. Counts taken in October will be adjusted to estimate peak season conditions.

CUMULATIVE DEVELOPMENT TRAFFIC

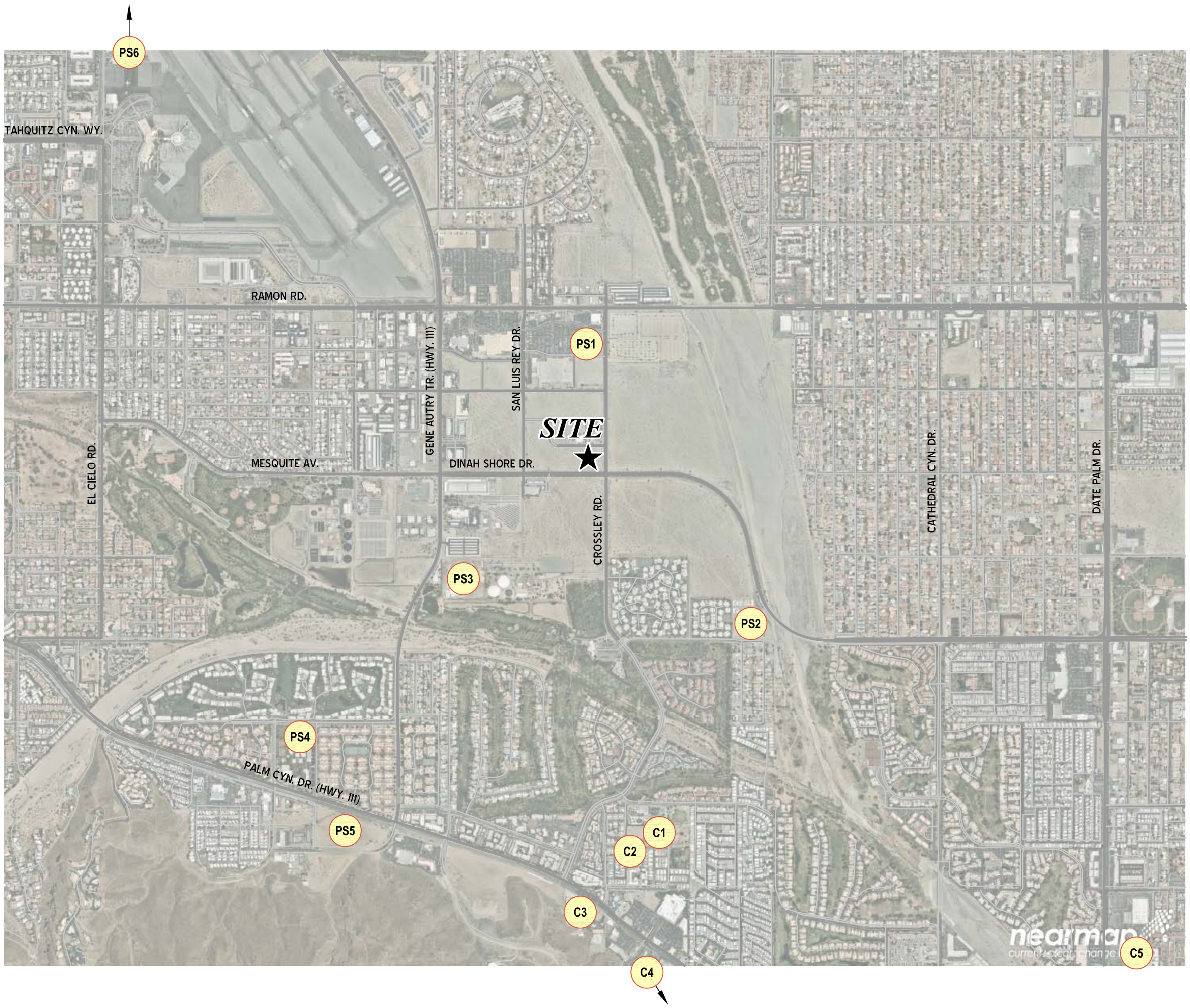
It is requested that City staff review the list of cumulative development projects (shown on Exhibit 8 and listed on Table 2) for inclusion in the traffic study. Consistent with other studies performed in the area, an ambient growth rate of 2% per year will be utilized as a minimum if necessary. The rate will be compounded over a 2-year period (i.e., 1.022years = 1.0404 or 4.04%) for Interim Year (2025) conditions.

TABLE 2: CUMULATIVE DEVELOPMENT LAND USE SUMMARY

ID	Project Name	Land Use[1]	Quantity	Units[2]
		City of Palm Springs		
PS1	Walmart Station	Convenience Store/Gas Station	16	VFP
PS2	Lumen (previously Vibrante)	Condominium	41	DU
PS3	Palm Springs Surf Club (rehabilitation/expansion of existing water park)	Water Park	7.746	TSF
PS4	Parker Hotel Expansion	Hotel	32	RM
PS5	Canyon View	Single Family Detached Residential	80	DU
PS6	West Coast Self Storage	RV/boat Storage	61.658	TSF
		City of Cathedral City		
C1	Horizon Hotel (Conversion of existing senior facility to 68-unit hotel)	Hotel	68	RM
C2	District East	Single Family Detached Residential	43	DU
C3	Cree Gas Station	Convenience Store w/ Gas Station	8	VFP
C4	Nirvana Estates	Single Family Detached Residential	103	DU
C5	Cathedral City Events Center	Event Center	80.000	TSF

[1] DU = Dwelling Unit; RM = Room; TSF = Thousand Square Feet; VFP = Vehicle Fueling Positions

EXHIBIT 8: CUMULATIVE DEVELOPMENT LOCATION MAP



LEGEND:

= CUMULATIVE DEVELOPMENT ID

SPECIAL ISSUES

The following issues will also be addressed as part of the Traffic Analysis (TA):

- *Traffic Signal Warrant Analysis:* Signal warrant analysis will be prepared for all unsignalized study area intersections that allow for full access (no traffic signal warrants to be performed for restricted access locations due to infeasibility of installing a signal at these types of locations).
- *Improvements:* Based on the traffic analysis results, the TA will indicate new improvement requirements and fair share contribution for the proposed Project.
- *Site Access and Circulation):* Recommendations related to driveway lanes and controls will be provided.

Urban Crossroads prepared a separate letter which evaluates the Project in terms of City of Palm Springs screening criteria for vehicle miles traveled (VMT).

Please review this LOS scope, and provide any comments or your concurrence. If you have any questions, please contact John Kain at (949) 375-2435 or Marlie Whiteman at (714) 585-0574.

Respectfully submitted,

URBAN CROSSROADS, INC.

John Kain

John Kain, AICP
Principal

Marlie Whiteman

Marlie Whiteman, PE
Senior Associate

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MEMORANDUM

URBAN | CROSSROADS

DATE: October 24, 2023
TO: Nicole Criste, Terra Nova Planning & Research, Inc.
FROM: John Kain and Marlie Whiteman, Urban Crossroads, Inc.
JOB NO: 15579-03 VMT.docx

CROSSLEY/DINAH SHORE GAS STATION/GAMING VEHICLE MILES TRAVELED (VMT) SCREENING EVALUATION

On behalf of Terra Nova Planning & Research and Agua Caliente Band of Cahuilla Indians, Urban Crossroads, Inc. is pleased to submit the following Vehicle Miles Traveled (VMT) Screening Evaluation for the Crossley/Dinah Shore Gas Station/Gaming (**Project**). The purpose of this transmittal is to provide you with an opportunity to comment on the VMT screening of this Project, which consists of 24 gasoline/diesel fuel pumps with a 5,500 square foot convenience store, and 4,000 square feet of Class II gaming space. The Project is located on Agua Caliente Indian Reservation property at the northwest corner of Crossley Road and Dinah Shore Drive in the City of Palm Springs.

PROJECT OVERVIEW

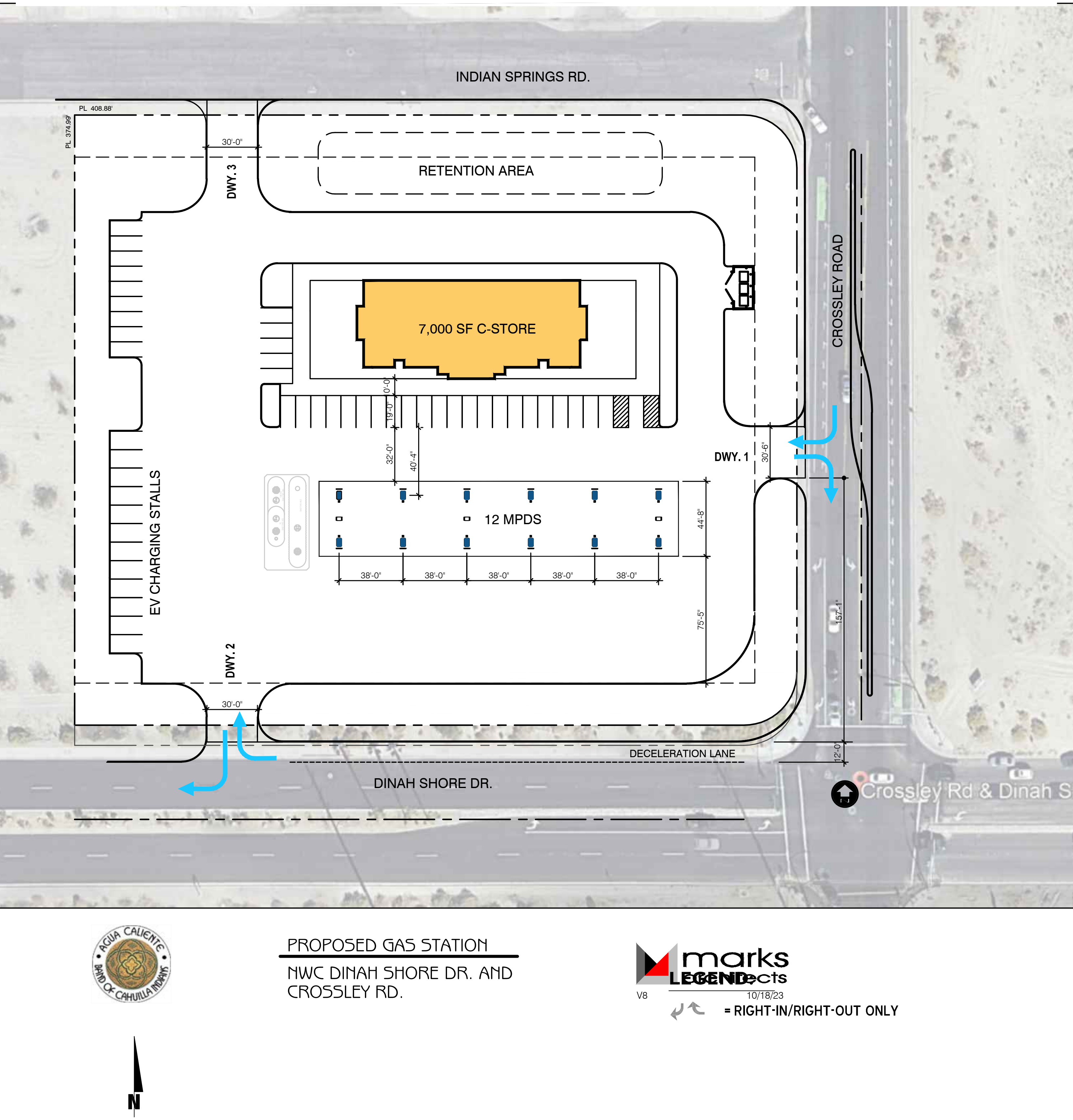
The Project consists of a fuel station with 5,500sf convenience store, and 4,000sf gaming space. Exhibit A presents the Project site plan.

The California Environmental Quality Act (CEQA) requires all lead agencies to adopt VMT as the measure for identifying transportation impacts for land use projects. To comply with CEQA, the City of Palm Springs adopted analytical procedures, screening tools, and impact thresholds for VMT, which are documented in their City of Palm Springs Traffic Impact Analysis Guidelines (July 2020) (**City Guidelines**) (1). The adopted City Guidelines were used to prepare this VMT screening evaluation.

VMT SCREENING

Consistent with City Guidelines, projects should evaluate available screening criteria based on their location and project type to determine if a presumption of a less than significant transportation impact can be made. The Project Type Screening threshold was selected for review based on its applicability to the proposed Project.

EXHIBIT A: PRELIMINARY SITE PLAN



PROJECT TYPE SCREENING

The City Guidelines identify that local serving retail uses of less than 50,000 square feet, including gas stations, shopping centers, etc. are presumed to have a less than significant impact absent substantial evidence to the contrary. The introduction of new local-serving retail has been determined to reduce VMT by shortening trips that will occur.

The Project consists of a fuel station with 5,500sf convenience store and 4,000sf of Class II gaming space, and satisfies the screening criteria.

The proposed Crossley/Dinah Shore Gas Station/Gaming development provides a service to existing travelers on Dinah Shore Drive and Crossley Road by supplying fuels, convenience market goods, and other ancillary uses. In addition, nearby residents as well as employees and visitors to existing local businesses are served in a similar manner.

The Project type screening criteria is met.

CONCLUSION

Based on the results of this evaluation, the Project satisfies the Project Type screening criteria and no further analysis is necessary.

If you have any questions, please contact us directly at jkain@urbanxroads.com for John or mwhiteman@urbanxroads.com for Marlie.

REFERENCES

1. **City of Palm Springs.** *TIA Guidelines.* City of Palm Springs : s.n., July 2020.

APPENDIX 3.1: TRAFFIC COUNTS – OCTOBER 2023

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Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Palm Springs
N/S: Lawrence Crossley Road
E/W: Dinah Shore Drive
Weather: Clear

File Name : 01_PLS_Cross_Dinah AM
Site Code : 05123904
Start Date : 10/4/2023
Page No : 1

Groups Printed- Total Volume

	Lawrence Crossley Road Southbound				Dinah Shore Drive Westbound				Lawrence Crossley Road Northbound				Dinah Shore Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	16	20	17	53	9	143	14	166	6	8	8	22	7	77	17	101	342
07:15 AM	24	34	23	81	7	174	18	199	12	24	13	49	3	106	13	122	451
07:30 AM	28	33	14	75	14	200	28	242	17	15	10	42	9	145	19	173	532
07:45 AM	20	78	23	121	25	241	19	285	16	29	11	56	5	175	26	206	668
Total	88	165	77	330	55	758	79	892	51	76	42	169	24	503	75	602	1993
08:00 AM	28	32	19	79	11	171	19	201	17	36	20	73	11	181	14	206	559
08:15 AM	19	25	14	58	12	159	21	192	8	36	17	61	7	115	14	136	447
08:30 AM	28	21	11	60	10	177	26	213	20	33	18	71	7	115	9	131	475
08:45 AM	27	24	13	64	7	150	25	182	17	31	13	61	8	137	10	155	462
Total	102	102	57	261	40	657	91	788	62	136	68	266	33	548	47	628	1943
Grand Total	190	267	134	591	95	1415	170	1680	113	212	110	435	57	1051	122	1230	3936
Apprch %	32.1	45.2	22.7		5.7	84.2	10.1		26	48.7	25.3		4.6	85.4	9.9		
Total %	4.8	6.8	3.4	15	2.4	36	4.3	42.7	2.9	5.4	2.8	11.1	1.4	26.7	3.1	31.2	

	Lawrence Crossley Road Southbound				Dinah Shore Drive Westbound				Lawrence Crossley Road Northbound				Dinah Shore Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	24	34	**23**	81	7	174	18	199	12	24	13	49	3	106	13	122	451
07:30 AM	**28**	33	14	75	14	200	**28**	242	**17**	15	10	42	9	145	19	173	532
07:45 AM	20	**78**	23	**121**	**25**	**241**	19	**285**	16	29	11	56	5	175	**26**	**206**	**668**
08:00 AM	28	32	19	79	11	171	19	201	17	**36**	**20**	**73**	**11**	**181**	14	206	559
Total Volume	100	177	79	356	57	786	84	927	62	104	54	220	28	607	72	707	2210
% App. Total	28.1	49.7	22.2		6.1	84.8	9.1		28.2	47.3	24.5		4	85.9	10.2		
PHF	.893	.567	.859	.736	.570	.815	.750	.813	.912	.722	.675	.753	.636	.838	.692	.858	.827

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City of Palm Springs
N/S: Lawrence Crossley Road
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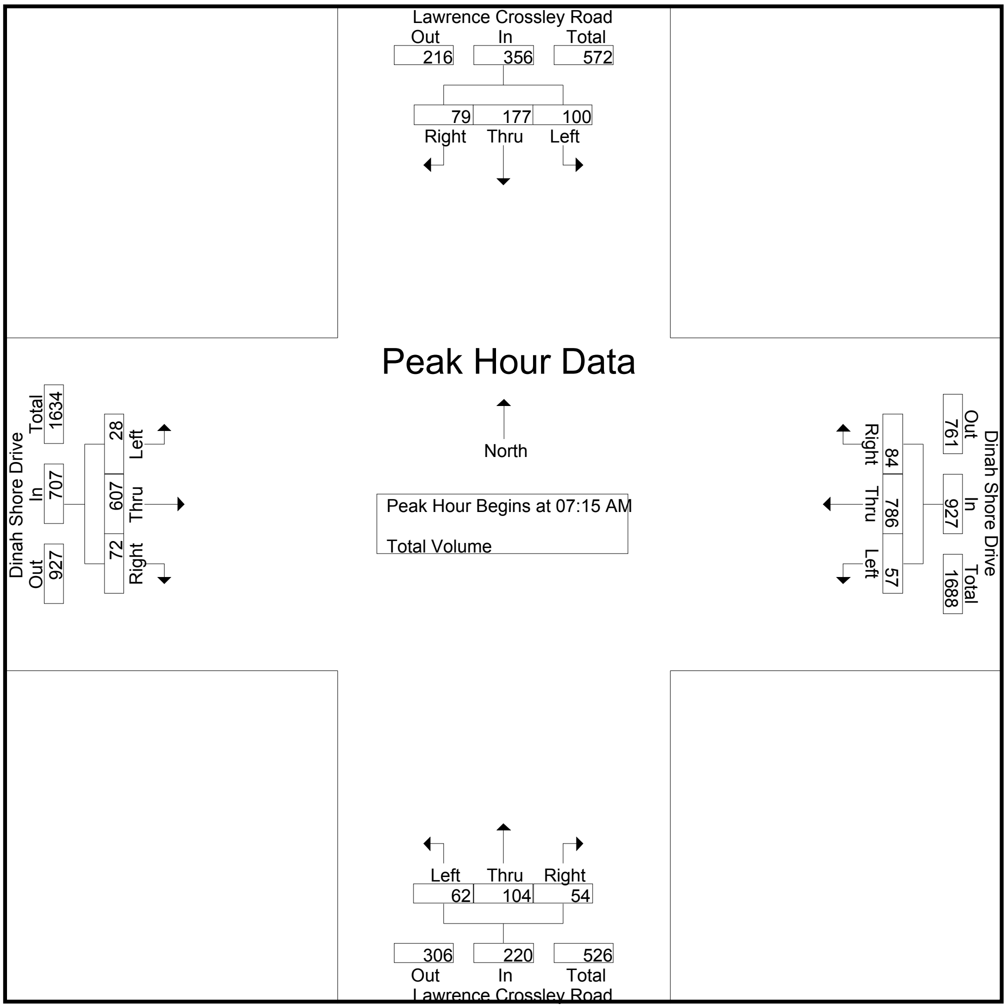
File Name : 01_PLS_Cross_Dinah AM
Site Code : 05123904
Start Date : 10/4/2023
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				08:00 AM				07:30 AM			
+0 mins.	24	34	**23**	81	7	174	18	199	17	**36**	**20**	**73**	9	145	19	173
+15 mins.	**28**	33	14	75	14	200	**28**	242	8	36	17	61	5	175	**26**	**206**
+30 mins.	20	**78**	23	**121**	**25**	**241**	19	**285**	**20**	33	18	71	**11**	**181**	14	206
+45 mins.	28	32	19	79	11	171	19	201	17	31	13	61	7	115	14	136
Total Volume	100	177	79	356	57	786	84	927	62	136	68	266	32	616	73	721
% App. Total	28.1	49.7	22.2		6.1	84.8	9.1		23.3	51.1	25.6		4.4	85.4	10.1	
PHF	.893	.567	.859	.736	.570	.815	.750	.813	.775	.944	.850	.911	.727	.851	.702	.875

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City of Palm Springs
N/S: Lawrence Crossley Road
E/W: Dinah Shore Drive
Weather: Clear

File Name : 01_PLS_Cross_Dinah PM
Site Code : 05123904
Start Date : 10/4/2023
Page No : 1

Groups Printed- Total Volume

	Lawrence Crossley Road Southbound				Dinah Shore Drive Westbound				Lawrence Crossley Road Northbound				Dinah Shore Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	29	32	11	72	10	153	33	196	13	39	21	73	14	162	17	193	534
04:15 PM	37	37	3	77	16	167	32	215	16	45	25	86	16	159	28	203	581
04:30 PM	24	28	11	63	12	147	31	190	21	37	18	76	13	183	20	216	545
04:45 PM	34	31	7	72	16	137	20	173	14	48	13	75	14	160	16	190	510
Total	124	128	32	284	54	604	116	774	64	169	77	310	57	664	81	802	2170
05:00 PM	30	34	8	72	10	161	42	213	12	46	18	76	17	196	14	227	588
05:15 PM	22	28	4	54	7	160	28	195	25	60	30	115	11	169	22	202	566
05:30 PM	31	25	8	64	6	144	20	170	13	44	13	70	12	139	20	171	475
05:45 PM	24	34	10	68	9	146	26	181	18	32	7	57	12	132	13	157	463
Total	107	121	30	258	32	611	116	759	68	182	68	318	52	636	69	757	2092
Grand Total	231	249	62	542	86	1215	232	1533	132	351	145	628	109	1300	150	1559	4262
Apprch %	42.6	45.9	11.4		5.6	79.3	15.1		21	55.9	23.1		7	83.4	9.6		
Total %	5.4	5.8	1.5	12.7	2	28.5	5.4	36	3.1	8.2	3.4	14.7	2.6	30.5	3.5	36.6	

	Lawrence Crossley Road Southbound				Dinah Shore Drive Westbound				Lawrence Crossley Road Northbound				Dinah Shore Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	**37**	**37**	3	**77**	**16**	**167**	32	**215**	16	45	**25**	**86**	16	159	**28**	203	581
04:30 PM	24	28	**11**	63	12	147	31	190	**21**	37	18	76	13	183	20	216	545
04:45 PM	34	31	7	72	16	137	20	173	14	**48**	13	75	14	160	16	190	510
05:00 PM	30	34	8	72	10	161	**42**	213	12	46	18	76	**17**	**196**	14	**227**	**588**
Total Volume	125	130	29	284	54	612	125	791	63	176	74	313	60	698	78	836	2224
% App. Total	44	45.8	10.2		6.8	77.4	15.8		20.1	56.2	23.6		7.2	83.5	9.3		
PHF	.845	.878	.659	.922	.844	.916	.744	.920	.750	.917	.740	.910	.882	.890	.696	.921	.946

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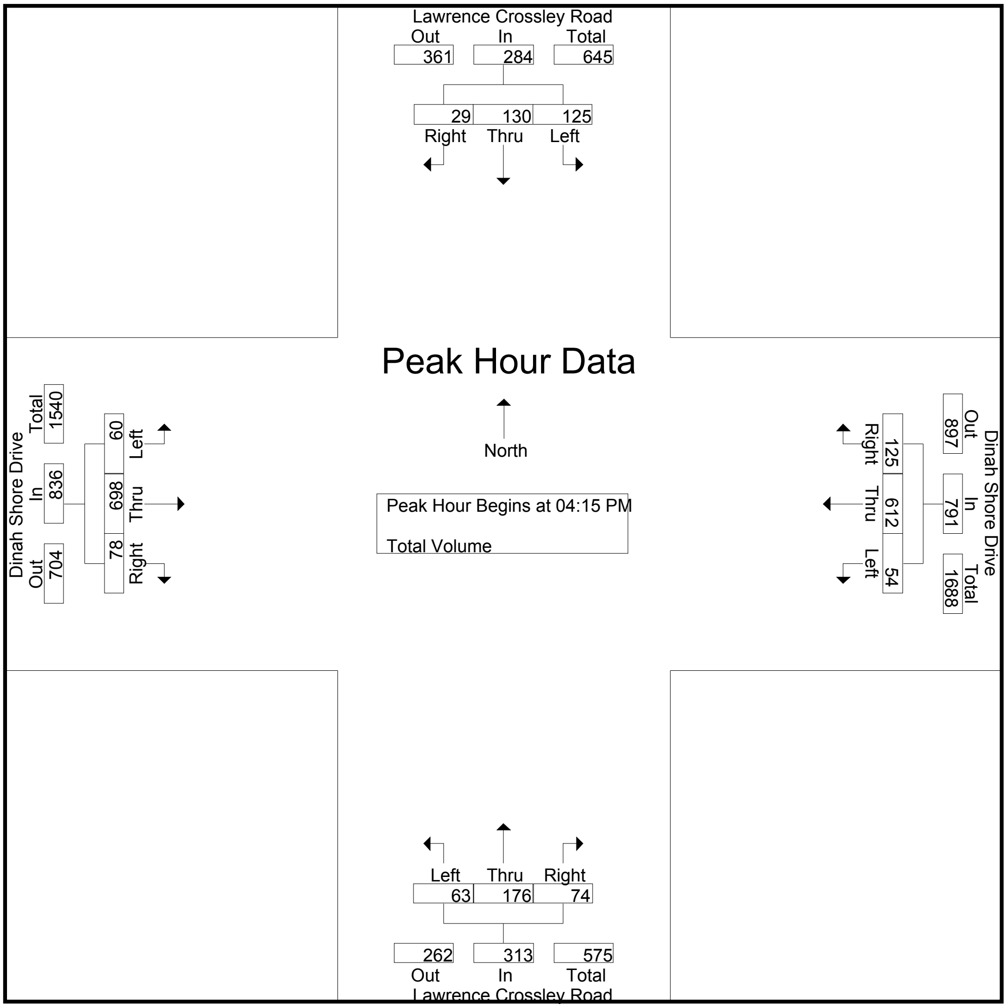
City of Palm Springs
N/S: Lawrence Crossley Road
E/W: Dinah Shore Drive
Weather: Clear

File Name : 01_PLS_Cross_Dinah PM
Site Code : 05123904
Start Date : 10/4/2023
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:15 PM				04:30 PM				04:15 PM			
+0 mins.	29	32	**11**	72	**16**	**167**	32	**215**	21	37	18	76	16	159	**28**	203
+15 mins.	**37**	**37**	3	**77**	12	147	31	190	14	48	13	75	13	183	20	216
+30 mins.	24	28	11	63	16	137	20	173	12	46	18	76	14	160	16	190
+45 mins.	34	31	7	72	10	161	**42**	213	**25**	**60**	**30**	**115**	**17**	**196**	14	**227**
Total Volume	124	128	32	284	54	612	125	791	72	191	79	342	60	698	78	836
% App. Total	43.7	45.1	11.3		6.8	77.4	15.8		21.1	55.8	23.1		7.2	83.5	9.3	
PHF	.838	.865	.727	.922	.844	.916	.744	.920	.720	.796	.658	.743	.882	.890	.696	.921

Counts Unlimited, Inc.
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City of Palm Springs
N/S: San Luis Rey Drive
E/W: Dinah Shore Drive
Weather: Clear

File Name : 02_PLS_San LR_Dinah AM
Site Code : 05123904
Start Date : 10/4/2023
Page No : 1

Groups Printed- Total Volume

	San Luis Rey Drive Southbound				Dinah Shore Drive Westbound				San Luis Rey Drive Northbound				Dinah Shore Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	14	0	13	27	3	142	21	166	1	0	1	2	2	90	2	94	289
07:15 AM	25	1	19	45	3	185	26	214	1	0	0	1	7	94	4	105	365
07:30 AM	33	2	9	44	3	199	27	229	0	0	0	0	5	139	2	146	419
07:45 AM	38	7	10	55	5	246	22	273	0	1	0	1	6	190	5	201	530
Total	110	10	51	171	14	772	96	882	2	1	1	4	20	513	13	546	1603
08:00 AM	24	0	6	30	8	192	14	214	1	2	0	3	4	157	2	163	410
08:15 AM	31	4	7	42	4	163	11	178	2	1	0	3	4	102	2	108	331
08:30 AM	19	2	9	30	2	188	13	203	2	0	0	2	3	114	1	118	353
08:45 AM	17	1	16	34	5	165	17	187	1	1	0	2	3	148	2	153	376
Total	91	7	38	136	19	708	55	782	6	4	0	10	14	521	7	542	1470
Grand Total	201	17	89	307	33	1480	151	1664	8	5	1	14	34	1034	20	1088	3073
Apprch %	65.5	5.5	29		2	88.9	9.1		57.1	35.7	7.1		3.1	95	1.8		
Total %	6.5	0.6	2.9	10	1.1	48.2	4.9	54.1	0.3	0.2	0	0.5	1.1	33.6	0.7	35.4	

	San Luis Rey Drive Southbound				Dinah Shore Drive Westbound				San Luis Rey Drive Northbound				Dinah Shore Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	25	1	**19**	45	3	185	26	214	**1**	0	0	1	**7**	94	4	105	365
07:30 AM	33	2	9	44	3	199	**27**	229	0	0	0	0	5	139	2	146	419
07:45 AM	**38**	**7**	10	**55**	5	**246**	22	**273**	0	1	0	1	6	**190**	**5**	**201**	**530**
08:00 AM	24	0	6	30	**8**	192	14	214	1	**2**	0	**3**	4	157	2	163	410
Total Volume	120	10	44	174	19	822	89	930	2	3	0	5	22	580	13	615	1724
% App. Total	69	5.7	25.3		2	88.4	9.6		40	60	0		3.6	94.3	2.1		
PHF	.789	.357	.579	.791	.594	.835	.824	.852	.500	.375	.000	.417	.786	.763	.650	.765	.813

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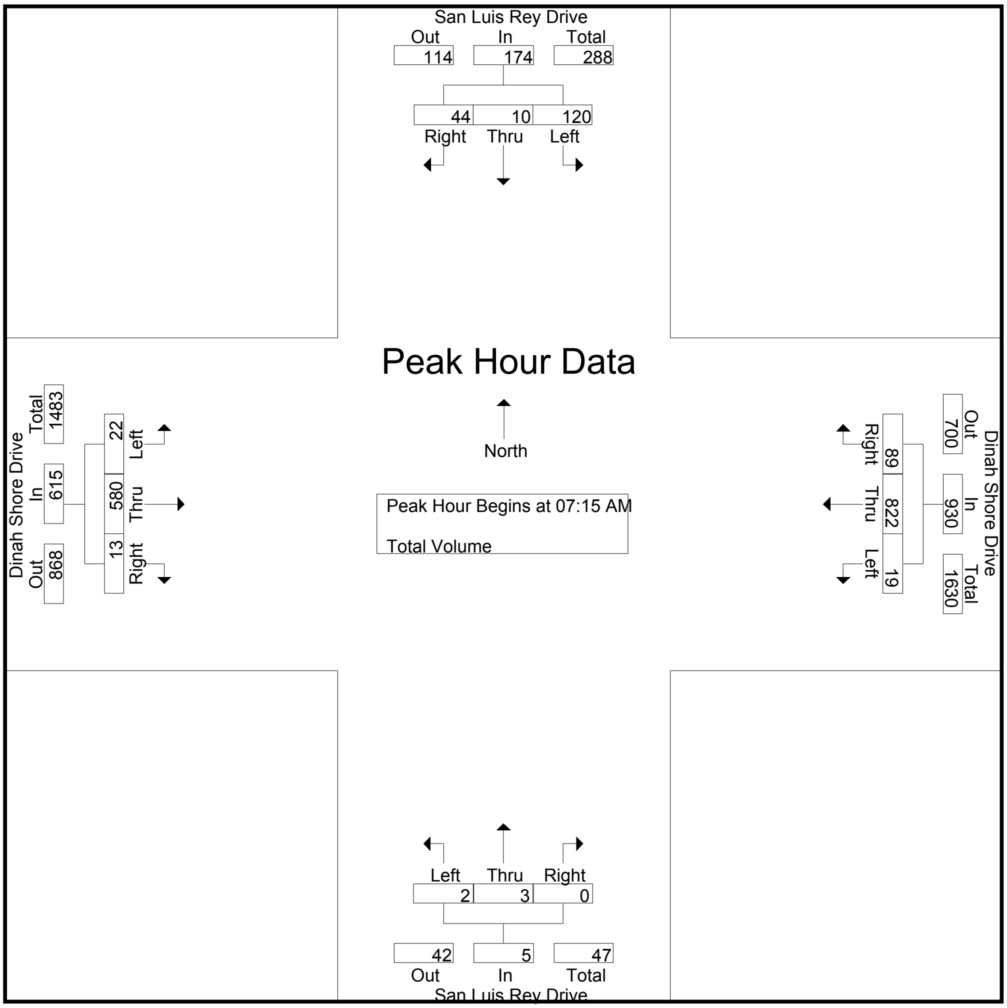
City of Palm Springs
N/S: San Luis Rey Drive
E/W: Dinah Shore Drive
Weather: Clear

File Name : 02_PLS_San LR_Dinah AM
Site Code : 05123904
Start Date : 10/4/2023
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				08:00 AM				07:30 AM			
+0 mins.	25	1	**19**	45	3	185	26	214	1	**2**	0	**3**	5	139	2	146
+15 mins.	33	2	9	44	3	199	**27**	229	**2**	1	0	3	**6**	**190**	**5**	**201**
+30 mins.	**38**	**7**	10	**55**	5	**246**	22	**273**	2	0	0	2	4	157	2	163
+45 mins.	24	0	6	30	**8**	192	14	214	1	1	0	2	4	102	2	108
Total Volume	120	10	44	174	19	822	89	930	6	4	0	10	19	588	11	618
% App. Total	69	5.7	25.3		2	88.4	9.6		60	40	0		3.1	95.1	1.8	
PHF	.789	.357	.579	.791	.594	.835	.824	.852	.750	.500	.000	.833	.792	.774	.550	.769

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City of Palm Springs
N/S: San Luis Rey Drive
E/W: Dinah Shore Drive
Weather: Clear

File Name : 02_PLS_San LR_Dinah PM
Site Code : 05123904
Start Date : 10/4/2023
Page No : 1

Groups Printed- Total Volume

	San Luis Rey Drive Southbound				Dinah Shore Drive Westbound				San Luis Rey Drive Northbound				Dinah Shore Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	22	0	13	35	0	146	20	166	3	0	0	3	7	169	1	177	381
04:15 PM	30	0	8	38	3	160	29	192	1	0	0	1	5	167	2	174	405
04:30 PM	30	1	8	39	1	160	17	178	1	3	0	4	8	176	2	186	407
04:45 PM	16	0	6	22	1	137	23	161	1	0	0	1	10	168	0	178	362
Total	98	1	35	134	5	603	89	697	6	3	0	9	30	680	5	715	1555
05:00 PM	18	0	9	27	0	171	12	183	5	1	2	8	4	193	0	197	415
05:15 PM	32	0	3	35	2	139	15	156	2	1	0	3	4	172	0	176	370
05:30 PM	33	0	11	44	0	188	18	206	0	0	0	0	2	147	0	149	399
05:45 PM	29	0	10	39	1	148	19	168	1	0	0	1	3	120	0	123	331
Total	112	0	33	145	3	646	64	713	8	2	2	12	13	632	0	645	1515
Grand Total	210	1	68	279	8	1249	153	1410	14	5	2	21	43	1312	5	1360	3070
Apprch %	75.3	0.4	24.4		0.6	88.6	10.9		66.7	23.8	9.5		3.2	96.5	0.4		
Total %	6.8	0	2.2	9.1	0.3	40.7	5	45.9	0.5	0.2	0.1	0.7	1.4	42.7	0.2	44.3	

	San Luis Rey Drive Southbound				Dinah Shore Drive Westbound				San Luis Rey Drive Northbound				Dinah Shore Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	**30**	0	8	38	**3**	160	**29**	**192**	1	0	0	1	5	167	**2**	174	405
04:30 PM	30	**1**	8	**39**	1	160	17	178	1	**3**	0	4	8	176	2	186	407
04:45 PM	16	0	6	22	1	137	23	161	1	0	0	1	**10**	168	0	178	362
05:00 PM	18	0	**9**	27	0	**171**	12	183	**5**	1	**2**	**8**	4	**193**	0	**197**	**415**
Total Volume	94	1	31	126	5	628	81	714	8	4	2	14	27	704	4	735	1589
% App. Total	74.6	0.8	24.6		0.7	88	11.3		57.1	28.6	14.3		3.7	95.8	0.5		
PHF	.783	.250	.861	.808	.417	.918	.698	.930	.400	.333	.250	.438	.675	.912	.500	.933	.957

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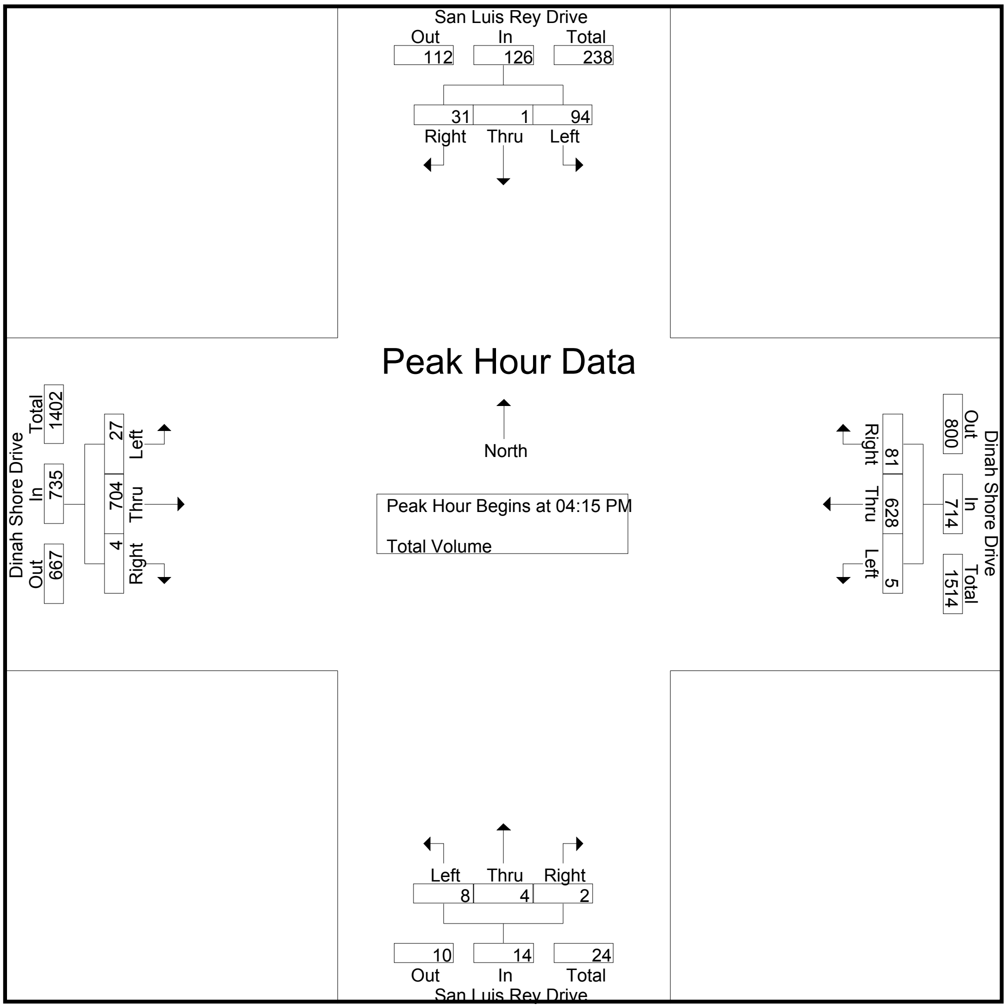
City of Palm Springs
N/S: San Luis Rey Drive
E/W: Dinah Shore Drive
Weather: Clear

File Name : 02_PLS_San LR_Dinah PM
Site Code : 05123904
Start Date : 10/4/2023
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM				04:15 PM				04:30 PM				04:30 PM			
+0 mins.	18	0	9	27	**3**	160	**29**	**192**	1	**3**	0	4	8	176	**2**	186
+15 mins.	32	0	3	35	1	160	17	178	1	0	0	1	**10**	168	0	178
+30 mins.	**33**	0	**11**	**44**	1	137	23	161	**5**	1	**2**	**8**	4	**193**	0	**197**
+45 mins.	29	0	10	39	0	**171**	12	183	2	1	0	3	4	172	0	176
Total Volume	112	0	33	145	5	628	81	714	9	5	2	16	26	709	2	737
% App. Total	77.2	0	22.8		0.7	88	11.3		56.2	31.2	12.5		3.5	96.2	0.3	
PHF	.848	.000	.750	.824	.417	.918	.698	.930	.450	.417	.250	.500	.650	.918	.250	.935

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City of Palm Springs
N/S: Gene Autry Trail
E/W: Mesquite Avenue/Dinah Shore Drive
Weather: Clear

File Name : 03_PLS_GAT_Dinah AM
Site Code : 05123904
Start Date : 10/4/2023
Page No : 1

Groups Printed- Total Volume

	Gene Autry Trail Southbound				Dinah Shore Drive Westbound				Gene Autry Trail Northbound				Mesquite Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	59	81	21	161	25	61	69	155	6	35	6	47	3	31	6	40	403
07:15 AM	65	89	24	178	33	89	69	191	11	52	10	73	6	35	12	53	495
07:30 AM	76	118	8	202	27	84	107	218	10	69	18	97	9	45	14	68	585
07:45 AM	105	121	6	232	32	85	136	253	6	69	17	92	3	91	20	114	691
Total	305	409	59	773	117	319	381	817	33	225	51	309	21	202	52	275	2174
08:00 AM	86	79	11	176	45	67	88	200	6	63	13	82	5	59	16	80	538
08:15 AM	58	76	9	143	34	57	79	170	4	72	12	88	6	38	13	57	458
08:30 AM	66	84	6	156	38	56	109	203	4	87	13	104	10	38	12	60	523
08:45 AM	80	87	9	176	26	48	97	171	10	97	22	129	6	53	14	73	549
Total	290	326	35	651	143	228	373	744	24	319	60	403	27	188	55	270	2068
Grand Total	595	735	94	1424	260	547	754	1561	57	544	111	712	48	390	107	545	4242
Apprch %	41.8	51.6	6.6		16.7	35	48.3		8	76.4	15.6		8.8	71.6	19.6		
Total %	14	17.3	2.2	33.6	6.1	12.9	17.8	36.8	1.3	12.8	2.6	16.8	1.1	9.2	2.5	12.8	

	Gene Autry Trail Southbound				Dinah Shore Drive Westbound				Gene Autry Trail Northbound				Mesquite Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	65	89	**24**	178	33	**89**	69	191	**11**	52	10	73	6	35	12	53	495
07:30 AM	76	118	8	202	27	84	107	218	10	**69**	**18**	**97**	**9**	45	14	68	585
07:45 AM	**105**	**121**	6	**232**	32	85	**136**	**253**	6	69	17	92	3	**91**	**20**	**114**	**691**
08:00 AM	86	79	11	176	**45**	67	88	200	6	63	13	82	5	59	16	80	538
Total Volume	332	407	49	788	137	325	400	862	33	253	58	344	23	230	62	315	2309
% App. Total	42.1	51.6	6.2		15.9	37.7	46.4		9.6	73.5	16.9		7.3	73	19.7		
PHF	.790	.841	.510	.849	.761	.913	.735	.852	.750	.917	.806	.887	.639	.632	.775	.691	.835

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City of Palm Springs
N/S: Gene Autry Trail
E/W: Mesquite Avenue/Dinah Shore Drive
Weather: Clear

File Name : 03_PLS_GAT_Dinah AM
Site Code : 05123904
Start Date : 10/4/2023
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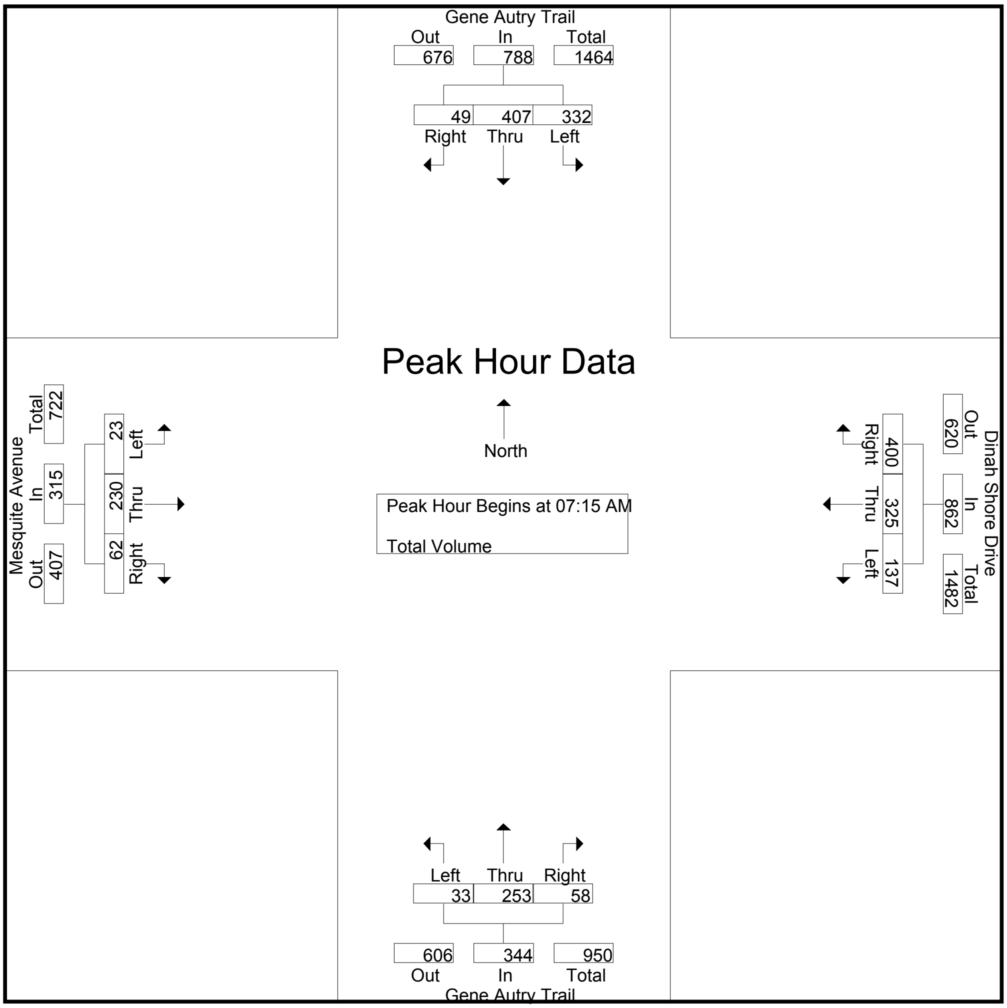

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				08:00 AM				07:30 AM			
+0 mins.	65	89	**24**	178	33	**89**	69	191	6	63	13	82	**9**	45	14	68
+15 mins.	76	118	8	202	27	84	107	218	4	72	12	88	3	**91**	**20**	**114**
+30 mins.	**105**	**121**	6	**232**	32	85	**136**	**253**	4	87	13	104	5	59	16	80
+45 mins.	86	79	11	176	**45**	67	88	200	**10**	**97**	**22**	**129**	6	38	13	57
Total Volume	332	407	49	788	137	325	400	862	24	319	60	403	23	233	63	319
% App. Total	42.1	51.6	6.2		15.9	37.7	46.4		6	79.2	14.9		7.2	73	19.7	
PHF	.790	.841	.510	.849	.761	.913	.735	.852	.600	.822	.682	.781	.639	.640	.788	.700

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City of Palm Springs
N/S: Gene Autry Trail
E/W: Mesquite Avenue/Dinah Shore Drive
Weather: Clear

File Name : 03_PLS_GAT_Dinah PM
Site Code : 05123904
Start Date : 10/4/2023
Page No : 1

Groups Printed- Total Volume

	Gene Autry Trail Southbound				Dinah Shore Drive Westbound				Gene Autry Trail Northbound				Mesquite Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	94	105	9	208	25	57	89	171	9	112	20	141	16	69	5	90	610
04:15 PM	83	82	6	171	16	54	97	167	11	113	29	153	5	59	15	79	570
04:30 PM	117	76	11	204	22	48	104	174	8	122	20	150	10	52	9	71	599
04:45 PM	78	94	7	179	25	37	79	141	9	94	38	141	9	60	11	80	541
Total	372	357	33	762	88	196	369	653	37	441	107	585	40	240	40	320	2320
05:00 PM	92	97	6	195	49	90	90	229	14	142	42	198	9	69	18	96	718
05:15 PM	92	83	4	179	17	69	87	173	14	112	25	151	3	58	5	66	569
05:30 PM	75	62	6	143	26	53	77	156	11	113	27	151	8	44	10	62	512
05:45 PM	63	59	7	129	21	44	101	166	12	94	27	133	1	29	10	40	468
Total	322	301	23	646	113	256	355	724	51	461	121	633	21	200	43	264	2267
Grand Total	694	658	56	1408	201	452	724	1377	88	902	228	1218	61	440	83	584	4587
Apprch %	49.3	46.7	4		14.6	32.8	52.6		7.2	74.1	18.7		10.4	75.3	14.2		
Total %	15.1	14.3	1.2	30.7	4.4	9.9	15.8	30	1.9	19.7	5	26.6	1.3	9.6	1.8	12.7	

	Gene Autry Trail Southbound				Dinah Shore Drive Westbound				Gene Autry Trail Northbound				Mesquite Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	83	82	6	171	16	54	97	167	11	113	29	153	5	59	15	79	570
04:30 PM	**117**	76	**11**	**204**	22	48	**104**	174	8	122	20	150	**10**	52	9	71	599
04:45 PM	78	94	7	179	25	37	79	141	9	94	38	141	9	60	11	80	541
05:00 PM	92	**97**	6	195	**49**	**90**	90	**229**	**14**	**142**	**42**	**198**	9	**69**	**18**	**96**	**718**
Total Volume	370	349	30	749	112	229	370	711	42	471	129	642	33	240	53	326	2428
% App. Total	49.4	46.6	4		15.8	32.2	52		6.5	73.4	20.1		10.1	73.6	16.3		
PHF	.791	.899	.682	.918	.571	.636	.889	.776	.750	.829	.768	.811	.825	.870	.736	.849	.845

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City of Palm Springs
N/S: Gene Autry Trail
E/W: Mesquite Avenue/Dinah Shore Drive
Weather: Clear

File Name : 03_PLS_GAT_Dinah PM
Site Code : 05123904
Start Date : 10/4/2023
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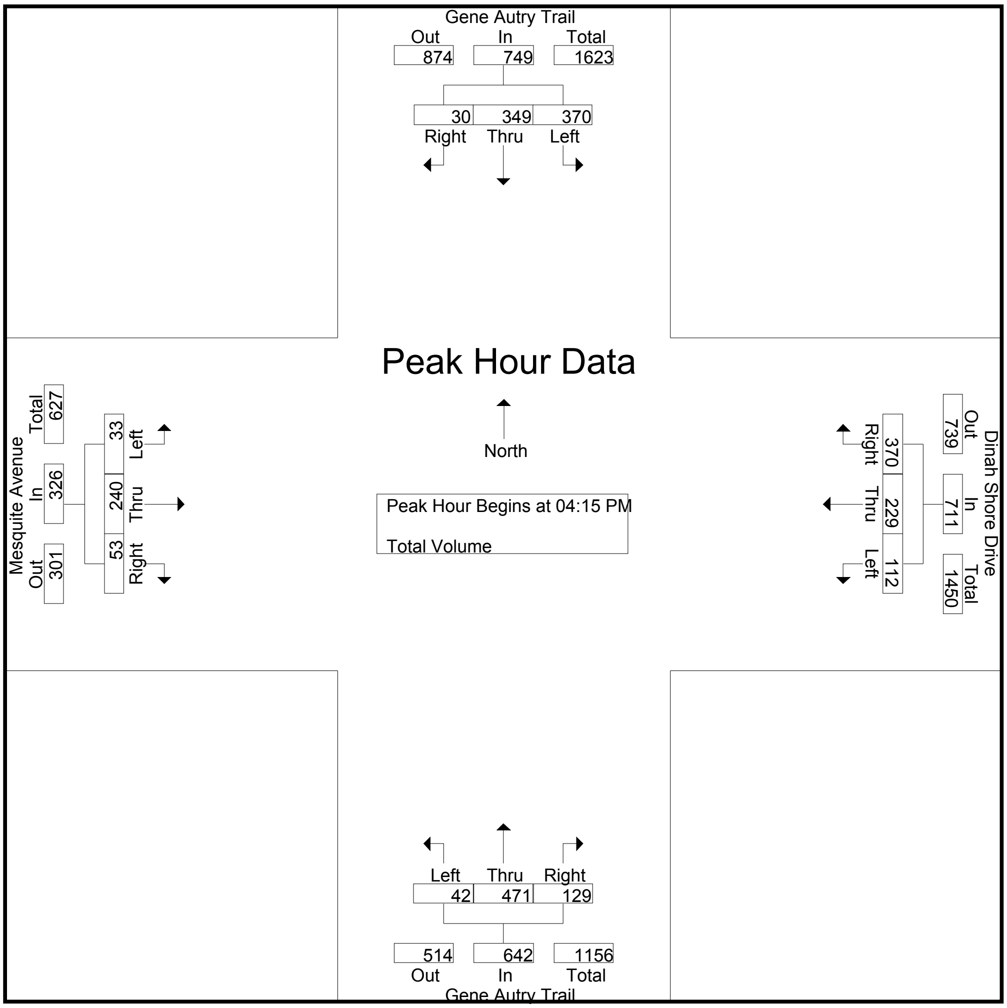

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				05:00 PM				04:15 PM				04:15 PM			
+0 mins.	94	**105**	9	**208**	**49**	**90**	90	**229**	11	113	29	153	5	59	15	79
+15 mins.	83	82	6	171	17	69	87	173	8	122	20	150	**10**	52	9	71
+30 mins.	**117**	76	**11**	204	26	53	77	156	9	94	38	141	9	60	11	80
+45 mins.	78	94	7	179	21	44	**101**	166	**14**	**142**	**42**	**198**	9	**69**	**18**	**96**
Total Volume	372	357	33	762	113	256	355	724	42	471	129	642	33	240	53	326
% App. Total	48.8	46.9	4.3		15.6	35.4	49		6.5	73.4	20.1		10.1	73.6	16.3	
PHF	.795	.850	.750	.916	.577	.711	.879	.790	.750	.829	.768	.811	.825	.870	.736	.849

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City of Palm Springs
N/S: Lawrence Crossley Road
E/W: Indian Springs Road
Weather: Clear

File Name : 04_PLS_Cross_In Sp AM
Site Code : 05123904
Start Date : 10/4/2023
Page No : 1

Groups Printed- Total Volume

	Lawrence Crossley Road Southbound			Lawrence Crossley Road Northbound			Indian Springs Road Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
07:00 AM	50	1	51	2	27	29	1	5	6	86
07:15 AM	74	2	76	2	41	43	1	4	5	124
07:30 AM	75	3	78	3	49	52	3	4	7	137
07:45 AM	118	4	122	4	53	57	1	4	5	184
Total	317	10	327	11	170	181	6	17	23	531
08:00 AM	73	5	78	2	64	66	2	2	4	148
08:15 AM	57	5	62	2	60	62	1	3	4	128
08:30 AM	61	3	64	4	62	66	3	1	4	134
08:45 AM	53	5	58	7	57	64	3	4	7	129
Total	244	18	262	15	243	258	9	10	19	539
Grand Total	561	28	589	26	413	439	15	27	42	1070
Apprch %	95.2	4.8		5.9	94.1		35.7	64.3		
Total %	52.4	2.6	55	2.4	38.6	41	1.4	2.5	3.9	

	Lawrence Crossley Road Southbound			Lawrence Crossley Road Northbound			Indian Springs Road Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	75	3	78	3	49	52	**3**	**4**	**7**	137
07:45 AM	**118**	4	**122**	**4**	53	57	1	4	5	**184**
08:00 AM	73	**5**	78	2	**64**	**66**	2	2	4	148
08:15 AM	57	5	62	2	60	62	1	3	4	128
Total Volume	323	17	340	11	226	237	7	13	20	597
% App. Total	95	5		4.6	95.4		35	65		
PHF	.684	.850	.697	.688	.883	.898	.583	.813	.714	.811

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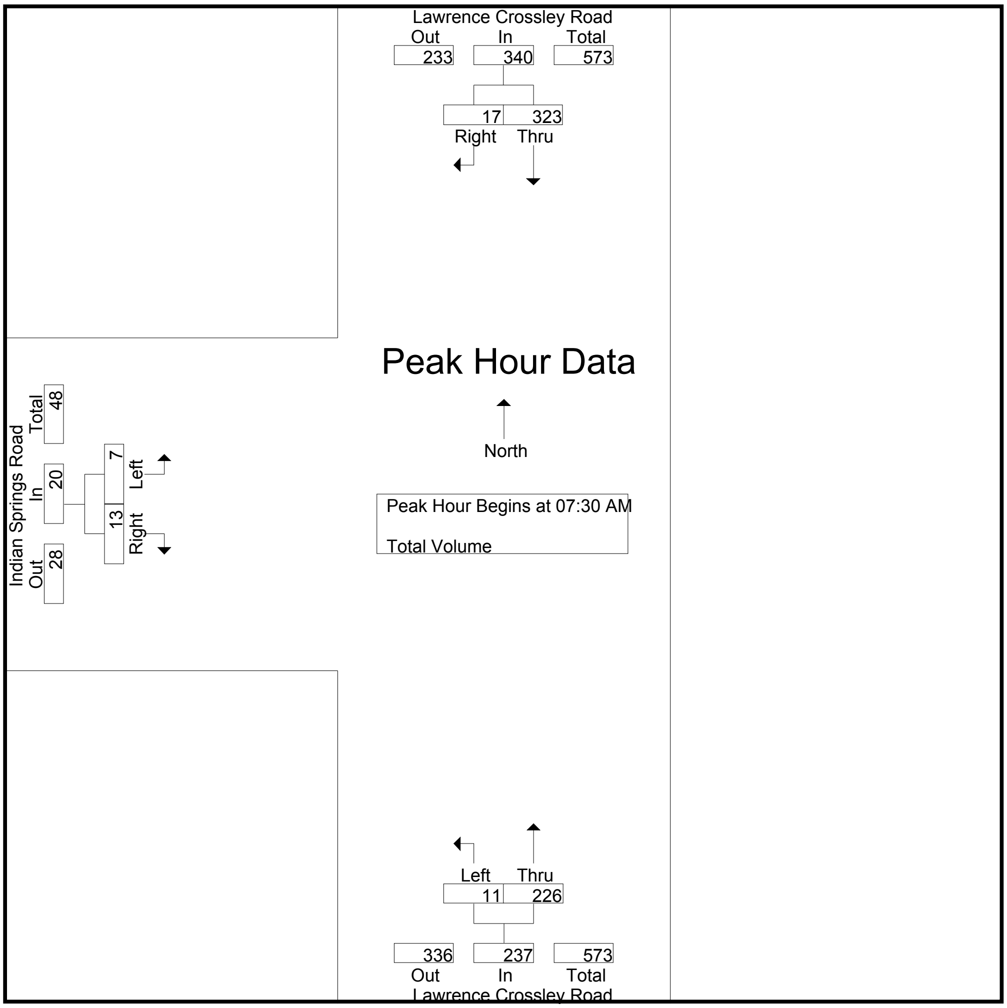
City of Palm Springs
N/S: Lawrence Crossley Road
E/W: Indian Springs Road
Weather: Clear

File Name : 04_PLS_Cross_In Sp AM
Site Code : 05123904
Start Date : 10/4/2023



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM			08:00 AM			07:00 AM		
+0 mins.	74	2	76	2	**64**	**66**	1	**5**	6
+15 mins.	75	3	78	2	60	62	1	4	5
+30 mins.	**118**	4	**122**	4	62	66	**3**	4	**7**
+45 mins.	73	**5**	78	**7**	57	64	1	4	5
Total Volume	340	14	354	15	243	258	6	17	23
% App. Total	96	4		5.8	94.2		26.1	73.9	
PHF	.720	.700	.725	.536	.949	.977	.500	.850	.821

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City of Palm Springs
N/S: Lawrence Crossley Road
E/W: Indian Springs Road
Weather: Clear

File Name : 04_PLS_Cross_In Sp PM
Site Code : 05123904
Start Date : 10/4/2023
Page No : 1

Groups Printed- Total Volume

	Lawrence Crossley Road Southbound			Lawrence Crossley Road Northbound			Indian Springs Road Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
04:00 PM	75	1	76	4	82	86	2	5	7	169
04:15 PM	66	2	68	3	90	93	2	5	7	168
04:30 PM	61	1	62	4	76	80	1	1	2	144
04:45 PM	74	9	83	8	72	80	6	0	6	169
Total	276	13	289	19	320	339	11	11	22	650
05:00 PM	68	3	71	10	96	106	6	4	10	187
05:15 PM	55	1	56	6	95	101	2	2	4	161
05:30 PM	56	2	58	1	71	72	0	2	2	132
05:45 PM	60	6	66	5	67	72	4	8	12	150
Total	239	12	251	22	329	351	12	16	28	630
Grand Total	515	25	540	41	649	690	23	27	50	1280
Apprch %	95.4	4.6		5.9	94.1		46	54		
Total %	40.2	2	42.2	3.2	50.7	53.9	1.8	2.1	3.9	

	Lawrence Crossley Road Southbound			Lawrence Crossley Road Northbound			Indian Springs Road Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	66	2	68	3	90	93	2	**5**	7	168
04:30 PM	61	1	62	4	76	80	1	1	2	144
04:45 PM	**74**	**9**	**83**	8	72	80	**6**	0	6	169
05:00 PM	68	3	71	**10**	**96**	**106**	6	4	**10**	**187**
Total Volume	269	15	284	25	334	359	15	10	25	668
% App. Total	94.7	5.3		7	93		60	40		
PHF	.909	.417	.855	.625	.870	.847	.625	.500	.625	.893

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City of Palm Springs
N/S: Lawrence Crossley Road
E/W: Indian Springs Road
Weather: Clear

File Name : 04_PLS_Cross_In Sp PM
Site Code : 05123904
Start Date : 10/4/2023
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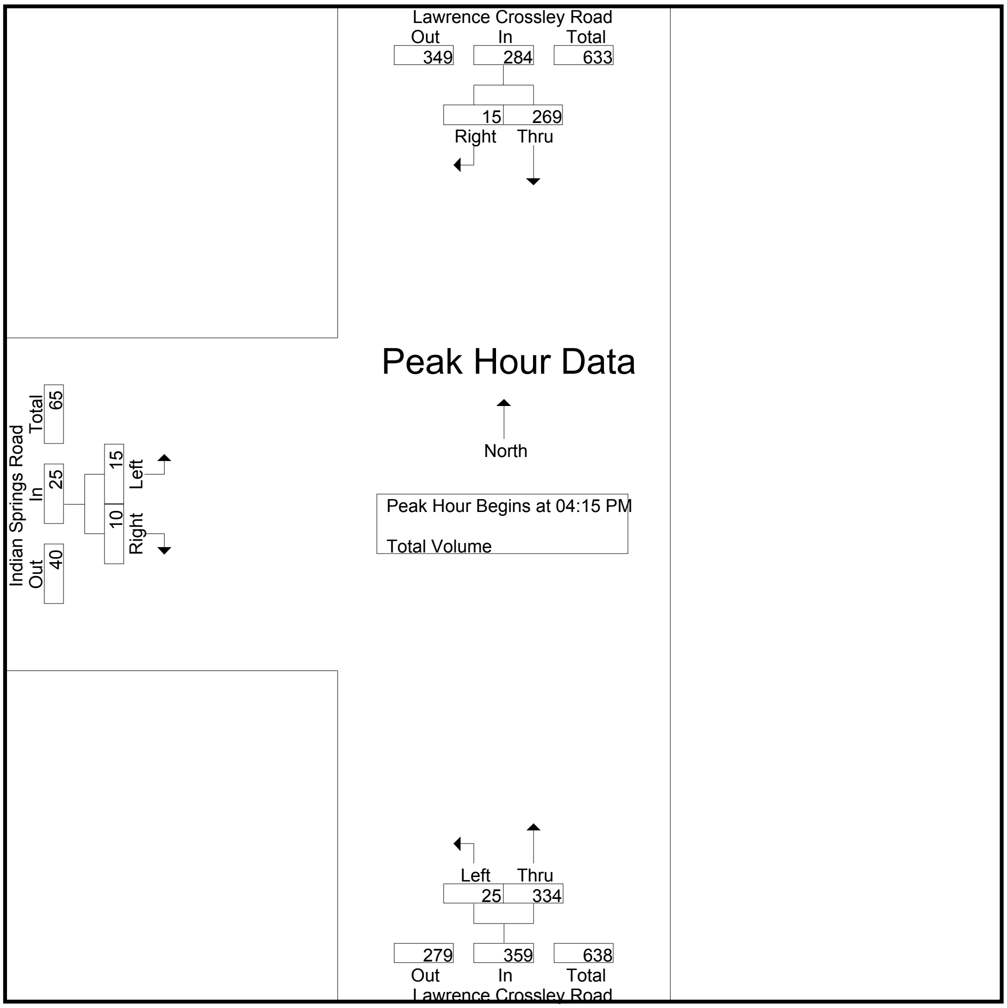

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM			04:30 PM			05:00 PM		
+0 mins.	**75**	1	76	4	76	80	**6**	4	10
+15 mins.	66	2	68	8	72	80	2	2	4
+30 mins.	61	1	62	**10**	**96**	**106**	0	2	2
+45 mins.	74	**9**	**83**	6	95	101	4	**8**	**12**
Total Volume	276	13	289	28	339	367	12	16	28
% App. Total	95.5	4.5		7.6	92.4		42.9	57.1	
PHF	.920	.361	.870	.700	.883	.866	.500	.500	.583

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City of Palm Springs
N/S: Lawrence Crossley Road
E/W: E Sunny Dunes Road
Weather: Clear

File Name : 05_PLS_Cross_Sunny AM
Site Code : 05123904
Start Date : 10/4/2023
Page No : 1

Groups Printed- Total Volume

	Lawrence Crossley Road Southbound			Lawrence Crossley Road Northbound			E Sunny Dunes Road Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
07:00 AM	50	9	59	2	26	28	3	3	6	93
07:15 AM	72	8	80	6	35	41	6	4	10	131
07:30 AM	70	7	77	4	49	53	2	7	9	139
07:45 AM	118	20	138	7	48	55	6	6	12	205
Total	310	44	354	19	158	177	17	20	37	568
08:00 AM	72	6	78	4	61	65	8	5	13	156
08:15 AM	56	4	60	4	56	60	2	7	9	129
08:30 AM	61	6	67	3	62	65	2	4	6	138
08:45 AM	56	4	60	5	56	61	6	6	12	133
Total	245	20	265	16	235	251	18	22	40	556
Grand Total	555	64	619	35	393	428	35	42	77	1124
Apprch %	89.7	10.3		8.2	91.8		45.5	54.5		
Total %	49.4	5.7	55.1	3.1	35	38.1	3.1	3.7	6.9	

	Lawrence Crossley Road Southbound			Lawrence Crossley Road Northbound			E Sunny Dunes Road Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	72	8	80	6	35	41	6	4	10	131
07:30 AM	70	7	77	4	49	53	2	**7**	9	139
07:45 AM	**118**	**20**	**138**	**7**	48	55	6	6	12	**205**
08:00 AM	72	6	78	4	**61**	**65**	**8**	5	**13**	156
Total Volume	332	41	373	21	193	214	22	22	44	631
% App. Total	89	11		9.8	90.2		50	50		
PHF	.703	.513	.676	.750	.791	.823	.688	.786	.846	.770

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City of Palm Springs
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E/W: E Sunny Dunes Road
Weather: Clear

File Name : 05_PLS_Cross_Sunny AM
Site Code : 05123904
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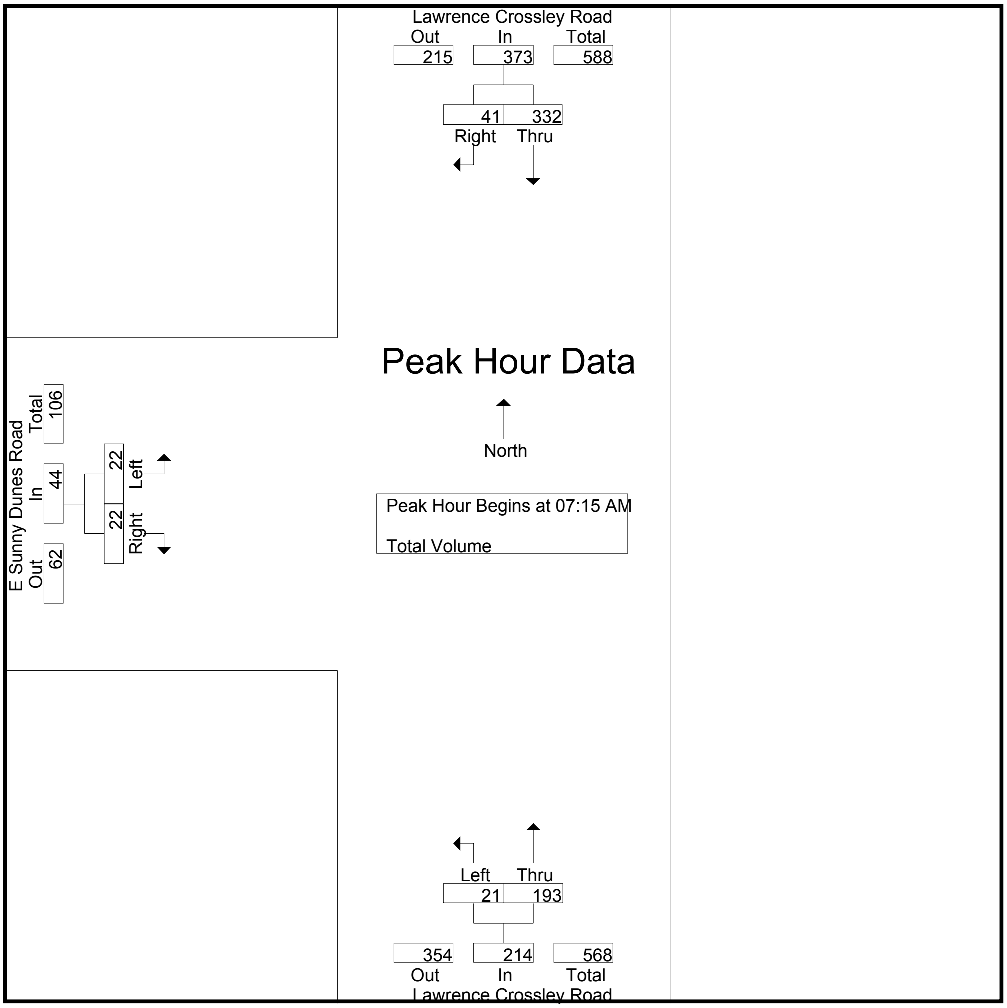

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM			08:00 AM			07:15 AM		
+0 mins.	72	8	80	4	61	**65**	6	4	10
+15 mins.	70	7	77	4	56	60	2	**7**	9
+30 mins.	**118**	**20**	**138**	3	**62**	65	6	6	12
+45 mins.	72	6	78	**5**	56	61	**8**	5	**13**
Total Volume	332	41	373	16	235	251	22	22	44
% App. Total	89	11		6.4	93.6		50	50	
PHF	.703	.513	.676	.800	.948	.965	.688	.786	.846

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Weather: Clear

File Name : 05_PLS_Cross_Sunny PM
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Groups Printed- Total Volume

	Lawrence Crossley Road Southbound			Lawrence Crossley Road Northbound			E Sunny Dunes Road Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
04:00 PM	71	1	72	2	87	89	12	3	15	176
04:15 PM	63	0	63	5	84	89	11	10	21	173
04:30 PM	64	1	65	6	73	79	7	4	11	155
04:45 PM	75	1	76	6	76	82	8	10	18	176
Total	273	3	276	19	320	339	38	27	65	680
05:00 PM	63	2	65	3	95	98	7	8	15	178
05:15 PM	52	3	55	1	100	101	6	4	10	166
05:30 PM	58	4	62	3	67	70	7	2	9	141
05:45 PM	65	1	66	1	70	71	6	5	11	148
Total	238	10	248	8	332	340	26	19	45	633
Grand Total	511	13	524	27	652	679	64	46	110	1313
Apprch %	97.5	2.5		4	96		58.2	41.8		
Total %	38.9	1	39.9	2.1	49.7	51.7	4.9	3.5	8.4	

	Lawrence Crossley Road Southbound			Lawrence Crossley Road Northbound			E Sunny Dunes Road Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	63	0	63	5	84	89	**11**	**10**	**21**	173
04:30 PM	64	1	65	**6**	73	79	7	4	11	155
04:45 PM	**75**	1	**76**	6	76	82	8	10	18	176
05:00 PM	63	**2**	65	3	**95**	**98**	7	8	15	**178**
Total Volume	265	4	269	20	328	348	33	32	65	682
% App. Total	98.5	1.5		5.7	94.3		50.8	49.2		
PHF	.883	.500	.885	.833	.863	.888	.750	.800	.774	.958

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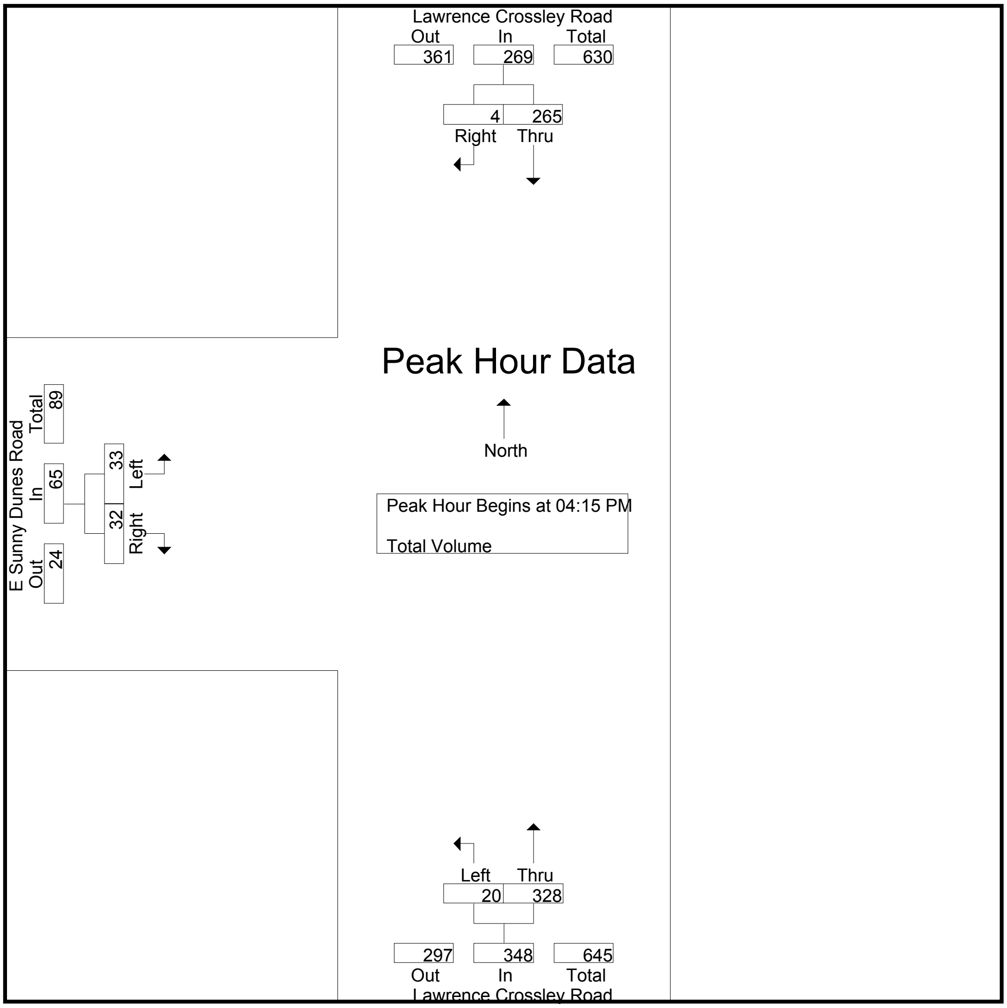
Corona, CA 92878
(951) 268-6268

City of Palm Springs
N/S: Lawrence Crossley Road
E/W: E Sunny Dunes Road
Weather: Clear

File Name : 05_PLS_Cross_Sunny PM
Site Code : 05123904
Start Date : 10/4/2023
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM			04:30 PM			04:00 PM		
+0 mins.	71	**1**	72	**6**	73	79	**12**	3	15
+15 mins.	63	0	63	6	76	82	11	**10**	**21**
+30 mins.	64	1	65	3	95	98	7	4	11
+45 mins.	**75**	1	**76**	1	**100**	**101**	8	10	18
Total Volume	273	3	276	16	344	360	38	27	65
% App. Total	98.9	1.1		4.4	95.6		58.5	41.5	
PHF	.910	.750	.908	.667	.860	.891	.792	.675	.774

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Palm Springs
N/S: Lawrence Crossley Road
E/W: Ramon Road
Weather: Clear

File Name : 06_PLS_Cross_Ramon AM
Site Code : 05123904
Start Date : 10/4/2023
Page No : 1

Groups Printed- Total Volume

	Lawrence Crossley Road Southbound				Ramon Road Westbound				Lawrence Crossley Road Northbound				Ramon Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	4	3	8	15	47	288	6	341	11	2	17	30	16	119	14	149	535
07:15 AM	6	6	5	17	60	338	5	403	10	4	29	43	6	148	18	172	635
07:30 AM	2	6	6	14	54	428	6	488	12	6	29	47	10	224	19	253	802
07:45 AM	6	8	11	25	108	379	6	493	9	5	23	37	9	225	23	257	812
Total	18	23	30	71	269	1433	23	1725	42	17	98	157	41	716	74	831	2784
08:00 AM	3	4	6	13	52	265	5	322	16	2	51	69	8	215	14	237	641
08:15 AM	5	4	5	14	45	274	7	326	10	1	43	54	12	201	10	223	617
08:30 AM	2	6	9	17	44	296	2	342	19	2	27	48	6	168	20	194	601
08:45 AM	7	7	6	20	40	324	4	368	14	5	34	53	4	186	13	203	644
Total	17	21	26	64	181	1159	18	1358	59	10	155	224	30	770	57	857	2503
Grand Total	35	44	56	135	450	2592	41	3083	101	27	253	381	71	1486	131	1688	5287
Apprch %	25.9	32.6	41.5		14.6	84.1	1.3		26.5	7.1	66.4		4.2	88	7.8		
Total %	0.7	0.8	1.1	2.6	8.5	49	0.8	58.3	1.9	0.5	4.8	7.2	1.3	28.1	2.5	31.9	

	Lawrence Crossley Road Southbound				Ramon Road Westbound				Lawrence Crossley Road Northbound				Ramon Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	**6**	6	5	17	60	338	5	403	10	4	29	43	6	148	18	172	635
07:30 AM	2	6	6	14	54	**428**	**6**	488	12	**6**	29	47	**10**	224	19	253	802
07:45 AM	6	**8**	**11**	**25**	**108**	379	6	**493**	9	5	23	37	9	**225**	**23**	**257**	**812**
08:00 AM	3	4	6	13	52	265	5	322	**16**	2	**51**	**69**	8	215	14	237	641
Total Volume	17	24	28	69	274	1410	22	1706	47	17	132	196	33	812	74	919	2890
% App. Total	24.6	34.8	40.6		16.1	82.6	1.3		24	8.7	67.3		3.6	88.4	8.1		
PHF	.708	.750	.636	.690	.634	.824	.917	.865	.734	.708	.647	.710	.825	.902	.804	.894	.890

Counts Unlimited, Inc.
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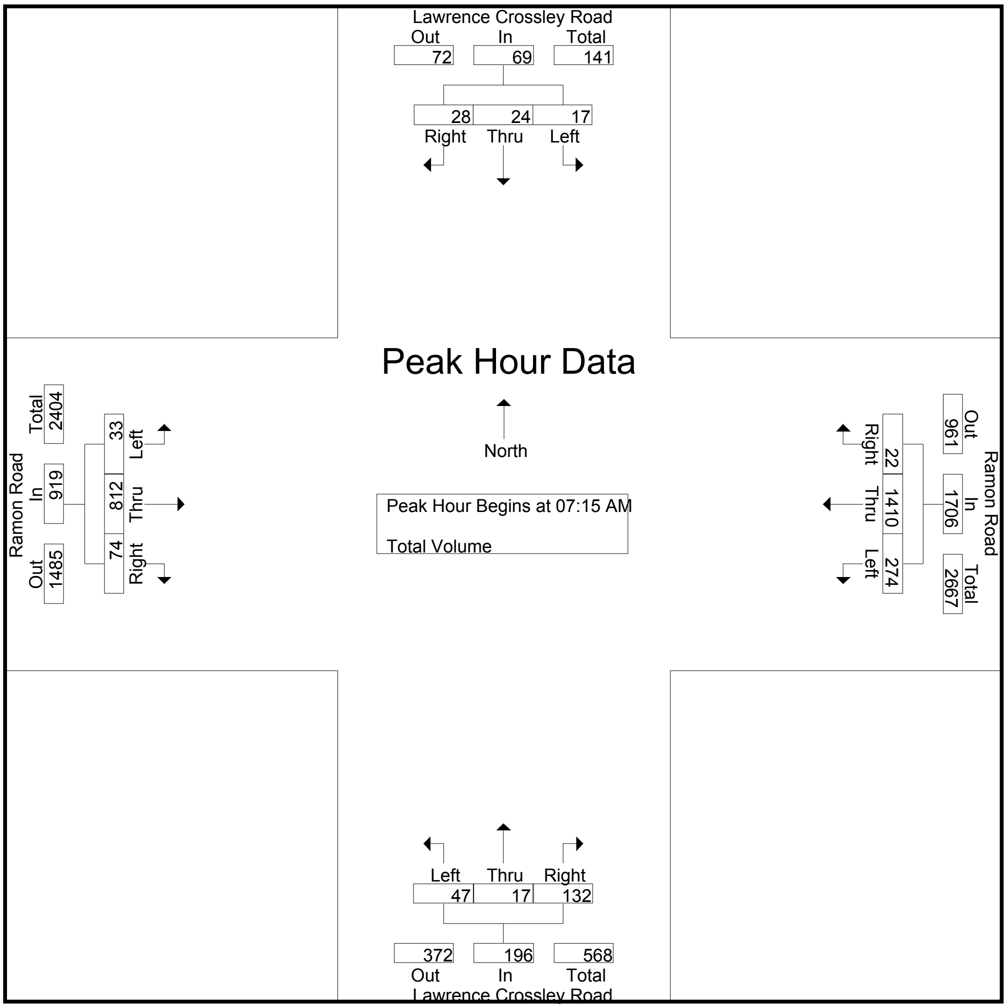
City of Palm Springs
N/S: Lawrence Crossley Road
E/W: Ramon Road
Weather: Clear

File Name : 06_PLS_Cross_Ramon AM
Site Code : 05123904
Start Date : 10/4/2023
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				08:00 AM				07:30 AM			
+0 mins.	4	3	8	15	47	288	**6**	341	16	2	**51**	**69**	10	224	19	253
+15 mins.	**6**	6	5	17	60	338	5	403	10	1	43	54	9	**225**	**23**	**257**
+30 mins.	2	6	6	14	54	**428**	6	488	**19**	2	27	48	8	215	14	237
+45 mins.	6	**8**	**11**	**25**	**108**	379	6	**493**	14	**5**	34	53	**12**	201	10	223
Total Volume	18	23	30	71	269	1433	23	1725	59	10	155	224	39	865	66	970
% App. Total	25.4	32.4	42.3		15.6	83.1	1.3		26.3	4.5	69.2		4	89.2	6.8	
PHF	.750	.719	.682	.710	.623	.837	.958	.875	.776	.500	.760	.812	.813	.961	.717	.944

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Palm Springs
N/S: Lawrence Crossley Road
E/W: Ramon Road
Weather: Clear

File Name : 06_PLS_Cross_Ramon PM
Site Code : 05123904
Start Date : 10/4/2023
Page No : 1

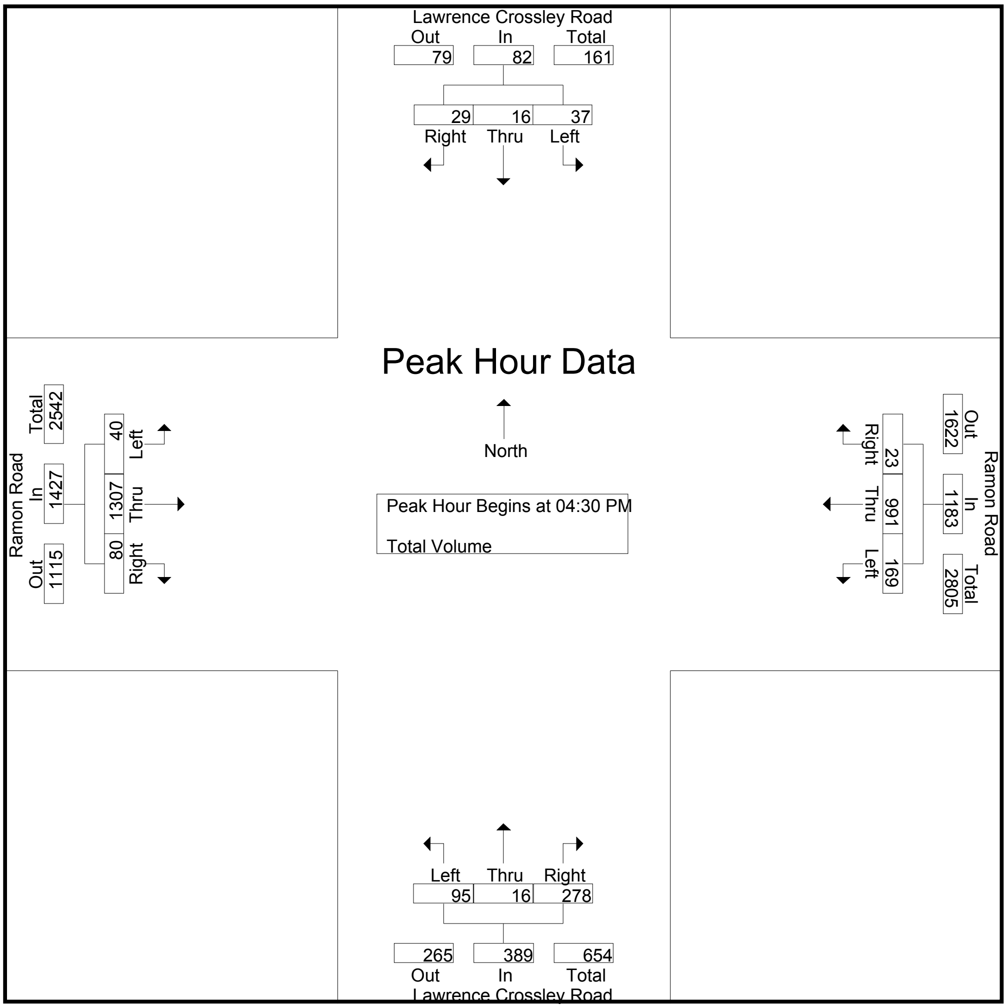
Groups Printed- Total Volume

	Lawrence Crossley Road Southbound				Ramon Road Westbound				Lawrence Crossley Road Northbound				Ramon Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	4	5	6	15	42	252	2	296	18	3	67	88	16	322	23	361	760
04:15 PM	15	5	7	27	31	264	5	300	34	5	71	110	13	350	13	376	813
04:30 PM	9	1	4	14	39	254	7	300	22	2	48	72	6	334	25	365	751
04:45 PM	6	9	8	23	56	245	6	307	24	2	64	90	17	273	15	305	725
Total	34	20	25	79	168	1015	20	1203	98	12	250	360	52	1279	76	1407	3049
05:00 PM	11	4	8	23	36	229	7	272	26	6	77	109	9	327	21	357	761
05:15 PM	11	2	9	22	38	263	3	304	23	6	89	118	8	373	19	400	844
05:30 PM	9	2	5	16	27	224	3	254	21	3	69	93	14	288	21	323	686
05:45 PM	11	7	5	23	40	256	2	298	19	5	76	100	7	241	16	264	685
Total	42	15	27	84	141	972	15	1128	89	20	311	420	38	1229	77	1344	2976
Grand Total	76	35	52	163	309	1987	35	2331	187	32	561	780	90	2508	153	2751	6025
Apprch %	46.6	21.5	31.9		13.3	85.2	1.5		24	4.1	71.9		3.3	91.2	5.6		
Total %	1.3	0.6	0.9	2.7	5.1	33	0.6	38.7	3.1	0.5	9.3	12.9	1.5	41.6	2.5	45.7	

	Lawrence Crossley Road Southbound				Ramon Road Westbound				Lawrence Crossley Road Northbound				Ramon Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	9	1	4	14	39	254	**7**	300	22	2	48	72	6	334	**25**	365	751
04:45 PM	6	**9**	8	**23**	**56**	245	6	**307**	24	2	64	90	**17**	273	15	305	725
05:00 PM	**11**	4	8	23	36	229	7	272	**26**	**6**	77	109	9	327	21	357	761
05:15 PM	11	2	**9**	22	38	**263**	3	304	23	6	**89**	**118**	8	**373**	19	**400**	**844**
Total Volume	37	16	29	82	169	991	23	1183	95	16	278	389	40	1307	80	1427	3081
% App. Total	45.1	19.5	35.4		14.3	83.8	1.9		24.4	4.1	71.5		2.8	91.6	5.6		
PHF	.841	.444	.806	.891	.754	.942	.821	.963	.913	.667	.781	.824	.588	.876	.800	.892	.913

City of Palm Springs
N/S: Lawrence Crossley Road
E/W: Ramon Road
Weather: Clear

File Name : 06_PLS_Cross_Ramon PM
Site Code : 05123904
Start Date : 10/4/2023
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:15 PM				04:00 PM				05:00 PM				04:30 PM			
+0 mins.	**15**	5	7	**27**	42	252	2	296	**26**	**6**	77	109	6	334	**25**	365
+15 mins.	9	1	4	14	31	**264**	5	300	23	6	**89**	**118**	**17**	273	15	305
+30 mins.	6	**9**	**8**	23	39	254	**7**	300	21	3	69	93	9	327	21	357
+45 mins.	11	4	8	23	**56**	245	6	**307**	19	5	76	100	8	**373**	19	**400**
Total Volume	41	19	27	87	168	1015	20	1203	89	20	311	420	40	1307	80	1427
% App. Total	47.1	21.8	31		14	84.4	1.7		21.2	4.8	74		2.8	91.6	5.6	
PHF	.683	.528	.844	.806	.750	.961	.714	.980	.856	.833	.874	.890	.588	.876	.800	.892

City of Palm Springs
Crossley Road
N/ Dinah Shore Drive
24 Hour Directional Volume Count

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
Phone: (951) 268-6268
email: counts@countsunlimited.com

PLS002
Site Code: 051-23904

Start	10/4/23	Northbound		Hour Totals		Southbound		Hour Totals		Combined Totals	
Time	Wed	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		2	85			1	69				
12:15		1	83			4	**109**				
12:30		2	75			3	**80**				
12:45		4	88	9	331	4	**79**	12	337	21	668
01:00		4	84			3	**93**				
01:15		4	80			4	70				
01:30		2	72			2	87				
01:45		2	87	12	323	2	85	11	335	23	658
02:00		1	71			2	63				
02:15		2	74			2	64				
02:30		2	90			1	86				
02:45		1	80	6	315	5	94	10	307	16	622
03:00		2	91			1	101				
03:15		1	84			2	77				
03:30		4	77			4	62				
03:45		6	79	13	331	3	76	10	316	23	647
04:00		1	86			4	72				
04:15		3	93			4	77				
04:30		4	**81**			7	63				
04:45		13	**82**	21	342	8	72	23	284	44	626
05:00		1	**105**			4	72				
05:15		9	**99**			16	54				
05:30		10	76			26	64				
05:45		12	70	32	350	36	68	82	258	114	608
06:00		23	60			28	67				
06:15		19	58			36	54				
06:30		30	58			42	69				
06:45		29	61	101	237	44	46	150	236	251	473
07:00		29	54			53	46				
07:15		45	53			**81**	43				
07:30		52	29			**75**	50				
07:45		53	44	179	180	**121**	33	330	172	509	352
08:00		66	52			**79**	25				
08:15		64	38			58	31				
08:30		66	37			60	24				
08:45		64	24	260	151	64	33	261	113	521	264
09:00		59	26			52	33				
09:15		50	28			75	20				
09:30		64	27			53	28				
09:45		69	22	242	103	60	17	240	98	482	201
10:00		63	22			68	19				
10:15		57	15			94	16				
10:30		70	16			80	8				
10:45		**82**	13	272	66	81	17	323	60	595	126
11:00		**69**	11			94	19				
11:15		**78**	5			69	11				
11:30		**83**	10			58	5				
11:45		79	4	309	30	81	6	302	41	611	71
Total		1456	2759	1456	2759	1754	2557	1754	2557	3210	5316
Combined Total		4215		4215		4311		4311		8526	
AM Peak	-	10:45	-	-	-	07:15	-	-	-	-	-
Vol.	-	312	-	-	-	356	-	-	-	-	-
P.H.F.		0.940				0.736					
PM Peak	-	-	04:30	-	-	-	00:15	-	-	-	-
Vol.	-	-	367	-	-	-	361	-	-	-	-
P.H.F.			0.874				0.828				
Percentage		34.5%	65.5%			40.7%	59.3%				
ADT/AADT		ADT 8,526		AADT 8,526							

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
Phone: (951) 268-6268
email: counts@countsunlimited.com

City of Palm Springs
Dinah Shore Drive
W/ Crossley Road
24 Hour Directional Volume Count

PLS001
Site Code: 051-23904

Start	10/4/23	Eastbound		Hour Totals		Westbound		Hour Totals		Combined Totals	
Time	Wed	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		9	166			7	183				
12:15		7	174			10	168				
12:30		7	183			5	198				
12:45		5	175	28	698	7	202	29	751	57	1449
01:00		5	214			4	185				
01:15		6	163			6	168				
01:30		5	166			5	177				
01:45		5	141	21	684	6	208	21	738	42	1422
02:00		3	172			2	180				
02:15		2	176			4	178				
02:30		4	203			4	170				
02:45		2	182	11	733	2	167	12	695	23	1428
03:00		5	203			3	168				
03:15		3	207			0	170				
03:30		3	206			8	**214**				
03:45		6	209	17	825	9	**178**	20	730	37	1555
04:00		4	193			7	**177**				
04:15		10	**203**			13	**186**				
04:30		12	**216**			20	179				
04:45		24	**190**	50	802	28	158	68	700	118	1502
05:00		12	**227**			23	181				
05:15		9	202			33	189				
05:30		29	171			64	165				
05:45		44	157	94	757	77	174	197	709	291	1466
06:00		33	147			70	136				
06:15		52	125			113	132				
06:30		74	117			100	121				
06:45		98	105	257	494	145	89	428	478	685	972
07:00		101	93			166	98				
07:15		122	58			**209**	107				
07:30		**173**	87			**231**	63				
07:45		**206**	63	602	301	**280**	67	886	335	1488	636
08:00		**206**	73			**207**	68				
08:15		**136**	85			181	84				
08:30		131	64			208	72				
08:45		155	62	628	284	180	47	776	271	1404	555
09:00		149	50			153	62				
09:15		145	65			148	58				
09:30		164	59			170	62				
09:45		162	32	620	206	184	33	655	215	1275	421
10:00		182	48			132	28				
10:15		163	38			183	29				
10:30		136	22			191	25				
10:45		173	34	654	142	136	20	642	102	1296	244
11:00		170	26			131	14				
11:15		123	15			177	10				
11:30		167	9			168	11				
11:45		178	7	638	57	190	10	666	45	1304	102
Total		3620	5983	3620	5983	4400	5769	4400	5769	8020	11752
Combined Total		9603		9603		10169		10169		19772	
AM Peak	-	07:30	-	-	-	07:15	-	-	-	-	-
Vol.	-	721	-	-	-	927	-	-	-	-	-
P.H.F.		0.875				0.828					
PM Peak	-	-	04:15	-	-	-	03:30	-	-	-	-
Vol.	-	-	836	-	-	-	755	-	-	-	-
P.H.F.			0.921				0.882				
Percentage		37.7%	62.3%			43.3%	56.7%				
ADT/AADT		ADT 19,772		AADT 19,772							

APPENDIX 3.2: EXISTING (2023) CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	31	668	79	63	868	102	68	128	59	110	195	87
Future Volume (vph)	31	668	79	63	868	102	68	128	59	110	195	87
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	155		0	140		0	90		90	100		100
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	90			90			90			30		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		373			416			358			226	
Travel Time (s)		5.7			6.3			5.4			3.4	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Shared Lane Traffic (%)												
Turn Type	Prot	NA		Prot	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2		1	6			8			4	
Permitted Phases							8		8	4		4
Detector Phase	5	2		1	6		8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5		9.5	22.5		22.5	22.5	22.5	40.0	40.0	40.0
Total Split (s)	15.0	59.0		20.0	64.0		41.0	41.0	41.0	41.0	41.0	41.0
Total Split (%)	12.5%	49.2%		16.7%	53.3%		34.2%	34.2%	34.2%	34.2%	34.2%	34.2%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Total Lost Time (s)	7.5	7.5		7.5	7.5		7.5	7.5	7.5	7.5	7.5	7.5
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	C-Max		None	C-Max		Max	Max	Max	Max	Max	Max

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	

Splits and Phases: 1: Crossley Rd. & Dinah Shore Dr.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	31	668	79	63	868	102	68	128	59	110	195	87
Future Volume (veh/h)	31	668	79	63	868	102	68	128	59	110	195	87
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	37	805	95	76	1046	123	82	154	71	133	235	105
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	8	1664	196	24	1693	199	273	522	440	307	522	440
Arrive On Green	0.01	1.00	1.00	0.03	1.00	1.00	0.28	0.28	0.28	0.56	0.56	0.56
Sat Flow, veh/h	1781	3200	378	1781	3201	376	1039	1870	1577	1153	1870	1577
Grp Volume(v), veh/h	37	447	453	76	580	589	82	154	71	133	235	105
Grp Sat Flow(s),veh/h/ln	1781	1777	1800	1781	1777	1801	1039	1870	1577	1153	1870	1577
Q Serve(g_s), s	0.5	0.0	0.0	1.6	0.0	0.0	8.2	7.8	4.1	10.3	8.9	4.1
Cycle Q Clear(g_c), s	0.5	0.0	0.0	1.6	0.0	0.0	17.1	7.8	4.1	18.0	8.9	4.1
Prop In Lane	1.00		0.21	1.00		0.21	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	8	924	936	24	940	952	273	522	440	307	522	440
V/C Ratio(X)	4.59	0.48	0.48	3.19	0.62	0.62	0.30	0.29	0.16	0.43	0.45	0.24
Avail Cap(c_a), veh/h	111	924	936	186	940	952	273	522	440	307	522	440
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.5	0.0	0.0	58.4	0.0	0.0	41.2	34.0	32.6	26.0	21.1	20.0
Incr Delay (d2), s/veh	1673.6	1.8	1.8	1010.5	3.0	3.0	2.8	1.4	0.8	4.4	2.8	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	0.5	0.5	7.4	0.8	0.8	2.3	3.6	1.6	2.4	3.6	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	1733.0	1.8	1.8	1068.9	3.0	3.0	44.0	35.4	33.4	30.4	23.9	21.3
LnGrp LOS	F	A	A	F	A	A	D	D	C	C	C	C
Approach Vol, veh/h		937			1245			307			473	
Approach Delay, s/veh		70.2			68.1			37.2			25.1	
Approach LOS		E			E			D			C	

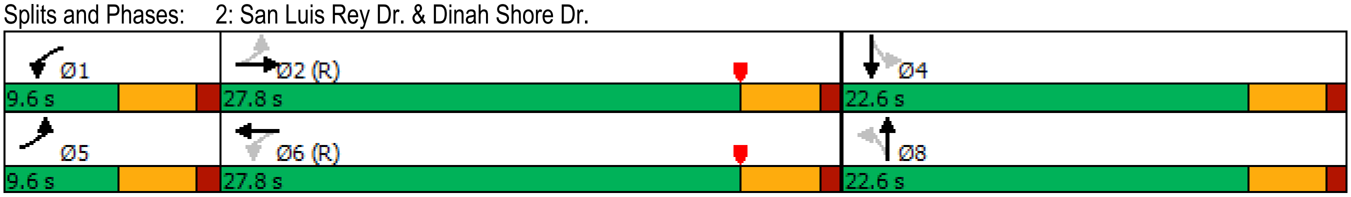
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.1	69.9		41.0	8.0	71.0		41.0				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	15.5	54.5		36.5	10.5	59.5		36.5				
Max Q Clear Time (g_c+I1), s	4.6	3.0		21.0	3.5	3.0		20.1				
Green Ext Time (p_c), s	0.1	6.1		1.8	0.0	9.1		1.2				

Intersection Summary			
HCM 6th Ctrl Delay			58.7
HCM 6th LOS			E

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	24	638	14	21	904	98	2	3	1	132	11	48
Future Volume (vph)	24	638	14	21	904	98	2	3	1	132	11	48
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	160		0	160		0	0		0	40		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	90			90			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			35			35	
Link Distance (ft)		1338			939			391			593	
Travel Time (s)		20.3			14.2			7.6			11.6	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		1	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	9.5	22.5		9.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	9.6	27.8		9.6	27.8		22.6	22.6		22.6	22.6	
Total Split (%)	16.0%	46.3%		16.0%	46.3%		37.7%	37.7%		37.7%	37.7%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Total Lost Time (s)	7.5	7.5		7.5	7.5		7.5	7.5		7.5	7.5	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	C-Max		None	C-Max		Max	Max		Max	Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 52 (87%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	

Splits and Phases: 2: San Luis Rey Dr. & Dinah Shore Dr.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	24	638	14	21	904	98	2	3	1	132	11	48
Future Volume (veh/h)	24	638	14	21	904	98	2	3	1	132	11	48
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	30	788	17	26	1116	121	2	4	1	163	14	59
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	188	1401	30	273	1262	137	406	363	91	470	78	330
Arrive On Green	0.00	0.39	0.39	0.00	0.78	0.78	0.25	0.25	0.25	0.25	0.25	0.25
Sat Flow, veh/h	1781	3556	77	1781	3232	350	1320	1442	361	1403	312	1313
Grp Volume(v), veh/h	30	394	411	26	613	624	2	0	5	163	0	73
Grp Sat Flow(s),veh/h/ln	1781	1777	1856	1781	1777	1805	1320	0	1803	1403	0	1625
Q Serve(g_s), s	0.1	10.3	10.4	0.1	14.6	14.7	0.1	0.0	0.1	5.9	0.0	2.1
Cycle Q Clear(g_c), s	0.1	10.3	10.4	0.1	14.6	14.7	2.2	0.0	0.1	6.0	0.0	2.1
Prop In Lane	1.00		0.04	1.00		0.19	1.00		0.20	1.00		0.81
Lane Grp Cap(c), veh/h	188	700	731	273	694	705	406	0	454	470	0	409
V/C Ratio(X)	0.16	0.56	0.56	0.10	0.88	0.89	0.00	0.00	0.01	0.35	0.00	0.18
Avail Cap(c_a), veh/h	248	700	731	332	694	705	406	0	454	470	0	409
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.73	0.73	0.73	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.7	14.2	14.2	17.6	5.6	5.6	18.4	0.0	16.8	19.1	0.0	17.6
Incr Delay (d2), s/veh	0.3	2.4	2.3	0.2	15.2	15.2	0.0	0.0	0.0	2.0	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	3.8	3.9	0.2	4.6	4.7	0.0	0.0	0.1	2.0	0.0	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.0	16.5	16.4	17.7	20.8	20.9	18.5	0.0	16.9	21.1	0.0	18.5
LnGrp LOS	C	B	B	B	C	C	B	A	B	C	A	B
Approach Vol, veh/h		835			1263			7			236	
Approach Delay, s/veh		16.7			20.8			17.3			20.3	
Approach LOS		B			C			B			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.3	31.1		22.6	6.5	30.9		22.6				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.1	23.3		18.1	5.1	23.3		18.1				
Max Q Clear Time (g_c+I1), s	3.1	13.4		9.0	3.1	17.7		5.2				
Green Ext Time (p_c), s	0.0	3.2		0.5	0.0	3.4		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			19.3									
HCM 6th LOS			B									

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	25	253	68	151	363	440	36	278	64	365	448	54
Future Volume (vph)	25	253	68	151	363	440	36	278	64	365	448	54
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	155		0	165		300	90		0	285		0
Storage Lanes	1		0	1		1	1		0	2		0
Taper Length (ft)	90			90			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		417			1338			401			622	
Travel Time (s)		6.3			20.3			6.1			9.4	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA	pm+ov	Prot	NA		Prot	NA	
Protected Phases		4			8	1	5	2		1	6	
Permitted Phases	4			8		8						
Detector Phase	4	4		8	8	1	5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5	9.5	9.5	22.5		9.5	22.5	
Total Split (s)	53.0	53.0		53.0	53.0	34.0	16.0	33.0		34.0	51.0	
Total Split (%)	44.2%	44.2%		44.2%	44.2%	28.3%	13.3%	27.5%		28.3%	42.5%	
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Total Lost Time (s)	7.5	7.5		7.5	7.5	7.5	7.5	7.5		7.5	7.5	
Lead/Lag						Lead	Lag	Lag		Lead	Lead	
Lead-Lag Optimize?						Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None	None	None	C-Max		None	C-Max	

Intersection Summary

Area Type: Other

Cycle Length: 120

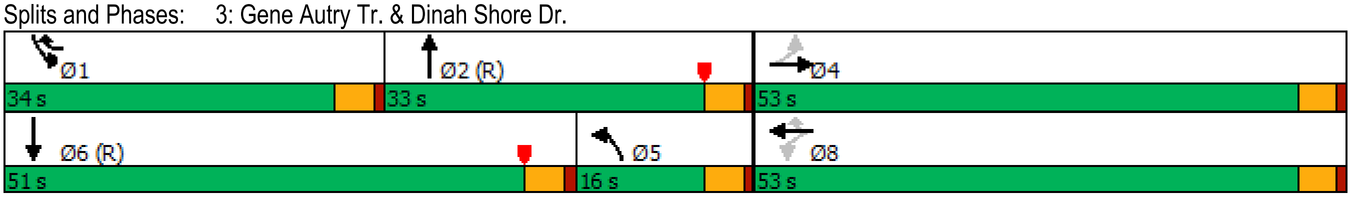
Actuated Cycle Length: 120

Offset: 54.8 (46%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 65

Control Type: Actuated-Coordinated

Splits and Phases: 3: Gene Autry Tr. & Dinah Shore Dr.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	253	68	151	363	440	36	278	64	365	448	54
Future Volume (veh/h)	25	253	68	151	363	440	36	278	64	365	448	54
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	30	301	81	180	432	524	43	331	76	435	533	64
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	113	833	220	273	561	1205	267	1087	246	465	1157	139
Arrive On Green	0.30	0.30	0.30	0.30	0.30	0.30	0.15	0.38	0.38	0.13	0.36	0.36
Sat Flow, veh/h	587	2776	734	1000	1870	2766	1781	2876	651	3456	3193	382
Grp Volume(v), veh/h	30	191	191	180	432	524	43	203	204	435	296	301
Grp Sat Flow(s),veh/h/ln	587	1777	1734	1000	1870	1383	1781	1777	1750	1728	1777	1798
Q Serve(g_s), s	5.9	10.1	10.4	20.7	25.2	15.9	2.5	9.6	9.9	15.0	15.3	15.4
Cycle Q Clear(g_c), s	31.1	10.1	10.4	31.1	25.2	15.9	2.5	9.6	9.9	15.0	15.3	15.4
Prop In Lane	1.00		0.42	1.00		1.00	1.00		0.37	1.00		0.21
Lane Grp Cap(c), veh/h	113	533	520	273	561	1205	267	672	661	465	644	652
V/C Ratio(X)	0.27	0.36	0.37	0.66	0.77	0.43	0.16	0.30	0.31	0.94	0.46	0.46
Avail Cap(c_a), veh/h	159	674	657	352	709	1424	267	672	661	763	644	652
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.48	0.48	0.48	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.4	32.9	33.0	45.3	38.2	23.7	44.4	26.2	26.3	51.4	29.3	29.3
Incr Delay (d2), s/veh	1.2	0.4	0.4	1.4	2.0	0.1	0.3	1.2	1.2	12.7	2.4	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	4.3	4.3	5.1	11.4	5.0	1.1	4.1	4.2	7.1	6.7	6.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.6	33.3	33.5	46.7	40.2	23.8	44.7	27.4	27.5	64.1	31.6	31.6
LnGrp LOS	D	C	C	D	D	C	D	C	C	E	C	C
Approach Vol, veh/h		412			1136			450			1032	
Approach Delay, s/veh		34.9			33.7			29.1			45.3	
Approach LOS		C			C			C			D	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	23.6	52.9		43.5	25.5	51.0		43.5
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	29.5	28.5		48.5	11.5	46.5		48.5
Max Q Clear Time (g_c+I1), s	18.0	12.9		34.1	5.5	18.4		34.1
Green Ext Time (p_c), s	1.2	1.9		2.0	0.0	3.4		4.9

Intersection Summary	
HCM 6th Ctrl Delay	37.1
HCM 6th LOS	D

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	8	14	12	249	378	19
Future Volume (vph)	8	14	12	249	378	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	50	50			0
Storage Lanes	1	1	1			0
Taper Length (ft)	90		90			
Link Speed (mph)	30			45	45	
Link Distance (ft)	375			235	852	
Travel Time (s)	8.5			3.6	12.9	
Confl. Peds. (#/hr)	5	5	5			5
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81
Shared Lane Traffic (%)						
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	8	14	12	249	378	19
Future Vol, veh/h	8	14	12	249	378	19
Conflicting Peds, #/hr	5	5	5	0	0	5
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	50	50	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	81	81	81	81	81	81
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	17	15	307	467	23

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	826	489	495	0	-	0
Stage 1	484	-	-	-	-	-
Stage 2	342	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	342	579	1069	-	-	-
Stage 1	620	-	-	-	-	-
Stage 2	719	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	334	573	1064	-	-	-
Mov Cap-2 Maneuver	450	-	-	-	-	-
Stage 1	608	-	-	-	-	-
Stage 2	715	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.1	0.4	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1064	-	450	573	-	-
HCM Lane V/C Ratio	0.014	-	0.022	0.03	-	-
HCM Control Delay (s)	8.4	-	13.2	11.5	-	-
HCM Lane LOS	A	-	B	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	0.1	-	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	24	24	23	212	365	45
Future Volume (vph)	24	24	23	212	365	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100	0	120			0
Storage Lanes	1	1	1			0
Taper Length (ft)	90		90			
Link Speed (mph)	30			45	45	
Link Distance (ft)	765			852	1333	
Travel Time (s)	17.4			12.9	20.2	
Confl. Peds. (#/hr)	5	5	5			5
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77
Shared Lane Traffic (%)						
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	24	24	23	212	365	45
Future Vol, veh/h	24	24	23	212	365	45
Conflicting Peds, #/hr	5	5	5	0	0	5
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	100	0	120	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	31	31	30	275	474	58

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	848	513	537	0	-	0
Stage 1	508	-	-	-	-	-
Stage 2	340	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	332	561	1031	-	-	-
Stage 1	604	-	-	-	-	-
Stage 2	721	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	319	556	1026	-	-	-
Mov Cap-2 Maneuver	436	-	-	-	-	-
Stage 1	583	-	-	-	-	-
Stage 2	717	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.9	0.8	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1026	-	436	556	-	-
HCM Lane V/C Ratio	0.029	-	0.071	0.056	-	-
HCM Control Delay (s)	8.6	-	13.9	11.9	-	-
HCM Lane LOS	A	-	B	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	0.2	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	36	893	81	301	1551	24	52	19	145	19	26	31
Future Volume (vph)	36	893	81	301	1551	24	52	19	145	19	26	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	170		0	80		50	0		75	100		0
Storage Lanes	1		1	1		1	0		1	1		0
Taper Length (ft)	90			90			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		908			364			1333			308	
Travel Time (s)		13.8			5.5			20.2			4.7	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2		2	6		6	8		8	4		
Detector Phase	5	2	2	1	6	6	8	8	8	4	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	
Total Split (s)	13.1	65.0	65.0	32.0	83.9	83.9	23.0	23.0	23.0	23.0	23.0	
Total Split (%)	10.9%	54.2%	54.2%	26.7%	69.9%	69.9%	19.2%	19.2%	19.2%	19.2%	19.2%	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	
Total Lost Time (s)	7.5	7.5	7.5	7.5	7.5	7.5		7.5	7.5	7.5	7.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	Max	Max	Max	Max	Max	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 112 (93%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 6: Crossley Rd. & Ramon Rd.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	893	81	301	1551	24	52	19	145	19	26	31
Future Volume (veh/h)	36	893	81	301	1551	24	52	19	145	19	26	31
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	40	1003	91	338	1743	27	58	21	163	21	29	35
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	169	2160	959	428	2408	1070	152	48	202	120	99	119
Arrive On Green	0.01	0.61	0.61	0.08	0.68	0.68	0.13	0.13	0.13	0.13	0.13	0.13
Sat Flow, veh/h	1781	3554	1579	1781	3554	1579	775	368	1567	1192	766	925
Grp Volume(v), veh/h	40	1003	91	338	1743	27	79	0	163	21	0	64
Grp Sat Flow(s),veh/h/ln	1781	1777	1579	1781	1777	1579	1143	0	1567	1192	0	1691
Q Serve(g_s), s	0.7	18.5	2.9	8.2	37.2	0.7	5.3	0.0	12.1	2.0	0.0	4.1
Cycle Q Clear(g_c), s	0.7	18.5	2.9	8.2	37.2	0.7	9.4	0.0	12.1	11.5	0.0	4.1
Prop In Lane	1.00		1.00	1.00		1.00	0.73		1.00	1.00		0.55
Lane Grp Cap(c), veh/h	169	2160	959	428	2408	1070	200	0	202	120	0	218
V/C Ratio(X)	0.24	0.46	0.09	0.79	0.72	0.03	0.40	0.00	0.81	0.17	0.00	0.29
Avail Cap(c_a), veh/h	242	2160	959	657	2408	1070	200	0	202	120	0	218
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.1	12.9	9.8	11.9	12.2	6.3	50.6	0.0	50.8	55.1	0.0	47.3
Incr Delay (d2), s/veh	0.7	0.7	0.2	3.6	1.9	0.0	5.8	0.0	27.9	3.1	0.0	3.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	6.8	1.0	3.0	12.9	0.2	2.5	0.0	6.2	0.7	0.0	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.8	13.6	10.0	15.5	14.2	6.4	56.4	0.0	78.7	58.2	0.0	50.7
LnGrp LOS	B	B	A	B	B	A	E	A	E	E	A	D
Approach Vol, veh/h		1134			2108			242			85	
Approach Delay, s/veh		13.5			14.3			71.4			52.5	
Approach LOS		B			B			E			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	16.6	80.4		23.0	8.2	88.8		23.0				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	27.5	60.5		18.5	8.6	79.4		18.5				
Max Q Clear Time (g_c+I1), s	11.2	21.5		14.5	3.7	40.2		15.1				
Green Ext Time (p_c), s	0.9	8.3		0.1	0.0	18.6		0.3				
Intersection Summary												
HCM 6th Ctrl Delay			18.8									
HCM 6th LOS			B									

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	66	768	86	59	723	138	74	194	81	138	143	32
Future Volume (vph)	66	768	86	59	723	138	74	194	81	138	143	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	155		0	140		0	90		90	100		100
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	90			90			90			30		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		373			416			358			226	
Travel Time (s)		5.7			6.3			5.4			3.4	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Prot	NA		Prot	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2		1	6			8			4	
Permitted Phases							8		8	4		4
Detector Phase	5	2		1	6		8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5		9.5	22.5		22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	20.0	59.0		19.0	58.0		42.0	42.0	42.0	42.0	42.0	42.0
Total Split (%)	16.7%	49.2%		15.8%	48.3%		35.0%	35.0%	35.0%	35.0%	35.0%	35.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Total Lost Time (s)	7.5	7.5		7.5	7.5		7.5	7.5	7.5	7.5	7.5	7.5
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	C-Max		None	C-Max		Max	Max	Max	Max	Max	Max

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	

Splits and Phases: 1: Crossley Rd. & Dinah Shore Dr.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	66	768	86	59	723	138	74	194	81	138	143	32
Future Volume (veh/h)	66	768	86	59	723	138	74	194	81	138	143	32
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	69	808	91	62	761	145	78	204	85	145	151	34
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	22	1653	186	20	1525	290	355	538	453	308	538	453
Arrive On Green	0.02	1.00	1.00	0.02	1.00	1.00	0.57	0.57	0.57	0.57	0.57	0.57
Sat Flow, veh/h	1781	3218	362	1781	2975	567	1195	1870	1577	1088	1870	1577
Grp Volume(v), veh/h	69	446	453	62	454	452	78	204	85	145	151	34
Grp Sat Flow(s),veh/h/ln	1781	1777	1803	1781	1777	1765	1195	1870	1577	1088	1870	1577
Q Serve(g_s), s	1.5	0.0	0.0	1.4	0.0	0.0	4.6	7.1	3.1	11.9	4.9	1.1
Cycle Q Clear(g_c), s	1.5	0.0	0.0	1.4	0.0	0.0	9.5	7.1	3.1	19.0	4.9	1.1
Prop In Lane	1.00		0.20	1.00		0.32	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	22	913	926	20	911	905	355	538	453	308	538	453
V/C Ratio(X)	3.10	0.49	0.49	3.06	0.50	0.50	0.22	0.38	0.19	0.47	0.28	0.08
Avail Cap(c_a), veh/h	186	913	926	171	911	905	355	538	453	308	538	453
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.5	0.0	0.0	58.6	0.0	0.0	21.6	19.7	18.8	24.8	19.2	18.4
Incr Delay (d2), s/veh	970.8	1.9	1.8	952.6	2.0	2.0	1.4	2.0	0.9	5.1	1.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.7	0.5	0.5	6.0	0.5	0.5	1.2	2.9	1.2	2.6	2.1	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	1029.3	1.9	1.8	1011.3	2.0	2.0	23.0	21.7	19.7	29.9	20.5	18.7
LnGrp LOS	F	A	A	F	A	A	C	C	B	C	C	B
Approach Vol, veh/h		968			968			367			330	
Approach Delay, s/veh		75.1			66.6			21.5			24.5	
Approach LOS		E			E			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.9	69.1		42.0	9.0	69.0		42.0				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	14.5	54.5		37.5	15.5	53.5		37.5				
Max Q Clear Time (g_c+I1), s	4.4	3.0		22.0	4.5	3.0		12.5				
Green Ext Time (p_c), s	0.1	6.1		1.2	0.1	6.2		1.6				
Intersection Summary												
HCM 6th Ctrl Delay			58.2									
HCM 6th LOS			E									

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	30	774	4	6	734	89	9	4	2	103	1	39
Future Volume (vph)	30	774	4	6	734	89	9	4	2	103	1	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	160		0	160		0	0		0	40		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	90			90			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			35			35	
Link Distance (ft)		1338			939			391			593	
Travel Time (s)		20.3			14.2			7.6			11.6	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		1	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	9.5	22.5		9.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	10.0	27.8		9.6	27.4		22.6	22.6		22.6	22.6	
Total Split (%)	16.7%	46.3%		16.0%	45.7%		37.7%	37.7%		37.7%	37.7%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Total Lost Time (s)	7.5	7.5		7.5	7.5		7.5	7.5		7.5	7.5	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	C-Max		None	C-Max		Max	Max		Max	Max	

Intersection Summary

Area Type: Other

Cycle Length: 60

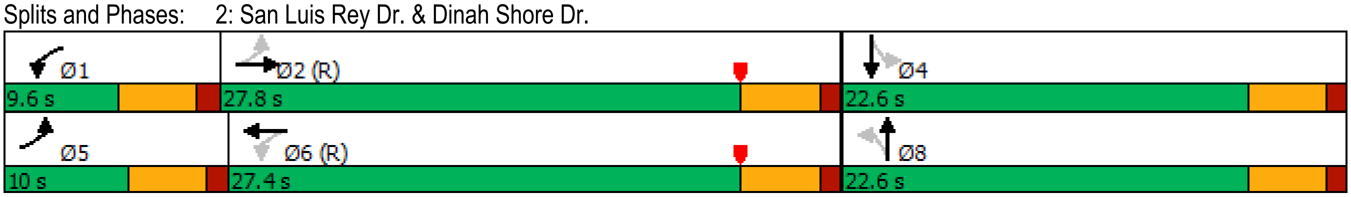
Actuated Cycle Length: 60

Offset: 32 (53%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow

Natural Cycle: 60

Control Type: Actuated-Coordinated

Splits and Phases: 2: San Luis Rey Dr. & Dinah Shore Dr.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	774	4	6	734	89	9	4	2	103	1	39
Future Volume (veh/h)	30	774	4	6	734	89	9	4	2	103	1	39
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	31	806	4	6	765	93	9	4	2	107	1	41
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	250	1506	7	290	1242	151	434	295	148	469	9	389
Arrive On Green	0.00	0.42	0.42	0.00	0.39	0.39	0.25	0.25	0.25	0.25	0.25	0.25
Sat Flow, veh/h	1781	3626	18	1781	3187	387	1357	1174	587	1402	38	1544
Grp Volume(v), veh/h	31	395	415	6	426	432	9	0	6	107	0	42
Grp Sat Flow(s),veh/h/ln	1781	1777	1867	1781	1777	1798	1357	0	1761	1402	0	1582
Q Serve(g_s), s	0.1	10.0	10.0	0.1	11.6	11.6	0.3	0.0	0.2	3.7	0.0	1.2
Cycle Q Clear(g_c), s	0.1	10.0	10.0	0.1	11.6	11.6	1.5	0.0	0.2	3.9	0.0	1.2
Prop In Lane	1.00		0.01	1.00		0.22	1.00		0.33	1.00		0.98
Lane Grp Cap(c), veh/h	250	738	776	290	692	701	434	0	443	469	0	398
V/C Ratio(X)	0.12	0.54	0.54	0.02	0.62	0.62	0.02	0.00	0.01	0.23	0.00	0.11
Avail Cap(c_a), veh/h	321	738	776	349	692	701	434	0	443	469	0	398
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.62	0.62	0.62	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.0	13.2	13.2	12.8	14.7	14.7	17.8	0.0	16.9	18.3	0.0	17.3
Incr Delay (d2), s/veh	0.1	1.7	1.6	0.0	4.1	4.0	0.1	0.0	0.1	1.1	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	3.5	3.6	0.0	4.5	4.5	0.1	0.0	0.1	1.2	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.1	14.9	14.8	12.8	18.8	18.7	17.9	0.0	16.9	19.4	0.0	17.8
LnGrp LOS	B	B	B	B	B	B	B	A	B	B	A	B
Approach Vol, veh/h		841			864			15			149	
Approach Delay, s/veh		15.0			18.7			17.5			19.0	
Approach LOS		B			B			B			B	

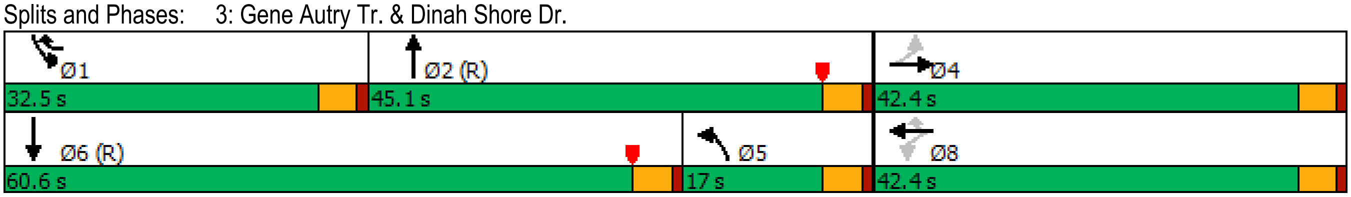
Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.0	32.4		22.6	6.5	30.9		22.6
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	5.1	23.3		18.1	5.5	22.9		18.1
Max Q Clear Time (g_c+I1), s	3.1	13.0		6.9	3.1	14.6		4.5
Green Ext Time (p_c), s	0.0	3.3		0.3	0.0	3.1		0.0

Intersection Summary			
HCM 6th Ctrl Delay			17.1
HCM 6th LOS			B

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	36	264	58	123	252	407	46	518	142	407	384	33
Future Volume (vph)	36	264	58	123	252	407	46	518	142	407	384	33
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	155		0	165		300	90		0	285		0
Storage Lanes	1		0	1		1	1		0	2		0
Taper Length (ft)	90			90			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		417			1338			401			622	
Travel Time (s)		6.3			20.3			6.1			9.4	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA	pm+ov	Prot	NA		Prot	NA	
Protected Phases		4			8	1	5	2		1	6	
Permitted Phases	4			8		8						
Detector Phase	4	4		8	8	1	5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5	9.5	9.5	22.5		9.5	22.5	
Total Split (s)	42.4	42.4		42.4	42.4	32.5	17.0	45.1		32.5	60.6	
Total Split (%)	35.3%	35.3%		35.3%	35.3%	27.1%	14.2%	37.6%		27.1%	50.5%	
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Total Lost Time (s)	7.5	7.5		7.5	7.5	7.5	7.5	7.5		7.5	7.5	
Lead/Lag						Lead	Lag	Lag		Lead	Lead	
Lead-Lag Optimize?						Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None	None	None	C-Max		None	C-Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 34.8 (29%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	

Splits and Phases: 3: Gene Autry Tr. & Dinah Shore Dr.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	264	58	123	252	407	46	518	142	407	384	33
Future Volume (veh/h)	36	264	58	123	252	407	46	518	142	407	384	33
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	42	311	68	145	296	479	54	609	167	479	452	39
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	139	737	159	223	475	1111	207	1135	311	508	1464	126
Arrive On Green	0.25	0.25	0.25	0.25	0.25	0.25	0.12	0.41	0.41	0.15	0.44	0.44
Sat Flow, veh/h	696	2904	626	1002	1870	2762	1781	2754	754	3456	3310	284
Grp Volume(v), veh/h	42	189	190	145	296	479	54	392	384	479	242	249
Grp Sat Flow(s),veh/h/ln	696	1777	1753	1002	1870	1381	1781	1777	1731	1728	1777	1817
Q Serve(g_s), s	6.8	10.6	10.9	17.0	16.8	15.1	3.3	20.0	20.1	16.5	10.5	10.6
Cycle Q Clear(g_c), s	23.7	10.6	10.9	27.9	16.8	15.1	3.3	20.0	20.1	16.5	10.5	10.6
Prop In Lane	1.00		0.36	1.00		1.00	1.00		0.44	1.00		0.16
Lane Grp Cap(c), veh/h	139	451	445	223	475	1111	207	732	713	508	786	804
V/C Ratio(X)	0.30	0.42	0.43	0.65	0.62	0.43	0.26	0.54	0.54	0.94	0.31	0.31
Avail Cap(c_a), veh/h	165	517	510	260	544	1213	207	732	713	720	786	804
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.81	0.81	0.81	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.2	37.4	37.5	49.2	39.7	26.1	48.3	26.6	26.7	50.7	21.6	21.6
Incr Delay (d2), s/veh	1.2	0.6	0.7	3.6	1.4	0.2	0.7	2.8	2.9	16.9	1.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	4.6	4.6	4.4	7.7	4.8	1.5	8.6	8.5	8.1	4.4	4.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.4	38.0	38.1	52.8	41.1	26.3	49.0	29.4	29.6	67.6	22.6	22.6
LnGrp LOS	D	D	D	D	D	C	D	C	C	E	C	C
Approach Vol, veh/h		421			920			830			970	
Approach Delay, s/veh		39.4			35.2			30.8			44.8	
Approach LOS		D			D			C			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	25.1	56.9		37.9	21.5	60.6		37.9				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	28.0	40.6		37.9	12.5	56.1		37.9				
Max Q Clear Time (g_c+I1), s	19.5	23.1		26.7	6.3	13.6		30.9				
Green Ext Time (p_c), s	1.2	4.2		1.7	0.0	2.8		2.5				
Intersection Summary												
HCM 6th Ctrl Delay			37.6									
HCM 6th LOS			D									

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	17	11	28	370	302	17
Future Volume (vph)	17	11	28	370	302	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	50	50			0
Storage Lanes	1	1	1			0
Taper Length (ft)	90		90			
Link Speed (mph)	30			45	45	
Link Distance (ft)	375			235	852	
Travel Time (s)	8.5			3.6	12.9	
Confl. Peds. (#/hr)	5	5	5			5
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Shared Lane Traffic (%)						
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	17	11	28	370	302	17
Future Vol, veh/h	17	11	28	370	302	17
Conflicting Peds, #/hr	5	5	5	0	0	5
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	50	50	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	19	12	31	416	339	19

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	837	359	363	0	-	0
Stage 1	354	-	-	-	-	-
Stage 2	483	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	337	685	1196	-	-	-
Stage 1	710	-	-	-	-	-
Stage 2	620	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	325	678	1190	-	-	-
Mov Cap-2 Maneuver	444	-	-	-	-	-
Stage 1	688	-	-	-	-	-
Stage 2	617	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.3	0.6	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1190	-	444	678	-	-
HCM Lane V/C Ratio	0.026	-	0.043	0.018	-	-
HCM Control Delay (s)	8.1	-	13.5	10.4	-	-
HCM Lane LOS	A	-	B	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	0.1	-	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	36	35	22	361	292	4
Future Volume (vph)	36	35	22	361	292	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100	0	120			0
Storage Lanes	1	1	1			0
Taper Length (ft)	90		90			
Link Speed (mph)	30			45	45	
Link Distance (ft)	765			852	1333	
Travel Time (s)	17.4			12.9	20.2	
Confl. Peds. (#/hr)	5	5	5			5
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Shared Lane Traffic (%)						
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	36	35	22	361	292	4
Future Vol, veh/h	36	35	22	361	292	4
Conflicting Peds, #/hr	5	5	5	0	0	5
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	100	0	120	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	38	36	23	376	304	4

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	738	316	313	0	-	0
Stage 1	311	-	-	-	-	-
Stage 2	427	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	385	724	1247	-	-	-
Stage 1	743	-	-	-	-	-
Stage 2	658	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	374	717	1241	-	-	-
Mov Cap-2 Maneuver	484	-	-	-	-	-
Stage 1	725	-	-	-	-	-
Stage 2	655	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.7	0.5	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1241	-	484	717	-	-
HCM Lane V/C Ratio	0.018	-	0.077	0.051	-	-
HCM Control Delay (s)	8	-	13.1	10.3	-	-
HCM Lane LOS	A	-	B	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.3	0.2	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	44	1438	88	186	1090	25	105	18	306	41	18	32
Future Volume (vph)	44	1438	88	186	1090	25	105	18	306	41	18	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	170		0	80		50	0		75	100		0
Storage Lanes	1		1	1		1	0		1	1		0
Taper Length (ft)	90			90			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		908			364			1333			308	
Travel Time (s)		13.8			5.5			20.2			4.7	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2		2	6		6	8		8	4		
Detector Phase	5	2	2	1	6	6	8	8	8	4	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	
Total Split (s)	11.2	69.4	69.4	21.6	79.8	79.8	29.0	29.0	29.0	29.0	29.0	
Total Split (%)	9.3%	57.8%	57.8%	18.0%	66.5%	66.5%	24.2%	24.2%	24.2%	24.2%	24.2%	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	
Total Lost Time (s)	7.5	7.5	7.5	7.5	7.5	7.5		7.5	7.5	7.5	7.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	Max	Max	Max	Max	Max	

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 92 (77%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow

Natural Cycle: 90

Control Type: Actuated-Coordinated

Splits and Phases: 6: Crossley Rd. & Ramon Rd.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	44	1438	88	186	1090	25	105	18	306	41	18	32
Future Volume (veh/h)	44	1438	88	186	1090	25	105	18	306	41	18	32
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	48	1580	97	204	1198	27	115	20	336	45	20	35
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	272	2084	925	219	2221	987	236	31	282	122	109	190
Arrive On Green	0.01	0.59	0.59	0.05	0.63	0.63	0.18	0.18	0.18	0.18	0.18	0.18
Sat Flow, veh/h	1781	3554	1578	1781	3554	1579	1005	175	1572	1023	607	1062
Grp Volume(v), veh/h	48	1580	97	204	1198	27	135	0	336	45	0	55
Grp Sat Flow(s),veh/h/ln	1781	1777	1578	1781	1777	1579	1180	0	1572	1023	0	1669
Q Serve(g_s), s	1.0	39.7	3.3	5.3	22.9	0.8	10.9	0.0	21.5	5.2	0.0	3.4
Cycle Q Clear(g_c), s	1.0	39.7	3.3	5.3	22.9	0.8	14.2	0.0	21.5	19.4	0.0	3.4
Prop In Lane	1.00		1.00	1.00		1.00	0.85		1.00	1.00		0.64
Lane Grp Cap(c), veh/h	272	2084	925	219	2221	987	267	0	282	122	0	299
V/C Ratio(X)	0.18	0.76	0.10	0.93	0.54	0.03	0.51	0.00	1.19	0.37	0.00	0.18
Avail Cap(c_a), veh/h	313	2084	925	345	2221	987	267	0	282	122	0	299
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	13.9	18.5	10.9	24.7	12.7	8.6	47.8	0.0	49.3	55.4	0.0	41.8
Incr Delay (d2), s/veh	0.3	2.6	0.2	23.1	0.9	0.1	6.7	0.0	116.4	8.4	0.0	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	15.3	1.1	4.8	8.4	0.3	4.2	0.0	17.3	1.6	0.0	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.2	21.1	11.2	47.8	13.7	8.6	54.5	0.0	165.6	63.8	0.0	43.2
LnGrp LOS	B	C	B	D	B	A	D	A	F	E	A	D
Approach Vol, veh/h		1725			1429			471			100	
Approach Delay, s/veh		20.4			18.4			133.8			52.4	
Approach LOS		C			B			F			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.1	77.9		29.0	8.5	82.5		29.0				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	17.1	64.9		24.5	6.7	75.3		24.5				
Max Q Clear Time (g_c+I1), s	8.3	42.7		22.4	4.0	25.9		24.5				
Green Ext Time (p_c), s	0.3	12.4		0.1	0.0	10.7		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			34.8									
HCM 6th LOS			C									

APPENDIX 3.3: TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

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Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

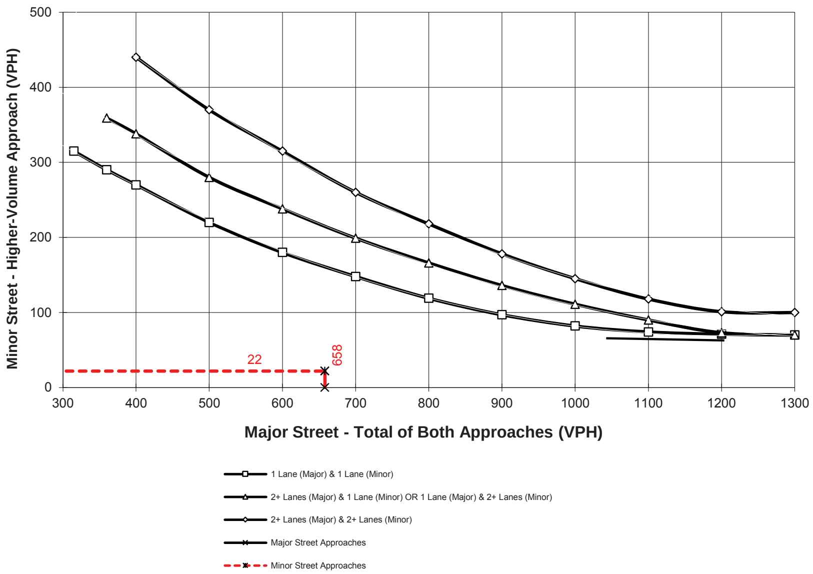
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Existing (2023) AM Peak Hour Warrants**

Major Street Name = **Crossley Rd.** Total of Both Approaches (VPH) = **658**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Indian Springs Rd.** High Volume Approach (VPH) = **22**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #4

F:\UXRjobs_15100-15500_15500\15579\Warrants\01 - Existing\04R_AM.xls\Fig 4C-4 (Rural Peak)

California MUTCD 2014 Edition
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Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

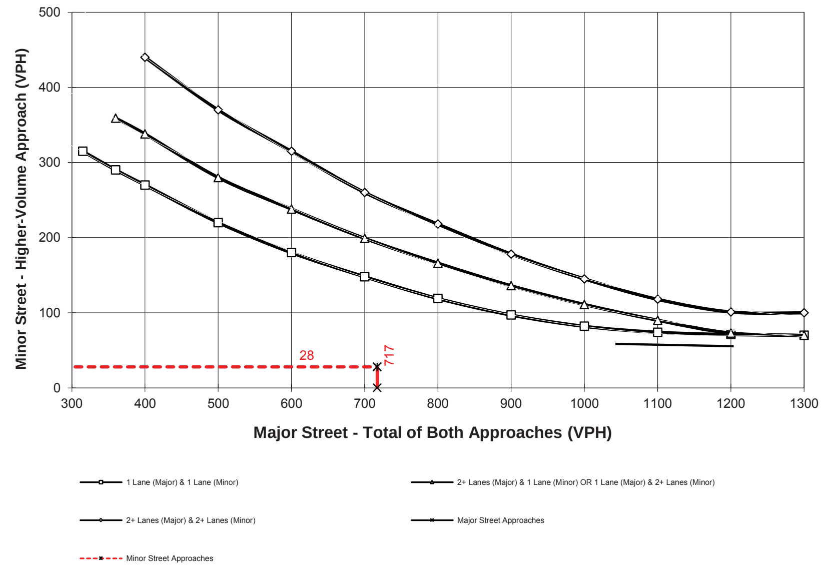
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Existing (2023) PM Peak Hour Warrants**

Major Street Name = **Crossley Rd.** Total of Both Approaches (VPH) = **717**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Indian Springs Rd.** High Volume Approach (VPH) = **28**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #4

F:\UXRjobs_15100-15500_15500\15579\Warrants\01 - Existing\04R_PM.xls\Fig 4C-4 (Rural Peak)

California MUTCD 2014 Edition
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Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

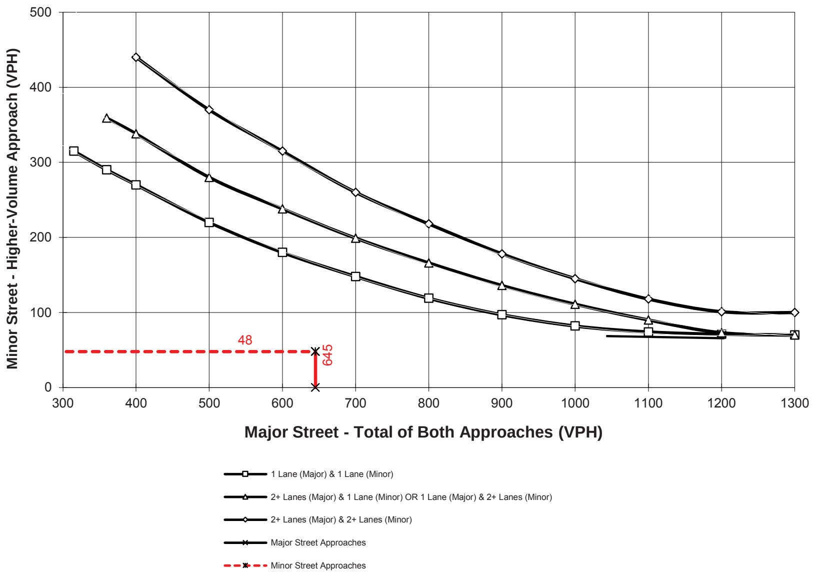
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Existing (2023) AM Peak Hour Warrants**

Major Street Name = **Crossley Rd.**
Total of Both Approaches (VPH) = **645**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Sunny Dunes Rd.**
High Volume Approach (VPH) = **48**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #5

F:\UXRjobs_15100-15500_15500\15579\Warrants\01 - Existing\05R_AM.xls\Fig 4C-4 (Rural Peak)

California MUTCD 2014 Edition
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Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

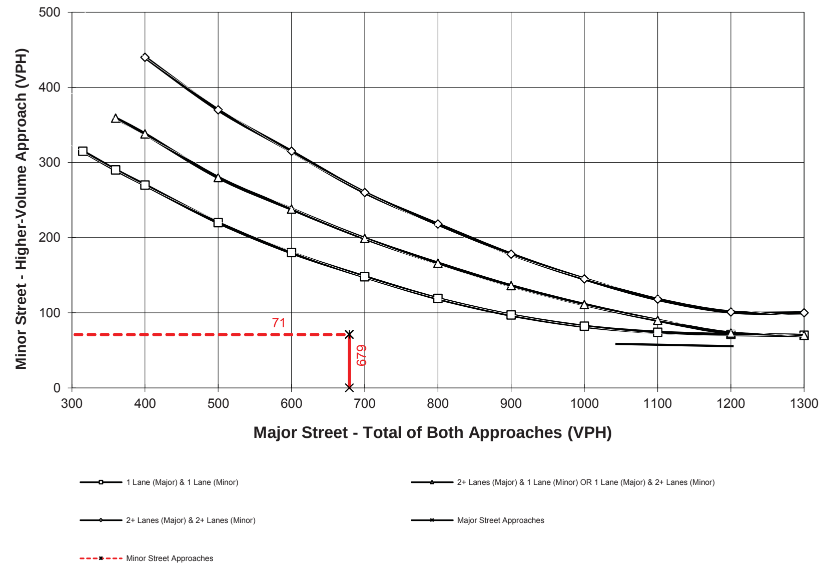
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Existing (2023) PM Peak Hour Warrants**

Major Street Name = **Crossley Rd.**
Total of Both Approaches (VPH) = **679**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Sunny Dunes Rd.**
High Volume Approach (VPH) = **71**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #5

F:\UXRjobs_15100-15500_15500\15579\Warrants\01 - Existing\05R_PM.xls\Fig 4C-4 (Rural Peak)

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Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

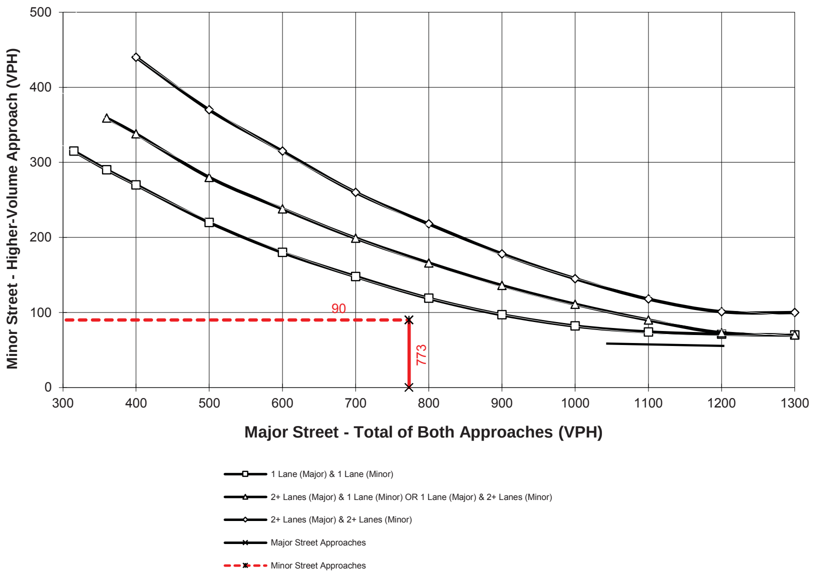
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Existing + Project AM Peak Hour Warrants**

Major Street Name = **Crossley Rd.** Total of Both Approaches (VPH) = **773**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Indian Springs Rd.** High Volume Approach (VPH) = **90**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #4

F:\UXRjobs_15100-15500_15500\15579\Warrants\02 - EP\04R_AM.xls\Fig 4C-4 (Rural Peak)

California MUTCD 2014 Edition
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Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

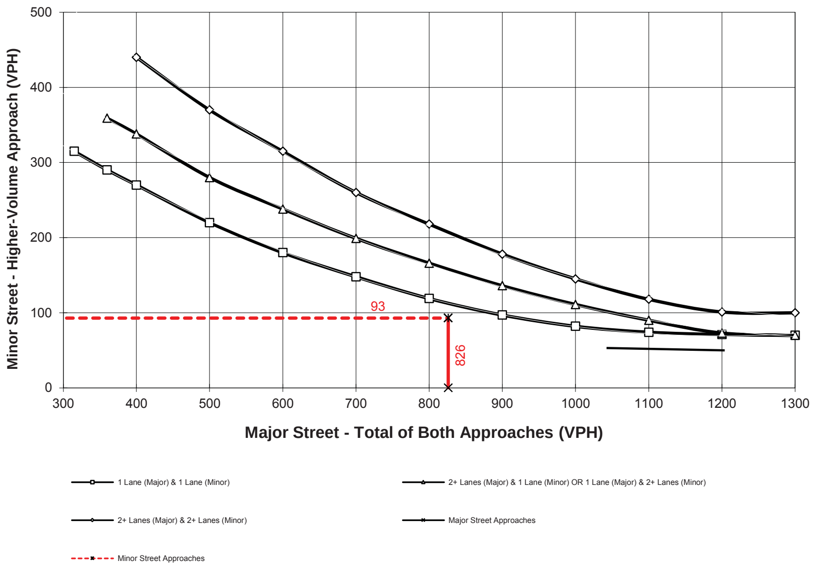
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Existing + Project PM Peak Hour Warrants**

Major Street Name = **Crossley Rd.** Total of Both Approaches (VPH) = **826**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Indian Springs Rd.** High Volume Approach (VPH) = **93**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #4

F:\UXRjobs_15100-15500_15500\15579\Warrants\02 - EP\04R_PM.xls\Fig 4C-4 (Rural Peak)

California MUTCD 2014 Edition
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Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

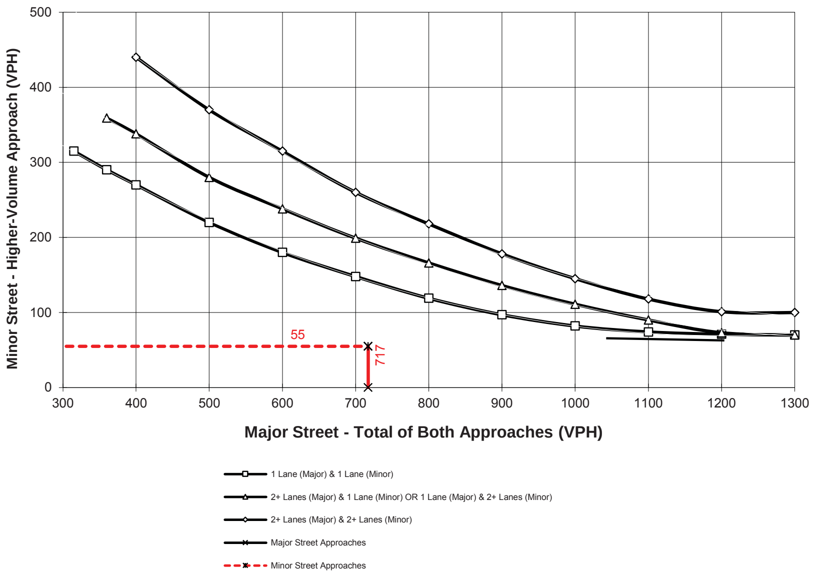
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Existing + Project AM Peak Hour Warrants**

Major Street Name = **Crossley Rd.** Total of Both Approaches (VPH) = **717**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Sunny Dunes Rd.** High Volume Approach (VPH) = **55**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #5

F:\UXRjobs_15100-15500_15500\15579\Warrants\02 - EP\05R_AM.xls\Fig 4C-4 (Rural Peak)

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Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

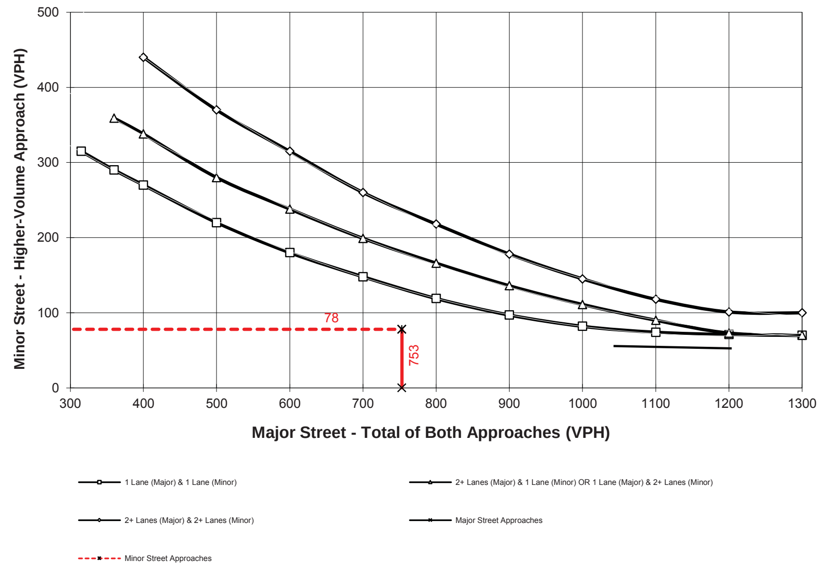
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Existing + Project PM Peak Hour Warrants**

Major Street Name = **Crossley Rd.** Total of Both Approaches (VPH) = **753**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Sunny Dunes Rd.** High Volume Approach (VPH) = **78**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #5

F:\UXRjobs_15100-15500_15500\15579\Warrants\02 - EP\05R_PM.xls\Fig 4C-4 (Rural Peak)

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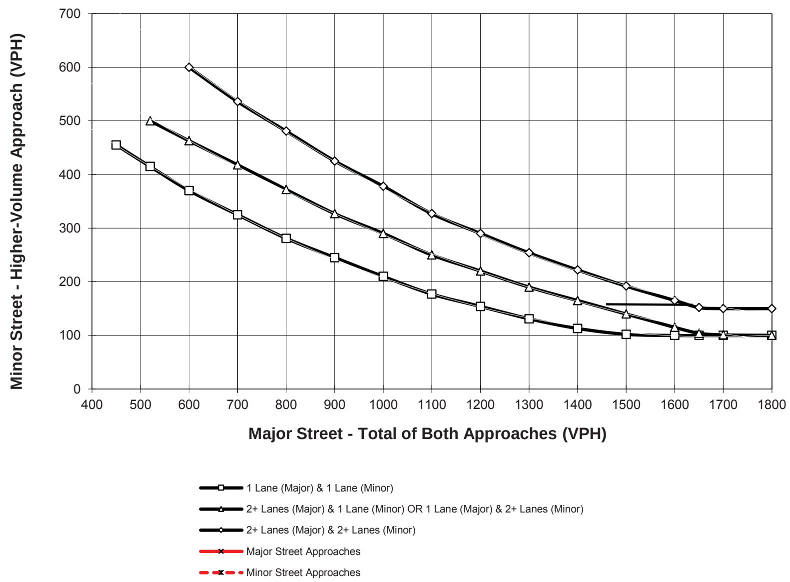
Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **Existing + Project AM Peak Hour Warrants**

Major Street Name = **Indian Springs Rd.** Total of Both Approaches (VPH) = **177**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Dwy. 3** High Volume Approach (VPH) = **87**
Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #9

F:\UXRjobs_15100-15500_15500\15579\Warrants\02 - EP\09U_AM.xls\Fig 4C-3 (Urban Peak)

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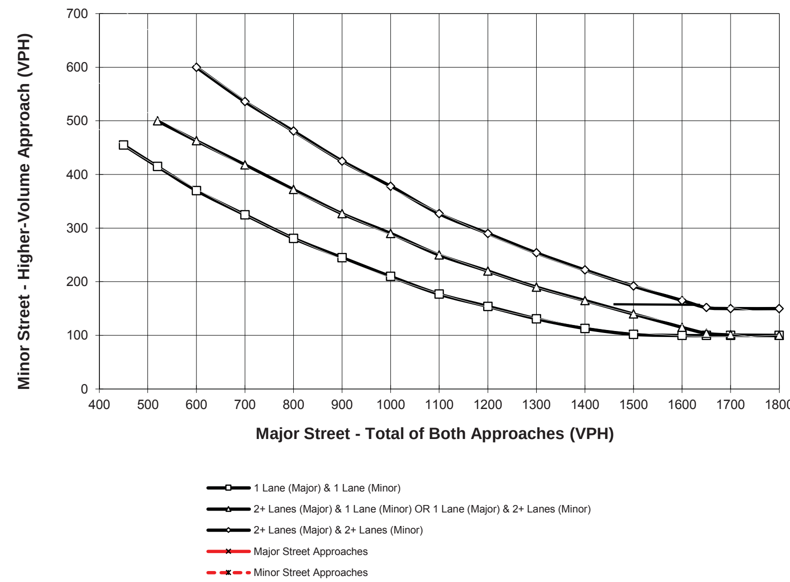
Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **Existing + Project PM Peak Hour Warrants**

Major Street Name = **Indian Springs Rd.** Total of Both Approaches (VPH) = **187**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Dwy. 3** High Volume Approach (VPH) = **85**
Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #9

F:\UXRjobs_15100-15500_15500\15579\Warrants\02 - EP\09U_PM.xls\Fig 4C-3 (Urban Peak)

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Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

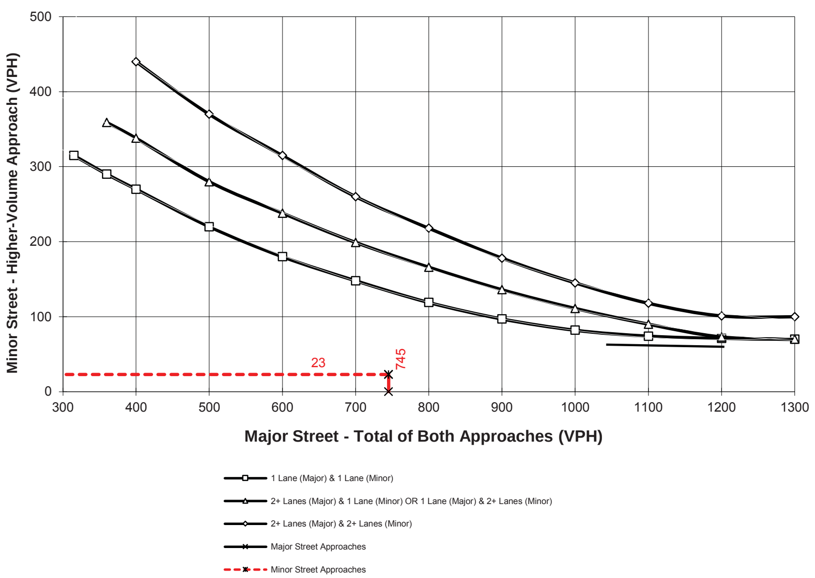
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **EAC (2025) AM Peak Hour Warrants**

Major Street Name = **Crossley Rd.**
Total of Both Approaches (VPH) = **745**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Indian Springs Rd.**
High Volume Approach (VPH) = **23**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #4

F:\UXRjobs_15100-15500_15500\15579\Warrants\03 - EAC\04R_AM.xls\Fig 4C-4 (Rural Peak)

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Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

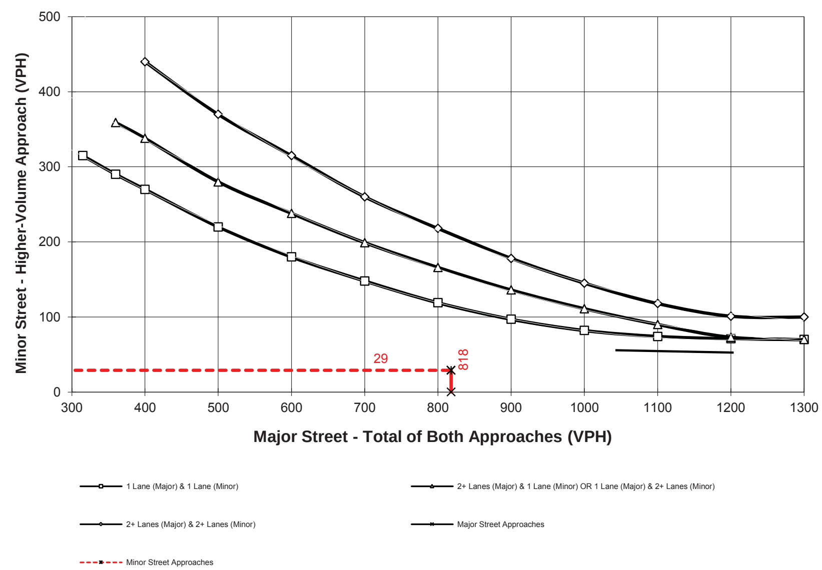
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **EAC (2025) PM Peak Hour Warrants**

Major Street Name = **Crossley Rd.**
Total of Both Approaches (VPH) = **818**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Indian Springs Rd.**
High Volume Approach (VPH) = **29**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #4

F:\UXRjobs_15100-15500_15500\15579\Warrants\03 - EAC\04R_PM.xls\Fig 4C-4 (Rural Peak)

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Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

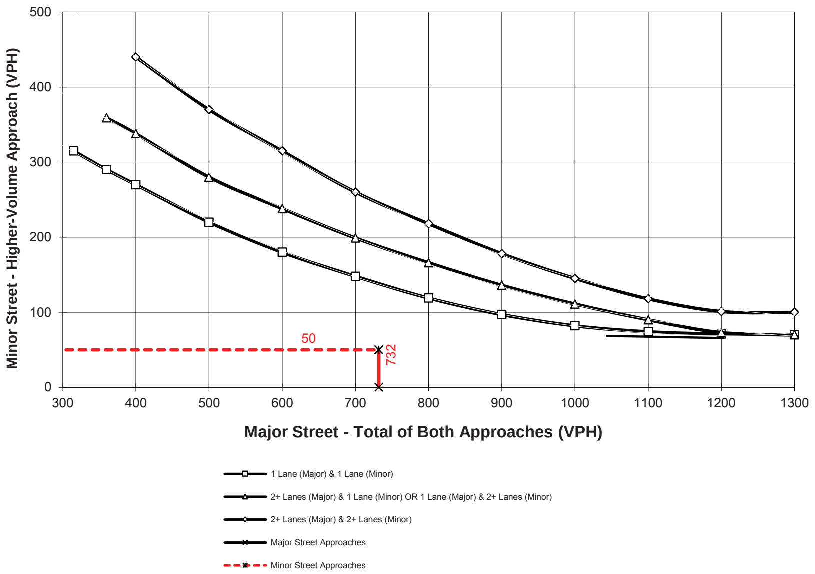
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **EAC (2025) AM Peak Hour Warrants**

Major Street Name = **Crossley Rd.** Total of Both Approaches (VPH) = **732**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Sunny Dunes Rd.** High Volume Approach (VPH) = **50**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #5

F:\UXRjobs_15100-15500_15500\15579\Warrants\03 - EAC\05R_AM.xls\Fig 4C-4 (Rural Peak)

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Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

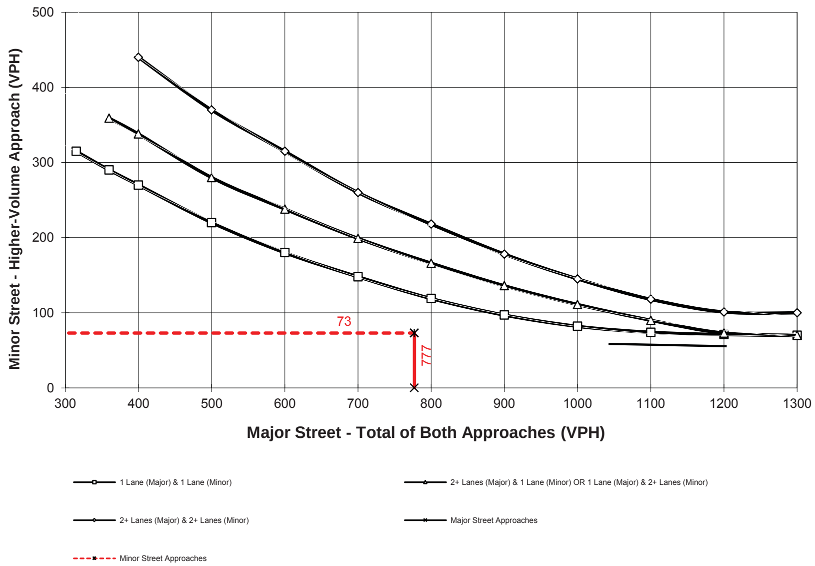
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **EAC (2025) PM Peak Hour Warrants**

Major Street Name = **Crossley Rd.** Total of Both Approaches (VPH) = **777**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Sunny Dunes Rd.** High Volume Approach (VPH) = **73**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #5

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Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

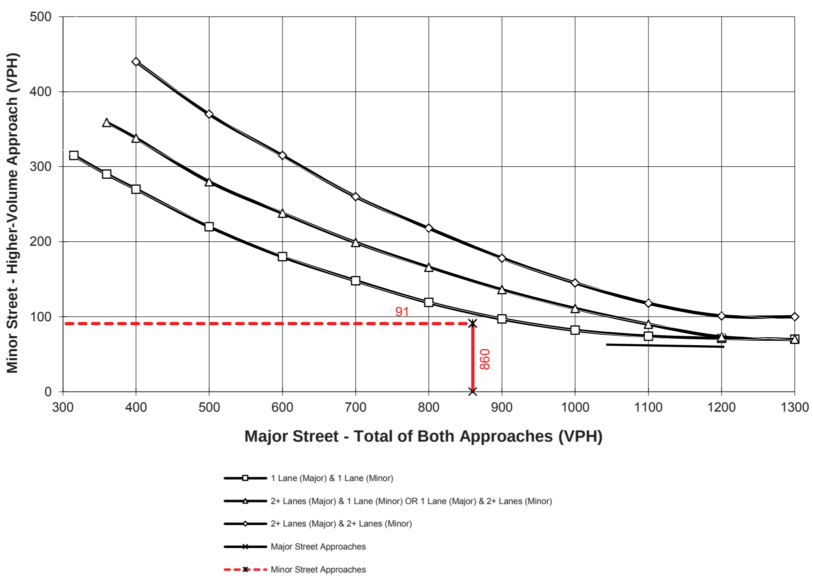
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **EAPC (2025) AM Peak Hour Warrants**

Major Street Name = **Crossley Rd.**
Total of Both Approaches (VPH) = **860**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Indian Springs Rd.**
High Volume Approach (VPH) = **91**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #4

F:\UXRjobs_15100-15500_15500\15579\Warrants\04 - EAPC\04R_AM.xls\Fig 4C-4 (Rural Peak)

California MUTCD 2014 Edition
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Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

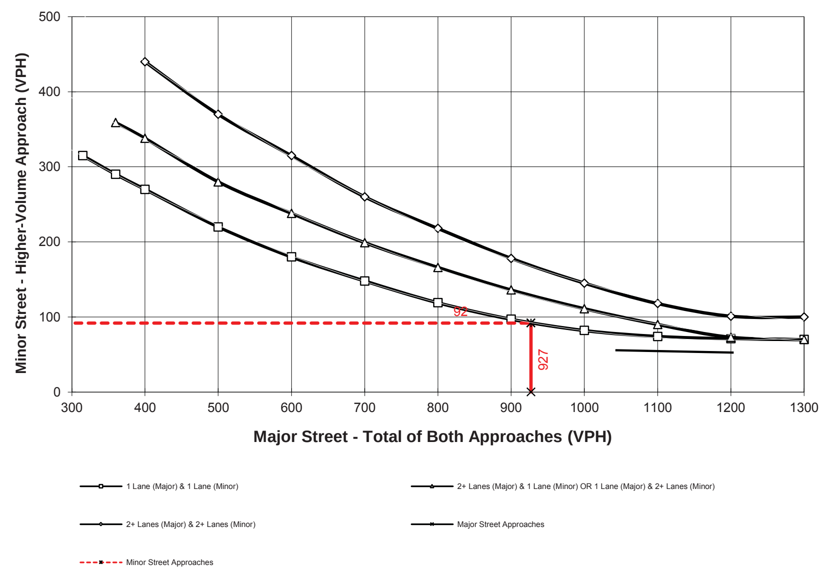
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **EAPC (2025) PM Peak Hour Warrants**

Major Street Name = **Crossley Rd.**
Total of Both Approaches (VPH) = **927**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Indian Springs Rd.**
High Volume Approach (VPH) = **92**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #4

F:\UXRjobs_15100-15500_15500\15579\Warrants\04 - EAPC\04R_PM.xls\Fig 4C-4 (Rural Peak)

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Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

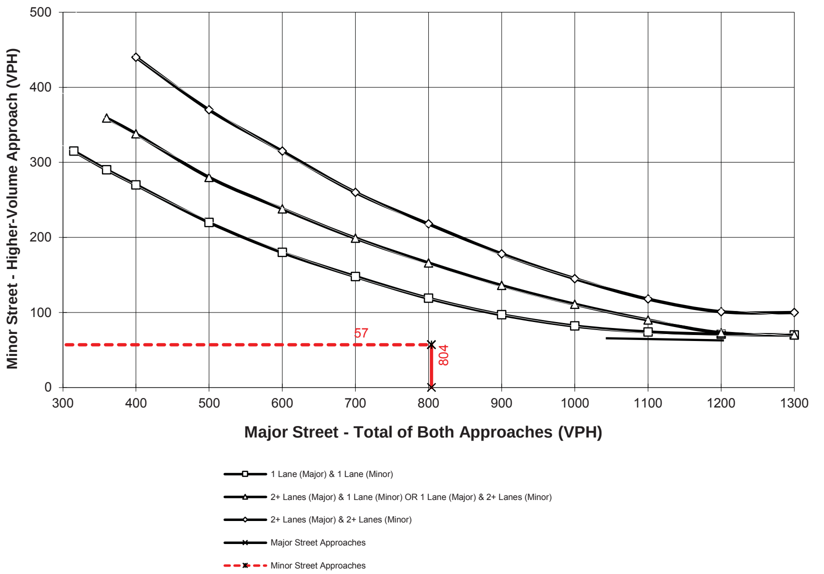
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **EAPC (2025) AM Peak Hour Warrants**

Major Street Name = **Crossley Rd.**
Total of Both Approaches (VPH) = **804**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Sunny Dunes Rd.**
High Volume Approach (VPH) = **57**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #5

F:\UXRjobs_15100-15500_15500\15579\Warrants\04 - EAPC\05R_AM.xls\Fig 4C-4 (Rural Peak)

California MUTCD 2014 Edition
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Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

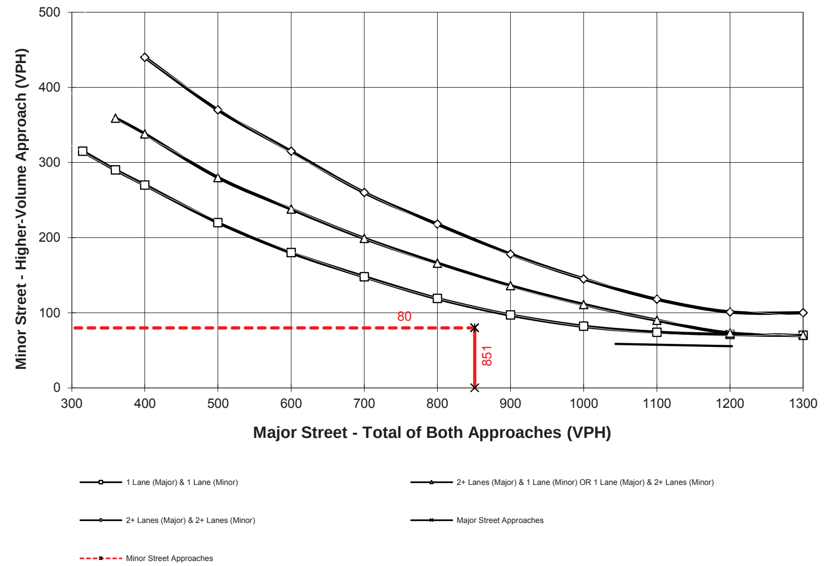
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **EAPC (2025) PM Peak Hour Warrants**

Major Street Name = **Crossley Rd.**
Total of Both Approaches (VPH) = **851**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Sunny Dunes Rd.**
High Volume Approach (VPH) = **80**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #5

F:\UXRjobs_15100-15500_15500\15579\Warrants\04 - EAPC\05R_PM.xls\Fig 4C-4 (Rural Peak)

California MUTCD 2014 Edition
(FHWA's MUTCD 2009, as amended for use in California)

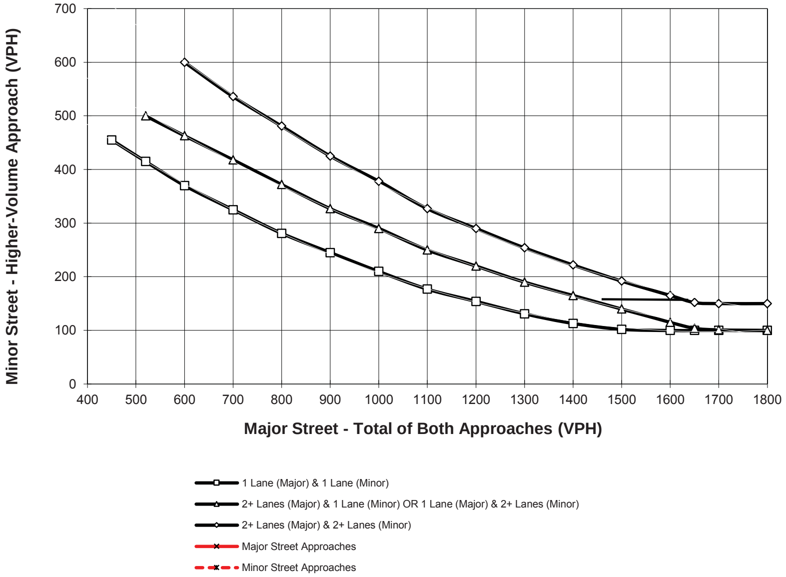
Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **EAPC (2025) AM Peak Hour Warrants**

Major Street Name = **Indian Springs Rd.**
Total of Both Approaches (VPH) = **179**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Dwy. 3**
High Volume Approach (VPH) = **87**
Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #9

F:\UXRjobs_15100-15500_15500\15579\Warrants\04 - EAPC\09U_AM.xls\Fig 4C-3 (Urban Peak)

California MUTCD 2014 Edition
(FHWA's MUTCD 2009, as amended for use in California)

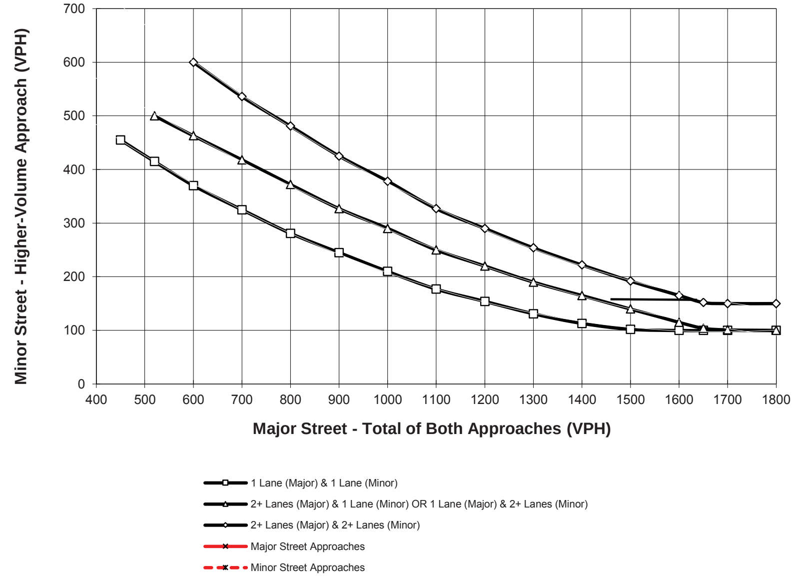
Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **EAPC (2025) PM Peak Hour Warrants**

Major Street Name = **Indian Springs Rd.**
Total of Both Approaches (VPH) = **190**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Dwy. 3**
High Volume Approach (VPH) = **85**
Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #9

F:\UXRjobs_15100-15500_15500\15579\Warrants\04 - EAPC\09U_PM.xls\Fig 4C-3 (Urban Peak)

California MUTCD (FHWA's MUTCD 2014, as amended for use in California)

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS	**EP**
			CALC JC	DATE	11/08/23
			CHK	DATE	

Jurisdiction: City of Palm Springs
Major Street: **Indian Springs Rd.** — Critical Approach Speed (Major) 35 mph
Minor Street: **Dwy. 3** — Critical Approach Speed (Minor) 30 mph

Major Street Approach Lanes = **1** lane — Minor Street Approach Lanes **1** lane

Major Street Future ADT = **2,434** vpd — Minor Street Future ADT = **1,486** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ……….
or **URBAN (U)**
In built up area of isolated community of < 10,000 population …………………..

(Based on Estimated Average Daily Traffic - See Note)

URBAN	RURAL	Minimum Requirements ADT			
XX					
CONDITION A - Minimum Vehicular Volume		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **2,434**	*1* **1,486**	8,000	5,600	2,400	1,680
2 +	*1*	9,600	6,720	2,400	1,680
2 +	*2 +*	9,600	6,720	3,200	2,240
1	*2 +*	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **2,434**	*1* **1,486**	12,000	8,400	1,200 *	850
2 +	*1*	14,400	10,080	1,200	850
2 +	*2 +*	14,400	10,080	1,600	1,120
1	*2 +*	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B		2 CONDITIONS 80%		2 CONDITIONS 80%	
Satisfied	Not Satisfied				
	XX				
No one condition satisfied, but following conditions fulfilled 80% of more …..					
A	B				
30%	20%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

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California MUTCD (FHWA's MUTCD 2014, as amended for use in California)

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS	**EAPC**
			CALC JC	DATE	11/08/23
			CHK	DATE	

Jurisdiction: City of Palm Springs
Major Street: **Indian Springs Rd.** — Critical Approach Speed (Major) 35 mph
Minor Street: **Dwy. 3** — Critical Approach Speed (Minor) 30 mph

Major Street Approach Lanes = **1** lane — Minor Street Approach Lanes **1** lane

Major Street Future ADT = **2,472** vpd — Minor Street Future ADT = **1,486** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ……….
or **URBAN (U)**
In built up area of isolated community of < 10,000 population …………………..

(Based on Estimated Average Daily Traffic - See Note)

URBAN	RURAL	Minimum Requirements ADT			
XX					
CONDITION A - Minimum Vehicular Volume		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **2,472**	*1* **1,486**	8,000	5,600	2,400	1,680
2 +	*1*	9,600	6,720	2,400	1,680
2 +	*2 +*	9,600	6,720	3,200	2,240
1	*2 +*	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **2,472**	*1* **1,486**	12,000	8,400	1,200 *	850
2 +	*1*	14,400	10,080	1,200	850
2 +	*2 +*	14,400	10,080	1,600	1,120
1	*2 +*	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B		2 CONDITIONS 80%		2 CONDITIONS 80%	
Satisfied	Not Satisfied				
	XX				
No one condition satisfied, but following conditions fulfilled 80% of more …..					
A	B				
31%	21%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

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APPENDIX 5.1: E+P CONDITIONS

INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	105	628	79	63	889	102	88	128	59	169	214	159
Future Volume (vph)	105	628	79	63	889	102	88	128	59	169	214	159
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	155		0	140		0	90		90	100		100
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	90			90			90			30		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		373			416			358			226	
Travel Time (s)		5.7			6.3			5.4			3.4	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Shared Lane Traffic (%)												
Turn Type	Prot	NA		Prot	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2		1	6			8			4	
Permitted Phases							8		8	4		4
Detector Phase	5	2		1	6		8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5		9.5	22.5		22.5	22.5	22.5	45.0	45.0	45.0
Total Split (s)	20.3	55.6		19.4	54.7		45.0	45.0	45.0	45.0	45.0	45.0
Total Split (%)	16.9%	46.3%		16.2%	45.6%		37.5%	37.5%	37.5%	37.5%	37.5%	37.5%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Total Lost Time (s)	7.5	7.5		7.5	7.5		7.5	7.5	7.5	7.5	7.5	7.5
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	C-Max		None	C-Max		Max	Max	Max	Max	Max	Max

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection

Natural Cycle: 100

Control Type: Actuated-Coordinated

Splits and Phases: 1: Crossley Rd. & Dinah Shore Dr.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑	↱	↰	↑	↱
Traffic Volume (veh/h)	105	628	79	63	889	102	88	128	59	169	214	159
Future Volume (veh/h)	105	628	79	63	889	102	88	128	59	169	214	159
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	127	757	95	76	1071	123	106	154	71	204	258	192
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	115	1545	194	24	1397	160	232	584	493	349	584	493
Arrive On Green	0.13	0.97	0.97	0.01	0.44	0.44	0.31	0.31	0.31	0.10	0.10	0.10
Sat Flow, veh/h	1781	3175	398	1781	3210	368	940	1870	1577	1153	1870	1577
Grp Volume(v), veh/h	127	424	428	76	592	602	106	154	71	204	258	192
Grp Sat Flow(s),veh/h/ln	1781	1777	1796	1781	1777	1802	940	1870	1577	1153	1870	1577
Q Serve(g_s), s	7.8	1.5	1.5	1.6	33.9	34.0	12.5	7.4	3.9	20.7	15.6	13.6
Cycle Q Clear(g_c), s	7.8	1.5	1.5	1.6	33.9	34.0	28.0	7.4	3.9	28.1	15.6	13.6
Prop In Lane	1.00		0.22	1.00		0.20	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	115	865	874	24	774	784	232	584	493	349	584	493
V/C Ratio(X)	1.10	0.49	0.49	3.19	0.77	0.77	0.46	0.26	0.14	0.58	0.44	0.39
Avail Cap(c_a), veh/h	190	865	874	177	774	784	232	584	493	349	584	493
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.2	0.8	0.8	59.2	28.7	28.7	45.2	30.9	29.7	53.2	44.0	43.1
Incr Delay (d2), s/veh	88.3	2.0	2.0	1010.5	7.1	7.1	6.4	1.1	0.6	7.0	2.4	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.0	0.8	0.8	7.4	15.1	15.3	3.2	3.4	1.5	7.0	8.2	6.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	140.5	2.8	2.8	1069.7	35.8	35.8	51.5	32.0	30.3	60.2	46.4	45.4
LnGrp LOS	F	A	A	F	D	D	D	C	C	E	D	D
Approach Vol, veh/h		979			1270			331			654	
Approach Delay, s/veh		20.7			97.7			37.9			50.4	
Approach LOS		C			F			D			D	

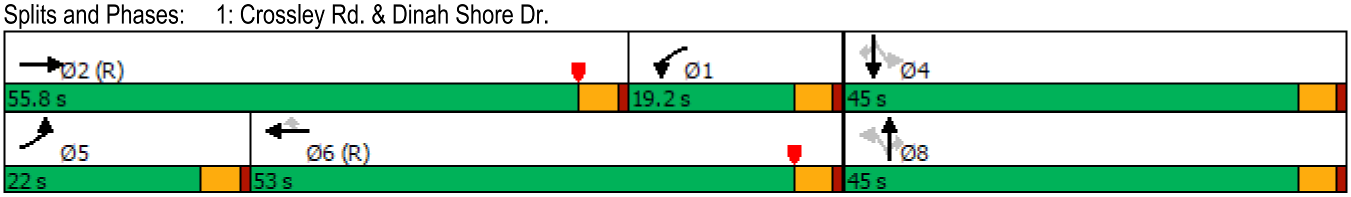
Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	9.1	65.9		45.0	15.2	59.8		45.0
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	14.9	51.1		40.5	15.8	50.2		40.5
Max Q Clear Time (g_c+I1), s	4.6	4.5		31.1	10.8	37.0		31.0
Green Ext Time (p_c), s	0.1	5.6		2.0	0.1	6.0		1.0

Intersection Summary		
HCM 6th Ctrl Delay		58.7
HCM 6th LOS		E

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	105	628	79	63	889	102	88	128	59	169	214	159
Future Volume (vph)	105	628	79	63	889	102	88	128	59	169	214	159
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	155		0	140		150	90		90	150		100
Storage Lanes	1		0	1		1	1		1	1		1
Taper Length (ft)	90			90			90			60		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		373			416			358			226	
Travel Time (s)		5.7			6.3			5.4			3.4	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Shared Lane Traffic (%)												
Turn Type	Prot	NA		Prot	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2		1	6			8			4	
Permitted Phases						6	8		8	4		4
Detector Phase	5	2		1	6	6	8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5		9.5	22.5	22.5	22.5	22.5	22.5	45.0	45.0	45.0
Total Split (s)	22.0	55.8		19.2	53.0	53.0	45.0	45.0	45.0	45.0	45.0	45.0
Total Split (%)	18.3%	46.5%		16.0%	44.2%	44.2%	37.5%	37.5%	37.5%	37.5%	37.5%	37.5%
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Total Lost Time (s)	7.5	7.5		7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
Lead/Lag	Lead	Lead		Lag	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes						
Recall Mode	None	C-Max		None	C-Max	C-Max	Max	Max	Max	Max	Max	Max

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	

Splits and Phases: 1: Crossley Rd. & Dinah Shore Dr.

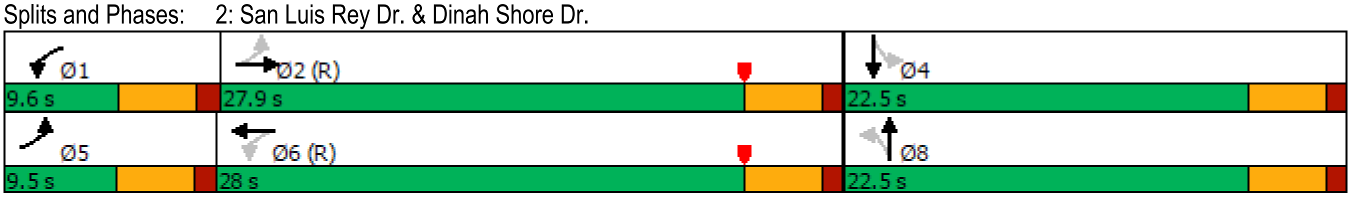


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	105	628	79	63	889	102	88	128	59	169	214	159
Future Volume (veh/h)	105	628	79	63	889	102	88	128	59	169	214	159
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	127	757	95	76	1071	123	106	154	71	204	258	192
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	121	1278	160	174	1536	681	232	584	493	349	584	493
Arrive On Green	0.14	0.81	0.81	0.10	0.43	0.43	0.31	0.31	0.31	0.10	0.10	0.10
Sat Flow, veh/h	1781	3174	398	1781	3554	1576	940	1870	1577	1153	1870	1577
Grp Volume(v), veh/h	127	424	428	76	1071	123	106	154	71	204	258	192
Grp Sat Flow(s),veh/h/ln	1781	1777	1796	1781	1777	1576	940	1870	1577	1153	1870	1577
Q Serve(g_s), s	8.1	10.7	10.7	4.8	29.4	5.8	12.5	7.4	3.9	20.7	15.6	13.6
Cycle Q Clear(g_c), s	8.1	10.7	10.7	4.8	29.4	5.8	28.0	7.4	3.9	28.1	15.6	13.6
Prop In Lane	1.00		0.22	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	121	715	723	174	1536	681	232	584	493	349	584	493
V/C Ratio(X)	1.05	0.59	0.59	0.44	0.70	0.18	0.46	0.26	0.14	0.58	0.44	0.39
Avail Cap(c_a), veh/h	215	715	723	174	1536	681	232	584	493	349	584	493
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.9	8.0	8.0	51.0	27.7	21.0	45.2	30.9	29.7	53.2	44.0	43.1
Incr Delay (d2), s/veh	63.5	3.6	3.6	1.7	2.6	0.6	6.4	1.1	0.6	7.0	2.4	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.4	3.2	3.2	2.2	12.3	2.2	3.2	3.4	1.5	7.0	8.2	6.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	115.3	11.6	11.6	52.8	30.3	21.6	51.5	32.0	30.3	60.2	46.4	45.4
LnGrp LOS	F	B	B	D	C	C	D	C	C	E	D	D
Approach Vol, veh/h		979			1270			331			654	
Approach Delay, s/veh		25.1			30.8			37.9			50.4	
Approach LOS		C			C			D			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	19.2	55.8		45.0	15.6	59.4		45.0				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	14.7	51.3		40.5	17.5	48.5		40.5				
Max Q Clear Time (g_c+I1), s	7.8	13.7		31.1	11.1	32.4		31.0				
Green Ext Time (p_c), s	0.1	5.5		2.0	0.1	6.8		1.0				
Intersection Summary												
HCM 6th Ctrl Delay			33.8									
HCM 6th LOS			C									

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	24	672	14	21	936	98	2	3	1	132	11	48
Future Volume (vph)	24	672	14	21	936	98	2	3	1	132	11	48
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	160		0	160		0	0		0	40		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	90			90			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			35			35	
Link Distance (ft)		1338			939			391			593	
Travel Time (s)		20.3			14.2			7.6			11.6	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		1	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	9.5	22.5		9.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	9.5	27.9		9.6	28.0		22.5	22.5		22.5	22.5	
Total Split (%)	15.8%	46.5%		16.0%	46.7%		37.5%	37.5%		37.5%	37.5%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Total Lost Time (s)	7.5	7.5		7.5	7.5		7.5	7.5		7.5	7.5	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	C-Max		None	C-Max		Max	Max		Max	Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 45.1 (75%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	

Splits and Phases: 2: San Luis Rey Dr. & Dinah Shore Dr.

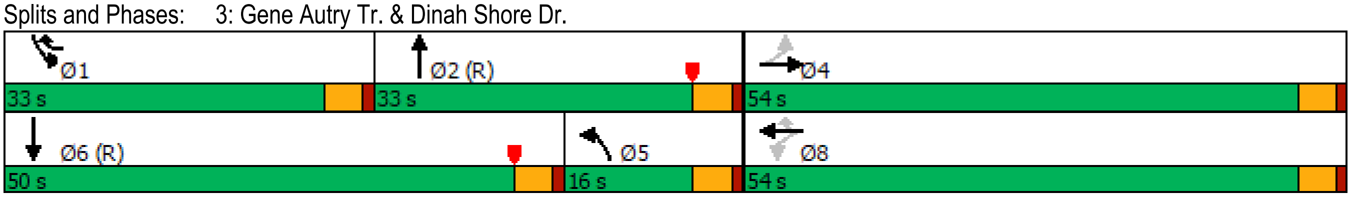


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	24	672	14	21	936	98	2	3	1	132	11	48
Future Volume (veh/h)	24	672	14	21	936	98	2	3	1	132	11	48
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	30	830	17	26	1156	121	2	4	1	163	14	59
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	176	1409	29	261	1273	133	403	361	90	468	78	328
Arrive On Green	0.00	0.40	0.40	0.00	0.78	0.78	0.25	0.25	0.25	0.25	0.25	0.25
Sat Flow, veh/h	1781	3561	73	1781	3245	339	1320	1442	361	1403	312	1313
Grp Volume(v), veh/h	30	414	433	26	632	645	2	0	5	163	0	73
Grp Sat Flow(s),veh/h/ln	1781	1777	1857	1781	1777	1807	1320	0	1803	1403	0	1625
Q Serve(g_s), s	0.1	11.0	11.0	0.1	15.9	16.1	0.1	0.0	0.1	5.9	0.0	2.1
Cycle Q Clear(g_c), s	0.1	11.0	11.0	0.1	15.9	16.1	2.2	0.0	0.1	6.1	0.0	2.1
Prop In Lane	1.00		0.04	1.00		0.19	1.00		0.20	1.00		0.81
Lane Grp Cap(c), veh/h	176	703	735	261	697	709	403	0	451	468	0	406
V/C Ratio(X)	0.17	0.59	0.59	0.10	0.91	0.91	0.00	0.00	0.01	0.35	0.00	0.18
Avail Cap(c_a), veh/h	233	703	735	320	697	709	403	0	451	468	0	406
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.73	0.73	0.73	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	22.8	14.3	14.3	18.0	5.6	5.7	18.5	0.0	16.9	19.2	0.0	17.7
Incr Delay (d2), s/veh	0.3	2.6	2.5	0.2	17.7	17.8	0.0	0.0	0.0	2.0	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	4.0	4.2	0.2	5.1	5.2	0.0	0.0	0.1	2.0	0.0	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.1	16.9	16.8	18.1	23.4	23.5	18.6	0.0	17.0	21.2	0.0	18.6
LnGrp LOS	C	B	B	B	C	C	B	A	B	C	A	B
Approach Vol, veh/h		877			1303			7			236	
Approach Delay, s/veh		17.1			23.3			17.4			20.4	
Approach LOS		B			C			B			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.3	31.2		22.5	6.5	31.0		22.5				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.1	23.4		18.0	5.0	23.5		18.0				
Max Q Clear Time (g_c+I1), s	3.1	14.0		9.1	3.1	19.1		5.2				
Green Ext Time (p_c), s	0.0	3.3		0.5	0.0	2.8		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			20.8									
HCM 6th LOS			C									

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	25	273	68	157	383	446	36	278	71	372	448	54
Future Volume (vph)	25	273	68	157	383	446	36	278	71	372	448	54
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	155		0	165		300	90		0	285		0
Storage Lanes	1		0	1		1	1		0	2		0
Taper Length (ft)	90			90			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		417			1338			401			622	
Travel Time (s)		6.3			20.3			6.1			9.4	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA	pm+ov	Prot	NA		Prot	NA	
Protected Phases		4			8	1	5	2		1	6	
Permitted Phases	4			8		8						
Detector Phase	4	4		8	8	1	5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5	9.5	9.5	22.5		9.5	22.5	
Total Split (s)	54.0	54.0		54.0	54.0	33.0	16.0	33.0		33.0	50.0	
Total Split (%)	45.0%	45.0%		45.0%	45.0%	27.5%	13.3%	27.5%		27.5%	41.7%	
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Total Lost Time (s)	7.5	7.5		7.5	7.5	7.5	7.5	7.5		7.5	7.5	
Lead/Lag						Lead	Lag	Lag		Lead	Lead	
Lead-Lag Optimize?						Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None	None	None	C-Max		None	C-Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 107.9 (90%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	

Splits and Phases: 3: Gene Autry Tr. & Dinah Shore Dr.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	273	68	157	383	446	36	278	71	372	448	54
Future Volume (veh/h)	25	273	68	157	383	446	36	278	71	372	448	54
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	30	325	81	187	456	531	43	331	85	443	533	64
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	110	896	220	282	593	1259	252	1007	255	472	1131	135
Arrive On Green	0.32	0.32	0.32	0.21	0.21	0.21	0.14	0.36	0.36	0.14	0.35	0.35
Sat Flow, veh/h	570	2825	694	978	1870	2768	1781	2806	710	3456	3193	382
Grp Volume(v), veh/h	30	203	203	187	456	531	43	208	208	443	296	301
Grp Sat Flow(s),veh/h/ln	570	1777	1742	978	1870	1384	1781	1777	1739	1728	1777	1798
Q Serve(g_s), s	6.1	10.5	10.8	22.3	27.5	16.6	2.5	10.2	10.5	15.2	15.5	15.6
Cycle Q Clear(g_c), s	33.6	10.5	10.8	33.1	27.5	16.6	2.5	10.2	10.5	15.2	15.5	15.6
Prop In Lane	1.00		0.40	1.00		1.00	1.00		0.41	1.00		0.21
Lane Grp Cap(c), veh/h	110	563	552	282	593	1259	252	638	624	472	629	637
V/C Ratio(X)	0.27	0.36	0.37	0.66	0.77	0.42	0.17	0.33	0.33	0.94	0.47	0.47
Avail Cap(c_a), veh/h	150	689	675	351	725	1454	252	638	624	734	629	637
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.44	0.44	0.44	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.7	31.6	31.7	50.6	43.1	25.9	45.3	27.9	28.0	51.3	30.0	30.1
Incr Delay (d2), s/veh	1.3	0.4	0.4	1.5	1.8	0.1	0.3	1.4	1.4	14.5	2.5	2.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	4.5	4.5	5.7	13.3	5.7	1.1	4.4	4.5	7.4	6.8	6.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.1	32.0	32.1	52.1	44.9	26.0	45.7	29.3	29.5	65.8	32.5	32.6
LnGrp LOS	D	C	C	D	D	C	D	C	C	E	C	C
Approach Vol, veh/h		436			1174			459			1040	
Approach Delay, s/veh		33.6			37.5			30.9			46.7	
Approach LOS		C			D			C			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	23.9	50.6		45.5	24.5	50.0		45.5				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	28.5	28.5		49.5	11.5	45.5		49.5				
Max Q Clear Time (g_c+I1), s	18.2	13.5		36.6	5.5	18.6		36.1				
Green Ext Time (p_c), s	1.2	1.9		2.0	0.0	3.4		4.9				

Intersection Summary			
HCM 6th Ctrl Delay			39.1
HCM 6th LOS			D

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	76	14	116	219	419	19
Future Volume (vph)	76	14	116	219	419	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	50	50			0
Storage Lanes	1	1	1			0
Taper Length (ft)	90		90			
Link Speed (mph)	30			45	45	
Link Distance (ft)	375			235	852	
Travel Time (s)	8.5			3.6	12.9	
Confl. Peds. (#/hr)	5	5	5			5
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81
Shared Lane Traffic (%)						
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection						
Int Delay, s/veh	3.2					

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	76	14	116	219	419	19
Future Vol, veh/h	76	14	116	219	419	19
Conflicting Peds, #/hr	5	5	5	0	0	5
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	50	50	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	81	81	81	81	81	81
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	94	17	143	270	517	23

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1095	539	545	0	-	0
Stage 1	534	-	-	-	-	-
Stage 2	561	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	236	542	1024	-	-	-
Stage 1	588	-	-	-	-	-
Stage 2	571	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	201	537	1019	-	-	-
Mov Cap-2 Maneuver	335	-	-	-	-	-
Stage 1	503	-	-	-	-	-
Stage 2	568	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	18.7	3.2	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1019	-	335	537	-	-
HCM Lane V/C Ratio	0.141	-	0.28	0.032	-	-
HCM Control Delay (s)	9.1	-	19.9	11.9	-	-
HCM Lane LOS	A	-	C	B	-	-
HCM 95th %tile Q(veh)	0.5	-	1.1	0.1	-	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	24	31	29	244	399	45
Future Volume (vph)	24	31	29	244	399	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100	0	120			0
Storage Lanes	1	1	1			0
Taper Length (ft)	90		90			
Link Speed (mph)	30			45	45	
Link Distance (ft)	765			852	1333	
Travel Time (s)	17.4			12.9	20.2	
Confl. Peds. (#/hr)	5	5	5			5
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77
Shared Lane Traffic (%)						
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection						
Int Delay, s/veh	1.3					

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	24	31	29	244	399	45
Future Vol, veh/h	24	31	29	244	399	45
Conflicting Peds, #/hr	5	5	5	0	0	5
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	100	0	120	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	31	40	38	317	518	58

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	950	557	581	0	-	0
Stage 1	552	-	-	-	-	-
Stage 2	398	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	289	530	993	-	-	-
Stage 1	577	-	-	-	-	-
Stage 2	678	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	275	525	988	-	-	-
Mov Cap-2 Maneuver	400	-	-	-	-	-
Stage 1	552	-	-	-	-	-
Stage 2	675	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.4	0.9	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	988	-	400	525	-	-
HCM Lane V/C Ratio	0.038	-	0.078	0.077	-	-
HCM Control Delay (s)	8.8	-	14.8	12.4	-	-
HCM Lane LOS	A	-	B	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.3	0.2	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	36	893	101	315	1551	24	71	19	158	19	26	31
Future Volume (vph)	36	893	101	315	1551	24	71	19	158	19	26	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	170		0	80		50	0		75	100		0
Storage Lanes	1		1	1		1	0		1	1		0
Taper Length (ft)	90			90			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		908			364			1333			308	
Travel Time (s)		13.8			5.5			20.2			4.7	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2		2	6		6	8		8	4		
Detector Phase	5	2	2	1	6	6	8	8	8	4	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	
Total Split (s)	13.2	61.3	61.3	34.0	82.1	82.1	24.7	24.7	24.7	24.7	24.7	
Total Split (%)	11.0%	51.1%	51.1%	28.3%	68.4%	68.4%	20.6%	20.6%	20.6%	20.6%	20.6%	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	
Total Lost Time (s)	7.5	7.5	7.5	7.5	7.5	7.5		7.5	7.5	7.5	7.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	Max	Max	Max	Max	Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 45.1 (38%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	

Splits and Phases: 6: Crossley Rd. & Ramon Rd.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	893	101	315	1551	24	71	19	158	19	26	31
Future Volume (veh/h)	36	893	101	315	1551	24	71	19	158	19	26	31
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	40	1003	113	354	1743	27	80	21	178	21	29	35
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	162	2081	924	422	2358	1048	176	38	225	114	110	133
Arrive On Green	0.01	0.59	0.59	0.08	0.66	0.66	0.14	0.14	0.14	0.14	0.14	0.14
Sat Flow, veh/h	1781	3554	1578	1781	3554	1579	856	268	1568	1177	767	925
Grp Volume(v), veh/h	40	1003	113	354	1743	27	101	0	178	21	0	64
Grp Sat Flow(s),veh/h/ln	1781	1777	1578	1781	1777	1579	1124	0	1568	1177	0	1692
Q Serve(g_s), s	0.7	19.6	3.8	9.1	38.9	0.7	7.7	0.0	13.2	2.1	0.0	4.0
Cycle Q Clear(g_c), s	0.7	19.6	3.8	9.1	38.9	0.7	11.7	0.0	13.2	13.8	0.0	4.0
Prop In Lane	1.00		1.00	1.00		1.00	0.79		1.00	1.00		0.55
Lane Grp Cap(c), veh/h	162	2081	924	422	2358	1048	215	0	225	114	0	243
V/C Ratio(X)	0.25	0.48	0.12	0.84	0.74	0.03	0.47	0.00	0.79	0.18	0.00	0.26
Avail Cap(c_a), veh/h	236	2081	924	667	2358	1048	215	0	225	114	0	243
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.4	14.4	11.1	14.1	13.3	6.9	50.5	0.0	49.7	55.6	0.0	45.8
Incr Delay (d2), s/veh	0.8	0.8	0.3	5.4	2.1	0.0	7.2	0.0	24.2	3.5	0.0	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	7.4	1.3	3.9	13.8	0.2	3.3	0.0	6.5	0.7	0.0	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.1	15.2	11.4	19.5	15.5	7.0	57.7	0.0	73.9	59.2	0.0	48.4
LnGrp LOS	C	B	B	B	B	A	E	A	E	E	A	D
Approach Vol, veh/h		1156			2124			279			85	
Approach Delay, s/veh		15.0			16.0			68.0			51.1	
Approach LOS		B			B			E			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	17.5	77.8		24.7	8.2	87.1		24.7				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	29.5	56.8		20.2	8.7	77.6		20.2				
Max Q Clear Time (g_c+I1), s	12.1	22.6		16.8	3.7	41.9		16.2				
Green Ext Time (p_c), s	0.9	8.2		0.1	0.0	17.9		0.4				
Intersection Summary												
HCM 6th Ctrl Delay			20.5									
HCM 6th LOS			C									

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	220	0	335	322	111
Future Volume (vph)	0	220	0	335	322	111
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Link Speed (mph)	30			45	45	
Link Distance (ft)	189			226	235	
Travel Time (s)	4.3			3.4	3.6	
Confl. Peds. (#/hr)	5	5	5			5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	3.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	220	0	335	322	111
Future Vol, veh/h	0	220	0	335	322	111
Conflicting Peds, #/hr	5	5	5	0	0	5
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	239	0	364	350	121

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	421	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	632	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	626	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.3	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	626	-	-
HCM Lane V/C Ratio	-	0.382	-	-
HCM Control Delay (s)	-	14.3	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	1.8	-	-

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	812	947	189	0	108
Future Volume (vph)	0	812	947	189	0	108
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0			150	0	0
Storage Lanes	0			1	0	1
Taper Length (ft)	90				90	
Link Speed (mph)		45	45		30	
Link Distance (ft)		939	373		210	
Travel Time (s)		14.2	5.7		4.8	
Confl. Peds. (#/hr)	5			5	5	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	812	947	189	0	108
Future Vol, veh/h	0	812	947	189	0	108
Conflicting Peds, #/hr	5	0	0	5	5	5
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	150	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	883	1029	205	0	117

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	525
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	497
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	492
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	14.6
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	492
HCM Lane V/C Ratio	-	-	-	0.239
HCM Control Delay (s)	-	-	-	14.6
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.9

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	22	20	104	31	19	68
Future Volume (vph)	22	20	104	31	19	68
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Link Speed (mph)	30			30	30	
Link Distance (ft)	394			375	169	
Travel Time (s)	9.0			8.5	3.8	
Confl. Peds. (#/hr)		5	5		5	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Sign Control	Free			Free	Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	6.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	22	20	104	31	19	68
Future Vol, veh/h	22	20	104	31	19	68
Conflicting Peds, #/hr	0	5	5	0	5	5
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	24	22	113	34	21	74

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	51	0	305	45
Stage 1	-	-	-	-	40	-
Stage 2	-	-	-	-	265	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1555	-	687	1025
Stage 1	-	-	-	-	982	-
Stage 2	-	-	-	-	779	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1548	-	630	1015
Mov Cap-2 Maneuver	-	-	-	-	630	-
Stage 1	-	-	-	-	977	-
Stage 2	-	-	-	-	718	-

Approach	EB	WB	NB
HCM Control Delay, s	0	5.8	9.5
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	895	-	-	1548	-
HCM Lane V/C Ratio	0.106	-	-	0.073	-
HCM Control Delay (s)	9.5	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.4	-	-	0.2	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	134	735	86	59	744	138	95	194	81	191	163	95
Future Volume (vph)	134	735	86	59	744	138	95	194	81	191	163	95
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	155		0	140		0	90		90	100		100
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	90			90			90			30		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		373			416			358			226	
Travel Time (s)		5.7			6.3			5.4			3.4	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Prot	NA		Prot	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2		1	6			8			4	
Permitted Phases							8		8	4		4
Detector Phase	5	2		1	6		8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	18.0	57.0		18.0	57.0		45.0	45.0	45.0	45.0	45.0	45.0
Total Split (s)	18.0	57.0		18.0	57.0		45.0	45.0	45.0	45.0	45.0	45.0
Total Split (%)	15.0%	47.5%		15.0%	47.5%		37.5%	37.5%	37.5%	37.5%	37.5%	37.5%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Total Lost Time (s)	7.5	7.5		7.5	7.5		7.5	7.5	7.5	7.5	7.5	7.5
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	C-Max		None	C-Max		Max	Max	Max	Max	Max	Max

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection

Natural Cycle: 120

Control Type: Actuated-Coordinated

Splits and Phases: 1: Crossley Rd. & Dinah Shore Dr.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	134	735	86	59	744	138	95	194	81	191	163	95
Future Volume (veh/h)	134	735	86	59	744	138	95	194	81	191	163	95
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	141	774	91	62	783	145	100	204	85	201	172	100
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	127	1564	184	20	1282	237	311	584	493	309	584	493
Arrive On Green	0.07	0.49	0.49	0.01	0.43	0.43	0.31	0.31	0.31	0.10	0.10	0.10
Sat Flow, veh/h	1781	3201	376	1781	2990	554	1106	1870	1577	1089	1870	1577
Grp Volume(v), veh/h	141	430	435	62	465	463	100	204	85	201	172	100
Grp Sat Flow(s),veh/h/ln	1781	1777	1800	1781	1777	1767	1106	1870	1577	1089	1870	1577
Q Serve(g_s), s	8.5	19.6	19.6	1.4	24.3	24.3	9.2	10.1	4.7	21.8	10.2	7.0
Cycle Q Clear(g_c), s	8.5	19.6	19.6	1.4	24.3	24.3	19.4	10.1	4.7	31.9	10.2	7.0
Prop In Lane	1.00		0.21	1.00		0.31	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	127	868	880	20	762	758	311	584	493	309	584	493
V/C Ratio(X)	1.11	0.49	0.50	3.06	0.61	0.61	0.32	0.35	0.17	0.65	0.29	0.20
Avail Cap(c_a), veh/h	156	868	880	156	762	758	311	584	493	309	584	493
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.7	20.7	20.7	59.3	26.5	26.5	39.4	31.8	30.0	56.3	41.6	40.1
Incr Delay (d2), s/veh	107.2	2.0	2.0	952.6	3.6	3.6	2.7	1.6	0.8	10.2	1.3	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.5	8.1	8.2	6.0	10.5	10.5	2.7	4.7	1.8	7.2	5.1	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	162.9	22.7	22.7	1011.9	30.1	30.2	42.1	33.5	30.7	66.5	42.9	41.0
LnGrp LOS	F	C	C	F	C	C	D	C	C	E	D	D
Approach Vol, veh/h		1006			990			389			473	
Approach Delay, s/veh		42.3			91.6			35.1			52.5	
Approach LOS		D			F			D			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.9	66.1		45.0	16.0	59.0		45.0				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	13.5	52.5		40.5	13.5	52.5		40.5				
Max Q Clear Time (g_c+I1), s	4.4	22.6		34.9	11.5	27.3		22.4				
Green Ext Time (p_c), s	0.1	5.5		1.0	0.1	5.8		1.6				

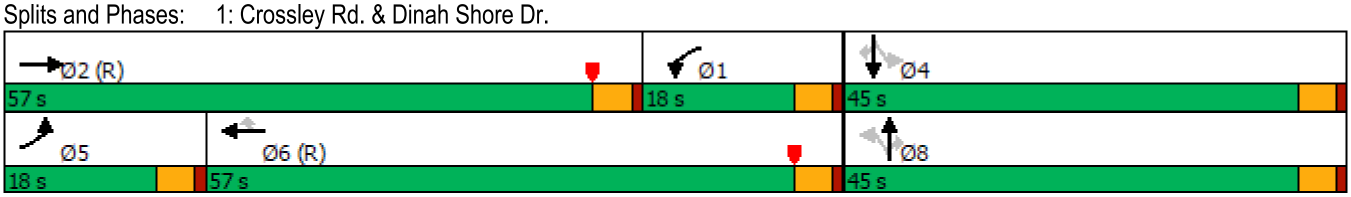
Intersection Summary		
HCM 6th Ctrl Delay		60.1
HCM 6th LOS		E

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	134	735	86	59	744	138	95	194	81	191	163	95
Future Volume (vph)	134	735	86	59	744	138	95	194	81	191	163	95
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	155		0	140		150	90		90	150		100
Storage Lanes	1		0	1		1	1		1	1		1
Taper Length (ft)	90			90			90			60		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		373			416			358			226	
Travel Time (s)		5.7			6.3			5.4			3.4	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Prot	NA		Prot	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2		1	6			8			4	
Permitted Phases						6	8		8	4		4
Detector Phase	5	2		1	6	6	8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	18.0	57.0		18.0	57.0	57.0	45.0	45.0	45.0	45.0	45.0	45.0
Total Split (s)	18.0	57.0		18.0	57.0	57.0	45.0	45.0	45.0	45.0	45.0	45.0
Total Split (%)	15.0%	47.5%		15.0%	47.5%	47.5%	37.5%	37.5%	37.5%	37.5%	37.5%	37.5%
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Total Lost Time (s)	7.5	7.5		7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
Lead/Lag	Lead	Lead		Lag	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes						
Recall Mode	None	C-Max		None	C-Max	C-Max	Max	Max	Max	Max	Max	Max

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection
Natural Cycle: 120
Control Type: Actuated-Coordinated

Splits and Phases: 1: Crossley Rd. & Dinah Shore Dr.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	134	735	86	59	744	138	95	194	81	191	163	95
Future Volume (veh/h)	134	735	86	59	744	138	95	194	81	191	163	95
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	141	774	91	62	783	145	100	204	85	201	172	100
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	127	1320	155	156	1524	676	311	584	493	309	584	493
Arrive On Green	0.14	0.82	0.82	0.09	0.43	0.43	0.31	0.31	0.31	0.10	0.10	0.10
Sat Flow, veh/h	1781	3201	376	1781	3554	1576	1106	1870	1577	1089	1870	1577
Grp Volume(v), veh/h	141	430	435	62	783	145	100	204	85	201	172	100
Grp Sat Flow(s),veh/h/ln	1781	1777	1800	1781	1777	1576	1106	1870	1577	1089	1870	1577
Q Serve(g_s), s	8.5	9.8	9.8	3.9	19.4	6.9	9.2	10.1	4.7	21.8	10.2	7.0
Cycle Q Clear(g_c), s	8.5	9.8	9.8	3.9	19.4	6.9	19.4	10.1	4.7	31.9	10.2	7.0
Prop In Lane	1.00		0.21	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	127	733	742	156	1524	676	311	584	493	309	584	493
V/C Ratio(X)	1.11	0.59	0.59	0.40	0.51	0.21	0.32	0.35	0.17	0.65	0.29	0.20
Avail Cap(c_a), veh/h	156	733	742	156	1524	676	311	584	493	309	584	493
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.5	7.0	7.0	51.8	25.1	21.6	39.4	31.8	30.0	56.3	41.6	40.1
Incr Delay (d2), s/veh	107.5	3.4	3.4	1.6	1.2	0.7	2.7	1.6	0.8	10.2	1.3	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.2	2.9	2.9	1.8	8.0	2.6	2.7	4.7	1.8	7.2	5.1	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	159.0	10.4	10.4	53.4	26.3	22.3	42.1	33.5	30.7	66.5	42.9	41.0
LnGrp LOS	F	B	B	D	C	C	D	C	C	E	D	D
Approach Vol, veh/h		1006			990			389			473	
Approach Delay, s/veh		31.2			27.4			35.1			52.5	
Approach LOS		C			C			D			D	

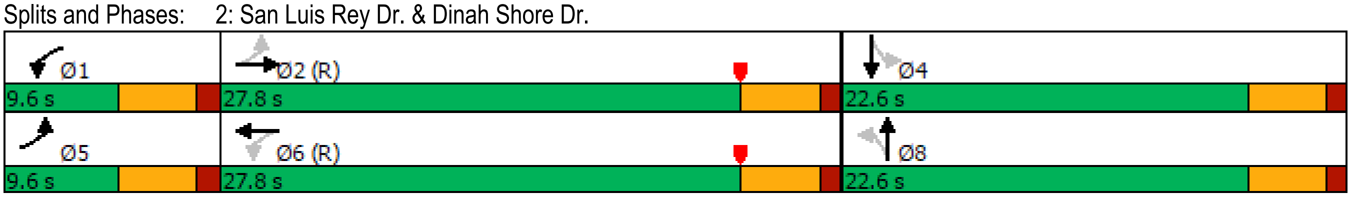
Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	18.0	57.0		45.0	16.0	59.0		45.0
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	13.5	52.5		40.5	13.5	52.5		40.5
Max Q Clear Time (g_c+I1), s	6.9	12.8		34.9	11.5	22.4		22.4
Green Ext Time (p_c), s	0.0	5.7		1.0	0.1	6.0		1.6

Intersection Summary	
HCM 6th Ctrl Delay	34.0
HCM 6th LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	30	809	4	6	767	89	9	4	2	103	1	39
Future Volume (vph)	30	809	4	6	767	89	9	4	2	103	1	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	160		0	160		0	0		0	40		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	90			90			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			35			35	
Link Distance (ft)		1338			939			391			593	
Travel Time (s)		20.3			14.2			7.6			11.6	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		1	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	9.5	22.5		9.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	9.6	27.8		9.6	27.8		22.6	22.6		22.6	22.6	
Total Split (%)	16.0%	46.3%		16.0%	46.3%		37.7%	37.7%		37.7%	37.7%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Total Lost Time (s)	7.5	7.5		7.5	7.5		7.5	7.5		7.5	7.5	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	C-Max		None	C-Max		Max	Max		Max	Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 10 (17%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	

Splits and Phases: 2: San Luis Rey Dr. & Dinah Shore Dr.

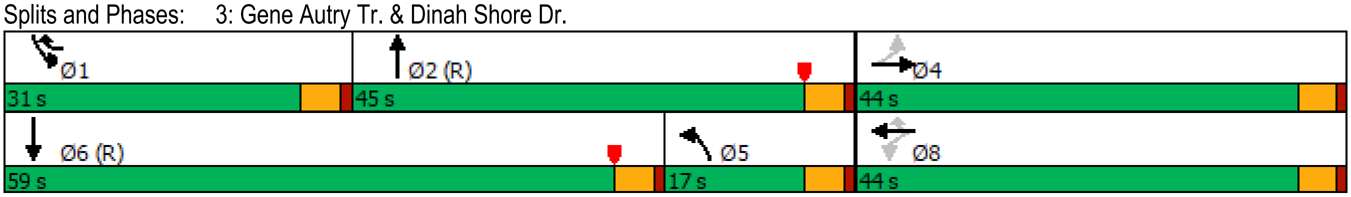


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	809	4	6	767	89	9	4	2	103	1	39
Future Volume (veh/h)	30	809	4	6	767	89	9	4	2	103	1	39
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	31	843	4	6	799	93	9	4	2	107	1	41
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	239	1507	7	278	1249	145	434	295	148	469	9	389
Arrive On Green	0.00	0.42	0.42	0.00	0.39	0.39	0.25	0.25	0.25	0.25	0.25	0.25
Sat Flow, veh/h	1781	3627	17	1781	3204	373	1357	1174	587	1402	38	1544
Grp Volume(v), veh/h	31	413	434	6	443	449	9	0	6	107	0	42
Grp Sat Flow(s),veh/h/ln	1781	1777	1867	1781	1777	1800	1357	0	1761	1402	0	1582
Q Serve(g_s), s	0.1	10.6	10.6	0.1	12.2	12.2	0.3	0.0	0.2	3.7	0.0	1.2
Cycle Q Clear(g_c), s	0.1	10.6	10.6	0.1	12.2	12.2	1.5	0.0	0.2	3.9	0.0	1.2
Prop In Lane	1.00		0.01	1.00		0.21	1.00		0.33	1.00		0.98
Lane Grp Cap(c), veh/h	239	738	776	278	692	702	434	0	443	469	0	398
V/C Ratio(X)	0.13	0.56	0.56	0.02	0.64	0.64	0.02	0.00	0.01	0.23	0.00	0.11
Avail Cap(c_a), veh/h	299	738	776	337	692	702	434	0	443	469	0	398
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.62	0.62	0.62	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.5	13.4	13.4	12.9	14.9	14.9	17.8	0.0	16.9	18.3	0.0	17.3
Incr Delay (d2), s/veh	0.1	1.9	1.8	0.0	4.5	4.4	0.1	0.0	0.1	1.1	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	3.7	3.9	0.0	4.8	4.8	0.1	0.0	0.1	1.2	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.6	15.3	15.2	12.9	19.4	19.3	17.9	0.0	16.9	19.4	0.0	17.8
LnGrp LOS	B	B	B	B	B	B	B	A	B	B	A	B
Approach Vol, veh/h		878			898			15			149	
Approach Delay, s/veh		15.4			19.3			17.5			19.0	
Approach LOS		B			B			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.0	32.4		22.6	6.5	30.9		22.6				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.1	23.3		18.1	5.1	23.3		18.1				
Max Q Clear Time (g_c+I1), s	3.1	13.6		6.9	3.1	15.2		4.5				
Green Ext Time (p_c), s	0.0	3.4		0.3	0.0	3.2		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			17.5									
HCM 6th LOS			B									

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	36	285	58	130	271	414	46	518	149	414	384	33
Future Volume (vph)	36	285	58	130	271	414	46	518	149	414	384	33
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	155		0	165		300	90		0	285		0
Storage Lanes	1		0	1		1	1		0	2		0
Taper Length (ft)	90			90			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		417			1338			401			622	
Travel Time (s)		6.3			20.3			6.1			9.4	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA	pm+ov	Prot	NA		Prot	NA	
Protected Phases		4			8	1	5	2		1	6	
Permitted Phases	4			8		8						
Detector Phase	4	4		8	8	1	5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5	9.5	9.5	22.5		9.5	22.5	
Total Split (s)	44.0	44.0		44.0	44.0	31.0	17.0	45.0		31.0	59.0	
Total Split (%)	36.7%	36.7%		36.7%	36.7%	25.8%	14.2%	37.5%		25.8%	49.2%	
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Total Lost Time (s)	7.5	7.5		7.5	7.5	7.5	7.5	7.5		7.5	7.5	
Lead/Lag						Lead	Lag	Lag		Lead	Lead	
Lead-Lag Optimize?						Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None	None	None	C-Max		None	C-Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 12.8 (11%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	

Splits and Phases: 3: Gene Autry Tr. & Dinah Shore Dr.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	285	58	130	271	414	46	518	149	414	384	33
Future Volume (veh/h)	36	285	58	130	271	414	46	518	149	414	384	33
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	42	335	68	153	319	487	54	609	175	487	452	39
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	132	798	160	233	507	1162	200	1071	307	512	1420	122
Arrive On Green	0.27	0.27	0.27	0.09	0.09	0.09	0.11	0.39	0.39	0.15	0.43	0.43
Sat Flow, veh/h	676	2946	591	981	1870	2764	1781	2722	781	3456	3310	284
Grp Volume(v), veh/h	42	200	203	153	319	487	54	397	387	487	242	249
Grp Sat Flow(s),veh/h/ln	676	1777	1760	981	1870	1382	1781	1777	1726	1728	1777	1817
Q Serve(g_s), s	7.1	11.1	11.4	18.6	19.7	16.3	3.3	21.0	21.0	16.8	10.8	10.9
Cycle Q Clear(g_c), s	26.9	11.1	11.4	30.0	19.7	16.3	3.3	21.0	21.0	16.8	10.8	10.9
Prop In Lane	1.00		0.34	1.00		1.00	1.00		0.45	1.00		0.16
Lane Grp Cap(c), veh/h	132	481	477	233	507	1162	200	699	679	512	763	780
V/C Ratio(X)	0.32	0.42	0.42	0.66	0.63	0.42	0.27	0.57	0.57	0.95	0.32	0.32
Avail Cap(c_a), veh/h	154	540	535	265	569	1254	200	699	679	677	763	780
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.79	0.79	0.79	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.1	35.9	36.0	59.1	48.8	31.2	48.7	28.4	28.5	50.7	22.6	22.7
Incr Delay (d2), s/veh	1.4	0.6	0.6	3.8	1.5	0.2	0.7	3.3	3.5	20.0	1.1	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	4.8	4.8	5.1	10.1	6.0	1.5	9.2	9.0	8.5	4.6	4.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.5	36.5	36.6	63.0	50.3	31.4	49.5	31.8	31.9	70.6	23.7	23.7
LnGrp LOS	D	D	D	E	D	C	D	C	C	E	C	C
Approach Vol, veh/h		445			959			838			978	
Approach Delay, s/veh		38.1			42.7			33.0			47.1	
Approach LOS		D			D			C			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	25.3	54.7		40.0	21.0	59.0		40.0				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	26.5	40.5		39.5	12.5	54.5		39.5				
Max Q Clear Time (g_c+I1), s	19.8	24.0		29.9	6.3	13.9		33.0				
Green Ext Time (p_c), s	1.0	4.1		1.7	0.0	2.8		2.5				
Intersection Summary												
HCM 6th Ctrl Delay			40.9									
HCM 6th LOS			D									

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	82	11	121	345	343	17
Future Volume (vph)	82	11	121	345	343	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	50	50			0
Storage Lanes	1	1	1			0
Taper Length (ft)	90		90			
Link Speed (mph)	30			45	45	
Link Distance (ft)	375			235	852	
Travel Time (s)	8.5			3.6	12.9	
Confl. Peds. (#/hr)	5	5	5			5
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Shared Lane Traffic (%)						
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection						
Int Delay, s/veh	2.9					

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	82	11	121	345	343	17
Future Vol, veh/h	82	11	121	345	343	17
Conflicting Peds, #/hr	5	5	5	0	0	5
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	50	50	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	92	12	136	388	385	19

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1065	405	409	0	-	0
Stage 1	400	-	-	-	-	-
Stage 2	665	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	246	646	1150	-	-	-
Stage 1	677	-	-	-	-	-
Stage 2	511	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	215	640	1145	-	-	-
Mov Cap-2 Maneuver	347	-	-	-	-	-
Stage 1	594	-	-	-	-	-
Stage 2	508	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	18.1	2.2	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1145	-	347	640	-	-
HCM Lane V/C Ratio	0.119	-	0.266	0.019	-	-
HCM Control Delay (s)	8.6	-	19.1	10.7	-	-
HCM Lane LOS	A	-	C	B	-	-
HCM 95th %tile Q(veh)	0.4	-	1.1	0.1	-	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	36	42	29	394	326	4
Future Volume (vph)	36	42	29	394	326	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100	0	120			0
Storage Lanes	1	1	1			0
Taper Length (ft)	90		90			
Link Speed (mph)	30			45	45	
Link Distance (ft)	765			852	1333	
Travel Time (s)	17.4			12.9	20.2	
Confl. Peds. (#/hr)	5	5	5			5
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Shared Lane Traffic (%)						
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection						
Int Delay, s/veh	1.4					

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	36	42	29	394	326	4
Future Vol, veh/h	36	42	29	394	326	4
Conflicting Peds, #/hr	5	5	5	0	0	5
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	100	0	120	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	38	44	30	410	340	4

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	822	352	349	0	-	0
Stage 1	347	-	-	-	-	-
Stage 2	475	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	344	692	1210	-	-	-
Stage 1	716	-	-	-	-	-
Stage 2	626	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	332	685	1204	-	-	-
Mov Cap-2 Maneuver	450	-	-	-	-	-
Stage 1	695	-	-	-	-	-
Stage 2	623	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12	0.6	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1204	-	450	685	-	-
HCM Lane V/C Ratio	0.025	-	0.083	0.064	-	-
HCM Control Delay (s)	8.1	-	13.7	10.6	-	-
HCM Lane LOS	A	-	B	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.3	0.2	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	44	1438	108	200	1090	25	125	18	319	41	18	32
Future Volume (vph)	44	1438	108	200	1090	25	125	18	319	41	18	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	170		0	80		50	0		75	100		0
Storage Lanes	1		1	1		1	0		1	1		0
Taper Length (ft)	90			90			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		908			364			1333			308	
Travel Time (s)		13.8			5.5			20.2			4.7	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2		2	6		6	8		8	4		
Detector Phase	5	2	2	1	6	6	8	8	8	4	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	
Total Split (s)	11.2	67.9	67.9	22.7	79.4	79.4	29.4	29.4	29.4	29.4	29.4	
Total Split (%)	9.3%	56.6%	56.6%	18.9%	66.2%	66.2%	24.5%	24.5%	24.5%	24.5%	24.5%	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	
Total Lost Time (s)	7.5	7.5	7.5	7.5	7.5	7.5		7.5	7.5	7.5	7.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	Max	Max	Max	Max	Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 70 (58%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	

Splits and Phases: 6: Crossley Rd. & Ramon Rd.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	44	1438	108	200	1090	25	125	18	319	41	18	32
Future Volume (veh/h)	44	1438	108	200	1090	25	125	18	319	41	18	32
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	48	1580	119	220	1198	27	137	20	351	45	20	35
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	270	2046	908	225	2209	982	244	27	287	107	111	194
Arrive On Green	0.01	0.58	0.58	0.05	0.62	0.62	0.18	0.18	0.18	0.18	0.18	0.18
Sat Flow, veh/h	1781	3554	1578	1781	3554	1579	1027	150	1572	1010	607	1062
Grp Volume(v), veh/h	48	1580	119	220	1198	27	157	0	351	45	0	55
Grp Sat Flow(s),veh/h/ln	1781	1777	1578	1781	1777	1579	1177	0	1572	1010	0	1669
Q Serve(g_s), s	1.0	40.8	4.2	6.1	23.1	0.8	12.9	0.0	21.9	5.3	0.0	3.3
Cycle Q Clear(g_c), s	1.0	40.8	4.2	6.1	23.1	0.8	16.3	0.0	21.9	21.6	0.0	3.3
Prop In Lane	1.00		1.00	1.00		1.00	0.87		1.00	1.00		0.64
Lane Grp Cap(c), veh/h	270	2046	908	225	2209	982	271	0	287	107	0	305
V/C Ratio(X)	0.18	0.77	0.13	0.98	0.54	0.03	0.58	0.00	1.22	0.42	0.00	0.18
Avail Cap(c_a), veh/h	310	2046	908	354	2209	982	271	0	287	107	0	305
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	14.5	19.5	11.7	26.3	13.0	8.7	48.3	0.0	49.0	57.0	0.0	41.5
Incr Delay (d2), s/veh	0.3	2.9	0.3	33.3	1.0	0.1	8.7	0.0	127.6	11.6	0.0	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	15.9	1.4	5.7	8.5	0.3	5.0	0.0	18.5	1.7	0.0	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.8	22.4	12.0	59.5	13.9	8.8	57.1	0.0	176.7	68.6	0.0	42.8
LnGrp LOS	B	C	B	E	B	A	E	A	F	E	A	D
Approach Vol, veh/h		1747			1445			508			100	
Approach Delay, s/veh		21.4			20.8			139.7			54.4	
Approach LOS		C			C			F			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	14.0	76.6		29.4	8.5	82.1		29.4				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	18.2	63.4		24.9	6.7	74.9		24.9				
Max Q Clear Time (g_c+I1), s	9.1	43.8		24.6	4.0	26.1		24.9				
Green Ext Time (p_c), s	0.4	11.6		0.0	0.0	10.7		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			37.9									
HCM 6th LOS			D									

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	195	0	466	254	100
Future Volume (vph)	0	195	0	466	254	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Link Speed (mph)	30			45	45	
Link Distance (ft)	189			226	235	
Travel Time (s)	4.3			3.4	3.6	
Confl. Peds. (#/hr)	5	5	5			5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	195	0	466	254	100
Future Vol, veh/h	0	195	0	466	254	100
Conflicting Peds, #/hr	5	5	5	0	0	5
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	212	0	507	276	109

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	341	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	701	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	694	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.5	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	694	-	-
HCM Lane V/C Ratio	-	0.305	-	-
HCM Control Delay (s)	-	12.5	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	1.3	-	-

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	955	768	166	0	94
Future Volume (vph)	0	955	768	166	0	94
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0			150	0	0
Storage Lanes	0			1	0	1
Taper Length (ft)	90				90	
Link Speed (mph)		45	45		30	
Link Distance (ft)		939	373		210	
Travel Time (s)		14.2	5.7		4.8	
Confl. Peds. (#/hr)	5			5	5	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection						
Int Delay, s/veh	0.6					

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	955	768	166	0	94
Future Vol, veh/h	0	955	768	166	0	94
Conflicting Peds, #/hr	5	0	0	5	5	5
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	150	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1038	835	180	0	102

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	428
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	575
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	570
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	12.7
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	570
HCM Lane V/C Ratio	-	-	-	0.179
HCM Control Delay (s)	-	-	-	12.7
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.6

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	28	21	93	45	20	65
Future Volume (vph)	28	21	93	45	20	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Link Speed (mph)	30			30	30	
Link Distance (ft)	394			375	169	
Travel Time (s)	9.0			8.5	3.8	
Confl. Peds. (#/hr)		5	5		5	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Sign Control	Free			Free	Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection						
Int Delay, s/veh	5.6					

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	28	21	93	45	20	65
Future Vol, veh/h	28	21	93	45	20	65
Conflicting Peds, #/hr	0	5	5	0	5	5
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	30	23	101	49	22	71

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	58	0	303	52
Stage 1	-	-	-	-	47	-
Stage 2	-	-	-	-	256	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1546	-	689	1016
Stage 1	-	-	-	-	975	-
Stage 2	-	-	-	-	787	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1539	-	637	1006
Mov Cap-2 Maneuver	-	-	-	-	637	-
Stage 1	-	-	-	-	970	-
Stage 2	-	-	-	-	731	-

Approach	EB	WB	NB
HCM Control Delay, s	0	5.1	9.5
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	885	-	-	1539	-
HCM Lane V/C Ratio	0.104	-	-	0.066	-
HCM Control Delay (s)	9.5	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.3	-	-	0.2	-

APPENDIX 6.1: EAC (2025) CONDITIONS

INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	32	701	83	68	906	112	73	159	65	120	226	91
Future Volume (vph)	32	701	83	68	906	112	73	159	65	120	226	91
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	155		0	140		0	90		90	100		100
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	90			90			90			30		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		373			416			358			226	
Travel Time (s)		5.7			6.3			5.4			3.4	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Shared Lane Traffic (%)												
Turn Type	Prot	NA		Prot	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2		1	6			8			4	
Permitted Phases							8		8	4		4
Detector Phase	5	2		1	6		8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5		9.5	22.5		22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	15.0	60.7		20.3	66.0		39.0	39.0	39.0	39.0	39.0	39.0
Total Split (%)	12.5%	50.6%		16.9%	55.0%		32.5%	32.5%	32.5%	32.5%	32.5%	32.5%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Total Lost Time (s)	7.5	7.5		7.5	7.5		7.5	7.5	7.5	7.5	7.5	7.5
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	C-Max		None	C-Max		Max	Max	Max	Max	Max	Max

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	

Splits and Phases: 1: Crossley Rd. & Dinah Shore Dr.

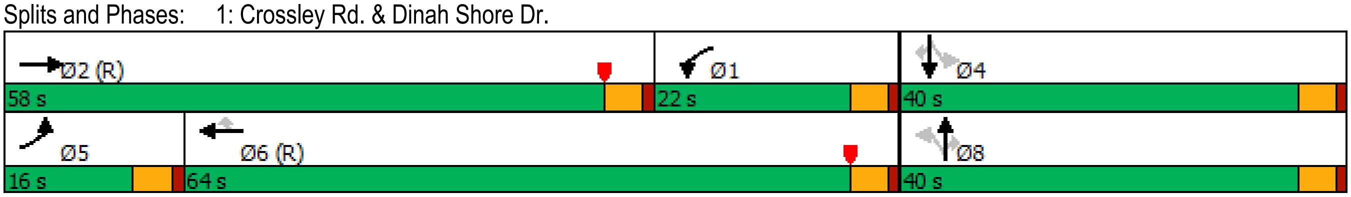
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	701	83	68	906	112	73	159	65	120	226	91
Future Volume (veh/h)	32	701	83	68	906	112	73	159	65	120	226	91
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	39	845	100	82	1092	135	88	192	78	145	272	110
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	9	1714	203	25	1733	214	225	491	414	257	491	414
Arrive On Green	0.01	1.00	1.00	0.02	0.93	0.93	0.26	0.26	0.26	0.52	0.52	0.52
Sat Flow, veh/h	1781	3198	379	1781	3182	393	1000	1870	1576	1107	1870	1576
Grp Volume(v), veh/h	39	469	476	82	609	618	88	192	78	145	272	110
Grp Sat Flow(s),veh/h/ln	1781	1777	1800	1781	1777	1798	1000	1870	1576	1107	1870	1576
Q Serve(g_s), s	0.6	0.0	0.0	1.7	7.3	7.3	9.7	10.1	4.6	13.7	11.7	4.6
Cycle Q Clear(g_c), s	0.6	0.0	0.0	1.7	7.3	7.3	21.4	10.1	4.6	23.8	11.7	4.6
Prop In Lane	1.00		0.21	1.00		0.22	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	9	952	965	25	968	979	225	491	414	257	491	414
V/C Ratio(X)	4.12	0.49	0.49	3.30	0.63	0.63	0.39	0.39	0.19	0.56	0.55	0.27
Avail Cap(c_a), veh/h	111	952	965	190	968	979	225	491	414	257	491	414
HCM Platoon Ratio	2.00	2.00	2.00	1.70	1.70	1.70	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.4	0.0	0.0	58.6	2.3	2.3	45.9	36.4	34.3	31.1	23.8	22.1
Incr Delay (d2), s/veh	1457.3	1.8	1.8	1055.6	3.1	3.1	5.0	2.3	1.0	8.7	4.5	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	0.5	0.5	8.0	2.0	2.1	2.7	4.8	1.8	3.4	4.7	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	1516.7	1.8	1.8	1114.2	5.4	5.4	50.9	38.7	35.3	39.8	28.3	23.7
LnGrp LOS	F	A	A	F	A	A	D	D	D	D	C	C
Approach Vol, veh/h		984			1309			358			527	
Approach Delay, s/veh		61.9			74.8			41.0			30.5	
Approach LOS		E			E			D			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.2	71.8		39.0	8.1	72.9		39.0				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	15.8	56.2		34.5	10.5	61.5		34.5				
Max Q Clear Time (g_c+I1), s	4.7	3.0		26.8	3.6	10.3		24.4				
Green Ext Time (p_c), s	0.1	6.5		1.5	0.0	9.8		1.1				
Intersection Summary												
HCM 6th Ctrl Delay			59.6									
HCM 6th LOS			E									

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	32	701	83	68	906	112	73	159	65	120	226	91
Future Volume (vph)	32	701	83	68	906	112	73	159	65	120	226	91
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	155		0	140		150	90		90	150		100
Storage Lanes	1		0	1		1	1		1	1		1
Taper Length (ft)	90			90			90			60		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		373			416			358			226	
Travel Time (s)		5.7			6.3			5.4			3.4	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Shared Lane Traffic (%)												
Turn Type	Prot	NA		Prot	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2		1	6			8			4	
Permitted Phases						6	8		8	4		4
Detector Phase	5	2		1	6	6	8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5		9.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	16.0	58.0		22.0	64.0	64.0	40.0	40.0	40.0	40.0	40.0	40.0
Total Split (%)	13.3%	48.3%		18.3%	53.3%	53.3%	33.3%	33.3%	33.3%	33.3%	33.3%	33.3%
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Total Lost Time (s)	7.5	7.5		7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
Lead/Lag	Lead	Lead		Lag	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes						
Recall Mode	None	C-Max		None	C-Max	C-Max	Max	Max	Max	Max	Max	Max

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 1: Crossley Rd. & Dinah Shore Dr.

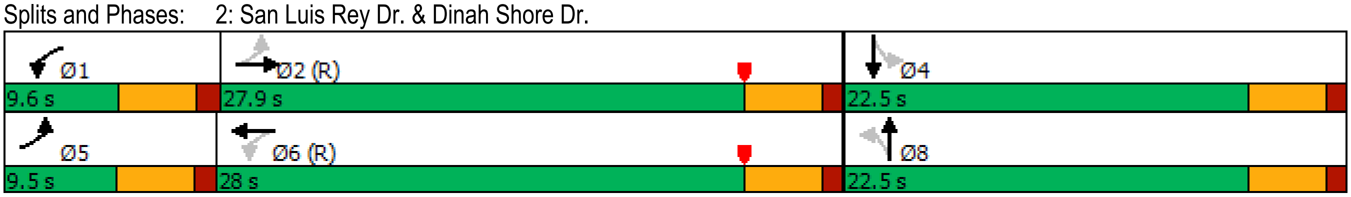


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	701	83	68	906	112	73	159	65	120	226	91
Future Volume (veh/h)	32	701	83	68	906	112	73	159	65	120	226	91
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	39	845	100	82	1092	135	88	192	78	145	272	110
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	9	1346	159	215	1906	846	237	507	427	268	507	427
Arrive On Green	0.01	0.84	0.84	0.16	0.71	0.71	0.27	0.27	0.27	0.54	0.54	0.54
Sat Flow, veh/h	1781	3198	378	1781	3554	1578	1000	1870	1576	1107	1870	1576
Grp Volume(v), veh/h	39	469	476	82	1092	135	88	192	78	145	272	110
Grp Sat Flow(s),veh/h/ln	1781	1777	1800	1781	1777	1578	1000	1870	1576	1107	1870	1576
Q Serve(g_s), s	0.6	10.6	10.6	4.9	17.9	3.3	9.5	10.0	4.6	13.3	11.3	4.5
Cycle Q Clear(g_c), s	0.6	10.6	10.6	4.9	17.9	3.3	20.8	10.0	4.6	23.3	11.3	4.5
Prop In Lane	1.00		0.21	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	9	748	757	215	1906	846	237	507	427	268	507	427
V/C Ratio(X)	4.12	0.63	0.63	0.38	0.57	0.16	0.37	0.38	0.18	0.54	0.54	0.26
Avail Cap(c_a), veh/h	126	748	757	215	1906	846	237	507	427	268	507	427
HCM Platoon Ratio	2.00	2.00	2.00	1.33	1.33	1.33	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.4	6.3	6.3	46.3	10.5	8.5	44.6	35.6	33.6	29.6	22.6	21.1
Incr Delay (d2), s/veh	1457.3	4.0	3.9	1.1	1.3	0.4	4.4	2.2	0.9	7.7	4.0	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	3.0	3.0	2.2	5.3	1.1	2.6	4.7	1.8	3.3	4.5	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	1516.7	10.3	10.3	47.5	11.8	8.9	49.0	37.7	34.5	37.3	26.7	22.5
LnGrp LOS	F	B	B	D	B	A	D	D	C	D	C	C
Approach Vol, veh/h		984			1309			358			527	
Approach Delay, s/veh		70.0			13.7			39.8			28.7	
Approach LOS		E			B			D			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	22.0	58.0		40.0	8.1	71.9		40.0				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	17.5	53.5		35.5	11.5	59.5		35.5				
Max Q Clear Time (g_c+I1), s	7.9	13.6		26.3	3.6	20.9		23.8				
Green Ext Time (p_c), s	0.1	6.4		1.7	0.0	9.5		1.2				
Intersection Summary												
HCM 6th Ctrl Delay			36.6									
HCM 6th LOS			D									

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	25	671	15	22	946	102	2	3	1	137	11	50
Future Volume (vph)	25	671	15	22	946	102	2	3	1	137	11	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	160		0	160		0	0		0	40		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	90			90			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			35			35	
Link Distance (ft)		1338			939			391			593	
Travel Time (s)		20.3			14.2			7.6			11.6	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		1	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	9.5	22.5		9.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	9.5	27.9		9.6	28.0		22.5	22.5		22.5	22.5	
Total Split (%)	15.8%	46.5%		16.0%	46.7%		37.5%	37.5%		37.5%	37.5%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Total Lost Time (s)	7.5	7.5		7.5	7.5		7.5	7.5		7.5	7.5	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	C-Max		None	C-Max		Max	Max		Max	Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 42.7 (71%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	

Splits and Phases: 2: San Luis Rey Dr. & Dinah Shore Dr.

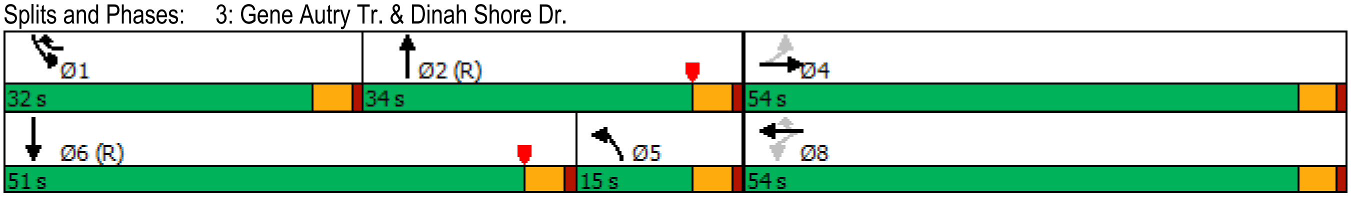


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	671	15	22	946	102	2	3	1	137	11	50
Future Volume (veh/h)	25	671	15	22	946	102	2	3	1	137	11	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	31	828	19	27	1168	126	2	4	1	169	14	62
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	168	1402	32	260	1266	136	401	361	90	468	75	331
Arrive On Green	0.00	0.39	0.39	0.00	0.78	0.78	0.25	0.25	0.25	0.25	0.25	0.25
Sat Flow, veh/h	1781	3550	81	1781	3234	348	1317	1442	361	1403	299	1324
Grp Volume(v), veh/h	31	414	433	27	641	653	2	0	5	169	0	76
Grp Sat Flow(s),veh/h/ln	1781	1777	1855	1781	1777	1805	1317	0	1803	1403	0	1623
Q Serve(g_s), s	0.1	11.0	11.0	0.1	16.9	17.1	0.1	0.0	0.1	6.2	0.0	2.2
Cycle Q Clear(g_c), s	0.1	11.0	11.0	0.1	16.9	17.1	2.3	0.0	0.1	6.3	0.0	2.2
Prop In Lane	1.00		0.04	1.00		0.19	1.00		0.20	1.00		0.82
Lane Grp Cap(c), veh/h	168	702	732	260	695	706	401	0	451	468	0	406
V/C Ratio(X)	0.18	0.59	0.59	0.10	0.92	0.92	0.00	0.00	0.01	0.36	0.00	0.19
Avail Cap(c_a), veh/h	225	702	732	319	695	706	401	0	451	468	0	406
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.73	0.73	0.73	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	23.8	14.3	14.3	18.1	5.8	5.8	18.6	0.0	16.9	19.3	0.0	17.7
Incr Delay (d2), s/veh	0.4	2.7	2.6	0.2	19.5	19.8	0.0	0.0	0.0	2.2	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	4.1	4.2	0.2	5.5	5.6	0.0	0.0	0.1	2.1	0.0	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.2	17.0	16.9	18.3	25.3	25.6	18.6	0.0	17.0	21.5	0.0	18.7
LnGrp LOS	C	B	B	B	C	C	B	A	B	C	A	B
Approach Vol, veh/h		878			1321			7			245	
Approach Delay, s/veh		17.2			25.3			17.4			20.6	
Approach LOS		B			C			B			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.3	31.2		22.5	6.5	31.0		22.5				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.1	23.4		18.0	5.0	23.5		18.0				
Max Q Clear Time (g_c+I1), s	3.1	14.0		9.3	3.1	20.1		5.3				
Green Ext Time (p_c), s	0.0	3.3		0.6	0.0	2.3		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			21.9									
HCM 6th LOS			C									

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	26	264	71	160	379	459	37	314	72	381	481	56
Future Volume (vph)	26	264	71	160	379	459	37	314	72	381	481	56
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	155		0	165		300	90		0	285		0
Storage Lanes	1		0	1		1	1		0	2		0
Taper Length (ft)	90			90			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		417			1338			401			622	
Travel Time (s)		6.3			20.3			6.1			9.4	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA	pm+ov	Prot	NA		Prot	NA	
Protected Phases		4			8	1	5	2		1	6	
Permitted Phases	4			8		8						
Detector Phase	4	4		8	8	1	5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5	9.5	9.5	22.5		9.5	22.5	
Total Split (s)	54.0	54.0		54.0	54.0	32.0	15.0	34.0		32.0	51.0	
Total Split (%)	45.0%	45.0%		45.0%	45.0%	26.7%	12.5%	28.3%		26.7%	42.5%	
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Total Lost Time (s)	7.5	7.5		7.5	7.5	7.5	7.5	7.5		7.5	7.5	
Lead/Lag						Lead	Lag	Lag		Lead	Lead	
Lead-Lag Optimize?						Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None	None	None	C-Max		None	C-Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 45.5 (38%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	

Splits and Phases: 3: Gene Autry Tr. & Dinah Shore Dr.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	264	71	160	379	459	37	314	72	381	481	56
Future Volume (veh/h)	26	264	71	160	379	459	37	314	72	381	481	56
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	31	314	85	190	451	546	44	374	86	454	573	67
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	112	880	234	285	594	1268	236	1022	232	482	1161	135
Arrive On Green	0.32	0.32	0.32	0.21	0.21	0.21	0.13	0.36	0.36	0.14	0.36	0.36
Sat Flow, veh/h	565	2772	738	985	1870	2768	1781	2873	653	3456	3203	374
Grp Volume(v), veh/h	31	199	200	190	451	546	44	230	230	454	317	323
Grp Sat Flow(s),veh/h/ln	565	1777	1733	985	1870	1384	1781	1777	1749	1728	1777	1800
Q Serve(g_s), s	6.3	10.4	10.7	22.5	27.2	17.1	2.6	11.5	11.7	15.6	16.6	16.7
Cycle Q Clear(g_c), s	33.5	10.4	10.7	33.2	27.2	17.1	2.6	11.5	11.7	15.6	16.6	16.7
Prop In Lane	1.00		0.43	1.00		1.00	1.00		0.37	1.00		0.21
Lane Grp Cap(c), veh/h	112	564	550	285	594	1268	236	632	622	482	644	653
V/C Ratio(X)	0.28	0.35	0.36	0.67	0.76	0.43	0.19	0.36	0.37	0.94	0.49	0.49
Avail Cap(c_a), veh/h	151	689	672	354	725	1461	236	632	622	706	644	653
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.42	0.42	0.42	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.4	31.5	31.6	50.5	42.9	25.8	46.3	28.6	28.7	51.2	29.7	29.7
Incr Delay (d2), s/veh	1.3	0.4	0.4	1.4	1.6	0.1	0.4	1.6	1.7	16.5	2.7	2.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	4.4	4.4	5.8	13.1	5.8	1.2	5.0	5.0	7.7	7.3	7.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.8	31.9	32.0	51.9	44.5	25.9	46.7	30.2	30.4	67.7	32.4	32.4
LnGrp LOS	D	C	C	D	D	C	D	C	C	E	C	C
Approach Vol, veh/h		430			1187			504			1094	
Approach Delay, s/veh		33.5			37.1			31.7			47.0	
Approach LOS		C			D			C			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	24.2	50.2		45.6	23.4	51.0		45.6				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	27.5	29.5		49.5	10.5	46.5		49.5				
Max Q Clear Time (g_c+I1), s	18.6	14.7		36.5	5.6	19.7		36.2				
Green Ext Time (p_c), s	1.1	2.1		2.0	0.0	3.7		4.9				

Intersection Summary			
HCM 6th Ctrl Delay			39.2
HCM 6th LOS			D

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	8	15	12	291	422	20
Future Volume (vph)	8	15	12	291	422	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	50	50			0
Storage Lanes	1	1	1			0
Taper Length (ft)	90		90			
Link Speed (mph)	30			45	45	
Link Distance (ft)	375			235	852	
Travel Time (s)	8.5			3.6	12.9	
Confl. Peds. (#/hr)	5	5	5			5
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81
Shared Lane Traffic (%)						
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	8	15	12	291	422	20
Future Vol, veh/h	8	15	12	291	422	20
Conflicting Peds, #/hr	5	5	5	0	0	5
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	50	50	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	81	81	81	81	81	81
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	19	15	359	521	25

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	933	544	551	0	-	0
Stage 1	539	-	-	-	-	-
Stage 2	394	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	295	539	1019	-	-	-
Stage 1	585	-	-	-	-	-
Stage 2	681	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	288	534	1014	-	-	-
Mov Cap-2 Maneuver	413	-	-	-	-	-
Stage 1	573	-	-	-	-	-
Stage 2	678	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.7	0.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1014	-	413	534	-	-
HCM Lane V/C Ratio	0.015	-	0.024	0.035	-	-
HCM Control Delay (s)	8.6	-	13.9	12	-	-
HCM Lane LOS	A	-	B	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	0.1	-	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	25	25	24	252	409	47
Future Volume (vph)	25	25	24	252	409	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100	0	120			0
Storage Lanes	1	1	1			0
Taper Length (ft)	90		90			
Link Speed (mph)	30			45	45	
Link Distance (ft)	765			852	1333	
Travel Time (s)	17.4			12.9	20.2	
Confl. Peds. (#/hr)	5	5	5			5
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77
Shared Lane Traffic (%)						
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	25	25	24	252	409	47
Future Vol, veh/h	25	25	24	252	409	47
Conflicting Peds, #/hr	5	5	5	0	0	5
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	100	0	120	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	32	32	31	327	531	61

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	961	572	597	0	-	0
Stage 1	567	-	-	-	-	-
Stage 2	394	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	284	520	980	-	-	-
Stage 1	568	-	-	-	-	-
Stage 2	681	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	272	515	975	-	-	-
Mov Cap-2 Maneuver	398	-	-	-	-	-
Stage 1	547	-	-	-	-	-
Stage 2	678	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.7	0.8	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	975	-	398	515	-	-
HCM Lane V/C Ratio	0.032	-	0.082	0.063	-	-
HCM Control Delay (s)	8.8	-	14.8	12.5	-	-
HCM Lane LOS	A	-	B	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.3	0.2	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	37	938	137	366	1642	25	108	20	205	20	27	32
Future Volume (vph)	37	938	137	366	1642	25	108	20	205	20	27	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	170		0	80		50	0		75	100		0
Storage Lanes	1		1	1		1	0		1	1		0
Taper Length (ft)	90			90			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		908			364			1333			308	
Travel Time (s)		13.8			5.5			20.2			4.7	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2		2	6		6	8		8	4		
Detector Phase	5	2	2	1	6	6	8	8	8	4	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	
Total Split (s)	12.0	58.0	58.0	35.0	81.0	81.0	27.0	27.0	27.0	27.0	27.0	
Total Split (%)	10.0%	48.3%	48.3%	29.2%	67.5%	67.5%	22.5%	22.5%	22.5%	22.5%	22.5%	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	
Total Lost Time (s)	7.5	7.5	7.5	7.5	7.5	7.5		7.5	7.5	7.5	7.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	Max	Max	Max	Max	Max	

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 102.7 (86%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow

Natural Cycle: 90

Control Type: Actuated-Coordinated

Splits and Phases: 6: Crossley Rd. & Ramon Rd.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	938	137	366	1642	25	108	20	205	20	27	32
Future Volume (veh/h)	37	938	137	366	1642	25	108	20	205	20	27	32
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	42	1054	154	411	1845	28	121	22	230	22	30	36
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	134	1896	842	423	2287	1016	206	27	255	92	125	150
Arrive On Green	0.01	0.53	0.53	0.12	0.64	0.64	0.16	0.16	0.16	0.16	0.16	0.16
Sat Flow, veh/h	1781	3554	1578	1781	3554	1579	929	169	1570	1125	770	924
Grp Volume(v), veh/h	42	1054	154	411	1845	28	143	0	230	22	0	66
Grp Sat Flow(s),veh/h/ln	1781	1777	1578	1781	1777	1579	1098	0	1570	1125	0	1694
Q Serve(g_s), s	0.8	23.6	6.1	12.9	46.2	0.8	12.0	0.0	17.2	2.3	0.0	4.1
Cycle Q Clear(g_c), s	0.8	23.6	6.1	12.9	46.2	0.8	16.1	0.0	17.2	18.4	0.0	4.1
Prop In Lane	1.00		1.00	1.00		1.00	0.85		1.00	1.00		0.55
Lane Grp Cap(c), veh/h	134	1896	842	423	2287	1016	234	0	255	92	0	275
V/C Ratio(X)	0.31	0.56	0.18	0.97	0.81	0.03	0.61	0.00	0.90	0.24	0.00	0.24
Avail Cap(c_a), veh/h	190	1896	842	624	2287	1016	234	0	255	92	0	275
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	26.7	18.6	14.5	21.0	15.8	7.8	50.8	0.0	49.3	57.8	0.0	43.8
Incr Delay (d2), s/veh	1.3	1.2	0.5	23.6	3.2	0.1	11.4	0.0	35.7	6.0	0.0	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	9.3	2.2	9.0	17.0	0.3	4.8	0.0	9.1	0.8	0.0	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.0	19.7	14.9	44.6	19.0	7.8	62.2	0.0	85.0	63.8	0.0	45.8
LnGrp LOS	C	B	B	D	B	A	E	A	F	E	A	D
Approach Vol, veh/h		1250			2284			373			88	
Approach Delay, s/veh		19.4			23.5			76.3			50.3	
Approach LOS		B			C			E			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	21.5	71.5		27.0	8.3	84.7		27.0				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	30.5	53.5		22.5	7.5	76.5		22.5				
Max Q Clear Time (g_c+I1), s	15.9	26.6		21.4	3.8	49.2		20.2				
Green Ext Time (p_c), s	1.1	8.4		0.0	0.0	16.6		0.4				
Intersection Summary												
HCM 6th Ctrl Delay			27.7									
HCM 6th LOS			C									

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	37	938	137	366	1642	25	108	20	205	20	27	32
Future Volume (vph)	37	938	137	366	1642	25	108	20	205	20	27	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	170		0	80		50	150		150	100		0
Storage Lanes	1		1	1		1	1		1	1		0
Taper Length (ft)	90			90			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		908			364			1333			308	
Travel Time (s)		13.8			5.5			20.2			4.7	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	pm+ov	Perm	NA	
Protected Phases	5	2		1	6			8	1		4	
Permitted Phases	2		2	6		6	8		8	4		
Detector Phase	5	2	2	1	6	6	8	8	1	4	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	22.5	22.5	9.5	22.5	22.5	
Total Split (s)	12.0	58.0	58.0	37.0	83.0	83.0	25.0	25.0	37.0	25.0	25.0	
Total Split (%)	10.0%	48.3%	48.3%	30.8%	69.2%	69.2%	20.8%	20.8%	30.8%	20.8%	20.8%	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Total Lost Time (s)	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag			Lead			
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes			Yes			
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	Max	Max	None	Max	Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 102.7 (86%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	

Splits and Phases: 6: Crossley Rd. & Ramon Rd.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	938	137	366	1642	25	108	20	205	20	27	32
Future Volume (veh/h)	37	938	137	366	1642	25	108	20	205	20	27	32
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	42	1054	154	411	1845	28	121	22	230	22	30	36
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	143	1988	883	424	2346	1043	207	273	399	212	112	135
Arrive On Green	0.01	0.56	0.56	0.11	0.66	0.66	0.15	0.15	0.15	0.15	0.15	0.15
Sat Flow, veh/h	1781	3554	1578	1781	3554	1579	1324	1870	1569	1120	769	923
Grp Volume(v), veh/h	42	1054	154	411	1845	28	121	22	230	22	0	66
Grp Sat Flow(s),veh/h/ln	1781	1777	1578	1781	1777	1579	1324	1870	1569	1120	0	1693
Q Serve(g_s), s	0.8	22.3	5.7	11.7	44.0	0.7	10.7	1.2	15.4	2.1	0.0	4.2
Cycle Q Clear(g_c), s	0.8	22.3	5.7	11.7	44.0	0.7	14.9	1.2	15.4	3.3	0.0	4.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.55
Lane Grp Cap(c), veh/h	143	1988	883	424	2346	1043	207	273	399	212	0	247
V/C Ratio(X)	0.29	0.53	0.17	0.97	0.79	0.03	0.58	0.08	0.58	0.10	0.00	0.27
Avail Cap(c_a), veh/h	198	1988	883	671	2346	1043	207	273	399	212	0	247
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	23.6	16.6	12.9	19.3	14.4	7.0	52.2	44.3	39.2	45.7	0.0	45.6
Incr Delay (d2), s/veh	1.1	1.0	0.4	21.0	2.7	0.0	11.5	0.6	6.0	1.0	0.0	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	8.6	2.0	9.0	15.8	0.2	4.1	0.6	6.4	0.6	0.0	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.7	17.6	13.3	40.3	17.1	7.1	63.6	44.9	45.2	46.7	0.0	48.2
LnGrp LOS	C	B	B	D	B	A	E	D	D	D	A	D
Approach Vol, veh/h		1250			2284			373			88	
Approach Delay, s/veh		17.3			21.2			51.2			47.8	
Approach LOS		B			C			D			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	20.4	74.6		25.0	8.3	86.7		25.0				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	32.5	53.5		20.5	7.5	78.5		20.5				
Max Q Clear Time (g_c+I1), s	14.7	25.3		7.2	3.8	47.0		18.4				
Green Ext Time (p_c), s	1.1	8.5		0.2	0.0	18.1		0.3				

Intersection Summary		
HCM 6th Ctrl Delay		23.4
HCM 6th LOS		C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	69	807	91	65	761	151	78	229	87	151	178	33
Future Volume (vph)	69	807	91	65	761	151	78	229	87	151	178	33
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	155		0	140		0	90		90	100		100
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	90			90			90			30		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		373			416			358			226	
Travel Time (s)		5.7			6.3			5.4			3.4	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Prot	NA		Prot	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2		1	6			8			4	
Permitted Phases							8		8	4		4
Detector Phase	5	2		1	6		8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5		9.5	22.5		22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	19.0	57.0		19.0	57.0		44.0	44.0	44.0	44.0	44.0	44.0
Total Split (%)	15.8%	47.5%		15.8%	47.5%		36.7%	36.7%	36.7%	36.7%	36.7%	36.7%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Total Lost Time (s)	7.5	7.5		7.5	7.5		7.5	7.5	7.5	7.5	7.5	7.5
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	C-Max		None	C-Max		Max	Max	Max	Max	Max	Max

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 1: Crossley Rd. & Dinah Shore Dr.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	69	807	91	65	761	151	78	229	87	151	178	33
Future Volume (veh/h)	69	807	91	65	761	151	78	229	87	151	178	33
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	73	849	96	68	801	159	82	241	92	159	187	35
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	23	1595	180	22	1462	290	355	569	480	271	569	480
Arrive On Green	0.03	0.99	0.99	0.02	0.99	0.99	0.30	0.30	0.30	0.61	0.61	0.61
Sat Flow, veh/h	1781	3216	364	1781	2952	586	1156	1870	1577	1046	1870	1577
Grp Volume(v), veh/h	73	469	476	68	482	478	82	241	92	159	187	35
Grp Sat Flow(s),veh/h/ln	1781	1777	1803	1781	1777	1761	1156	1870	1577	1046	1870	1577
Q Serve(g_s), s	1.6	0.5	0.5	1.5	0.7	0.7	6.8	12.4	5.2	15.7	5.9	1.1
Cycle Q Clear(g_c), s	1.6	0.5	0.5	1.5	0.7	0.7	12.7	12.4	5.2	28.0	5.9	1.1
Prop In Lane	1.00		0.20	1.00		0.33	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	23	881	894	22	880	872	355	569	480	271	569	480
V/C Ratio(X)	3.15	0.53	0.53	3.09	0.55	0.55	0.23	0.42	0.19	0.59	0.33	0.07
Avail Cap(c_a), veh/h	171	881	894	171	880	872	355	569	480	271	569	480
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.4	0.2	0.2	58.5	0.3	0.3	35.8	33.3	30.9	27.1	17.5	16.6
Incr Delay (d2), s/veh	991.4	2.3	2.3	966.7	2.4	2.5	1.5	2.3	0.9	9.0	1.5	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.1	0.7	0.7	6.6	0.7	0.7	2.0	5.8	2.0	3.6	2.4	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	1049.8	2.5	2.5	1025.2	2.7	2.8	37.3	35.7	31.7	36.2	19.0	16.9
LnGrp LOS	F	A	A	F	A	A	D	D	C	D	B	B
Approach Vol, veh/h		1018			1028			415			381	
Approach Delay, s/veh		77.6			70.4			35.1			26.0	
Approach LOS		E			E			D			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.0	67.0		44.0	9.1	66.9		44.0				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	14.5	52.5		39.5	14.5	52.5		39.5				
Max Q Clear Time (g_c+I1), s	4.5	3.5		31.0	4.6	3.7		15.7				
Green Ext Time (p_c), s	0.1	6.5		1.1	0.1	6.7		1.8				
Intersection Summary												
HCM 6th Ctrl Delay			61.9									
HCM 6th LOS			E									

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	69	807	91	65	761	151	78	229	87	151	178	33
Future Volume (vph)	69	807	91	65	761	151	78	229	87	151	178	33
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	155		0	140		150	90		90	150		100
Storage Lanes	1		0	1		1	1		1	1		1
Taper Length (ft)	90			90			90			60		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		373			416			358			226	
Travel Time (s)		5.7			6.3			5.4			3.4	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Prot	NA		Prot	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2		1	6			8			4	
Permitted Phases						6	8		8	4		4
Detector Phase	5	2		1	6	6	8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5		9.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	19.0	57.0		19.0	57.0	57.0	44.0	44.0	44.0	44.0	44.0	44.0
Total Split (%)	15.8%	47.5%		15.8%	47.5%	47.5%	36.7%	36.7%	36.7%	36.7%	36.7%	36.7%
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Total Lost Time (s)	7.5	7.5		7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
Lead/Lag	Lead	Lead		Lag	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes						
Recall Mode	None	C-Max		None	C-Max	C-Max	Max	Max	Max	Max	Max	Max

Intersection Summary

Area Type: Other

Cycle Length: 120

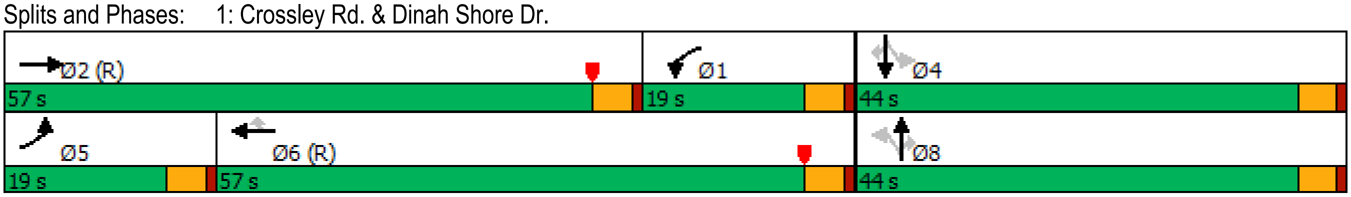
Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection

Natural Cycle: 60

Control Type: Actuated-Coordinated

Splits and Phases: 1: Crossley Rd. & Dinah Shore Dr.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	69	807	91	65	761	151	78	229	87	151	178	33
Future Volume (veh/h)	69	807	91	65	761	151	78	229	87	151	178	33
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	73	849	96	68	801	159	82	241	92	159	187	35
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	23	1326	150	171	1760	781	355	569	480	271	569	480
Arrive On Green	0.03	0.82	0.82	0.19	0.99	0.99	0.30	0.30	0.30	0.61	0.61	0.61
Sat Flow, veh/h	1781	3216	364	1781	3554	1577	1156	1870	1577	1046	1870	1577
Grp Volume(v), veh/h	73	469	476	68	801	159	82	241	92	159	187	35
Grp Sat Flow(s),veh/h/ln	1781	1777	1802	1781	1777	1577	1156	1870	1577	1046	1870	1577
Q Serve(g_s), s	1.6	11.7	11.7	4.0	0.5	0.1	6.8	12.4	5.2	15.7	5.9	1.1
Cycle Q Clear(g_c), s	1.6	11.7	11.7	4.0	0.5	0.1	12.7	12.4	5.2	28.0	5.9	1.1
Prop In Lane	1.00		0.20	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	23	733	743	171	1760	781	355	569	480	271	569	480
V/C Ratio(X)	3.15	0.64	0.64	0.40	0.46	0.20	0.23	0.42	0.19	0.59	0.33	0.07
Avail Cap(c_a), veh/h	171	733	743	171	1760	781	355	569	480	271	569	480
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.4	7.2	7.2	45.5	0.3	0.3	35.8	33.3	30.9	27.1	17.5	16.6
Incr Delay (d2), s/veh	991.4	4.3	4.2	1.5	0.9	0.6	1.5	2.3	0.9	9.0	1.5	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.1	3.3	3.3	1.7	0.3	0.2	2.0	5.8	2.0	3.6	2.4	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	1049.8	11.5	11.4	47.0	1.1	0.9	37.3	35.7	31.7	36.2	19.0	16.9
LnGrp LOS	F	B	B	D	A	A	D	D	C	D	B	B
Approach Vol, veh/h		1018			1028			415			381	
Approach Delay, s/veh		85.9			4.1			35.1			26.0	
Approach LOS		F			A			D			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	19.0	57.0		44.0	9.1	66.9		44.0				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	14.5	52.5		39.5	14.5	52.5		39.5				
Max Q Clear Time (g_c+I1), s	7.0	14.7		31.0	4.6	3.5		15.7				
Green Ext Time (p_c), s	0.1	6.4		1.1	0.1	6.6		1.8				
Intersection Summary												
HCM 6th Ctrl Delay			40.9									
HCM 6th LOS			D									

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	31	815	4	6	773	93	9	4	2	107	1	41
Future Volume (vph)	31	815	4	6	773	93	9	4	2	107	1	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	160		0	160		0	0		0	40		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	90			90			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			35			35	
Link Distance (ft)		1338			939			391			593	
Travel Time (s)		20.3			14.2			7.6			11.6	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		1	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	9.5	22.5		9.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	9.6	27.8		9.6	27.8		22.6	22.6		22.6	22.6	
Total Split (%)	16.0%	46.3%		16.0%	46.3%		37.7%	37.7%		37.7%	37.7%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Total Lost Time (s)	7.5	7.5		7.5	7.5		7.5	7.5		7.5	7.5	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	C-Max		None	C-Max		Max	Max		Max	Max	

Intersection Summary

Area Type: Other

Cycle Length: 60

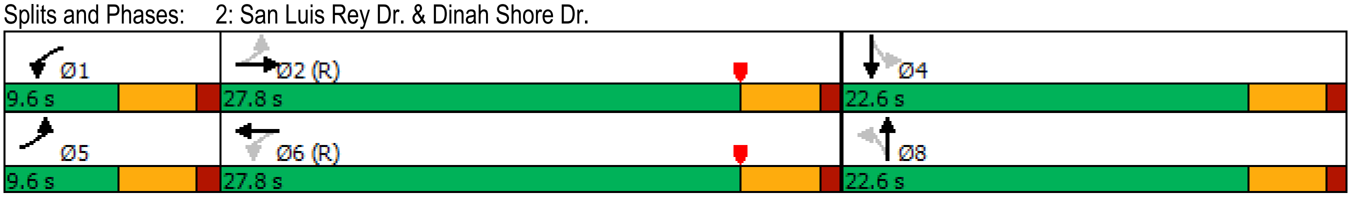
Actuated Cycle Length: 60

Offset: 26 (43%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow

Natural Cycle: 60

Control Type: Actuated-Coordinated

Splits and Phases: 2: San Luis Rey Dr. & Dinah Shore Dr.

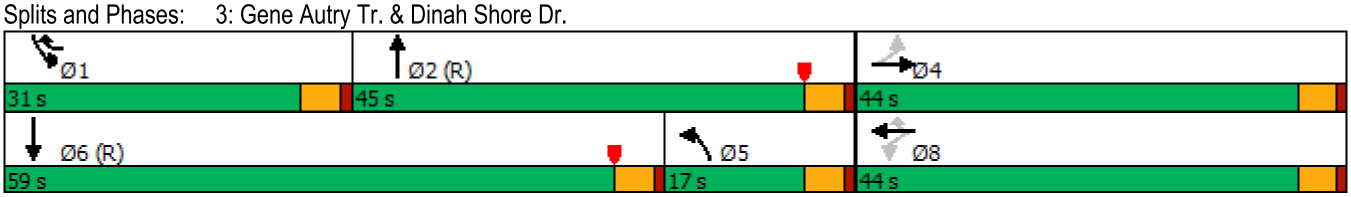


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	31	815	4	6	773	93	9	4	2	107	1	41
Future Volume (veh/h)	31	815	4	6	773	93	9	4	2	107	1	41
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	32	849	4	6	805	97	9	4	2	111	1	43
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	224	1507	7	276	1241	149	432	295	148	469	9	389
Arrive On Green	0.00	0.42	0.42	0.00	0.26	0.26	0.25	0.25	0.25	0.25	0.25	0.25
Sat Flow, veh/h	1781	3627	17	1781	3191	384	1355	1174	587	1402	36	1545
Grp Volume(v), veh/h	32	416	437	6	448	454	9	0	6	111	0	44
Grp Sat Flow(s),veh/h/ln	1781	1777	1867	1781	1777	1798	1355	0	1761	1402	0	1581
Q Serve(g_s), s	0.1	10.7	10.7	0.1	13.5	13.5	0.3	0.0	0.2	3.9	0.0	1.3
Cycle Q Clear(g_c), s	0.1	10.7	10.7	0.1	13.5	13.5	1.6	0.0	0.2	4.0	0.0	1.3
Prop In Lane	1.00		0.01	1.00		0.21	1.00		0.33	1.00		0.98
Lane Grp Cap(c), veh/h	224	738	776	276	691	699	432	0	443	469	0	398
V/C Ratio(X)	0.14	0.56	0.56	0.02	0.65	0.65	0.02	0.00	0.01	0.24	0.00	0.11
Avail Cap(c_a), veh/h	284	738	776	335	691	699	432	0	443	469	0	398
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.61	0.61	0.61	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.6	13.4	13.4	13.0	18.5	18.5	17.9	0.0	16.9	18.4	0.0	17.3
Incr Delay (d2), s/veh	0.2	1.9	1.8	0.0	4.7	4.6	0.1	0.0	0.1	1.2	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	3.7	3.9	0.0	6.1	6.1	0.1	0.0	0.1	1.3	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.8	15.3	15.2	13.0	23.2	23.2	18.0	0.0	16.9	19.6	0.0	17.8
LnGrp LOS	C	B	B	B	C	C	B	A	B	B	A	B
Approach Vol, veh/h		885			908			15			155	
Approach Delay, s/veh		15.4			23.1			17.6			19.1	
Approach LOS		B			C			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.0	32.4		22.6	6.6	30.8		22.6				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.1	23.3		18.1	5.1	23.3		18.1				
Max Q Clear Time (g_c+I1), s	3.1	13.7		7.0	3.1	16.5		4.6				
Green Ext Time (p_c), s	0.0	3.4		0.3	0.0	2.9		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			19.3									
HCM 6th LOS			B									

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	37	279	60	134	265	424	48	561	152	425	429	34
Future Volume (vph)	37	279	60	134	265	424	48	561	152	425	429	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	155		0	165		300	90		0	285		0
Storage Lanes	1		0	1		1	1		0	2		0
Taper Length (ft)	90			90			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		417			1338			401			622	
Travel Time (s)		6.3			20.3			6.1			9.4	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA	pm+ov	Prot	NA		Prot	NA	
Protected Phases		4			8	1	5	2		1	6	
Permitted Phases	4			8		8						
Detector Phase	4	4		8	8	1	5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5	9.5	9.5	22.5		9.5	22.5	
Total Split (s)	44.0	44.0		44.0	44.0	31.0	17.0	45.0		31.0	59.0	
Total Split (%)	36.7%	36.7%		36.7%	36.7%	25.8%	14.2%	37.5%		25.8%	49.2%	
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Total Lost Time (s)	7.5	7.5		7.5	7.5	7.5	7.5	7.5		7.5	7.5	
Lead/Lag						Lead	Lag	Lag		Lead	Lead	
Lead-Lag Optimize?						Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None	None	None	C-Max		None	C-Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 28.8 (24%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	

Splits and Phases: 3: Gene Autry Tr. & Dinah Shore Dr.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	279	60	134	265	424	48	561	152	425	429	34
Future Volume (veh/h)	37	279	60	134	265	424	48	561	152	425	429	34
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	44	328	71	158	312	499	56	660	179	500	505	40
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	136	796	170	237	512	1180	196	1069	290	525	1431	113
Arrive On Green	0.27	0.27	0.27	0.09	0.09	0.09	0.11	0.39	0.39	0.15	0.43	0.43
Sat Flow, veh/h	673	2910	622	984	1870	2764	1781	2761	748	3456	3335	263
Grp Volume(v), veh/h	44	199	200	158	312	499	56	425	414	500	268	277
Grp Sat Flow(s),veh/h/ln	673	1777	1754	984	1870	1382	1781	1777	1732	1728	1777	1821
Q Serve(g_s), s	7.4	11.0	11.2	19.1	19.3	16.6	3.5	23.1	23.1	17.2	12.2	12.3
Cycle Q Clear(g_c), s	26.7	11.0	11.2	30.4	19.3	16.6	3.5	23.1	23.1	17.2	12.2	12.3
Prop In Lane	1.00		0.35	1.00		1.00	1.00		0.43	1.00		0.14
Lane Grp Cap(c), veh/h	136	486	480	237	512	1180	196	688	670	525	763	782
V/C Ratio(X)	0.32	0.41	0.42	0.67	0.61	0.42	0.29	0.62	0.62	0.95	0.35	0.35
Avail Cap(c_a), veh/h	157	540	534	267	569	1265	196	688	670	677	763	782
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.78	0.78	0.78	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.5	35.6	35.7	59.1	48.4	30.8	49.1	29.6	29.6	50.5	23.0	23.1
Incr Delay (d2), s/veh	1.4	0.6	0.6	4.1	1.2	0.2	0.8	4.1	4.2	20.7	1.3	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	4.7	4.7	5.3	9.8	6.1	1.6	10.2	10.0	8.7	5.2	5.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.9	36.2	36.3	63.2	49.7	31.0	49.9	33.7	33.9	71.1	24.3	24.3
LnGrp LOS	D	D	D	E	D	C	D	C	C	E	C	C
Approach Vol, veh/h		443			969			895			1045	
Approach Delay, s/veh		37.8			42.2			34.8			46.7	
Approach LOS		D			D			C			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	25.7	53.9		40.3	20.7	59.0		40.3				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	26.5	40.5		39.5	12.5	54.5		39.5				
Max Q Clear Time (g_c+I1), s	20.2	26.1		29.7	6.5	15.3		33.4				
Green Ext Time (p_c), s	1.0	4.2		1.7	0.0	3.2		2.5				

Intersection Summary			
HCM 6th Ctrl Delay			41.1
HCM 6th LOS			D

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	18	11	29	420	351	18
Future Volume (vph)	18	11	29	420	351	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	50	50			0
Storage Lanes	1	1	1			0
Taper Length (ft)	90		90			
Link Speed (mph)	30			45	45	
Link Distance (ft)	375			235	852	
Travel Time (s)	8.5			3.6	12.9	
Confl. Peds. (#/hr)	5	5	5			5
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Shared Lane Traffic (%)						
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	18	11	29	420	351	18
Future Vol, veh/h	18	11	29	420	351	18
Conflicting Peds, #/hr	5	5	5	0	0	5
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	50	50	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	20	12	33	472	394	20

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	952	414	419	0	-	0
Stage 1	409	-	-	-	-	-
Stage 2	543	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	288	638	1140	-	-	-
Stage 1	671	-	-	-	-	-
Stage 2	582	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	277	632	1135	-	-	-
Mov Cap-2 Maneuver	405	-	-	-	-	-
Stage 1	648	-	-	-	-	-
Stage 2	579	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13	0.5	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1135	-	405	632	-	-
HCM Lane V/C Ratio	0.029	-	0.05	0.02	-	-
HCM Control Delay (s)	8.3	-	14.4	10.8	-	-
HCM Lane LOS	A	-	B	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	0.1	-	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	37	36	23	410	340	4
Future Volume (vph)	37	36	23	410	340	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100	0	120			0
Storage Lanes	1	1	1			0
Taper Length (ft)	90		90			
Link Speed (mph)	30			45	45	
Link Distance (ft)	765			852	1333	
Travel Time (s)	17.4			12.9	20.2	
Confl. Peds. (#/hr)	5	5	5			5
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Shared Lane Traffic (%)						
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	37	36	23	410	340	4
Future Vol, veh/h	37	36	23	410	340	4
Conflicting Peds, #/hr	5	5	5	0	0	5
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	100	0	120	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	39	38	24	427	354	4

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	841	366	363	0	-	0
Stage 1	361	-	-	-	-	-
Stage 2	480	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	335	679	1196	-	-	-
Stage 1	705	-	-	-	-	-
Stage 2	622	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	325	673	1190	-	-	-
Mov Cap-2 Maneuver	445	-	-	-	-	-
Stage 1	687	-	-	-	-	-
Stage 2	619	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.3	0.4	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1190	-	445	673	-	-
HCM Lane V/C Ratio	0.02	-	0.087	0.056	-	-
HCM Control Delay (s)	8.1	-	13.9	10.7	-	-
HCM Lane LOS	A	-	B	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.3	0.2	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	46	1513	154	256	1155	26	170	19	379	43	19	33
Future Volume (vph)	46	1513	154	256	1155	26	170	19	379	43	19	33
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	170		0	80		50	0		75	100		0
Storage Lanes	1		1	1		1	0		1	1		0
Taper Length (ft)	90			90			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		908			364			1333			308	
Travel Time (s)		13.8			5.5			20.2			4.7	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2		2	6		6	8		8	4		
Detector Phase	5	2	2	1	6	6	8	8	8	4	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	
Total Split (s)	12.8	67.8	67.8	23.2	78.2	78.2	29.0	29.0	29.0	29.0	29.0	
Total Split (%)	10.7%	56.5%	56.5%	19.3%	65.2%	65.2%	24.2%	24.2%	24.2%	24.2%	24.2%	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	
Total Lost Time (s)	7.5	7.5	7.5	7.5	7.5	7.5		7.5	7.5	7.5	7.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	Max	Max	Max	Max	Max	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 86 (72%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow
Natural Cycle: 100
Control Type: Actuated-Coordinated

Splits and Phases: 6: Crossley Rd. & Ramon Rd.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	46	1513	154	256	1155	26	170	19	379	43	19	33
Future Volume (veh/h)	46	1513	154	256	1155	26	170	19	379	43	19	33
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	51	1663	169	281	1269	29	187	21	416	47	21	36
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	253	1856	824	284	2218	986	243	21	282	60	110	189
Arrive On Green	0.01	0.52	0.52	0.11	0.62	0.62	0.18	0.18	0.18	0.18	0.18	0.18
Sat Flow, veh/h	1781	3554	1577	1781	3554	1579	1037	116	1572	952	615	1055
Grp Volume(v), veh/h	51	1663	169	281	1269	29	208	0	416	47	0	57
Grp Sat Flow(s),veh/h/ln	1781	1777	1577	1781	1777	1579	1154	0	1572	952	0	1670
Q Serve(g_s), s	1.1	50.4	6.9	13.1	25.0	0.8	18.0	0.0	21.5	0.0	0.0	3.5
Cycle Q Clear(g_c), s	1.1	50.4	6.9	13.1	25.0	0.8	21.5	0.0	21.5	21.5	0.0	3.5
Prop In Lane	1.00		1.00	1.00		1.00	0.90		1.00	1.00		0.63
Lane Grp Cap(c), veh/h	253	1856	824	284	2218	986	264	0	282	60	0	299
V/C Ratio(X)	0.20	0.90	0.21	0.99	0.57	0.03	0.79	0.00	1.48	0.78	0.00	0.19
Avail Cap(c_a), veh/h	315	1856	824	319	2218	986	264	0	282	60	0	299
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	16.9	25.7	15.3	38.1	13.2	8.6	51.0	0.0	49.3	60.0	0.0	41.9
Incr Delay (d2), s/veh	0.4	7.2	0.6	45.9	1.1	0.1	20.9	0.0	233.0	65.1	0.0	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	21.2	2.5	11.8	9.2	0.3	7.6	0.0	26.4	2.5	0.0	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.2	33.0	15.9	84.0	14.3	8.7	72.0	0.0	282.2	125.1	0.0	43.3
LnGrp LOS	B	C	B	F	B	A	E	A	F	F	A	D
Approach Vol, veh/h		1883			1579			624			104	
Approach Delay, s/veh		31.0			26.6			212.1			80.2	
Approach LOS		C			C			F			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	20.8	70.2		29.0	8.6	82.4		29.0				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	18.7	63.3		24.5	8.3	73.7		24.5				
Max Q Clear Time (g_c+I1), s	16.1	53.4		24.5	4.1	28.0		24.5				
Green Ext Time (p_c), s	0.2	7.4		0.0	0.0	11.6		0.0				

Intersection Summary			
HCM 6th Ctrl Delay			57.5
HCM 6th LOS			E

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	46	1513	154	256	1155	26	170	19	379	43	19	33
Future Volume (vph)	46	1513	154	256	1155	26	170	19	379	43	19	33
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	170		0	80		50	150		150	100		0
Storage Lanes	1		1	1		1	1		1	1		0
Taper Length (ft)	90			90			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		908			364			1333			308	
Travel Time (s)		13.8			5.5			20.2			4.7	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	pm+ov	Perm	NA	
Protected Phases	5	2		1	6			8	1		4	
Permitted Phases	2		2	6		6	8		8	4		
Detector Phase	5	2	2	1	6	6	8	8	1	4	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	22.5	22.5	9.5	22.5	22.5	
Total Split (s)	12.8	69.0	69.0	25.0	81.2	81.2	26.0	26.0	25.0	26.0	26.0	
Total Split (%)	10.7%	57.5%	57.5%	20.8%	67.7%	67.7%	21.7%	21.7%	20.8%	21.7%	21.7%	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Total Lost Time (s)	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag			Lead			
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes			Yes			
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	Max	Max	None	Max	Max	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 86 (72%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 6: Crossley Rd. & Ramon Rd.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	46	1513	154	256	1155	26	170	19	379	43	19	33
Future Volume (veh/h)	46	1513	154	256	1155	26	170	19	379	43	19	33
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	51	1663	169	281	1269	29	187	21	416	47	21	36
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	269	1972	875	286	2307	1025	226	288	406	197	95	162
Arrive On Green	0.01	0.55	0.55	0.10	0.65	0.65	0.15	0.15	0.15	0.15	0.15	0.15
Sat Flow, veh/h	1781	3554	1578	1781	3554	1579	1335	1870	1570	947	615	1054
Grp Volume(v), veh/h	51	1663	169	281	1269	29	187	21	416	47	0	57
Grp Sat Flow(s),veh/h/ln	1781	1777	1578	1781	1777	1579	1335	1870	1570	947	0	1668
Q Serve(g_s), s	1.1	47.0	6.4	12.0	23.4	0.8	14.9	1.2	18.5	5.4	0.0	3.6
Cycle Q Clear(g_c), s	1.1	47.0	6.4	12.0	23.4	0.8	18.5	1.2	18.5	6.5	0.0	3.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.63
Lane Grp Cap(c), veh/h	269	1972	875	286	2307	1025	226	288	406	197	0	257
V/C Ratio(X)	0.19	0.84	0.19	0.98	0.55	0.03	0.83	0.07	1.02	0.24	0.00	0.22
Avail Cap(c_a), veh/h	332	1972	875	361	2307	1025	226	288	406	197	0	257
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	14.3	22.4	13.3	36.3	11.5	7.5	53.4	43.4	44.6	46.2	0.0	44.4
Incr Delay (d2), s/veh	0.3	4.6	0.5	39.0	0.9	0.1	28.1	0.5	51.0	2.8	0.0	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	18.9	2.3	11.2	8.3	0.3	7.3	0.6	17.4	1.4	0.0	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.6	27.0	13.8	75.3	12.4	7.6	81.5	43.9	95.6	49.0	0.0	46.4
LnGrp LOS	B	C	B	E	B	A	F	D	F	D	A	D
Approach Vol, veh/h		1883			1579			624			104	
Approach Delay, s/veh		25.5			23.5			89.6			47.6	
Approach LOS		C			C			F			D	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	19.9	74.1		26.0	8.6	85.4		26.0
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	20.5	64.5		21.5	8.3	76.7		21.5
Max Q Clear Time (g_c+I1), s	15.0	50.0		9.5	4.1	26.4		21.5
Green Ext Time (p_c), s	0.4	10.0		0.3	0.0	11.8		0.0

Intersection Summary			
HCM 6th Ctrl Delay			34.8
HCM 6th LOS			C

APPENDIX 7.1: EAPC (2025) CONDITIONS

INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	106	661	83	68	927	112	93	159	65	179	245	163
Future Volume (vph)	106	661	83	68	927	112	93	159	65	179	245	163
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	155		0	140		0	90		90	100		100
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	90			90			90			30		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		373			416			358			226	
Travel Time (s)		5.7			6.3			5.4			3.4	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Shared Lane Traffic (%)												
Turn Type	Prot	NA		Prot	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2		1	6			8			4	
Permitted Phases							8		8	4		4
Detector Phase	5	2		1	6		8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5		9.5	22.5		22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	21.0	60.2		19.8	59.0		40.0	40.0	40.0	40.0	40.0	40.0
Total Split (%)	17.5%	50.2%		16.5%	49.2%		33.3%	33.3%	33.3%	33.3%	33.3%	33.3%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Total Lost Time (s)	7.5	7.5		7.5	7.5		7.5	7.5	7.5	7.5	7.5	7.5
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	C-Max		None	C-Max		Max	Max	Max	Max	Max	Max

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	

Splits and Phases: 1: Crossley Rd. & Dinah Shore Dr.

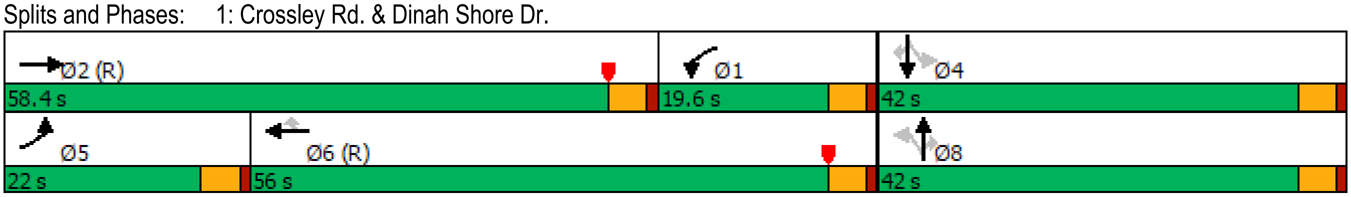
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	106	661	83	68	927	112	93	159	65	179	245	163
Future Volume (veh/h)	106	661	83	68	927	112	93	159	65	179	245	163
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	128	796	100	82	1117	135	112	192	78	216	295	196
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	119	1675	210	25	1514	183	168	507	427	268	507	427
Arrive On Green	0.13	1.00	1.00	0.01	0.47	0.47	0.27	0.27	0.27	0.09	0.09	0.09
Sat Flow, veh/h	1781	3174	399	1781	3191	385	906	1870	1576	1107	1870	1576
Grp Volume(v), veh/h	128	445	451	82	621	631	112	192	78	216	295	196
Grp Sat Flow(s),veh/h/ln	1781	1777	1796	1781	1777	1799	906	1870	1576	1107	1870	1576
Q Serve(g_s), s	8.0	0.0	0.0	1.7	33.9	34.0	14.3	10.0	4.6	22.5	18.2	14.2
Cycle Q Clear(g_c), s	8.0	0.0	0.0	1.7	33.9	34.0	32.5	10.0	4.6	32.5	18.2	14.2
Prop In Lane	1.00		0.22	1.00		0.21	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	119	938	948	25	843	854	168	507	427	268	507	427
V/C Ratio(X)	1.07	0.48	0.48	3.30	0.74	0.74	0.67	0.38	0.18	0.81	0.58	0.46
Avail Cap(c_a), veh/h	200	938	948	183	843	854	168	507	427	268	507	427
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.0	0.0	0.0	59.2	25.5	25.5	53.1	35.6	33.6	60.1	48.1	46.3
Incr Delay (d2), s/veh	74.9	1.7	1.7	1055.7	5.7	5.7	19.0	2.2	0.9	22.4	4.8	3.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.7	0.4	0.4	8.0	14.7	14.9	4.2	4.7	1.8	8.6	9.8	6.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	126.8	1.7	1.7	1114.8	31.2	31.2	72.1	37.7	34.5	82.5	52.9	49.8
LnGrp LOS	F	A	A	F	C	C	E	D	C	F	D	D
Approach Vol, veh/h		1024			1334			382			707	
Approach Delay, s/veh		17.4			97.8			47.1			61.1	
Approach LOS		B			F			D			E	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.2	70.8		40.0	15.5	64.5		40.0				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	15.3	55.7		35.5	16.5	54.5		35.5				
Max Q Clear Time (g_c+I1), s	4.7	3.0		35.5	11.0	37.0		35.5				
Green Ext Time (p_c), s	0.1	6.1		0.0	0.1	7.4		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			60.8									
HCM 6th LOS			E									

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	106	661	83	68	927	112	93	159	65	179	245	163
Future Volume (vph)	106	661	83	68	927	112	93	159	65	179	245	163
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	155		0	140		150	90		90	150		100
Storage Lanes	1		0	1		1	1		1	1		1
Taper Length (ft)	90			90			90			60		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		373			416			358			226	
Travel Time (s)		5.7			6.3			5.4			3.4	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Shared Lane Traffic (%)												
Turn Type	Prot	NA		Prot	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2		1	6			8			4	
Permitted Phases						6	8		8	4		4
Detector Phase	5	2		1	6	6	8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5		9.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	22.0	58.4		19.6	56.0	56.0	42.0	42.0	42.0	42.0	42.0	42.0
Total Split (%)	18.3%	48.7%		16.3%	46.7%	46.7%	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Total Lost Time (s)	7.5	7.5		7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
Lead/Lag	Lead	Lead		Lag	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes						
Recall Mode	None	C-Max		None	C-Max	C-Max	Max	Max	Max	Max	Max	Max

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection
Natural Cycle: 75
Control Type: Actuated-Coordinated

Splits and Phases: 1: Crossley Rd. & Dinah Shore Dr.

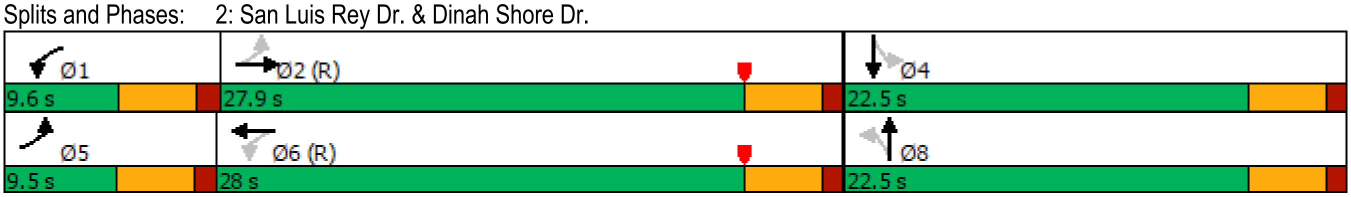


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	106	661	83	68	927	112	93	159	65	179	245	163
Future Volume (veh/h)	106	661	83	68	927	112	93	159	65	179	245	163
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	128	796	100	82	1117	135	112	192	78	216	295	196
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	123	1346	169	180	1621	719	184	538	453	288	538	453
Arrive On Green	0.07	0.42	0.42	0.10	0.46	0.46	0.29	0.29	0.29	0.09	0.09	0.09
Sat Flow, veh/h	1781	3174	399	1781	3554	1576	906	1870	1577	1107	1870	1577
Grp Volume(v), veh/h	128	446	450	82	1117	135	112	192	78	216	295	196
Grp Sat Flow(s),veh/h/ln	1781	1777	1796	1781	1777	1576	906	1870	1577	1107	1870	1577
Q Serve(g_s), s	8.3	23.1	23.1	5.2	29.9	6.1	14.6	9.8	4.4	23.3	18.1	14.1
Cycle Q Clear(g_c), s	8.3	23.1	23.1	5.2	29.9	6.1	32.7	9.8	4.4	33.1	18.1	14.1
Prop In Lane	1.00		0.22	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	123	754	762	180	1621	719	184	538	453	288	538	453
V/C Ratio(X)	1.04	0.59	0.59	0.46	0.69	0.19	0.61	0.36	0.17	0.75	0.55	0.43
Avail Cap(c_a), veh/h	215	754	762	180	1621	719	184	538	453	288	538	453
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.9	26.6	26.6	50.9	25.9	19.4	51.0	33.9	32.0	58.5	46.9	45.1
Incr Delay (d2), s/veh	61.0	3.4	3.4	1.8	2.4	0.6	14.1	1.8	0.8	16.3	4.0	3.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.7	10.0	10.1	2.4	12.4	2.3	3.9	4.6	1.8	8.2	9.6	6.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	116.9	29.9	29.9	52.7	28.3	20.0	65.1	35.8	32.9	74.9	50.9	48.1
LnGrp LOS	F	C	C	D	C	B	E	D	C	E	D	D
Approach Vol, veh/h		1024			1334			382			707	
Approach Delay, s/veh		40.8			29.0			43.8			57.4	
Approach LOS		D			C			D			E	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	19.6	58.4		42.0	15.7	62.3		42.0				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	15.1	53.9		37.5	17.5	51.5		37.5				
Max Q Clear Time (g_c+I1), s	8.2	26.1		36.1	11.3	32.9		35.7				
Green Ext Time (p_c), s	0.1	5.6		0.5	0.1	7.7		0.3				
Intersection Summary												
HCM 6th Ctrl Delay			40.0									
HCM 6th LOS			D									

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	25	705	15	22	978	102	2	3	1	137	11	50
Future Volume (vph)	25	705	15	22	978	102	2	3	1	137	11	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	160		0	160		0	0		0	40		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	90			90			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			35			35	
Link Distance (ft)		1338			939			391			593	
Travel Time (s)		20.3			14.2			7.6			11.6	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		1	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	9.5	22.5		9.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	9.5	27.9		9.6	28.0		22.5	22.5		22.5	22.5	
Total Split (%)	15.8%	46.5%		16.0%	46.7%		37.5%	37.5%		37.5%	37.5%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Total Lost Time (s)	7.5	7.5		7.5	7.5		7.5	7.5		7.5	7.5	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	C-Max		None	C-Max		Max	Max		Max	Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 43.8 (73%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	

Splits and Phases: 2: San Luis Rey Dr. & Dinah Shore Dr.

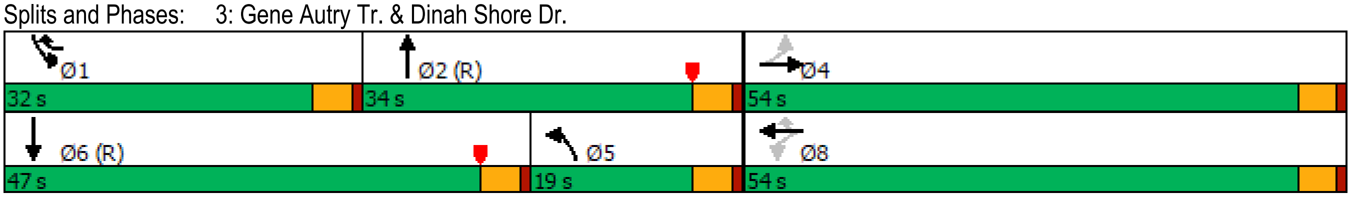


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	705	15	22	978	102	2	3	1	137	11	50
Future Volume (veh/h)	25	705	15	22	978	102	2	3	1	137	11	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	31	870	19	27	1207	126	2	4	1	169	14	62
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	153	1404	31	247	1270	132	401	361	90	468	75	331
Arrive On Green	0.00	0.39	0.39	0.00	0.78	0.78	0.25	0.25	0.25	0.25	0.25	0.25
Sat Flow, veh/h	1781	3555	78	1781	3246	338	1317	1442	361	1403	299	1324
Grp Volume(v), veh/h	31	435	454	27	659	674	2	0	5	169	0	76
Grp Sat Flow(s),veh/h/ln	1781	1777	1856	1781	1777	1807	1317	0	1803	1403	0	1623
Q Serve(g_s), s	0.1	11.8	11.8	0.1	18.8	19.1	0.1	0.0	0.1	6.2	0.0	2.2
Cycle Q Clear(g_c), s	0.1	11.8	11.8	0.1	18.8	19.1	2.3	0.0	0.1	6.3	0.0	2.2
Prop In Lane	1.00		0.04	1.00		0.19	1.00		0.20	1.00		0.82
Lane Grp Cap(c), veh/h	153	702	733	247	695	707	401	0	451	468	0	406
V/C Ratio(X)	0.20	0.62	0.62	0.11	0.95	0.95	0.00	0.00	0.01	0.36	0.00	0.19
Avail Cap(c_a), veh/h	209	702	733	306	695	707	401	0	451	468	0	406
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.73	0.73	0.73	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	25.6	14.5	14.5	18.6	6.0	6.0	18.6	0.0	16.9	19.3	0.0	17.7
Incr Delay (d2), s/veh	0.5	3.0	2.9	0.2	23.6	24.0	0.0	0.0	0.0	2.2	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	4.3	4.5	0.2	6.3	6.5	0.0	0.0	0.1	2.1	0.0	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.1	17.5	17.4	18.8	29.6	30.1	18.6	0.0	17.0	21.5	0.0	18.7
LnGrp LOS	C	B	B	B	C	C	B	A	B	C	A	B
Approach Vol, veh/h		920			1360			7			245	
Approach Delay, s/veh		17.8			29.6			17.4			20.6	
Approach LOS		B			C			B			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.3	31.2		22.5	6.5	31.0		22.5				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.1	23.4		18.0	5.0	23.5		18.0				
Max Q Clear Time (g_c+I1), s	3.1	14.8		9.3	3.1	22.1		5.3				
Green Ext Time (p_c), s	0.0	3.3		0.6	0.0	1.0		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			24.4									
HCM 6th LOS			C									

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	26	284	71	166	399	465	37	314	79	388	481	56
Future Volume (vph)	26	284	71	166	399	465	37	314	79	388	481	56
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	155		0	165		300	90		0	285		0
Storage Lanes	1		0	1		1	1		0	2		0
Taper Length (ft)	90			90			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		417			1338			401			622	
Travel Time (s)		6.3			20.3			6.1			9.4	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA	pm+ov	Prot	NA		Prot	NA	
Protected Phases		4			8	1	5	2		1	6	
Permitted Phases	4			8		8						
Detector Phase	4	4		8	8	1	5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5	9.5	19.0	22.5		9.5	22.5	
Total Split (s)	54.0	54.0		54.0	54.0	32.0	19.0	34.0		32.0	47.0	
Total Split (%)	45.0%	45.0%		45.0%	45.0%	26.7%	15.8%	28.3%		26.7%	39.2%	
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Total Lost Time (s)	7.5	7.5		7.5	7.5	7.5	7.5	7.5		7.5	7.5	
Lead/Lag						Lead	Lag	Lag		Lead	Lead	
Lead-Lag Optimize?						Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None	None	None	C-Max		None	C-Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 106.6 (89%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	

Splits and Phases: 3: Gene Autry Tr. & Dinah Shore Dr.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	284	71	166	399	465	37	314	79	388	481	56
Future Volume (veh/h)	26	284	71	166	399	465	37	314	79	388	481	56
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	31	338	85	198	475	554	44	374	94	462	573	67
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	112	936	232	291	621	1315	269	955	237	490	1054	123
Arrive On Green	0.33	0.33	0.33	0.22	0.22	0.22	0.15	0.34	0.34	0.14	0.33	0.33
Sat Flow, veh/h	548	2819	699	963	1870	2769	1781	2818	700	3456	3203	374
Grp Volume(v), veh/h	31	211	212	198	475	554	44	234	234	462	317	323
Grp Sat Flow(s),veh/h/ln	548	1777	1741	963	1870	1384	1781	1777	1741	1728	1777	1800
Q Serve(g_s), s	6.5	10.8	11.1	24.0	28.6	17.0	2.6	12.0	12.3	15.9	17.5	17.6
Cycle Q Clear(g_c), s	35.1	10.8	11.1	35.1	28.6	17.0	2.6	12.0	12.3	15.9	17.5	17.6
Prop In Lane	1.00		0.40	1.00		1.00	1.00		0.40	1.00		0.21
Lane Grp Cap(c), veh/h	112	590	578	291	621	1315	269	602	590	490	585	592
V/C Ratio(X)	0.28	0.36	0.37	0.68	0.76	0.42	0.16	0.39	0.40	0.94	0.54	0.54
Avail Cap(c_a), veh/h	142	689	675	344	725	1468	269	602	590	706	585	592
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.37	0.37	0.37	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.2	30.4	30.5	50.2	42.3	24.5	44.3	30.2	30.3	51.0	32.9	32.9
Incr Delay (d2), s/veh	1.3	0.4	0.4	1.6	1.6	0.1	0.3	1.9	2.0	16.9	3.6	3.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	4.5	4.6	6.0	13.7	5.8	1.1	5.3	5.3	7.8	7.8	8.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.5	30.8	30.9	51.8	43.8	24.6	44.6	32.1	32.3	67.9	36.5	36.5
LnGrp LOS	D	C	C	D	D	C	D	C	C	E	D	D
Approach Vol, veh/h		454			1227			512			1102	
Approach Delay, s/veh		32.4			36.5			33.3			49.7	
Approach LOS		C			D			C			D	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	24.5	48.2		47.3	25.7	47.0		47.3
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	27.5	29.5		49.5	14.5	42.5		49.5
Max Q Clear Time (g_c+I1), s	18.9	15.3		38.1	5.6	20.6		38.1
Green Ext Time (p_c), s	1.1	2.1		2.0	0.0	3.5		4.7

Intersection Summary	
HCM 6th Ctrl Delay	39.8
HCM 6th LOS	D

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	76	15	116	261	463	20
Future Volume (vph)	76	15	116	261	463	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	50	50			0
Storage Lanes	1	1	1			0
Taper Length (ft)	90		90			
Link Speed (mph)	30			45	45	
Link Distance (ft)	375			235	852	
Travel Time (s)	8.5			3.6	12.9	
Confl. Peds. (#/hr)	5	5	5			5
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81
Shared Lane Traffic (%)						
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	76	15	116	261	463	20
Future Vol, veh/h	76	15	116	261	463	20
Conflicting Peds, #/hr	5	5	5	0	0	5
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	50	50	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	81	81	81	81	81	81
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	94	19	143	322	572	25

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1203	595	602	0	-	0
Stage 1	590	-	-	-	-	-
Stage 2	613	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	204	504	975	-	-	-
Stage 1	554	-	-	-	-	-
Stage 2	541	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	172	499	970	-	-	-
Mov Cap-2 Maneuver	307	-	-	-	-	-
Stage 1	470	-	-	-	-	-
Stage 2	538	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	20.3	2.9	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	970	-	307	499	-	-
HCM Lane V/C Ratio	0.148	-	0.306	0.037	-	-
HCM Control Delay (s)	9.4	-	21.8	12.5	-	-
HCM Lane LOS	A	-	C	B	-	-
HCM 95th %tile Q(veh)	0.5	-	1.3	0.1	-	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	25	32	30	284	443	47
Future Volume (vph)	25	32	30	284	443	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100	0	120			0
Storage Lanes	1	1	1			0
Taper Length (ft)	90		90			
Link Speed (mph)	30			45	45	
Link Distance (ft)	765			852	1333	
Travel Time (s)	17.4			12.9	20.2	
Confl. Peds. (#/hr)	5	5	5			5
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77
Shared Lane Traffic (%)						
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	25	32	30	284	443	47
Future Vol, veh/h	25	32	30	284	443	47
Conflicting Peds, #/hr	5	5	5	0	0	5
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	100	0	120	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	32	42	39	369	575	61

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1063	616	641	0	-	0
Stage 1	611	-	-	-	-	-
Stage 2	452	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	247	491	943	-	-	-
Stage 1	542	-	-	-	-	-
Stage 2	641	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	234	486	939	-	-	-
Mov Cap-2 Maneuver	366	-	-	-	-	-
Stage 1	517	-	-	-	-	-
Stage 2	638	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.3	0.9	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	939	-	366	486	-	-
HCM Lane V/C Ratio	0.041	-	0.089	0.086	-	-
HCM Control Delay (s)	9	-	15.8	13.1	-	-
HCM Lane LOS	A	-	C	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.3	0.3	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	37	938	157	380	1642	25	127	20	218	20	27	32
Future Volume (vph)	37	938	157	380	1642	25	127	20	218	20	27	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	170		0	80		50	0		75	100		0
Storage Lanes	1		1	1		1	0		1	1		0
Taper Length (ft)	90			90			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		908			364			1333			308	
Travel Time (s)		13.8			5.5			20.2			4.7	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2		2	6		6	8		8	4		
Detector Phase	5	2	2	1	6	6	8	8	8	4	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	
Total Split (s)	11.1	56.0	56.0	36.0	80.9	80.9	28.0	28.0	28.0	28.0	28.0	
Total Split (%)	9.3%	46.7%	46.7%	30.0%	67.4%	67.4%	23.3%	23.3%	23.3%	23.3%	23.3%	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	
Total Lost Time (s)	7.5	7.5	7.5	7.5	7.5	7.5		7.5	7.5	7.5	7.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	Max	Max	Max	Max	Max	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 43.8 (37%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 6: Crossley Rd. & Ramon Rd.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	938	157	380	1642	25	127	20	218	20	27	32
Future Volume (veh/h)	37	938	157	380	1642	25	127	20	218	20	27	32
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	42	1054	176	427	1845	28	143	22	245	22	30	36
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	130	1790	794	439	2258	1003	220	25	268	82	132	158
Arrive On Green	0.01	0.50	0.50	0.14	0.64	0.64	0.17	0.17	0.17	0.17	0.17	0.17
Sat Flow, veh/h	1781	3554	1577	1781	3554	1579	960	148	1571	1112	770	924
Grp Volume(v), veh/h	42	1054	176	427	1845	28	165	0	245	22	0	66
Grp Sat Flow(s),veh/h/ln	1781	1777	1577	1781	1777	1579	1108	0	1571	1112	0	1694
Q Serve(g_s), s	0.8	25.1	7.5	15.5	47.3	0.8	14.1	0.0	18.4	2.4	0.0	4.0
Cycle Q Clear(g_c), s	0.8	25.1	7.5	15.5	47.3	0.8	18.1	0.0	18.4	20.5	0.0	4.0
Prop In Lane	1.00		1.00	1.00		1.00	0.87		1.00	1.00		0.55
Lane Grp Cap(c), veh/h	130	1790	794	439	2258	1003	245	0	268	82	0	289
V/C Ratio(X)	0.32	0.59	0.22	0.97	0.82	0.03	0.67	0.00	0.91	0.27	0.00	0.23
Avail Cap(c_a), veh/h	172	1790	794	616	2258	1003	245	0	268	82	0	289
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	28.9	21.0	16.6	24.1	16.6	8.1	50.7	0.0	48.9	58.8	0.0	42.9
Incr Delay (d2), s/veh	1.4	1.4	0.6	24.9	3.4	0.1	13.8	0.0	36.4	7.8	0.0	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	10.1	2.7	9.0	17.6	0.3	5.7	0.0	9.7	0.8	0.0	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.3	22.4	17.3	49.0	20.0	8.2	64.5	0.0	85.3	66.6	0.0	44.8
LnGrp LOS	C	C	B	D	C	A	E	A	F	E	A	D
Approach Vol, veh/h		1272			2300			410			88	
Approach Delay, s/veh		22.0			25.3			76.9			50.2	
Approach LOS		C			C			E			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	24.1	67.9		28.0	8.3	83.7		28.0				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	31.5	51.5		23.5	6.6	76.4		23.5				
Max Q Clear Time (g_c+I1), s	18.5	28.1		23.5	3.8	50.3		21.4				
Green Ext Time (p_c), s	1.1	8.1		0.0	0.0	16.2		0.4				

Intersection Summary

HCM 6th Ctrl Delay 30.0

HCM 6th LOS C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	37	938	157	380	1642	25	127	20	218	20	27	32
Future Volume (vph)	37	938	157	380	1642	25	127	20	218	20	27	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	170		0	80		50	150		150	100		0
Storage Lanes	1		1	1		1	1		1	1		0
Taper Length (ft)	90			90			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		908			364			1333			308	
Travel Time (s)		13.8			5.5			20.2			4.7	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	pm+ov	Perm	NA	
Protected Phases	5	2		1	6			8	1		4	
Permitted Phases	2		2	6		6	8		8	4		
Detector Phase	5	2	2	1	6	6	8	8	1	4	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	22.5	22.5	9.5	22.5	22.5	
Total Split (s)	12.0	56.0	56.0	37.0	81.0	81.0	27.0	27.0	37.0	27.0	27.0	
Total Split (%)	10.0%	46.7%	46.7%	30.8%	67.5%	67.5%	22.5%	22.5%	30.8%	22.5%	22.5%	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Total Lost Time (s)	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag			Lead			
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes			Yes			
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	Max	Max	None	Max	Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 43.8 (37%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	

Splits and Phases: 6: Crossley Rd. & Ramon Rd.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	938	157	380	1642	25	127	20	218	20	27	32
Future Volume (veh/h)	37	938	157	380	1642	25	127	20	218	20	27	32
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	42	1054	176	427	1845	28	143	22	245	22	30	36
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	134	1835	814	440	2287	1016	230	304	467	229	125	150
Arrive On Green	0.01	0.52	0.52	0.13	0.64	0.64	0.16	0.16	0.16	0.16	0.16	0.16
Sat Flow, veh/h	1781	3554	1577	1781	3554	1579	1325	1870	1570	1106	770	924
Grp Volume(v), veh/h	42	1054	176	427	1845	28	143	22	245	22	0	66
Grp Sat Flow(s),veh/h/ln	1781	1777	1577	1781	1777	1579	1325	1870	1570	1106	0	1694
Q Serve(g_s), s	0.8	24.5	7.3	14.9	46.2	0.8	12.6	1.2	15.6	2.1	0.0	4.1
Cycle Q Clear(g_c), s	0.8	24.5	7.3	14.9	46.2	0.8	16.7	1.2	15.6	3.3	0.0	4.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.55
Lane Grp Cap(c), veh/h	134	1835	814	440	2287	1016	230	304	467	229	0	275
V/C Ratio(X)	0.31	0.57	0.22	0.97	0.81	0.03	0.62	0.07	0.52	0.10	0.00	0.24
Avail Cap(c_a), veh/h	190	1835	814	639	2287	1016	230	304	467	229	0	275
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	27.2	20.0	15.8	23.4	15.8	7.8	51.1	42.6	35.2	44.0	0.0	43.8
Incr Delay (d2), s/veh	1.3	1.3	0.6	23.5	3.2	0.1	12.0	0.5	4.2	0.8	0.0	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	9.8	2.6	9.0	17.0	0.3	4.8	0.6	6.3	0.6	0.0	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.6	21.3	16.4	46.8	19.0	7.8	63.0	43.0	39.4	44.8	0.0	45.8
LnGrp LOS	C	C	B	D	B	A	E	D	D	D	A	D
Approach Vol, veh/h		1272			2300			410			88	
Approach Delay, s/veh		20.8			24.0			47.8			45.6	
Approach LOS		C			C			D			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	23.5	69.5		27.0	8.3	84.7		27.0				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	32.5	51.5		22.5	7.5	76.5		22.5				
Max Q Clear Time (g_c+I1), s	17.9	27.5		7.1	3.8	49.2		19.7				
Green Ext Time (p_c), s	1.1	8.2		0.3	0.0	16.6		0.4				
Intersection Summary												
HCM 6th Ctrl Delay			25.9									
HCM 6th LOS			C									

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	220	0	377	367	111
Future Volume (vph)	0	220	0	377	367	111
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Link Speed (mph)	30			45	45	
Link Distance (ft)	189			226	235	
Travel Time (s)	4.3			3.4	3.6	
Confl. Peds. (#/hr)	5	5	5			5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	220	0	377	367	111
Future Vol, veh/h	0	220	0	377	367	111
Conflicting Peds, #/hr	5	5	5	0	0	5
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	239	0	410	399	121

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	470	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	594	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	588	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	15.3	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	588	-	-
HCM Lane V/C Ratio	-	0.407	-	-
HCM Control Delay (s)	-	15.3	-	-
HCM Lane LOS	-	C	-	-
HCM 95th %tile Q(veh)	-	2	-	-

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	850	994	189	0	108
Future Volume (vph)	0	850	994	189	0	108
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0			150	0	0
Storage Lanes	0			1	0	1
Taper Length (ft)	90				90	
Link Speed (mph)		45	45		30	
Link Distance (ft)		939	373		210	
Travel Time (s)		14.2	5.7		4.8	
Confl. Peds. (#/hr)	5			5	5	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	850	994	189	0	108
Future Vol, veh/h	0	850	994	189	0	108
Conflicting Peds, #/hr	5	0	0	5	5	5
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	150	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	924	1080	205	0	117

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	550
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	479
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	474
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	15.1
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	474
HCM Lane V/C Ratio	-	-	-	0.248
HCM Control Delay (s)	-	-	-	15.1
HCM Lane LOS	-	-	-	C
HCM 95th %tile Q(veh)	-	-	-	1

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	23	20	104	32	19	68
Future Volume (vph)	23	20	104	32	19	68
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Link Speed (mph)	30			30	30	
Link Distance (ft)	394			375	169	
Travel Time (s)	9.0			8.5	3.8	
Confl. Peds. (#/hr)		5	5		5	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Sign Control	Free			Free	Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection						
Int Delay, s/veh	6					

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	23	20	104	32	19	68
Future Vol, veh/h	23	20	104	32	19	68
Conflicting Peds, #/hr	0	5	5	0	5	5
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	25	22	113	35	21	74

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	52	0	307	46
Stage 1	-	-	-	-	41	-
Stage 2	-	-	-	-	266	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1554	-	685	1023
Stage 1	-	-	-	-	981	-
Stage 2	-	-	-	-	779	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1547	-	628	1013
Mov Cap-2 Maneuver	-	-	-	-	628	-
Stage 1	-	-	-	-	976	-
Stage 2	-	-	-	-	718	-

Approach	EB	WB	NB
HCM Control Delay, s	0	5.7	9.5
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	893	-	-	1547	-
HCM Lane V/C Ratio	0.106	-	-	0.073	-
HCM Control Delay (s)	9.5	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.4	-	-	0.2	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	137	774	91	65	782	151	99	229	87	204	198	96
Future Volume (vph)	137	774	91	65	782	151	99	229	87	204	198	96
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	155		0	140		0	90		90	100		100
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	90			90			90			30		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		373			416			358			226	
Travel Time (s)		5.7			6.3			5.4			3.4	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Prot	NA		Prot	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2		1	6			8			4	
Permitted Phases							8		8	4		4
Detector Phase	5	2		1	6		8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	18.0	57.0		18.0	57.0		45.0	45.0	45.0	45.0	45.0	45.0
Total Split (s)	18.0	57.0		18.0	57.0		45.0	45.0	45.0	45.0	45.0	45.0
Total Split (%)	15.0%	47.5%		15.0%	47.5%		37.5%	37.5%	37.5%	37.5%	37.5%	37.5%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Total Lost Time (s)	7.5	7.5		7.5	7.5		7.5	7.5	7.5	7.5	7.5	7.5
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	C-Max		None	C-Max		Max	Max	Max	Max	Max	Max

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	

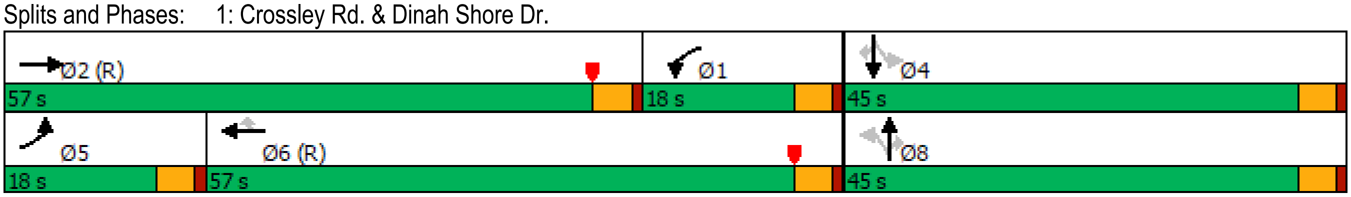
Splits and Phases: 1: Crossley Rd. & Dinah Shore Dr.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	137	774	91	65	782	151	99	229	87	204	198	96
Future Volume (veh/h)	137	774	91	65	782	151	99	229	87	204	198	96
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	144	815	96	68	823	159	104	241	92	215	208	101
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	130	1561	184	22	1266	245	283	584	493	281	584	493
Arrive On Green	0.07	0.49	0.49	0.01	0.43	0.43	0.31	0.31	0.31	0.10	0.10	0.10
Sat Flow, veh/h	1781	3200	377	1781	2967	573	1069	1870	1577	1046	1870	1577
Grp Volume(v), veh/h	144	452	459	68	493	489	104	241	92	215	208	101
Grp Sat Flow(s),veh/h/ln	1781	1777	1800	1781	1777	1763	1069	1870	1577	1046	1870	1577
Q Serve(g_s), s	8.8	21.0	21.0	1.5	26.4	26.4	10.2	12.2	5.1	24.6	12.4	7.0
Cycle Q Clear(g_c), s	8.8	21.0	21.0	1.5	26.4	26.4	22.7	12.2	5.1	36.8	12.4	7.0
Prop In Lane	1.00		0.21	1.00		0.33	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	130	866	878	22	758	753	283	584	493	281	584	493
V/C Ratio(X)	1.10	0.52	0.52	3.09	0.65	0.65	0.37	0.41	0.19	0.77	0.36	0.20
Avail Cap(c_a), veh/h	156	866	878	156	758	753	283	584	493	281	584	493
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.6	21.1	21.1	59.3	27.3	27.3	41.6	32.6	30.1	59.6	42.6	40.2
Incr Delay (d2), s/veh	104.7	2.2	2.2	966.7	4.3	4.3	3.6	2.1	0.8	18.0	1.7	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.6	8.7	8.8	6.6	11.5	11.4	2.9	5.7	2.0	8.3	6.4	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	160.3	23.4	23.4	1025.9	31.6	31.6	45.2	34.7	31.0	77.6	44.3	41.1
LnGrp LOS	F	C	C	F	C	C	D	C	C	E	D	D
Approach Vol, veh/h		1055			1050			437			524	
Approach Delay, s/veh		42.1			96.0			36.4			57.3	
Approach LOS		D			F			D			E	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.0	66.0		45.0	16.3	58.7		45.0				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	13.5	52.5		40.5	13.5	52.5		40.5				
Max Q Clear Time (g_c+I1), s	4.5	24.0		39.8	11.8	29.4		25.7				
Green Ext Time (p_c), s	0.1	5.8		0.2	0.1	6.1		1.7				
Intersection Summary												
HCM 6th Ctrl Delay			62.3									
HCM 6th LOS			E									

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	137	774	91	65	782	151	99	229	87	204	198	96
Future Volume (vph)	137	774	91	65	782	151	99	229	87	204	198	96
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	155		0	140		150	90		90	150		100
Storage Lanes	1		0	1		1	1		1	1		1
Taper Length (ft)	90			90			90			60		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		373			416			358			226	
Travel Time (s)		5.7			6.3			5.4			3.4	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Prot	NA		Prot	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2		1	6			8			4	
Permitted Phases						6	8		8	4		4
Detector Phase	5	2		1	6	6	8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	18.0	57.0		18.0	57.0	57.0	45.0	45.0	45.0	45.0	45.0	45.0
Total Split (s)	18.0	57.0		18.0	57.0	57.0	45.0	45.0	45.0	45.0	45.0	45.0
Total Split (%)	15.0%	47.5%		15.0%	47.5%	47.5%	37.5%	37.5%	37.5%	37.5%	37.5%	37.5%
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Total Lost Time (s)	7.5	7.5		7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
Lead/Lag	Lead	Lead		Lag	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes						
Recall Mode	None	C-Max		None	C-Max	C-Max	Max	Max	Max	Max	Max	Max

Intersection Summary
Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection
Natural Cycle: 120
Control Type: Actuated-Coordinated

Splits and Phases: 1: Crossley Rd. & Dinah Shore Dr.



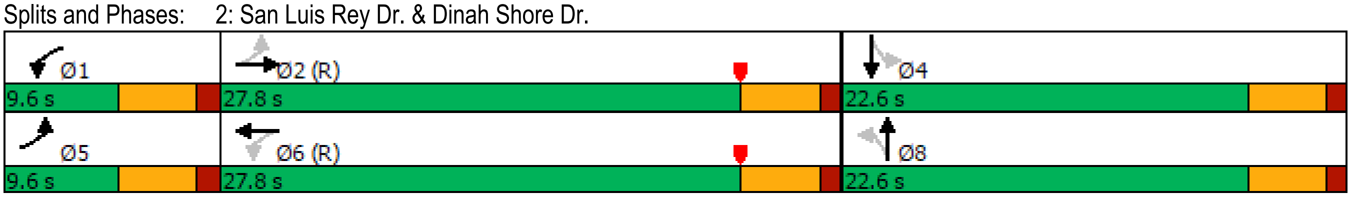
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	137	774	91	65	782	151	99	229	87	204	198	96
Future Volume (veh/h)	137	774	91	65	782	151	99	229	87	204	198	96
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	144	815	96	68	823	159	104	241	92	215	208	101
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	130	1320	155	156	1517	673	283	584	493	281	584	493
Arrive On Green	0.07	0.41	0.41	0.09	0.43	0.43	0.31	0.31	0.31	0.10	0.10	0.10
Sat Flow, veh/h	1781	3200	377	1781	3554	1576	1069	1870	1577	1046	1870	1577
Grp Volume(v), veh/h	144	453	458	68	823	159	104	241	92	215	208	101
Grp Sat Flow(s),veh/h/ln	1781	1777	1800	1781	1777	1576	1069	1870	1577	1046	1870	1577
Q Serve(g_s), s	8.8	24.1	24.1	4.3	20.7	7.7	10.2	12.2	5.1	24.6	12.4	7.0
Cycle Q Clear(g_c), s	8.8	24.1	24.1	4.3	20.7	7.7	22.7	12.2	5.1	36.8	12.4	7.0
Prop In Lane	1.00		0.21	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	130	733	742	156	1517	673	283	584	493	281	584	493
V/C Ratio(X)	1.10	0.62	0.62	0.44	0.54	0.24	0.37	0.41	0.19	0.77	0.36	0.20
Avail Cap(c_a), veh/h	156	733	742	156	1517	673	283	584	493	281	584	493
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.6	27.8	27.8	51.9	25.7	21.9	41.6	32.6	30.1	59.6	42.6	40.2
Incr Delay (d2), s/veh	104.7	3.9	3.8	1.9	1.4	0.8	3.6	2.1	0.8	18.0	1.7	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.6	10.5	10.6	2.0	8.6	2.9	2.9	5.7	2.0	8.3	6.4	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	160.3	31.7	31.6	53.9	27.1	22.8	45.2	34.7	31.0	77.6	44.3	41.1
LnGrp LOS	F	C	C	D	C	C	D	C	C	E	D	D
Approach Vol, veh/h		1055			1050			437			524	
Approach Delay, s/veh		49.2			28.1			36.4			57.3	
Approach LOS		D			C			D			E	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	18.0	57.0		45.0	16.3	58.7		45.0				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	13.5	52.5		40.5	13.5	52.5		40.5				
Max Q Clear Time (g_c+I1), s	7.3	27.1		39.8	11.8	23.7		25.7				
Green Ext Time (p_c), s	0.1	5.6		0.2	0.1	6.4		1.7				
Intersection Summary												
HCM 6th Ctrl Delay			41.6									
HCM 6th LOS			D									

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	31	850	4	6	806	93	9	4	2	107	1	41
Future Volume (vph)	31	850	4	6	806	93	9	4	2	107	1	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	160		0	160		0	0		0	40		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	90			90			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			35			35	
Link Distance (ft)		1338			939			391			593	
Travel Time (s)		20.3			14.2			7.6			11.6	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		1	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	9.5	22.5		9.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	9.6	27.8		9.6	27.8		22.6	22.6		22.6	22.6	
Total Split (%)	16.0%	46.3%		16.0%	46.3%		37.7%	37.7%		37.7%	37.7%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Total Lost Time (s)	7.5	7.5		7.5	7.5		7.5	7.5		7.5	7.5	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	C-Max		None	C-Max		Max	Max		Max	Max	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 27 (45%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 2: San Luis Rey Dr. & Dinah Shore Dr.

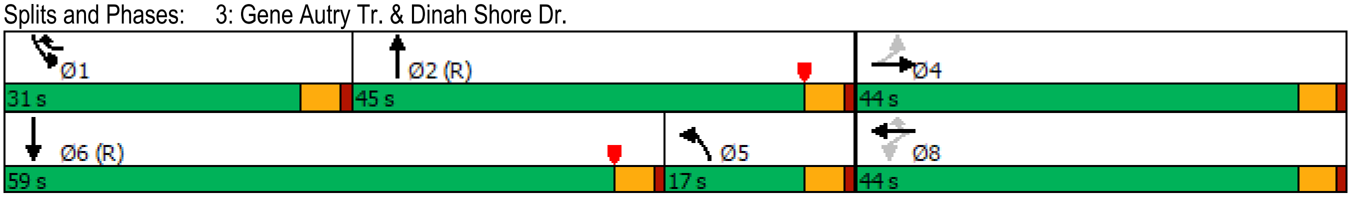


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	31	850	4	6	806	93	9	4	2	107	1	41
Future Volume (veh/h)	31	850	4	6	806	93	9	4	2	107	1	41
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	32	885	4	6	840	97	9	4	2	111	1	43
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	215	1507	7	265	1247	144	432	295	148	469	9	389
Arrive On Green	0.00	0.42	0.42	0.00	0.26	0.26	0.25	0.25	0.25	0.25	0.25	0.25
Sat Flow, veh/h	1781	3628	16	1781	3207	370	1355	1174	587	1402	36	1545
Grp Volume(v), veh/h	32	433	456	6	465	472	9	0	6	111	0	44
Grp Sat Flow(s),veh/h/ln	1781	1777	1867	1781	1777	1801	1355	0	1761	1402	0	1581
Q Serve(g_s), s	0.1	11.3	11.3	0.1	14.1	14.1	0.3	0.0	0.2	3.9	0.0	1.3
Cycle Q Clear(g_c), s	0.1	11.3	11.3	0.1	14.1	14.1	1.6	0.0	0.2	4.0	0.0	1.3
Prop In Lane	1.00		0.01	1.00		0.21	1.00		0.33	1.00		0.98
Lane Grp Cap(c), veh/h	215	738	776	265	691	700	432	0	443	469	0	398
V/C Ratio(X)	0.15	0.59	0.59	0.02	0.67	0.67	0.02	0.00	0.01	0.24	0.00	0.11
Avail Cap(c_a), veh/h	274	738	776	324	691	700	432	0	443	469	0	398
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.61	0.61	0.61	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.1	13.6	13.6	13.1	18.8	18.8	17.9	0.0	16.9	18.4	0.0	17.3
Incr Delay (d2), s/veh	0.2	2.1	2.0	0.0	5.2	5.1	0.1	0.0	0.1	1.2	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	4.0	4.1	0.0	6.5	6.5	0.1	0.0	0.1	1.3	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.3	15.7	15.6	13.2	24.0	23.9	18.0	0.0	16.9	19.6	0.0	17.8
LnGrp LOS	C	B	B	B	C	C	B	A	B	B	A	B
Approach Vol, veh/h		921			943			15			155	
Approach Delay, s/veh		15.8			23.9			17.6			19.1	
Approach LOS		B			C			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.0	32.4		22.6	6.6	30.8		22.6				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.1	23.3		18.1	5.1	23.3		18.1				
Max Q Clear Time (g_c+I1), s	3.1	14.3		7.0	3.1	17.1		4.6				
Green Ext Time (p_c), s	0.0	3.4		0.3	0.0	2.8		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			19.8									
HCM 6th LOS			B									

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	37	300	60	141	284	431	48	561	159	432	429	34
Future Volume (vph)	37	300	60	141	284	431	48	561	159	432	429	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	155		0	165		300	90		0	285		0
Storage Lanes	1		0	1		1	1		0	2		0
Taper Length (ft)	90			90			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		417			1338			401			622	
Travel Time (s)		6.3			20.3			6.1			9.4	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA	pm+ov	Prot	NA		Prot	NA	
Protected Phases		4			8	1	5	2		1	6	
Permitted Phases	4			8		8						
Detector Phase	4	4		8	8	1	5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5	9.5	9.5	22.5		9.5	22.5	
Total Split (s)	44.0	44.0		44.0	44.0	31.0	17.0	45.0		31.0	59.0	
Total Split (%)	36.7%	36.7%		36.7%	36.7%	25.8%	14.2%	37.5%		25.8%	49.2%	
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Total Lost Time (s)	7.5	7.5		7.5	7.5	7.5	7.5	7.5		7.5	7.5	
Lead/Lag						Lead	Lag	Lag		Lead	Lead	
Lead-Lag Optimize?						Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None	None	None	C-Max		None	C-Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 29.8 (25%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	

Splits and Phases: 3: Gene Autry Tr. & Dinah Shore Dr.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	300	60	141	284	431	48	561	159	432	429	34
Future Volume (veh/h)	37	300	60	141	284	431	48	561	159	432	429	34
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	44	353	71	166	334	507	56	660	187	508	505	40
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	134	843	168	240	534	1220	174	1018	288	533	1431	113
Arrive On Green	0.29	0.29	0.29	0.09	0.09	0.09	0.10	0.37	0.37	0.15	0.43	0.43
Sat Flow, veh/h	654	2951	587	962	1870	2765	1781	2731	773	3456	3335	263
Grp Volume(v), veh/h	44	211	213	166	334	507	56	429	418	508	268	277
Grp Sat Flow(s),veh/h/ln	654	1777	1761	962	1870	1383	1781	1777	1727	1728	1777	1821
Q Serve(g_s), s	7.7	11.5	11.8	20.6	20.6	16.6	3.5	24.0	24.0	17.5	12.2	12.3
Cycle Q Clear(g_c), s	28.3	11.5	11.8	32.4	20.6	16.6	3.5	24.0	24.0	17.5	12.2	12.3
Prop In Lane	1.00		0.33	1.00		1.00	1.00		0.45	1.00		0.14
Lane Grp Cap(c), veh/h	134	508	503	240	534	1220	174	662	644	533	763	782
V/C Ratio(X)	0.33	0.42	0.42	0.69	0.63	0.42	0.32	0.65	0.65	0.95	0.35	0.35
Avail Cap(c_a), veh/h	147	540	536	258	569	1271	174	662	644	677	763	782
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.76	0.76	0.76	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.5	34.7	34.8	59.4	48.2	29.8	50.4	31.1	31.1	50.3	23.0	23.1
Incr Delay (d2), s/veh	1.4	0.5	0.6	5.4	1.5	0.2	1.1	4.9	5.0	21.1	1.3	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	4.9	5.0	5.7	10.5	6.1	1.6	10.7	10.5	8.9	5.2	5.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.9	35.3	35.4	64.7	49.6	30.0	51.5	36.0	36.2	71.4	24.3	24.3
LnGrp LOS	D	D	D	E	D	C	D	D	D	E	C	C
Approach Vol, veh/h		468			1007			903			1053	
Approach Delay, s/veh		36.9			42.2			37.0			47.0	
Approach LOS		D			D			D			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	26.0	52.2		41.8	19.2	59.0		41.8				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	26.5	40.5		39.5	12.5	54.5		39.5				
Max Q Clear Time (g_c+I1), s	20.5	27.0		31.3	6.5	15.3		35.4				
Green Ext Time (p_c), s	1.0	4.1		1.6	0.0	3.2		1.9				
Intersection Summary												
HCM 6th Ctrl Delay			41.6									
HCM 6th LOS			D									

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	83	11	122	395	392	18
Future Volume (vph)	83	11	122	395	392	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	50	50			0
Storage Lanes	1	1	1			0
Taper Length (ft)	90		90			
Link Speed (mph)	30			45	45	
Link Distance (ft)	375			235	852	
Travel Time (s)	8.5			3.6	12.9	
Confl. Peds. (#/hr)	5	5	5			5
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Shared Lane Traffic (%)						
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	2.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	83	11	122	395	392	18
Future Vol, veh/h	83	11	122	395	392	18
Conflicting Peds, #/hr	5	5	5	0	0	5
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	50	50	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	93	12	137	444	440	20

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1178	460	465	0	-	0
Stage 1	455	-	-	-	-	-
Stage 2	723	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	211	601	1096	-	-	-
Stage 1	639	-	-	-	-	-
Stage 2	481	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	183	595	1091	-	-	-
Mov Cap-2 Maneuver	318	-	-	-	-	-
Stage 1	556	-	-	-	-	-
Stage 2	479	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	19.9	2.1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1091	-	318	595	-	-
HCM Lane V/C Ratio	0.126	-	0.293	0.021	-	-
HCM Control Delay (s)	8.8	-	21	11.2	-	-
HCM Lane LOS	A	-	C	B	-	-
HCM 95th %tile Q(veh)	0.4	-	1.2	0.1	-	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	37	43	30	443	374	4
Future Volume (vph)	37	43	30	443	374	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100	0	120			0
Storage Lanes	1	1	1			0
Taper Length (ft)	90		90			
Link Speed (mph)	30			45	45	
Link Distance (ft)	765			852	1333	
Travel Time (s)	17.4			12.9	20.2	
Confl. Peds. (#/hr)	5	5	5			5
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Shared Lane Traffic (%)						
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection						
Int Delay, s/veh	1.3					

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	37	43	30	443	374	4
Future Vol, veh/h	37	43	30	443	374	4
Conflicting Peds, #/hr	5	5	5	0	0	5
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	100	0	120	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	39	45	31	461	390	4

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	925	402	399	0	-	0
Stage 1	397	-	-	-	-	-
Stage 2	528	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	299	648	1160	-	-	-
Stage 1	679	-	-	-	-	-
Stage 2	592	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	288	642	1154	-	-	-
Mov Cap-2 Maneuver	414	-	-	-	-	-
Stage 1	657	-	-	-	-	-
Stage 2	589	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.7	0.5	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1154	-	414	642	-	-
HCM Lane V/C Ratio	0.027	-	0.093	0.07	-	-
HCM Control Delay (s)	8.2	-	14.6	11	-	-
HCM Lane LOS	A	-	B	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.3	0.2	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	46	1513	174	270	1155	26	190	19	392	43	19	33
Future Volume (vph)	46	1513	174	270	1155	26	190	19	392	43	19	33
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	170		0	80		50	0		75	100		0
Storage Lanes	1		1	1		1	0		1	1		0
Taper Length (ft)	90			90			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		908			364			1333			308	
Travel Time (s)		13.8			5.5			20.2			4.7	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2		2	6		6	8		8	4		
Detector Phase	5	2	2	1	6	6	8	8	8	4	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	
Total Split (s)	12.9	66.2	66.2	24.2	77.5	77.5	29.6	29.6	29.6	29.6	29.6	
Total Split (%)	10.8%	55.2%	55.2%	20.2%	64.6%	64.6%	24.7%	24.7%	24.7%	24.7%	24.7%	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	
Total Lost Time (s)	7.5	7.5	7.5	7.5	7.5	7.5		7.5	7.5	7.5	7.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	Max	Max	Max	Max	Max	

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 87 (73%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow

Natural Cycle: 110

Control Type: Actuated-Coordinated

Splits and Phases: 6: Crossley Rd. & Ramon Rd.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	46	1513	174	270	1155	26	190	19	392	43	19	33
Future Volume (veh/h)	46	1513	174	270	1155	26	190	19	392	43	19	33
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	51	1663	191	297	1269	29	209	21	431	47	21	36
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	249	1789	794	299	2201	978	251	19	290	60	113	194
Arrive On Green	0.01	0.50	0.50	0.12	0.62	0.62	0.18	0.18	0.18	0.18	0.18	0.18
Sat Flow, veh/h	1781	3554	1577	1781	3554	1579	1052	106	1572	939	615	1055
Grp Volume(v), veh/h	51	1663	191	297	1269	29	230	0	431	47	0	57
Grp Sat Flow(s),veh/h/ln	1781	1777	1577	1781	1777	1579	1158	0	1572	939	0	1670
Q Serve(g_s), s	1.1	52.4	8.2	14.8	25.4	0.9	18.6	0.0	22.1	0.0	0.0	3.5
Cycle Q Clear(g_c), s	1.1	52.4	8.2	14.8	25.4	0.9	22.1	0.0	22.1	22.1	0.0	3.5
Prop In Lane	1.00		1.00	1.00		1.00	0.91		1.00	1.00		0.63
Lane Grp Cap(c), veh/h	249	1789	794	299	2201	978	271	0	290	60	0	308
V/C Ratio(X)	0.20	0.93	0.24	0.99	0.58	0.03	0.85	0.00	1.49	0.78	0.00	0.19
Avail Cap(c_a), veh/h	313	1789	794	324	2201	978	271	0	290	60	0	308
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	17.9	27.8	16.8	39.6	13.5	8.9	51.4	0.0	49.0	60.0	0.0	41.3
Incr Delay (d2), s/veh	0.4	10.1	0.7	46.7	1.1	0.1	27.0	0.0	237.4	65.1	0.0	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	22.8	3.0	12.5	9.3	0.3	8.8	0.0	27.5	2.5	0.0	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.3	37.9	17.6	86.3	14.6	8.9	78.3	0.0	286.4	125.1	0.0	42.7
LnGrp LOS	B	D	B	F	B	A	E	A	F	F	A	D
Approach Vol, veh/h		1905			1595			661			104	
Approach Delay, s/veh		35.3			27.9			214.0			79.9	
Approach LOS		D			C			F			E	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	22.5	67.9		29.6	8.6	81.8		29.6				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	19.7	61.7		25.1	8.4	73.0		25.1				
Max Q Clear Time (g_c+I1), s	17.8	55.4		25.1	4.1	28.4		25.1				
Green Ext Time (p_c), s	0.2	5.0		0.0	0.0	11.6		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			61.3									
HCM 6th LOS			E									

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	46	1513	174	270	1155	26	190	19	392	43	19	33
Future Volume (vph)	46	1513	174	270	1155	26	190	19	392	43	19	33
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	170		0	80		50	150		150	100		0
Storage Lanes	1		1	1		1	1		1	1		0
Taper Length (ft)	90			90			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		908			364			1333			308	
Travel Time (s)		13.8			5.5			20.2			4.7	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	pm+ov	Perm	NA	
Protected Phases	5	2		1	6			8	1		4	
Permitted Phases	2		2	6		6	8		8	4		
Detector Phase	5	2	2	1	6	6	8	8	1	4	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	22.5	22.5	9.5	22.5	22.5	
Total Split (s)	12.8	67.7	67.7	25.0	79.9	79.9	27.3	27.3	25.0	27.3	27.3	
Total Split (%)	10.7%	56.4%	56.4%	20.8%	66.6%	66.6%	22.8%	22.8%	20.8%	22.8%	22.8%	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Total Lost Time (s)	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag			Lead			
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes			Yes			
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	Max	Max	None	Max	Max	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 87 (73%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow
Natural Cycle: 100
Control Type: Actuated-Coordinated

Splits and Phases: 6: Crossley Rd. & Ramon Rd.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	46	1513	174	270	1155	26	190	19	392	43	19	33
Future Volume (veh/h)	46	1513	174	270	1155	26	190	19	392	43	19	33
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	51	1663	191	297	1269	29	209	21	431	47	21	36
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	262	1877	833	301	2269	1008	241	309	448	205	101	174
Arrive On Green	0.01	0.53	0.53	0.12	0.64	0.64	0.16	0.16	0.16	0.16	0.16	0.16
Sat Flow, veh/h	1781	3554	1578	1781	3554	1579	1336	1870	1571	934	615	1054
Grp Volume(v), veh/h	51	1663	191	297	1269	29	209	21	431	47	0	57
Grp Sat Flow(s),veh/h/ln	1781	1777	1578	1781	1777	1579	1336	1870	1571	934	0	1669
Q Serve(g_s), s	1.1	49.8	7.8	14.0	24.1	0.8	16.3	1.1	19.8	5.4	0.0	3.5
Cycle Q Clear(g_c), s	1.1	49.8	7.8	14.0	24.1	0.8	19.8	1.1	19.8	6.5	0.0	3.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.63
Lane Grp Cap(c), veh/h	262	1877	833	301	2269	1008	241	309	448	205	0	275
V/C Ratio(X)	0.19	0.89	0.23	0.99	0.56	0.03	0.87	0.07	0.96	0.23	0.00	0.21
Avail Cap(c_a), veh/h	324	1877	833	348	2269	1008	241	309	448	205	0	275
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	15.9	25.1	15.2	38.3	12.2	8.0	53.0	42.3	42.3	45.1	0.0	43.3
Incr Delay (d2), s/veh	0.4	6.6	0.6	42.6	1.0	0.1	31.8	0.4	33.9	2.6	0.0	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	20.8	2.8	12.2	8.7	0.3	8.3	0.6	16.3	1.4	0.0	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.2	31.7	15.8	81.0	13.2	8.0	84.8	42.7	76.2	47.6	0.0	45.0
LnGrp LOS	B	C	B	F	B	A	F	D	E	D	A	D
Approach Vol, veh/h		1905			1595			661			104	
Approach Delay, s/veh		29.7			25.7			77.9			46.2	
Approach LOS		C			C			E			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	21.8	70.9		27.3	8.6	84.1		27.3				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	20.5	63.2		22.8	8.3	75.4		22.8				
Max Q Clear Time (g_c+I1), s	17.0	52.8		9.5	4.1	27.1		22.8				
Green Ext Time (p_c), s	0.3	7.7		0.3	0.0	11.8		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			36.1									
HCM 6th LOS			D									

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	195	0	517	303	100
Future Volume (vph)	0	195	0	517	303	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Link Speed (mph)	30			45	45	
Link Distance (ft)	189			226	235	
Travel Time (s)	4.3			3.4	3.6	
Confl. Peds. (#/hr)	5	5	5			5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	195	0	517	303	100
Future Vol, veh/h	0	195	0	517	303	100
Conflicting Peds, #/hr	5	5	5	0	0	5
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	212	0	562	329	109

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	394	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	655	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	649	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.2	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	649	-	-
HCM Lane V/C Ratio	-	0.327	-	-
HCM Control Delay (s)	-	13.2	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	1.4	-	-

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	1002	811	166	0	94
Future Volume (vph)	0	1002	811	166	0	94
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0			150	0	0
Storage Lanes	0			1	0	1
Taper Length (ft)	90				90	
Link Speed (mph)		45	45		30	
Link Distance (ft)		939	373		210	
Travel Time (s)		14.2	5.7		4.8	
Confl. Peds. (#/hr)	5			5	5	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1002	811	166	0	94
Future Vol, veh/h	0	1002	811	166	0	94
Conflicting Peds, #/hr	5	0	0	5	5	5
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	150	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1089	882	180	0	102

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	451
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	556
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	551
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	13
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	551
HCM Lane V/C Ratio	-	-	-	0.185
HCM Control Delay (s)	-	-	-	13
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.7

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	29	21	93	47	20	65
Future Volume (vph)	29	21	93	47	20	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Link Speed (mph)	30			30	30	
Link Distance (ft)	394			375	169	
Travel Time (s)	9.0			8.5	3.8	
Confl. Peds. (#/hr)		5	5		5	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Sign Control	Free			Free	Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	5.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	29	21	93	47	20	65
Future Vol, veh/h	29	21	93	47	20	65
Conflicting Peds, #/hr	0	5	5	0	5	5
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	32	23	101	51	22	71

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	60	0	307	54
Stage 1	-	-	-	-	49	-
Stage 2	-	-	-	-	258	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1544	-	685	1013
Stage 1	-	-	-	-	973	-
Stage 2	-	-	-	-	785	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1537	-	632	1003
Mov Cap-2 Maneuver	-	-	-	-	632	-
Stage 1	-	-	-	-	968	-
Stage 2	-	-	-	-	728	-

Approach	EB	WB	NB
HCM Control Delay, s	0	5	9.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	881	-	-	1537	-
HCM Lane V/C Ratio	0.105	-	-	0.066	-
HCM Control Delay (s)	9.6	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.3	-	-	0.2	-

MEMORANDUM

URBAN | CROSSROADS

DATE: October 24, 2023
TO: Nicole Criste, Terra Nova Planning & Research, Inc.
FROM: John Kain and Marlie Whiteman, Urban Crossroads, Inc.
JOB NO: 15579-03 VMT.docx

CROSSLEY/DINAH SHORE GAS STATION/GAMING VEHICLE MILES TRAVELED (VMT) SCREENING EVALUATION

On behalf of Terra Nova Planning & Research and Agua Caliente Band of Cahuilla Indians, Urban Crossroads, Inc. is pleased to submit the following Vehicle Miles Traveled (VMT) Screening Evaluation for the Crossley/Dinah Shore Gas Station/Gaming (**Project**). The purpose of this transmittal is to provide you with an opportunity to comment on the VMT screening of this Project, which consists of 24 gasoline/diesel fuel pumps with a 5,500 square foot convenience store, and 4,000 square feet of Class II gaming space. The Project is located on Agua Caliente Indian Reservation property at the northwest corner of Crossley Road and Dinah Shore Drive in the City of Palm Springs.

PROJECT OVERVIEW

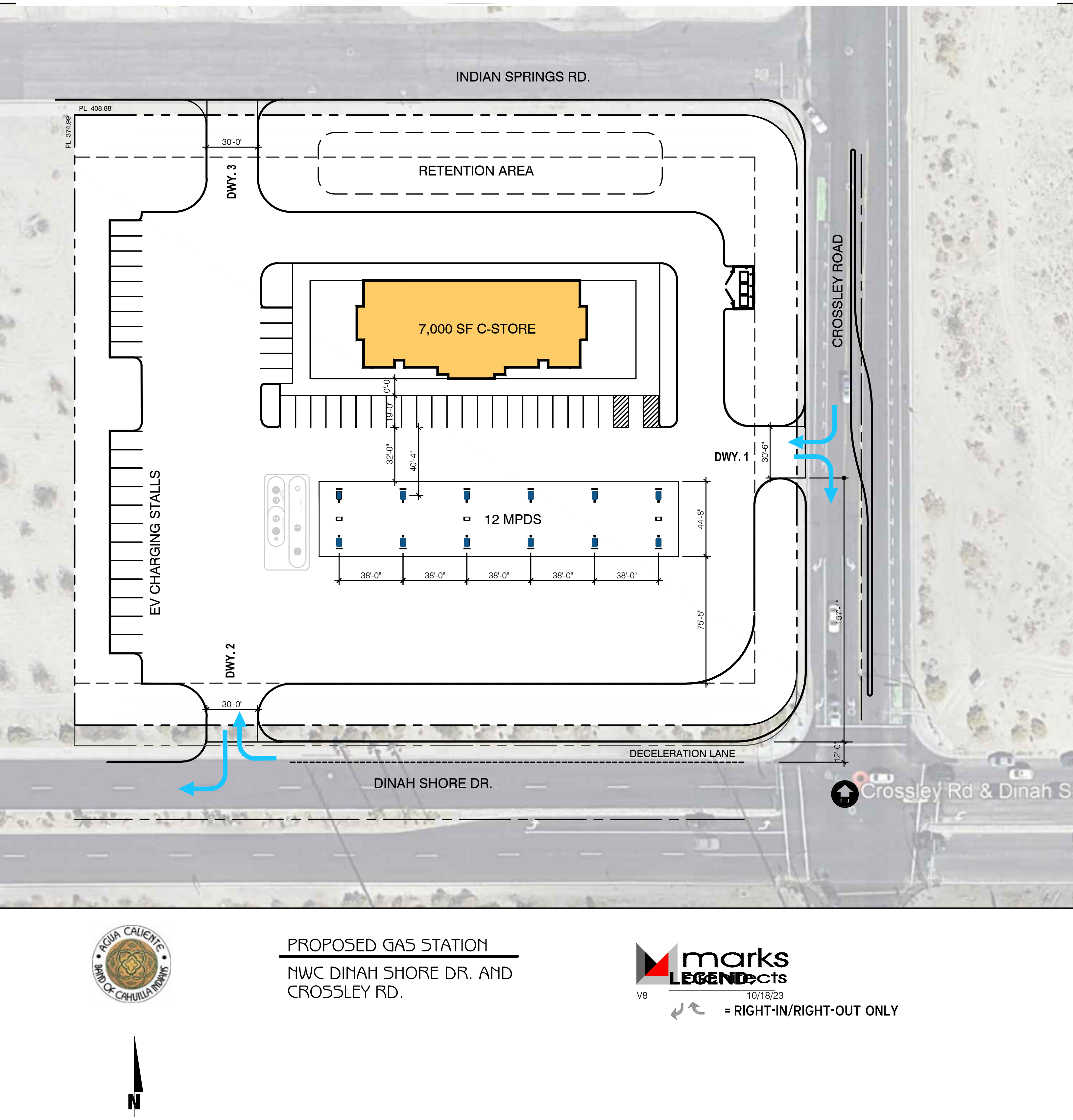
The Project consists of a fuel station with 5,500sf convenience store, and 4,000sf gaming space. Exhibit A presents the Project site plan.

The California Environmental Quality Act (CEQA) requires all lead agencies to adopt VMT as the measure for identifying transportation impacts for land use projects. To comply with CEQA, the City of Palm Springs adopted analytical procedures, screening tools, and impact thresholds for VMT, which are documented in their City of Palm Springs Traffic Impact Analysis Guidelines (July 2020) (**City Guidelines**) (1). The adopted City Guidelines were used to prepare this VMT screening evaluation.

VMT SCREENING

Consistent with City Guidelines, projects should evaluate available screening criteria based on their location and project type to determine if a presumption of a less than significant transportation impact can be made. The Project Type Screening threshold was selected for review based on its applicability to the proposed Project.

EXHIBIT A: PRELIMINARY SITE PLAN



PROJECT TYPE SCREENING

The City Guidelines identify that local serving retail uses of less than 50,000 square feet, including gas stations, shopping centers, etc. are presumed to have a less than significant impact absent substantial evidence to the contrary. The introduction of new local-serving retail has been determined to reduce VMT by shortening trips that will occur.

The Project consists of a fuel station with 5,500sf convenience store and 4,000sf of Class II gaming space, and satisfies the screening criteria.

The proposed Crossley/Dinah Shore Gas Station/Gaming development provides a service to existing travelers on Dinah Shore Drive and Crossley Road by supplying fuels, convenience market goods, and other ancillary uses. In addition, nearby residents as well as employees and visitors to existing local businesses are served in a similar manner.

The Project type screening criteria is met.

CONCLUSION

Based on the results of this evaluation, the Project satisfies the Project Type screening criteria and no further analysis is necessary.

If you have any questions, please contact us directly at jkain@urbanxroads.com for John or mwhiteman@urbanxroads.com for Marlie.

REFERENCES

1. **City of Palm Springs.** *TIA Guidelines.* City of Palm Springs : s.n., July 2020.