HEXAGON TRANSPORTATION CONSULTANTS, INC.

# Columbus Park Reconstruction

## Draft Transportation Analysis

Prepared for:

**David J. Powers & Associates Inc.**

**December 17, 2021**


**Hexagon Transportation Consultants, Inc.**
Hexagon Office: 4 North Second Street, Suite 400
San Jose, CA 95113
Hexagon Job Number: 20SJ08
Phone: 408.971.6100
Client Name: Carolyn Neer, David J. Powers & Associates

# Table of Contents



## Appendices



## List of Tables



## List of Figures

# Executive Summary

This report presents the results of the local transportation analysis (LTA) conducted for the proposed reconstruction of Columbus Park located in San Jose, California. Columbus Park is located within Guadalupe Gardens along West Taylor Street and is bisected by Spring Street. Current park amenities include two multi-use softball fields, two basketball courts, two sand volleyball courts, three picnic areas, and 21 horseshoe pitches. Proposed plans for reconstruction of Columbus Park include demolition of all existing park facilities and the construction of two new multi-sport fields, four pickleball courts, one futsal/basketball court, and 23 horseshoe pitches. The proposed plans will also include a play area and picnic area. The plan also proposes constructing a new parking lot on the eastern project boundary, closing Spring Street between Asbury Street and West Taylor Street to connect the two halves of Columbus Park, and converting Irene Street, Asbury Street, and Walnut Street to one-way circulation with angled parking.

The transportation impacts of the project were evaluated following the standards and methodologies established in the City of San Jose's Transportation Analysis Handbook, adopted in April 2020. Based on the City of San Jose's Transportation Analysis Policy (Policy 5-1) and the Transportation Analysis Handbook, the Transportation Analysis report for the project includes a California Environmental Quality Act (CEQA) transportation analysis and a Local Transportation Analysis (LTA).

## CEQA Transportation Analysis

Transportation impacts under CEQA are evaluated based on vehicle miles traveled (VMT). The project proposes a reconstruction of Columbus Park by adding two new multi-sport fields, four pickleball courts, one futsal/basketball court, and a horseshoe court with the 23 horseshoe pitches. Since the City has not established thresholds of significance for parks, the project cannot be evaluated directly. Accordingly, based on direction from City staff, VMT analysis was conducted by converting vehicle trips generated by the proposed soccer fields and pickleball courts to an equivalent amount of retail square footage, for which the City has established a screening criterion and threshold of significance. Local-serving retail is defined as retail project below 100,000 square feet without drive-through operations. This is a reasonable approach to VMT analysis for the project since park facilities are typically local serving and exhibit similar trip length characteristics to that of local retail uses (e.g., both uses typically serve nearby residents). Based on the standard daily trip generation rates contained in the Institute of Transportation Engineers' (ITE) *Trip Generation Manual, 11th Edition* (2021) for Soccer Complex (ITE Land Use 488), Tennis Courts (Land Use 490), and Shopping Center (ITE Land Use 820), two soccer fields, pickleball courts, and basketball courts are estimated to generate the same number of daily trips as 8,800 s.f. of retail space, which is below the 100,000 square feet threshold. Thus, the project's impact on VMT would be less-than-significant.

### CEQA Cumulative Impacts

The project is consistent with the General Plan goals and policies for the following reasons:

- The project site is located approximately 550 feet from the nearest bus stop at Coleman Avenue and Taylor Street.
- The project frontage has bicycle lanes along Taylor Street.
- The project proposes new sidewalks along Walnut Street, Asbury Street, and Irene Street.
- The project proposes to construct a pedestrian paseo on Spring Street between Asbury Street and Taylor Street, connecting the two multi-sport fields.

Therefore, based on the project description, the proposed project would be consistent with the *Envision San José 2040 General Plan*. Thus, the project would be considered as part of the cumulative solution to meet the General Plan's long-range transportation goals and would result in a less-than-significant cumulative impact.

## Local Transportation Analysis

### Project Trip Generation

The proposed project is estimated to generate 325 daily vehicle trips, with 2 trips (1 inbound and 1 outbound) occurring during the AM peak hour and 58 trips (36 inbound 22 outbound) occurring during the PM peak hour.

### Intersection Traffic Operations

The results of the analysis show that the Coleman Avenue and Taylor Street intersection would operate at an unacceptable level of service during the PM peak hour under background and background plus project conditions. However, the project would not cause the critical-movement delay at the intersection to increase by four (4) or more seconds and the volume-to-capacity ratio (V/C) to increase by one percent (.01) or more. Therefore, the project would not have an adverse effect at the intersection.

### Signal Warrant Analysis

The results of the peak-hour traffic signal warrant checks indicate that the following unsignalized intersections would meet the signal warrant:

- Spring Street and Hedding Street – Existing and Background Conditions during both peak hours
- Walnut Street and Taylor Street – Background Plus Project Conditions during the PM peak hour

**Spring Street and Hedding Street**

The intersection of Spring Street and Hedding Street would warrant signalization based on the signal warrant analysis for existing and background conditions during both peak hours. However, the City plans to permanently close Spring Street from Hedding Street to Taylor Street as part of the project, closing off the south leg of the intersection. With this closure, signalization at this intersection would not be warranted.

**Walnut Street and Taylor Street**

The intersection of Walnut Street and Taylor Street would warrant signalization based on the signal warrant analysis for background plus project conditions during the PM peak hour.

**Recommendation**

As an alternative to signalizing the intersection, Walnut Street is sufficiently wide to restripe the lane configuration from a single shared left-through-right lane to a separate left-turn lane and a shared through-right lane. With this configuration, the delay at the stop controlled southbound approach would improve, and signalization at this intersection would not be warranted.

## Queueing Analysis

The queuing analysis indicates that the 95$^{th}$ percentile vehicle queue for the shared left-through-right lane on Walnut Street at Taylor Street would exceed the vehicle storage capacity during the PM peak hour under background plus project conditions. The existing shared left-through-right lane provides approximately 375 feet of vehicle storage before the nearest cross-street, which can accommodate 15 vehicles. As mentioned in the previous section, Walnut Street is sufficiently wide to restripe the lane configuration from a shared left-through-right lane to a separate left-turn lane and shared through-right lane. With this configuration, the delay at the stop-controlled southbound approach would improve, and the queue length would be reduced by providing storage for left turns.

## Other Transportation Analyses

The project would not have an adverse effect on the existing pedestrian, bicycle, or transit facilities in the area. The proposed site plan shows adequate site access and on-site circulation, and no significant operational issues are expected to occur as a result of the project. Below are recommendations resulting from the site plan review.

**Recommendations**

- It is recommended that Walnut Street, Asbury Street, and Irene Street be reconfigured with Irene Street providing inbound access to the project site and Walnut Street providing the outbound egress from the project site. The site plan does not show an eastbound left-turn lane into Irene Street from Taylor Street. To allow eastbound vehicles from Taylor Street to access the project site, it is recommended that the median at Taylor Street be reconfigured to allow an eastbound left turn lane. Without the left turn lane, access to the site from eastbound Taylor Street would not be possible because U-turns are prohibited.
- The angled on-street parking spaces should be flipped to accommodate counterclockwise flow around the park.
- The site plan does not show any dimensions for parking. Therefore, it is recommended that that the project provide standard parking stalls compliant with the City of San Jose Design Standards.
- The site plan does not show any bicycle parking. The project should provide the required number of bicycle parking in accordance with San Jose bicycle parking guidelines. Based on the project description, the project should provide 25 bicycle parking spaces.

# 1. Introduction

This report presents the results of the transportation analysis (TA) conducted for the proposed reconstruction of Columbus Park located in San Jose, California (see Figure 1). Columbus Park is located within Guadalupe Gardens along West Taylor Street and is bisected by Spring Street. Current park amenities include two multi-use softball fields, two basketball courts, two sand volleyball courts, three picnic areas, and 21 horseshoe pitches. Proposed plans for reconstruction of Columbus Park include demolition of all existing park facilities and the construction of two new multi-sport fields, four pickleball courts, one futsal/basketball court, and 23 horseshoe pitches. The proposed plans also include a play area and picnic area. The plan also proposes constructing a new parking lot on the eastern project boundary, closing Spring Street between Asbury Street and West Taylor Street to connect the two halves of Columbus Park, and converting Irene Street, Asbury Street, and Walnut Street to one-way circulation with angled parking (see Figure 2).

## Scope of Work

The transportation impacts of the project were evaluated following the standards and methodologies established in the City of San Jose's Transportation Analysis Handbook, adopted in April 2020. Based on the City of San Jose's Transportation Analysis Policy (Policy 5-1) and the Transportation Analysis Handbook, the Transportation Analysis report for the project includes a California Environmental Quality Act (CEQA) transportation analysis and a Local Transportation Analysis (LTA).

### Transportation Policies

#### Council Policy 5-1

To align the City of San Jose's transportation analysis guidelines with State of California Senate Bill 743 (SB 743) and the City's goals as set forth in the Envision San Jose 2040 General Plan, the City of San Jose adopted Transportation Analysis Policy 5-1 in March 2018. The policy establishes the thresholds for transportation impacts under the California Environmental Quality Act (CEQA) based on vehicle miles traveled (VMT) instead of intersection level of service (LOS). The intent of this change is to shift the focus of transportation analysis under CEQA from vehicle delay and roadway auto capacity to a reduction in vehicle emissions, and the creation of robust multimodal networks that support integrated land uses. The Transportation Analysis Policy aligns with the Envision San Jose 2040 General Plan which seeks to focus new development growth within Planned Growth Areas, bringing together office, residential, and service land uses to internalize trips and reduce VMT. All new development projects are required to analyze transportation impacts using the VMT metric and conform to Council Policy 5-1.

## General Plan Goals and Policies

The Circulation Element of the *Envision San José 2040 General Plan* includes a set of balanced, long-range, multi-modal transportation goals and policies that provide for a transportation network that is safe, efficient, and sustainable (minimizes environmental, financial, and neighborhood impacts). These transportation goals and policies are intended to improve multi-modal accessibility to all land uses and create a city where people are less reliant on driving to meet their daily needs. All projects are required to analyze transportation impacts using the VMT metric and conform to Policy 5-1. The Envision San Jose 2040 General Plan contains the following policies to encourage the use of non-automobile transportation modes to minimize vehicle trip generation and reduce VMT:

- Accommodate and encourage the use of non-automobile transportation modes to achieve San Jose's mobility goals and reduce vehicle trip generation and VMT (TR-1.1);
- Consider impacts on overall mobility and all travel modes when evaluating transportation impacts of new developments or infrastructure projects (TR-1.2);
- Increase substantially the proportion of commute travel using modes other than the single-occupant vehicle in order to meet the City's mode split targets for San Jose residents and workers (TR-1.3);
- Through the entitlement process for new development, projects shall be required to fund or construct needed transportation improvements for all transportation modes, giving first consideration to improvement of bicycling, walking and transit facilities and services that encourage reduced vehicle travel demand (TR-1.4);
- Actively coordinate with regional transportation, land use planning, and transit agencies to develop a transportation network with complementary land uses that encourage travel by bicycling, walking and transit, and ensure that regional greenhouse gas emissions standards are met (TR-1.8);
- Give priority to the funding of multimodal projects that provide the most benefit to all users. Evaluate new transportation projects to make the most efficient use of transportation resources and capacity (TR-1.9);
- Coordinate the planning and implementation of citywide bicycle and pedestrian facilities and supporting infrastructure. Give priority to bicycle and pedestrian safety and access improvements at street crossings and near areas with higher pedestrian concentrations (school, transit, shopping, hospital, and mixed-use areas) (TR-2.1);
- Provide a continuous pedestrian and bicycle system to enhance connectivity throughout the City by completing missing segments. Eliminate or minimize physical obstacles and barriers that impede pedestrian and bicycle movement on City streets. Include consideration of grade-separated crossings at railroad tracks and freeways. Provide safe bicycle and pedestrian connections to all facilities regularly accessed by the public, including the Mineta San Jose International Airport (TR-2.2);
- Integrate the financing, design and construction of pedestrian and bicycle facilities with street projects. Build pedestrian and bicycle improvements at the same time as improvements for vehicular circulation (TR-2.5);
- Require new development where feasible to provide on-site facilities such as bicycle storage and showers, provide connections to existing and planned facilities, dedicate land to expand existing facilities or provide new facilities such as sidewalks and/or bicycle lanes/paths, or share in the cost of improvements (TR-2.8);

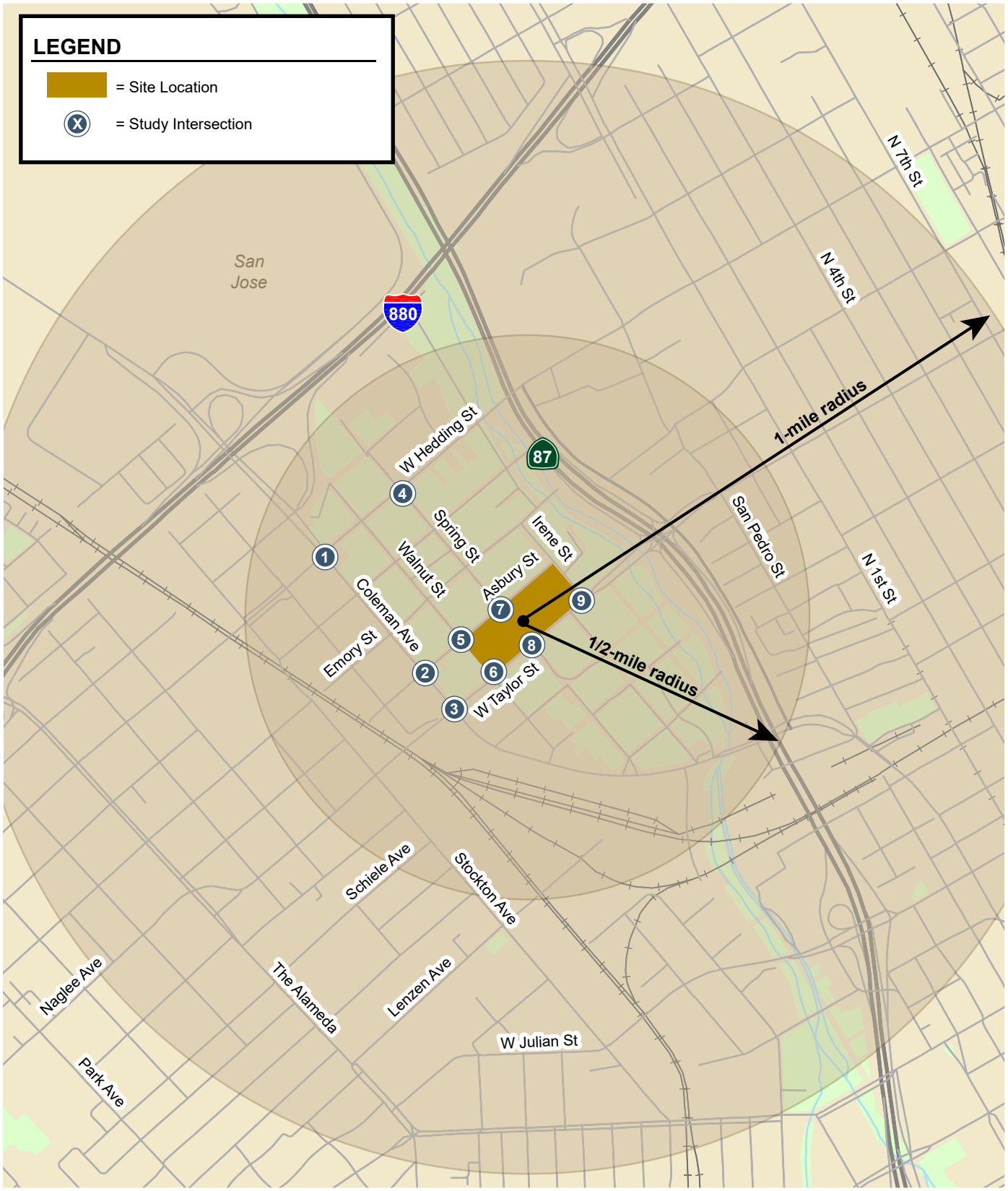



**Figure 1**
**Project Location and Study Intersections**


**Figure 2**
**Site Plan**



NORTH
Not to Scale

- Coordinate and collaborate with local School Districts to provide enhanced, safer bicycle and pedestrian connections to school facilities throughout San Jose (TR-2.10);
- As part of the development review process, require that new development along existing and planned transit facilities consist of land use and development types and intensities that contribute towards transit ridership, and require that new development is designed to accommodate and provide direct access to transit facilities (TR-3.3);
- Support the development of amenities and land use and development types and intensities that increase daily ridership on the VTA, BART, Caltrain, ACE and Amtrak California systems and provide positive fiscal, economic, and environmental benefits to the community (TR-4.1);
- Require large employers to develop and maintain TDM programs to reduce the vehicle trips generated by their employees (TR-7.1);
- Promote transit-oriented development with reduced parking requirements and promote amenities around appropriate transit hubs and stations to facilitate the use of available transit services (TR-8.1);
- Balance business viability and land resources by maintaining an adequate supply of parking to serve demand while avoiding excessive parking supply that encourages auto use (TR-8.2);
- Support using parking supply limitations and pricing as strategies to encourage the use of non-automobile modes (TR-8.3);
- Discourage, as part of the entitlement process, the provision of parking spaces significantly above the number of spaces required by code for a given use (TR-8.4);
- Allow reduced parking requirements for mixed-use developments and for developments providing shared parking or a comprehensive transportation demand management (TDM) program, or developments located near major transit hubs or within Urban Villages and other Growth Areas (TR-8.6);
- Within new development, create and maintain a pedestrian-friendly environment by connecting the internal components with safe, convenient, accessible, and pleasant pedestrian facilities and by requiring pedestrian connections between building entrances, other site features, and adjacent public streets (CD-3.3);
- Create a pedestrian-friendly environment by connecting new residential development with safe, convenient, accessible, and pleasant pedestrian facilities. Provide such connections between new development, its adjoining neighborhood, transit access points, schools, parks, and nearby commercial areas (LU-9.1);
- Facilitate the development of housing close to jobs to provide residents with the opportunity to live and work in the same community (LU-10.5);
- Encourage all developers to install and maintain trails when new development occurs adjacent to a designated trail location. Use the City's Parkland Dedication Ordinance and Park Impact Ordinance to have residential developers build trails when new residential development occurs adjacent to a designated trail location, consistent with other parkland priorities. Encourage developers or property owners to enter into formal agreements with the City to maintain trails adjacent to their properties (PR-8.5).

## CEQA Transportation Analysis Scope

The City of San Jose's Transportation Analysis Policy establishes procedures for determining project impacts on VMT based on project description, characteristics, and/or location. The City's VMT methodology also includes screening criteria that are used to identify types, characteristics, and/or locations of projects that would not exceed the CEQA thresholds of significance. If a project or a component of a mixed-use project meets the screening criteria, it is then presumed that the project or the component would result in a less-than-significant VMT impact and a VMT analysis is not required.

Council Policy 5-1 does not explicitly address parks. Therefore, in coordination with San Jose staff, the park was treated as being equivalent to a local serving retail project (retail project below 100,000 s.f.) without drive-through operations. These projects tend to redistribute existing trips instead of creating new trips. The proposed project, which is a park, would operate similar to local serving retail in that it would redistribute existing trips from surrounding parks instead of creating new trips. The equivalent retail square footage of the park is less than 100,000 s.f. (described in further detail in Chapter 3), therefore, the proposed project would meet the applicable VMT screening criteria for local serving retail projects without drive-through operation. Thus, the proposed project is anticipated to result in a less-than significant VMT impact.

## Local Transportation Analysis Scope

A local transportation analysis (LTA) identifies potential adverse operational effects that may arise due to a development project, evaluates the effects of the project on transportation, access, circulation, and related safety elements in the proximate area of the project, and supplements the VMT analysis.

The LTA includes the evaluation of weekday AM and PM peak hour operations at a limited number of intersections for the purpose of identifying operational issues (queuing, signal operations, and potential multi-modal issues) at intersections in the general vicinity of the project site. The LTA is required per the City of San Jose Transportation Policy, however, the operational deficiencies identified as part of the LTA are not considered impacts per CEQA guidelines.

Traffic conditions at the study intersections were analyzed for both the weekday AM and PM peak hours of adjacent street traffic. The AM peak hour is expected to occur between 7:00 AM and 9:00 AM and the PM peak hour is expected to occur between 4:00 PM and 6:00 PM on a regular weekday. These are the peak commute hours during which most traffic congestion occurs on the roadways.

Traffic conditions were evaluated for the following scenarios: Existing, Background, and Background Plus Project conditions. These traffic scenarios are described below.

- ***Existing Conditions.*** Existing peak-hour intersection volumes were obtained from new traffic counts that were conducted in July 2020. Due to Covid-19 and regional shelter-in-place orders (starting March 2020), these traffic counts do not represent typical traffic conditions. January 2020 counts were available for the intersections of Coleman Avenue and Taylor Street and Coleman Avenue and Hedding Street. For the other study intersections where historic counts were not available, new counts were collected and adjusted to represent pre-Covid conditions using a factor derived from the January 2020 and July 2020 counts at the Coleman Avenue and Taylor Street and Coleman Avenue and Hedding Street intersections. The traffic volumes estimated using this methodology were balanced for adjacent intersections so that the volume leaving one intersection matched the volume approaching the adjacent intersection, subject to adjustments for intervening driveways and cross streets.

- ***Background Conditions.*** Background traffic volumes were estimated by adding to existing peak hour volumes the projected volumes from approved but not yet completed developments. The added traffic from approved but not yet completed developments was provided by the City of San Jose in the form of the Approved Trips Inventory (ATI). Background conditions represent the baseline conditions to which project conditions are compared for the purpose of determining potential adverse operational effects of the project.
- ***Background Plus Project Conditions****.* Background plus project conditions reflect projected traffic volumes on the planned roadway network with completion of the project and approved developments. Background plus project traffic volumes were estimated by adding to background traffic volumes the additional traffic generated by the project.

The LTA also includes a vehicle queuing analysis, an evaluation of potential project impacts to bicycle, pedestrian, and transit facilities, and a review of site access, on-site circulation, and parking demand.

## Report Organization

This report has a total of four chapters. Chapter 2 describes the existing roadway network, transit service, bicycle, and pedestrian facilities. Chapter 3 presents the CEQA transportation analysis which evaluates the project's consistency with the Envision San Jose 2040 General Plan. Chapter 4 describes the local transportation analysis including the method by which project traffic is estimated, intersection operations analysis for existing, background and background plus project conditions, any adverse intersection traffic effects caused by the project, signal warrant analysis, ADT analysis, site access and on-site circulation review, effects on bicycle, pedestrian, and transit facilities, and parking supply. Chapter 5 presents the conclusions of the transportation analysis.

# 2. Existing Conditions

This chapter describes the existing conditions of the transportation system within the project study area. It describes the roadway network, transit service, and pedestrian and bicycle facilities in the vicinity of the project site. The analysis of existing intersection operations is included as part of the local transportation analysis (see Chapter 4).

## Existing Roadway Network

Regional access to the project site is provided via SR 87, I-880, and I-280. Local access to the project site is provided via Coleman Avenue, Hedding Street, Taylor Street, Asbury Street, Spring Street, Walnut Street, and Irene Street. These facilities are described below.

**SR 87** is a north-south freeway providing regional access to the project site via its connections to US 101 in the north and SR 85 in the south. These facilities allow for regional access from Bay Area cities, as well as Gilroy and Morgan Hill to San Jose. SR 87 is oriented in a northwest/southwest direction with two mixed-flow lanes and one HOV lane in each direction. SR 87 provides access to the project site via freeway ramps at Taylor Street.

**I-880** extends from Oakland in north to I-280 in San Jose. It is generally a north-south oriented six-lane freeway in the vicinity of downtown San Jose. Access to the project site to and from I-880 is provided via freeway ramps at Coleman Avenue.

**I-280** extends from US 101 in San Jose to I-80 in San Francisco. It is generally an east-west oriented eight-lane freeway in the vicinity of downtown San Jose. Access to the project site to and from I-280 is available via its interchange with SR 87.

**Coleman Avenue** is a north-south minor arterial surrounded by a mix of residential and commercial land uses in the study area. In the vicinity of Columbus Park, Coleman Avenue consists of four travel lanes, left turn pockets, signalized intersections, and has a posted speed limit of 35 mph. North of Hedding Street and south of Taylor Street, Coleman Avenue has striped bicycle lanes. Sidewalks are located on both sides of the street. Coleman Avenue provides vehicular access to Columbus Park via Asbury Street and Taylor Street.

**Hedding Street** is an east-west minor arterial surrounded by commercial land uses in the study area. In the vicinity of Columbus Park, Hedding Street consists of four travel lanes, left turn pockets, signalized intersections, striped bicycle lanes, and a posted speed limit of 35 mph. Sidewalks are located on both sides of the street. Hedding Street provides vehicular access to Columbus Park via Spring Street and Coleman Avenue.

**Taylor Street** is an east-west minor arterial surrounded by commercial land uses west of Coleman Avenue and the Guadalupe River Park & Gardens east of Coleman Avenue in the study area. In the vicinity of Columbus Park, Taylor Street consists of four travel lanes, left turn pockets, signalized intersections, and a posted speed limit of 35 mph. Sidewalks are located on both sides of the street. East of Walnut Street, Taylor Street has striped bike lanes and a center median. Taylor Street provides vehicular access to Columbus Park via Spring Street, Walnut Street, and Irene Street. There is also a pedestrian crosswalk on Taylor Street between Columbus Park and the Heritage Rose Gardens located along the southern edge of Taylor Street.

**Asbury Street** is an east-west local street surrounded by commercial land uses west of Coleman Avenue and the Guadalupe River Park & Gardens east of Coleman Avenue in the study area. In the west, Asbury Street ends at Chestnut Street. In the east, Asbury Street pivots south to become Irene Street. In the vicinity of Columbus Park, Asbury Street and Irene Street consist of two travel lanes, a posted speed limit of 25 mph, and permitted parking. Sidewalks are located along the southern edge of Asbury Street and western edge of Irene Street. Asbury Street and Irene Street provide direct vehicular access to Columbus Park.

**Spring Street** is a north-south local street that extends from Hedding Street in the north to Coleman Avenue in the South. It is a two-lane local street with permitted parking, discontinuous sidewalks, and a posted speed limit of 25 mph north of Taylor Street. Spring Street provides direct vehicular access to Columbus Park.

**Walnut Street** is a north-south local street that extends from Asbury Street in the north to Coleman Avenue in the South. It is a two-lane local street with permitted parking, discontinuous sidewalks, and a posted speed limit of 25 mph. Walnut Street provides direct vehicular access to Columbus Park.

## Existing Pedestrian, Bicycle, and Transit Facilities

San Jose desires to provide a safe, efficient, fiscally, economically, and environmentally sensitive transportation system that balances the needs of bicyclists, pedestrians, and public transit riders with those of automobiles and trucks. The existing pedestrian, bicycle, and transit facilities in the study area are described below.

### Existing Pedestrian Facilities

Pedestrian facilities near the project site include sidewalks and crosswalks. Sidewalks are found along at least one side of all the roadways in the study area. In the immediate vicinity of Columbus Park, sidewalks are missing along the eastern side of Irene Street, northern side of Asbury Street, southern side of Asbury Street between Coleman Avenue and Walnut Street, and the west side of Walnut Street (see Figure 3). In addition, ADA facilities are missing along Asbury Street at the Walnut Street, Spring Street, and Irene Street intersections. ADA facilities are also missing at the northwest corner of the Coleman Avenue and Taylor Street intersection.

Crosswalks and pedestrian signal heads are present on all four legs of the signalized intersections of Coleman Avenue and Taylor Street and Coleman Avenue and Hedding Street. Crosswalks, median islands, and pedestrian signal heads are present on the south and north legs of the signalized intersection of Taylor Street and SR 87 ramps. There is also a crosswalk and pedestrian yield sign at the intersection of Taylor Street and Spring Street connecting Columbus Park north of Taylor Street to the Heritage Rose Garden south of Taylor Street. Stop-controlled intersections in the immediate vicinity of the project site do not have any painted crosswalks.

## Existing Bicycle Facilities

The bicycle facilities that exist in the vicinity of the project site include bike lanes (Class II bikeway), bike routes (Class III bikeway), and bike paths (see Figure 3). Bike lanes are lanes designated for use by bicycles with special lane marking, pavement legends, and signage. Bike routes are streets shared by bikes and motor vehicles. Bike trails are bicycle facilities separated from motorized traffic and dedicated for cycling or shared with pedestrians.

Class II Bike lanes exist on the following roadways:

- Coleman Avenue between Hedding Street and Aviaton Avenue
- Coleman Avenue between Taylor Street and Santa Teresa Street
- Taylor Street between Walnut Street and N 1st Street
- Hedding Street between Winchester Boulevard and Berryessa Road

Class III bike routes exist on the following roadways:

- North San Pedro Street between Hedding Street and Coleman Avenue
- Santa Teresa Street between Coleman Avenue and Ryland Street
- Ryland Street between Santa Teresa Street and San Pedro Street
- Hawthorne Way between San Pedro Street and N 1st Street

Bike trails exist near the project site within Guadalupe River Park, along Spring Street between W Taylor Street and Coleman Avenue, within Guadalupe Gardens, and within the Heritage Rose Garden.

## Existing Transit Services

Existing transit near the project area includes transit service provided by Caltrain and the Santa Clara County Valley Transportation Authority (VTA). VTA provides bus service and Light Rail Transit (LRT) service near the project area. The closest Caltrain stop to Columbus Park is the College Park Station at the intersection of Stockton Avenue and Emory Street, approximately 1,700 feet west of the project site. Caltrain operates between 4:30 am to 1:30 am during the weekdays with 1 stop at the College Park Station during the AM and PM peak hours in each direction. The closet LRT Blue and Green Line stop to Columbus Park is the Japantown/Ayer Station at North 1st Street and Ayer Avenue, approximately 3,000 feet east of the project site. The LRT Green Line operates between 6:00 am to 12:30 am on the weekdays with headways of approximately 30 minutes. The LRT Blue Line operates between 5:00 am to 1:00 am on the weekdays with headways of approximately 30 minutes. The closest bus stop to Columbus Park is located near the intersection of Coleman Avenue and Taylor Street. Due to COVID-19 and shelter-in-place, transit service has been temporarily reduced. Transit service described in Table 1 and Figure 4 below reflect transit service as of November 2021.

**Table 1**
**Transit Service**

| Transit Route | Route Description | Closest Stop and Distance to Project Site | Weekday Hours of Operation[1] | Headway (minutes)[1] |
|---|---|---|---|---|
| Caltrain | Gilroy - San Francisco | College Park Station, 1,700 ft | 4:30 am - 1:30 am | 7:46 am, 8:14 am, 3:26 pm, & 4:24 pm at College Park Station |
| VTA Frequent Bus - 61 | Sierra & Piedmont - Good Samartitan Hospital | Coleman/Taylor, 550 ft | 5:30 am - 10:20 pm | 15-20 mins |
| VTA Frequent Bus - Rapid 522 | Palo Alto Transit Center - Eastridge Transit Center | The Alameda/Naglee, 4,000 ft | 6:00 am - 10:30 pm | 15-20 mins |
| VTA Frequent Bus - 22 | Palo Alto Transit Center - Eastridge Transit Center | The Alameda/Naglee, 4,000 ft | 5:00 am - 2:30 am | 15-20 mins |
| LRT Green Line | Old Ironsides - Winchester | Japantown/Ayer Station, 3,000 ft | 6:00 am - 12:30 am | 30 mins |
| LRT Blue Line | Baypointe - Santa Teresa | Japantown/Ayer Station, 3,000 ft | 5:00 am - 1:00 am | 30 mins |
| VTA Frequent Bus - 60 | Milpitas BART - Winchester Station via SJC Airport | Coleman/Earthquake, 5,000 ft | 5:15 am - 12:00 am | 15-20 mins |

1. Approximate weekday operation hours and headways during peak commute periods in the project area, as of November 2021.

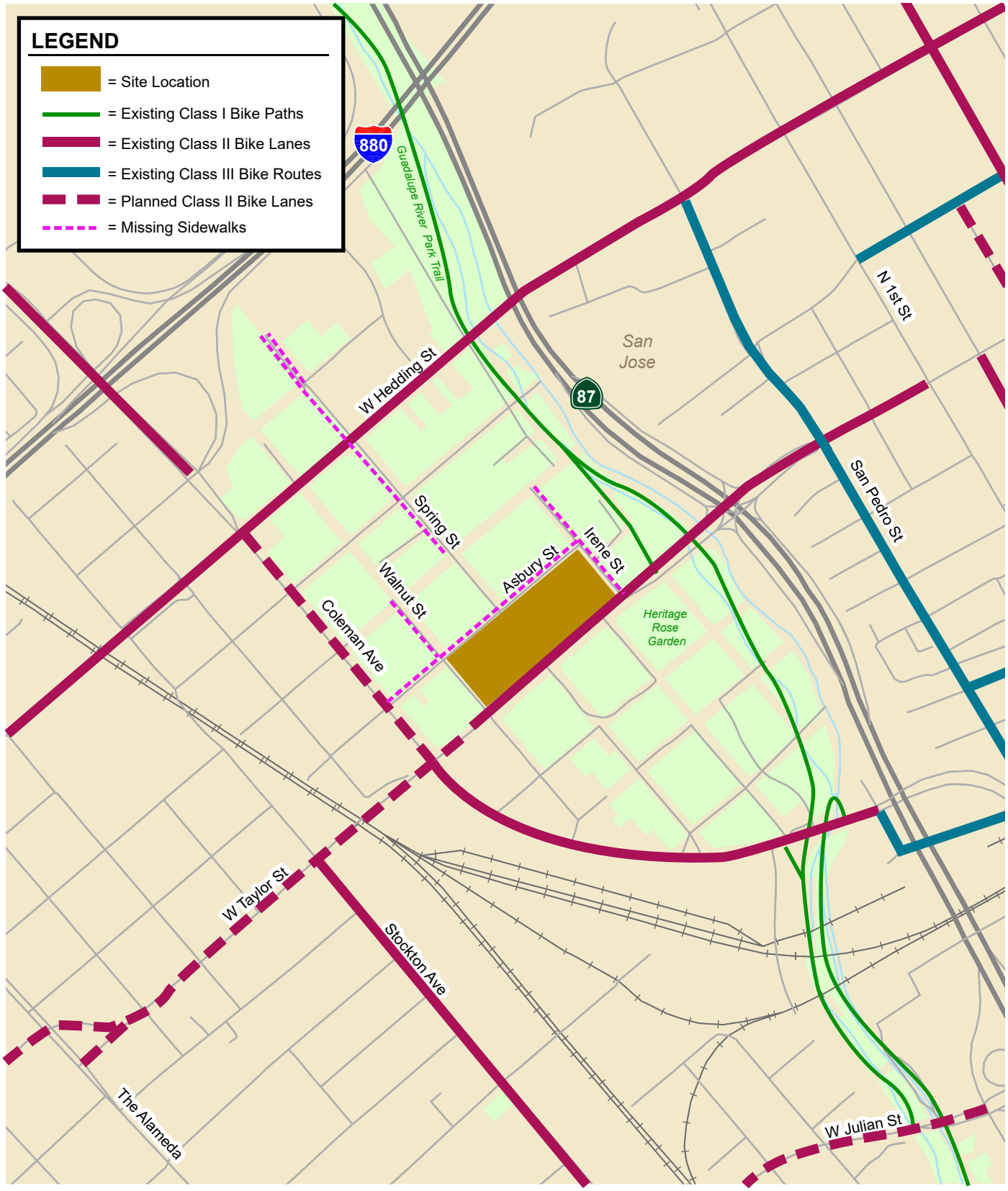



**Figure 3**
**Existing Bicycle Facilties**

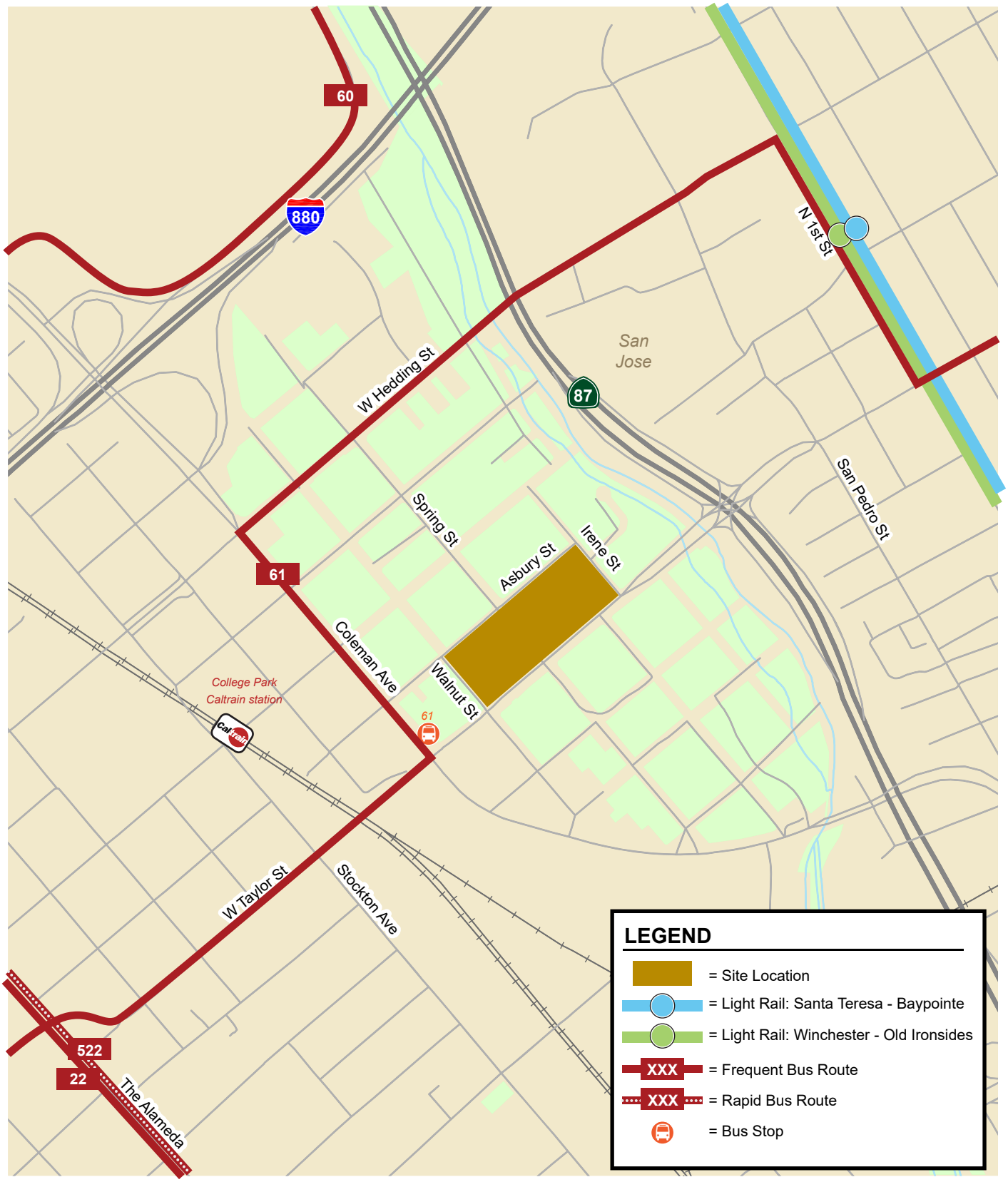



**Figure 4**
**Existing Transit Service**

# 3. CEQA Transportation Analysis

This chapter describes the CEQA transportation analysis, including the VMT analysis methodology and significance criteria, and an evaluation of consistency with the City of San Jose's General Plan.

## CEQA Transportation Analysis Screening Criteria

The City of San Jose *Transportation Analysis Handbook* identifies screening criteria that determine whether a CEQA transportation analysis would be required for development projects. The criteria are based on the type of project, characteristics, and/or location. If a project or component of a mixed-use project meets the City's screening criteria, it is presumed that the project would result in a less-than-significant transportation impact and a detailed CEQA VMT analysis is not required. The type of development projects that may meet the screening criteria include the following:

(1) small infill projects
(2) local-serving retail development
(3) local-serving public facilities
(4) projects located in *Planned Growth Areas* with low VMT and *High-Quality Transit*
(5) deed-restricted affordable housing located in *Planned Growth Areas* with *High-Quality Transit*

Table 2 summarizes the screening criteria for each type of development project as identified in the City of San Jose Transportation Analysis Handbook.

### Compliance with the City Council Policy 5-1

The proposed project as a reconstruction of a public park will meet the City's CEQA transportation analysis screening criteria when considered equivalent to Local-Serving Retail Projects outlined in Table 2 and summarized below. Therefore, the project is anticipated to result in less-than-significant VMT impact.

**Table 2**
**CEQA VMT Analysis Screening Criteria for Development Projects**

| Type | Screening Criteria |
|---|---|
| **Small Infill Projects** | • Single-family detached housing of 15 units or less; OR<br>• Single-family attached or multi-family housing of 25 units or less; OR<br>• Office of 10,000 square feet of gross floor area or less; OR<br>• Industrial of 30,000 square feet of gross floor area or less |
| **Local-Serving Retail** | • 100,000 square feet of total gross floor area or less without drive-through operations |
| **Local-Serving Public Facilities** | • Local-serving public facilities |
| **Residential/Office Projects or Components** | • **Planned Growth Areas:** Located within a Planned Growth Area as defined in the Envision San José 2040 General Plan; AND<br>• **High-Quality Transit:** Located within ½ a mile of an existing major transit stop or an existing stop along a high-quality transit corridor; AND<br>• **Low VMT:** Located in an area in which the per capita VMT is less than or equal to the CEQA significance threshold for the land use; AND<br>• **Transit-Supporting Project Density**:<br>o Minimum Gross Floor Area Ratio (FAR) of 0.75 for office projects or components;<br>o Minimum of 35 units per acre for residential projects or components;<br>o If located in a Planned Growth Area that has a maximum density below 0.75 FAR or 35 units per acre, the maximum density allowed in the Planned Growth Area must be met; AND<br>• **Parking:**<br>o No more than the minimum number of parking spaces required;<br>o If located in Urban Villages or Downtown, the number of parking spaces must be adjusted to the lowest amount allowed; however, if the parking is shared, publicly available, and/or "unbundled", the number of parking spaces can be up to the zoned minimum; AND<br>• **Active Transportation:** Not negatively impact transit, bike or pedestrian infrastructure. |
| **Restricted Affordable Residential Projects or Components** | • **Affordability:** 100% restricted affordable units, excluding unrestricted manager units; affordability must extend for a minimum of 55 years for rental homes or 45 years for for-sale homes; AND<br>• **Planned Growth Areas:** Located within a Planned Growth Area as defined in the Envision San José 2040 General Plan; AND<br>• **High Quality Transit:** Located within ½ a mile of an existing major transit stop or an existing stop along a high quality transit corridor; AND<br>• **Transit-Supportive Project Density**:<br>o Minimum of 35 units per acre for residential projects or components;<br>o If located in a Planned Growth Area that has a maximum density below 35 units per acre, the maximum density allowed in the Planned Growth Area must be met; AND<br>• **Transportation Demand Management (TDM):** If located in an area in which the per capita VMT is higher than the CEQA significance threshold, a robust TDM plan must be included; AND<br>• **Parking:**<br>o No more than the minimum number of parking spaces required;<br>o If located in Urban Villages or Downtown, the number of parking spaces must be adjusted to the lowest amount allowed; however, if the parking is shared, publicly available, and/or "unbundled", the number of parking spaces can be up to the zoned minimum; AND<br>• **Active Transportation:** Not negatively impact transit, bike or pedestrian infrastructure. |

Source: City of San José Transportation Analysis Handbook, April 2018.

## VMT Analysis Methodology and Criteria

Per Council Policy 5-1, the effects of the projects on VMT are evaluated using the methodology outlined in the City's *Transportation Analysis Handbook*. VMT is the total miles of travel by personal motorized vehicles a project is expected to generate in a day. The City of San Jose defines VMT as the total miles of travel by personal motorized vehicles a project is expected to generate in a day. VMT is calculated using the Origin-Destination VMT method, which measures the full distance of personal motorized vehicle-trips with one end within the project. A project's VMT is compared to established thresholds of significance based on the project location and type of development.

Typically, development projects that are farther from other, complementary land uses (such as a business park far from housing) and in areas without transit or active transportation infrastructure (bike lanes, sidewalks, etc.) generate more driving than development near complementary land uses with more robust transportation options. Therefore, developments located in a central business district with high density and diversity of complementary land uses and frequent transit services are expected to internalize trips and generate shorter and fewer vehicle trips than developments located in a suburban area with low density of residential developments and no transit serve in the project vicinity.

## VMT Analysis

### Screening for VMT Analysis

The proposed project plans to add two new multi-sport fields, four pickleball courts, one futsal/basketball court, and a horseshoe court with the 23 horseshoe pitches at Columbus Park. Since the City has not established thresholds of significance for parks, the project cannot be evaluated directly. Accordingly, based on direction from City staff, VMT analysis was conducted by converting vehicle trips generated by the proposed soccer fields and pickleball fields to an equivalent amount of retail square footage, for which the City has established a screening criterion and threshold of significance. This is a reasonable approach to VMT analysis for the project since park facilities are typically local serving and exhibit similar trip length characteristics to that of local retail uses (e.g., both uses typically serve nearby residents). Based on the standard daily trip generation rates contained in the Institute of Transportation Engineers' (ITE) *Trip Generation Manual, 11th Edition* (2021) for Soccer Complex (ITE Land Use 488), Tennis Courts (Land Use 490), and Shopping Center (ITE Land Use 820), two soccer fields, pickleball courts, and basketball courts are estimated to generate the same number of daily trips as 8,800 s.f. of retail space (see Table 3).

The amount of equivalent retail space meets the screening criterion set forth in the Transportation Analysis Handbook for local-serving retail, which is defined as 100,000 square feet of total gross floor area or less and without drive-through operations. Since the project would meet the screening criterion, the project's impact on VMT is considered less-than-significant.

Columbus Park is a part of the larger Guadalupe River Park & Gardens located along the banks of the Guadalupe River in downtown San Jose. As shown in Figure 5, there are no other soccer facilities within a ½-mile and 1-mile radius of Columbus Park and the Guadalupe River Park & Gardens. The construction of new multi-sport facilities to Columbus Park would attract residents to visit Guadalupe River Park & Gardens and would reduce the trip lengths and VMT of downtown San Jose residents who enjoy playing soccer and travel further away to access parks that do provide this facility.

**Table 3**
**Conversion of Soccer Fields to Retail Land Use**

| Land Use | | Size | Daily Rate | Daily Trips |
|---|---|---|---|---|
| **Proposed Uses** | | | | |
| Soccer Fields[1] | 2.0 | Fields | 71.33 | 143 |
| Pickleball[23] | 6.0 | Tennis Courts | 30.32 | 182 |
| | | | | 325 |
| **Existing Use** | | | | |
| Retail[4] | 8.8 | KSF | 37.01 | 325 |

Note:
Trip rates for soccer complex and tennis courts are from the ITE Trip Generation Manual, 11th Edition, 2021.

1. Soccer Complex (Land Use 488), average rates expressed in trips per field are used.
2. The trip rates for the proposed pickleball courts and basketball courts are not available in the ITE Trip Generation Manual. Therefore, tennis courts (Land Use 490) were assumed for the proposed uses.
3. Tennis Courts (Land Use 490) average rates expressed in trips per tennis courts are used.
4. Shopping Center (Land Use 820), average rates expressed in trip per 1,000 square feet (KSF) was used.

The reconstruction of Columbus Park to connect the multi-sport fields, pickleball courts, and futsal/basketball courts together would require closing the segment of Spring Street between Asbury Avenue and Taylor Street, which is approximately 400 feet in length. Currently, this segment of Spring Street breaks up Columbus Park into two sites and is used primarily for parking and accessing the park. With the closure of Spring Street, Asbury Street, Walnut Street, and Irene Street would be converted to one-way streets with diagonal parking for park visitors. Spring Street has no fronting development and, thus, carries entirely through traffic. With closure that traffic would be diverted to Coleman Avenue, which would not involve any increase in distance traveled. Thus, the closure of this street segment is not anticipated to increase driving distance or VMT. Furthermore, by closing Spring Street and consolidating both park sites, overall pedestrian safety near the park would be improved.

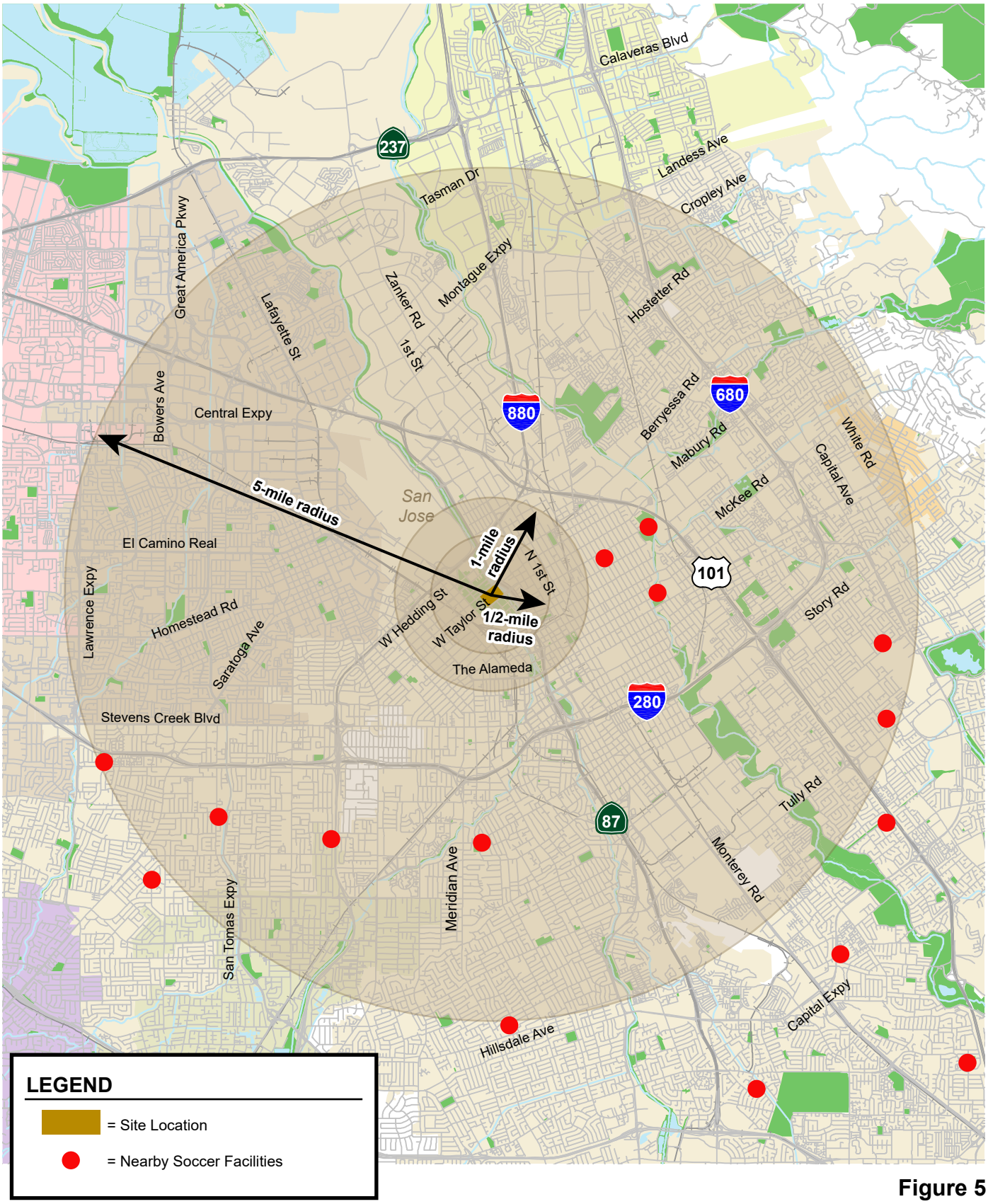



**Figure 5**
**Soccer Facilities in the Vicinity of Columbus Park**

## Cumulative (GP Consistency) Evaluation

Projects must demonstrate consistency with the *Envision San José 2040 General Plan* to address potential cumulative VMT impacts. Consistency with the City's General Plan is based on the project's density, design, and conformance to the General Plan goals and policies. If a project is determined to be inconsistent with the General Plan, a cumulative impact analysis is required per the City's *Transportation Analysis Handbook*.

The project is consistent with the General Plan goals and policies for the following reasons:

- The project site is located approximately 550 feet from the nearest bus stop at Coleman Avenue and Taylor Street.
- The project frontage has bicycle lanes along Taylor Street.
- The project proposes new sidewalks along Walnut Street, Asbury Street, and Irene Street.
- The project proposes to construct a pedestrian paseo on Spring Street between Asbury Street and Taylor Street, connecting the two multi-sport fields.

Therefore, based on the project description, the proposed project would be consistent with the *Envision San José 2040 General Plan*. Thus, the project would be considered as part of the cumulative solution to meet the General Plan's long-range transportation goals and would result in a less-than-significant cumulative VMT impact.

# 4. Local Transportation Analysis

This chapter describes the local transportation analysis including the method by which project traffic is estimated, intersection operations analysis, any adverse intersection traffic effects caused by the project, site access and on-site circulation review, effects on bicycle and pedestrian facilities, effects on transit services, and parking.

The LTA supplements the CEQA VMT analysis and identifies transportation and traffic operational issues that may arise due to a development project. The LTA is required per the City of San Jose Transportation Policy, however, the determination of project impacts per CEQA requirements is based solely on the VMT analysis presented in the previous chapter. The LTA provides supplemental analysis for use by the City of San Jose in identifying potential improvement of the transportation system with a focus on improving multi-modal travel.

## Project Description

Columbus Park is located within Guadalupe Gardens along West Taylor Street and is bisected by Spring Street. Current park amenities include two multi-use softball fields, two basketball courts, two sand volleyball courts, three picnic areas, and 21 horseshoe pitches. Proposed plans for reconstruction of Columbus Park include demolition of all existing park facilities and the construction of two new multi-sport fields, four pickleball courts, one futsal/basketball court, and 23 horseshoe pitches. The proposed plans also include a play area and picnic area. The plan also proposes constructing a new parking lot on the eastern project boundary, closing Spring Street between Asbury Street and West Taylor Street to connect the two halves of Columbus Park, and converting Irene Street, Asbury Street, and Walnut Street to one-way circulation with angled parking.

The site plan shows inbound access on Walnut Street, outbound egress to Irene Street, and clockwise circulation around the park. Outbound egress on Irene Street would be undesirable because that would preclude left turns onto eastbound Taylor Street due to the median. Vehicles would not be able to turn right and then make a U-turn because U-turns are prohibited on Taylor Street. A median break could be introduced, but that break would be close to the SR87/Taylor Street interchange. A better plan would be to reverse the circulation so that vehicles would enter on Irene Street and exit on Walnut Street with counterclockwise circulation around the park. This could be accomplished with the addition of a median break and left turn pocket at Irene Street. An inbound turn movement at Irene would not be problematic with the spacing to the SR87/Taylor interchange.

# Project Trip Estimates

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

## Trip Generation

Vehicle trips generated by the project were estimated using the trip rates published in the Institute of Transportation Engineers' (ITE) *Trip Generation Manual*, 11th Edition. The ITE trip generation rate for Soccer Complex (Land Use 488) was utilized for the soccer field portion of the proposed project. Pickleball courts and basketball courts are not included in the ITE Trip Generation Manual. Therefore, the ITE trip generation rate for Tennis Courts (Land Use 490) was used for the proposed pickleball and basketball courts. The in/out percentage for Tennis Courts is not included in the ITE Trip Generation Manual. Therefore, the in/out percentages for Public Park (Land Use 411) were used.

After applying ITE rates, the proposed project is estimated to generate 325 daily vehicle trips, with 2 trips (1 inbound and 1 outbound) occurring during the AM peak hour and 58 trips (36 inbound 22 outbound) occurring during the PM peak hour (see Table 4).

Trip credits for the existing park have not been assumed, because the park is currently underutilized.

**Table 4**
**Project Trip Generation Estimates**

| Land Use | | Size | Daily | | AM Peak Hour | | | | | | PM Peak Hour | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Rate | Trips | Rate | In | Out | In | Out | Total | Rate | In | Out | In | Out | Total |
| **Proposed Uses** | | | | | | | | | | | | | | | | |
| Soccer Fields[1] | 2.0 | Fields | 71.33 | 143 | 0.99 | 61% | 39% | 1 | 1 | 2 | 16.43 | 66% | 34% | 22 | 11 | 33 |
| Pickleball[234] | 6.0 | Tennis Courts | 30.32 | 182 | | | | 0 | 0 | 0 | 4.21 | 55% | 45% | 14 | 11 | 25 |
| **Net Project Trips** | | | | **325** | | | | **1** | **1** | **2** | | | | **36** | **22** | **58** |

Note:
Trip rates for soccer complex and tennis courts are from the ITE Trip Generation Manual, 11th Edition, 2021.

1. Soccer Complex (Land Use 488), average rates expressed in trips per field are used.
2. The trip rates for the proposed pickleball courts and basketball courts are not available in the ITE Trip Generation Manual. Therefore, tennis courts (Land Use 490) were assumed for the proposed uses.
3. Tennis Courts (Land Use 490) average rates expressed in trips per tennis courts are used. The AM trip rate for Tennis Courts is not available in the ITE Trip Generation Manual.
4. The in/out percentage distribution for Tennis Courts is not available in the ITE Trip Generation Manual. Therefore, the in/out percentages for Public Park (Land Use 411) were used.

## Special Events

The Parks, Recreation, and Neighborhood Services (PRNS) provided a year 2015/2016 calendar of events for Columbus Park (Appendix G). The calendar shows the type of events that occurred at the existing park. These types of events included organized league and tournament play for softball, soccer, rugby and cricket games. With the park reconstruction, there may be an increase in special events. Special events typically comprise sports tournaments. During special events, trips to Columbus Park could be higher than normal weekday hour trips. However, special events were not analyzed because they are infrequent and usually occur on weekends. Thus, they do not represent typical

weekly peak hour traffic, which is the subject of transportation analysis in accordance with transportation study guidelines.

**Trip Distribution and Assignment**

The proposed park trip distribution patterns for the project were estimated based on existing travel patterns on the surrounding roadway network that reflect typical weekday AM and PM peak commute patterns, the locations of complementary land uses, previous traffic studies in the area, and freeway access points.

The peak hour vehicle trips generated by the project were assigned to the roadway network in accordance with the trip distribution pattern and the roadway network. The site plan shows that the proposed project would reconfigure Walnut Street, Asbury Street, and Irene Street to be one-way perimeter streets with Irene Street providing outbound egress from the project site and Walnut Street providing inbound access to the project site. However, Hexagon recommends reversing the circulation with Irene Street providing inbound access to the project site and Walnut Street providing the outbound egress from the project site. Currently, Walnut Street, Asbury Street, and Irene Street operate as two-way streets with only right-in, right-out movements allowed at Irene Street due to the median along Taylor Street. Since inbound access to the project site would be provided only via Irene Street under project conditions, the analysis assumes that there would be a median break and left turn pocket constructed on Taylor Street at Irene Street to provide eastbound left turn access into the project site. Without this turn pocket, access to the site from eastbound Taylor Street would not be possible because U-turns are prohibited.

The project also proposes to provide a pedestrian paseo on Spring Street between Asbury Street and Taylor Street and intends close this portion of the street to vehicles. Furthermore, the City has plans to permanently close Spring Street from Taylor Street to Hedding Street. Prior to permanent closure of Spring Street, the City would temporarily close Spring Street to allow for construction of the proposed project. Temporary closure would last approximately two years, during which time the City would seek out permanent closure of Spring Street. Therefore, no project trips were assigned to use Spring Street between Hedding Street and Taylor Street.

Figure 6 shows project trip distribution pattern. Figure 7 shows the trip assignment for the project.

## Intersection Operations Analysis Methodology

This section presents the methods used to evaluate the traffic operations at the study intersections and the potential adverse operational effects due to the project. It includes descriptions of the data requirements, the analysis methodologies, and the applicable level of service standards for identifying deficiencies.

The study includes an analysis of AM and PM peak-hour traffic conditions for three signalized intersections and two unsignalized intersections within the City of San Jose. Intersections were selected for study if the project is expected to add 10 vehicle trips per hour per lane to a signalized intersection that meets one of the following criteria as outlined in the *Transportation Analysis Handbook.*

- Within a ½-mile buffer from the project's property line;
- Outside a ½-mile buffer but within a one-mile buffer from the project AND currently operating at D or worse;
- Designated Congestion Management Program (CMP) facility outside of the City's Infill Opportunity Zones;
- Outside the City limits with the potential to be affected by the project, per the transportation

standards of the corresponding external jurisdiction;
- With the potential to be affected by the project, per engineering judgement of Public Works.

The ½ a mile and 1-mile radii from the project site are shown in Figure 1. Based on the above criteria, the following City of San Jose study intersections were selected and are shown in Figure 1.

1. Coleman Avenue and Hedding Street (CMP)
2. Coleman Avenue and Asbury Street (Stop-Controlled)
3. Coleman Avenue and Taylor Street (CMP)
4. Spring Street and Hedding Street (Stop-Controlled)
5. Walnut Street and Asbury Street (Stop-Controlled)
6. Walnut Street and Taylor Street (Stop-Controlled)
7. Spring Street and Asbury Street (Stop-Controlled)
8. Spring Street and Taylor Street (Stop-Controlled)
9. Irene Street and Taylor Street (Stop-Controlled)

## Data Requirements

The data required for the analysis were obtained from the City of San Jose, new traffic counts, and field observations. The following data were collected from these sources:

- existing traffic volumes
- approved project trips
- existing lane configurations
- signal timing and phasing

## Traffic Volumes and Lane Configurations Under All Scenarios

### Existing Traffic Volumes and Lane Configurations

Existing peak-hour intersection volumes were obtained by conducting traffic counts. The counts were collected in July 2020, between 7:00 and 9:00 AM and between 4:00 and 6:00 PM.

Due to Covid-19 and regional shelter-in-place orders (starting March 2020), these traffic counts do not represent typical traffic conditions. January 2020 counts were available for the intersections of Coleman Avenue and Taylor Street and Coleman Avenue and Hedding Street. For the other study intersections where historic counts were not available, new counts were collected and adjusted to represent pre-Covid conditions using a factor derived from the January 2020 and July 2020 counts at the Coleman Avenue and Taylor Street and Coleman Avenue and Hedding Street intersections. Comparing the January 2020 and July 2020 counts at the Coleman Avenue and Taylor Street and Coleman Avenue and Hedding Street intersections, the July 2020 AM peak hour counts were lower by a factor of 2.83, and the PM peak hour counts were lower by a factor of 1.95. These factors were used to adjust the remaining intersection counts to pre-COVID conditions. The traffic volumes estimated using this methodology were balanced for adjacent intersections, so that the volume leaving one intersection matched the volume approaching the adjacent intersection, subject to adjustments for intervening driveways and cross streets.

The existing lane configurations at the study intersections were determined by observations in the field and are shown on Figure 8.

### Background Traffic Volumes and Lane Configurations

Background AM and PM peak hour traffic volumes were estimated by adding to existing traffic volumes the trips generated by nearby approved but not yet completed or occupied projects. The approved projects are listed as part of the Approved Trips Inventory (ATI) contained in Appendix C.

The roadway network under background conditions would be the same as the existing roadway network because: 1) there are no approved projects in the area that would alter the existing roadway network, and 2) the project would not alter the existing roadway network.

### Background Plus Project Traffic Volumes and Lane Configurations

The roadway network under project conditions would be altered due to the project as described in the previous section. Existing trips were redistributed to reflect the changes in travel patterns that would occur due to the proposed change in vehicular access and circulation around the park. Due to the closure of Spring Street, trips on Spring Street between Hedding Street and Taylor Street were redistributed to travel along Hedding Street, Coleman Avenue, and Taylor Street. Trips along Asbury Street, Walnut Street, and Irene Street that traveled in a clockwise direction around the perimeter of the project site were also redistributed along Taylor Street and Coleman Avenue. Figure 9 shows the reassignment of the trips. Project trips were added to adjusted background trips for background plus project volumes.

Traffic counts for all intersections are included in Appendix A. Traffic volumes for all traffic scenarios are tabulated in Appendix B and are shown on Figure 10, Figure 11, and Figure 12.

## Level of Service Standards and Analysis Methodologies

Traffic conditions at the study intersections were evaluated using level of service (LOS). *Level of Service* is a qualitative description of operating conditions ranging from LOS A, or free-flow conditions with little or no delay, to LOS F, or jammed conditions with excessive delays. The various analysis methods are described below.

### Signalized Intersections

All signalized study intersections were evaluated based on the *2000 Highway Capacity Manual* (HCM) level of service methodology using the TRAFFIX software. This method evaluates signalized intersection operations on the basis of average control delay time for all vehicles at the intersection. TRAFFIX is also the CMP-designated intersection level of service methodology, thus, the City of San Jose employs the CMP default values for the analysis parameters. The correlation between average control delay and level of service is shown in Table 5.

### Unsignalized Intersections

Seven of the study intersections are unsignalized. The need for signalization of unsignalized intersections was assessed based on the Peak Hour Volume Warrant (Warrant 3) described in the Manual on Uniform Traffic Control Devices (MUTCD 2010 Edition, Part 4). This method makes no evaluation of intersection level of service, but simply provides an indication whether vehicular peak hour traffic volumes are or are subject to further analysis before determining that a traffic signal is necessary. Additional analysis may include unsignalized level of service analysis and/or operational analysis such as evaluating vehicle queuing and delay. Other types of traffic control devices, signage, or geometric changes may be preferable based on existing field conditions and intersection spacing.

Signalized study intersections are subject to the City of San Jose level of service standards. The City of San Jose has established LOS D as the minimum acceptable intersection operations standard for all signalized intersections unless superseded by an Area Development Policy.

**Table 5**
**Signalized Intersection of Level of Service Definitions Based on Control Delay**

| Level of Service | Description | Average Control Delay per Vehicle (sec.) |
|---|---|---|
| A | Operations with very low delay occurring with favorable progression and/or short cycle lengths. | up to 10.0 |
| B | Operations with low delay occurring with good progression and/or short cycle lengths. | 10.1 to 20.0 |
| C | Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear. | 20.1 to 35.0 |
| D | 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. | 35.1 to 55.0 |
| E | 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. | 55.1 to 80.0 |
| F | Operation with delays unacceptable to most drivers occurring due to oversaturation, poor progression, or very long cycle lengths. | Greater than 80.0 |

Sources: Transportation Research Board, *2000 Highway Capacity Manual*. *Traffic Level of Service Analysis Guidelines*, Santa Clara County Transportation Authority Congestion Management Program, June 2003.

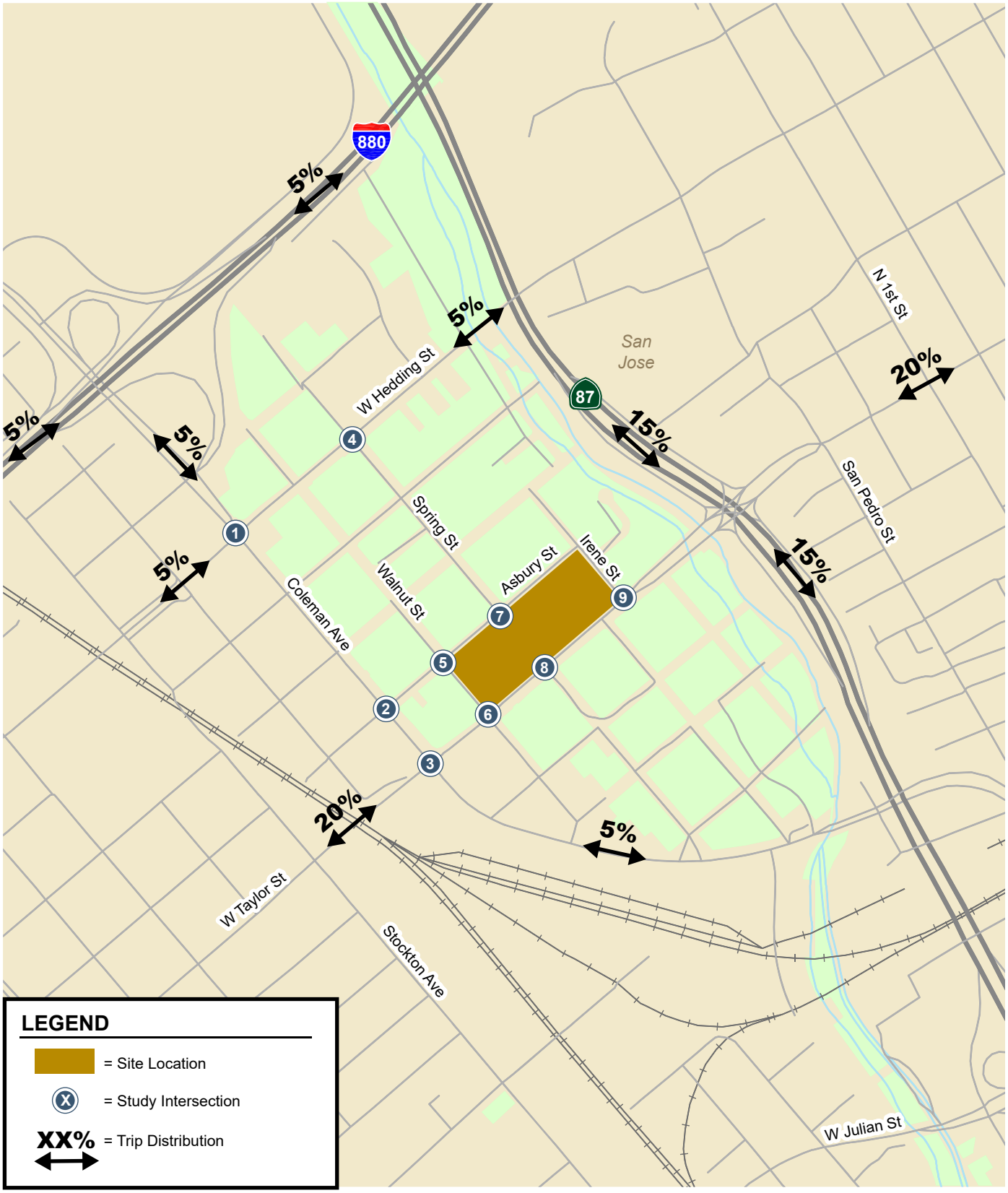
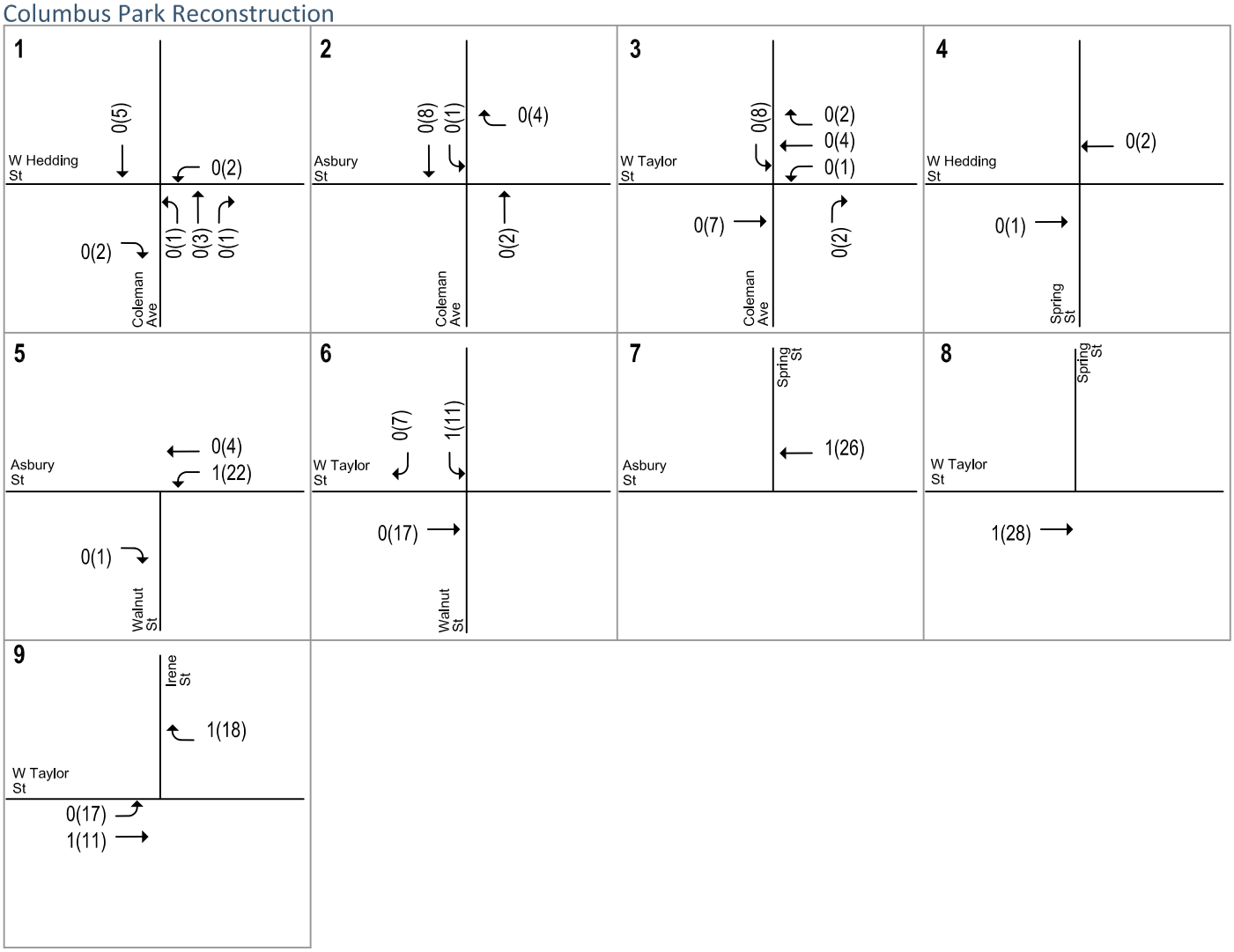



**Figure 6**
**Project Trip Distribution**




LEGEND

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

**Figure 7**
**Project Trip Assignment**

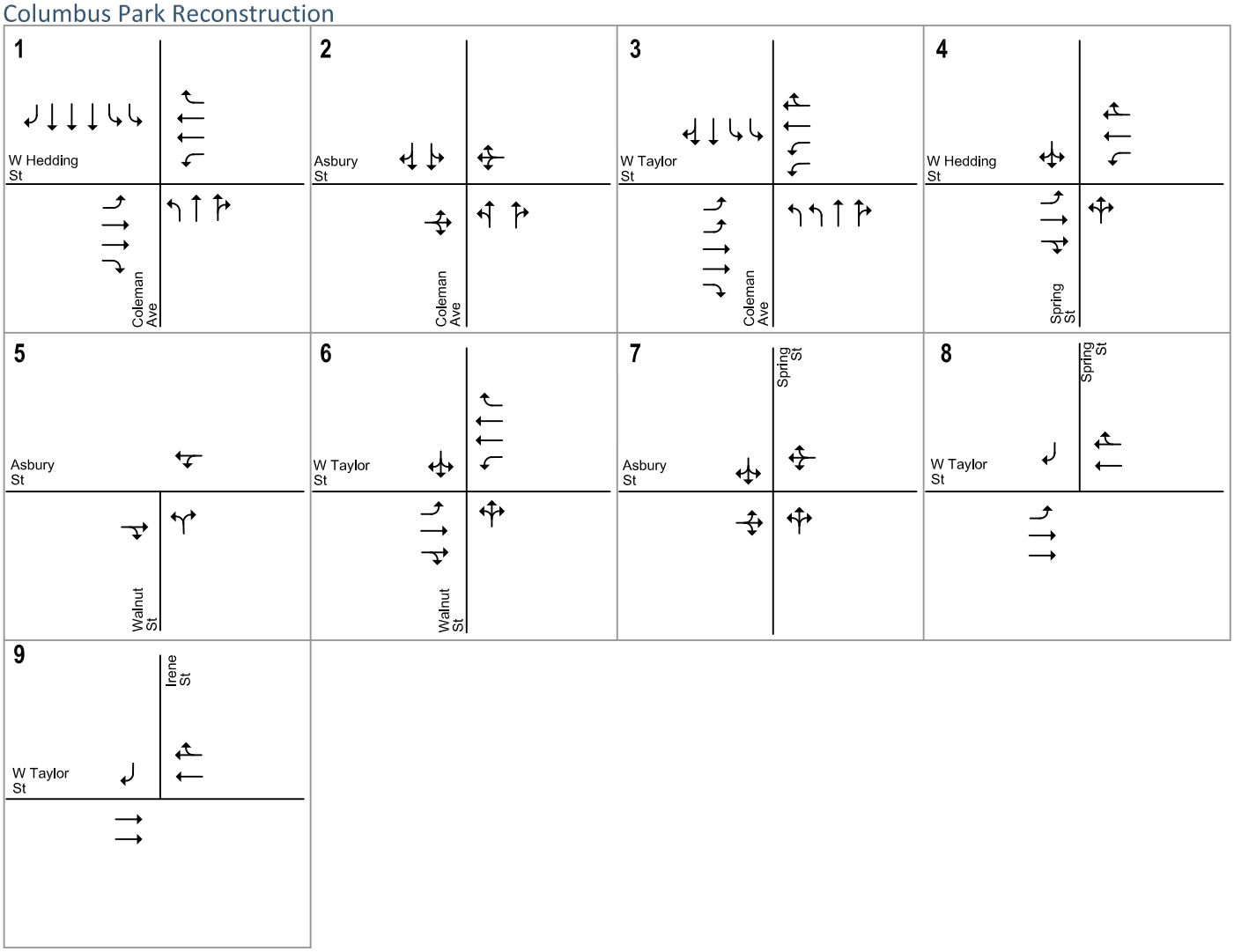



**Figure 8**
**Existing Lane Configurations**

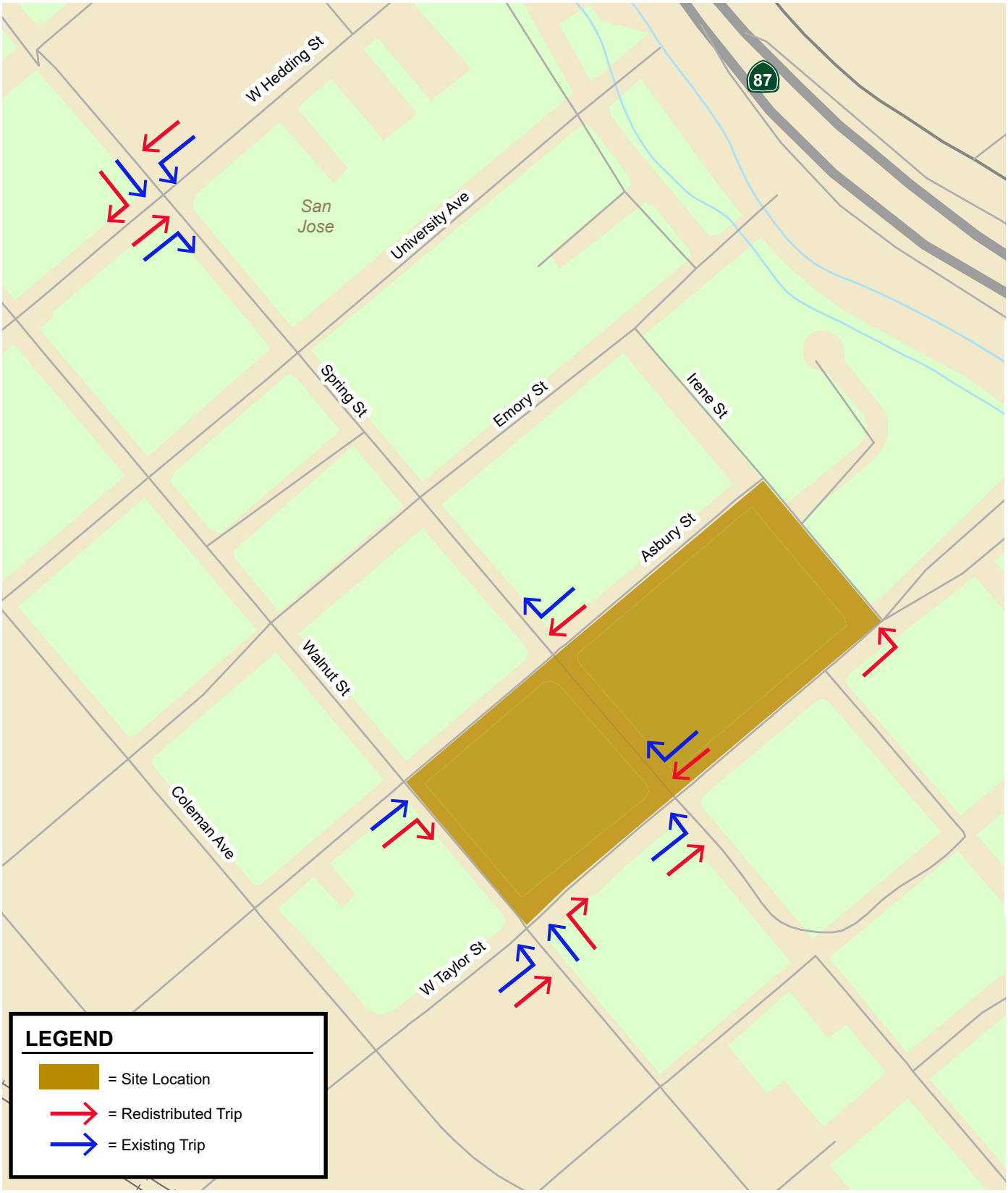
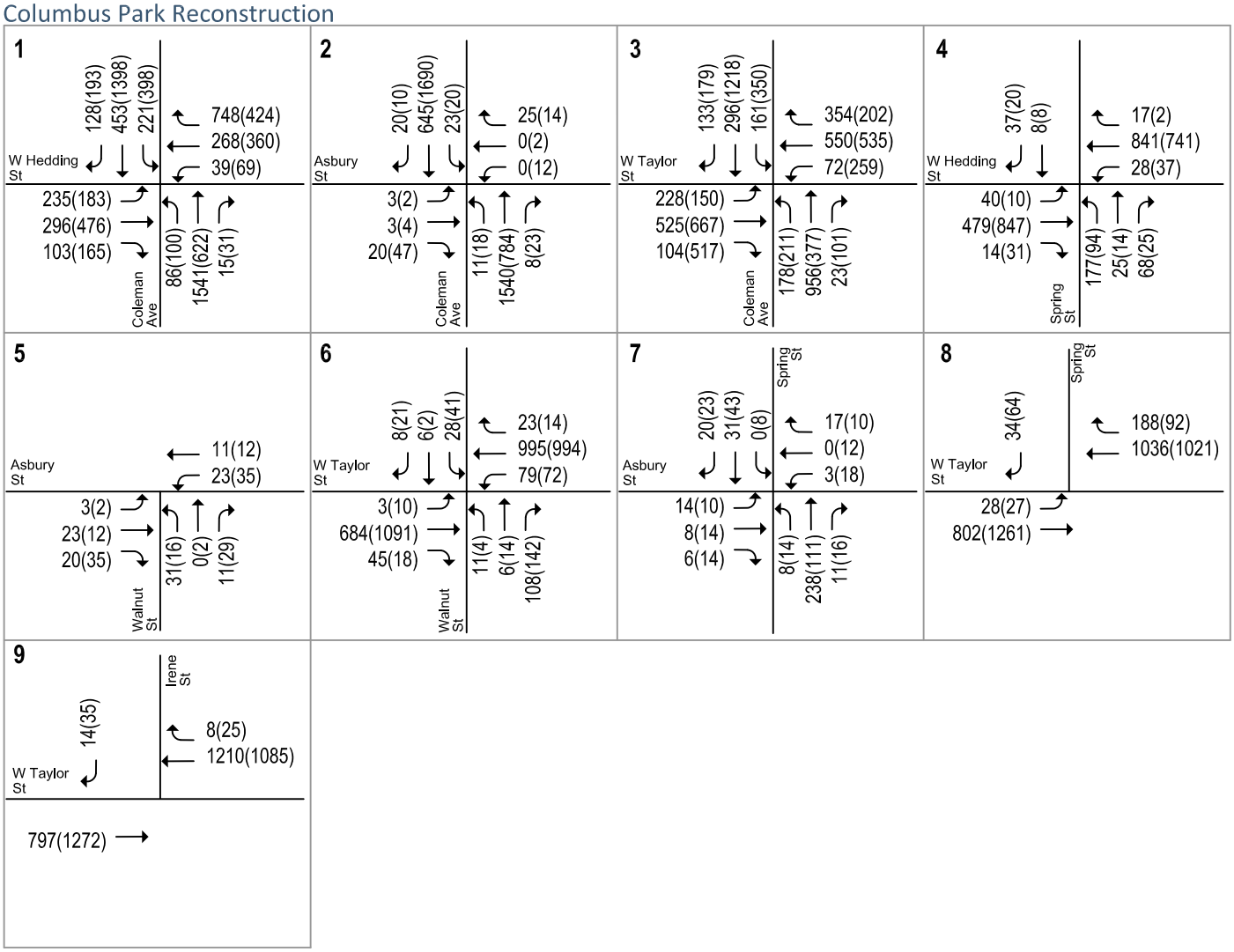


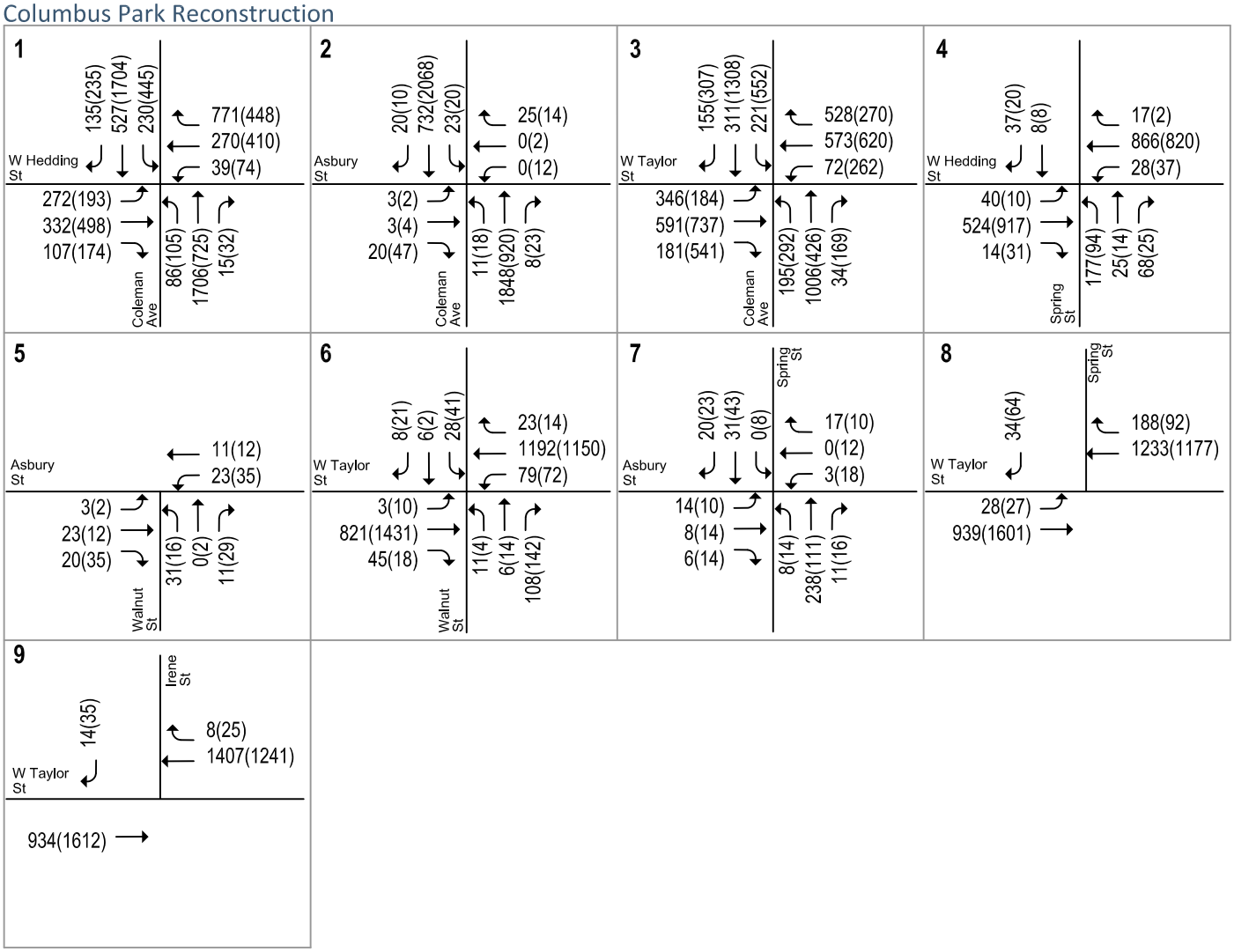

**Figure 9**
**Redistributed Trips around Columbus Park**




LEGEND

XX(XX) = AM(PM) Peak-Hour Traffic Volumes

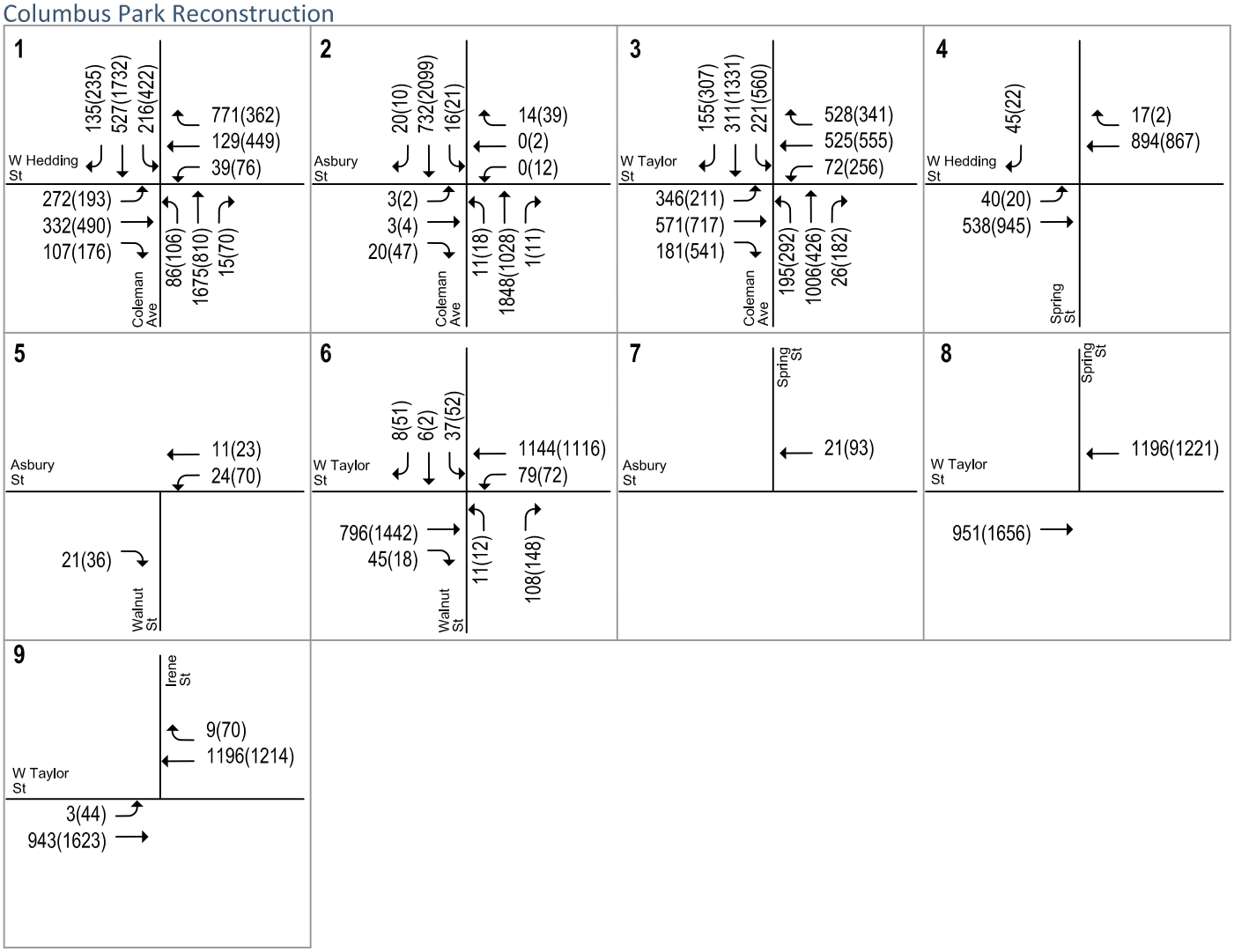
**Figure 10**
**Existing Traffic Volumes**




LEGEND

XX(XX) = AM(PM) Peak-Hour Traffic Volumes

**Figure 11**
**Background Traffic Volumes**




LEGEND

XX(XX) = AM(PM) Peak-Hour Traffic Volumes

**Figure 12**
**Background Plus Project Traffic Volumes**

**City of San Jose Definition of Adverse Intersection Operations Effects**

According to the City of San Jose's *Transportation Analysis Handbook 2018*, an adverse effect on intersection operations occurs if for either peak hour:

1. The level of service at the intersection degrades from an acceptable LOS D or better under background conditions to an unacceptable LOS E or F under background plus project conditions, or
2. The level of service at the intersection is an unacceptable LOS E or F under background conditions and the addition of project trips cause both the critical-movement delay at the intersection to increase by four (4) or more seconds and the volume-to-capacity ratio (V/C) to increase by one percent (.01) or more.

An exception to rule #2 above applies when the addition of project trips reduces the amount of average delay for critical movements (i.e., the change in average delay for critical movements is negative). In this case, a deficiency is identified if there is an increase in the critical V/C value by .01 or more.

An adverse intersection operations effect by City of San Jose standards may be addressed by implementing measures that would restore intersection level of service to background conditions or better. The City recommends prioritizing improvements related to alternative transportation modes, parking measures, and/or TDM measures.

Improvements that increase vehicle capacity are secondary and must not have unacceptable effects on existing or planned transportation facilities. Unacceptable effects on existing or planned transportation facilities include the following:

- Inconsistent with the General Plan Transportation Network and Street Typologies;
- Reduction of any physical dimension of a transportation facility below the minimum design standards per the *San José Complete Streets Design Standards and Guidelines*; OR
- Substantial deterioration in the quality of existing or planned transportation facilities, including pedestrian, bicycle, and transit systems and facilities, as determined by the Director of Transportation.

## Intersection Traffic Operations

Signalized intersection levels of service were evaluated against the standards of the City of San Jose. The results of the analysis show that the Coleman Avenue and Taylor Street intersection would operate at an unacceptable level of service during the PM peak hour under background and background plus project conditions (see Table 6). However, the project would not cause the critical-movement delay at the intersection to increase by four (4) or more seconds and the volume-to-capacity ratio (V/C) to increase by one percent (.01) or more. Therefore, the project would not have an adverse effect at the intersection.

It should be noted that in some cases the signalized intersections show a slight improvement (decrease in average vehicle delay) with the increase in traffic from the project. This occurs because the average delay is a weighted average of all movements at these intersections. When the redistributed trips and background trips are added to individual intersection movements with low vehicle delays, the average delay for the entire intersection can decrease.

The detailed intersection level of service calculation sheets are included in Appendix D.

**Table 6**
**Signalized Intersection Level of Service Summary**

| ID | Signalized Intersection | Peak Hour | Count Date | Existing Avg. Delay (sec)[1] | Existing LOS | Background Avg. Delay (sec)[1] | Background LOS | Background Plus Project Avg. Delay (sec)[1] | Background Plus Project LOS | Incr. In Crit. Delay (sec) | Incr. In Crit. V/C |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Coleman Ave & Hedding St | AM | | 38.0 | D | 40.7 | D | 35.2 | D | -7.2 | -0.051 |
| | | PM | | 35.6 | D | 36.0 | D | 36.6 | D | 0.9 | 0.018 |
| 3 | Coleman Ave & Taylor St | AM | | 42.6 | D | 48.7 | D | 45.5 | D | -3.7 | -0.010 |
| | | PM | | 50.5 | D | **66.5** | **E** | **67.9** | **E** | **1.4** | **0.005** |

Notes:
[1] Delays based on worst approach delay for unsignalized intersections and average delay for signalized intersections.
**Bold** indicates a substandard level of service per City of San Jose standards.

## Signal Warrant Analysis

The City of San Jose does not have a level of service standard for unsignalized intersections. The unsignalized intersections were evaluated for signalization, based on the Peak-Hour Volume Signal Warrant, (Warrant #3 – Part B) described in the California *Manual Uniform Traffic Control Devices* (MUTCD), 2014 Edition. This method provides an indication whether peak-hour traffic volumes are, or would be, sufficient to justify installation of a traffic signal. Intersections that meet the peak hour warrant are subject to further analysis before determining that a traffic signal is necessary. Other options such as traffic control devices, signage, or geometric changes may be preferable based on existing field conditions.

The results of the peak-hour traffic signal warrant checks indicate that the following unsignalized intersections would meet the signal warrant (see Table 7):

- Spring Street and Hedding Street – Existing and Background Conditions during both peak hours
- Walnut Street and Taylor Street – Background Plus Project Conditions during the PM peak hour

The peak-hour signal warrant sheets are contained in Appendix E.

### Spring Street and Hedding Street

The intersection of Spring Street and Hedding Street would warrant signalization based on the signal warrant analysis for existing and background conditions during both peak hours. However, the City plans to permanently close Spring Street from Hedding Street to Taylor Street. With this closure, signalization at this intersection would not be warranted.

### Walnut Street and Taylor Street

The intersection of Walnut Street and Taylor Street would warrant signalization based on the analysis for the background plus project conditions during the PM peak hour.

#### Recommendation

Walnut Street is sufficiently wide to restripe the lane configuration from one shared left-through-right lane to a separate left-turn lane and a shared through-right lane. With this configuration, the delay at the stop controlled southbound approach would improve, and the signalization of this intersection would not be warranted.

**Table 7**
**Unsignalized Intersection Signal Warrant**

| ID | Intersection | Peak Hour | Existing Meets Warrant? | Background Meets Warrant? | Background Plus Project Meets Warrant? |
|---|---|---|---|---|---|
| 2 | Coleman Ave & Asbury St | AM | No | No | No |
| | | PM | No | No | No |
| 4 | Spring St & Hedding St | AM | **Yes** | **Yes** | No |
| | | PM | **Yes** | **Yes** | No |
| 5 | Walnut St & Asbury St | AM | No | No | No |
| | | PM | No | No | No |
| 6 | Walnut St & Taylor St | AM | No | No | No |
| | | PM | No | No | **Yes** |
| 7 | Spring St & Asbury St | AM | No | No | No |
| | | PM | No | No | No |
| 8 | Spring St & Taylor St | AM | No | No | No |
| | | PM | No | No | No |
| 9 | Irene St & Taylor St | AM | No | No | No |
| | | PM | No | No | No |

## Intersection Vehicle Queuing Analysis

For selected high-demand movements at the study intersections, the estimated maximum vehicle queues were compared to the existing or planned storage capacity. The queuing analysis is presented for informational purposes only, since the City of San Jose has not defined a policy related to queuing. Vehicle queues were calculated using a Poisson probability distribution, which estimates the probability of "n" vehicles for a vehicle movement using the following formula:

$$P(x = n) = \frac{\lambda^n e^{-(\lambda)}}{n!}$$

Where:

P (x = n) = probability of "n" vehicles in queue per lane
n = number of vehicles in the queue per lane
λ = average # of vehicles in the queue per lane (vehicles per hr. per lane/signal cycles per hr.)

The basis of the analysis is as follows: (1) the Poisson probability distribution is used to estimate the 95th percentile maximum number of queued vehicles per signal cycle for a particular movement; (2) the estimated maximum number of vehicles in the queue is translated into a queue length, assuming 25 feet per vehicle; and (3) the estimated maximum queue length is compared to the existing or planned available storage capacity for the movement.

For signalized intersections, the 95th percentile queue length value indicates that during the peak hour, a queue of this length or less would occur on 95 percent of the signal cycles. Or, a queue length larger than the 95th percentile queue would only occur on 5 percent of the signal cycles (about 3 cycles during the peak hour for a signal with a 60-second cycle length). Vehicle queuing at unsignalized intersections are evaluated based on the delay experienced at the specific study turn movement. Therefore, left-turn pocket storage designs based on the 95th percentile queue length would ensure that storage space would be exceeded only 5 percent of the time for a signalized movement.

A vehicle queuing and storage analysis was conducted for turn movements at the selected study intersections where the project would add more than 10 trips per lane. The following intersections/movements were studied:

- Walnut Street and Taylor Street – shared southbound left-through-right lane
- Irene Street and Taylor Street – eastbound left-turn lane (proposed left turn lane)

The estimated queue lengths based on the Poisson numerical calculations show a potential queuing deficiency on Walnut Street (see Table 8). The queuing analysis indicates that the recommended left-turn pocket on Taylor Street at Irene Street would have a queue length of only one vehicle. Figure 13 shows the recommended eastbound left turn lane at Irene Street and Taylor Street.

**Table 8**
**Intersection Vehicle Queuing Analysis**

| Measurement | Walnut Street and Taylor Street SBL/SBT/SBR AM | Walnut Street and Taylor Street SBL/SBT/SBR PM | Irene Street and Taylor Street[3] EBL AM | Irene Street and Taylor Street[3] EBL PM |
|---|---|---|---|---|
| **Background Plus Project** | | | | |
| Cycle/Delay [1] (sec) | 233.8 | 1064.7 | 11.2 | 12.2 |
| Volume (vphpl ) | 51 | 105 | 3 | 17 |
| Total 95th %. Queue (veh.) | 7 | 40 | 1 | 1 |
| Total 95th %. Queue (ft.) [2] | 175 | 1000 | 25 | 25 |
| Total Storage | 375 | 375 | 25 | 25 |
| Adequate (Y/N) | Y | **N** | Y | Y |

Notes:
SBL = southbound left movement; SBT = southbound through movement; SBR = southbound right movement; EBL = eastbound left movement
[1] Vehicle queue calculations based on cycle length for signalized intersections and worst approach delay for unsignalized intersections.
[2] Assumes 25 Feet Per Vehicle Queued.
[3] The eastbound left-turn storage length reflects the minimum required storage length for left turns at Irene Street and Taylor Street.

## Walnut Street and Taylor Street

The queuing analysis indicates that the 95$^{th}$ percentile vehicle queue for the shared left-through-right lane on Walnut Street at Taylor Street would exceed the vehicle storage capacity during the PM peak hour of traffic under the background plus project conditions. The existing shared left-through-right lane provides approximately 375 feet of vehicle storage before the nearest cross-street, which can accommodate 15 vehicles. As mentioned in the previous section, Walnut Street is sufficiently wide to restripe the lane configuration from one shared left-through-right lane to a separate left-turn lane and a shared through-right lane. With this configuration, the delay at the stop-controlled southbound approach would improve, and the queue length would be reduced by providing storage for left turns.


**Figure 13**
**Proposed Left Turn Lane at Irene Street and Taylor Street**



NORTH
Not to Scale

# Vehicular Access and Circulation

The site access and circulation evaluation is based on the August 4, 2021 site plan prepared by RRM Design Group (see Figure 2 in Chapter 1). Site access was evaluated to determine the adequacy of the site's driveways with regard to the following: traffic volume, geometric design, sight distance and operations (e.g., queuing and delay). On-site vehicular circulation was reviewed in accordance with generally accepted traffic engineering standards.

## Site Access and On-site Circulation

The project would have access to/from Irene Street, Taylor Street, Walnut Street, and Asbury Street. Currently, Irene Street, Asbury Street, Walnut Street, and Spring Street are two lane streets with two-way vehicular travel. The site plans shows that Irene Street, Walnut Street, and Asbury Street would be reconfigured to be one-way streets with clockwise circulation around the park. Irene Street would operate as outbound only, and Walnut Street would operate as inbound only. Spring Street would be closed to vehicular travel and converted to a pedestrian paseo. However, it is recommended the one-way perimeter streets be reconfigured in the opposite direction with Irene Street providing inbound access to the project site and Walnut Street providing the outbound egress from the project site. Circulation around the park would be counterclockwise. The site plan does not show an eastbound left-turn lane into Irene Street from Taylor Street. To allow eastbound vehicles from Taylor Street to access the project site, it is recommended that the median at Taylor Street be reconfigured to allow an eastbound left turn lane. Without the left turn lane, access to the site from eastbound Taylor Street would not be possible because U-turns are prohibited.

**Recommendation**

**It is recommended that Walnut Street, Asbury Street, and Irene Street be reconfigured with Irene Street providing inbound access to the project site and Walnut Street providing the outbound egress from the project site. Circulation around the park would be counterclockwise. The site plan does not show an eastbound left-turn lane into Irene Street from Taylor Street. To allow eastbound vehicles from Taylor Street to access the project site, it is recommended that the median at Taylor Street be reconfigured to allow an eastbound left turn lane. Without the left turn lane, access to the site from eastbound Taylor Street would not be possible because U-turns are prohibited.**

Walnut Street, Asbury Street, and Irene Street would provide access to angled parking around the perimeter of the site and a landscaped surface parking lot that would be constructed adjacent to the eastern project boundary, east of Irene Street.

The site plan shows 60-degree angled parking around the site along Walnut Street, Asbury Street, and Irene Street. According to San Jose Parking Design Standards, the minimum one-way drive aisle width with 60-degree parking is 16 feet, and the length of a parking space should be 18.7 feet. The streets measure to approximately 38 feet wide, which would provide sufficient space to accommodate for angled parking and one-way travel.

The site plan also shows that the vehicle parking along Walnut Street, Asbury Street, and Irene Street is angled for clockwise flow around the park. Hexagon recommends counterclockwise flow.

**Recommendation**

**The angled on-street parking spaces should be flipped to accommodate counterclockwise flow around the park.**

The parking lot at the eastern end of the project site would also provide parking for the project. Access to the parking lot would be provided via two driveways at each end of the parking lot on Irene Street.

The parking lot has two-way drive aisles that would lead to 90-degree parking spaces. There are no drive aisle dimensions shown on the site plan. According to the San Jose Municipal Code, the minimum width for a two-way drive aisle is 26 feet.

**Parking Stall Dimensions**

The City of San Jose Off-Street Parking Design Standards for Uniform Car Spaces require that standard 60 and 90-degree parking stalls be a minimum of 8.5 feet wide by 17 feet long. The site plan does not show the parking stall dimensions.

**Recommendation**

**It is recommended that the project provide standard parking stalls compliant with the City of San Jose Design Standards.**

**Planned Closure of Spring Street**

The project would close Spring Street between Taylor Street and Asbury Street. The project proposes to replace the portion of Spring Street between West Taylor Street and Asbury Street with a pedestrian paseo. The City intends to permanently close Spring Street from West Taylor Street to West Hedding Street in the future. Prior to the permanent closure of Spring Street, the City would temporarily close Spring Street to allow for construction of the proposed project. The temporary closure would last approximately two years. Then, the City would seek out permanent closure of Spring Street.

With the closure of Spring Street, the left turn lane on Taylor Street at Spring Street would need to be closed.

## Truck Access and Circulation

The site plan shows the trash enclosure would be located on the north end of the eastern soccer field on Asbury Street. It is expected that garbage would be rolled to the loading zone in front of the trash enclosure for trash collection. Garbage collection is not expected to impact pedestrian or traffic operations.

The site plan also shows food truck parking along Asbury Street. Truck access would be provided to the food truck parking via Irene Street and Taylor Street.

### Emergency Vehicle Access

Emergency vehicle access (EVA) to the site would be from Irene Street, Taylor Street, Asbury Street, and Walnut Street. Therefore, the reconfigured Walnut Street, Asbury Street, and Irene Street should provide the minimum fire access that would comply with the City's fire code.

## Pedestrian, Bicycle and Transit Facilities

All new development projects in San Jose should encourage multi-modal travel, consistent with the goals of the City's General Plan. It is the goal of the General Plan that all development projects accommodate and encourage the use of non-automobile transportation modes to achieve San Jose's mobility goals and reduce vehicle trip generation and vehicle miles traveled. In addition, the adopted City Bike Master Plan establishes goals, policies and actions to make bicycling a daily part of life in San Jose. The Master Plan includes designated bike lanes along all City streets, as well as on designated bike corridors. In order to further the goals of the City, pedestrian and bicycle facilities should be encouraged with new development projects.

The Envision 2040 General Plan identifies goals and policies that are dedicated to the enhancement of the transportation infrastructure, including public transit and pedestrian/bike facilities. The Transportation Policies contained in the General Plan create incentives for non-auto modes of travel while reducing the use of single-occupant automobile travel as generally described below:

- Through the entitlement process for new development, fund needed transportation improvements for all transportation modes, giving first consideration to improvement of bicycling walking, and transit facilities.
- Give priority to the funding of multimodal projects to provide the most benefit to all users of the transportation system.
- Encourage the use of non-automobile travel modes to reduce vehicle miles traveled (VMT)
- Consider the impact on the overall transportation system when evaluating the impacts of new developments.
- Increase substantially the proportion of travel modes other than single-occupant vehicles.

**Bicycle and Pedestrian Facility Improvements**

The Envision 2040 General Plan identifies the following goals in regard to bicycling and pedestrians:

- Provide a continuous pedestrian and bicycle system to enhance connectivity throughout the City by completing missing segments.
- Build pedestrian and bicycle improvements at the same time as improvements for vehicular circulation.
- Give priority to pedestrian improvement projects that improve pedestrian safety, improve pedestrian access to and within the Urban Villages and other growth areas.

## Pedestrian Facilities

Pedestrian facilities consist of sidewalks along the streets in the immediate vicinity of the project site. Crosswalks with pedestrian signal heads and push buttons are located at all the signalized intersections in the study area. A crosswalk and pedestrian yield sign are present on Taylor Street at the Spring Street intersection that connects the Heritage Rose Garden to the project site frontage.

The site plan indicates that the existing sidewalks along the project frontages on Asbury Street between Walnut Street and Irene Street would be reconstructed to provide sidewalks with trees. The new sidewalks would provide pedestrian access to the project site. The project should also provide ADA facilities at the Walnut Street and Asbury Street and the Irene Street and Asbury Street intersections.

The project would provide a pedestrian paseo along Spring Street between Asbury Street and Taylor Street to connect the two multi-sport fields together. The paseo would be closed off to vehicle traffic and provide a walkway for pedestrians and bicyclists.

Overall, the network of sidewalks and crosswalks exhibits good connectivity and would provide pedestrians with safe routes to transit services and other points of interest in the area.

## Bicycle Facilities

Striped bike lanes (Class II bike facilities) are provided in both directions on Coleman Avenue, Taylor Street, and Hedding Street. Coleman Avenue provides connections to the San Jose Airport to the north and downtown San Jose to the south. North San Pedro Street, Santa Teresa Street, Ryland Street and Hawthorne Way are designated Class III bike routes. The Guadalupe River Park Trails, Spring Street, Guadalupe Gardens Trails, and the Heritage Rose Garden Trails provide bike paths around the project area.

The San Jose Better Bike Plan 2025 has plans to improve the existing Class II bike lanes along Taylor Street between N. 1st Street and The Alameda to Class IV protected bike lanes. This would improve bicycle access to the project site.

As mentioned in the previous section, a pedestrian paseo on Spring Street between Asbury Street and Taylor Street would be provided for pedestrian and bicycle traffic. In addition, an approximately 12-foot-wide paved trail connection would be provided by the project between the surface parking lot and the Guadalupe River trail. The project would not remove any existing bicycle facilities, nor would it conflict with any adopted plans or policies for new bicycle facilities.

**Recommendation**

**The site plan does not show any bicycle parking. The project should provide the required number of bicycle parking in accordance to San Jose bicycle parking guidelines. Based on the project description, the project should provide 25 bicycle parking spaces.**

### Transit Services

The project site is served by VTA local bus routes 61. Local route 61 operates along Coleman Avenue. The nearest bus stop is at the intersection of Coleman Avenue and Taylor Street. The Blue and Green LRT Line stop is located approximately 4,500 feet east of the project site and is served by local bus route 61.

The project is expected to generate a small increase in transit demand, which could be accommodated by the available capacity of the bus service near the project site.

## Neighborhood Interface

The project site is situated adjacent to an existing light industrial neighborhood. The nearest school is Bellarmine College Preparatory located at University Avenue and Elm Street, approximately 3,500 feet west of the project site. The project site can be accessed from the school via sidewalks along Taylor Street and Stockton Avenue and bicycle lanes along Taylor Street.

The nearest residential neighborhood is situated on San Pedro Street and George Street, approximately 2,000 feet east of the project site. The project site can be accessed from the residential neighborhood via sidewalks and bicycle lanes along Taylor Street.

## Average Daily Traffic (ADT)

The average daily traffic (ADT) volumes on four roadway segments are shown in Table 9 and attached in Appendix F. It is important to note that the ADT counts were conducted in July 2020, during the COVID-19 pandemic. As such, the volumes are lower than normal conditions. Since the City of San Jose has no established standard or significance threshold regarding daily traffic on local streets, the roadway volume data are presented here for informational purposes.

**Table 9**
**Average Daily Traffic on Surrounding Streets**

| Roadway Segment | Existing Weekday ADT Counts [1] |
|---|---|
| Spring Street b/t Asbury Street and Taylor Street | ***1,546*** |
| Asbury Street b/t Spring Street and Irene Street | ***751*** |
| Walnut Street b/t Asbury Street and Taylor Street | ***732*** |
| Irene Street b/t Asbury Street and Taylor Street | ***486*** |

Notes:
1. 24-hour tube counts were conducted July 2020. These ADT counts were taken from the highest day on a typical weekday.

Based on the project trip generation table (see Table 4), the project is expected to add 325 daily trips to the roads in the vicinity of the project site. No daily trips would be added to Spring Street due to the project's proposed closure of the street for a pedestrian paseo. Asbury Street, Walnut Street, and Irene Street would be reconfigured to one-way circulation around the project perimeter. Therefore, most of the daily traffic would be added to Asbury Street, Walnut Street, and Irene Street. Typically, a local street should have less than 2,500 daily vehicles to maintain livability. As shown by the ADT counts, these streets are currently operating well below capacity. Asbury Street, Walnut Street, and Irene Street would have sufficient capacity for the project trips.

## Parking

Parking provided on the site was evaluated based on the City of San Jose's off-street parking requirements (San Jose Municipal Code Chapter 20.90, Table 20-190 and Table 20-250).

### Vehicle Parking Requirements

The City of San Jose's off-street vehicle parking requirement for the proposed park is 20 spaces per acre of site. The project is 12.5 acres (544,500 square feet). Therefore, the park is required to provide 250 spaces. The project proposes to provide 32 spaces on Walnut Street, 70 spaces on Asbury Street, 29 spaces on Irene Street, and 121 spaces at the eastern parking lot, which totals to 252 spaces. Therefore, the project meets the City's parking requirements. There is also food truck parking shown on Asbury Street.

#### Bicycle Parking Supply Requirement

In accordance with the City's Bicycle Parking Standards (Chapter 20.90, Table 20-190), the project is required to provide 2 bicycle parking spaces for every acre of site. This equates to a total bicycle

parking requirement of 25 spaces (2 spaces per acre x 12.5 acres = 25 spaces). Short-term bicycle parking facilities should be provided around the project site.

Short-term bicycle parking facilities are accessible and usable by visitors and may include:

- Permanently anchored bicycle racks,
- Covered, lockable enclosures with permanently anchored racks for bicycles,
- Lockable bicycle rooms with permanently anchored racks, and
- Lockable, permanently anchored bicycle lockers.

The site plan does not show any bicycle parking spaces. Therefore, the project should provide bicycle parking around the project site that complies with the City of San Jose bicycle parking requirements.

## Construction Activities

Typical activities related to the construction of any development could include lane narrowing and/or lane closures, sidewalk closures, crosswalk closures, and bike lane closures. In the event of any type of closure, clear signage (e.g., closure and detour signs) must be provided to ensure vehicles, pedestrians and bicyclists are able to adequately reach their intended destinations safely. Per City standard practice, the project would be required to develop a construction management plan that addresses the construction schedule, street closures and/or detours, construction staging areas, construction vehicle parking, and the planned truck routes.

# 5. Conclusions

This report presents the results of the local transportation analysis (LTA) conducted for the proposed reconstruction of Columbus Park located in San Jose, California. Columbus Park is located within Guadalupe Gardens along West Taylor Street and is bisected by Spring Street. Current park amenities include two multi-use softball fields, two basketball courts, two sand volleyball courts, three picnic areas, and 21 horseshoe pitches. Proposed plans for reconstruction of Columbus Park include demolition of all existing park facilities and the construction of two new multi-sport fields, four pickleball courts, one futsal/basketball court, and 23 horseshoe pitches. The proposed plans will also include a play area and picnic area. The plan also proposes constructing a new parking lot on the eastern project boundary, closing Spring Street between Asbury Street and West Taylor Street to connect the two halves of Columbus Park, and converting Irene Street, Asbury Street, and Walnut Street to one-way circulation with angled parking.

The transportation impacts of the project were evaluated following the standards and methodologies established in the City of San Jose's Transportation Analysis Handbook, adopted in April 2020. Based on the City of San Jose's Transportation Analysis Policy (Policy 5-1) and the Transportation Analysis Handbook, the Transportation Analysis report for the project includes a California Environmental Quality Act (CEQA) transportation analysis and a Local Transportation Analysis (LTA).

## CEQA Transportation Analysis

Transportation impacts under CEQA are evaluated based on vehicle miles traveled (VMT). The project proposes a reconstruction of Columbus Park by adding two new multi-sport fields, four pickleball courts, one futsal/basketball court, and a horseshoe court with the 23 horseshoe pitches. Since the City has not established thresholds of significance for parks, the project cannot be evaluated directly. Accordingly, based on direction from City staff, VMT analysis was conducted by converting vehicle trips generated by the proposed soccer fields and pickleball courts to an equivalent amount of retail square footage, for which the City has established a screening criterion and threshold of significance. Local-serving retail is defined as retail project below 100,000 square feet without drive-through operations. This is a reasonable approach to VMT analysis for the project since park facilities are typically local serving and exhibit similar trip length characteristics to that of local retail uses (e.g., both uses typically serve nearby residents). Based on the standard daily trip generation rates contained in the Institute of Transportation Engineers' (ITE) *Trip Generation Manual, 11th Edition* (2021) for Soccer Complex (ITE Land Use 488), Tennis Courts (Land Use 490), and Shopping Center (ITE Land Use 820), two soccer fields, pickleball courts, and basketball courts are estimated to generate the same number of daily trips as 8,800 s.f. of retail space, which is below the 100,000 square feet threshold. Thus, the project's impact on VMT would be less-than-significant.

### CEQA Cumulative Impacts

The project is consistent with the General Plan goals and policies for the following reasons:

- The project site is located approximately 550 feet from the nearest bus stop at Coleman Avenue and Taylor Street.
- The project frontage has bicycle lanes along Taylor Street.
- The project proposes new sidewalks along Walnut Street, Asbury Street, and Irene Street.
- The project proposes to construct a pedestrian paseo on Spring Street between Asbury Street and Taylor Street, connecting the two multi-sport fields.

Therefore, based on the project description, the proposed project would be consistent with the *Envision San José 2040 General Plan*. Thus, the project would be considered as part of the cumulative solution to meet the General Plan's long-range transportation goals and would result in a less-than-significant cumulative impact.

## Local Transportation Analysis

### Project Trip Generation

The proposed project is estimated to generate 325 daily vehicle trips, with 2 trips (1 inbound and 1 outbound) occurring during the AM peak hour and 58 trips (36 inbound 22 outbound) occurring during the PM peak hour.

### Intersection Traffic Operations

The results of the analysis show that the Coleman Avenue and Taylor Street intersection would operate at an unacceptable level of service during the PM peak hour under background and background plus project conditions. However, the project would not cause the critical-movement delay at the intersection to increase by four (4) or more seconds and the volume-to-capacity ratio (V/C) to increase by one percent (.01) or more. Therefore, the project would not have an adverse effect at the intersection.

### Signal Warrant Analysis

The results of the peak-hour traffic signal warrant checks indicate that the following unsignalized intersections would meet the signal warrant:

- Spring Street and Hedding Street – Existing and Background Conditions during both peak hours
- Walnut Street and Taylor Street – Background Plus Project Conditions during the PM peak hour

**Spring Street and Hedding Street**

The intersection of Spring Street and Hedding Street would warrant signalization based on the signal warrant analysis for existing and background conditions during both peak hours. However, the City plans to permanently close Spring Street from Hedding Street to Taylor Street as part of the project, closing off the south leg of the intersection. With this closure, signalization at this intersection would not be warranted.

**Walnut Street and Taylor Street**

The intersection of Walnut Street and Taylor Street would warrant signalization based on the signal warrant analysis for background plus project conditions during the PM peak hour.

**Recommendation**

As an alternative to signalizing the intersection, Walnut Street is sufficiently wide to restripe the lane configuration from a single shared left-through-right lane to a separate left-turn lane and a shared through-right lane. With this configuration, the delay at the stop controlled southbound approach would improve, and signalization at this intersection would not be warranted.

## Queueing Analysis

The queuing analysis indicates that the 95$^{th}$ percentile vehicle queue for the shared left-through-right lane on Walnut Street at Taylor Street would exceed the vehicle storage capacity during the PM peak hour under background plus project conditions. The existing shared left-through-right lane provides approximately 375 feet of vehicle storage before the nearest cross-street, which can accommodate 15 vehicles. As mentioned in the previous section, Walnut Street is sufficiently wide to restripe the lane configuration from a shared left-through-right lane to a separate left-turn lane and shared through-right lane. With this configuration, the delay at the stop-controlled southbound approach would improve, and the queue length would be reduced by providing storage for left turns.

## Other Transportation Analyses

The project would not have an adverse effect on the existing pedestrian, bicycle, or transit facilities in the area. The proposed site plan shows adequate site access and on-site circulation, and no significant operational issues are expected to occur as a result of the project. Below are recommendations resulting from the site plan review.

**Recommendations**

- It is recommended that Walnut Street, Asbury Street, and Irene Street be reconfigured with Irene Street providing inbound access to the project site and Walnut Street providing the outbound egress from the project site. The site plan does not show an eastbound left-turn lane into Irene Street from Taylor Street. To allow eastbound vehicles from Taylor Street to access the project site, it is recommended that the median at Taylor Street be reconfigured to allow an eastbound left turn lane. Without the left turn lane, access to the site from eastbound Taylor Street would not be possible because U-turns are prohibited.
- The angled on-street parking spaces should be flipped to accommodate counterclockwise flow around the park.
- The site plan does not show any dimensions for parking. Therefore, it is recommended that that the project provide standard parking stalls compliant with the City of San Jose Design Standards.
- The site plan does not show any bicycle parking. The project should provide the required number of bicycle parking in accordance with San Jose bicycle parking guidelines. Based on the project description, the project should provide 25 bicycle parking spaces.