Initial Study

International Swim Center & Community Recreation Center Expansion

File No: PLN2015-10939 / CEQ2015-01189

City of Santa Clara

June 2016

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SECTION 1.0 INTRODUCTION AND PURPOSE

This Initial Study of environmental impacts has been prepared to conform to the requirements of the California Environmental Quality Act (CEQA), the CEQA Guidelines (California Code of Regulations 15000 et. seq.), and the regulations and policies of the City of Santa Clara. This Initial Study evaluates the potential environmental impacts which might reasonably be anticipated to result from the construction of a new combined swim center and community center in Central Park in the City of Santa Clara.

The City of Santa Clara is the Lead Agency under CEQA and has prepared this Initial Study to address the impacts of implementing the proposed project.

All documents referenced in this Initial Study are available for public review in the office of Planning and Inspection in Santa Clara City Hall, 1500 Warburton Avenue, during normal business hours.

SECTION 2.0 PROJECT INFORMATION

2.1 PROJECT TITLE

International Swim Center & Community Recreation Center Expansion

2.2 PROJECT LOCATION

The project is comprised of multiple sites located within Central Park in the City of Santa Clara. The project sites are located primarily along Kiely Boulevard between Benton Street and Homestead Road and are shown on the following figures:

Figure 2.2-1 Regional Map
Figure 2.2-2 Vicinity Map
Figure 2.2-3 Aerial Map

2.3 LEAD AGENCY CONTACT

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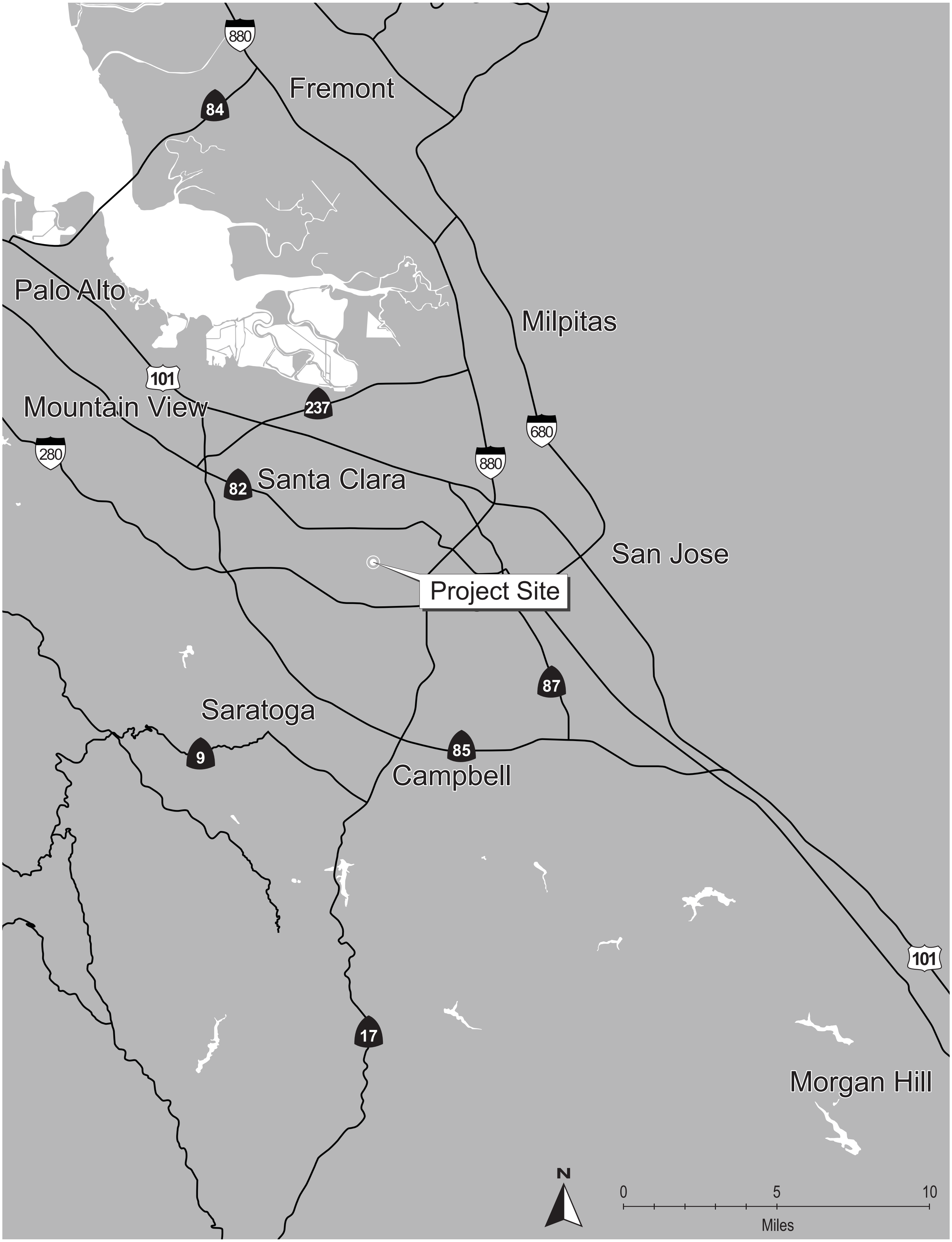
2.4 ASSESSOR'S PARCEL NUMBERS

290-26-029

2.5 ZONING DISTRICT AND GENERAL PLAN DESIGNATIONS

Zoning District:	B – Public or Quasi Public
General Plan Designation:	Parks/Open Space



REGIONAL MAP FIGURE 2.2-1

VICINITY MAP FIGURE 2.2-2

AERIAL PHOTOGRAPH AND SURROUNDING LAND USES FIGURE 4.10-1

SECTION 3.0 PROJECT DESCRIPTION

Background

The City of Santa Clara currently owns and operates the International Swim Center (ISC) located on the east side of Central Park (2625 Patricia Drive) and the Community Recreation Center (CRC) located on Kiely Boulevard, on the west side of Central Park, in the City of Santa Clara. The two largest yearly events at the park include the Arena Grand Prix-International Swim Competition at the ISC, with up to 5,000 participants and spectators over three days, and the annual Art and Wine Festival, with up to 25,000 participants over two days. The existing ISC and the park were constructed in 1967, the CRC was constructed in 1976. The existing CRC and ISC facilities have reached the end of their useful life span and are proposed to be replaced with a new combined facility.

For the purposes of this analysis, the existing ISC facility will be referred to as Site 1, the CRC will be referred to as Site 2, and the Pavilion parking lot at the southwest corner of the park will be referred to as Site 3 as outlined below.

Site 1 (ISC) is located near the eastern boundary of the park and is comprised of a main building (bathhouse, team rooms, and offices), one 50 meter competition pool, one practice/training pool, a dive pool and tower, and covered stadium seating.

Site 2 (CRC) is located centrally along the western boundary of the park, along Kiely Boulevard. The CRC is comprised of one building, two surface parking lots, two tennis courts, and two basketball courts, playground, and par course.

Site 3 (Pavilion parking lot) is located at the southwest corner of the park, along Kiely Boulevard. The parking lot has one ingress/egress driveway from Kiely Boulevard.

Proposed Development

The project would demolish the existing ISC and CRC and construct a new 171,650 square foot combined facility located on the west side of Central Park, fronting Kiely Boulevard. The new facility would be constructed in the location of the existing CRC. The existing International Swimming Hall of Fame (ISHOF) is proposed to be relocated from Florida into a portion of the new facility.

The new facility would house the ISC and ISHOF operations at the northern end of the building (referred to as the Aqua Arena and Swim Stadium) and would have one competition dive pool, one 50 meter competition pool, and a 50 meter training/competition pool. The Aqua Arena, located along the Kiely Boulevard frontage, would be 45 feet tall to the top of the building. The competition and training pool area, east of the dive pool, would be approximately 17 feet tall to the top of the building enclosure and would be covered by a pool canopy with a maximum height of 66 feet.

The remainder of the building would house the CRC facilities and would include a recreational/instruction pool, a gymnasium, a 400-seat theater, multi-purpose activity rooms (i.e., arts, ceramics, and music), and a separate childhood enrichment center building. The CRC section of the building would be two stories with a maximum height of 44 feet.

Two surface parking lots would be constructed immediately north and west of the proposed building with a total of 139 parking spaces. A parking structure is proposed on an existing surface parking lot (Pavilion parking lot) at the southwest corner of the park on Kiely Boulevard. The parking structure would have a minimum of 661 parking spaces (with four levels of parking) and a maximum of 1,242 parking spaces (with six levels of parking). See Figure 3.0-1

The existing location of the ISC would be converted to park land. The remainder of Central Park will remain in its current condition.

Operation

The proposed facility would be open seven days a week, except on City holidays, and is anticipated to have up to 3,000 participants during with work week and up to 4,000 participants per weekend. During a standard two-hour time period, it is estimated that approximately 250 to 375 participants would utilize the facility on weekdays and approximately 500 to 600 participants on weekends. The ISC pools would be primarily used for competition training, practices, swim meets, and public swimming. For national aquatic competitions, the ISC would be able to seat up 5,000 spectators. Proposed hours of operation are below.

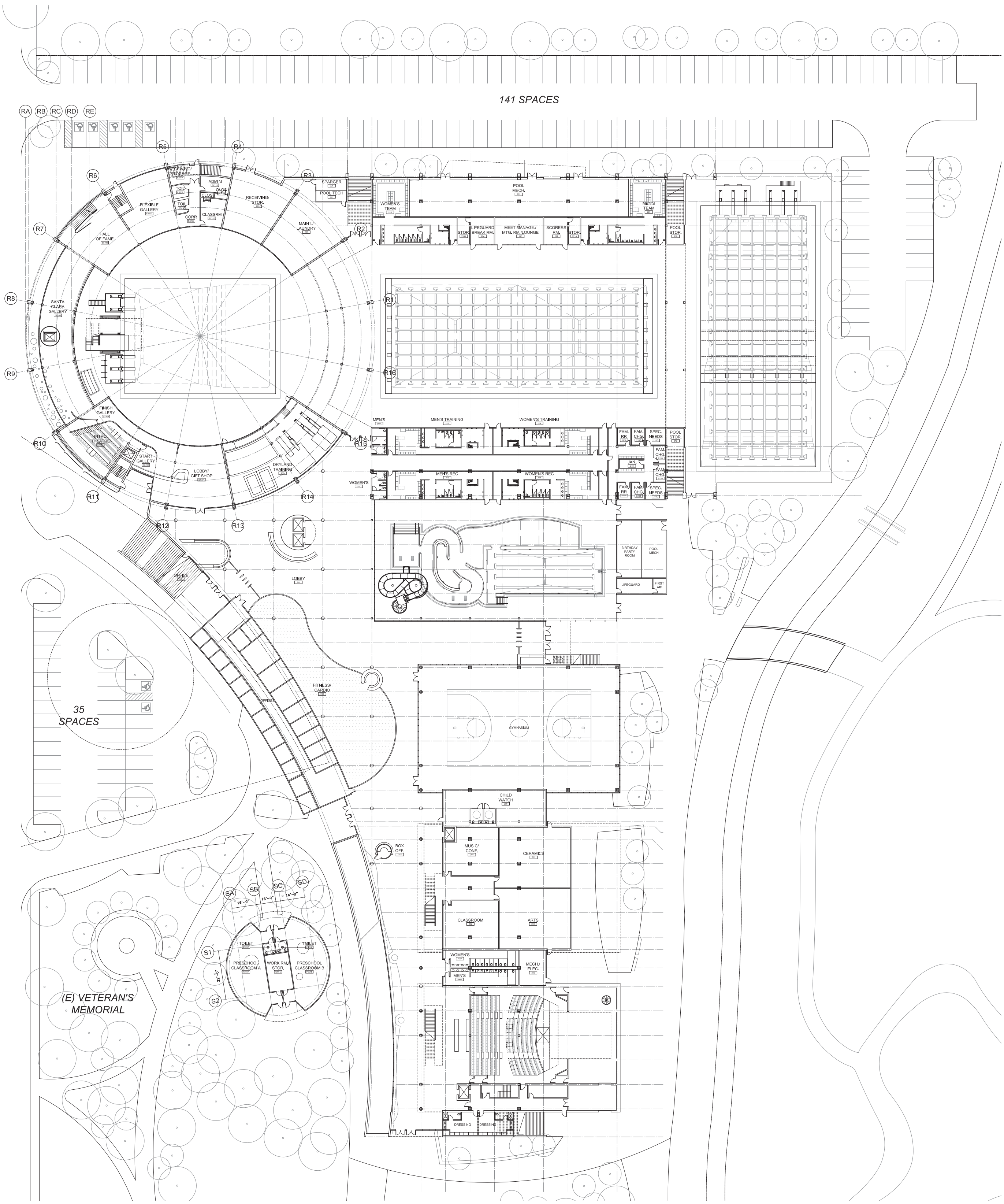
TABLE 3.0-1
Proposed Standard Hours of Operation

Hours	Community Recreation Center	International Swim Center
Monday-Friday	5:30AM – 9:30PM	5:00AM – 9:30PM
Saturday	8:00AM – 8:00PM	6:30AM – 9:00PM
Sunday	10:00Am – 7:00PM	6:30AM – 8:00PM

Lighted park facilities are permitted by City Code to be open until 10:00 PM. Special events at the new facility and within the park could extend beyond 10:00 PM, such as a show at the theater or fireworks, consistent with current conditions. Current operation of the CRC allows for the facility to be available to operate 24 hours a day, seven days a week to serve as an emergency shelter. This would continue under the proposed project.

Visitation Rates

The proposed project would include regular programming of recreational activities at the CRC and ISC. Table 3.0-2 shows the current visitation of the existing facilities individually, and the expected visitation rate for the new combined facility.



SITE PLAN

FIGURE 3.0-1

TABLE 3.0-2 Visitation Rates			
Facility	**Time**	**Current Visits (per week)**	**Expected Visits (per week)**
Community Recreation Center	Summer	2,177	---
	Fall	1,612	---
International Swim Center	Per Year	1,525	---
Proposed ISC/CRC Facility	Weekdays	---	3,000
	Weekends	---	4,000

General Plan and Zoning Designations

Central Park, including the project areas, is designated as *Parks/Open Space* in the General Plan. The designation allows for improved and unimproved park and open space facilities, managed natural resource areas, and outdoor recreation areas. It includes neighborhood, community, and regional parks, public golf courses, recreational facilities, and nature preserves that provide active or visual open space and serve the outdoor recreational needs of the community. The park is also specifically defined as a Community Park serving the entire City.

The park, including the project areas, is zoned *B – Public or Quasi Public* by the City Code. The intent of the zoning district is to identify public, quasi-public and public park facilities as specific land use developments.

Green Building Measures

The project proposes to incorporate the following green building measures for LEED Platinum certification:

- Green roofs to reduce the heat island effect.
- Water efficient fixtures to reduce potable water use.
- Water efficient landscaping to reduce irrigation by 50 percent.
- Recycled water for landscaping.
- Energy efficient building performance.
- On-site renewable energy sources/green power.
- Low Volatile Organic Compound (VOC) emitting building materials (i.e., adhesives, sealants, paints, coatings, carpet, and composite wood).
- Computer system to control lighting and temperature.
- Daylighting of the facility.
- Utilize local building materials, certified wood, recycled materials.

SECTION 4.0 SETTING, ENVIRONMENTAL CHECKLIST AND IMPACTS

This section describes the existing environmental conditions on and near the project area, as well as environmental impacts associated with the proposed project. The environmental checklist, as recommended in the California Environmental Quality Act (CEQA) Guidelines, identifies environmental impacts that could occur if the proposed project is implemented.

The right-hand column in the checklist lists the source(s) for the answer to each question. The sources cited are identified at the end of this section. Mitigation measures are identified for all significant project impacts. "Mitigation Measures" are measures that will minimize, avoid, or eliminate a significant impact (CEQA Guidelines §15370). Measures that are proposed by the applicant that will further reduce or avoid already less than significant impacts are categorized as "Avoidance Measures."

4.1 AESTHETICS

4.1.1 Existing Setting

The project is comprised of three sites located within the existing Central Park, a 52-acre city park that includes a community recreation center, playgrounds, sport fields, large group picnic areas, entertainment Pavilion, lake, tennis complex, a Veterans Memorial, the Main library, the ISC, the Parks Division maintenance yard, and other facilities.

The existing CRC, located on the west side of the park, is a one-story concrete building with a sloped tile roof constructed in 1976. The main entrance has glass sliding doors, a pergola, and a paved path that extends to the parking lot (Photo 1). Multiple tinted windows are located along the north and south side of the building. The building has no distinctive architectural style. Landscaping includes trees, shrubs, and groundcover are located along all four sides of the building. The CRC is set back from the street frontage by landscaping, a sidewalk, and a surface parking lot. A second surface parking lot and two lighted tennis courts are located north of the CRC building. Two full size outdoor basketball courts are located to the south of the building.

The existing ISC, located on the east side of the park, includes the main building, three pools, and multiple accessory structures and was constructed in 1967. The building is a two-story concrete structure with a cupola over the central lobby area and two large glass entrances. (Photo 2). The north and south wings of the building have three "stacked" sections with prominent sloped roofs and minimal windows. The building faces a long, narrow parking lot that serves the park and separates the ISC from the adjacent single-family residences. The three pools at the facility, as well a diving tower and covered bleachers, are located west of the building. The bleachers and dive tower are clearly visible from the parking area.

Within the park, the CRC and ISC are separated by a large pond with a fountain and Saratoga Creek. Two 10-foot wide wood and metal pedestrian bridges span the creek and provide pedestrian connections between the sites. (Photo 3) The creek is channelized, with rip-rap along the banks, but has a dense riparian corridor. (Photo 4)

PHOTO 1: View of the existing CRC building, looking south for the CRC parking lot.

PHOTO 2: View of the existing ISC building, looking west from the ISC parking lot.

PHOTOS 1 AND 2

PHOTO 3: View of the bridge connecting the CRC to the ISC.

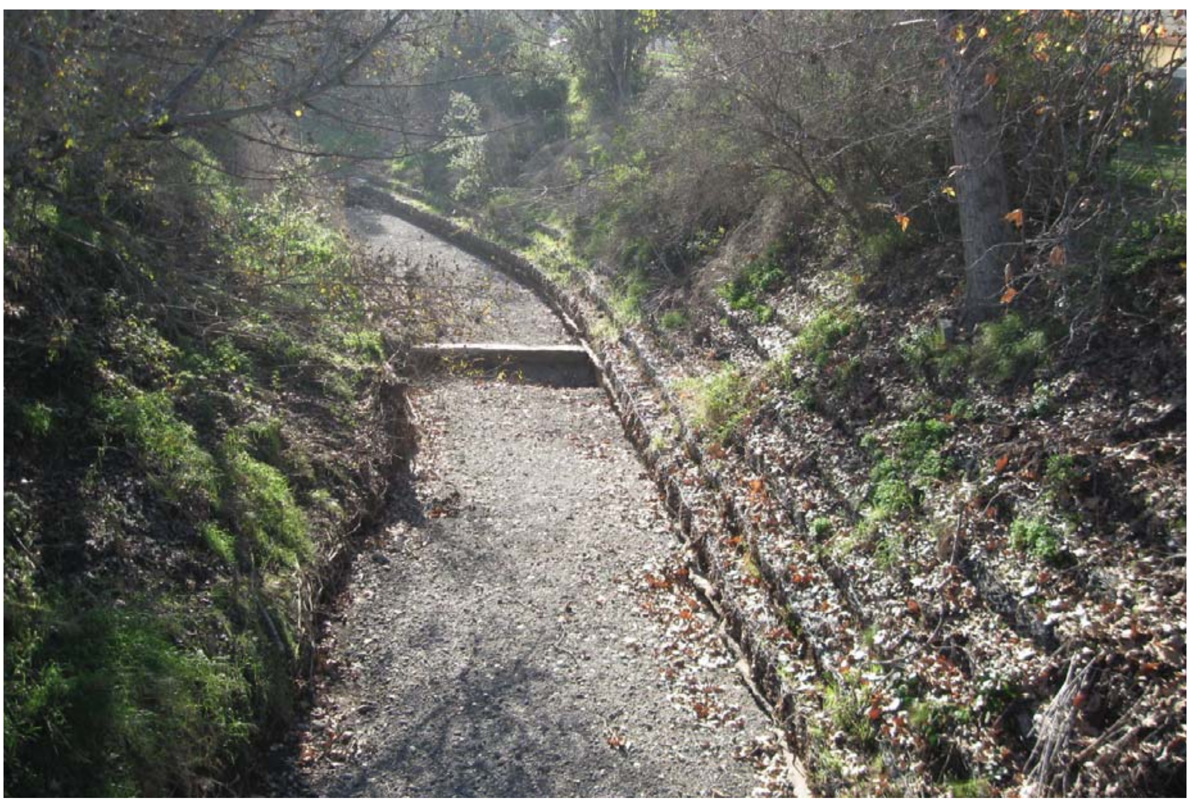


PHOTO 4: View of Saratoga Creek, looking south from the bridge adjacent to the CRC.

PHOTOS 3 AND 4


PHOTO 5: View of the parking lot at the southwest corner of the park.

PHOTO 5

A pedestrian trail runs through the park, along the creek, and provides access to the surface parking lot at the southwest corner of the park. The lot is set back from the street frontage by a six-foot wide sidewalk and landscaping. Mature trees are located within and around the parking lot. (Photo 5)

4.1.1.2 Surrounding Land Uses

The park is bounded by a public school and park maintenance yard to the north, single-family and multi-family residences to the east, the Central Park Main Library, a church, private school, and apartments to the south, and apartments and a post office to the west, across Kiely Boulevard.

The residential neighborhood to the east, constructed in the 1960s, is a mix of one- and two-story houses in varying styles. The apartments to the west of the park, on the west side of Kiely Boulevard range from two to four stories. The newest apartments and townhouses to the west, at the old Kaiser Hospital site, are newly constructed with minimal setbacks from the street. The older apartments are separated from Kiely Boulevard by surface parking and dense landscaping.

A small, two-story apartment building is located directly adjacent to the southern boundary of Site 3. Classrooms and a small playground for the St. Justin Parish Community School are directly adjacent to the eastern boundary of Site 3.

4.1.1.3 Scenic Views and Resources

The project site and the surrounding area are relatively flat and, as a result, the site is only visible from the immediate area. The project area is not located within a designated scenic area or corridor based on the City of Santa Clara General Plan. While the park could be considered scenic, there are no formally designated scenic views or resources within the project area.

4.1.1.4 Light and Glare

Sources of light and glare are abundant in the urban environment of the project area, including, but not limited to, streetlights, parking lot lights, security lights, vehicular headlights, internal building lights, and reflective building surfaces and windows.

4.1.2 <u>Environmental Checklist and Discussion of Impacts</u>

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project:					
1. Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐	1,2,3
2. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☒	☐	1,2,3

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project:					
3. Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☒	☐	1,2,3
4. Create a new source of substantial light or glare which will adversely affect day or nighttime views in the area?	☐	☐	☒	☐	1,2,3

4.1.2.1 Aesthetic Impacts

Implementation of the project would result in the demolition of the existing CRC and ISC and construction of a new combined facility on Site 1 and a new parking structure on Site 3. Site 2 would be converted to open space for the park. The new facility would be taller than the existing CRC, but would be similar in height to the multi-family residential development across Kiely Boulevard. The facility would be visible from Kiely Boulevard and from within the park, primarily from areas on the west side of the creek. Due to the dense riparian corridor along the creek, views of the facility will be limited from the east side of the creek. The facility would not be visible from the residential neighborhood east of the park.

Due to the proposed location of the parking structure, it would not be visually prominent from within the park or from most of the residential neighborhood. Views would be limited to persons traveling on Kiely Boulevard (and to a lesser extent to persons traveling east on Homestead Road), and the immediately adjacent buildings.

The project area is developed with single-family and multi-family residential units, multiple schools, and commercial development with a mix of architectural styles. No particular design aesthetic is dominant. Because there is no predominant architectural style in the project area, the proposed building design would be compatible with the mixed visual character of the area. The final design of the project would be subject to the City's Architectural Review Committee. For these reasons, development of the project would not substantially degrade the existing visual character of the site or its surroundings. **(Less Than Significant Impact)**

Scenic Vista and Resources

The proposed project is located within Central Park and located in an urban area with a mix of residential and school uses that has no designated scenic resources. The proposed project will alter the visual character of the neighborhood through demolition of the existing ISC on the eastern portion of the park and the existing CRC on the western portion of the park and construction of a new 171,650 square foot facility. Implementation of the proposed project would not, however, block views of any designated scenic vistas or scenic resources. Therefore, the project would have a less than significant impact on designated scenic vistas or resources. **(Less Than Significant Impact)**

Light and Glare

Exterior lighting for the proposed facility would include security lighting around the building, within the parking areas, and along the pathways. During evening hours, the Aqua Arena would be lit internally and the light would be visible through filtered blue and green translucent panels at the front entryway. A canopy would overhang the spectator stadium of the Aqua Arena to reduce light leaking from the open-air component of the building.

The competition pool within the main building would be lit by internal stadium light sources. Lighting on the roof structure would be external and would focus on signage. Architectural designs, including light shields, would limit the amount of light spillover from evening events.

Building materials and lighting plans would be reviewed by the City's Architectural Committee and the Planning Division staff prior to issuance of building permits to ensure that the project would not create a substantial new source of light or glare for nearby residences or persons traveling on the local roadways. As a result, the project would have less than significant nighttime light and daytime glare impacts in the project area. **(Less Than Significant Impact)**

4.1.3 Conclusion

The project would have a less than significant impact on the visual character of the project area, and it would not impact any scenic resources. The project would not create significant additional sources of light or glare. Therefore, the project would have a less than significant visual impact. **(Less Than Significant Impact)**

4.2 AGRICULTURAL AND FORESTRY RESOURCES

The project site is located in Santa Clara in an area designated for urban uses. According to the *Santa Clara County Important Farmlands 2010 Map*, the project site is designated as "Urban and Built-up Land."[1] The project site is not subject to a Williamson Act contract and there are no forest lands on or adjacent to the project site.

4.2.2 Environmental Checklist and Discussion of Impacts

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project:					
1. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒	1,2,3,4
2. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒	1,2,3,4
3. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒	1,2,3
4. Result in a loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒	1,2,3
5. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒	1,2,3

4.2.2.1 Agriculture and Forestry Resources Impacts

The proposed project would demolish the existing ISC and CRC, and construct a new building with swimming pools, a fitness center, a theater, and other community recreation amenities. The project would not convert *Prime Farmland, Unique Farmland,* or *Farmland of Statewide Importance* to non-agricultural uses and would not conflict with existing zoning for agricultural operations or facilitate unplanned conversion of farmland elsewhere in Santa Clara to non-agricultural uses. The project site is not utilized as forest lands (nor are there forest lands in the vicinity) and would not result in the

[1] "Urban and Built-up Land is defined as land with at least six structures per 10 acres and utilized for residential, institutional, industrial, commercial, landfill, golf course, and other urban-related purposes.

loss of forest lands in Santa Clara. For these reasons, the project would not result in a significant impact to agriculture or forestry resources. **(No Impact)**

4.2.3 Conclusion

The project would not result in any impacts to agricultural or forest lands. **(No Impact)**

4.3 AIR QUALITY

The following discussion is based, in part, on an Air Quality assessment prepared by *Illingworth & Rodkin* in January 2016. A copy of the report is attached in Appendix A of this Initial Study.

4.3.1 Setting

4.3.1.1 Climate and Topography

The City of Santa Clara is located in the Santa Clara Valley within the San Francisco Bay Area Air Basin. The project area's proximity to both the Pacific Ocean and the San Francisco Bay has a moderating influence on the climate.

Air quality and the amount of a given pollutant in the atmosphere are determined by the amount of a pollutant released and the atmosphere's ability to transport and dilute the pollutant. The major determinants of transport and dilution are wind, atmospheric stability, terrain and for photochemical pollutants, sunshine. The Bay Area typically has moderate ventilation, frequent inversions that restrict vertical dilution, and terrain that restricts horizontal dilution. These factors give the Bay Area a relatively high atmospheric potential for pollution.

Pollutants in the air can cause health problems, especially for children, the elderly, and people with heart or lung problems.

4.3.1.2 Regional and Local Criteria Pollutants

Major criteria pollutants include ozone, carbon monoxide, nitrogen dioxide, and suspended particulate matter (PM). These pollutants can have health effects such as respiratory impairment and heart/lung disease symptoms.

The Bay Area Air Quality Management District (BAAQMD) monitors air quality at several locations within the San Francisco Bay Air Basin. As shown in Table 4.3-1, violations of State and Federal standards at the downtown San José monitoring station (the nearest monitoring station to the project site) during the 2013-2015 period (the most recent years for which data is available) include high levels of ozone, PM_{10}, and $PM_{2.5}$.[2] Violations of carbon monoxide (CO) standards have not been recorded since 1992.[3]

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[2] PM refers to Particulate Matter. Particulate matter is referred to by size (i.e., 10 or 2.5) because the size of particles is directly linked to their potential for causing health problems.
[3] Bay Area Air Quality Management District. Annual Bay Area Air Quality Summaries. http://www.baaqmd.gov/about-air-quality/air-quality-summaries Accessed January 28, 2016.

TABLE 4.3-1 Number of Ambient Air Quality Standards Violations and Highest Concentrations (2013-2015)				
Pollutant	**Standard**	**Days Exceeding Standard**		
		2013	**2014**	**2015**
SAN JOSÉ STATION				
Ozone	State 1-hour	1	0	0
	Federal 8-hour	1	0	2
Carbon Monoxide	Federal 8-hour	0	0	0
	State 8-hour	0	0	0
Nitrogen Dioxide	State 1-hour	0	0	0
PM_{10}	Federal 24-hour	0	0	0
	State 24-hour	5	1	1
$PM_{2.5}$	Federal 24-hour	6	2	2

The pollutants known to exceed the State and Federal standards in the project area are regional pollutants. Ozone (O_3), PM_{10}, and $PM_{2.5}$ are all considered regional pollutants because the concentrations are not determined by proximity to individual sources, but rather show a relative uniformity over a region.

The Bay Area as a whole does not meet State or Federal ambient air quality standards for ground level O_3 or State standards for $PM_{10,}$ and $PM_{2.5.}$ Based on air quality monitoring data, the California Air Resources Board (CARB) has designated Santa Clara County as a "nonattainment area" for O_3 and PM_{10} under the California Clean Air Act. The County is either in attainment or unclassified for other pollutants.

4.3.1.3 Local Community Risks/Toxic Air Contaminants and Fine Particulate Matter

The Federal Clean Air Act defines Hazardous Air Pollutants (HAPs) as air contaminants identified by the U.S. EPA as known or suspected to cause cancer, serious illness, birth defects, or death. In California, Toxic Air Contaminants (TACs) include all HAPs, plus other contaminants identified by CARB are known to cause morbidity or mortality (cancer risk). TACs are found in ambient air, especially in urban areas, and are caused by industry, agriculture, fuel combustion, and commercial operations (e.g., dry cleaners). TACs are typically found in low concentrations, even near their source (e.g., benzene near a freeway). Because chronic exposure can result in adverse health effects, TACs are regulated at the regional, State, and Federal level. Unlike other emissions, TACs are measured based on the risk to human health rather than a set emission standard.

Diesel exhaust, a mixture of gases, vapors, and fine particles, is the predominant TAC in urban air and is estimated to represent about two-thirds of the cancer risk from TACs (based on the statewide average). Diesel particulate matter (DPM) is of particular concern since it can be distributed over large regions, thus leading to widespread public exposure. CARB has adopted and implemented a number of regulations for stationary and mobile sources to reduce emissions of DPM. Several of these regulatory programs affect medium and heavy duty diesel trucks. These trucks represent the bulk of DPM emissions from California highways and include the solid waste collection vehicles, public and utility fleets, and the heavy-duty diesel truck and buses.

Fine Particulate Matter ($PM_{2.5}$) is a complex mixture of substances that includes elements such as carbon and metal; compounds such as nitrates, organics, and sulfate; and complex mixtures such as diesel exhaust and wood smoke. Long-term and short-term exposure to $PM_{2.5}$ can cause a wide range of health effects. Common stationary source types of TACs and $PM_{2.5}$ include gasoline stations, dry cleaners, and diesel backup generators which are subject to permit requirements. The other, often more significant, common source is motor vehicles on freeways and roads.

4.3.1.4 Sensitive Receptors

BAAQMD defines sensitive receptors as facilities where sensitive receptor population groups (children, the elderly, the acutely ill, and the chronically ill) are likely to be located. These land uses include residences, school playgrounds, child-care centers, retirement homes, convalescent homes, hospitals and medical clinics. For cancer risk assessments, children are the most sensitive receptors, since they are more susceptible to cancer causing TACs. There are sensitive receptors (residences units and schools), within 1,000 feet of the project sites in all directions.

4.3.1.5 Applicable Plans, Policies and Regulations

Federal, State, and Regional

Federal, State, and regional agencies regulate air quality in the Bay Area Air Basin, within which the proposed project is located. At the Federal level, the USEPA is responsible for overseeing implementation of the Federal Clean Air Act and its subsequent amendments (CAA). CARB is the state agency that regulates mobile sources throughout the state and oversees implementation of the state air quality laws and regulations, including the California Clean Air Act. As required by the Federal CAA, National Ambient Air Quality Standards (NAAQS) have been established for six major air pollutants: carbon monoxide (CO), nitrogen dioxide (NO_2), ozone (O_3), particulate matter, including respirable particulate matter (PM_{10}) and fine particulate matter ($PM_{2.5}$), sulfur oxides, and lead. The State of California has also established the California Ambient Air Quality Standards (CAAQS).

BAAQMD is the agency primarily responsible for assuring that the Federal and State ambient air quality standards are maintained in the San Francisco Bay Area. BAAQMD has permit authority over stationary sources, acts as the primary reviewing agency for environmental documents, and develops regulations that must be consistent with or more stringent than, Federal and State air quality laws and regulations.

BAAQMD prepared and adopted the Bay Area 2010 Clean Air Plan (CAP). This CAP updates the most recent ozone plan, the 2005 Ozone Strategy. Unlike previous Bay Area CAPs, the 2010 CAP is a multi-pollutant air quality plan addressing four categories of air pollutants:

- Ground-level ozone and the key ozone precursor pollutants (reactive organic gases and nitrogen oxide), as required by State law;
- Particulate matter, primarily PM2.5, as well as the precursors to secondary PM2.5;
- Toxic air contaminants (TAC); and
- Greenhouse gases.

4.3.2 Environmental Checklist and Discussion of Impacts

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project:					
1. Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐	1-3, 5-7
2. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☒	☐	1-3, 5-7
3. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is classified as non-attainment under an applicable federal or state ambient air quality standard including releasing emissions which exceed quantitative thresholds for ozone precursors?	☐	☐	☒	☐	1-3, 5-7
4. Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐	1-3, 5-7
5. Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐	1-3, 5

4.3.3 Air Quality Impacts

The following analysis is based upon the general methodologies in the most recent BAAQMD CEQA Air Quality Guidelines (dated May 2012) and numeric thresholds for the San Francisco Bay Basin, including the thresholds listed in Table 4.3-2.

TABLE 4.3-2
Thresholds of Significance Used in Air Quality Analyses

Pollutant	Construction	Operation-Related	
	Average Daily Emissions (pounds/day)	**Average Daily Emissions (pounds/day)**	**Maximum Annual Emissions (tons/year)**
ROG, NO_x	54	54	10
PM_{10}	82 (exhaust)	82	15
$PM_{2.5}$	54 (exhaust)	54	10
Fugitive Dust (PM_{10}/$PM_{2.5}$)	BMPs	None	None
Risk and Hazards for New Sources and Receptors (Project)	Same as Operational Threshold	• Increased cancer risk of >10.0 in one million • Increased non-cancer risk of > 1.0 Hazard Index (chronic or acute) • Ambient $PM_{2.5}$ increase: > 0.3 μ/m^3 [Zone of influence: 1,000-foot radius from property line of source or receptor]	

TABLE 4.3-2 Thresholds of Significance Used in Air Quality Analyses			
Pollutant	**Construction**	**Operation-Related**	
	Average Daily Emissions (pounds/day)	**Average Daily Emissions (pounds/day)**	**Maximum Annual Emissions (tons/year)**
Risk and Hazards for New Sources and Receptors (Cumulative)	Same as Operational Threshold	• Increased cancer risk of >100 in one million • Increased non-cancer risk of > 10.0 Hazard Index (chronic or acute) • Ambient $PM_{2.5}$ increase: > 0.8 μ/m^3 [Zone of influence: 1,000-foot radius from property line of source or receptor]	
Sources: *BAAQMD* CEQA *Thresholds Options and Justification Report (2009)* and *BAAQMD CEQA Air Quality Guidelines* (dated May 2012).			

4.3.3.1 Bay Area 2010 Clean Air Plan

The most recent clean air plan is the *Bay Area 2010 Clean Air Plan* (2010 CAP) that was adopted by BAAQMD in September 2010. This plan addresses air quality impacts with respect to obtaining ambient air quality standards for non-attainment pollutants (i.e., O_3, PM_{10} and $PM_{2.5}$), reducing exposure of sensitive receptors to TACs, and reducing greenhouse gas (GHG) emissions such that the region can meet AB 32 goals of reducing emissions to 1990 levels by 2020.

The 2010 CAP includes about 55 control measures that are intended to reduce air pollutant emissions in the Bay Area either directly or indirectly. The control measures are divided into five categories that include:

- Measures to reduce stationary and area sources;
- Mobile source measures;
- Transportation control measures;
- Land use and local impact measures; and
- Energy and climate measures

The proposed project would not generate emissions above BAAQMD thresholds (see Section 4.3.3.2 below) and the project is near existing transit with regional connections. Because the project would not exceed the significance thresholds for criteria pollutants, project-specific control measures are not required. In addition, the project is designed to meet LEED Platinum certification. As a result, the project would not conflict with implementation of the 2010 CAP. **(Less Than Significant Impact)**

4.3.3.2 Operational Impacts to Regional and Local Air Quality

Operational Emissions

The proposed project would construct a new ISC/CRC facility and a parking structure. Operational emissions would be generated primarily from auto trips to and from the site. The CalEEMod model was used to estimate emissions from operation of the project, assuming full build out of the site by 2018. Table 4.3-3 below shows the net annual emissions based on 365 days of operation per year.

TABLE 4.3-3 Operational Emissions				
Scenario	**ROG**	**NOx**	**PM_{10}**	**$PM_{2.5}$**
Emissions from Existing Facilities (tons per year)	1.69	2.90	2.12	0.59
Project Emissions (tons per year)	5.65	7.42	5.43	1.52
Net Total (tons per year)	3.96	4.52	3.31	0.93
BAAQMD Thresholds (tons per year)	*10*	*10*	*15*	*10*
Emissions from Existing Facilities (pounds per day)	9.3	15.9	11.6	3.2
Project Emissions (pounds per day)	31.0	40.7	29.8	8.3
Net Total (pounds per day)	21.7	24.8	18.2	5.1
BAAQMD Thresholds (pounds per day)	*54*	*54*	*82*	*54*

As shown in the table, the net average daily and yearly emissions of criteria pollutants resulting from the proposed project would not exceed the BAAQMD significance thresholds and would have a less than significant impact on local and regional air quality. **(Less Than Significant Impact)**

Carbon Monoxide Emissions

Carbon monoxide (CO) emissions from traffic generated by the project would be the pollutant of greatest concern at the local level. Congested intersections with a large volume of traffic have the greatest potential to cause high localized concentrations of CO. BAAQMD screening criteria indicate that a project would have a less than significant impact to CO levels if project traffic would not increase traffic levels at any affected intersection to more than 44,000 vehicles per hour. The project would result in a net increase of approximately 1,654 daily traffic trips and would not cause any intersections to exceed 44,000 vehicles per hour. Therefore, the project would not result in significant CO impacts. **(Less Than Significant Impact)**

Community Risk Impacts

BAAQMD identified thresholds of significance used by the City of Santa Clara for local community risk and hazard impacts that apply to the siting of a new source of TAC emissions. BAAQMD recommends using a 1,000 foot screening radius around a project site for the purpose of identifying community health risk from siting a new source of TACs.

Operation of the proposed project would not introduce any new sources of TACs (i.e. diesel generators) to the project area. As a result, operation of the proposed project will not adversely impact the health of nearby sensitive receptors. **(Less Than Significant Impact)**

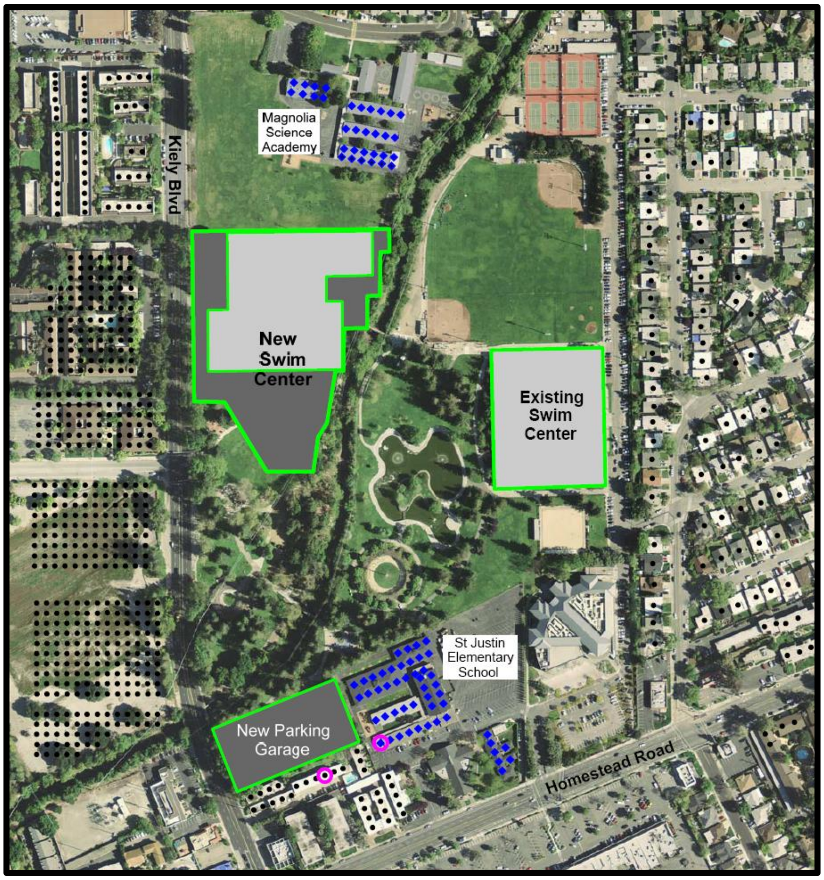
4.3.3.3 Construction Impacts

Community Risk Impacts

Emissions from construction-related automobiles, trucks, and heavy equipment are a primary concern due to release of DPM, organic TACs from all vehicles, and $PM_{2.5}$, which is a regulated air pollutant. Central Park is surrounded by residential development and three schools. To quantify the effects of DPM on the adjacent sensitive receptors, construction period emissions were computed using the CalEEMod model. The U.S. AERMOD dispersion model was used to calculate concentrations of

DPM and $PM_{2.5}$ at existing sensitive receptors in the vicinity of the project construction sites. The analysis is based on an assumed construction schedule of 17 months.

The maximum DPM and $PM_{2.5}$ concentrations were estimated to occur at the second floor level of the apartment building just south of the proposed parking structure. Using the maximum concentrations at this location, the potential cancer risk for all nearby sensitive receptors was calculated.



The incremental residential child cancer risk was calculated to be 9.5 cancer cases per million for infant exposure and 0.2 cancer cases per million for adult exposure. The maximum school child cancer risk was estimated to be 2.3 per million. The locations of the residential and school child receptors with the maximum exposure risk is shown in the adjacent figure[4].

The cancer risk for all age groups is below the BAAQMD threshold of 10 cancer cases per million. As a result, the proposed project would not have a significant community risk impact on nearby sensitive receptors during construction activities. **(Less Than Significant Impact)**

Criteria Pollutants and Dust Generation

Table 4.3-4 shows an estimate of daily criteria pollutant air emissions from construction of the proposed project based upon a detailed air analysis using CalEEMod.

TABLE 4.3-4
Construction Period Emissions (Per Day)

Scenario	ROG	NOx	PM_{10}	$PM_{2.5}$
Construction Emissions (tons)	2.29	2.16	0.09	0.08
Average Daily Emissions (pounds)	12.2	11.6	0.5	0.4
BAAQMD Thresholds (pounds per day)	*54*	*54*	*82*	*54*

[4] On the figure, buildings to be demolished are highlighted in grey, new construction areas are outlined in green, residential receptor areas are indicated with a black dot, student receptors are indicated with a blue dot, and the locations of the maximum TAC impact are circled in pink.

Construction activities on the site would include demolition of the existing structures and hardscape, excavation, site grading, paving, building construction, and architectural coating. As shown in Table 4.3-4, emissions associated with these activities would not exceed the BAAQMD significance thresholds and, as a result, would not result in a significant impact from construction emissions.

Construction activities on-site would generate dust and other particulate matter. While average particulate matter levels would be well below BAAQMD thresholds, nearby sensitive receptors may still be affected as the amount of dust generated would be highly variable and dependent on the size of the area disturbed at any given time, the amount of activity, soil conditions, and meteorological conditions.

To further reduce dust generated on-site during construction, the following BAAQMD Best Management Practices will be implemented during all applicable phases of construction as a condition of project approval:

1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.

2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.

3. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.

4. All vehicle speeds on unpaved roads shall be limited to 15 mph.

5. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible and feasible. Building pads shall be laid as soon as possible and feasible, as well, after grading unless seeding or soil binders are used.

6. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.

7. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.

8. Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

Implementation of the proposed project would not emit significant levels of criteria air pollutants or dust that would affect local and regional air quality or nearby sensitive receptors. **(Less Than Significant Impact)**

Odors

Project construction would generate localized emissions of diesel exhaust during equipment operation and truck activity. These emissions may be noticeable from time to time by adjacent receptors. Odors would, however, be localized and temporary and are not likely to affect people off-site. Operation of the proposed project would not generate significant odors. **(Less Than Significant Impact)**

4.3.4 Conclusion

The project would not result in significant operational or construction air quality impacts at a regional or local level or an increase in odors. The project would not expose sensitive receptors to substantial pollutant concentrations. **(Less than Significant Impact with Mitigation)**

4.4 BIOLOGICAL RESOURCES

The following discussion is based, in part, on assessment a tree survey prepared by *Hort Science* in September 2015. A copy of the report is attached in Appendix B of this Initial Study.

4.4.1 Background

Biological resources include plants and animals and the habitats that support them. Individual plant and animal species that are identified as rare, threatened, or endangered under the State and/or Federal Endangered Species Act, and the natural communities of habitats that support them, are of particular concern. Sensitive natural communities (e.g., wetlands, riparian woodlands, and oak woodland) that are critical to wildlife or ecosystem function are also important biological resources.

The avoidance and mitigation of significant impacts to biological resources under CEQA is consistent with and complimentary to various Federal, State, and local laws and regulations that are designed to protect these resources. These regulations often mandate that project sponsors obtain permits that include measures to avoid and/or mitigate impacts required as permit conditions, prior to the commencement of development activities.

4.4.1.1 City of Santa Clara Tree Protection Policies

The City of Santa Clara's General Plan policies 5.3.1 and 5.10.1 protect all healthy trees for the following species: cedars, redwoods, oaks, olives, bay laurel, and pepper and all trees over 36 inches in circumference, or about 11 inches in diameter, when measured 48 inches above the ground surface.

4.4.2 Existing Setting

4.4.2.1 Overview of Habitat Found on the Project Site

The project sites are located within Central Park and include the existing ISC and CRC, and a surface parking lot at the southwest corner of the park. There are trees throughout Central Park and the project sites.

All three sites are adjacent or in proximity to Saratoga Creek, a narrow riparian corridor with an engineered channel. The creek banks are densely vegetated and there are creek flows that attract wildlife, including waterfowl. Currently, the creek is fenced along the corridor.

4.4.2.2 Special Status Animal Species

Special status species are those plants and animals listed under the State and Federal Endangered Species Acts (including candidate species); plants listed on the California Native Plant Society's Inventory of Rare and Endangered Vascular Plants of California (1994); and animals designated as Species of Special Concern by the California Department of Fish and Wildlife. Most special status animal species occurring in the Bay Area use habitats that are not present on the project site, including salt marsh, freshwater marsh, and serpentine grassland habitats. Since the native vegetation of the area is no longer present on-site, native wildlife species have been supplanted by species that are more compatible with an urbanized area.

4.4.2.3 Trees

Mature trees (both native and non-native) are valuable to the human environment for the benefits they supply in resisting global climate change (i.e., carbon dioxide absorption), protection from weather, because they provide nesting and foraging habitat for raptors and other migratory birds, and because they are a visual enhancement. Most of the trees located on the project site and in the project area are non-native species that vary in sizes. Some of the trees within the creek corridor are native to the area.

Of the 249 trees surveyed, there are 84 trees that meet the City's criteria for protected status under Conservation Policy 5.10.1-P4. A tree map and table listing the species, trunk size, protection status, and condition of all surveyed trees is attached in Appendix B. This analysis assumes all trees surveyed within the development envelope would be removed as part of the project and that trees near the existing ISC would not be damaged or removed with the demolition of the facility.

4.4.2 Environmental Checklist and Discussion of Impacts

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project:					
6. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?	☐	☒	☐	☐	1,2,3
7. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?	☐	☐	☐	☒	1,2,3
8. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒	1,2,3

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project:					
9. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, impede the use of native wildlife nursery sites?	☐	☒	☐	☐	1,2,3
10. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☒	☐	1,2,3,8
11. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒	1,2,3

4.4.2.1 Biological Resources Impacts

Due to the fact that there are currently no sensitive or natural habitats on the project sites, no significant impacts to natural plant communities or special status or endangered species would result from the project. There are no federally protected wetlands as defined by Section 404 of the Clean Water Act located on the project site.

The project site is not within any protected conservation plan area, such as the Habitat Conservation Plan (HCP), Natural Community Conservation Plan (NCCP), or other official local, regional, or State habitat conservation plan. **(Less Than Significant Impact)**

Saratoga Creek

The proposed ISC/CRC facility will be set back between approximately 30 and 140 feet from the western bank of Saratoga Creek to protect the riparian corridor. The setback exceeds the minimum setback requirements of both the City and the Santa Clara Valley Water District (SCVWD). The City requires a minimum setback of 15 feet and the SCVWD recommends structures be set back a minimum of 25 feet[5], measured perpendicularly from the top of bank. A new emergency vehicle access (EVA) road is proposed between the building and the creek. The EVA would be 12 to 26 feet wide and would be set back five feet from the top of bank. The approved creek trail alignment through Central Park will share this area with the new EVA. The setback area will be planted with native riparian vegetation to protect the riparian corridor. The current CRC building, rear driveway, pavement, and non-native vegetation would be removed.

Per the General Plan policy 5.10.1-P2, the project will be required to follow the Santa Clara Valley Water District (SCVWD) *Guidelines and Standards for Lands Near Streams.* The guidelines

[5] The SCVWD recommends structures not be located in the slope stability zone, defined as the horizontal distance of 25 feet measured perpendicularly from the top of bank.

include, but are not limited to, building setback limits, restrictions on the species of landscape plants, lighting, etc. to ensure that the new development adjacent to natural streams and waterways does not harm the plant and animal species within the riparian corridor or the functionality of the creek. The final setbacks and landscape and lighting plans will be reviewed by the City and the SCVWD, to ensure there is adequate shielding of bright spillover light and non-invasive species are used in project landscaping.

The SCVWD has adopted an ordinance that protects watercourses, creeks, streams, lakes, ponds, and reservoirs. The ordinance requires a project review and permitting process to minimize impacts to watercourses resulting from development or community activities. Anyone who plans a project or works within 50 feet of any watercourse must first obtain a permit from the SCVWD.

By complying with the aforementioned City policy and the permitting requirements of the SCVWD, the project would have a less than significant impact on Saratoga Creek. **(Less Than Significant Impact)**

Nesting Raptors and Migratory Birds

While the project site is located within an urban environment, the mature trees on-site and on the adjacent properties, including the creek, could provide nesting habitat and/or foraging habitat for raptors and migratory birds.

Migratory birds like nesting raptors are protected under the Migratory Bird Treaty Act and the California Fish and Game Code Sections 3503, 3503.5, and 2800. Migratory birds, especially raptors, utilize mature trees for nesting and foraging habitat. The project area is in proximity to the mature trees within the riparian corridor. Construction of the proposed project may result in loss of fertile eggs or nestlings, or lead to nest abandonment in raptor habitat. The California Department of Fish and Wildlife (CDFW)[6] defines "taking" as causing abandonment and/or loss of reproductive efforts through disturbance.

Impact BIO-1: Construction activities associated with the proposed project could result in the loss of fertile eggs, nesting raptors or other migratory birds, or nest abandonment. **(Significant Impact)**

Mitigation and Avoidance Measures

<u>Project Specific Mitigation Measures</u>

The following mitigation measures will be implemented during all demolition and construction activities to avoid abandonment of raptor and other protected migratory birds' nests:

MM BIO-1.1: All demolition and construction activities shall be scheduled to avoid the nesting season to the extent feasible. The nesting season for most birds, including most raptors in the San Francisco Bay area, extends from February 1 through August 31.

[6] Formally the California Department of Fish and Game.

MM BIO-1.2: If it is not possible to schedule all demolition and construction activities between September and January, pre-construction surveys for nesting birds shall be completed by a qualified ornithologist to ensure that no nests will be disturbed during project implementation. This survey shall be completed no more than 14 days prior to the initiation of construction related activities during the early part of the breeding season (February 1 through April 30) and no more than 30 days prior to the initiation of these activities during the late part of the breeding season (May 1 through August 31). During this survey, the ornithologist will inspect all trees and other possible nesting habitats immediately adjacent to the construction areas for nests. If an active nest is found sufficiently close to work areas to be disturbed by construction, the ornithologist, in consultation with California Department of Fish and Wildlife, will determine the extent of a construction-free buffer zone to be established around the nest, typically 250 feet, to ensure that raptor or migratory bird nests will not be disturbed during project construction.

Implementation of the identified mitigation measures would reduce construction impacts to migratory birds to a less than significant level. **(Less Than Significant Impact with Mitigation)**

4.4.2.2 Trees

The proposed project could remove up to 249 existing trees within the park. The loss of 249 trees could decrease the number and variety of bird species in the project vicinity by reducing available habitat for nesting and foraging. The City's General Plan (Policy 5.3.1-P10) requires new development to include new street trees and at least a 2:1 on- or off-site replacement for removal of existing trees. The project proposes to plant 217 new trees around the ISC/CRC facility and the City has a current capital improvement program (CIP) project to replace trees and habitat throughout the park system. Depending on the total number of existing trees removed as a result of the project, additional trees may need to be planted, either on-site or off-site, consistent with City policy to offset the loss of the trees to be removed as a result of the project.

If any other trees in the park are removed due to deterioration or construction injury, the project would need to offset the loss of trees in accordance with General Plan Policy 5.3.1-P10. Because the project would be required to comply with the City's tree replacement policy, the loss of trees on-site would result in a less than significant impact on trees in the project area. **(Less than Significant Impact)**

Tree Preservation

Trees adjacent to the construction areas and the ISC could be impacted by demolition/construction activities because their root systems and canopies could be damaged by construction activities. The project would include the following measures as a condition of project approval to avoid impacts trees during all construction activities:

- Prior to any construction, tag and identify all trees to be retained on-site and place four to five inches of mulch around the retained trees (to the dripline).

- To the extent feasible, no site clearing, grading, excavation, or construction shall occur within the drip line of existing trees.

- If site clearing, grading, excavation or construction must occur within the drip line of existing trees, these activities shall be done under direct supervision of a Certified Arborist (Certification of International Society of Arboriculture). No cutting of any part of private trees, including roots, shall be done without direct supervision of the Certified Arborist and prior notification of the owners of the trees.

- Materials, equipment, temporary buildings, fuels, paints and other construction items shall not be placed within the drip line of existing trees.

- Any cutting of existing roots shall be done with light, approved equipment under the direct supervision of the Certified Arborist.

- Grading shall not create drainage problems for trees by channeling water into them, or creating sunken areas.

With implementation of the above measures, adverse impacts to trees within Central Park would be avoided. **(Less Than Significant Impact)**

4.4.3 Conclusion

The project site is not located in any approved local, state, or national habitat conservation plan. **(No Impact)**

The project site is not near any wetlands, and therefore, implementation of the proposed project would not affect any federally protected wetlands. **(No Impact)**

There are no threatened or special status species on the project site, and as a result, the proposed project would not directly or indirectly impact any special status species habitat to a significant level. **(No Impact)**

The project would plant new trees to offset the loss of existing trees on-site and implement the identified mitigation measures to reduce and avoid impact to raptor nesting and/or foraging habitat due to project construction. With implementation of the identified mitigation measures, the project would not result in significant impacts to biological resources. **(Less Than Significant Impact with Mitigation)**

4.5 CULTURAL RESOURCES

The following discussion is based, in part, on an Archaeological Literature Review prepared by *Holman & Associates* in January 2015.

4.5.1 <u>Setting</u>

4.5.1.1 Prehistoric Resources

Overview

Native Americans occupied Santa Clara Valley and the greater Bay Area for more than 1,000 years. The exact time period of the Ohlone (originally referred to as Costanoan) migration into the Bay Area is debated by scholars. Dates of the migration range between 3000 B.C. and 500 A.D. Regardless of the actual time frame of their initial occupation of the Bay Area and, in particular, Santa Clara Valley, it is known that the Ohlone had a well-established population of approximately 7,000 to 11,000 people with a territory that ranged from the San Francisco Peninsula and the East Bay south through the Santa Clara Valley and down to Monterey and San Juan Bautista.

The Ohlone lived in small villages referred to as tribelets. Each tribelet occupied a permanent primary habitation site and also had smaller resource procurement camps. The Ohlone, who were hunter/gatherers, traveled between their various village sites to take advantage of seasonal food resources (both plants and animals). During winter months, tribelets would merge to share food stores and engage in ceremonial activities.

4.5.1.2 Historic Subsurface Resources

Mission Period

Spanish explorers began coming to Santa Clara Valley in 1769. From 1769 to 1776, several expeditions were made during which time the explorers encountered the local Native American tribes. These expeditions led to the establishment of the California Missions, including the first Mission Santa Clara founded in 1777 near what is today the Kifer Road/De La Cruz Boulevard intersection. After being destroyed by flooding, a second Mission Santa Clara was constructed near the present day Martin Avenue/De La Cruz intersection. The third, fourth, and fifth Missions were constructed on what is today the Santa Clara University Campus, approximately 1.7 miles east of the project site. During the Mission period, the Mission controlled much of the land (approximately 80,000 acres) in Santa Clara Valley and the Native Americans were brought into the Mission, effectively ending the Ohlone’s traditional occupation of the valley.

Post-Mission and American Period

In 1836, the Mission Santa Clara was officially secularized and the native population had diminished from a population peak of 10,000 in 1770 to 300. Lands previously belonging to the Mission were distributed through land grants. After the United States won the Mexican-American War (1846-1848), Anglo-European settlers began to arrive in the Santa Clara Valley and the subsequent gold rush of 1849 further increased the local population. For most settlers, mining was not profitable and many people turned to farming. There is no documentation to indicate that the land area currently defined as Central Park was utilized in any way prior to 1948 when farming began on-site. Farming operations continued until 1967 when Central Park and the ISC were constructed.

An archaeological report was completed in 1976 for the City of Santa Clara to evaluate the effects of various infrastructure projects, including a new traffic signal at the intersection of Kiely and Homestead. The report included a map that indicates the park as an approximate location of an archeological resource. No other documentation exists to determine what the resource might be or how the determination was made. Because there is no recorded evidence of subsurface resources on-site, it is reasonable to assume that excavation for the pools at the existing ISC did not uncover any evidence of historic or prehistoric occupation.

While there are no existing conditions or immediate evidence that would suggest the presence of subsurface historic or prehistoric resources on the project sites, the disturbance sites are located within the former riparian zone of Saratoga Creek. As a result, the area is considered culturally sensitive for subsurface archaeological resources.

4.5.1.3 Historic Structures

Based on available records, the ISC was constructed in 1967 and the CRC was constructed in 1976. The buildings are not yet 50 years old and are not listed on the City's historic resources inventory.

4.5.1.4 Paleontological Resources

Paleontological resources are the fossilized remains of organisms from prehistoric environments found in a geologic strata. The project site is underlain by Holocene (basin) soil deposits.[7] Geologic units of Holocene age are generally not considered sensitive for paleontological resources, because biological remains younger than 10,000 years are not usually considered fossils. These sediments have low potential to yield fossil resources or to contain significant nonrenewable paleontological resources; however, these recent sediments overlie sediments of older Pleistocene sediments with high potential to contain paleontological resources. These older sediments, often found at depths of 10 feet or more below the ground surface, have yielded the fossil remains of plants and extinct terrestrial Pleistocene vertebrates.

4.5.2 <u>Environmental Checklist and Discussion of Impacts</u>

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project:					
1. Cause a substantial adverse change in the significance of an historical resource as defined in §15064.5?	☐	☐	☒	☐	1,2,3,9

[7] City of Santa Clara. *Integrated Final Environmental Impact Report Draft General Plan 2010-2035*. Page 323. January 2011.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project:					
2. Cause a substantial adverse change in the significance of an archaeological resource as defined in §15064.5?	☐	☒	☐	☐	1,2,3,9
3. Directly or indirectly destroy a unique paleontological resource or site, or unique geologic feature?	☐	☐	☒	☐	1,2,3,9
4. Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐	1,2,3,9

4.5.2.1 Prehistoric and Historic Subsurface Resources Impacts

Prehistoric and Historic Resources

The two development sites are adjacent or in proximity to the engineered Saratoga Creek channel. While documented occupation of these sites did not begin until 1948, the proximity of the creek means the area has a high archaeological sensitivity and the sites are likely to contain subsurface artifacts associated with the prehistoric and historic occupation of Santa Clara. Development of the proposed project, particularly excavation for the new swimming pools and dive pool, could result in the exposure or destruction of as yet unrecorded subsurface prehistoric and historic archaeological artifacts and/or human remains.

Impact CUL – 1: Subsurface cultural resources could be uncovered during demolition/construction of the proposed project. **(Significant Impact)**

Mitigation and Avoidance Measures

<u>Project Specific Mitigation Measures</u>

The following mitigation measures will be implemented during construction to avoid significant impacts to unknown subsurface cultural resources.

MM CUL-1.1: A qualified archaeologist will be on site to monitor the initial excavation of native soil once all pavement and engineered soil is removed from the project site. After monitoring the initial excavation, the archaeologist will make recommendations for further monitoring if it is determined that the site has cultural resources. If the archaeologist determines that no resources are likely to be found on site, no additional monitoring will be required.

MM CUL-1.2: In the event that prehistoric or historic resources are encountered during excavation and/or grading of the site, all activity within a 50-foot radius of the find will be stopped, the Director of Planning and Inspection will be notified, and the archaeologist will examine the find and make appropriate recommendations prior to issuance of building permits. Recommendations could include collection, recordation, and analysis of any significant cultural materials. A report of findings documenting any data recovery during monitoring would be submitted to the Director of Planning and Inspection.

MM CUL-1.3: In the event that human remains are discovered during excavation and/or grading of the site, all activity within a 50-foot radius of the find will be stopped. The Santa Clara County Coroner will be notified and shall make a determination as to whether the remains are of Native American origin or whether an investigation into the cause of death is required. If the remains are determined to be Native American, the Coroner will notify the Native American Heritage Commission (NAHC) immediately. Once NAHC identifies the most likely descendants, the descendants will make recommendations regarding proper burial, which will be implemented in accordance with Section 15064.5(e) of the CEQA Guidelines.

With implementation of these measures, impacts to unknown subsurface prehistoric, historic, and archaeological resources would be less than significant. **(Less Than Significant Impact with Mitigation)**

Historic Structures

There are no historic structures on or immediately adjacent to the project site. Therefore, implementation of the proposed project would have no impact on any designated historic structures. **(No Impact)**

Paleontological Resources

Excavation on-site could exceed 10 feet in depth for installation of the pools. Nevertheless, it is improbable that paleontological resources would be discovered on-site due to the distance of the site from the San Francisco Bay. In addition, no paleontological resources have been discovered in the area of Santa Clara. **(No Impact)**

4.5.3 Conclusion

Implementation of the proposed project would result in no impact on historic structures and paleontological resources. **(No Impact)**

With implementation of the identified mitigation measures described above, the proposed project would have a less than significant impact on subsurface prehistoric and historic resources. **(Less Than Significant Impact with Mitigation)**

4.6 GEOLOGY AND SOILS

The following discussion is based, in part, on a Soil Resource Report generated from the United States Department of Agriculture Natural Resource Conservation Service's Web Soil Survey website on July 2015 and a Geotechnical Investigation prepared by *Murray Engineers, Inc.* in July 2015. Copies of the reports are attached in Appendix C.

4.6.1 <u>Setting</u>

4.6.1.1 Soils and Groundwater

The project site is located in the Santa Clara Valley, an alluvial basin, bounded by the Santa Cruz Mountains to the west, the Hamilton/Diablo Range to the east, and the San Francisco Bay to the north. The Santa Clara Valley was formed when sediments derived from the Santa Cruz Mountains and the Hamilton/Diablo Range were exposed by the continued tectonic uplift and regression of the inland sea that had previously inundated the area.

Soils

Based on the Soil Resource Report, native soil underlying Central Park is divided into three distinct units: Urbanland-Hangerone Complex Urbanland-Clear Lake Complex, and Urbanland-Campbell Complex as shown in the adjacent figure. The soil types typically have the following characteristics:

The Urbanland-Hangerone Complex (reference no. 145) is characterized by clay up to three feet below ground surface (bgs), good drainage, and has a moderate to very high shrink-swell potential.

The Urbanland-Clear Lake Complex (reference no. 160) consists primarily of silty clay up to 5.5 feet bgs and has a moderate to very high shrink-swell potential.

The Urbanland-Campbell Complex (reference no. 165) consists of silt loam in the first two feet of native soil, silty clay loam from two feet to 4.25 feet bgs, and silty clay from 4.25 feet to six feet bgs and has a moderate to very high shrink-swell potential.

Soil borings up to 74 feet bgs in the vicinity of the existing CRC and surface parking lot on the southwest corner of the park identified primarily fine alluvial clays and silts. Soil testing to the depths of 3.5 feet and in the location of the proposed parking structure determined a plasticity index of 47, which is a very high expansion potential. Expansive soils shrink and swell as a result of moisture changes. These changes can cause heaving and cracking of slabs-on-grade, pavement, and structures found on shallow foundations.

Groundwater

Based on groundwater monitoring data from the State Water Resources Board Geotracker database, it is estimated that the direction of groundwater flow beneath the project site is northeast and has a depth of 14 to 22 feet bgs.[8]

4.6.1.2 Seismicity

The San Francisco Bay Area is one of the most seismically active region in the United States. Strong ground shaking can be expected at the site during moderate to severe earthquakes in the general region. The significant earthquakes that occur in the Bay Area are generally associated with crustal movement along well defined active fault zones of the San Andreas Fault System, which regionally trends in a northwesterly direction.

TABLE 4.6-1
Active Faults Near Central Park

Fault	Distance from Site
Monte Vista – Shannon	4.7 miles SW
San Andreas	8.3 miles SW
Hayward (southeast extension)	8.8 miles E
Calaveras	11.4 miles E

The site is not located within a designated Alquist-Priolo Earthquake Fault Zone[9] or in a Santa Clara County Fault Hazard Zone[10] and no active faults have been mapped on-site. Therefore, the risk of fault rupture at the site is low. Faults in the region are, however, capable of generating earthquakes of magnitude 7.0 or higher and strong to very strong ground shaking would be expected to occur at the project site during a major earthquake on one of the nearby faults. Active faults near the project site are shown in Table 4.6-1.

4.6.1.3 Liquefaction and Lateral Spreading

Liquefaction

Liquefaction is the result of seismic activity and is characterized as the transformation of loose, water-saturated soils from a solid state to a liquid state during ground shaking. The following factors contribute to a liquefaction occurrence:

- Saturated soil or soil situated below the groundwater table,
- Strong ground shaking (e.g., earthquake),

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[8] AEI Consultants. *Phase I Environmental Site Assessment – International Swim Center Expansion*. Page V. August 17, 2015.
[9] California Department of Conservation Website. <http://www.quake.ca.gov/gmaps/ap/ap_maps.htm> Accessed June 17, 2015.
[10] Santa Clara County Planning and Development Department. Geologic Hazards Zones – Maps. February 2015. <https://sccplanning.maps.arcgis.com/home> Accessed June 17, 2015.

- Contractive soil response during shear loading (soil in a loose or uncompacted state), and
- Susceptible soil type (e.g., clean, uniformly graded sands, non-plastic silts, or gravels).

According to the Santa Clara County Geologic Hazard Zone Maps, the proposed development areas and all of Central Park are located within a liquefaction zone.

Lateral Spreading

Lateral spreading is a type of ground failure related to liquefaction. It consists of the horizontal displacement of flat-lying alluvial material toward an open area, such as the steep bank of a stream channel. The nearest waterway is Saratoga Creek, east of the proposed building. Therefore, there is a potential for lateral spreading to occur on the project site.

4.6.2 Environmental Checklist and Discussion of Impacts

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project:					
1. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:					
a. Rupture of a known earthquake fault, as described on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to Division of Mines and Geology Special Publication 42.)	☐	☐	☒	☐	1-3, 10-12
b. Strong seismic ground shaking?	☐	☐	☒	☐	1-,3 10-12
c. Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐	1-,3 10-12
d. Landslides?	☐	☐	☒	☐	1-,3 10-12
2. Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐	1,2,3
3. Be located on a geologic unit or soil that is unstable, or that will become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐	1-,3 10-12
4. Be located on expansive soil, as defined in Section 1802.3.2 of the California Building Code (2007), creating substantial risks to life or property?	☐	☐	☒	☐	1-,3 10-12

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project:					
5. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒	1-3

4.6.2.1 Geology, Soils, and Seismicity Impacts

Soil Hazards

The project sites and surrounding area are relatively flat and, as a result, the project would not be exposed to landslide or erosion related hazards.

The possible geologic and soils impacts resulting from conditions on the two development sites can be mitigated by utilizing standard engineering and construction techniques. Therefore, the project would not expose people or property to significant impacts associated with the geologic conditions of the site. **(Less Than Significant Impact)**

Seismic Hazards

As stated above, the project site is located within the seismically active San Francisco Bay region. While the site is not located on or near a major earthquake fault, severe ground shaking is probable during the useful life of the proposed buildings. The project sites have a moderate potential for liquefaction and a moderate potential for lateral spreading during large seismic events.

Impact GEO - 1: The project site is located in a seismically active region and, as a result, strong ground shaking would be expected to occur during the useful life of the proposed project. **(Significant Impact)**

Mitigation and Avoidance Measures

The following measure is included in the project to reduce impacts associated with seismic ground shaking:

MM GEO-1.1: The project shall submit a project-specific geotechnical engineering study to the City of Santa Clara Department of Planning and Inspection for review and approval prior to the issuance of building permits. The project shall comply with a specific design measures of the geotechnical report to ensure building integrity in the event of seismic activity and possible liquefaction and/or lateral spreading.

The project site is located within an urbanized area of Santa Clara where sewers are available to dispose wastewater from the project site. Therefore, the site will not need to support septic tanks or alternative wastewater disposal systems. **(No Impact)**

4.6.2.2 Construction Impacts

Construction activities (excavation and grading) could temporarily increase sedimentation and erosion by exposing on-site soils to wind and runoff.

Impact GEO - 2: Implementation of the proposed project could increase erosion and sedimentation until construction is complete and new vegetation is established. **(Significant Impact)**

Mitigation and Avoidance Measures

The following measures are included in the project to reduce construction-related erosion impacts:

MM GEO-2.1: All excavation and grading work will be scheduled in dry weather months, or construction sites will be weatherized to withstand or avoid erosion.

MM GEO-2.2: Stockpiles and excavated soils will be covered with secured tarps or plastic sheeting.

MM GEO-2.3: Vegetation in disturbed areas will be replanted as quickly as possible.

4.6.3 Conclusion

Implementation of the proposed mitigation measures will reduce geologic and soils impacts to a less than significant level. **(Less Than Significant Impact With Mitigation)**

4.7 GREENHOUSE GAS EMISSIONS

4.7.1 Setting

Unlike emissions of criteria and toxic air pollutants, which have local or regional impacts, emissions of Greenhouse Gases (GHGs) have a broader, global impact. Global warming associated with the "greenhouse effect" is a process whereby GHGs accumulating in the atmosphere contribute to an increase in the temperature of the earth's atmosphere. The principal GHGs contributing to global warming and associated climate change are carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and fluorinated compounds. Emissions of GHGs contributing to global climate change are attributable in large part to human activities associated with the transportation, industrial/ manufacturing, utility, residential, commercial, and agricultural sectors.

4.7.1.1 Existing On-Site GHG Emissions

The project site is a park and is currently developed with a swim center and a community center. GHG emissions are generated by daily traffic trips of park visitors, water and electricity usage, and gas for heating.

4.7.2 Regulatory Background

4.7.2.1 State of California

State of California Executive Order S-3-05

In June 2005, Governor Schwarzenegger issued Executive Order S-3-05, which identified CalEPA as the lead coordinating State agency for establishing GHG emission reduction targets in California. A "Climate Action Team," a multi-agency group was set up to implement Executive Order S-3-05. Under this order, the State plans to reduce GHG emissions to 80 percent below 1990 levels by 2050.

Assembly Bill (AB) 32 – The California Global Warming Solutions Act of 2006

California Assembly Bill (AB) 32, the California Global Warming Solutions Act, was signed into law in September 2006. With the passage of AB 32, the State of California made a commitment to reduce GHG emissions to 1990 levels by 2020, which represents about a 30 percent decrease over current levels. CARB's Discrete Early Actions include maximizing energy efficient building and appliance standards, pursuing additional efficiency efforts, including new technologies and new policy and implementation mechanisms, and pursuing comparable investment in energy efficiency by all retail providers of electricity in California (including both investor-owned and publicly-owned utilities). In December 2008, CARB approved the Climate Change Scoping Plan, which proposes a comprehensive set of actions designed to reduce California's dependence on oil, diversify energy sources, save energy, and enhance public health, among other goals.

On May 22, 2014, CARB adopted an updated Scoping Plan document. The 2014 update defines CARB's climate change priorities for the next five years and lay the groundwork to start the transition to the post-2020 goals set forth in Executive Order S-3-05 and B-16-2012.[11] The 2014 update highlights California's progress toward meeting the near-term 2020 GHG reduction goals defined in the 2008 Scoping Plan and evaluate how to align the State's longer-term GHG reduction strategies with other State policy priorities such as for water, waste, natural resources, agriculture, clean energy, transportation, and land use.

4.7.2.2 2010 Bay Area Clean Air Plan

The Bay Area 2010 Clean Air Plan (CAP) is a multi-pollutant plan that addresses GHG emissions along with other air emissions in the San Francisco Bay Area Air Basin. One of the key objectives in the CAP is climate protection. The 2010 CAP includes emission control measures in five categories: Stationary Source Measures, Mobile Source Measures, Transportation Control Measures, Land Use and Local Impact Measures, and Energy and Climate Measures. Consistency of a project with current control measures is determined by its consistency with the CAP. The current CAP also includes performance objectives, consistent with the State's climate protection goals under AB 32 and SB 375, designed to reduce emissions of GHGs to 1990 levels by 2020 and 40 percent below 1990 levels by 2035.

4.7.2.3 City of Santa Clara General Plan

The Santa Clara 2010-2035 General Plan includes policies that address the reduction of GHG emissions during the planning horizon of the General Plan. Goals and policies that address sustainability (see Appendix 8.13: Sustainability Goals and Policies Matrix in the General Plan) are aimed at reducing the City's contribution to GHG emissions. As described below, a comprehensive GHG emissions reduction strategy for the City is also included in the General Plan.

Climate Action Plan

The City of Santa Clara has a comprehensive GHG emissions reduction strategy (Climate Action Plan) to achieve its fair share of statewide emissions reductions for the 2020 timeframe consistent with AB 32, the Global Warming Solutions Act. The Climate Action Plan (CAP) was adopted on December 3, 2013. The City of Santa Clara CAP specifies the strategies and measures to be taken for a number of focus areas (coal-free and large renewables, energy efficiency, water conservation, transportation and land use, waste reduction, etc.) citywide to achieve the overall emission reduction target, and includes an adaptive management process that can incorporate new technology and respond when goals are not being met.

A key reduction measure that is being undertaken by the City of Santa Clara under the CAP is in the *Coal-Free and Large Renewables* focus area. The City of Santa Clara operates Silicon Valley Power (SVP), a publicly owned utility that provides electricity for the community of Santa Clara, including the project site. Since nearly half (48 percent) of Santa Clara's GHG emissions result from electricity use, removing GHG-intensive sources of electricity generation (such as coal) is a major focus area in the CAP for achieving the City's GHG reduction goals. This measure is being undertaken by SVP.

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[11] Executive Order B-16-2012, issued by Governor Brown in March 2012, calls for expanded infrastructure to support zero emission vehicles and sets benchmarks for future state fleet vehicle purchases of zero emission vehicles. The executive order is available online at: http://gov.ca.gov/news.php?id=17472

CEQA clearance for all discretionary development proposals are required to address the consistency of individual projects with reduction measures in the CAP and goals and policies in the General Plan designed to reduce GHG emissions. Compliance with appropriate measures in the CAP would ensure an individual project's consistency with an adopted GHG reduction plan. Projects that are consistent with the CAP would have a less than significant impact related to GHG emissions.

4.7.3 <u>Environmental Checklist and Discussion of Impacts</u>

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project:					
1. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐	1,2,3,13
2. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐	1,2,3,13

4.7.3.1 Greenhouse Gas Emissions Impacts

Worldwide GHG emissions contribute, on a cumulative basis, to the significant adverse environmental impacts of global climate change. No single land use project could generate sufficient GHG emissions on its own to noticeably change the global average temperature. The combination of GHG emissions from past, present, and future projects in Santa Clara, the entire State of California, and across the nation and around the world, contribute cumulatively to the phenomenon of global climate change and its associated environmental impacts.

Per the CEQA Guidelines Section 15064 (b), a Lead Agency may analyze and mitigate significant GHG emissions in a plan for the reduction of GHG emissions that has been adopted in a public process following environmental review. The City of Santa Clara adopted its CAP (a GHG reduction strategy) in 2013 which is in conformance with its most recent General Plan Update. The City's projected emissions and the CAP are consistent with measures necessary to meet statewide 2020 goals established by AB 32 and addressed in the Climate Change Scoping Plan. The threshold of significance for whether a development project in the City of Santa Clara would generate GHG emissions that would have a significant impact on the environment, therefore, would be whether or not the project conforms to the applicable reduction measures in the City's CAP.

The proposed project would include GHG emissions from construction and operation of the project. The GHG emissions from the project would include:

- Construction emissions;
- Emission from the manufacture and transport of building materials; and
- Mobile emissions (e.g., emissions from combustion of fossil fuels for vehicle trips to and from the site).

4.7.3.2 Operational Greenhouse Gas Emissions

Plans, Policies, and Regulations

As described previously, the *City of Santa Clara Climate Action Plan*, which is part of the City's General Plan, identifies a series of GHG emissions reduction measures to be implemented by development projects that would allow the City to achieve its GHG reduction goals. The measures center around seven focus areas: coal-free and large renewables, energy efficiency, water conservation, waste reduction, off-road equipment, transportation and land use, and urban heat island effect. Of these seven focus areas, three are applicable to public development projects. The project's conformance with applicable reduction measures for the new swim center/recreational center is discussed below.

Energy Efficiency

Measure 2.5 Municipal Energy Efficiency calls for the City to reduce municipal energy use by ten percent through comprehensive energy retrofits of existing equipment and implementation of previously identified energy efficiency projects. The proposed project would replace two older City facilities with a new combined energy efficient facility supported by solar energy. The project would also reduce the use of natural gas for heating pool water.

Water Conservation

Measure 3.1 Water Conservation calls for reduction in per capita water use to meet Urban Water Management targets by 2020. Development standards for water conservation will be applied to increase efficiency in indoor and outdoor water uses areas. The project would include low-flow water fixtures and water efficient landscaping to reduce overall water use.

Waste Reduction

Measure 4.2 Increased Waste Diversion requires working with regional partners to increase solid waste diversion to 80 percent through increased recycling efforts, curbside food waste pickup, and construction and demolition waste programs. The project would be conditioned to comply with the standards.

Off-Road Equipment

Measure 5.1 Lawn and Garden Equipment requires the City to support and facilitate a community-wide transition to electric outdoor lawn and garden equipment through outreach, coordination with BAAQMD, and outdoor electrical outlet requirements for new development. The project would be conditioned to comply with the standards.

Measure 5.2 Alternative Construction Fuels requires construction projects to comply with BAAQMD best management practices, including alternative-fueled vehicles and equipment. The project would be required as a condition of project approval to comply with all applicable BAAQMD best management practices for project construction.

Transportation and Land Use

Measure 6.1 Transportation Demand Management requires new development located in the city's transportation districts to implement a TDM program to reduce drive-alone trips. Based on Figure 22 of the City's CAP, the project site is not located in a transportation district and is not required to implement a TDM program.

Measure 6.3 Electric Vehicle Parking requires the City to revise parking standards for new multi-family residential and nonresidential development to allow that a minimum of one parking space and a recommended level of five percent of all new parking spaces, be designated for electric vehicle charging. The project would be required to provide electric vehicle changing stations in both the surface parking lots and the garage and the necessary wiring for additional changing stations in the future as needed.

Urban Heat Island Effect

Measure 7.1 Urban Forestry requires planting of shade trees on new developments and encourages shade trees to be planted near south-facing windows. New trees would be planted around the proposed facility to reduce solar heat in the building and around the development.

Measure 7.2 Urban Cooling calls for the use of materials to reduce heat gain and mitigate the urban heat island effect. The project proposes green roofs to reduce the heat island effect.

While the proposed development would result in a net increase in traffic trips it is estimated that it would result in a net decrease in energy usage compared to the existing site conditions. The project is consistent with the General Plan and would include GHG reduction strategies. As a result, the project is consistent with the CAP and would not preclude the City from reaching its GHG emissions reduction goals. Operation of the proposed project would have a less than significant GHG emissions impact. **(Less Than Significant Impact)**

4.7.3.3 Construction Greenhouse Gas Emissions

Demolition of the existing hardscape, grading of the site, and construction of the project would involve GHG emissions associated with heavy equipment, vehicles, and manufacturing materials used to construct the project.

Per General Plan Policy 5.10.3-P3, the project would reduce energy consumption through sustainable construction practices such as salvaging and recycling discarded building materials (i.e., existing hardscape and remnant materials from construction) in order to reduce the amount of demolition and construction waste going to the landfill. The project site is an infill site located in an urbanized location within close distance to construction supplies and equipment. These project features would help to minimize GHG emissions generated by transport of construction materials and waste associated with the project.

Neither the City of Santa Clara nor BAAQMD have quantified thresholds for construction activities. Given that the project is in an urban setting close to construction supplies and equipment, discarded materials would be salvaged or recycled, and the project would meet Title 24 standards (*Section 4.3*

Air Quality) to reduce energy and water usage, construction of the project would not contribute substantially to local or regional GHG emissions. **(Less than Significant Impact)**

4.7.4 Conclusion

Conformance to the CAP and implementation of the green building measures would reduce operational GHG emissions to a less than significant level. **(Less Than Significant Impact)**

Construction activities would have a less than significant short-term GHG emissions impact. **(Less Than Significant Impact)**

4.8 HAZARDS AND HAZARDOUS MATERIALS

The following discussion is based on an Environmental Site Assessment prepared for the project by *AEI Consultants* in August 2015. A copy of the report is attached in Appendix D of this Initial Study.

4.8.1 <u>Existing Setting</u>

Within the 52-acre Central Park, Site 1 is currently developed with the existing ISC, Site 2 is developed with the CRC, and Site 3 is a surface parking lot. Based on groundwater monitoring data from the State Water Resources Board Geotracker database, it is estimated that the direction of groundwater flow beneath the project site is northeast and has a depth of 14 to 22 feet bgs.

4.8.1.1 Site History

A land use history of the site has been compiled based on aerial photographs, Sanborn fire insurance maps, and City directories. Based on a review of these sources, the project site was utilized as agricultural land in 1948. There is no specific data for the park prior to 1948. Consistent with the development patterns of Santa Clara, it is assumed that the park was utilized for farm land or was undeveloped prior to 1948. The site operated as agricultural land until 1966. The park and ISC were constructed in 1967, and the CRC was constructed in 1976.

The surrounding area was also utilized as agricultural land until the 1960's when the surrounding neighborhoods were constructed. Kaiser Hospital, which was previously located on Kiely Boulevard (west of the park), was constructed in 1964. The hospital was demolished in 2009 and the site is now developed with housing. Santa Clara High School, located north of the old Kaiser site, was constructed in 1981 and remodeled in 2012-2015. Along the southern boundary of the park is a library, a private school, and multiple small apartment complexes. The school was constructed in 1955 and the adjacent City library was constructed in 1965 and remodeled/expended in 2004. The apartments fronting Homestead Road were constructed in 1960. The apartment complex located immediately adjacent to Site 3 was constructed in 1969.

4.8.1.2 On-Site Sources of Contamination

Due to the historic agricultural operations on-site, it is possible that residual contamination from pesticides, herbicides, and fertilizers may be found on the three project sites.

The ISC utilizes an aboveground storage tank (AST) for the storage of chemicals associated with pool water maintenance. A 500-gallon AST containing sodium hypochlorite is located in the storage area at the north side of the facility and a 250-gallon AST of hypochloric acid is located in the mechanical area of the ISC. Based on the materials stored in the ASTs, the presence of the ASTs is not considered a significant environmental concern.

Multiple one- and five-gallon containers of paint and other maintenance materials were observed in maintenance areas throughout the park, along with several one-gallon and smaller containers of housekeeping materials. No drains or other subsurface channels were observed in the vicinity of

these materials, and no staining or other evidence of materials mishandling was found. Therefore, these materials are not considered a significant environmental concern.
The park is not listed on any regulatory databases for hazardous materials.

Asbestos and Lead Based Paint

Friable asbestos is any asbestos containing material (ACM) that, when dry, can easily be crumbled or pulverized to a powder by hand, allowing the asbestos particles to become airborne. Common examples of products that have been found to contain friable asbestos include acoustical ceilings, plaster, wallboard, and thermal insulation for water heaters and pipes. Non-friable ACMs are materials that contain a binder or hardening agent that does not allow the asbestos particles to become airborne easily. Common examples of non-friable ACMs are asphalt roofing shingles, vinyl asbestos floor tiles, and transite (asbestos-cement) siding made with cement. Non-friable ACMs can pose the same hazard as friable asbestos during remodeling, repairs, or other construction activities that would damage the material. Use of friable asbestos products was banned in 1978.

In 1978, the Consumer Products Safety Commission banned paint and other surface coating materials containing lead. The structures on the project site were constructed prior to 1980. Therefore, it is assumed that ACMs and/or lead based paints are present in the existing structures.

Hydraulic Lifts

A wheelchair lift was observed in the existing CRC Theater, which was reported as being installed in 2003. It is possible that small amounts of hydraulic fluid may be located within the associated equipment tower. Observations of the lift did not, however, find staining or other evidence of a release. The lift is not considered a significant environmental concern.

4.8.1.3 Off-Site Sources of Contamination

Review of available regulatory databases found three listed hazardous waste sites within a quarter-mile of the project site. Off-site sources of contamination could impact the project site through contaminants in the groundwater. Since contaminants tend to dissipate with distance in the soil and groundwater, the primary concern are hazardous source sites in proximity to the project site. The three sites are listed in Table 4.8-1 below.

TABLE 4.8-1 Hazardous Materials Sites Within 1/4 Mile of the Project Site		
Database Listing	**Business Name and Site Address**	**Site Description**
RCRA GEN, FINDS/FRS	Kaiser Hospital (former) 900 Kiely Boulevard 60 feet west	Generated small quantities of hazardous waste including barium, mercury, ignitable waste, corrosive waste, reactive waste, benzenebutanoic acid, solver, lead, spent halogenated and non-halogenated solvents, and chromium. There are no documented releases from this facility. The facility has since been demolished and the site redeveloped with residential land uses.
LUST	Chevron #9-4300 2790 Homestead Road 0.09 miles south	Gasoline, BTEX, and fuel oxygenates contaminated a drinking water aquifer. Groundwater monitoring wells were installed in 1986 and three gasoline underground storage tanks (USTs) and one waste oil UST were removed from the site prior to redevelopment in 1987. Status: Case Closed (2009)
LUST	Arco #2153 2800 Homestead Road 0.09 miles south	Gasoline and benzene contaminated the groundwater (not a drinking water source). Groundwater monitoring wells were installed in 1988 during the UST replacement investigation. Status: Case Closed (2004)

4.8.2 Environmental Checklist and Discussion of Impacts

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project:					
1. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐	1-3, 14
2. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☒	☐	☐	1-3, 14

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project:					
3. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐	1-3, 14
4. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, will it create a significant hazard to the public or the environment?	☐	☐	☒	☐	1-3, 14
5. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, will the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒	1-3
6. For a project within the vicinity of a private airstrip, will the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒	1-3
7. Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒	1-3
8. Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☒	1-3

4.8.2.1 On-Site Hazardous Materials Impacts

Soil and Groundwater Contamination

A discussed in Section 4.8.1.2, there are no regulatory agency records or evidence of hazardous materials usage within the park since it was developed in 1967. As a result, implementation of the proposed project will not expose construction workers or adjacent land uses to contaminated soil or groundwater from past and current operations of the park, including the ISC and CRC. **(No Impact)**

Agricultural Land Uses

The project site was used as agricultural land until approximately 1967 when the site was developed with the existing land uses. Because of the past agricultural uses on-site, it is reasonable to assume that pesticides and other agricultural chemicals were used as part of the normal agricultural operations. It is common to find arsenic, lead, and dichlorodiphenyltrichloroethane (DDT) residue in the soils in Santa Clara County from historic farming operations.

Development of the proposed project will require excavation and trenching which could result in impacts to construction workers from exposure to soil contamination related to agricultural operations.

Impact HAZ-1: Implementation of the proposed project could expose construction workers to contaminated soil. **(Significant Impact)**

Mitigation and Avoidance Measures

The project proposes to implement the following mitigation measures:

MM HAZ-1.1: After demolition but prior to the issuance of grading permits, shallow soil samples shall be taken on sites 1, 2, and 3 to determine if contaminated soil from previous agricultural land uses is located on-site with concentrations above established construction/trench worker thresholds. The soil sampling plan must be reviewed and approved by the Santa Clara Fire Chief prior to initiation of work.

MM HAZ-1.2: Once the soil sampling analysis is complete, a report of the findings will be provided to the Santa Clara Fire Chief, Director of Planning and Inspection, and other applicable City staff for review.

MM HAZ-1.3: If contaminated soils are found in concentrations above established thresholds a Site Management Plan (SMP) will be prepared and implemented (as outlined below) and any contaminated soils found in concentrations above established thresholds shall be removed and disposed of according to California Hazardous Waste Regulations. The contaminated soil removed from the site shall be hauled off-site and disposed of at a licensed hazardous materials disposal site.

A SMP will be prepared to establish management practices for handling impacted soil material that may be encountered during site development and soil-disturbing activities. Components of the SMP will include: a detailed discussion of the site background; preparation of a Health and Safety Plan by an industrial hygienist; notification procedures if previously undiscovered significantly impacted soil or free fuel product is encountered during construction; on-site soil reuse guidelines based on the California Regional Water Quality Control Board, San Francisco Bay Region's reuse policy; sampling and laboratory analyses of excess soil requiring disposal at an appropriate off-site waste disposal facility; soil stockpiling protocols; and protocols to manage ground water that may be encountered during trenching and/or subsurface excavation activities. Prior to issuance of grading permits, a copy of the SMP must be approved by the City's Director of Planning and Inspection, and the Santa Clara Fire Chief.

Asbestos and Lead Based Paint

Due to the age of the structures on the project site, ACMs may be present. The project proposes to demolish the existing structures and, as a result, an asbestos survey must be conducted under National Emission Standards for Hazardous Air Pollutants (NESHAP) guidelines. In addition, NESHAP guidelines require that all potentially friable ACMs be removed prior to building demolition or renovation that may disturb the ACMs.

Based on the age of the buildings, lead-based paint may also be present. If lead-based paint is still bonded to the building materials, its removal is not required prior to demolition. It will be necessary, however, to follow the requirements outlined by Cal-OSHA Lead in Construction Standard, Title 8, California Code of Regulations (CCR) 1532.1 during demolition activities; these requirements include employee training, employee air monitoring, and dust control. If lead based paint is peeling, flaking, or blistered, it should be removed prior to demolition. It is assumed that such paint will become separated from the building components during demolition activities and must be managed and disposed of as a separate waste stream. Any debris or soil containing lead paint or coating must be disposed of at landfills that are permitted to accept such waste. Demolition of the existing structure on the project site could expose construction workers or residents in the vicinity of the project site to harmful levels of ACMs or lead.

The project is required to conform to the following regulatory programs and to implement the following measures to reduce impacts due to the presence of ACMs and/or lead-based paint:

- In conformance with State and local laws, a visual inspection/pre-demolition survey, and possible sampling, shall be conducted prior to the demolition of on-site buildings to determine the presence of asbestos-containing materials and/or lead-based paint.

- Prior to demolition activities, all building materials containing lead-based paint shall be removed in accordance with Cal/OSHA Lead in Construction Standard, Title 8, California Code of Regulations 1532.1, including employee training, employee air monitoring, and dust control. Any debris or soil containing lead-based paint or coatings would be disposed of at landfills that meet acceptance criteria for the waste being disposed.

- All potentially friable ACMs shall be removed in accordance with National Emissions Standards for Hazardous Air Pollutants (NESHAP) guidelines prior to any building demolition or renovation that may disturb the materials. All demolition activities will be undertaken in accordance with Cal/OSHA standards contained in Title 8 of CCR, Section 1529, to protect workers from exposure to asbestos.

- A registered asbestos abatement contractor shall be retained to remove and dispose of ACMs identified in the asbestos survey performed for the site in accordance with the standards stated above.

- Materials containing more than one percent asbestos are also subject to Bay Area Air Quality Management District (BAAQMD) regulations. Removal of materials containing more than one percent asbestos shall be completed in accordance with BAAQMD requirements.

Conformance with aforementioned regulatory requirements will result in a less than significant impact from ACMs and lead. **(Less Than Significant Impact)**

Future Operations

The development and operation of the proposed ISC/CRC facility would be a continuation of the current operations, which require the use and transportation of chemicals to maintain the pools. The project proposes the use of a computerized Chemical Control Monitor which will monitor and control the water balance and chemical input 24 hours a day. The pools will be maintained with the use of three primary chemicals, as described below.

Calcium hypochlorite will be used to maintain water sanitation levels to satisfy the Santa Clara County Health Department. Calcium hypochlorite is a dry chemical that will be stored in a pellet form. It will be added to the pool on an as-needed basis. The pellets are proposed to be stored in plastic shipping containers which are sealed to prevent contamination from moisture.

The pH of the pool water will be controlled with a combination of muriatic acid and CO_2. The muriatic acid is a liquid chemical stored in dual-contained chemical storage tanks. The muriatic acid is introduced into the pool via electronic metering pumps that are controlled by the chemical control monitor on an as-needed basis. Smaller volumes of the muriatic acid are required when used in conjunction with CO_2, and do not require special handling or building classifications.

The CO_2 will be stored in stainless steel pressure vessels. These vessels hold the CO_2 in a liquid state. The CO_2 is added to the pool by a mass transfer system. The mass transfer system converts the CO_2 into carbonic acid and is controlled by the chemical control monitor. The carbonic acid works in conjunction with muriatic acid to provide the necessary pH adjustments to maintain proper water balance.

Operation of the proposed project would likely include the use and storage on-site of cleaning supplies and maintenance chemicals in small quantities. The use, storage and transportation of these materials will be in accordance with local, State, and Federal laws and regulations. No other hazardous materials would be used or stored on-site. The small quantities of cleaning supplies and maintenance chemicals that would be used on-site would not pose a risk to adjacent land uses. The implementation of the proposed project in accordance with local, State, and federal laws and regulation will ensure that the on-site use of chemicals results in a less than significant hazardous materials impact. **(Less Than Significant Impact)**

4.8.2.2 Off-Site Hazards

Soil and Groundwater Contamination

Based on a review of available regulatory databases, none of the identified off-site sources of contamination pose a significant hazardous materials threat to the project site. While the two LUST sites are up-gradient of the project site, the sites have been remediated and granted case closure status. The former Kaiser Hospital did not have any documented releases and the site has since been developed with housing. Any contamination that may have been found on the hospital site would have been remediated during construction of the housing development. **(Less Than Significant Impact)**

4.8.2.3 Other Hazards

The project site is not located near any public airport or private air strip. The nearest airport is the San José International Airport, approximately 2.8 miles east of the project site. Therefore, implementation of the proposed project would not result in safety hazard impacts due to airport activities. **(No Impact)**

The project sites are located adjacent to or within one-quarter mile of three schools. The storage and use of chemicals on-site is consistent with current park operations and does not pose a risk to off-site land uses. As a result, implementation of the proposed project would not result in a hazardous materials impact to schools in the project area. **(No Impact)**

The project site is in a highly developed urban area and it is not adjacent to any wildland areas that would be susceptible to fire. Therefore, the proposed project would not expose the proposed building and future site users to wildland fires. **(No Impact)**

The City has evaluated the proposed project design and operations and determined that the project would not interfere with any adopted emergency response plan or emergency evacuation plan. **(Less Than Significant Impact)**

4.8.3 Conclusion

With implementation of the proposed mitigations, the project would not result in significant impacts related to hazardous materials. **(Less Than Significant Impact with Mitigation)**

4.9 HYDROLOGY AND WATER QUALITY

4.9.1 Setting

4.9.1.1 Flooding

The project sites are not located within a 100-year flood hazard area. According to the Federal Emergency Management Agency (FEMA), the project sites are located in Zone X which is an area with 0.2 percent annual chance of flood; areas with one percent chance of annual flood with average depths of less than one foot or with drainage areas less than one square mile; and areas protected by levees from one percent annual flood.[12]

4.9.1.2 Dam Failure

Based on the Santa Clara Valley Water District dam failure inundation hazard maps, the park is located in the Lexington Reservoir failure inundation hazard zones but outside the Andersen Dam failure inundation hazard zone.[13] [14]

4.9.1.3 Seiches, Tsunamis, and Mudflows

There are no landlocked bodies of water near the park that would affect the development site in the event of a seiche. There are no bodies of water near the project sites that would affect the sites in the event of a tsunami.[15] The project area is flat and there are no mountains near the sites that would affect the sites in the event of a mudflow.

4.9.1.4 Storm Drainage System

The City of Santa Clara owns and maintains the municipal storm drainage system which serves the project area. The lines that serve the project area drain into Saratoga Creek which flows north, carrying the runoff from the storm drains into San Francisco Bay.

Currently, 44 percent of the project sites are covered with impervious surfaces. The on-site storm drainage lines on the western side of Saratoga Creek connect to the existing main lines with flow directly to Saratoga Creek. On the eastern side of the creek, the storm drainage lines connect to exiting lines which flow to Calabazas Creek.

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[12] Federal Emergency Management Agency. Map 06085C0063H. May 18, 2009. <http://msc.fema.gov/webapp/wcs/stores/servlet/FemaWelcomeView?storeId=10001&catalogId=10001&langId=-1> Accessed July 22, 2015.

[13] Santa Clara Valley Water District. *Andersen Dam EAP 2009 Flood Inundation Maps. 2009*. http://www.valleywater.org/Services/AndersonDamAndReservoir.aspx Accessed September 9, 2015.

[14] Santa Clara Valley Water District. *Lexington Reservoir 2009 Flood Inundation Maps. 2009.* *http://www.valleywater.org/Services/LexingtonReservoirAndLenihanDam.aspx* Accessed September 9, 2015.

[15] Association of Bay Area Governments. *Tsunami Inundation Emergency Planning Map for the San Francisco Bay Region.* <http://quake.abag.ca.gov/tsunamis>. Accessed September 9, 2015.

4.9.1.5 Groundwater

Groundwater is estimated to be approximately 14 to 22 feet bgs. The three project sites are developed in a confined area of the Santa Clara Valley groundwater basin and does not substantially contribute to the recharging of the groundwater aquifer used for water supply.[16]

4.9.1.6 Water Quality Regulatory Setting

As stated above, stormwater from the three project sites drains from the storm drainage lines into Saratoga Creek and Calabazas Creek. The water quality of Saratoga Creek is directly affected by pollutants contained in stormwater runoff from a variety of urban and non-urban uses. Stormwater from urban uses contains metals, pesticides, herbicides, and other contaminants, including oil, grease, asbestos, lead, and animal wastes. Based on data from the California Environmental Protection Agency (CalEPA),[17] Saratoga Creek is currently listed on the California 303(d) list[18] for exceeding the Total Daily Maximum load (TMDL) for Diazinon and trash. Calabazas Creek is also on the California 303(d) list for Diazinon.[19]

Nonpoint Source Pollution Program

The Federal Clean Water Act and California's Porter-Cologne Water Quality Control Act are the primary laws related to water quality. Regulations set forth by the U.S. Environmental Protection Agency (EPA) and the State Water Resources Control Board (SWRCB) have been developed to fulfill the requirements of this legislation. EPA's regulations include the National Pollutant Discharge Elimination System (NPDES) permit program, which controls sources that discharge pollutants into the waters of the United States (e.g., streams, lakes, bays, etc.). These regulations are implemented at the regional level by the water quality control boards, which for the Santa Clara area is the San Francisco Regional Water Quality Control Board (RWQCB).

<u>Statewide Construction General Permit</u>

The SWRCB has implemented a NPDES General Construction Permit for the State of California. For projects disturbing one acre or more of soil, a Notice of Intent (NOI) and Storm Water Pollution Prevention Plan (SWPPP) must be prepared prior to commencement of construction.

Municipal Regional Stormwater NPDES Permit (MRP)/C.3 Requirement

The San Francisco Bay RWQCB also has issued a Municipal Regional Stormwater NPDES Permit (Permit Number CAS612008) (MRP). In an effort to standardize stormwater management requirements throughout the region, this permit replaces the formerly separate countywide municipal stormwater permits with a regional permit for 77 Bay Area municipalities, including the City of

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[16] Santa Clara Valley Water District. *2012 Groundwater Management Plan. Figure 2-5 Santa Clara Groundwater Subbasins.*
[17] California Environmental Protection Agency. *California 303(d) Listed Waters.* 2012. http://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2012.shtml Accessed February 24, 2016.
[18] The Clean Water Act, section 303, establishes water quality standards and TMDL programs. The 303(d) list is a list of impaired water bodies.
[19] A TMDL is a calculation of the maximum amount of a pollutant that a water body can receive and still meet water quality standards.

Santa Clara. Under provisions of the NPDES Municipal Permit, redevelopment projects that disturb more than 10,000 square feet are required to design and construct stormwater treatment controls to treat post-construction stormwater runoff. Amendments to the MRP require all of the post-construction runoff to be treated by using Low Impact Development (LID) treatment controls, such as biotreatment facilities. The Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP) assists co-permittees, such as the City of Santa Clara, with implementing the provisions of the Municipal NPDES Permit.

Hydromodification

In addition to water quality controls, the Municipal Regional Stormwater NPDES permit requires all new and redevelopment projects that create or replace one acre or more of impervious surface to manage development-related increases in peak runoff flow, volume, and duration, where such hydromodification is likely to cause increased erosion, silt pollutant generation or other impacts to beneficial uses of local rivers, streams, and creeks. Projects may be deemed exempt from the permit requirements if they do not meet the size threshold, drain into tidally influenced areas or directly into the Bay, drain into hardened channels, or are infill projects in subwatersheds or catchments areas that are greater than or equal to 65 percent impervious (per the Santa Clara Permittees Hydromodification Management Applicability Map).

Based on the SCVUPPP Watershed Map for the City of Santa Clara, the project site is within a subwatershed that drains into a hardened channel or tidal area. As a result, the project is not subject to the NPDES hydromodification peak runoff requirements.[20]

4.9.2 <u>Environmental Checklist and Discussion of Impacts</u>

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project:					
1. Violate any water quality standards or waste discharge requirements?	☐	☐	☒	☐	1,2,3
2. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there will be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells will drop to a level which will not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☒	☐	1,2,3

[20] Santa Clara Valley Urban Runoff Pollution Prevention Program. http://www.scvurppp-w2k.com/hmp_maps.htm Accessed September 9, 2015.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project:					
3. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which will result in substantial erosion or siltation on-or off-site?	☐	☐	☒	☐	1,2,3
4. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which will result in flooding on-or off-site?	☐	☐	☒	☐	1,2,3
5. Create or contribute runoff water which will exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☒	☐	1,2,3
6. Otherwise substantially degrade water quality?	☐	☒	☐	☐	1,2,3
7. Place housing within a 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☒	☐	1,2,3,15
8. Place within a 100-year flood hazard area structures which will impede or redirect flood flows?	☐	☐	☐	☒	1,2,3,15
9. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☒	☐	1-3,16, 17
10. Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒	1-3,16, 17

4.9.2.1 Flooding Impacts

The site is not located within a 100-year flood hazard zone. Implementation of the proposed project would not result in people or structures being exposed to significant flood risks. **(No Impact)**

4.9.2.2 Storm Drainage Impacts

The project site is currently 44 percent impervious. Implementation of the proposed project would result in a net reduction in impervious surfaces on-site by 0.1 percent (approximately 2,314 square feet). As a result, the proposed project would not increase the demand upon the storm drainage system compared to the current land use or exceed the capacity of the existing lines. **(Less Than Significant Impact)**

4.9.2.3 Water Quality

Operational Impacts

Implementation of the proposed project would result in a slight reduction in stormwater runoff due to an approximately 0.1 percent decrease in impermeable surfaces over existing conditions. Once developed, the project site will contribute the same types of stormwater runoff pollutants as the current site conditions. Runoff from streets and parking areas often carries grease, oil, and trace amounts of heavy metals into natural drainages. Runoff from landscaping can carry pesticides, herbicides, and fertilizers. Although the amounts of these pollutants ultimately discharged into the waterways are unknown, over time they could accumulate and be substantial.

The existing project site is approximately 1,924,517 square feet, of which approximately 44 percent is currently comprised of impervious surfaces. The proposed project will decrease impervious surfaces on-site by approximately 2,314 square feet.

In addition, the proposed project will add or replace more than 10,000 square feet of impervious surfaces, so it must conform to the requirements of the Municipal Regional Stormwater NPDES permit. Conformance is illustrated in the Conceptual Stormwater Control Plan and will be finalized in the final Stormwater Control Plan at the Development Permit stage of this project. Plans will be certified by engineers to ensure incorporation of appropriate and effective source control measures to meet Low Impact Development (LID) requirements to prevent discharge of pollutants, reduce impervious surfaces, retain a percentage of runoff on-site for percolation, and treatment control measures to remove pollutants from runoff entering the storm drainage system. In order to meet the City's requirements and the NPDES requirements, the project proposes to use pervious pavement and bioretention basins located around the perimeter of the building and adjacent to the parking structure.

The proposed treatment facilities will have sufficient capacity to treat the stormwater runoff entering the storm drainage system. In addition, the project will be required to maintain all post-construction treatment control measures, as outlined below, throughout the life of the project.

The following measures, based on the RWQCB Best Management Practices (BMPs) and the City requirements, are included in the proposed project to ensure compliance with NPDES permit requirements to reduce post-construction water quality impacts.

- When the construction phase is complete, a Notice of Termination (NOT) for the General Permit for Construction will be filed with the RWQCB and the City of Santa Clara. The NOT will document that all elements of the SWPPP have been executed, construction materials and waste have been properly disposed of, and a post-construction stormwater management plan is in place as described in the SWPPP for the project site.

- All post-construction Treatment Control Measures (TCMs) will be installed, operated, and maintained by qualified personnel. On-site inlets will be cleaned out at a minimum of once per year, prior to the wet season.

- The property owner/site manager will keep a maintenance and inspection schedule and record to ensure the TCMs continue to operate effectively for the life of the project. Copies of the schedule and record must be provided to the City upon request and must be made available for inspection on-site at all times.

With implementation of the project's proposed SWCP, the project will not violate any adopted water quality standards or waste discharge requirements. Runoff will be routed directly from the treatment facilities to the storm drainage system and will not flow off-site. Installation and maintenance of the proposed stormwater treatment systems will result in a less than significant impact on water quality. **(Less Than Significant Impact)**

Construction Impacts

Implementation of the proposed project will require removal of the existing pavement and grading of the sites. Demolition and construction activities would temporarily increase the amount of debris on-site and grading activities could increase erosion and sedimentation that could be carried by runoff into natural waterways. Because the project will disturb more than one acre of lane, the project would be required to comply with the general stormwater permit and prepare a SWPPP for construction activities. In addition, per City requirements, the following measures (based on RWQCB recommendations) have been included in the project as a condition of project approval to reduce potential construction-related water quality impacts:

<u>Construction Measures</u>

- Burlap bags filled with drain rock will be installed around storm drains to route sediment and other debris away from the drains.
- Earthmoving or other dust-producing activities would be suspended during periods of high winds.
- All exposed or disturbed soil surfaces would be watered at least twice daily to control dust as necessary.
- Stockpiles of soil or other materials that can be blown by the wind would be watered or covered.
- All trucks hauling soil, sand, and other loose materials would be covered and all trucks would be required to maintain at least two feet of freeboard.
- All paved access roads, parking areas, staging areas and residential streets adjacent to the construction sites would be swept daily (with water sweepers).
- Vegetation in disturbed areas would be replanted as quickly as possible.

With implementation of the identified construction measures and compliance with the NPDES General Construction Permit, construction of the proposed project would have a less than significant impact on water quality.

4.9.2.4 Groundwater

The project site is currently 44 percent impervious and does not contribute to recharging of the groundwater aquifers used as water supply. The depth to groundwater at the project site is at least 14 feet bgs. Development of the project would include trenching for utilities and excavation for the pools, but would not interfere with groundwater flow or expose any aquifers. **(Less Than Significant Impact)**

4.9.2.5 Inundation and Dam Failure Impacts

Due to the location of the project site, the project would not be subject to inundation by seiche, tsunami, or mudflow. **(No Impact)**

Although the project site is located within the Lexington Reservoir dam failure inundation hazard zone, the site is located over twelve miles from the Lexington Reservoir. The SCVWD maintains and inspects the dam at the reservoir and provides an annual report of the reservoir's condition. As a result, the probability of a dam failure is very low. Implementation of the project would not expose people or structures to significant flooding risks due to dam failure. **(Less Than Significant Impact)**

4.9.3 Conclusion

The project would not be subject to inundation by seiche, tsunami, or mudflow. **(No Impact)**

The project would comply with the Nonpoint Source Pollution Program and the Municipal Regional Stormwater Permit, and therefore would not violate any water quality standards or waste discharge requirements. **(Less Than Significant Impact)**

The project would not increase stormwater runoff from the site and would not degraded water quality. **(Less Than Significant Impact)**

The project does not contribute to the recharging of groundwater aquifers, and there are no groundwater recharge sources in the project area. In addition, the project would not deplete the groundwater supply or expose people or structures to flood hazards such as dam failure. **(Less Than Significant Impact)**

While construction activities could temporarily increase pollutants loads in stormwater runoff, implementation of the identified construction measures would reduce construction-related impacts to water. **(Less Than Significant Impact)**

4.10 LAND USE

4.10.1 <u>Setting</u>

4.10.1.1 Existing Land Uses on the Project Site

The proposed project sites are located in Central Park, within a primarily residential area of Santa Clara. The park covers 52 acres and, in addition to the existing CRC and ISC, includes picnic facilities, play areas, an outdoor amphitheater, lighted tennis courts, basketball courts, a baseball diamond, the Veterans Memorial, and a small school campus to the north of the existing CRC. Saratoga Creek bisects the park in a northeast-southwest direction.

Site 1 (ISC) is located near the eastern boundary of the park and is comprised of a main building, one competition pool, one practice pool, a dive pool and tower, and covered stadium seating.

Site 2 (CRC) is located centrally along the western boundary of the park, along Kiely Boulevard. The CRC is comprised of one building, two surface parking lots, two tennis courts, and two basketball courts.

Site 3 (parking lot) is located at the southwest corner of the park, along Kiely Boulevard. The parking lot has one ingress/egress driveway from Kiely Boulevard.

Trails throughout the park connect the three sites.

4.10.1.2 Surrounding Land Uses

The park is surrounded by single-family residences to the north and east, a church, private school, City library, and apartments to the south, and apartments and a post office to the west.

The surrounding residential neighborhood is a mix of one- and two-story houses and two- to four-story apartments. Residences nearest the northern boundary of the park primarily face the park. Residences adjacent to the eastern boundary of the park back up to the park. The apartments to the west of the park, on the west side of Kiely Boulevard range from two to four stories. The newest apartments, at the old Kaiser Hospital site, are newly constructed with minimal setbacks from the street. The older apartments are separated from Kiely Boulevard by surface parking and dense landscaping.

A small, two-story apartment building is located directly adjacent to the southern boundary of Site 3. Classrooms and a small playground for the St. Justin Parish Community School are directly adjacent to the eastern boundary of Site 3.

An aerial photograph of the project site and surrounding land uses is shown in Figure 2.2-3.

4.10.1.3 Existing Land Use Designation and Zoning

The entire Central Park, including the project sites, is designated as *Parks/Open Space* in the General Plan. The designation allows for improved and unimproved park and open space facilities, managed natural resource areas, and outdoor recreation areas. It includes neighborhood, community, and regional parks, public golf courses, recreational facilities, and nature preserves that provide active or visual open space and serve the outdoor recreational needs of the community.

The park is zoned *B – Public or Quasi Public* by the City Code. The intent of the zoning district is to identify public, quasi-public and public park facilities as specific land use developments. As defined in Chapter 18.52 of the City Code, this zoning district allows the following land uses:

- Landscaped public utility facilities without a substantial structure where activity would be limited to occasional maintenance and servicing such as City-owned well sites, City-owned pumping stations, public utility substations whether City-owned or privately owned, telephone company switching stations, and operations which in the opinion of the Planning Commission are similar.

- Public parks without recreational facilities where there will be no evening activity or concentration of people such as a memorial site, the Civic Center Park, and other quiet park facilities which in the opinion of the Planning Commission are similar.

- Additions to existing public or quasi-public facilities not exceeding fifteen percent of the existing development within a single calendar year and not substantially changing the nature of the operation.

The following land uses are allowed with the approval of a conditional use permit:

- Public or private general educational facilities such as elementary, intermediate or high schools, junior colleges, and universities. This provision does not apply to single-purpose educational facilities.

- Municipal and public utility facilities such as fire houses, telephone company business office, post office and the like.

- Churches and similar nonprofit facilities such as museums, art galleries, monasteries, and youth facilities.

- Cemeteries, airports, golf course of ten acres or more, public utility corporation yards, and other facilities which in the opinion of the Planning Commission are similar.

- Public park or recreational facility.

- Neighborhood recreational enterprises.

- Other public and quasi-public facilities not specifically provided for herein or within other districts of this title which in the opinion of the Planning Commission would most appropriately be placed in the B zoning district.

4.10.2 Environmental Checklist and Discussion of Impacts

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project:					
1. Physically divide an established community?	☐	☐	☐	☒	1,2,3
2. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐	1,2,3
3. Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒	1,2,3

4.10.3 Land Use Impacts

4.10.3.1 Consistency with the General Plan Land Use Designation and Zoning

The project sites are designated *Parks/Open Space* in the General Plan and zoned *B – Public or Quasi Public.* The proposed project would demolish the existing ISC and CRC and construct a new combined facility on the west side of the park. The existing ISC would be demolished and the site converted to parkland. As a result, the project would not change the uses of the park, physically divide an established community, or conflict with the existing General Plan and zoning designations. **(Less Than Significant Impact)**

The park is not located within any conversation plan areas and, therefore, the proposed project would not conflict with any habitat conservation plan or natural community conservation plan. **(No Impact)**

4.10.3.2 Visual Intrusion

The height of the proposed facility would be similar to the residential units across Kiely Boulevard. The portion of the facility nearest the roadway would be the circular dive pool. Seating within the dive pool area would be located on the second story, but would be angled to avoid direct line of sight across Kiely Boulevard. In addition, the dive pool would be approximately 150 feet from the nearest residential buildings and separated by a roadway and dense tree canopies. The remainder of the facility would be set back more than 200 feet from residences. As a result of the setbacks, existing and proposed landscaping, and building design, the proposed project will have a less than significant visual intrusion impact on nearby residences. **(Less Than Significant Impact)**

4.10.3.3 Shade and Shadow Effects

The proposed facility would range from 45 to 47 feet tall with the canopy over the pools reaching a maximum height of 66 feet. The building would not be adjacent to any existing structures.

To determine the specific shading of the proposed facility on the surrounding land uses, a shade and shadow analysis was completed by the project architect. Shade and shadow analyses are typically prepared for March 20, June 21, September 22, and December 21. This provides an analysis of each season as well as the longest and shortest days of the year, covering the full spectrum of possible shade and shadow issues. Consistent with standard practices, for each day the analysis provides data for 9:00 am, noon, and 3:00 pm.

Results of the shade and shadow analysis (shown in Figure 4.10-1) show that the project would not substantially shade nearby properties during each season. During spring, summer, and fall, shadows from the proposed facility would not extend beyond the boundaries of the project site and would only shade small portions of the park immediately around the facility in the spring and fall. The proposed parking structure would shade a small section of the park and would partially shade two buildings and a small playground at the adjacent school in the spring and fall in the afternoon (3:00 PM). The playground would also be shaded in the afternoon during the summer.

During the winter, when shadows are longest, the proposed facility would shade a portion of the school playground to the north throughout the day. The facility would shade Kiely Boulevard and the parking area of the apartments west of the site in the morning (9:00 AM). The proposed parking structure would shade a small section of the park throughout the day. The structure would shade Kiely Boulevard in the morning and partially shade two buildings and a small playground at the adjacent school in the afternoon.

While the buildings would cast shadows on portions of the adjacent roadway in the winter morning hours, the project would not preclude people from safely driving on the roadway. The proposed buildings would also shade public open space, but the park is already shaded in these areas by the existing CRC and dense tree canopies. There are no identified historic buildings adjacent to the project site which would be impacted by shade from the proposed buildings.

There are no existing solar collectors on adjacent properties that would be impacted by shading from the project. Shading from the project would not occur year-round and would not substantially impair the beneficial use of the park or adjacent parcels. Implementation of the proposed project would not have a significant shade and shadow impact. **(Less Than Significant Impact)**

4.10.4 <u>Conclusion</u>

The project would not divide an established community. **(No Impact)**

The project would not conflict with any habitat conservation plans. **(No Impact)**

Implementation of the proposed project would not result in significant land use impacts. **(Less Than Significant Impact)**

SHADE AND SHADOW STUDY

FIGURE 4.10-1

4.11 MINERAL RESOURCES

The Santa Clara Valley was formed when sediments derived from the Santa Cruz Mountains and the Mt. Hamilton-Diablo Range were exposed by continued tectonic uplift and regression of the inland sea that had previously inundated this area. As a result of this process, the topography of the area is relatively flat and there are no mapped mineral resources in the project vicinity.[21]

4.11.1 Environmental Checklist and Discussion of Impacts

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project:					
1. Result in the loss of availability of a known mineral resource that will be of value to the region and the residents of the state?	☐	☐	☐	☒	1,2,3
2. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒	1,2,3

4.11.1.1 Mineral Resources Impacts

The proposed project site is within a developed urban area and it does not contain any known or designated mineral resources. **(No Impact)**

4.11.2 Conclusion

The project would not result in a significant impact from the loss of availability of a known mineral resource. **(No Impact)**

[21] Stanley, R. G., R. C. Jachens, P. G. Lillis, R. J. McLaughlin, K. A. Kvenvolden, F. D. Hostettler, K. A. McDougall, and L. B. Magoon. 2002. *Subsurface and petroleum geology of the southwestern Santa Clara Valley ("Silicon Valley"), California.* (Professional Paper 1663) Washington, DC: U. S. Government Printing Office.

4.12 NOISE

The following analysis is based, in part, on a noise assessment prepared by *Illingworth & Rodkin* in January 2016. The report can be found in Appendix E of this Initial Study.

4.12.1 Setting

4.12.1.1 Background Information

Acceptable levels of noise vary from land use to land use. In any one location, the noise level will vary over time, from the lowest background or ambient noise level to temporary increases caused by traffic or other sources. State and Federal standards have been established as guidelines for determining the compatibility of a particular land use with its noise environment.

There are several methods of characterizing sound. The most common in California is the *A-weighted sound level* or *dBA.*[22] This scale gives greater weight to the frequencies of sound to which the human ear is most sensitive. Because sound levels can vary markedly over a short period of time, a method for describing either the average character of the sound or the statistical behavior of the variations must be utilized. Most commonly, environmental sounds are described in terms of an average level that has the same acoustical energy as the summation of all the time-varying events. This energy-equivalent sound/noise descriptor is called L_{eq}. The most common averaging period is hourly, but L_{eq} can describe any series of noise events of arbitrary duration.

Although the A-weighted noise level may adequately indicate the level of environmental noise at any instant in time, community noise levels vary continuously. Most environmental noise includes a conglomeration of noise from distant sources which create a relatively steady background noise in which no particular source is identifiable. To describe the time-varying character of environmental noise, the statistical noise descriptors, L_{01}, L_{10}, L_{50}, and L_{90}, are commonly used. They are the A-weighted noise levels equaled or exceeded during 1, 10, 50, and 90 percent of a stated time period.

Sound level meters can accurately measure environmental noise levels to within about plus or minus one dBA. Since the sensitivity to noise increases during the evening hours, 24-hour descriptors have been developed that incorporate artificial noise penalties added to quiet-time noise events. The *Day/Night Average Sound Level, Ldn*, is the average A-weighted noise level during a 24-hour day, obtained after the addition of 10 dB to noise levels measured in the nighttime between 10:00 PM and 7:00 AM.

The most widespread and continual source of noise in Santa Clara is transportation and transportation-related facilities. Freeways, local arterials, the Norman Y. Mineta San José International Airport, railroads, and Light Rail Transit are all major contributors to noise in Santa Clara.

[22] The sound pressure level in decibels as measured on a sound level meter using the A-weighting filter network. All sound levels in this discussion are A-weighted, unless otherwise stated.

4.12.1.2 Regulatory Background – Noise

The State of California and the City of Santa Clara have established guidelines, regulations, and policies designed to limit noise exposure at noise sensitive land uses. Appendix E of the State CEQA Guidelines, the State of California Building Code, and the City of Santa Clara's Noise Element of the General Plan present the following applicable criteria:

State CEQA Guidelines. CEQA contains guidelines to evaluate the significance of effects resulting from a proposed project. These guidelines have been used in this Initial Study as thresholds for establishing potentially significant noise impacts and are listed under Thresholds of Significance.

City of Santa Clara General Plan. Based on the City's General Plan Noise Element, Table 4.12-1 shows the noise levels considered compatible with specific land uses. Recreational land uses are considered compatible with Ldn noise levels up to 65 dBA and acceptable with design and insulation techniques in areas with Ldn noise levels up to 75 dBA.

TABLE 4.12-1
Noise and Land Use Compatibility (Ldn & CNEL)

Land Use	50	55	60	65	70	75	80	85
Residential								
Educational								
Recreational								
Commercial								
Industrial								
Open Space								

	Compatible
	Require Design and insulation to reduce noise levels
	Incompatible. Avoid land use except when entirely indoors and an interior noise level of 45 Ldn can be maintained

Source: City of Santa Clara 2010-2035 General Plan

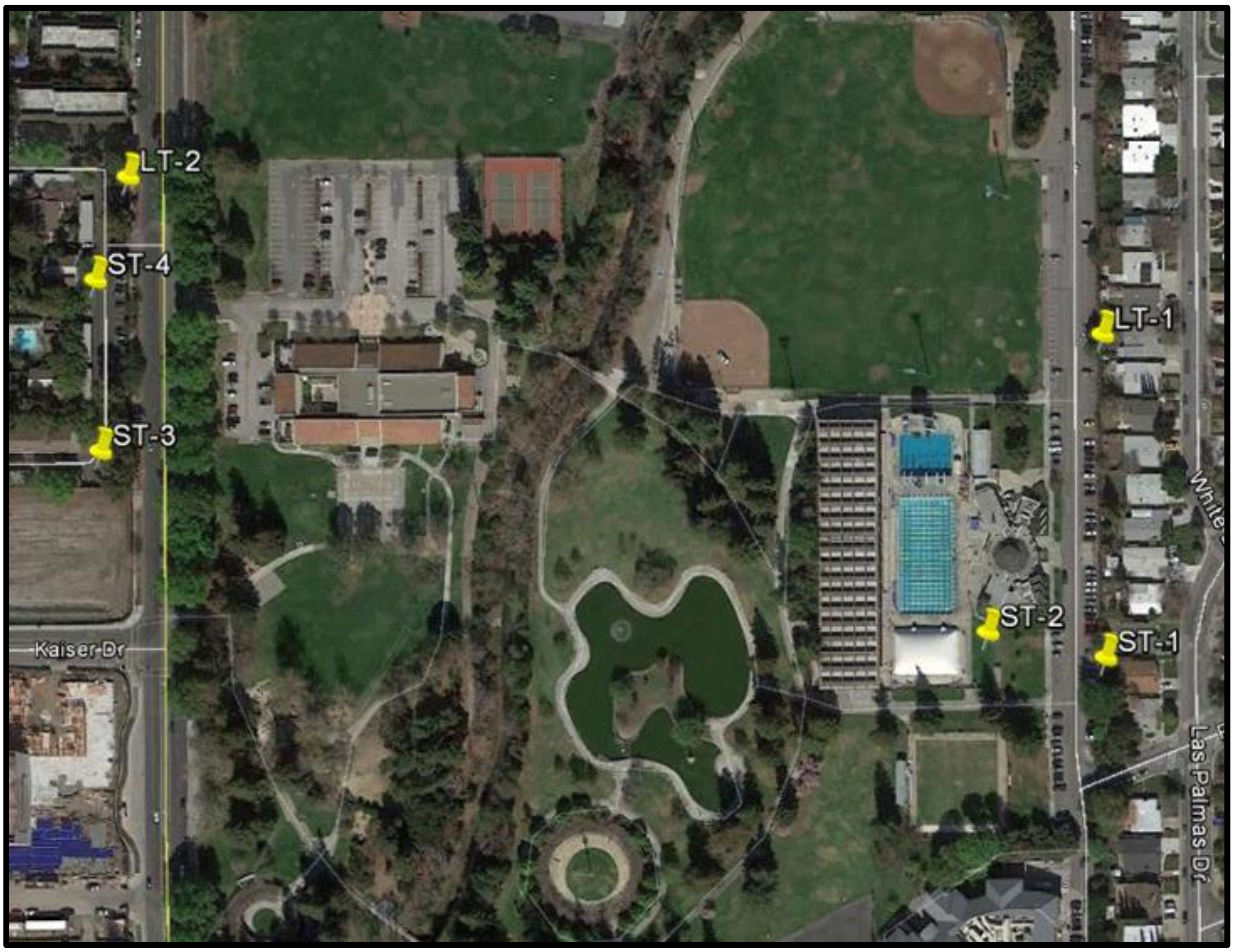
Santa Clara City Code. In section 9.10.040 of the Santa Clara City Code Schedule A shows the noise levels considered consistent with specific zoning designations. For office land uses, outdoor noise levels of up to 65 decibels are considered acceptable.

4.12.1.3 Existing Noise Environment

The proposed development sites are located on Kiely Boulevard near Homestead Road. Noise in the project area is generated primarily from vehicular traffic on Kiely Boulevard and to a lesser extent by traffic on Homestead Road.

TABLE 4.12-1 Noise Monitoring Survey Results	
Measurement Locations	**dBA Leq**
LT-1	52 to 61 – daytime/evening 46 to 53 - nighttime
LT-2	64 to 71 – daytime/evening 53 to 63 nighttime
ST-1	52
ST-2	57
ST-3	57
ST-4	58

To quantify existing ambient noise levels on and around the project site, a noise monitoring survey was completed. The survey included two long-term measurements (LT-1 and LT-2) and four short-term measurements (ST-1 through ST-4). The results of the survey are shown in Table 4.12-1. The noise measurement locations are shown on the figure below.



Sensitive Receptors

Noise sensitive land uses adjacent or in proximity to the sites include the existing residential neighborhoods to the north, east, and west, and the nearby schools.

4.12.2 Environmental Checklist and Discussion of Impacts

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project result in:					
1. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐	1,2,3,18
2. Exposure of persons to, or generation of, excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐	1,2,3,18
3. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐	1,2,3,18
4. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐	1,2,3,18
5. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, will the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒	1,2,3
6. For a project within the vicinity of a private airstrip, will the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒	1,2,3

4.12.2.1 Thresholds of Significance

The CEQA Guidelines state that a project would normally be considered to have a significant impact if noise levels conflict with adopted environmental standards or plans, or if noise levels generated by the project would substantially increase existing noise levels at noise-sensitive receivers on a permanent or temporary basis. CEQA does not define what noise level increase would be substantial. The General Plan defines a change of three dBA L_{dn} as noticeable, five dBA L_{dn} as distinct in noise level.[23] Typically, project generated noise level increases of three dBA L_{dn} or greater are considered significant where resulting exterior noise levels would exceed the normally acceptable noise level standard. Where noise levels would remain at or below the normally acceptable noise level standard with the project, a noise level increase of five dBA L_{dn} or greater is considered significant.

[23] City of Santa Clara. 2010. *City of Santa Clara 2010-2035 General Plan, Section 8.14.1 Noise Measurement.*

4.12.2.2 Operational Noise Impacts from the Project

The proposed facility would include two parking lots on the north and west sides of the building. There would be no loading docks for the facility and all mechanical equipment would be located within the building, mostly under the bleachers of the pool area. No rooftop mechanical equipment is proposed. The City Code limits noise levels from building equipment to 55 dBA Leq during the daytime (7:00 am to 10:00 pm) and 50 dBA Leq during the evening (10:00 pm to 7:00 am) at the property line of adjacent noise sensitive land uses.

ISC Operations

ISC related activities at the proposed facility are anticipated to remain the same as existing activities currently held in the existing ISC located on the east side of Central Park. During the noise monitoring survey, ISC activities were not audible outside of the existing structure. Noise sources associated with swim activities and competitions would include spectators cheering, public address/ sound amplification system use, water splashing, diving board bouncing, and whistles.

The nearest noise sensitive receptors to the new facility are the residences located approximately 350 feet west of the competition diving pool, across Kiely Boulevard. The side enclosures of the diving pool structure are calculated to provide about 30 dB of noise attenuation. This structure would also provide shielding to residences west of Kiely Boulevard from noise associated with the competition pool, training, and recreational pools. As a result, hourly average noise levels during standard ISC activities at these residences are calculated to be below 40 dBA Leq and would not be distinguishable from existing ambient noise sources.

At the small school in the park, located about 250 feet north of the training pool, noise levels would be approximately 55 to 69 dBA Leq and 61 to 79 dBA Lmax. Due to existing park activities, traffic on Kiely Boulevard, and noise generated by existing outdoor activities at the school, noise levels at the school already exceed the City's Noise Ordinance limits. The pools would be most heavily used outside of school hours. During school hours, pool operations would not result in a perceptible noise increase over the existing ambient noise levels.

Daily operations of the ISC would have a less than significant impact on nearby noise sensitive land uses. **(Less Than Significant Impact)**

ISC events already occur at the existing facility and no new events are proposed with the project. The majority of events would take place during the weekend and not during school hours. The largest yearly event to be held at the new facility, the Arena Grand Prix-International Swim Competition, is currently being held at the existing facility located approximately 1,100 feet from the residences on the west side of Kiely Boulevard. The Arena Grand Prix-International Swim Competition includes up to 5,000 participants and spectators over three days.

Assuming a maximum of 5,000 participants/spectators for this event, noise generated by the Arena Grand Prix-International Swim Competition was calculated to be 87 dBA Leq at a distance of 100 feet. The side enclosures of the diving pool structure are calculated to provide about 30 dB of noise attenuation to residences west of the site from both diving pool and competition pool activities. As a result, residences to the west would be exposed to hourly noise levels of 47 dBA Leq and maximum noise levels of 53 to 57 dBA Lmax. These noise levels would not exceed the Santa Clara Noise Ordinance limits and would be more than 20 dB below noise levels generated by traffic on Kiely Boulevard.

For residences located to the east and north of the proposed facility, the diving pool structure would not provide shielding for activities occurring at the competition, training, and recreational pools. Residences to the east (adjacent to the existing ISC) would be located approximately 1,000 feet from the center of the proposed competition pool. With the increased distance between these receptors and pool activities, noise levels are calculated to be reduced approximately 12 dBA below existing levels during the same events/activities.

Residences to the north are located about 750 feet from the center of the proposed competition pool. The unshielded noise levels at this distance from a 5,000 person event are calculated to be 69 dBA Leq. This noise level would exceed the Santa Clara Noise daytime and nighttime noise ordinance limits. These special events would, however, occur only a few times per year and would be limited to the daytime and evening. Because the events would be limited, would not occur during nighttime hours, and already occur at the existing facility, the noise impacts from special events would be less than significant. **(Less Than Significant Impact)**

CRC Operations

All noise sources associated with activities at the proposed CRC building would be located indoors. As a result, operation of the CRC will have no measureable impact on ambient noise levels in the project area. **(No Impact)**

Parking Structure

A new parking structure is proposed to be constructed on the existing surface parking lot located along Kiely Boulevard, south of Central Park and west of St. Justin Elementary School. The parking structure would serve the proposed facility as well as visitors to Central Park. The nearest noise sensitive uses to the proposed parking structure are the residences to the south and St. Justin Elementary School to the east. Both are located approximately 50 feet from the proposed parking structure location.

To quantify the potential noise impact of the parking structure on off-site residents, data from a previous noise study of an existing four-story parking structure in downtown Petaluma was applied. Noise data collected included measurements of typical noise generating activities such as doors closing, engines starting, and auto horns. These activities were performed on each level at the edge of the garage and at a parking stall located approximately 50 feet from the edge. Noise measurements were also taken of automobiles traveling up and down the access ramps within the garage. The maximum instantaneous noise level was from the car horns which ranged from 62-70 dBA.

These noises are infrequent and would not be expected to cause an increase in hourly average noise levels at the surrounding residences. With the available surface parking adjacent to the facility, it is reasonable to assume that the parking structure would be utilized primarily on weekends and during special events, outside of school hours. The louder noises would be intermittently audible, but would be similar to levels generated by vehicles on Kiely Boulevard and Homestead Road and vehicles utilizing the existing surface parking lot located in the same location. As a result, the proposed parking structure would have a less than significant impact on adjacent noise sensitive land uses. **(Less Than Significant Impact)**

Project-Generated Traffic Noise Impacts

A noise increase is considered substantial if it increases the ambient noise level by three decibels or more in sensitive noise areas. A three decibel increase typically results from a doubling of traffic on local roadways. Based upon the trip generation estimates (see Section 4.16, *Transportation),* project traffic would result in traffic noise increases, but would not double the amount of traffic on any local roadways and would not noticeably increase the ambient noise level of the project area. Future project traffic would, therefore, result in a less than significant noise impact. **(Less Than Significant Impact)**

4.12.2.3 Construction Impacts

Construction activities associated with implementation of the proposed project would temporarily increase noise levels in the project area. Construction activities generate considerable amounts of noise, especially during demolition and construction of project infrastructure when heavy equipment is used. Typical average construction generated noise levels are about 81 – 89 dB measured at a distance of 50 feet from the center of the site during busy construction periods (e.g., earth moving equipment, impact tools, etc.) Construction generated noise levels drop off at a rate of about six dB per doubling of distance between the source and receptor.

The construction of the proposed project would temporarily increase noise levels in the immediate vicinity of the project site and would be audible at the nearby residences and schools. Compliance with City Code requirements for construction (Chapter 9.10, listed below) will reduce impacts from construction activities on the project site.

- Construction and demolition activities shall be limited to the period between 7:00 AM and 6:00 PM Monday through Friday and 9:00 AM to 6:00 PM on Saturdays. No construction or demolition activities are permitted on Sundays or holidays.

- Construction crews will be required to use available noise suppression devices and properly maintain and muffle internal combustion engine-driven construction equipment.

- The applicant shall designate a disturbance coordinator and post the name and phone number of this person at easy reference points for the surrounding land uses. The disturbance coordinator shall respond to and address all complaints about noise.

Compliance with City Code requirements during construction activities on the project site will result in a less than significant construction noise impact. **(Less Than Significant Impact)**

4.12.3 Conclusion

Compliance with City Code requirements would reduce temporary construction noise impacts to a less than significant level. **(Less Than Significant Impact)**

Implementation of the proposed project would have a less than significant long-term noise impact. **(Less Than Significant Impact)**

4.13 POPULATION AND HOUSING

4.13.1 Setting

The City of Santa Clara has a total population of approximately 122,690 residents in 47,123 households.[24] Of the 122,690 residents, approximately 57,138 are employed residents[25] and the City has approximately 108,905 jobs. According to the City's General Plan, the projected population in 2035 will be 154,825 residents, 60,435 households, 154,280 total jobs and 86,800 employed residents.

The jobs/housing balance is the relationship between the number of housing units required as a result of local jobs and the number of residential units available in the City. This relationship is quantified by the jobs/employed resident ratio. When the ratio reaches 1.0, a balance is struck between the supply of local housing and local jobs. The jobs/employed resident ratio is determined by dividing the number of local jobs by the number of employed residents that can be housed in local housing. This is an environmental issue because proximity between jobs and housing strongly influences driving patterns, air quality, and other environmental factors.

The City of Santa Clara had an estimated 1.9 jobs per employed resident in 2008. The 2010-2035 General Plan focuses on increased housing and the placement of housing near employment. As a result, the overall jobs/employed residents ratio is expected to decrease to 1.77 by 2035.

4.13.2 Environmental Checklist and Discussion of Impacts

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project:					
7. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒	1,2,3
8. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒	1,2,3
9. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒	1,2,3

[24] City of Santa Clara, 2010. *City of Santa Clara 2010-2035 General Plan.*
[25] The current number of total employed residents is based on the City's jobs to employed residents ratio which is 1.9 jobs per employed resident.

4.13.2.1 Population and Housing Impacts

Development of the proposed project would not result in a significant increase in jobs citywide and would not induce substantial population growth in the City. As a result, the project would have no measurable effect on the City's jobs/housing ratio and would, therefore, not result in a less than significant population and housing impact.

The project site is not currently used for residential purposes; therefore, the proposed project would not displace existing housing or people or require replacement housing to be constructed. **(No Impact)**

4.13.3 Conclusion

Implementation of the proposed project would have a less than significant impact on population and housing. **(Less Than Significant Impact)**

4.14 PUBLIC SERVICES

4.14.1 Setting

The proposed project is the redevelopment and expansion of recreational facilities in Central Park. Visitors, employees, and program participants at these facilities would affect public services in the City including police and fire protection, community centers, and parks. Increased usage of the park could indirectly result in increased usage of the adjacent library. The capacity of local schools would not be affected by the redevelopment of the recreational facilities within the park and are not discussed further.

4.14.1.1 Police Protection Services

Police protection services are provided in the project area by the City of Santa Clara Police Department (SCPD). The SCPD is divided into three divisions, Field Operations, Investigations, and Administrative Services, and has approximately 145 sworn officers, 23 reserve officers, and 41 support personnel.[26] Police headquarters is located at 601 El Camino Real, approximately two miles northeast of Central Park.

4.14.1.2 Fire Protection Services

Fire protection services are provided to the project site by the City of Santa Clara Fire Department (SCFD). The SCFD is comprised of approximately 180 fire service personnel and over 60 reserve employees/volunteers.[27] The SCFD receives an average of 7,000 emergency calls per year, including hazardous materials, emergency medical, specialized rescue, and fires.[28] The goal of the SCFD is to maintain a force sufficiently staffed and deployed to sustain a three-minute response time to initial calls 90-95 percent of the time.[29]

The SCFD consists of 10 stations distributed throughout the City. The nearest station to the project site is Station Three, located at 2821 Homestead Road, which is approximately 425 feet southwest of Central Park.

4.14.1.3 Libraries and Community Centers

The City is served by three libraries, the Central Park Library located at 2635 Homestead Road at the southeast corner of Central Park, the Mission Library Family Reading Center located at 1098 Lexington Street, and the Northside Branch library located at Live Oak Park on Moreland Way. The Central Park Library includes group study rooms, large community rooms, public art, more than 100 public computers, high speed Internet connection for personal laptops, a computer training facility, a café and bookstore, a renowned genealogy and local history collection, a children's garden, fireplaces, and an extensive collection of materials for educational and recreational use. The Mission

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[26] City of Santa Clara Website: http://scpd.org/index.aspx?page=1521 Accessed April 16, 2015.
[27] City of Santa Clara Website. Fire Department Administration. Fact Sheet. 2009. http://santaclaraca.gov/index.aspx?page=326 Updated May 2011. Accessed April 16, 2015.
[28] City of Santa Clara Website. Fire Department About Us. http://santaclaraca.gov/index.aspx?page=294 Accessed May 18, 2015.
[29] City of Santa Clara Website. Emergency Services. http://santaclaraca.gov/index.aspx?page=1063 Accessed May 18, 2015.

Library contains an extensive collection of reading materials and is headquarters for READ Santa Clara, a free adult literacy program.

The proposed project includes the demolition and redevelopment of the CRC, located within Central Park. Currently, the CRC includes a multi-purpose room, a kitchen, a stage, a ceramics room, activity rooms, and various offices. Activities include youth and adult creative arts, dance, special interest, fitness and drop-in group exercise classes, Therapeutic Recreation Services programs, Junior Theater, Pre-Kindergarten program, class registration, facility reservations, and seasonal special events.[30]

4.14.1.4 Parks

The City of Santa Clara Parks & Recreation Department (Department) is responsible for maintaining and programming the various parks and recreation facilities, and works cooperatively with public agencies in coordinating all recreational activities within the City. Overall, the Department maintains and operates Central Park (52 acres), 25 neighborhood parks (122.67 acres), five mini parks (2.59 acres), public open space (approximately 16 acres improved and 40 acres of unimproved land resulting in 46 acres), recreation facilities (approximately 14.9 acres, excluding the Santa Clara Golf and Tennis Club and the Santa Clara Police Activities League Bicycle Motocross, recreation trails (3.7 acres), and joint use facilities (47.5 acres) throughout the City, totaling approximately 252.5 improved acres. Community parks are over 15 acres, neighborhood parks are one to fifteen acres and mini parks are typically less than one acre in size.

The project site is located within Central Park. Currently, the park includes group and individual picnic facilities, playgrounds, restroom facilities, an amphitheater, two lighted tennis courts, basketball courts, the Veterans Memorial, and the CRC west of Saratoga Creek. East of the creek is the ISC, the Bob Fatjo Sports Center (which includes Tony Sanchez Field and a second lighted softball field), the Santa Clara Tennis Center (with eight lighted tennis courts and a practice wall), a lake, large group picnic areas, restroom facilities, a lawn bowling green, an exercise course, and the Central Park Library.[31]

[30] City of Santa Clara Website. Community Recreation Center. http://santaclaraca.gov/index.aspx?page=236 Accessed June 29, 2015.
[31] City of Santa Clara Website. Parks. http://santaclaraca.gov/index.aspx?page=2654&recordid=318 Accessed June 29, 2015.

4.14.2 Environmental Checklist and Discussion of Impacts

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
1. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:					
Fire Protection?	☐	☐	☒	☐	1,2,3
Police Protection?	☐	☐	☒	☐	1,2,3
Schools?	☐	☐	☐	☒	1,2,3
Parks?	☐	☐	☐	☒	1,2,3
Other Public Facilities?	☐	☐	☐	☒	1,2,3

4.14.2.1 Impacts to Public Services

Police and Fire Protection Services

The existing CRC and ISC create a demand for police and fire services. The proposed project would demolish the ISC and CRC, and rebuild and expand these facilities in one building. The redevelopment of the CRC and ISC would increase visitors to the park and could result in an incremental increase in the need for police and fire protection services.

The proposed project would be built to applicable Fire Code standards in use when construction permits are issued, including sprinklers and smoke detectors, and would include features that would reduce potential fire hazards. The project would also be reviewed by the City of Santa Clara Police Department to ensure that it incorporates appropriate safety features to minimize criminal activity.

Although the proposed project would likely increase demand for police and fire response and related emergency services, it would not require the development of new or expanded fire stations and, therefore, would not result in a significant physical impact on the environment. **(Less Than Significant Impact)**

Libraries, Parks, and Community Centers

The redevelopment and expansion of the CRC and the ISC in one new building on the northwest portion of Central Park could increase usage of the library, but would not increase the population of the City and, therefore, would not affect overall library service goals for the City. **(No Impact)**

Demolition of the existing ISC and conversion of the site into parkland would result in a net increase in parkland in the City. The proposed project would, therefore, result in a beneficial park impact. **(No Impact)**

The new facility would increase the City's recreation services to accommodate the public service needs of the City's population. The proposed project would result in a beneficial public facilities impact to the City. **(No Impact)**

4.14.3 Conclusion

Implementation of the proposed project would increase the overall square footage of the recreational facilities within the City and would incrementally increase the demand for police and fire protection services in the project area. This increased demand, however, would not result in the need to construct new police or fire facilities. Due to the nature of the proposed development, the project would not impact existing schools, parks, or libraries. **(Less Than Significant Impact)**

4.15 RECREATION

4.15.1 Setting

The City of Santa Clara currently maintains one 52-acre community park (Central Park), 24 neighborhood parks, four mini parks, and a wildlife and natural vegetation park. Mini parks are typically less than one acre in size and neighborhood parks range from one to fifteen acres in size.

The project site is located within Central Park. In addition to traditional park amenities such as open space, picnic areas, and playground facilities, the park includes ball fields, a tennis court facility, a lawn bowling green, swim facility and community and recreation center.

In addition to parklands and the facilities within Central Park, the City currently has a gymnastics center, a bicycle track, a dog park, a golf and tennis club, a senior center, a teen center, a youth activity center, and a skate park. The City's recreational system is augmented by local school facilities, which are available to the general public after normal school hours.[32]

4.15.2 Environmental Checklist and Discussion of Impacts

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
1. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility will occur or be accelerated?	☐	☐	☐	☒	1,2,3
2. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒	1,2,3

4.15.2.1 Impacts to Recreational Facilities

The existing CRC and ISC facilities located within Central Park have reached the end of their useful life span and are proposed to be replaced with a new combined facility. The project would not result in an increase in the local population, but could result in an increase in usage of local recreational facilities within and around Central Park due to the expanded programs and services that will be provided at the new facility. An increase in usage was anticipated as part of the new facility and would not place a major physical burden on the facility or the park that would hasten physical deterioration of the park. The project would not increase the usage of existing parks and recreation facilities such that the construction of new or expanded recreational facilities would be required. **(No Impact)**

[32] City of Santa Clara, *City of Santa Clara General Plan 2010-2035*

4.15.3 Conclusion

The proposed project would not result in significant impacts to recreational facilities in Santa Clara. **(No Impact)**

4.16 TRANSPORTATION

The following information is based on a Transportation Impact Analysis prepared by *Hexagon Transportation Consultants* in December 2015. A copy of the report is provided in Appendix F.

4.16.1 <u>Setting</u>

4.16.1.1 Roadway Network

Regional Access

Regional access to the project area is provided via Highway 101 (US 101) and Interstate 280 (I-280). These roadway facilities are described below.

US 101 is an eight-lane (three mixed-flow lanes and one high-occupancy-vehicle (HOV) lane in each direction) freeway in the vicinity of the site. It extends north through San Francisco and south through Gilroy. Regional access to the project site is provided via its interchange with Bowers Avenue/Kiely Boulevard.

Interstate-280 is generally an eight-lane (three mixed-flow lanes and one high-occupancy-vehicle (HOV) lane in each direction) freeway in the vicinity of the site. It extends from US 101 in San Jose to I-80 in San Francisco. Regional access to the project site from I-280 is provides via interchanges at Saratoga Avenue, Lawrence Expressway, and San Tomas Expressway.

Major roadways within the project area include Lawrence Expressway, El Camino Real, San Tomas Expressway, and Homestead Road. These roadway facilities are described below.

Lawrence Expressway is a north-south expressway that begins at Saratoga Avenue and extends north to SR 237 where it becomes Caribbean Drive. Full interchanges are located at SR 237, US 101, and I-280. Lawrence Expressway provides access to and from the project site via Benton Street and Homestead Road.

El Camino Real (State Route 82) is a six-lane major arterial that runs in an east-west direction extending from The Alameda, in San Jose, west towards the City of Mountain View. El Camino Real provides access to and from the project site via Kiely Boulevard.

San Tomas Expressway is a north-south expressway that begins at US 101 and extends south through Santa Clara and San Jose and into Campbell, where it becomes Camden Avenue at SR 17. Full interchanges are located at US 101 and I-280. North of El Camino Real, San Tomas Expressway is an eight-lane roadway with HOV lanes. The HOV lane designation is in effect in both directions of travel during the AM and PM peak commute hours. The lane is open to all users outside of commute hours. South of El Camino Real, San Tomas Expressway narrows to a six-lane road including HOV lanes. The HOV lane designation in this segment is in effect for only the peak direction of travel (northbound in the AM and southbound in the PM). San Tomas Expressway provides access to and from the project site via Benton Street and Homestead Road.

Homestead Road is a major east-west roadway, extending from Foothill Expressway in Los Altos to Lincoln Boulevard in Santa Clara. In the vicinity of the project, Homestead Road is a four-lane roadway with bike lanes on both sides of the street west of San Tomas Expressway. Homestead Road narrows from three lanes to two lanes plus bike lanes east of San Tomas Expressway. Access to the project site is provided via its intersection with Kiely Boulevard.

Local access to the project area is provided by Kiely Boulevard and Benton Street. These roadway facilities are described below.

Kiely Boulevard is a north-south roadway that begins at its intersection with Saratoga Avenue and runs north to El Camino Real, where it becomes Bowers Avenue. In the vicinity of the project site, Kiely Boulevard is a four-lane roadway. Kiely Boulevard provides direct access to Sites 2 and 3.

Benton Street is a two to four-lane roadway that runs in an east-west direction. Benton Street runs between the Santa Clara Caltrain Station, near El Camino Real, and Lawrence Expressway. West of Lawrence Expressway, Benton Street becomes a two-lane residential street. Benton Street provides access to Sites 2 and 3 via Kiely Boulevard.

4.16.1.2 Existing Pedestrian and Bicycle Facilities

Bicycle facilities are divided into three classes of relative significance. Class I bikeways are bike paths that are physically separated from motor vehicles and offer two-way bicycle travel on a separate path. Class II bikeways are striped bike lanes on roadways that are marked by signage and pavement markings. Class III bikeways are bike routes and only have signs to help guide bicyclists on recommended routes to certain locations

In the project area, there are Class II bike lanes on Homestead Road, Pomeroy Avenue, Los Padres Boulevard, and Los Olivos Drive. In addition, the San Tomas Aquino Creek Trail extends from the Sunnyvale Baylands Park to El Camino Real, just north of the project site. Bicycles are permitted on Lawrence and San Tomas Expressways. Existing bicycle facilities are shown on Figure 4.16-1.

In the vicinity of the project site, sidewalks are located on one or both sides of all streets. Marked crosswalks with pedestrian signal heads are provided at all nearby signalized intersections.

4.16.1.3 Existing Transit Service

Existing transit service on the surrounding roadways is provided by Santa Clara Valley Transportation Authority (VTA). The site is directly served by Routes 57, 58, and 81. Other routes in the project area include Routes 22, 23, 323, 330, and 522. All the routes are described below and shown on Figure 4.16-2.

Direct Routes

Local Route 57 operate on Kiely Boulevard and runs from West Valley Community College in the south to Great America Transit Center in the north. The route operates between 5:45 AM and 11:00 PM with approximately 30-minute headways in the AM and PM Peak Hours.

EXISTING BICYCLE FACILITIES FIGURE 4.16-1

EXISTING TRANSIT SERVICES FIGURE 4.16-2

Local Route 58 operates on Kiely Boulevard and runs from West Valley Community College in the south to Alviso (San Jose) in the north. The route operates between 6:00 AM and 7:00 PM with approximately 30-mintue headways in the AM and PM peak hours.

Local Route 81 operates on Homestead Road, Kiely Boulevard, and Benton Street and runs from San Jose State University to Vallco Mall. The route operates between 6:15 AM and 9:00 PM with approximately 30-minute headways in the AM and PM peak hours.

Secondary Routes

Local Route 23 operates on Stevens Creek Boulevard and runs from Alum Rock Transit Center in the east to De Anza College in the west. The route operates between 5:20 AM and 1:00 AM weekdays.

Limited Stop Route 323 operates on Stevens Creek Boulevard between Downtown San Jose and De Anza College. The route operates between 6:20 AM and 11:00 PM weekdays.

Limited Stop Route 330 operates on San Tomas Expressway and runs between Almaden Expressway/Camden Avenue in San Jose and the I-880/Milpitas LRT Station in Milpitas. The route operates northbound in the AM Peak Hour and southbound in the PM Peak Hour.

Rapid Bus Route 522 operates on El Camino Real and runs between the Palo Alto Transit Center and the Eastridge Transit Center. The route operates between 4:30 AM and 11:30 PM weekdays.

4.16.1.4 Existing Intersection Operations

Methodology

The impacts of the proposed development were evaluated following the methodologies established by the City of Santa Clara and the Santa Clara County Congestion Management Program (CMP). Intersections were selected for study if project traffic would add at least 10 trips per lane per hour during one or more peak hours, consistent with adopted CMP methodology.

Traffic conditions were evaluated for existing conditions, background conditions[33], existing plus project conditions, and background plus project conditions to determine if the level of service (LOS) of the local intersections in the project area would be adversely affected by project generated traffic. LOS is a qualitative description of operating conditions ranging from LOS A, or free-flowing conditions with little or no delay, to LOS F, or jammed conditions with excessive delays. In addition to the LOS evaluation, an assessment was made for unsignalized intersections to determine if the proposed project would have an impact on any unsignalized intersections in the project vicinity. The correlation between average delay and LOS is shown in Table 4.16-1.

The traffic study analyzed AM and PM Peak Hour (weekday) traffic conditions for 20 signalized intersections and one unsignalized intersection in the vicinity of the project site.

[33] Background conditions are existing plus approved but not yet constructed development.

Due to the nature of the proposed project, the study also includes evaluation of six intersections that provide primarily access/egress from major roadways to the project site during the peak Saturday period for the project site. It should be noted that neither the City of Santa Clara nor the CMP have established LOS thresholds for Saturdays.

The study intersections are shown on Figure 4.16-3 and are listed in Table 4.16-2 below.

TABLE 4.16-1
Intersection Level of Service Definitions Based on Delay

Level of Service	Description	Average Control Delay per Vehicle[34]
A	Operations with very low delay occurring with favorable progression and/or short cycle lengths.	10.0 or less
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[35] 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.	55.0 to 80.0
F	Operation with delays unacceptable to most drivers occurring due to over saturation, poor progression, or very long cycle lengths.	Greater than 80.0

Based on the City of Santa Clara's (SC) policies, an acceptable operating level of service is defined as LOS D or better at all intersections. For County of Santa Clara (SCC) and Congestion Management Program (CMP) intersections, an acceptable level of service is LOS E.

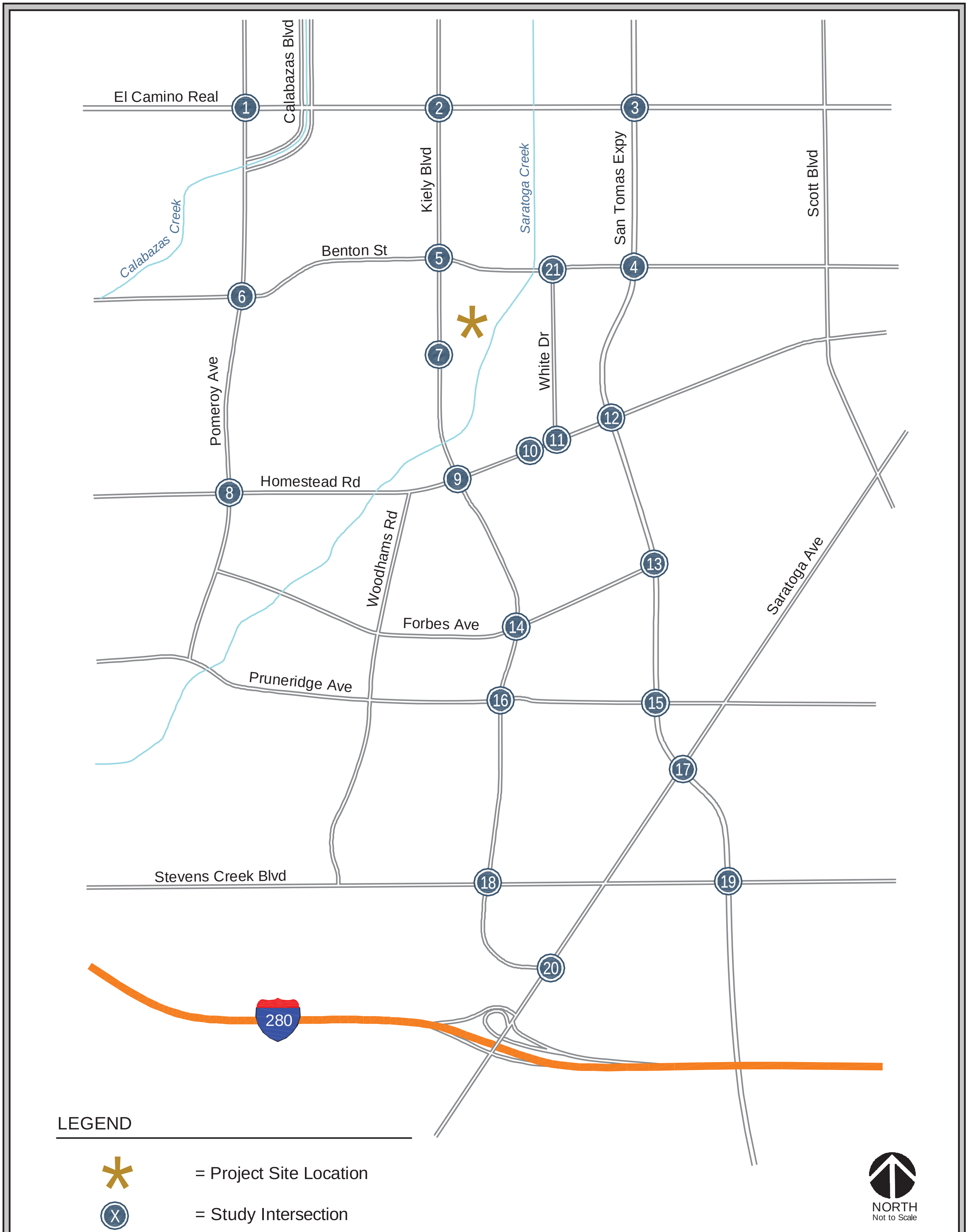
Existing LOS of Study Intersections – Weekday Peak Hours

Analysis of the existing intersection operations concluded that three of the study intersections currently operate at an unacceptable LOS in at least one Peak Hour.

- No. 3 – San Tomas Expressway and El Camino Real *(AM Peak Hour)*
- No. 4 – San Tomas Expressway and Benton Street *(AM Peak Hour)*
- No. 19 – San Tomas Expressway and Stevens Creek Boulevard *(AM Peak Hour)*

All other study intersections operate at an acceptable LOS under existing conditions. The results of the existing conditions analysis are summarized in Table 4.16-2.

[34] Measured in seconds.
[35] Volume to capacity ratio.



STUDY INTERSECTIONS FIGURE 4.16-3

TABLE 4.16-2 Study Intersections Level of Service – Existing Conditions (Weekdays)				
No.	**Intersection**	**Peak Hour**	**Delay**	**LOS**
1	Pomeroy Avenue and El Camino Real (SC)	AM	15.7	B
		PM	18.3	B
2	Kiely Boulevard and El Camino Real (SC, CMP)	AM	28.7	C
		PM	33.2	C
3	San Tomas Expressway and El Camino (SC, CMP)	AM	**107.8**	**F**
		PM	79.7	E
4	San Tomas Expressway and Benton Street (SC)	AM	**89.6**	**F**
		PM	69.5	E
5	Kiely Boulevard and Benton Street (SC)	AM	39.1	D
		PM	39.7	D
6	Pomeroy Avenue and Benton Street (SC)	AM	21.4	C
		PM	29.1	C
7	Kiely Boulevard and Kaiser Drive (SC)	AM	7.3	A
		PM	9.5	A
8	Pomeroy Avenue and Homestead Road (SC)	AM	31.6	C
		PM	31.7	C
9	Kiely Boulevard and Homestead Road (SC)	AM	33.3	C
		PM	36.5	D
10	Park-Library Church Driveway and Homestead Road (SC)	AM	17.3	B
		PM	25.3	C
11	Las Palmas Drive and Homestead Road (SC)	AM	11.7	B
		PM	16.1	B
12	San Tomas Expressway and Homestead Road (SC, CMP)	AM	70.9	E
		PM	61.7	E
13	San Tomas Expressway and Forbes Avenue (SC)	AM	43.3	D
		PM	8.0	A
14	Kiely Boulevard and Forbes Avenue (SC)	AM	8.7	A
		PM	8.0	A
15	San Tomas Expressway and Pruneridge Avenue (SC)	AM	68.3	E
		PM	57.2	E
16	Kiely Boulevard and Pruneridge Avenue (SC)	AM	31.0	C
		PM	30.7	C
17	San Tomas Expressway and Saratoga Avenue (SC, CMP)	AM	61.3	E
		PM	58.8	E
18	Kiely Boulevard and Stevens Creek Boulevard (SJ, CMP)	AM	37.7	D
		PM	37.7	D
19	San Tomas Expressway and Stevens Creek Boulevard (SJ, CMP)	AM	**90.0**	**F**
		PM	64.1	E
20	Kiely Boulevard and Saratoga Avenue (SJ, CMP)	AM	38.2	D
		PM	41.0	D

Note: Entries denoted in **bold** indicate conditions that exceed the applicable level of service standard.

4.16.1.5 Background Intersection Operations

Background traffic conditions represent conditions anticipated to exist after completion of the project's environmental review process, but prior to operation of the proposed development. It takes into account planned transportation system improvements that will occur prior to implementation of the proposed project and background traffic volumes. Background peak hour traffic volumes are calculated by adding estimated traffic from approved but not yet constructed development to the existing conditions. Because the project site is adjacent near Sunnyvale and San Jose, traffic from these cities approved projects were obtained from their databases and included in the background traffic volumes.

This traffic scenario represents a more congested traffic condition than the existing conditions scenario since it includes traffic from approved but not constructed projects. The background conditions analysis is consistent with City of Santa Clara policy for transportation analyses though it is not required under CEQA, as it is neither a project scenario nor cumulative analysis but represents conditions anticipated to exist at the time the project is built and operational.

The analysis assumes that the transportation network under background conditions would be the same as the existing transportation network.

Background Intersection Level of Service

Analysis of the background intersection operations found that seven intersections will operate at an unacceptable LOS under background conditions. The intersection is listed below.

- No. 3 – San Tomas Expressway and El Camino Real *(AM & PM Peak Hour)*
- No. 4 – San Tomas Expressway and Benton Street *(AM & PM Peak Hour)*
- No. 12 – San Tomas Expressway and Homestead Road *(AM & PM Peak Hour)*
- No. 13 – San Tomas Expressway and Forbes Avenue *(AM Peak Hour)*
- No. 15 – San Tomas Expressway and Pruneridge Avenue *(AM & PM Peak Hour)*
- No. 17 – San Tomas Expressway and Saratoga Avenue *(AM & PM Peak Hour)*
- No. 19 – San Tomas Expressway and Stevens Creek Boulevard *(AM & PM Peak Hour)*

This change in LOS from existing to background traffic volumes reflects that the environment in which the project will eventually occur is dynamic and affected by new development independent of the project. The results of the analysis under background conditions are summarized in Table 4.16-3 below.

TABLE 4.16-3
Study Intersections Level of Service – Background Conditions (Weekdays)

No.	Intersection	Peak Hour	Existing		Background	
			Delay	LOS	Delay	LOS
1	Pomeroy Avenue and El Camino Real (SC)	AM PM	15.7 18.3	B B	16.2 18.6	B B
2	Kiely Boulevard and El Camino Real (SC, CMP)	AM PM	28.7 33.2	C C	32.4 39.7	C D
3	San Tomas Expressway and El Camino (SC, CMP)	AM PM	**107.8** 79.7	**F** E	**187.1** **143.4**	**F** **F**
4	San Tomas Expressway and Benton Street (SC)	AM PM	**89.6** 69.5	**F** E	**177.1** **141.0**	**F** **F**
5	Kiely Boulevard and Benton Street (SC)	AM PM	39.1 39.7	D D	37.9 41.1	D D
6	Pomeroy Avenue and Benton Street (SC)	AM PM	21.4 29.1	C C	21.9 29.7	C C
7	Kiely Boulevard and Kaiser Drive (SC)	AM PM	7.3 9.5	A A	9.5 17.2	A B
8	Pomeroy Avenue and Homestead Road (SC)	AM PM	31.6 31.7	C C	34.1 34.0	C C
9	Kiely Boulevard and Homestead Road (SC)	AM PM	33.3 36.5	C D	38.2 44.4	D D
10	Park-Library Church Driveway and Homestead Road (SC)	AM PM	17.3 25.3	B C	16.5 23.8	B C
11	Las Palmas Drive and Homestead Road (SC)	AM PM	11.7 16.1	B B	11.1 15.1	B B
12	San Tomas Expressway and Homestead Road (SC, CMP)	AM PM	70.9 61.7	E E	**137.2** **131.2**	**F** **F**
13	San Tomas Expressway and Forbes Avenue (SC)	AM PM	43.3 8.0	D A	**89.9** 36.6	**F** D
14	Kiely Boulevard and Forbes Avenue (SC)	AM PM	8.7 8.0	A A	9.5 8.8	A A
15	San Tomas Expressway and Pruneridge Avenue (SC)	AM PM	68.3 57.2	E E	**131.2** **95.4**	**F** **F**
16	Kiely Boulevard and Pruneridge Avenue (SC)	AM PM	31.0 30.7	C C	32.3 31.9	C C
17	San Tomas Expressway and Saratoga Avenue (SC, CMP)	AM PM	61.3 58.8	E E	**113.0** **83.8**	**F** **F**
19	Kiely Boulevard and Stevens Creek Boulevard (SJ, CMP)	AM PM	37.7 37.7	D D	39.3 38.8	D D
20	San Tomas Expressway and Stevens Creek Boulevard (SJ, CMP)	AM PM	**90.0** 64.1	**F** E	**143.8** **92.2**	**F** **F**
21	Kiely Boulevard and Saratoga Avenue (SJ, CMP)	AM PM	38.2 41.0	D D	36.9 42.9	D D

Note: Entries denoted in **bold** indicate conditions that exceed the applicable level of service standard.

4.16.1.6 Existing Freeway Operations

Methodology

As prescribed in the CMP guidelines, the LOS for freeway segments is estimated based on vehicle density as shown in Table 4.16-4 below. The CMP defines an acceptable levels of service for freeway segments as LOS E or better.

TABLE 4.16-4
Freeway Level of Service Definitions Based on Density

Level of Service	Description	Density (vehicles/mile/lane)
A	Average operating speeds at the free-flow speed generally prevail. Vehicles are almost completely unimpeded in their ability to maneuver within the traffic stream.	0-11
B	Speeds at the free-flow speed are generally maintained. The ability to maneuver within the traffic stream is only slightly restricted.	>11-18
C	Speeds at or near the free-flow speed of the freeway prevail. Freedom to maneuver within the traffic stream is noticeably restricted, and lane changes require more vigilance on the part of the driver.	>18-26
D	Speeds begin to decline slightly with increased flows at this level. Freedom to maneuver within the traffic stream is more noticeably limited.	>26-46
E	At this level, the freeway operates at or near capacity. Operations at this level are volatile, because there are virtually no usable gaps in the traffic stream, leaving little room to maneuver within the traffic stream.	>46-58
F	Vehicular flow breakdowns occur. Large queues form behind breakdown points.	>58

For the purposes of this analysis, the determination of which freeway segments were included in the analysis was made based on the impacts from project traffic. Project traffic was added to the 18 nearest freeway segments to the project site. If project traffic contributes more than one percent to the capacity at the farthest segments, then additional segments are analyzed. If project traffic does not exceed the capacity threshold at the farthest segments, then only the original segments are included in the analysis.

LOS for key freeway segments in the AM and PM Peak Hours was calculated based on the traffic volumes obtained from VTA's *2010 Monitoring and Conformance Report*. Freeways are State controlled and CMP-monitored facilities and, as a result, the minimal acceptable level of service is LOS E.

Existing LOS of Study Freeway Segments

Analysis of the existing freeway operations concluded that the mixed-flow lanes on 28 of the 30 study segments currently operate at an unacceptable LOS F during at least one peak hour. The result also show eight of the 18 directional HOV lane segments currently operates at an unacceptable LOS F during at least one peak hour. All other study freeway segments operate at an acceptable LOS under existing conditions. The results of the analysis are summarized in Table 4.16-5 below.

TABLE 4.16-5
Study Freeway Segments Level of Service – Existing Conditions

Freeway	Segment	Direction	Peak Hour	LOS – Mixed Lanes	LOS – HOV Lanes
US 101	Guadalupe Parkway to De La Cruz Boulevard	NB	AM PM	**F** C	**F** A
		SB	AM PM	D **F**	A E
US 101	De La Cruz Boulevard to Montague Expressway / San Tomas Expressway	NB	AM PM	**F** D	E B
		SB	AM PM	D **F**	B **F**
US 101	Montague Expressway / San Tomas Expressway to Bowers Avenue / Great America Parkway	NB	AM PM	**F** D	E C
		SB	AM PM	C **F**	B **F**
US 101	Bowers Avenue / Great America Parkway to Lawrence Expressway	NB	AM PM	**F** D	**F** B
		SB	AM PM	E **F**	B **F**
SR 17	Hamilton to I-280	NB	AM PM	**F** D	--
		SB	AM PM	C D	--
I-880	I-280 to Stevens Creek	NB	AM PM	**F** C	--
		SB	AM PM	C D	--
I-880	Stevens Creek to N. Bascom Avenue	NB	AM PM	**F** **F**	--
		SB	AM PM	D **F**	--
I-880	N. Bascom Avenue to The Alameda	NB	AM PM	E **F**	--
		SB	AM PM	C **F**	--

TABLE 4.16-5 Study Freeway Segments Level of Service – Existing Conditions					
Freeway	**Segment**	**Direction**	**Peak Hour**	**LOS – Mixed Lanes**	**LOS – HOV Lanes**
I-880	The Alameda to Coleman Avenue	NB	AM PM	**F** **F**	--
		SB	AM PM	D **F**	--
I-880	Coleman Avenue to SR 87	NB	AM PM	**F** **F**	--
		SB	AM PM	D **F**	--
I-280	De Anza Boulevard to Wolfe Road	EB	AM PM	D **F**	A E
		WB	AM PM	**F** C	E A
I-280	Wolfe Road to Lawrence Expressway	EB	AM PM	D **F**	B E
		WB	AM PM	**F** C	D A
I-280	Lawrence Expressway to Saratoga Avenue	EB	AM PM	D **F**	A D
		WB	AM PM	**F** D	**F** B
I-280	Saratoga Avenue to Winchester Boulevard	EB	AM PM	D **F**	B D
		WB	AM PM	**F** E	E B
I-280	Winchester Boulevard to I-880	EB	AM PM	C **F**	B **F**
		WB	AM PM	**F** **F**	**F** C

4.16.2 Environmental Checklist and Discussion of Impacts

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project:					
1. Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☒	☐	1-3, 19
2. Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☒	☐	☐	1-3, 19
3. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒	1-3, 19
4. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible land uses (e.g., farm equipment)?	☐	☐	☐	☒	1,2,3
5. Result in inadequate emergency access?	☐	☐	☐	☒	1,2,3
6. Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☐	☒	1,2,3

4.16.2.1 Impact Criteria

City of Santa Clara – Local Signalized Intersections

Based on City of Santa Clara criteria, a project would cause a significant impact at a signalized intersection if the additional project traffic caused one of the following:

- Cause the level of service at any local intersection to degrade from an acceptable LOS D or better under existing or background conditions to an unacceptable LOS E or F under existing plus project or background plus project conditions; or

- At any local intersection that is already an unacceptable LOS E or F under existing or background conditions, cause the critical-movement delay at the intersection to increase by four or more seconds and the demand-to-capacity ratio (V/C) to increase by .01 or more.

The City of San Jose criteria is consistent with the City of Santa Clara criteria.

CMP and Santa Clara County Expressway Intersections

Based on CMP criteria, a project would cause a significant impact at a CMP or County Expressway intersection if the additional project traffic caused one of the following:

- Cause the level of service at any CMP/County intersection to degrade from an acceptable LOS E or better under existing or background conditions to an unacceptable LOS F under existing plus project or background plus project conditions; or
- At any CMP/County intersection that is already an unacceptable LOS F under existing or background conditions, cause the critical-movement delay at the intersection to increase by four or more seconds and the demand-to-capacity ratio (V/C) to increase by .01 or more.

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

CMP – Freeway Segments

Based on CMP criteria, a project would cause a significant impact to a freeway segment if the additional project traffic caused one of the following:

- Cause the level of service on any freeway segment to degrade from an acceptable LOS E or better under existing or background conditions to an unacceptable LOS F under existing plus project or background plus project conditions; or
- Add more than one percent of the existing freeway capacity to any freeway segment operating at LOS F under existing or background conditions.

4.16.2.2 Trip Generation Estimates

Traffic trips generated by a proposed project are typically estimated using rates in the Institute of Transportation Engineers (ITE) *Trip Generation, 9th Edition.* The ITE manual does not, however, provide data that is representative of the proposed project due to its unique nature. As a result, the estimated traffic trips that would be generated by the proposed project are based on driveway counts of the existing ISC and CRC facilities as well as current participation/enrollment data. A summary of the project trip generation estimates is shown in Table 4.16-6, below.

TABLE 4.16-6 Project Trip Generation Estimates							
Land Use	**Daily Trips**	**AM Peak Hour**			**PM Peak Hour**		
		In	**Out**	**Total**	**In**	**Out**	**Total**
Existing Conditions							
CRC	571	8	86	94	124	47	171
ISC	775	50	39	89	58	104	162
Total	**1,346**	**58**	**125**	**183**	**182**	**151**	**333**
Proposed Project	3,000	129	279	408	406	337	742
Net New Trips	***1,654***	***71***	***154***	***225***	***224***	***186***	***409***

4.16.2.3 Existing Plus Project Intersection Operations

The LOS of the study intersections was calculated under project conditions by adding the new project trips from the proposed development to the existing conditions. This analysis assumes that the roadway network under existing plus project conditions will be the same as the existing transportation network. The results of the existing plus project conditions analysis are summarized in Table 4.16-7 below.

TABLE 4.16-7 Study Intersections Level of Service – Existing Plus Project Conditions (Weekdays)						
No.	**Intersection**	**Peak Hour**	**Existing**		**Existing Plus Project**	
			Delay	**LOS**	**Delay**	**LOS**
1	Pomeroy Avenue and El Camino Real (SC)	AM PM	15.7 18.3	B B	15.7 18.3	B B
2	Kiely Boulevard and El Camino Real (SC, CMP)	AM PM	28.7 33.2	C C	28.9 33.6	C C
3	San Tomas Expressway and El Camino (SC, CMP)	AM PM	**107.8** 79.7	**F** E	**108.6** **80.2**	**F** **F**
4	San Tomas Expressway and Benton Street (SC)	AM PM	**89.6** 69.5	**F** E	**92.0** 71.3	**F** E
5	Kiely Boulevard and Benton Street (SC)	AM PM	39.1 39.7	D D	39.0 41.5	D D
6	Pomeroy Avenue and Benton Street (SC)	AM PM	21.4 29.1	C C	21.4 29.2	C C
7	Kiely Boulevard and Kaiser Drive (SC)	AM PM	7.3 9.5	A A	7.4 10.1	A B
8	Pomeroy Avenue and Homestead Road (SC)	AM PM	31.6 31.7	C C	31.6 31.5	C C
9	Kiely Boulevard and Homestead Road (SC)	AM PM	33.3 36.5	C D	35.2 37.9	D D
10	Park-Library Church Driveway and Homestead Road (SC)	AM PM	17.3 25.3	B C	16.0 23.7	B C
11	Las Palmas Drive and Homestead Road (SC)	AM PM	11.7 16.1	B B	10.7 14.9	B B

TABLE 4.16-7 Study Intersections Level of Service – Existing Plus Project Conditions (Weekdays)						
No.	**Intersection**	**Peak Hour**	**Existing**		**Existing Plus Project**	
			Delay	**LOS**	**Delay**	**LOS**
12	San Tomas Expressway and Homestead Road (SC, CMP)	AM PM	70.9 61.7	E E	72.1 62.2	E E
13	San Tomas Expressway and Forbes Avenue (SC)	AM PM	43.3 8.0	D A	43.3 8.0	D A
14	Kiely Boulevard and Forbes Avenue (SC)	AM PM	8.7 8.0	A A	8.7 8.0	A A
15	San Tomas Expressway and Pruneridge Avenue (SC)	AM PM	68.3 57.2	E E	68.4 57.3	E E
16	Kiely Boulevard and Pruneridge Avenue (SC)	AM PM	31.0 30.7	C C	31.1 30.8	C C
17	San Tomas Expressway and Saratoga Avenue (SC, CMP)	AM PM	61.3 58.8	E E	61.3 59.2	E E
18	Kiely Boulevard and Stevens Creek Boulevard (SJ, CMP)	AM PM	37.7 37.7	D D	38.0 38.2	D D
19	San Tomas Expressway and Stevens Creek Boulevard (SJ, CMP)	AM PM	**90.0** 64.1	**F** E	**90.2** 64.3	**F** E
20	Kiely Boulevard and Saratoga Avenue (SJ, CMP)	AM PM	38.2 41.0	D D	38.7 40.9	D D
Note: Entries denoted in **bold** indicate conditions that exceed the applicable level of service standard.						

As shown in Table 4.16-7, the LOS of the San Tomas Expressway/El Camino Real intersection would degrade from E to F in the PM Peak Hour under existing plus project conditions. Since preparation of the traffic report, however, improvements have been completed at this intersection. Specifically, second left-turn lanes were added to each approach of the intersection. With completion of the recent improvements, the average delay at the San Tomas Expressway/El Camino Real intersection would be an acceptable LOS E in the PM Peak Hour under existing plus project conditions. **(Less Than Significant Impact)**

Peak-hour traffic signal warrant checks indicate that the traffic volumes at the White Drive/Benton Street intersection are projected to fall below the thresholds that warrant signalization during both the AM and PM Peak Hour under existing plus project conditions. As a result, the project would not result in the need for a signal at this intersection. **(Less Than Significant Impact)**

4.16.2.4 Background Plus Project Intersection Operations

The LOS of the study intersections was calculated under background plus project conditions by adding the new project trips from the proposed development to the background conditions traffic volumes. The results of the background plus project conditions analysis are summarized in Table 4.16-8 below.

TABLE 4.16-8
Study Intersections Level of Service – Background Plus Project Conditions

No.	Intersection	Peak Hour	Background		Background Plus Project			
			Delay	LOS	Delay	LOS	Critical Delay	V/C
1	Pomeroy Avenue and El Camino Real (SC)	AM PM	16.2 18.6	B B	16.2 18.5	B B	0.0 0.0	0.001 0.001
2	Kiely Boulevard and El Camino Real (SC, CMP)	AM PM	32.4 39.7	C D	32.6 40.6	C D	0.2 1.5	0.005 0.013
3	San Tomas Expressway and El Camino (SC, CMP)	AM PM	**187.1** **143.4**	**F** **F**	**187.7** **144.2**	**F** **F**	**1.7** **2.4**	**0.003** **0.004**
4	San Tomas Expressway and Benton Street (SC)	AM PM	**177.1** **141.0**	**F** **F**	**179.3** **142.7**	**F** **F**	**3.5** **3.3**	**0.020** **0.028**
5	Kiely Boulevard and Benton Street (SC)	AM PM	37.9 41.1	D D	38.2 43.9	D D	-0.7 5.5	0.019 0.071
6	Pomeroy Avenue and Benton Street (SC)	AM PM	21.9 29.7	C C	21.9 29.8	C C	0.0 0.0	0.002 0.002
7	Kiely Boulevard and Kaiser Drive (SC)	AM PM	9.5 17.2	A B	9.1 23.4	A C	-0.3 9.5	0.032 0.047
8	Pomeroy Avenue and Homestead Road (SC)	AM PM	34.1 34.0	C C	34.2 34.0	C C	0.1 0.1	0.006 0.009
9	Kiely Boulevard and Homestead Road (SC)	AM PM	38.2 44.4	D D	40.7 48.1	D D	4.1 3.1	0.050 0.011
10	Park-Library Church Driveway and Homestead Road (SC)	AM PM	16.5 23.8	B C	15.3 22.3	B C	-0.9 -1.0	-0.013 0.005
11	Las Palmas Drive and Homestead Road (SC)	AM PM	11.1 15.1	B B	10.2 14.0	B B	-0.8 -0.8	-0.002 0.008
12	San Tomas Expressway and Homestead Road (SC, CMP)	AM PM	**137.2** **131.2**	**F** **F**	**138.3** **130.9**	**F** **F**	**1.7** **-0.7**	**0.013** **0.012**
13	San Tomas Expressway and Forbes Avenue (SC)	AM PM	**89.9** 36.6	**F** D	**90.0** 37.3	**F** D	**0.4** 1.3	**0.001** 0.003
14	Kiely Boulevard and Forbes Avenue (SC)	AM PM	9.5 8.8	A A	9.5 8.7	A A	0.0 0.0	0.002 0.006
15	San Tomas Expressway and Pruneridge Avenue (SC)	AM PM	**131.2** **95.4**	**F** **F**	**131.3** **96.1**	**F** **F**	**0.5** **1.3**	**0.001** **0.003**
16	Kiely Boulevard and Pruneridge Avenue (SC)	AM PM	32.3 31.9	C C	32.3 32.0	C C	0.0 0.1	0.001 0.005
17	San Tomas Expressway and Saratoga Avenue (SC, CMP)	AM PM	**113.0** **83.8**	**F** **F**	**113.1** **84.4**	**F** **F**	**0.5** **3.5**	**0.001** **-0.005**
18	Kiely Boulevard and Stevens Creek Boulevard (SJ, CMP)	AM PM	39.3 38.8	D D	39.6 39.3	D D	0.3 0.5	0.006 0.011
19	San Tomas Expressway and Stevens Creek Boulevard (SJ, CMP)	AM PM	**143.8** **92.2**	**F** **F**	**143.9** **92.6**	**F** **F**	**0.4** **0.9**	**0.001** **0.002**
20	Kiely Boulevard and Saratoga Avenue (SJ, CMP)	AM PM	36.9 42.9	D D	37.4 42.9	D D	0.6 0.1	0.009 0.008

Notes: Entries denoted in **bold** indicate conditions that exceed the applicable level of service standard.
Bold and boxed indicate significant project impact.

Implementation of the proposed project would result in the following intersection impacts under background plus project conditions:

- San Tomas Expressway and Homestead Road (No. 12) – The project would worsen the LOS F conditions in the PM Peak Hour with a -0.7 second decrease in critical delay and a 0.012 increase in V/C.

Impact TRAN-1: Implementation of the proposed project would have a significant impact on the San Tomas Expressway/Homestead Road intersection under background plus project conditions. **(Significant Impact)**

Mitigation and Avoidance Measures

MM TRAN-1.1: This intersection's level of service could be improved by adding a fourth through lane to both the north and south approaches (San Tomas Expressway). The Comprehensive County Expressway Planning Study identifies the widening of San Tomas Expressway to eight lanes as a Tier 1A priority. This improvement would reduce the average delay for vehicular traffic to an acceptable level during the PM peak hour. The project will be required to pay a fair-share contribution towards the identified improvements.

With implementation of the identified mitigation, the project impact would be reduced to a less than significant level. **(Less Than Significant Impact With Mitigation)**

Peak-hour traffic signal warrant checks indicate that the traffic volumes at the White Drive/Benton Street intersection are projected to fall below the thresholds that warrant signalization during both the AM and PM Peak Hour under background plus project conditions. As a result, the project would not result in the need for a signal at this intersection. **(Less Than Significant Impact)**

4.16.2.5 Existing Plus Project Freeway Segment Operations

Freeway segments were analyzed during AM and PM Peak Hours to calculate the amount of project traffic projected to be added to the nearby freeways.

Analysis of the existing plus project freeway operations concluded that the proposed project would not increase traffic volumes by more than one percent on any freeway segments previously identified as operating at LOS F in at least one direction during at least one of the peak hours of traffic under existing conditions (see Table 12 of Appendix F). As a result, the project would not have a significant impact on any freeway segments. **(Less Than Significant Impact)**

4.16.2.6 Other Transportation Issues

Airport Operations

The proposed project is located approximately 2.5 miles southwest of the Norman Y. Mineta San José International Airport. The proposed project will not result in a change in air traffic patterns or obstruct airport operations. **(No Impact)**

Emergency Access

Based upon a review of the conceptual site plan, the proposed project would not increase on-site hazards due to the design of the buildings, parking garage, or parking lot and would not result in inadequate emergency access. **(No Impact)**

Transit, Bicycle, and Pedestrian Facilities

The project would not affect or preclude any existing or planned pedestrian, bicycle, or transit facilities. The existing facilities are sufficient to serve the proposed project. **(No Impact)**

4.16.2.7 Operational Transportation Issues Not Covered Under CEQA

Parking

Parking deficits may be associated with secondary physical environmental impacts, such as air quality and noise effects, caused by congestion resulting from drivers circling as they look for a parking space. These secondary effects are, however, a temporary condition. Therefore, any secondary environmental impacts that might result from a shortfall in parking in the vicinity of the proposed Project are considered less than significant.

While a lack of parking would not have a significant environmental impact under CEQA, it could result in an operational impact to on-site and off-site circulation. For this reason, as assessment of the parking plan for the proposed project is provided below.

A parking study of the existing facilities was completed during weekday and weekend peak parking demand to determine the amount of parking required for the proposed development. The six parking lots surveyed (see Figure 4.16-4) have a combined total capacity of 632 parking spaces, including 563 regular parking stalls, 28 accessible parking stalls, 2 electric car stalls, 19 time-limit stalls, and 20 staff-only stalls. Available parking spaces and existing demand are shown in Tables 4.16-9 and 4.16-10.

TABLE 4.16-9
Total Number of Parking Spaces by Lot

Lot	Regular	ADA	Electric	3-Min Parking	20-Min Parking	Staff	Total
A	132	7	---	---	---	20	***159***
B	137	5	---	---	---	---	***142***
C	---	5	---	7	8	---	***20***
D	72	---	---	---	---	---	***72***
E	19	---	2	---	---	---	***21***
F	203	11	---	4	---	---	***218***
Total	***563***	***28***	***2***	***11***	***8***	***20***	***632***

EXISTING PARKING SUPPLY LOCATIONS

FIGURE 4.16-4

TABLE 4.16-10 Existing Parking Demand				
Lot	**Total Spaces**	**Vacant Spaces**	**Occupied Spaces**	**Parking Occupancy**
A	159	92	67	42 %
B	142	122	20	14 %
C	20	6	14	70 %
D	72	13	59	82 %
E	21	4	17	81 %
F	218	34	184	84 %
Total	***632***	***271***	***361***	***57 %***

The parking supply and occupancy surveys showed that currently, the available parking supply for the CRC and ISC are adequate to serve the demand. Both facilities combined currently have a parking demand of approximately 361 parking spaces on weekdays.

The projected increase in the number of participants with the proposed project is approximately 122 percent. Assuming that the future parking demand with the proposed project would remain proportional to the number of attendants/participants, the projected parking demand with the proposed project would be approximately 800 parking spaces on weekdays. As proposed, the project would include 139 spaces in the surface lots adjacent to the facility and up to 1,242 parking spaces in the parking structure. As such, the project would have a minimum of 800 and a maximum of 1,381 parking spaces, which is sufficient to meet demand.

Saturday Peak Hour Analysis

The Saturday peak-hour analysis is being presented for informational purposes only, since the adopted intersection impact criteria are applicable to the typical weekday AM and PM peak hour only. The Saturday peak-hour analysis was completed for the study intersections that provide primary access/egress from major roadways to the project site (five signalized intersections and one unsignalized intersection) only. Existing Saturday peak-hour traffic volumes were obtained from new intersection turn-movement counts.

The results show that under existing conditions, the five study intersections all operate at an acceptable LOS on Saturday.

TABLE 4.16-11 Study Intersections Level of Service – Existing Conditions (Saturday)				
No.	**Intersection**	**Peak Hour**	**Delay**	**LOS**
5	Kiely Boulevard and Benton Street	SAT	39.5	D
7	Kiely Boulevard and Kaiser Drive	SAT	8.2	A
9	Kiely Boulevard and Homestead Road	SAT	34.2	C
10	Park-Library Church Driveway and Homestead Road	SAT	29.2	C
11	Las Palmas Drive and Homestead Road	SAT	17.7	B

TABLE 4.16-12 Trip Generation Estimates – Saturday			
Land Use	**Saturday Peak Hour**		
	In	**Out**	**Total**
Existing Conditions			
ISC	8	159	167
CRC	118	163	281
Total	***126***	***322***	***448***
Proposed Project	623	1,206	1,829
Net Project Trips	***497***	***884***	***1,381***

A summary of the project trip generation estimates for Saturday is shown in Table 4.16-12. The proposed new facility is anticipated to have a total of up to 4,000 participants per weekend. The hours of operations would be extended until late (8:00 and 9:00 PM) during the weekend. It is anticipated that during any two-hour period, the new facility would have between 500 and 600 participants on a weekend day.

Existing Plus Project Intersection Operations

The LOS of the study intersections was calculated under project conditions by adding the new project trips from the proposed development to the existing conditions. This analysis assumes that the roadway network under the Saturday existing plus project conditions will be the same as the existing transportation network. The results of the existing plus project conditions analysis are summarized in Table 4.16-13 below.

TABLE 4.16-13 Study Intersections Level of Service – Existing Plus Project Conditions (Saturday)						
No.	**Intersection**	**Peak Hour**	**Existing**		**Existing Plus Project**	
			Delay	**LOS**	**Delay**	**LOS**
5	Kiely Boulevard and Benton Street	SAT	39.5	D	40.6	D
7	Kiely Boulevard and Kaiser Drive	SAT	8.2	A	8.8	A
9	Kiely Boulevard and Homestead Road	SAT	34.2	C	37.1	D
10	Park-Library Church Driveway and Homestead Road	SAT	29.2	C	23.8	C
11	Las Palmas Drive and Homestead Road	SAT	17.7	B	13.8	B

As shown in Table 4.6-13, the five study intersections would operate at an acceptable LOS D or better on Saturdays with implementation of the proposed project.

Effects of the Project on Surrounding Residential Streets

The existing and proposed project sites are adjacent to residential areas. With the implementation of the proposed project, projected traffic volumes and travel pattern changes would be more perceptible in the immediate vicinity of the project site and existing ISC. For this reason, an evaluation of the effects of project traffic along six surrounding roadway segments was completed.

White Drive

The 24-hour tube counts revealed that the existing traffic volumes along White Drive are just over 2,000 daily vehicles, which is within the typical average daily trip (ADT) range for a residential roadway. It is projected that the proposed project would result in an approximately 26 percent decrease in traffic volumes along this roadway segment.

Santa Lucia Drive

The 24-hour tube counts revealed that the existing traffic volumes along Santa Lucia Drive are approximately 1,700 daily vehicles, which is within the typical ADT range for a residential roadway. The proposed project is not projected to add a measurable amount of traffic to this roadway segment.

Kaiser Drive

The 24-hour tube counts revealed that the existing traffic volumes along Kaiser Drive are approximately 1,800 daily vehicles, which is within the typical ADT range for a residential roadway. It is projected that the proposed project would result in an approximately six percent increase in existing daily traffic volumes on this roadway. This increase would not result in the exceedance of the typical ADT range for residential roadways.

Based on the collected data, the measured 85^{th} percentile speeds along the roadway segment surveyed would exceed the posted speed limit by more than five mph. As noted above, the proposed project would add a relatively small amount of traffic to this roadway segment (approximately six percent of the existing daily traffic volumes). Additionally, traffic calming measures are already in place along Kaiser Drive. Nevertheless, the speed measures indicate that additional speed enforcement is needed along this study roadway segment.

Pepper Tree Lane

The 24-hour tube counts revealed that the existing traffic volumes along Pepper Tree Lane are approximately 1,650 daily vehicles, which is within the typical ADT range for a residential roadway. The proposed project is not projected to add a measurable amount of traffic along this roadway segment.

Las Palmas Drive

The 24-hour tube counts revealed that the existing traffic volumes along Las Palmas Drive are approximately 2,550 daily vehicles, which is within the higher typical ADT range for a residential roadway and the lower typical ADT range for a collector roadway. It is projected that the proposed project would result in an approximately 14 percent decrease in traffic volumes along this roadway segment.

Signal Warrant Analysis

Unsignalized intersections are analyzed on the basis of the Peak-Hour Volume Signal Warrant, (Warrant #3 – Part B) described in the California *Manual on Uniform Traffic Control Devices* (MUTCD), 2014 Edition. This method makes no evaluation of intersection level of service, but simply provides an indication whether peak-hour traffic volumes are, or would be, sufficient to justify installation of a traffic signal.

There are four unsignalized intersections/driveways that would provide access to the project site. Intersection 1 would access the surface parking lot north of the building. Intersections 2 and 3 would access the drop-off area in front of (on the west side) of the building. Intersection 4 would access the parking structure at the southern end of Central Park. This analysis assumes all access points are single driveways with full turning movements (no left-turn restrictions).

The weekday Peak Hour signal warrant analysis completed for the proposed project indicates that intersections/driveways 1, 2, and 3 would have traffic volumes that fall below the thresholds that warrant signalization under project conditions. Driveway 4 is projected to have traffic volumes that warrant signalization during both the AM and PM peak hours. The relatively high traffic volumes along Kiely Boulevard along with the projected left-turning traffic volumes accessing the proposed parking structure are sufficient to warrant a traffic signal at the parking structure entrance. If, however, driveway 4 is restricted to right-in/right-out only, a traffic signal would not be warranted at this location. The restricted turn movements would cause some existing vehicles (those wanting to travel southbound on Kiely Boulevard) to use alternative routes, resulting in increased traffic volumes along adjacent streets and U-turns at the Kaiser Drive/Kiely Boulevard intersection.

The Saturday Peak Hour signal warrant analysis found that under existing plus project conditions, intersections/driveways 1, 2, and 4 would have traffic volumes that warrant signalization. It is not, however, recommended to signalize the access points of the project site based on brief peak periods of project traffic during a weekend day. Temporary traffic control measures should be considered to serve Saturday Peak Hour traffic at intersections/driveways 1 and 2. Such measures could include the use of flaggers/police officers to direct traffic, restricting movements at the driveways to right-in/right-out only, etc. The final determination of temporary traffic control measures will be made by the Director Planning and Inspection. Control measures may change over time based on effectiveness.

Driveway Operations/Queuing

An analysis of operations at project access points has been completed to determine if existing/planned left-turn queue storage capacity would be adequate to support the project. From a CEQA standpoint, there are no thresholds specific to queuing. For the purposes of this analysis, project driveways are assumed to have two lanes, one left-turn lane and one right-turn lane.

AM and PM Peak Hour

Assuming full access driveways, the analysis determined that the estimated maximum vehicle queue for southbound, inbound left-turn movements at driveways 1, 3, and 4 (Driveway 2 is an exit only) would not exceed one vehicle during the AM and PM Peak Hours and would be adequately served by the existing center left-turn lane along Kiely Boulevard. The projected outbound queues at the surface parking lots would be three vehicles at Driveways 1 and 2.

For the parking structure, an uncontrolled, full access driveway would result in an outbound queue of 11 vehicles in the AM Peak Hour and 19 vehicles in the PM Peak Hour. If a traffic signal is installed, the inbound left-turn queue would be five vehicles and the outbound left-turn queue would be seven vehicles. If the driveway was restricted to right in/right out only, the projected outbound queue length is projected to be three vehicles.

Saturday Peak Hour

Assuming full access driveways, the analysis determined that the estimated maximum vehicle queue for southbound, inbound left-turn movements at driveways 1, 3, and 4 (Driveway 2 is an exit only) would not exceed two vehicles during the Saturday Peak Hour and would be adequately served by the existing center left-turn lane along Kiely Boulevard. The projected outbound queues at the surface parking lots would be 21 vehicles at Driveway 1 and nine vehicles at Driveway 2 (Driveway 3 is inbound only).

If the driveways were restricted to right in/right out only, Driveway 1 is projected to have an outbound queue length of four vehicles and Driveway 2 is projected to have an outbound queue length of nine vehicles.

For the parking structure, an uncontrolled, full access driveway would result in an outbound queue of 150 vehicles. If a traffic signal is installed, the inbound left-turn queue would be 12 vehicles and the outbound left-turn queue would be 16 vehicles. If the driveway was restricted to right in/right out only, the projected outbound queue length is projected to be 22 vehicles.

4.16.3 Conclusion

With implementation of the proposed mitigation, the project would have a less than significant LOS impact under existing plus project and background plus project conditions. **(Less Than Significant Impact With Mitigation)**

The project would have no impact on existing and planned pedestrian, bicycle, and transit facilities, emergency access, or airport operations. **(No Impact)**

4.17 UTILITIES AND SERVICE SYSTEMS

The following information is based, in part, on a Sanitary Sewer Study prepared by *RMC Water and Environment* in February 2016. A copy of the report is provided in Appendix G.

4.17.1 <u>Setting</u>

4.17.1.1 Water Services

Water is provided to the site by the City of Santa Clara Water Utility. The system consists of more than 295 miles of water mains, 27 wells, and six storage tanks with more than 27 million gallons of water capacity. Drinking water is provided by an extensive underground aquifer (access by the City's wells) and by two wholesale water importers: the Santa Clara Valley Water District (SCVWD) (imported from the Sacramento-San Joaquin Delta) and the San Francisco Hetch-Hetchy System (imported from the Sierra Nevada). The three sources are used interchangeably or are blended together. A water recharge program administered by SCVWD from local reservoirs and imported Sacramento-San Joaquin Delta water enhances the dependability of the underground aquifer.

Current Site Conditions

The existing CRC and ISC are estimated to use approximately 20,460 gallons of water per day.[36]

Recycled Water

There are currently recycled water lines in Kiely Boulevard, under Central Park on the north side of the existing CRC and ISC, and in the parking lot on the east side of the park. The nearest recycled water line to the proposed new CRC and ISC is located along Kiely Boulevard and on the north side of the existing CRC.[37]

4.17.1.2 Wastewater Services

The City of Santa Clara Departments of Public Works and Water and Sewer Utilities are responsible for the wastewater collection system within the City. Wastewater is collected by sewer systems in Santa Clara and conveyed by pipelines to the San José-Santa Clara Regional Wastewater Facility (RWF) located in San José. The RWF is one of the largest advanced wastewater treatment facilities in California and serves over 1,500,000 people in San José, Santa Clara, Milpitas, Campbell, Cupertino, Los Gatos, Saratoga, and Monte Sereno.[38] The RWF has available capacity to treat up to 167 million gallons per day (mgd). The RWF presently operates at an average dry weather flow of 109 mgd, which is 58 mgd (or 35 percent) under its 167 mgd treatment capacity.[39] Approximately 10 percent of the Facility's treated effluent is recycled for non-potable uses and the remainder flows into San Francisco Bay.

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[36] Current water usage was estimated based on assumed water usage rates in the Sanitary Sewer Capacity Evaluation and a total building square footage of 68,200.
[37] City of Santa Clara. Recycled Water System Map. www.santaclaraca.gov/index.aspx?page=2091 Accessed September 30, 2015.
[38] City of San José, Environmental Services Division. <http://www.sanjoseca.gov/esd/>
[39] Santa Clara General Plan. *2010-2035.*

Current Site Conditions

The existing facilities on-site generate approximately 20,460 gallons of wastewater per day.[40] The CRC site is served by a 24-inch sanitary sewer line located in Kiely Boulevard. The ISC is served by an eight-inch line located in Hayward Drive.

4.17.1.3 Storm Drainage

Runoff from the CRC flows into a 27-inch storm drain line within the park. Runoff from the ISC flows into a 12-inch storm drain line in Hayward Drive. Both lines connects the City of Santa Clara municipal storm drainage system

4.17.1.4 Solid Waste

Solid waste collection in the City of Santa Clara is provided by Mission Trail Waste System through a contract with the City. Mission Trail Waste System also has a contract to implement the Clean Green portion of the City's recycling plan by collecting yard waste. All other recycling services are provided through Stevens Creek Disposal and Recycling. The City has an arrangement with the owners of the Newby Island Landfill, located in San José, to provide disposal capacity for the City of Santa Clara through 2024. The City of San José approved expansion of Newby Island Landfill in August 2012 and could continue to provide disposal capacity to Santa Clara beyond 2024. Prior to 2024, the City would need to amend their contract with Newby Island or contract with another landfill operator which would be subject to environmental review.

The California Integrated Waste Management Board (CIWMB) established a diversion requirement of 50 percent beginning in 2000. Based on the CIWMB 2008 Annual Report Summary, the City of Santa Clara has exceeded its diversion goal. In addition to the CIWMB requirements, the City of Santa Clara has a construction debris diversion ordinance which requires all projects over 5,000 square feet to divert a minimum 50 percent of construction and demolition debris from landfills.

Current Site Conditions

The existing ISC and CRC generate approximately 864 pounds of solid waste per day.[41]

4.17.2 Environmental Checklist and Discussion of Impacts

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project:					
1. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☒	☐	1,2,3

[40] This estimate conservatively assumes that wastewater generation is equivalent to water demand and that all landscaping is supported by recycled water.
[41] Personal Communication. James Teixeira, Director of Parks and Recreation. May 19, 2016.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project:					
2. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐	1-3,20
3. Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐	1,2,3
4. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☒	☐	1-3,20
5. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐	1-3,20
6. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒	☐	1,2,3
7. Comply with federal, state and local statutes and regulations related to solid waste?	☐	☐	☒	☐	1,2,3

4.17.2.1 Water Services Impacts

The proposed project would replace the existing CRC and ISC with a new combined facility. Based on the Sanitary Sewer Capacity Evaluation prepared for the project, the project is estimated to use 300 gallons of water per day per 1,000 square feet of building area, and five gallons per day per theater seat.[42] The total enclosed building square footage is 171,650 and the theater is proposed to have 400 seats. This equates to a total water usage of 53,495 gpd, a net increase of 33,035 gpd.

The proposed project exceeds the assumed development within Central Park and the additional 33,035 gallons of water per day was not accounted for in the General Plan water use projections. Nevertheless, the additional water demand represents less than one-tenth of one percent of the total daily water demand of the City and would not exceed the capacity of the Santa Clara Water Utility to provide water services to the project site. Therefore, the project would have a less than significant impact on water supply. **(Less Than Significant Impact)**

[42] Due to the proposed use of recycled water for irrigation, the water supply analysis assumes potable water usage is equal to wastewater generation.

4.17.2.2 Wastewater Services Impacts

San José-Santa Clara Regional Wastewater Facility

The San José-Santa Clara Regional Wastewater Facility has the capacity to treat 167 mgd of wastewater. The City's average dry weather flow is 13.3 mgd based on 2009 data, while the City's allocation of treatment capacity is approximately 22.6 mgd. The project would generate approximately 53,495 gallons of wastewater per day which is well below one percent of the City's total allocation of treatment capacity.[43] The proposed project would not increase the need for wastewater treatment beyond the capacity of the Facility. The project, therefore, would not have a significant wastewater services impact. **(Less Than Significant Impact)**

Sanitary Sewer

Based on the sanitary sewer capacity evaluation completed for this project[44], the sewer lines that serve the project site have sufficient capacity to serve the proposed development. With development of the proposed project, the main line in Kiely Boulevard would be approximately 68 to 80 percent full. This line would connect to a 33-inch line in Bowers Avenue which would be approximately 75 to 90 percent full with the project. Further downstream, the east line in Great America Parkway would be almost full and the west line would have a slightly worse surcharge. The surcharge would be less than would foot and is acceptable per the City's hydraulic design criteria. The sanitary sewer capacity evaluation concluded that no capacity improvements are needed to support the proposed project. As a result, implementation of the project would have a less than significant impact on the capacity of the existing sanitary sewer system. **(Less Than Significant Impact)**

4.17.2.3 Storm Drainage Impacts

The project site is currently 44 percent impervious. Implementation of the proposed project would result in a net reduction in impervious surfaces on-site by 0.1 percent (approximately 2,314 square feet). As a result, the proposed project would not increase the demand upon the storm drainage system compared to the current land use or exceed the capacity of the existing lines. **(Less Than Significant Impact)**

4.17.2.4 Solid Waste Impacts

Solid waste generation is typically calculated based on rates provided by the California Integrated Waste Management Board. There are, however, no rates specific to community centers or sports facilities. As such, solid waste estimates for the proposed project were calculated based on the waste generation rates of the existing facilities. Based on available data, the existing ISC generates approximately 0.008 pounds per day per square foot of the facility. The existing CRC generates approximately 0.018 pounds per day per square foot of the facility.

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[43] Based on the City's treatment capacity allocation of 23 mgd as identified in the City of Santa Clara 2010 – 2035 General Plan Final Environmental Impact Report. January 2011.

[44] The analysis was based on a total square footage of 275,369, which is larger than the proposed project. As a result, the overall effects of the project on the sanitary sewer system are slightly overstated.

The new development on-site is estimated to generate approximately 2,529 pounds of solid waste per day, a net increase of 1,665 pounds per day.[45] This increase represents less than one-tenth of one percent of the maximum daily intake allowed at the landfill.

The Newby Island Landfill, located in San José, has an agreement with the City to provide disposal capacity through 2024. The City of San José approved expansion of Newby Island Landfill and could continue to provide disposal capacity to Santa Clara beyond 2024. In addition, the City is working to meet its waste diversion goal of 50 percent. Increased recycling will extend the useful life of the landfill. Implementation of the proposed project will not result in a significant increase in solid waste and recyclable materials generated within the City of Santa Clara and will not require that new landfill facilities be contracted with or constructed to serve the proposed project. **(Less Than Significant Impact)**

4.17.3 Conclusion

The project would not result in any utility or service facility exceeding current capacity or require the construction of new infrastructure or service facilities. **(Less Than Significant Impact)**

[45] The ISHOF square footage was calculated as part of the ISC.

4.18 MANDATORY FINDINGS OF SIGNIFICANCE

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
1. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐	1-20
2. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☒	☐	☐	1-20
3. Does the project have the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals?	☐	☐	☒	☐	1-20
4. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐	1-20

4.18.1. Findings

The project would result in temporary air quality, water quality, biological, geological, and noise impacts during construction. With the implementation of identified best management practices and mitigation measures and compliance with City policies, the construction impacts would be mitigated to a less than significant level. Because the nature of the identified impacts are temporary and will be mitigated, the proposed project would not have a cumulatively considerable impact on air quality, water quality, or noise in the project area.

Implementation of the proposed project would result in the loss of up to 249 trees on-site. The trees to be removed will be replaced on-site consistent with City policy. The project will have no long-term effect on the urban forest or the availability of trees as nesting and/or foraging habitat. Therefore, the project would not have a cumulatively considerable impact on biological resources.

There are no known subsurface resources on or adjacent to the project site, but the site has a high potential for buried historic and/or prehistoric resources. There are no historic structures on or adjacent to the project sites. Because the potential cultural resource impacts from implementation of the project will be mitigated, the proposed project would not have a cumulatively considerable impact on cultural resources in the project area.

The proposed project is consistent with the City's General Plan and Climate Action Plan and would not preclude the City or State from meeting emission reduction goals by the horizon year 2020.

The site has no documented soil or groundwater contamination from operation of the park, but may have residual contamination from historic agricultural operations on-site. The identified hazardous materials impacts would be mitigated and would not result in a cumulatively considerable impact.

The proposed project is consistent with the current General Plan and zoning designations of the project site and would be consistent with applicable City land use regulations.

As discussed in the respective sections, the proposed project would have no impact or a less than significant impact on aesthetics, agriculture and forest resources, geology and soils, mineral resources, population and housing, public services, recreation, and utility and service facilities.

The proposed facility would result in small increases in water usage and wastewater generation compared to the existing facilities. The increases would not, however, result in significant utilities impacts and are not considered cumulatively considerable. The proposed project would result in a small decrease in impervious surface area on-site. In addition, the project would be required to reduce stormwater runoff consistent with the NPDES Municipal Permit. As a result, the project would not have a cumulatively considerable impact on the storm drainage system.

As discussed in Section 4.17.2.4, the new development on-site would generate approximately 2,529 pounds of solid waste per day, a net increase of 1,665 pounds per day. The City has several large projects currently under review that are outside the scope of the General Plan. Approval of these projects would result in a cumulative solid waste impact due to the uncertainty of future disposal capacity at existing landfills and the probability of new landfills. The additional 1,665 pounds per day of solid waste that would be generated by the project represents less than one percent of the total cumulative increase in solid waste generation. Therefore, while the project will add to the Citywide cumulative solid waste impact, the project's contribution is not cumulatively considerable.

Transportation

Implementation of the proposed project would result in an LOS impact at the San Tomas Expressway/El Camino Real intersection under existing plus project conditions and the San Tomas Expressway/Homestead Road intersection under background plus project conditions. Mitigation is identified to reduce the impacts to a less than significant level. Under cumulative plus project conditions, six of the study intersections would operate at an unacceptable LOS in both peak hours. The intersections are listed below and shown in Table 4.18-1.

- No. 3 – San Tomas Expressway and El Camino Real
- No. 4 – San Tomas Expressway and Benton Street
- No. 12 – San Tomas Expressway and Homestead Road
- No. 13 – San Tomas Expressway and Forbes Avenue
- No. 15 – San Tomas Expressway and Pruneridge Avenue

- No. 17 – San Tomas Expressway and Saratoga Avenue
- No. 19 – San Tomas Expressway and Stevens Creek Boulevard

TABLE 4.18-1
Study Intersections Level of Service – Cumulative Plus Project Conditions

No.	Intersection	Peak Hour	Cumulative		Cumulative Plus Project			
			Delay	LOS	Delay	LOS	Critical Delay	V/C
1	Pomeroy Avenue and El Camino Real (SC)	AM PM	15.5 17.6	B B	15.5 17.6	B B	0.0 0.0	0.001 0.001
2	Kiely Boulevard and El Camino Real (SC, CMP)	AM PM	34.6 46.4	C D	34.8 48.1	C D	0.3 3.0	0.005 0.013
3	San Tomas Expressway and El Camino (SC, CMP)	AM PM	**210.9** **170.3**	**F** **F**	**211.5** **170.9**	**F** **F**	**1.6** **2.2**	**0.003** **0.004**
4	San Tomas Expressway and Benton Street (SC)	AM PM	193.3 150.8	**F** **F**	**195.9** **152.9**	**F** **F**	**4.1** **4.0**	**0.020** **0.028**
5	Kiely Boulevard and Benton Street (SC)	AM PM	37.8 42.2	D D	38.3 45.7	D D	-0.1 6.5	0.025 0.071
6	Pomeroy Avenue and Benton Street (SC)	AM PM	22.1 29.9	C C	22.1 29.9	C C	0.0 0.0	0.002 0.002
7	Kiely Boulevard and Kaiser Drive (SC)	AM PM	9.1 24.1	A C	8.9 36.8	A D	-0.2 18.9	0.032 0.047
8	Pomeroy Avenue and Homestead Road (SC)	AM PM	34.3 34.3	C C	34.4 34.4	C C	0.1 0.2	0.006 0.009
9	Kiely Boulevard and Homestead Road (SC)	AM PM	39.3 49.2	D D	42.1 54.4	D D	4.8 3.9	0.050 0.009
10	Park-Library Church Driveway and Homestead Road (SC)	AM PM	17.1 23.2	B C	15.9 21.8	B C	-0.9 -0.9	-0.013 0.005
11	Las Palmas Drive and Homestead Road (SC)	AM PM	11.2 14.7	B B	10.3 13.7	B B	-0.7 -0.8	-0.002 0.008
12	San Tomas Expressway and Homestead Road (SC, CMP)	AM PM	**150.3** **141.8**	**F** **F**	**151.3** **141.6**	**F** **F**	**1.8** **-0.1**	**0.013** **0.016**
13	San Tomas Expressway and Forbes Avenue (SC)	AM PM	**102.8** 48.4	**F** D	**102.9** 49.1	**F** D	**0.5** 1.4	**0.001** 0.003
14	Kiely Boulevard and Forbes Avenue (SC)	AM PM	9.4 8.7	A A	9.4 8.7	A A	0.0 0.0	0.002 0.006
15	San Tomas Expressway and Pruneridge Avenue (SC)	AM PM	**148.3** **108.9**	**F** **F**	**148.4** **109.6**	**F** **F**	**0.5** **1.3**	**0.001** **0.003**
16	Kiely Boulevard and Pruneridge Avenue (SC)	AM PM	32.7 32.3	C C	32.7 32.4	C C	0.0 0.1	0.001 0.005
17	San Tomas Expressway and Saratoga Avenue (SC, CMP)	AM PM	**126.9** **95.9**	**F** **F**	**127.0** **97.1**	**F** **F**	**0.5** **2.2**	**0.001** **0.004**
18	Kiely Boulevard and Stevens Creek Boulevard (SJ, CMP)	AM PM	40.2 39.3	D D	40.5 39.8	D D	0.2 0.5	0.006 0.011
19	San Tomas Expressway and Stevens Creek Boulevard (SJ, CMP)	AM PM	**153.9** **102.6**	**F** **F**	**154.1** **103.0**	**F** **F**	**0.5** **0.9**	**0.001** **0.002**

TABLE 4.18-1 Study Intersections Level of Service – Cumulative Plus Project Conditions								
No.	**Intersection**	**Peak Hour**	**Cumulative**		**Cumulative Plus Project**			
			Delay	**LOS**	**Delay**	**LOS**	**Critical Delay**	**V/C**
20	Kiely Boulevard and Saratoga Avenue (SJ, CMP)	AM PM	38.2 44.0	D D	38.7 44.1	D D	0.6 0.2	0.009 0.008

Under cumulative plus project conditions, implementation of the proposed project will cause a significant impact at the San Tomas Expressway and Benton Street intersection.

Impact CUML-1: Implementation of the proposed project would result in a significant cumulative impact to the Sam Tomas Expressway/Benton Street intersection in the AM and PM Peak Hours. **(Significant Impact)**

Mitigation and Avoidance Measures

Mitigation Measures

The following mitigation measure will be implemented by the project to reduce the identified traffic impact to a less than significant level:

MM CUML-1.1: The significant cumulative impact at this intersection would be mitigated with the addition of a fourth through lane on both the north and south approaches (San Tomas Expressway). The Comprehensive County Expressway Planning Study identifies the widening of San Tomas Expressway to eight lanes as a Tier 1A priority. This improvement would reduce the average delay for vehicular traffic to acceptable levels during the peak hours under cumulative plus project conditions. Therefore, mitigation of the identified cumulative impact at the intersection will consist of a fair-share contribution towards the identified improvements.

Under cumulative plus project conditions, implementation of the proposed project will cause a significant impact at the San Tomas Expressway and Homestead Road intersection.

Impact CUML-2: Implementation of the proposed project would result in a significant cumulative impact to the Sam Tomas Expressway/Homestead Road intersection in the PM Peak Hour. **(Significant Impact)**

Mitigation and Avoidance Measures

Mitigation Measures

The following mitigation measure, which is the same as the project level impact mitigation, will be implemented by the project to reduce the identified traffic impact to a less than significant level:

MM CUML-2.1: The significant cumulative impact at this intersection would be mitigated with the addition of second left-turn lanes on all approaches. The Comprehensive County Expressway Planning Study identifies the widening of San Tomas Expressway to eight lanes as a Tier 1A priority. This improvement would reduce the average delay for vehicular traffic to acceptable levels during the peak hours under cumulative plus project conditions. Therefore, mitigation of the identified cumulative impact at the intersection will consist of a fair-share contribution towards the identified improvements.

4.18.2 Conclusion

With implementation of the identified mitigation measures, the proposed project would have a less than significant cumulative transportation impact. **(Less Than Significant Impact With Mitigation)**

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