

April 2021 | Initial Study

# HEIDEMAN ELEMENTARY SCHOOL JOINT-USE PARK PROJECT

Tustin Unified School District

*Prepared for:*

**Tustin Unified School District**

Contact: Tom Rizzuti, Director of Facilities and Planning  
1302 Service Road  
Tustin, California 92780  
714.730.7515

*Prepared by:*

**PlaceWorks**

Contact: Dwayne Mears, Principal  
3 MacArthur Place, Suite 1100  
Santa Ana, California 92707  
714.966.9220  
info@placeworks.com  
www.placeworks.com





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## Abbreviations and Acronyms

AAQS	ambient air quality standards
AB	Assembly Bill
ADT	average daily traffic
AQMP	air quality management plan
BMP	best management practices
CAFE	corporate average fuel economy
CAL FIRE	California Department of Forestry and Fire Protection
CALGreen	California Green Building Standards Code
CalRecycle	California Department of Resources, Recycling, and Recovery
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CBC	California Building Code
CDE	California Department of Education
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CGP	Construction General Permit
CNDDDB	California Natural Diversity Database
CNEL	community noise equivalent level
CO	carbon monoxide
CO <sub>2</sub> e	carbon dioxide equivalent
CSO	combined sewer overflows
dB	decibel
dBA	A-weighted decibel
DPM	diesel particulate matter
EPA	United States Environmental Protection Agency
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
GHG	greenhouse gases
GWP	global warming potential
HCM	Highway Capacity Manual
L <sub>dn</sub>	day-night noise level
L <sub>eq</sub>	equivalent continuous noise level
LCFS	low-carbon fuel standard

## Abbreviations and Acronyms

LOS	level of service
LRA	local responsibility area
LST	localized significance thresholds
LZ	lighting zone
µg/m <sup>3</sup>	microgram per square meter
mgd	million gallons per day
MRZ	mineral resource zone
MT	metric ton
NAHC	Native American Heritage Commission
NO <sub>x</sub>	nitrogen oxides
NPDES	National Pollution Discharge Elimination System
NRHP	National Register of Historic Places
O <sub>3</sub>	ozone
OCFA	Orange County Fire Authority
OCSD	Orange County Sanitation District
OCTA	Orange County Transportation Authority
PM	particulate matter
ppm	parts per million
PPV	peak particle velocity
RCNM	Roadway Construction Noise Model
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy
SB	Senate Bill
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SoCAB	South Coast Air Basin
SO <sub>x</sub>	sulfur oxides
SRA	state responsibility area
SWPPP	Storm Water Pollution Prevention Plan
TAC	toxic air contaminants
TCR	tribal cultural resource
TPD	Tustin Police Department
TUSD	Tustin Unified School District
USFWS	United States Fish and Wildlife Service

## Abbreviations and Acronyms

VdB	velocity decibels
VHFHSZ	very high fire hazard severity zone
VMT	vehicle miles traveled
VOC	volatile organic compound
WQMP	water quality management plan

# 1. Introduction

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Tustin Unified School District (TUSD or District) is proposing to develop a park on the existing grass field of Heideman Elementary School, located at 15571 Williams Street, Tustin, Orange County, California. The proposed park is a joint-use park with the City of Tustin, and students would have exclusive access to the park during school hours. TUSD is the Lead Agency for the proposed project in accordance with the California Environmental Quality Act (CEQA), Section 15051(c). This Initial Study is a preliminary evaluation of the potential environmental consequences associated with the proposed project. As part of the District's approval process, the proposed project is required to undergo an environmental review pursuant to CEQA. The lead agency uses the initial study analysis to determine whether an environmental impact report (EIR) or a negative or mitigated negative declaration is required. If the initial study concludes that the project may have a significant effect on the environment, an EIR must be prepared. Otherwise, a negative declaration or mitigated negative declaration is prepared.

## 1.1 PROJECT LOCATION

The project site is the existing 8.65-acre Heideman Elementary School at 15571 Williams Street, City of Tustin, in Orange County (Assessor Parcel Numbers 402-021-06 and -07), and the main area of disturbance is the approximately 3.5-acre turf field portion of the Heideman ES. The City of Tustin is located in central Orange County and is intersected by Interstate 5 (I-5) and State Route 55 (SR-55). Adjacent cities include Irvine to the south and east, Santa Ana to the west, and unincorporated County of Orange to the north (See Figure 1, *Regional Location*). Regional access to the project site is from I-5, approximately 0.4 mile to the northeast, and SR-55, approximately 0.4 mile to the west. Local access to the project site is via the existing driveways on Williams Street.

As shown in Figures 2, *Local Vicinity*, and 3, *Aerial Photograph*, the Heideman ES campus has one street frontage, Williams Street to the east, and is generally north of McFadden Avenue, south of East Main Street, and west of South Lyon Street. There are three multifamily residences that border the north, south, and west of the elementary school. The properties that bound the project site to the west are in the City of Santa Ana. The main area of disturbance would be approximately 3.5 acres at the western portion of the school, bounded by residential uses to the north, south, and west and the existing ES campus facilities such as portable school buildings, hardcourts, and daycare center to the east.

## 1.2 ENVIRONMENTAL SETTING

### 1.2.1 Existing Land Use

As shown in Figure 3, *Aerial Photograph*, Heideman ES is developed with permanent and portable classroom buildings, administration building, parking lots, hardcourts, playground structure, pedestrian walkways, grass field, and landscaped areas. There are trees along the western, northern, and southern project boundaries, and

## 1. Introduction

chain-link fencing surrounds the project boundaries. Heideman ES is a kindergarten through 5th grade public school with a 2018/2019 enrollment of 627 students, according to the California Department of Education (CDE) (CDE 2019). The Heideman Child Development Center is also located within the school campus. The 3.5-acre area of disturbance is currently a grass field utilized by the school for physical education purposes and school sports programs. This area also contains playground equipment on the eastern boundary adjacent to the hardcourts and at the southeastern corner adjacent to the existing parking lot, the existing basketball courts located adjacent to the playground equipment, and site improvements such as signage and fencing within the school property.

### 1.2.2 Surrounding Land Use

As shown in Figure 3, the project site is surrounded by multifamily residences on all four sides. Multifamily residences border the project site to the south, and beyond the residences to the south are industrial uses south of McFadden Avenue. Multifamily residences border the project site to the north, and beyond those residences is the Santa Ana Zoo north of Chestnut Avenue. The project site's western property line borders a drainage channel that drains to the Santa Ana Santa Fe Channel, and multifamily residences are west of the drainage channel. OCTA Metrolink railroad track runs along the Santa Ana Santa Fe Channel, approximately 830 feet to the southwest. Williams Street borders the project site to the east, and across Williams Street to the east are multifamily residences.

## 1.3 PROJECT DESCRIPTION

### 1.3.1 Proposed Land Use

The District proposes to develop a joint-use park with the City of Tustin on the existing grass field of Heideman ES. The proposed project would be financed through a Proposition 68 grant. During school hours, students would have exclusive access to the park, and the park would be open to the general public and outside groups during weekday evening hours from 6:00 pm to 9:00 pm. On weekends and holidays, the park hours would be 9:00 am to 9:00 pm. The park would be equipped with nighttime lighting for evening use. For security purposes, a City staff member would be on-site during those hours. Use of the proposed field lighting by outside groups would require a Facility Use Permit issued by the City of Tustin and/or TUSD. The proposed project would require site preparation and grading of the existing turf field, trenching for site utilities and irrigation, and light pole installation. The main grading activities would disturb approximately 3.5 acres of the turf field area, and other minor trenching for utilities, fencing, and signages improvements would occur throughout the campus.

### Park Amenities

The joint-use park would have amenities, including turf soccer field surrounded by all-weather exercise track, meandering trail, 1,300-square-foot skate pod designed for beginner skaters, tactile experience garden, playgrounds for 5-year-olds and younger, outdoor fitness equipment, shade structures with picnic tables and game tables, two basketball courts, 1,000-square-foot restroom/office building, drinking fountain, gated main entrance, and trees and landscaping. A sixteen-foot-high chain-link fence would be provided to secure the park

## 1. Introduction

amenities, with the main gate at the southeast corner of the project site and two gates providing access to the basketball courts. The soccer field would be equipped with four 70-foot-tall sports lighting poles, and two basketball courts would be equipped with two 40-foot-high sports lighting poles per court. Other areas of the park (e.g., tactile experience garden, skate pod, exercise loop, outdoor fitness equipment area, and playground area) would be lit with area lighting and pathway lighting. The area lighting would allow evening use of the skate pod. The portable building at the southeastern corner adjacent to the playground equipment would be removed to create the main entrance for the proposed project.

The turf athletic field would be approximately 48,600 square feet and would be designed to accommodate both soccer and softball. Fencing would be constructed on both north and south sides of the field for errant soccer balls, and a backstop would be provided on the west side of the infield. The 1,300-square-foot skate pod would be constructed on the northeastern corner of the project site between the track and turf soccer field. A tactile experience garden would also be developed on the northeastern corner of the project site north of the skate pod, with plants that attract butterflies. The garden would provide walking paths, bench seating, and would also implement water quality control measures. A concrete vehicle access driveway would be provided along the north boundary leading to gated access to the main campus for emergency vehicles.

A playground covered with rubber play surfaces would be on the southern end of the project site between the turf soccer field and the running track. The playground would include group gathering space with picnic tables, game tables, and large shade structure. Outdoor fitness equipment areas with decomposed granite surfacing would be provided to the west of the playground area. A 1,000-square-foot restroom/office building would be placed next the main entrance, along with bike racks, doggie bag dispenser, and drinking fountain. Two existing basketball courts within the hardcourts would be resurfaced and/or painted, and lighting would be installed at both courts to allow for evening use. The City's use of the proposed park would be from 6:00 pm to 9:00 pm, Monday through Friday, and 9:00 am to 9:00 pm on Saturday, Sunday, and holidays.

### *Sports Lighting*

The proposed project involves the installation and operation of four 70-foot-tall light poles along the perimeter of the running track and soccer field. Figure 4, *Conceptual Site Plan*, illustrates the location of the proposed field lighting fixtures on the project site. The closest light pole to the northern boundary of the project site is about 166 feet, from the southern boundary is about 147 feet, and from the western boundary is 37 feet. Uncovered parking spaces and covered carports for the multifamily residential uses border the project site on three edges.

The two light poles on the west side of the field would be mounted with six luminaires—four utilizing 1,200-watt (1.17 kilowatt-hours [kWh]) Musco TLC-LED-1200 lamps at 70 feet high; one utilizing 900-watt (0.89 kWh) Musco TLC-LED-900 lamps at 70 feet high; and one utilizing 575-watt (0.58 kWh) Musco TLC-BT-575 lamps at approximately 15.5 feet high. The two light poles on the eastern end would be mounted with six luminaires—five utilizing 1200-watt (1.17 kWh) Musco TLC-LED-1200 lamps at 70 feet high; and one utilizing 575-watt (0.58 kWh) Musco TLC-BT-575 lamps at approximately 15.5 feet high. The new light poles would provide a specified average of 50 foot-candles across the infield and 30 foot-candles for the outfield. The design of the proposed field lighting was selected in order to minimize spill light onto adjacent uses.

## 1. Introduction

Two basketball courts would be equipped with two sports light poles per court for a total of four light poles. Figure 4 illustrates the location of the proposed basketball court lighting fixtures on the project site, and the proposed lighting on the basketball courts would be the same for both courts. Each light pole would be mounted with two luminaries, both utilizing 400-watt (0.4 kilowatt-hours [kWh]) Musco TLC-LED-400 lamps at 40 feet high. The new light poles would provide a specified average of 40 fc across the courts.

The proposed sports lighting is equipped with a web-based lighting control system that allows the District to set schedules in advance for light operations. Schedules can be set from any computer with internet access, a smartphone application, or via a phone call. The sports lighting can be programmed to set curfews to ensure the lights turn off at a predetermined/scheduled time so that lights are not left on by accident. The sports lighting system also has dimming capabilities that allow for different lighting modes, maximum average light levels for sporting events, and lower light levels for cleanup and other maintenance activities. The lighting system would be systematically monitored and managed to minimize energy consumption and operating cost.

All sports lighting, area lighting, and pathway lighting would not be used past 9:00 pm, except where minimal lighting is necessary for safety purposes.

### Parking and Access

There are two existing parking lots that serve the project site (i.e., eastern/northern and southern). The eastern/northern parking lot along Williams Street provides a student loading zone and 37 parking spaces, and the southern parking lot provides 38 parking spaces, for a combined total of 75 parking spaces. The joint-use park is adjacent to the southern parking lot, and the proposed project would use the existing parking and no change in parking is proposed.

Vehicular access to the project site is provided via two existing driveways along Williams Street. The north driveway is enter-only and the south driveway is exit-only. No change to the existing driveways is proposed, and vehicular access would remain the same.

The main entrance into the joint-use park would be provided from the southern parking lot. It would be gated and allow for police and maintenance vehicle access as well as pedestrian access. Internal emergency vehicle access to the park would be provided at two gated vehicle access points from each parking lot. From the southern parking lot, there is an existing gated vehicular access that leads into the hardcourts area and the basketball courts. From the eastern/northern parking lot, a gated emergency vehicle access is proposed to provide access to the garden and the skate pod area to the north of the project site.

Public access to the park would be via the main entrance at the southeastern corner, and three 10-foot-wide gates that would be provided near the basketball courts to allow for student access during school hours and for the use of the basketball courts by the public.

### 1.3.2 Project Phasing

The construction is preliminarily scheduled to begin in summer 2023 and last approximately twelve months in one phase. The proposed project is anticipated to open in the summer/fall of 2024.



## 1. Introduction

### 1.4 EXISTING ZONING AND GENERAL PLAN

The City of Tustin General Plan land use designation of the project site is Public/Institutional (PI (Tustin 2018b)). The project site is zoned as Public and Institutional (P &I) (Tustin 2018a).

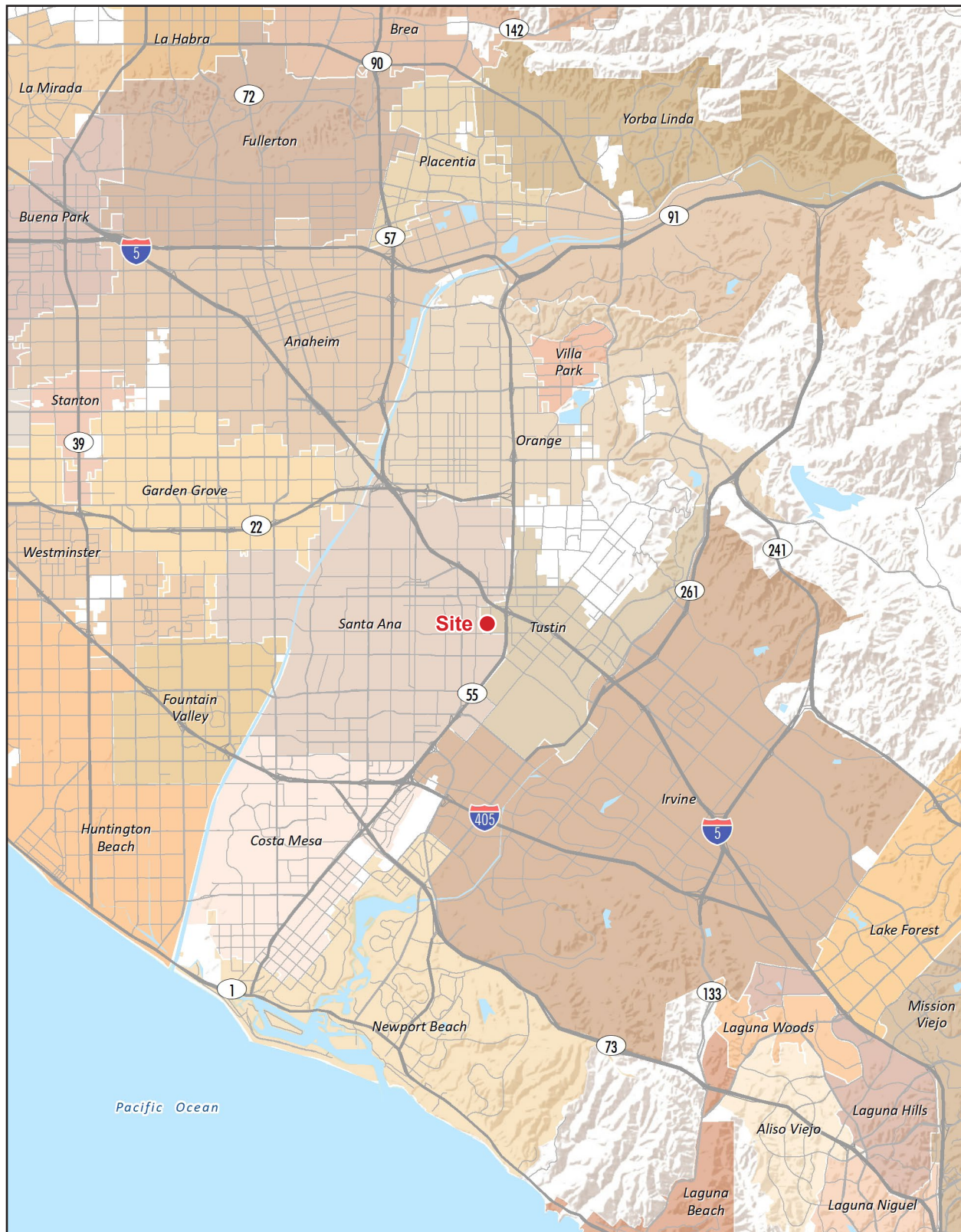
### 1.5 DISTRICT ACTION REQUESTED

- Approve the Proposed Project
- Adopt Mitigated Negative Declaration
- Adopt a Mitigation Monitoring Program

## 1. Introduction

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Figure 1 - Regional Location



Note: Unincorporated county areas are shown in white.

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Scale (Miles)



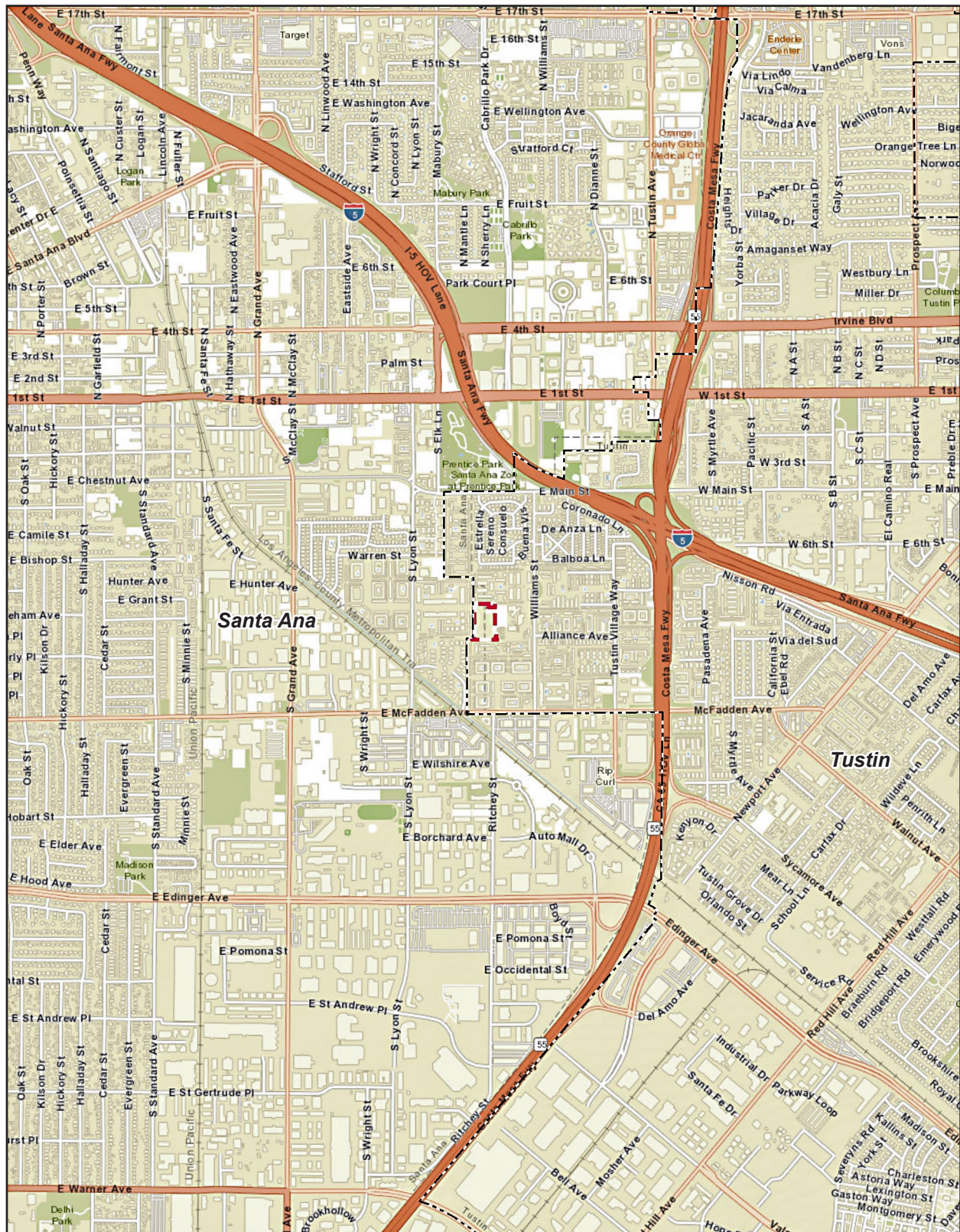
Source: ESRI, 2019

## 1. Introduction

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Figure 2 - Local Vicinity

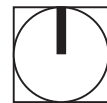


--- Project Boundary

--- City Boundary

Source: ESRI, 2019

0 2,000  
Scale (Feet)



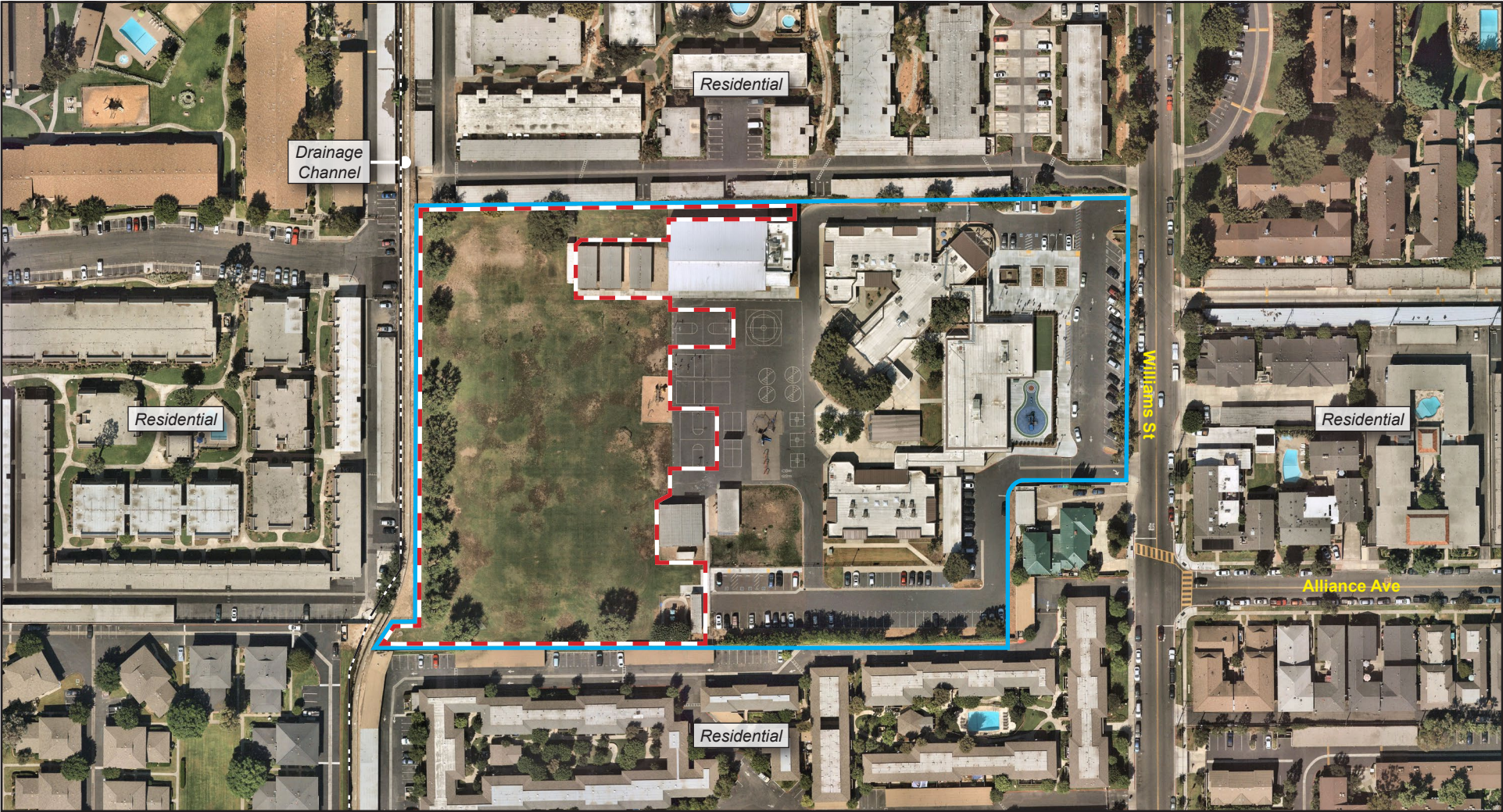
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## 1. Introduction

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Figure 3 - Aerial Photograph



— School Boundary  
- - - Project Boundary

Source: Nearmap, 2019

0 175  
Scale (Feet)



## 1. Introduction

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## 1. Introduction

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## 2. Environmental Checklist

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### 2.1 PROJECT INFORMATION

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1. **Project Title:** Heideman Elementary School Joint-Use Park Project
2. **Lead Agency Name and Address:**  
Tustin Unified School District  
1302 Service Road  
Tustin, CA 92780
3. **Contact Person and Phone Number:**  
Tom Rizzuti, Director of Facilities and Planning  
714.730.7515
4. **Project Location:** The project site is at 15571 Williams Street, City of Tustin, in Orange County (Assessor Parcel Numbers 402-021-06 and -07). The main area of disturbance would encompass approximately 3.5 acres at the western portion of the campus.
5. **Project Sponsor's Name and Address:**  
Tustin Unified School District  
1302 Service Road  
Tustin, CA 92780
6. **General Plan Designation:** Public/Institutional
7. **Zoning:** Public and Institutional
8. **Description of Project:** Tustin Unified School District (TUSD) proposes to develop a joint-use park with the City of Tustin on the existing grass field of Heideman ES. The proposed project would be financed through a Proposition 68 grant. During school hours, students will have exclusive access to the park. The proposed project would allow for the use of the park by the general public and outside groups during evening hours from 6:00 pm to 9:00 pm on weekdays, and 9:00 am to 9:00 pm on weekends and holidays. Use of the proposed field lighting by outside groups would require a Facility Use Permit issued by the City of Tustin and/or TUSD. The park's features include a grass soccer field, all-weather exercise track, trail, two basketball courts, skate pod, tactile experience garden, playgrounds, fitness equipment, shade structures, and restroom/office building.
9. **Surrounding Land Uses and Setting:** The elementary school campus is surrounded by residential development. Multifamily residences surround all four sides of the campus. To the south and abutting the

## 2. Environmental Checklist

project site are multifamily residences with industrial uses beyond; to the north and abutting the project site are multifamily residences with the Santa Ana Zoo beyond; and to the west abutting the project site are a drainage channel and multifamily residences beyond.

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### 10. Other Public Agencies Whose Approval Is Required (e.g., permits, financing approval, or participating agreement):

- Division of State Architect – Site Plan Approval
- Santa Ana Regional Water Quality Control Board–National Pollution Discharge Elimination System Permit; issuance of waste discharge requirements and construction stormwater runoff permits).
- Orange County Fire Authority–Fire and emergency access.

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### 11. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?

Note: Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See Public Resources Code section 21080.3.2.) Information may also be available from the California Native American Heritage Commission's Sacred Lands File per Public Resources Code section 5097.94 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that Public Resources Code section 21082.3(c) contains provisions specific to confidentiality.

As part of the AB 52 process, Native American tribes must submit a written request to the District (lead agency) to be notified of projects within their traditionally and culturally affiliated area. To those tribal groups, the District must provide written, formal notification within 14 days of deciding to undertake a project. The tribe must respond to the District within 30 days of receiving this notification if they want to engage in consultation on the project, and the District must begin the consultation process within 30 days of receiving the tribe's request. Consultation concludes when either 1): the parties agree to mitigation measures to avoid a significant effect on a tribal cultural resource, or 2) a party, acting in good faith and after reasonable effort, concludes mutual agreement cannot be reached.

The District has not received a written notification from any Native American tribes requesting to be notified per AB 52. Therefore, the District is in compliance with AB 52 regulations.

## 2. Environmental Checklist

### 2.2 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact," as indicated by the checklist on the following pages.

- |  |   |   |
|--|---|---|
| <input type="checkbox"/> Aesthetics                  | <input type="checkbox"/> Agriculture / Forestry Resources | <input type="checkbox"/> Air Quality                        |
| <input type="checkbox"/> Biological Resources        | <input type="checkbox"/> Cultural Resources               | <input type="checkbox"/> Energy                             |
| <input type="checkbox"/> Geology/Soils               | <input type="checkbox"/> Greenhouse Gas Emissions         | <input type="checkbox"/> Hazards and Hazardous Materials    |
| <input type="checkbox"/> Hydrology/Water Quality     | <input type="checkbox"/> Land Use / Planning              | <input type="checkbox"/> Mineral Resources                  |
| <input type="checkbox"/> Noise                       | <input type="checkbox"/> Population / Housing             | <input type="checkbox"/> Public Services                    |
| <input type="checkbox"/> Recreation                  | <input type="checkbox"/> Transportation                   | <input type="checkbox"/> Tribal Cultural Resources          |
| <input type="checkbox"/> Utilities / Service Systems | <input type="checkbox"/> Wildfire                         | <input type="checkbox"/> Mandatory Findings of Significance |

### 2.3 DETERMINATION (TO BE COMPLETED BY THE LEAD AGENCY)

On the basis of this initial evaluation:

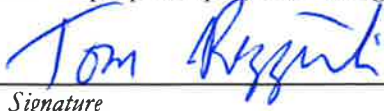
☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

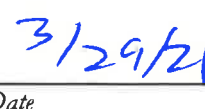
☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

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

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

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

  
Signature

  
Date

Tom Rizzuti, Director of Facilities and Planning

## 2. Environmental Checklist

### 2.4 EVALUATION OF ENVIRONMENTAL IMPACTS

1. A brief explanation is required for all answers except “No Impact” answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A “No Impact” answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A “No Impact” answer should be explained where it is based on project-specific factors, as well as general standards (e.g., the project would not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. “Potentially Significant Impact” is appropriate if there is substantial evidence that an effect may be significant. If there are one or more “Potentially Significant Impact” entries when the determination is made, an EIR is required.
4. “Negative Declaration: Less Than Significant With Mitigation Incorporated” applies where the incorporation of mitigation measures has reduced an effect from “Potentially Significant Impact” to a “Less Than Significant Impact.” The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level.
5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
  - a) **Earlier Analyses Used.** Identify and state where they are available for review.
  - b) **Impacts Adequately Addressed.** Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
  - c) **Mitigation Measures.** For effects that are “Less than Significant with Mitigation Measures Incorporated,” describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
7. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

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8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
9. The explanation of each issue should identify:
- the significance criteria or threshold, if any, used to evaluate each question; and
  - the mitigation measure identified, if any, to reduce the impact to less than significance.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>I. AESTHETICS.</b> Except as provided in Public Resources Code Section 21099, would the project:				
a) Have a substantial adverse effect on a scenic vista?			X	
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				X
c) In nonurbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?			X	
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?		X		
<b>II. AGRICULTURE AND FORESTRY RESOURCES.</b> In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				X
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				X
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?				X
d) Result in the loss of forest land or conversion of forest land to non-forest use?				X

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Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?				<b>X</b>
<b>III. AIR QUALITY. Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:</b>				
a) Conflict with or obstruct implementation of the applicable air quality plan?			<b>X</b>	
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?			<b>X</b>	
c) Expose sensitive receptors to substantial pollutant concentrations?		<b>X</b>		
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?			<b>X</b>	
<b>IV. BIOLOGICAL RESOURCES. Would the project:</b>				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?				<b>X</b>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?				<b>X</b>
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				<b>X</b>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?			<b>X</b>	
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				<b>X</b>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?			<b>X</b>	
<b>V. CULTURAL RESOURCES. Would the project:</b>				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?				<b>X</b>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?		<b>X</b>		
c) Disturb any human remains, including those interred outside of dedicated cemeteries?			<b>X</b>	



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Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>VI. ENERGY. Would the project:</b>				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?			<b>X</b>	
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?			<b>X</b>	
<b>VII. GEOLOGY AND SOILS. Would the project:</b>				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map, issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.				<b>X</b>
ii) Strong seismic ground shaking?			<b>X</b>	
iii) Seismic-related ground failure, including liquefaction?			<b>X</b>	
iv) Landslides?				<b>X</b>
b) Result in substantial soil erosion or the loss of topsoil?			<b>X</b>	
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?			<b>X</b>	
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?			<b>X</b>	
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?				<b>X</b>
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?		<b>X</b>		
<b>VIII. GREENHOUSE GAS EMISSIONS. Would the project:</b>				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			<b>X</b>	
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			<b>X</b>	
<b>IX. HAZARDS AND HAZARDOUS MATERIALS. Would the project:</b>				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			<b>X</b>	
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?			<b>X</b>	

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Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			X	
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code § 65962.5 and, as a result, would it create a significant hazard to the public or the environment?			X	
e) 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, would the project result in a safety hazard or excessive noise for people residing or working in the project area?				X
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			X	
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?				X
<b>X. HYDROLOGY AND WATER QUALITY. Would the project:</b>				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?			X	
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?			X	
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i) result in a substantial erosion or siltation on- or off-site;			X	
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;		X		
iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or		X		
iv) impede or redirect flood flows?				X
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?				X
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?			X	
<b>XI. LAND USE AND PLANNING. Would the project:</b>				
a) Physically divide an established community?				X
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?			X	

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Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>XII. MINERAL RESOURCES. Would the project:</b>				
a) Result in the loss of availability of a known mineral resource that would be a value to the region and the residents of the state?				<b>X</b>
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				<b>X</b>
<b>XIII. NOISE. Would the project result in:</b>				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?			<b>X</b>	
b) Generation of excessive groundborne vibration or groundborne noise levels?		<b>X</b>		
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				<b>X</b>
<b>XIV. POPULATION AND HOUSING. Would the project:</b>				
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				<b>X</b>
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?				<b>X</b>
<b>XV. PUBLIC SERVICES. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:</b>				
a) Fire protection?			<b>X</b>	
b) Police protection?			<b>X</b>	
c) Schools?				<b>X</b>
d) Parks?				<b>X</b>
e) Other public facilities?				<b>X</b>
<b>XVI. RECREATION.</b>				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				<b>X</b>
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?			<b>X</b>	

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Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>XVII. TRANSPORTATION. Would the project:</b>				
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?			<b>X</b>	
b) Conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)?			<b>X</b>	
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?			<b>X</b>	
d) Result in inadequate emergency access?			<b>X</b>	
<b>XVIII. TRIBAL CULTURAL RESOURCES.</b>				
a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code § 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or				<b>X</b>
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code § 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code § 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.		<b>X</b>		
<b>XIX. UTILITIES AND SERVICE SYSTEMS. Would the project:</b>				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?			<b>X</b>	
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?			<b>X</b>	
c) Result in a determination by the waste water 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?			<b>X</b>	
d) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?			<b>X</b>	
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?				<b>X</b>

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Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>XX. WILDFIRE. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:</b>				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?				<b>X</b>
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?				<b>X</b>
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?				<b>X</b>
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?				<b>X</b>
<b>XXI. MANDATORY FINDINGS OF SIGNIFICANCE.</b>				
a) Does the project have the potential to substantially 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, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?			<b>X</b>	
b) Does the project have the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals?			<b>X</b>	
c) 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.)			<b>X</b>	
d) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?			<b>X</b>	

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## 3. Environmental Analysis

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Section 2.4 provided a checklist of environmental impacts. This section provides an evaluation of the impact categories and questions contained in the checklist and identifies mitigation measures, if applicable.

### 3.1 AESTHETICS

Except as provided in Public Resources Code Section 21099, would the project:

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

**Less Than Significant Impact.** For purposes of determining significance under CEQA, a scenic vista is generally considered a viewpoint that provides expansive views of a highly valued landscape for the benefit of the general public. Some scenic vistas are officially designated by public agencies, or informally designated by tourist guides. Vistas provide visual access or panoramic views to a large geographic area and are generally located at a point where surrounding views are greater than one mile away. Panoramic views are usually associated with vantage points over a section of urban or natural areas that provide a geographic orientation not commonly available. Examples of panoramic views might include an urban skyline, valley, mountain range, a large open space area, the ocean, or other water bodies. A substantial adverse effect to a scenic vista is one that degrades the view from such a designated view spot.

As shown in Figure 3, *Aerial Photograph*, the project site and surrounding area are in highly urbanized area of the City. The project site is primarily surrounded by residential uses. The urban landscape character and features of the project site and surrounding area are consistent with and typical of urbanized areas of the City. The project site and surrounding area do not exhibit any significant visual resources or scenic vistas.

Overall site topography can be characterized as relatively flat, with no notable change in elevation. There are no visible landforms (e.g., mountains, hills, creeks) from the project site or surrounding area, and no landforms are on or within proximity of the project site. Also, there are no designated scenic resources on-site or in the vicinity of the project site according to the City of Tustin General Plan (Tustin 2018b). Based on the preceding, impact to scenic vistas would be less than significant and no mitigation measures are necessary.

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

**No Impact.** A scenic highway is generally considered a stretch of public roadway that is designated as a scenic corridor by a federal, state, or local agency. Caltrans defines a scenic highway as any freeway, highway, road, or other public right-of-way that traverses an area of exceptional scenic quality.

The project site is in a highly urbanized area of the City and is not on or near a state-designated scenic highway, as designated on the California Scenic Highway Mapping System of the California Department of

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Transportation. Additionally, the project site is not visible from the nearest state-designated scenic highway (Riverside Freeway), which is approximately 7.39 miles to the northeast (Caltrans 2017).

Furthermore, the project site does not contain unique or locally important scenic resources or is identified within the scenic highway plan for Orange County (Orange 2005). There are no rock outcroppings, significant vegetation, or historic buildings on-site. As shown in Figure 3, *Aerial Photograph*, the project site is an existing grass field on an elementary school campus with trees along the western and southern border. Therefore, no impact to scenic resources would occur due to project development.

- c) **In nonurbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?**

**Less Than Significant Impact.** The project site is already developed as an elementary school facility and is in an urbanized area surrounded by multifamily residences. The project site is designated Public/Institutional by the City of Tustin General Plan land use map, and zoned as Public and Institutional (P&I). The P&I zoning permits uses for public, quasi-public and institutional land uses, including public schools, public parks, playgrounds, and recreation centers. The project site is bounded by the R3 (Multiple Family Residential) zoning district to the north and the PC R3 1750 (Planned Community Residential) zoning district to the south. Two-story multifamily residential units are developed in the R3 and PC R3 zoning districts, and immediately abutting the project site are carport structures and parking spaces for these residences. The properties that border the project site to the west are in the City of Santa Ana and are zoned R4 (Suburban Apartment). The proposed park development is consistent with the land uses permitted under the P&I zoning district, and all proposed facilities are compatible with typical park uses. There are no specific building standards that govern scenic quality in P&I zone. Therefore, there are no height restrictions on the light poles. The proposed project would be required to comply with the development standards pursuant to the City of Tustin Building Codes and Construction Regulations, including the 2016 California Building Code (Title 24, Part 2), the 2016 California Energy Code (Title 24, Part 6), the 2016 California Fire Code (Title 24, Part 9), and the 2016 California Green Building Standards Code (Title 24, Part 11). Therefore, the proposed project would not conflict with any applicable zoning and other regulations governing scenic quality, and impacts would be less than significant. No mitigation measures are required.

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

**Less Than Significant Impact With Mitigation Incorporated.** Currently there is no nighttime lighting installed on the field. The proposed project includes lighting for the soccer field and two basketball courts, and lighting along walkways around the project site. All proposed lighting is intended to adequately illuminate the intended playing field and surfaces in a manner that ensures safety for the users (i.e., consistent light levels without noticeable variation) and adequate lighting along the walkways throughout the project site. The proposed lighting would not include excessively bright or blinking lights. Two of the light poles, located on the west side of the field, would be mounted with six luminaires—four utilizing 1,200-watt (1.17 kilowatt-hours



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[kWh]) Musco TLC-LED-1200 lamps at 70 feet high; one utilizing 900-watt (0.89 kWh) Musco TLC-LED-900 lamps at 70 feet high; and one utilizing 575-watt (0.58 kWh) Musco TLC-BT-575 lamps at 16 feet high. The two light poles on the east side of the field would be mounted with six luminaires—five utilizing 1200-watt (1.17 kWh) Musco TLC-LED-1200 lamps at 70 feet high, and one utilizing 575-watt (0.58 kWh) Musco TLC-BT-575 lamps at 16 feet high. Lamps would be directed inward and downward to direct light onto the playing field and limit skyglow and spill light. The following terms are used in this discussion:

- **Spill light:** Spill light or light trespass is the light that illuminates surfaces beyond the property boundary. Typically, spill lighting is from a more horizontal source such as streetlights and way-finding/security lighting than sky glow which emanates from a more vertical source into the atmosphere. Spill light can be accurately calculated, and the effects of spill light can be measured for general understanding and comparison.
- **Obtrusive light:** Spill light that causes annoyance, discomfort, distraction, or a reduction in the ability to see essential information such as traffic signals. Light that is considered to be obtrusive is a subject of debate.
- **Sky glow:** Sky glow is the light that illuminates the sky above the horizon and reflects off of moisture and other tiny particles in the atmosphere. Sky glow would be considered a significant impact if it were a permanent addition to the environment. Control features are available on the light sources to reduce sky glow and glare from nighttime lighting. These control features direct light downward, thereby reducing the spill of light that causes sky glow and reducing glare.
- **Glare:** Glare can be described as direct or reflected glare, which can then result in discomfort or impairment of vision experienced when the image is excessively bright in relation to general surroundings.
- **Foot-candle:** The recognized international unit for the measure of light (luminance) falling onto a surface.

Table 1 describes examples of light levels expressed in foot-candles (fc).

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**Table 1 General Light Levels Benchmark**

Outdoor Light	Foot-candles
Direct Sunlight	10,000
Full Daylight	1,000
Overcast Day	100
Dusk	10
Twilight	1
Deep Twilight	0.1
Full Moon	0.01
Quarter Moon	0.001
Moonless Night	0.0001
Overcast Night	0.00001
Gas station canopies	25–30
Typical neighborhood streetlight	1.0–5.0

Source: NOAA 2016.

As shown in Figure 3, the project site is surrounded by residential development to the north, south, and west, and existing elementary school facilities to the east. The elementary school would not be in use during the evening hours; therefore, no further evaluation is necessary for the spill light impact to the east. Uncovered parking spaces and covered carports for the multifamily residential uses border the project site on three edges. The two-story multifamily residential units are set back approximately 40 to 80 feet from the project site.

The City of Tustin and the City of Santa Ana do not have established thresholds for a spill or obtrusive lighting impact. In an urban environment with moderately high ambient lighting (i.e., LZ3 [lighting zone 3]), light trespass impacts could be considered significant if the vertical illuminance exceeds 0.8 fc. Lighting zones are assigned based on population figures from the 2000 Census, and different lighting standards are set for each lighting zone (LZ). Areas can be designated LZ1 (dark), LZ2 (rural), or LZ3 (urban) (California Code of Regulations, Title 24, parts 1 and 6).

The illuminance level under twilight is about 1 fc, and the deep twilight level is approximately 0.1 fc. The City of Tustin's Municipal Code, Article 8, Building Regulations, requires that open parking lots and carports be illuminated with a maintained minimum of one fc of light on the parking surface during hours of darkness for security purposes in R1 and R2 zones. Although no such requirement exists for an R3 zone, for the purposes of this analysis, it was assumed that horizontal or vertical spill light levels exceeding 1 fc at the residential property line abutting the parking area and 0.8 fc at the dwelling units would be considered a potentially significant impact.

No new light or glare sources visible beyond the project site would be introduced during construction of the project. All construction work would be performed during normal daylight construction hours, eliminating any need for temporary light sources during evening hour work.

### 3. Environmental Analysis

A lighting plan was completed by Musco Lighting and is included as Appendix A to the Initial Study. The lighting plan identifies the location of the proposed lighting, specifications, and modeled light levels within the intended field and court areas and along the elementary school boundaries. Figure 5, *Sports Lighting Spill Light Horizontal Photometric Plan*, and Figure 6, *Sports Lighting Spill Light Vertical Photometric Plan*, illustrate light spill onto surrounding areas. As shown in Figures 5 and 6, light from the proposed project would not exceed a maximum of 0.1 horizontal fc along the northern and southern boundaries of the project site, and would not exceed 0.8 fc along the western boundary. For the vertical light levels, the proposed project would not exceed 0.1 fc along the northern boundary, 0.4 fc along the southern boundary, and 0.9 fc along the western boundary. As shown in Figures 5 and 6, there are carports and parking spaces along these borders; therefore, the proposed project would not exceed the significance threshold level of 1 fc at the residential property line abutting the parking area, and impacts would be less than significant.

Due to the urbanized nature of the surrounding area, the project site is characterized as moderately high ambient lighting area (LZ3). There are other lightings sources in the area typical of an urban residential neighborhood such as parking lot lights, street lights, and building lights. The proposed project's sports field lighting and other lights for the park would be typical of an urban park and would not be of high intensity, excessively bright, blinking, or directed upward to create sky glow. The proposed project does not include any buildings or structures with light-reflective materials to create substantial glare in the area. The project site is set back approximately 445 feet from the street, and the proposed sports lighting would be angled downward. Therefore, no glare impacts to vehicles traveling Williams Street or to other sensitive receptors would occur. Additional vehicles would travel to the project site in the evening hours, thereby creating glare impacts from the vehicle headlights. However, the pm peak hour traffic would be increased by about 17 trips, and typical headlights do not cause discomfort or vision impairment. Therefore, glare impacts would be less than significant. Additionally, the proposed park would be closed and gates locked at 9 pm, and all lights would be turned off at that time except for security purposes, if necessary.

Provided that the sports field lights are installed as described in the Section 1.3, *Project Description*, and the spill light levels along the adjacent residential property lines do not exceed 1 fc, as required in Mitigation Measure AE-1, and described in the Lighting Plan in Appendix A of this Initial Study, a less than significant light and glare impact is anticipated.

#### Mitigation Measure

AE-1 The Tustin Unified School District shall perform field light measurements after the lighting pole installation to demonstrate that actual spill light levels along the adjacent residential properties to the west and south are a close match to the levels indicated in the photometric light levels plans shown on Figure 5, *Sports Lighting Spill Light Horizontal Photometric Plan*, and Figure 6, *Sport Lighting Spill Light Vertical Photometric Plan*. The light levels shall not exceed 1 foot-candle (fc) along the adjoining residential property lines, and 0.8 fc at the habitable residential structure. Luminaire(s) affixed on the pole shall be adjusted so that no direct upward beam is permitted.

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## 3.2 AGRICULTURE AND FORESTRY RESOURCES

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

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

**No Impact.** The project site is identified as Urban and Built-up Land on the California Important Farmland Finder maintained by the Division of Land Resource Protection (DLRP 2016). The project site is already developed with school facilities and no farmland would be converted to nonagricultural use under the proposed project. Therefore, no impact would occur.

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

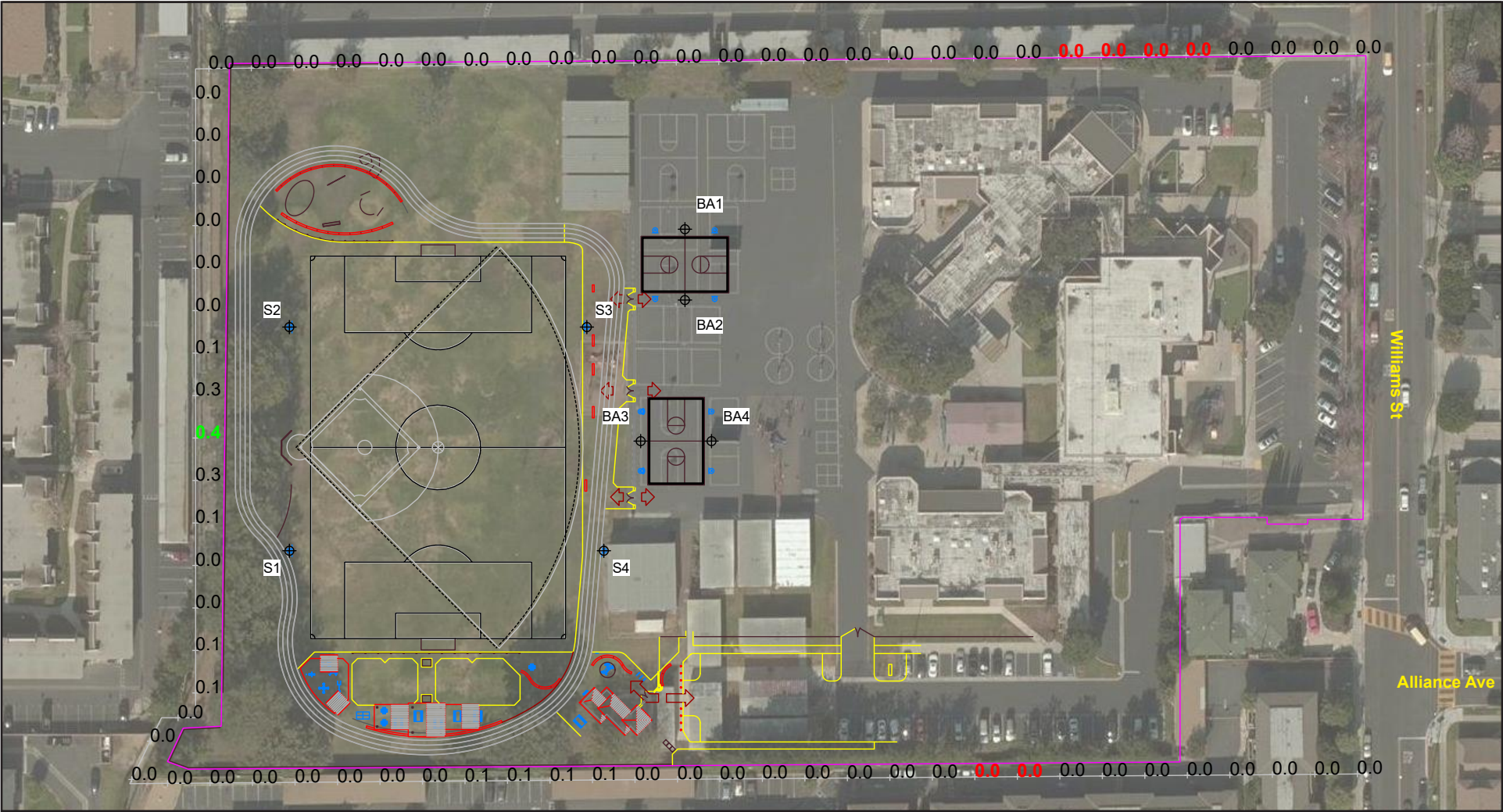
**No Impact.** The project site is zoned as P&I (Public and Institutional), which does not permit agricultural uses. Additionally, the project site is not subject to a Williamson Act contract. Therefore, implementation of the proposed project would not conflict with zoning for agricultural uses or a Williamson Act contract. Accordingly, no impact would occur.

- c) **Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?**

**No Impact.** Forest land is defined as “land that can support 10-percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits” (California Public Resources Code § 12220[g]). Timberland is defined as “land...which is available for, and capable of, growing a crop of trees of any commercial species used to produce lumber and other forest products, including Christmas trees” (California Public Resources Code § 4526).

As shown in Figure 3, *Aerial Photograph*, the project site is in an urban area of the city and is developed with school facilities with surrounding residential uses. Additionally, the project site is not designated or zoned for forest or timber land or used for forestry. As stated above, the site is zoned Public and Institutional. Therefore, project development would have no impact on forest land or resources.

Figure 5 - Sports Lighting Spill Light Horizontal Photometric Plan



- ⊕ S1 Sports Field Light Pole Location 0.0 Foot-Candle
- ⊕ BA1 Basketball Court Light Pole Location

0 100  
Scale (Feet)



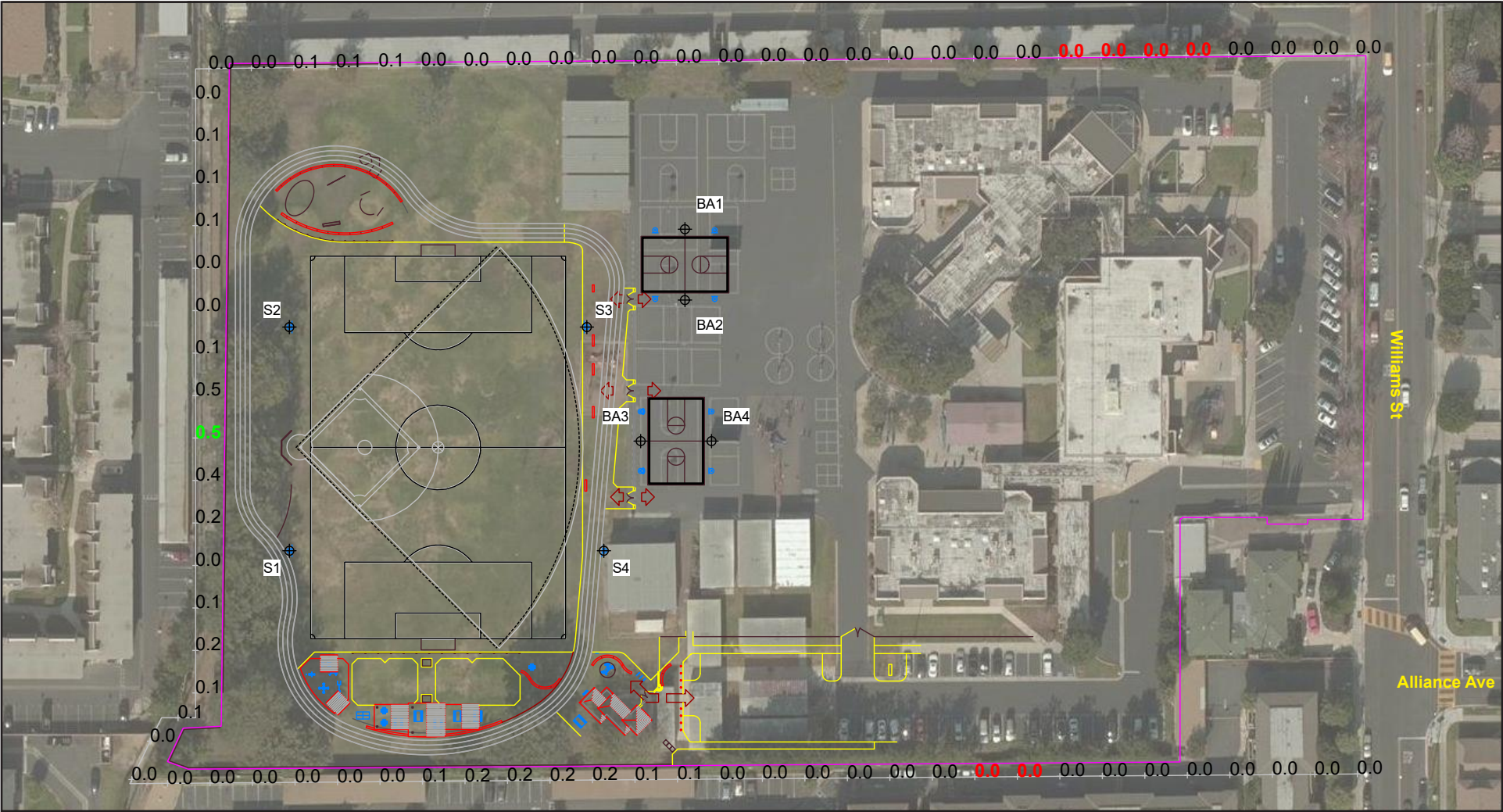
Source: Musco, 2019

### 3. Environmental Analysis

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Figure 6 - Sports Lighting Spill Light Vertical Photometric Plan



⊕ S1 Sports Field Light Pole Location 0.0 Foot-Candle  
⊕ BA1 Basketball Court Light Pole Location

0 100  
Scale (Feet)



Source: Musco, 2019

### 3. Environmental Analysis

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### 3. Environmental Analysis

**d) Result in the loss of forest land or conversion of forest land to non-forest use?**

**No Impact.** See response to Section 3.2.c. As substantiated in this section, no impact would occur.

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

**No Impact.** See responses to Sections 3.2.a, b, and c. As substantiated in these sections, no impact would occur.

### 3.3 AIR QUALITY

This section addresses the impacts of the proposed project on ambient air quality and the exposure of people, especially sensitive individuals, to unhealthful pollutant concentrations. A background discussion on the air quality regulatory setting, meteorological conditions, existing ambient air quality in the vicinity of the project site, and air quality modeling can be found in Appendix B.

The primary air pollutants of concern for which ambient air quality standards (AAQS) have been established are ozone (O<sub>3</sub>), carbon monoxide (CO), coarse inhalable particulate matter (PM<sub>10</sub>), fine inhalable particulate matter (PM<sub>2.5</sub>), sulfur dioxide (SO<sub>2</sub>), nitrogen dioxide (NO<sub>2</sub>), and lead (Pb). Areas are classified under the federal and California Clean Air Act as either in attainment or nonattainment for each criteria pollutant based on whether the AAQS have been achieved. The South Coast Air Basin (SoCAB), which is managed by the South Coast Air Quality Management District (South Coast AQMD), is designated nonattainment for O<sub>3</sub>, and PM<sub>2.5</sub> under the California and National AAQS, nonattainment for PM<sub>10</sub> under the California AAQS, and nonattainment for lead (Los Angeles County only) under the National AAQS (CARB 2017a).

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

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

**Less Than Significant Impact.** South Coast AQMD adopted the 2016 Air Quality Management Plan on March 3, 2017. Regional growth projections are used by South Coast AQMD to forecast future emission levels in the SoCAB. For southern California, these regional growth projections are provided by Southern California Associate of Governments (SCAG) and are partially based on land use designations included in city/county general plans. Typically, only large, regionally significant projects have the potential to affect the regional growth projections. In addition, the consistency analysis is generally only required in connection with the adoption of General Plans, specific plans, and significant projects.

The proposed project would not be considered a regionally significant project that would warrant Intergovernmental Review by SCAG under CEQA Guidelines section 15206. The project site is currently an existing turf field used for outdoor and physical education activities which the proposed project would redevelop into a joint-use park between the school and city. The proposed project would not have the potential to substantially affect the regional growth of the City of Tustin. In addition, operation-phase emissions

### 3. Environmental Analysis

associated with the proposed joint-use park would not exceed the South Coast AQMD regional significance thresholds. Thus, implementation of the proposed project would not interfere with or obstruct implementation of the AQMP. Therefore, impacts are less than significant, and no mitigation measures are required.

**b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard?**

**Less Than Significant Impact.** The following describes project-related impacts from regional short-term construction activities and regional long-term operation of the proposed project.

#### Regional Short-Term Construction Impacts

The District would construct a joint-use park on the existing turf field currently utilized by the Heideman ES. The joint-use park would be accessible to the public after school hours and weekends. Construction of the park would take approximately 12 months and it would generate criteria air pollutants associated with construction equipment exhaust and fugitive dusts from various construction activity phases. Construction-related emissions summarized in Table 2, *Maximum Daily Regional Construction*, were quantified using the California Emissions Estimator Model, Version 2016.3.2 (CalEEMod) and are based on the construction schedule and equipment mix based on CalEEMod defaults. As shown, the proposed project is not anticipated to exceed the South Coast AQMD regional construction threshold, and impacts would be less than significant. No mitigation measures are required.

**Table 2 Maximum Daily Regional Construction Emissions**

Construction Phase	Pollutants (lb/day) <sup>1,2</sup>					
	VOC	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
<b>Year 2020</b>						
Site Preparation	4	43	22	0	10	6
Grading	3	27	17	0	4	3
Building Construction	2	19	17	0	1	1
Paving	1	12	13	0	1	1
Architectural Coating	23	2	2	<1	<1	<1
Landscaping	<1	2	3	<1	<1	<1
<b>Maximum Daily Construction Emissions</b>						
Maximum Daily Emissions	23	42	22	<1	10	6
<b>South Coast AQMD Regional Construction Threshold</b>	<b>75</b>	<b>100</b>	<b>550</b>	<b>150</b>	<b>150</b>	<b>55</b>
<b>Significant?</b>	No	No	No	No	No	No

Note: The maximum daily regional construction emissions in this table were conservatively modeled based on a construction start date of June 2020 and a construction duration of three months. Construction emission rates at later years and longer construction duration generally decrease emissions. Therefore, construction start date of summer of 2023 and 12-month construction duration would result less construction emissions.

Source: CalEEMod Version 2016.3.2

Emissions totals may not equal 100 percent due to rounding.

<sup>1</sup> Based on the preliminary information provided by the District. Where specific information regarding project-related construction activities was not available, construction assumptions were based on CalEEMod defaults, which are based on construction surveys conducted by South Coast AQMD of construction equipment.

<sup>2</sup> Includes implementation of fugitive dust control measures required by South Coast AQMD under Rule 403, including watering disturbed areas a minimum of two times per day, reducing speed limit to 15 miles per hour on unpaved surfaces, replacing ground cover quickly, and street sweeping with Rule 1186-compliant sweepers.

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#### Regional Long-Term Operation-Phase Impacts

The proposed project involves redeveloping the existing turf field into a joint-use park. Implementation of the proposed project would result in an increase in mobile source emissions associated with joint-use park events at the field. As shown in Table 3, *Maximum Daily Regional Operation Emissions*, it is anticipated that emissions from operation of the proposed project would be minimal and would not exceed the South Coast AQMD regional operation-phase significance thresholds. Therefore, impacts to the regional air quality associated with operation of the project would be less than significant. No mitigation measures are required.

**Table 3 Maximum Daily Regional Operation Emissions**

Source	Maximum Daily Emissions (lbs/Day)					
	VOC	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
<b>Max Daily Emissions</b>						
Area	<1	<1	<1	<1	<1	<1
Energy <sup>1</sup>	<1	<1	<1	<1	<1	<1
Mobile	<1	2	8	0	3	<1
<b>Total</b>	<1	2	8	0	3	<1
<b>South Coast AQMD Regional Threshold</b>	<b>55</b>	<b>55</b>	<b>550</b>	<b>150</b>	<b>150</b>	<b>55</b>
<b>Exceeds Threshold?</b>	No	No	No	No	No	No

Source: CalEEMod Version 2016.3.2. Highest winter or summer emissions shown. Emissions may not total to 100 percent due to rounding.  
Notes: lbs: Pounds.

#### c) Expose sensitive receptors to substantial pollutant concentrations?

**Impact With Mitigation Incorporated.** The following describes changes in localized impacts from short-term construction activities and long-term operation of the proposed project.

#### Construction

##### *Localized Construction Impacts*

A project could expose sensitive receptors to elevated pollutant concentrations during construction activities if it would cause or contribute significantly to pollutant concentrations levels. Unlike the mass of construction emissions shown in the regional emissions analysis in Table 2, which is described in pounds per day, localized concentrations refer to an amount of pollutant in a volume of air (ppm or µg/m<sup>3</sup>) and can be correlated to potential health effects. The screening-level localized significance thresholds (LSTs) are the amount of project-related emissions at which localized concentrations (ppm or µg/m<sup>3</sup>) could exceed the California AAQs for criteria air pollutants. CARB designates SoCAB as nonattainment for criteria air pollutants. The basis for determining the LSTs is the project site's size and distance to the nearest sensitive receptor. CARB established the California AAQS, which are the most stringent AAQS, to provide a margin of safety in the protection of the public health and welfare. The screening-level LSTs are designed to protect sensitive receptors most susceptible to further respiratory distress, such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise.

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Table 4, *Unmitigated Construction Emissions Compared to the Screening-Level LSTs*, shows the maximum daily construction emissions (pounds per day) generated during on-site construction activities compared with South Coast AQMD's screening-level LSTs for sensitive receptors within 82 feet. As shown in the table, construction-related emissions generated would exceed the screening-level LSTs. Thus, project-related construction activities would result in a potentially significant impact.

**Table 4 Unmitigated Construction Emissions Compared to the Screening-Level LSTs**

Construction Activity	Pollutants(lbs/day) <sup>1</sup>			
	NO <sub>x</sub>	CO	PM <sub>10</sub> <sup>2</sup>	PM <sub>2.5</sub> <sup>2</sup>
<b>South Coast AQMD ≤1.00 -acre LST</b>	81	485	4.00	3.00
Paving 2020	12	12	0.65	0.60
Architectural Coatings	2	2	0.11	0.11
Landscaping	2	3	0.12	0.11
<b>Exceeds LST?</b>	No	No	No	No
<b>South Coast AQMD 1.31-Acre LSTs</b>	92	557	4.62	3.31
Building Construction 2020	19	17	1.12	1.05
<b>Exceeds LST?</b>	No	No	No	No
<b>South Coast AQMD 2.50-Acre LSTs</b>	126	805	7.16	4.50
Grading 2020	26	16	4.07	2.61
<b>Exceeds LST?</b>	No	No	No	No
<b>South Coast AQMD 3.50-Acre LSTs</b>	149	984	9.50	5.50
Site Preparation	42	22	<b>9.92</b>	<b>6.27</b>
<b>Exceeds LST?</b>	No	No	<b>Yes</b>	<b>Yes</b>

Source: CalEEMod Version 2016.3.2., and South Coast AQMD 2008 and 2011.

Notes: The construction emissions in this table were conservatively modeled based on a construction start date of June 2020 and a construction duration of three months. Construction emission rates at later years and longer construction duration generally decrease emissions. Therefore, construction start date of summer of 2023 and 12-month construction duration would result less construction emissions. Additionally, in accordance with South Coast AQMD methodology, only onsite stationary sources and mobile equipment occurring on the project site are included in the analysis. LSTs are based on receptors within 82 feet (25 meters) of the project site in Source Receptor Area (SRA) 17 for NO<sub>x</sub> and CO emissions, PM<sub>10</sub> and PM<sub>2.5</sub>.

<sup>1</sup> Based on information provided by the District. Where specific information regarding project-related construction activities or processes was not available, construction assumptions were based on CalEEMod defaults, which are based on construction surveys conducted by the South Coast AQMD.

<sup>2</sup> Includes implementation of fugitive dust control measures required by South Coast AQMD under Rule 403, including watering disturbed areas a minimum of two times per day, reducing speed limit to 15 miles per hour on unpaved surfaces, replacing ground cover quickly, and street sweeping with Rule 1186-compliant sweepers.

However, implementation of Mitigation Measure AQ-1 would require that, during site preparation activities, large off-road equipment (i.e., equipment that is 50 horsepower or more) meets the EPA's Tier 4 emissions standards, and implementation of Mitigation Measure AQ-2 would require watering of ground-disturbing activities a minimum of three times daily.

Table 5, *Mitigated Construction Emissions Compared to the Screening-Level LSTs*, shows the mitigated maximum daily construction emissions after implementation of mitigation measures. With implementation of Mitigation Measures AQ-1 and AQ-2, impacts would be reduced to less than significant.

### 3. Environmental Analysis

**Table 5 Mitigated Construction Emissions Compared to the Screening-Level LSTs**

Construction Activity	Pollutants(lbs/day) <sup>1</sup>			
	NO <sub>x</sub>	CO	PM <sub>10</sub> <sup>2</sup>	PM <sub>2.5</sub> <sup>2</sup>
<b>South Coast AQMD 3.50-Acre LSTs</b>	149	984	9.50	5.50
Site Preparation	42	22	6.76	3.74
<b>Exceeds LST?</b>	No	No	No	No

Source: CalEEMod Version 2016.3.2., and South Coast AQMD 2008 and 2011.

Notes: The construction emissions in this table were conservatively modeled based on a construction start date of June 2020 and a construction duration of three months. Construction emission rates at later years and longer construction duration generally decrease emissions. Therefore, construction start date of summer of 2023 and 12-month construction duration would result less construction emissions. Additionally, in accordance with South Coast AQMD methodology, only onsite stationary sources and mobile equipment occurring on the project site are included in the analysis. LSTs are based on receptors within 82 feet (25 meters) of the project site in Source Receptor Area (SRA) 17 for NO<sub>x</sub> and CO emissions, PM<sub>10</sub> and PM<sub>2.5</sub>.

<sup>1</sup> Based on information provided by the District. Where specific information regarding project-related construction activities or processes was not available, construction assumptions were based on CalEEMod defaults, which are based on construction surveys conducted by the South Coast AQMD.

<sup>2</sup> Includes implementation of fugitive dust control measures required by South Coast AQMD under Rule 403, including watering disturbed areas a minimum of two times per day, reducing speed limit to 15 miles per hour on unpaved surfaces, replacing ground cover quickly, and street sweeping with Rule 1186-compliant sweepers. Emissions account for Mitigation Measure AQ-1 and AQ-2, which require use of newer, tier 4 construction equipment and watering three times daily, respectively, to reduce particulate matter emissions.

#### Health Risk

The South Coast AQMD does not require health risk assessments for short-term emissions from construction equipment, which primarily consist of diesel particulate matter (DPM). Additionally, South Coast AQMD has not developed short-term acute exposure levels for DPM and does not require the evaluation of long-term excess cancer risk or chronic health impacts for a short-term project. The California Office of Environmental Health Hazard Assessment (OEHHA) adopted new guidance for the preparation of health risk assessments in March 2015 and developed a cancer risk factor and noncancer chronic reference exposure level for DPM based on continuous exposure over a 30-year period (OEHHA 2015).

Development of the proposed project would last approximately twelve months. The relatively short duration—when compared to a 30-year period—would limit exposure of on- and off-site receptors to toxic air contaminants (TACs) such as DPMs. In addition, exhaust emissions from off-road vehicles associated with overall project-related construction activities would not exceed the unmitigated PM<sub>10</sub> and PM<sub>2.5</sub> screening-level LSTs. For these reasons, the analysis in this document anticipates that construction emissions would not pose a threat to off-site receptors near the proposed project, and project-related construction health impacts would be less than significant.

#### Carbon Monoxide Hotspots

Areas of vehicle congestion have the potential to create pockets of CO called hotspots. These are areas where vehicles queue for longer periods and travel at reduced speeds, because vehicle combustion produces the greatest quantities of CO that do not readily disperse into the atmosphere. Therefore, in intersections where traffic congestion is highest, a project would have a potentially significant impact if these pockets have the potential to exceed the state one-hour standard of 20 ppm or the eight-hour standard of 9.0 ppm through the analysis of localized CO concentrations.

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The SoCAB has been designated attainment under both the national and California AAQS for CO. Under existing and future vehicle emission rates, a project would have to increase traffic volumes at a single intersection by more than 44,000 vehicles per hour—or 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited—in order to generate a significant CO impact (BAAQMD 2017). Operation of the proposed project would generate up to 412 PM peak hour trips on Saturdays, which would be minimal compared to the screening levels. Therefore, the proposed project would not have the potential to substantially increase CO hotspots at intersections near the project site, and impacts would be less than significant. No mitigation measures related to CO hotspots are required.

#### Mitigation Measures

##### *Construction*

AQ-1 The Tustin Unified School District (District) shall specify in the construction bid that the construction contractor(s) shall, at minimum, use equipment that meets the United States Environmental Protection Agency's (EPA) Tier 4 Final emissions standards for off-road diesel-powered construction equipment with 50 horsepower or more for site preparation activity. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by Tier 4 Final emissions standards for a similarly sized engine, as defined by the California Air Resources Board's regulations. If it can be demonstrated to the District that such equipment is not available, a Tier 4 Interim shall be used.

Prior to construction, the construction contractor shall ensure that all construction plans clearly show the requirement for EPA Tier 4 Final emissions standards for construction equipment over 50 horsepower for the specific activity stated above. During construction, the construction contractor shall maintain a list of all operating equipment associated with site preparation in use on the site for verification by the District. The construction equipment list shall state the makes, models, Equipment Identification Numbers, and number of construction equipment onsite. Equipment shall be properly serviced and maintained in accordance with the manufacturer's recommendations. Construction contractors shall also ensure that all nonessential idling of construction equipment is restricted to 5 minutes or less in compliance with Section 2449 of the California Code of Regulations, Title 13, Article 4.8, Chapter 9.

AQ-2 The Tustin Unified School District (District) shall specify in the construction bid that the construction contractor(s) shall water exposed ground surfaces and disturbed areas three times per day during site preparation activities to minimize fugitive dust. Prior to construction, the construction contractor(s) shall ensure that all construction plans submitted to the District's Construction Manager, or designee, clearly show the watering requirement to control fugitive dust.

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**d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?**

**Less Than Significant Impact.** The threshold for odor is if a project creates an odor nuisance pursuant to South Coast AQMD Rule 402, Nuisance, which states:

A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property. The provisions of this rule shall not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals.

The type of facilities that are considered to have objectionable odors include wastewater treatment plants, compost facilities, landfills, solid waste transfer stations, fiberglass manufacturing facilities, paint/coating operations (e.g., auto body shops), dairy farms, petroleum refineries, asphalt batch plants, chemical manufacturing, and food manufacturing facilities. The proposed project does not fall within these land uses; therefore, this analysis does not anticipate operational odors.

During the development of the proposed project, emissions from construction equipment, such as diesel exhaust, may generate odors. However, these odors would be low in concentration, temporary, and disperse rapidly. Therefore, odors produced during the construction of the proposed project would not be considered significant or highly objectionable. The proposed project would comply with the South Coast AQMD Rule 402, and impacts would be less than significant. No mitigation measures are required.

## 3.4 BIOLOGICAL RESOURCES

Would the project:

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

**No Impact.** Sensitive biological resources are habitats or individual species that have special recognition by federal, state, or local conservation agencies and organizations as endangered, threatened, or rare. As shown in Figure 3, *Aerial Photograph*, the project site is an existing grass field, with trees mostly along the western site boundary and a few on the south. The site is in a highly urbanized area of the City and is surrounded by residential uses.

A review of the California Department of Fish and Wildlife California Natural Biodiversity Database (CNDDB) Bios Viewer for the Tustin Quadrangle indicated that there are seven threatened or endangered species located within the Tustin Quadrangle (CDFW 2019a). These species are the coastal California gnatcatcher, the least Bell's vireo, the California least tern, the light-footed Ridgway's rail, the western yellow-billed cuckoo, the Pacific pocket mouse, and the Gambel's water cress.

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Based on the existing conditions of the project site and its surroundings and views of the project site and surrounding area from Google Earth maps, proposed project development would not have an impact on the aforementioned species since there is no suitable riparian or native habitat located within or in the vicinity of the project site and no natural biological resources or communities exist on, adjacent to, or near the project site. The aforementioned species typically require wetland or riparian habitat with native vegetation and access to bodies of water. The nearest water body to the project site is the Santa Ana-Santa Fe Channel, approximately 0.2 mile to the south. The waterway consists of concrete bed and banks and does not support wildlife habitat.

Based on the preceding, the proposed project would not result in 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. No impact would occur.

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

**No Impact.** Sensitive natural communities are natural communities that are considered rare in the region by regulatory agencies, known to provide habitat for sensitive animal or plant species, or known to be important wildlife corridors. Riparian habitats occur along the banks of rivers and streams. As demonstrated in Sections 3.4.a and 3.4.c, project development would not result in an impact on any riparian habitat or other sensitive natural community. No impact would occur.

**c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?**

**No Impact.** Wetlands are defined under the federal Clean Water Act as land that is flooded or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that normally does support, a prevalence of vegetation adapted to life in saturated soils. Wetlands include areas such as streams, swamps, marshes, and bogs. No wetlands regulated by the US Army Corps of Engineers, US Fish and Wildlife Services (USFWS), California Department of Fish and Wildlife (CDFW), or Santa Ana Regional Water Quality Control Board exist on the project site (USFWS 2019). Therefore, no impact would occur.

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

**Less Than Significant Impact.** As shown in Figure 3, *Aerial Photograph*, the project site is in a highly urbanized of the City and is surrounded by residential uses. The project site and its surroundings are built out and do not provide habitat for the movement of any native resident or migratory fish or wildlife species. Although the project site may provide some habitat for limited wildlife movement and live-in habitat—particularly for bird species and small to medium mammals that are adapted to urban settings—the project site does not function as and is not designated as a wildlife corridor or nursery site. There are several ornamental trees and other vegetation on-site that may require removal, although some trees would be protected in place, and these may



### 3. Environmental Analysis

be used for nesting by migratory birds. When removing trees or vegetation, in compliance with California Fish and Game Code Sections 3503, 3503.5, 3513, and 3800, the proposed project is required to avoid the incidental loss of fertile eggs or nestlings or nest abandonment. Therefore, if removal of the vegetation occurs during nesting season (typically between February 1 and September 1), the District is required to conduct preconstruction nesting bird surveys in accordance with the CDFW requirements prior to removal of the trees. Compliance with the existing regulation would ensure that the proposed project does not interfere substantially with the movement of any native resident or wildlife species or with established native resident or migratory wildlife corridors.

The Migratory Bird Treaty Act (MBTA) (US Code, Title 16, §§ 703–712) governs the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests. It prohibits the take, possession, import, export, transport, sale, purchase, barter, or offering of these activities, except under a valid permit or as permitted in the implementing regulations. USFWS administers permits to take migratory birds in accordance with the MBTA. In December 2017, the Department of the Interior issued a memorandum concluding that “consistent with the text, history, and purpose of the MBTA, [the statute’s prohibitions on take apply] *only to affirmative actions that have as their purpose the taking or killing of migratory birds, their nests, or their eggs*” (emphasis added) (DOI 2017). Therefore, take of a migratory bird or its active nest (i.e., with eggs or young) that is incidental to, and not the purpose of, a lawful activity does not violate the MBTA. To provide guidance in implementing and enforcing this new direction, the USFWS issued a memorandum in April 2018 to clarify what does and does not constitute prohibited take (USFWS 2018).

Compliance with the existing CDFW regulations would ensure that less than significant impacts occur to migratory bird species. No mitigation measures are required.

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

**No Impact.** As shown in Figure 3, the project site is an existing grass field with trees mostly along the western site boundary and a few on the north and south borders. Project development would provide additional trees surrounding the project site for the proposed park. The City of Tustin provides regulations over trees and shrubs on or over any public parkway street, highway, alley, right-of-way, or city-owned property. The project site is owned by the District, and trees within the project site are not subject to any tree preservation policy or ordinance by the City of Tustin. Implementation of the proposed project would not conflict with any local policies or ordinances protecting biological resources. Therefore, no impact would occur.

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

**Less than Significant Impact.** The project site is in a highly urbanized area of the city and surrounded by residential uses. The site is located within the Orange County Transportation Authority Natural Community Conservation Plan/Habitat Conservation Plan (NCCP/HCP) (CDFW 2019b). However, the project site is not protected land or identified natural habitat. Project development would not conflict with the adopted conservation plan (OCTA 2016). Therefore, impact would be less than significant, and no mitigation measures are necessary.

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#### 3.5 CULTURAL RESOURCES

Would the project:

**a) Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?**

**No Impact.** Section 15064.5 defines historic resources as resources listed or determined to be eligible for listing by the State Historical Resources Commission, a local register of historical resources, or the lead agency. Generally a resource is considered “historically significant” if it meets one of the following criteria:

- i) Is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage;
- ii) Is associated with the lives of persons important in our past;
- iii) Embodies the distinctive characteristics of a type, period, region or method of construction, or represents the work of an important creative individual, or possesses high artistic values;
- iv) Has yielded, or may be likely to yield, information important in prehistory or history.

The main area to be disturbed by the proposed project is within the Heideman ES that opened in 1980 (CDE 2020). The City of Tustin General Plan’s Conservation/Open Space/Recreation Element Figure COSR-3, “Historic Resources,” does not identify the project site as a historical resource. The project site is not listed in the Office of Historic Preservation’s Listed California Historical Resources and not in the National Register of Historic Places (OHP 2020; NPS 2020). Implementation of the proposed project would not cause a substantial adverse change in the significance of a historical resource. No impact would occur.

**b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?**

**Less Than Significant Impact With Mitigation Incorporated.** The project site does not contain any known archaeological resources pursuant to CEQA Guidelines Section 15064.5. A records search of files and maps was performed by the South Central Coastal Information Center (SCCIC), and the records search found that there have been 15 cultural resources—related reports and studies within a half-mile radius of the project site, and no archaeological resources were identified. The cultural record search result is included in Appendix C1 to this Initial Study. The only recorded listing found were nine built-environment resources in the California Office of Historic Preservation Built Environment Resources Directory, although the resource locations were not released due to the sensitive nature of cultural resources. Because there are no previous studies within the project site, the SCCIC staff determined that the archaeological sensitivity of the project site is unknown. However, considering that the project site has been disturbed previously, and that there are no recorded archaeological sites within the project area, the potential for discovery of archaeological resources is minimal. Moreover, the proposed project does not involve construction of any habitable structure or other structures that require excavation beyond artificial fill materials. Therefore, provided that customary caution and a halt-work condition are in place for ground-disturbing activities that go beyond artificial fill materials, potential

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impacts to archaeological resources would be reduced to a less than significant level. Implementation of Mitigation Measure CUL-1 would ensure that impacts to archaeological resources are less than significant.

#### Mitigation Measures

CUL-1 Prior to any ground disturbance, Tustin Unified School District shall provide a note on plans indicating that in the event that potential archeological resources are discovered during ground-disturbing activities, all such activity shall cease in the immediate area of the find (within a 50-foot buffer) until a qualified archaeological consultant can assess the find and make recommendations. The archaeological monitor shall determine whether the find constitutes a “historical resource” pursuant to the California Environmental Quality Act (CEQA) Guidelines 15064.5(a) or has a “unique archeological resource” pursuant to the Public Resources Code 21083.2(g). Construction activities may continue in other areas of the project site and for other project elements while the find is evaluated. If the discovery is determined not to be important, work will be permitted to continue in the area. If the discovery is determined to be important, the District shall prepare a formal treatment plan in accordance with CEQA Guidelines Section 15064.5(f) for historical resources and Public Resources Code Sections 21083.2(b) for unique archaeological resources. Preservation in place (i.e., avoidance) is the preferred manner of treatment.

#### c) Disturb any human remains, including those interred outside of dedicated cemeteries?

**Less Than Significant Impact.** The park replacement sites have been previously developed, and there are no known human remains on the two replacement park sites. The records search did not identify any uses that could result in discovery of human remains. However, under California Health and Safety Code (CHSC) Section 7050.5, if any human remains are discovered on the project site, disturbance of the site shall halt and remain stopped until the coroner has conducted an investigation into the determination of origin (CHSC 7050.5). If the coroner determines the remains are not under his jurisdiction (prehistoric), they are required to contact the Native American Heritage Commission within 24 hours (CHSC 7050.5). This organization is responsible for determining the most likely descendant for the area. Adherence to the CHSC Section 7050.5 will reduce potential impacts associated with disturbance of human remains to less than significant. No mitigation measures are required.

## 3.6 ENERGY

Would the project:

#### a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

**Less Than Significant Impact.** Construction of the proposed project would require energy use to power the construction equipment. The energy use would vary during different phases of construction—the majority of construction equipment during demolition and grading would be gas powered or diesel powered, and the later construction phases may require electricity-powered equipment for architectural coatings. The proposed project

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is anticipated to take about twelve months, and the construction contractors are anticipated to minimize idling of construction equipment and reduce construction waste by recycling. Construction equipment would be used and maintained in accordance with the manufacturer's specifications by the construction contractor and would not cause potentially significant environmental impacts due to the temporary nature and limited scale of the construction. Implementation of the proposed project is not anticipated to result in a wasteful, inefficient, or unnecessary consumption of energy.

Transportation energy use depends on the type and number of trips, vehicle miles traveled, fuel efficiency of vehicles, and travel mode. Transportation energy use during construction would come from the transport and use of construction equipment, delivery vehicles and haul trucks, and construction employee vehicles that would use diesel fuel and/or gasoline. Impacts related to transportation energy use during construction would be temporary and would not require expanded energy supplies or the construction of new infrastructure.

The replacement parks would serve the existing local residents, and could generate up to 74 daily trips on weekdays and up to 413 vehicle trips on weekends, as discussed in Section 3.17, *Transportation*. Transportation energy consumed by 74 vehicles on weekdays and up to 413 vehicles on weekends by park visitors would not be considered a wasteful and inefficient consumption of transportation energy resources. Additionally, development of additional park facilities in residential neighborhood would allow residents to walk and bike rather than drive to other parks farther away. Impacts would be less than significant.

The proposed project would provide nighttime lighting, including LED sports lighting and other area lighting for the park, consuming approximately 56,000 kwh per year. The proposed project would only use necessary lighting to operate the park, and lights would be turned off at 9 pm, not wasting or using unnecessary energy resources. Impacts would not be significant, and no mitigation measures are required.

#### **b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?**

**Less Than Significant Impact.** The proposed joint-use park would not involve buildings or structures that consume substantial energy resources other than the nighttime light fixtures and the restroom/office building. The proposed project would be development in accordance with the applicable California Building Energy and Efficiency Standards (Title 24, Part 6) and CALGreen (Title 24, Part 11). The proposed project would not conflict with or obstruct a state or local renewable energy or energy efficiency. Impacts would be less than significant, and no mitigation measures are required.

### 3.7 GEOLOGY AND SOILS

The analysis in this section is based in part on the following technical studies, included as Appendix D to this Initial Study:

- *Paleontological Records Search for the proposed Heideman Elementary School Joint-Use Park Project, Project # TSD-17.0, in the City of Tustin, Orange County, project area*, Natural History Museum of Los Angeles County, December 2019

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Would the project:

- a) **Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:**
  - i) **Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning map, issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.**

**No Impact.** Fault rupture occurs when an active fault displaces during an earthquake. Fault rupture hazards depend on a property's proximity to an active or potentially active fault and the designation of the site in an Alquist-Priolo Special Study Zone, as defined by the Alquist-Priolo Earthquake Fault Zone Act of 1962. The project site is not located within a fault-rupture hazard zone (DOC 2001). Therefore, project development would not subject people or structures to hazards arising from surface rupture of a known active fault. No impact would occur and no mitigation measures are necessary.

**ii) Strong seismic ground shaking?**

**Less Than Significant Impact.** As stated in the City of Tustin General Plan, the primary seismic danger in the City is ground shaking. The intensity of ground shaking on the project site would depend on the magnitude of the earthquake, distance to the epicenter, and the geology of the area between the epicenter and the project site. The proposed project would be designed in accordance with the seismic requirements of the California Building Code (CBC) (California Code of Regulations, Title 24), including a development-specific subsurface exploration and laboratory testing prior to design and construction of any structures, and recommendations contained therein would be implemented as required. Additionally, the proposed project would not include any inhabitable structures other than a restroom/office building. Compliance with the requirements of the CBC for structural safety during a seismic event would reduce hazards from strong seismic ground shaking. Impacts from strong seismic ground shaking would be less than significant and no mitigation measure is necessary.

**iii) Seismic-related ground failure, including liquefaction?**

**Less Than Significant Impact.** Liquefaction is a phenomenon that occurs when soil undergoes a transformation from a solid state to a liquified condition. It refers to loose, saturated sand or silt deposits that behave as a liquid and lose their load-supporting capability when strongly shaken. Loose granular soils and silts that are saturated by relatively shallow groundwater are susceptible to liquefaction. When subjected to seismic ground shaking, affected soils lose strength during liquefaction and foundation failure can occur.

The project site is not identified as having a high liquefaction potential by the City of Tustin General Plan Conservation/Open Space/Recreation Element (Tustin 2008). However, the project site is located in the liquefaction zone according to the California Department of Conservation (DOC 2001). The proposed project would be subjected to the seismic requirements of the CBC and Division of the State Architect (DSA) standards. A comprehensive geotechnical evaluation, including development-specific subsurface

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exploration and laboratory testing, would be required prior to construction. Recommendations contained therein will be implemented as required, and liquefaction and seismic settlement can be mitigated by proper engineering design. Therefore, compliance with the established standards would ensure that impacts from liquefaction are less than significant and no mitigation measures are necessary.

#### iv) Landslides?

**No Impact.** Landslides are the downslope movement of geologic materials. Slope failures in the form of landslides are common during strong seismic shaking in areas of steep hills. Landslides are not expected to occur at the project site, since the site and its surroundings are relatively flat and not within a landslide hazard area as identified by the California Geologic Survey (DOC 2001), which are areas having potential for seismic slope instability. Therefore, geologic hazards associated with landslides are not anticipated at the site. No impact would occur, and no mitigation measures are necessary.

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

**Less Than Significant Impact.** The proposed project would involve minimal grading activities for the proposed park amenities. Such earth-moving activities would temporarily expose soils surfaces to increased wind and water erosion. However, grading activities would be regulated by the Regional Water Quality Control Board requirements to ensure that no significant impacts occur. Because the proposed project involves grading of more than one acre, the District would be required to comply with a National Pollutant Discharge Elimination System permitting regulations, including the development and implementation of a Stormwater Pollution Prevention Plan (SWPPP). The proposed project's construction contractor would be required to prepare and implement a SWPPP and associated best management practices (BMPs) in compliance with the Construction General Permit during grading and construction. Types of BMPs that are incorporated in SWPPPs and would help minimize impacts from soil erosion include:

- Erosion controls: Cover and/or bind soil surface, to prevent soil particles from being detached and transported by water or wind. Erosion control BMPs include mulch, soil binders, and mats.
- Sediment controls: Filter out soil particles that have been detached and transported in water. Sediment control BMPs include barriers, and cleaning measures such as street sweeping.
- Tracking controls: Tracking control BMPs minimize the tracking of soil off-site by vehicles; for instance, stabilizing construction roadways and entrances/exits.

Adherence to the BMPs in the SWPPP and adherence with local, regional, and state codes and requirements for erosion control and grading during construction would reduce, prevent, or minimize soil erosion from Project-related grading and construction activities.

Additionally, a water quality management plan (WQMP) would be prepared prior to approval of the first grading plan. The WQMP would contain specific source- and treatment-control BMPs that would reduce or eliminate infiltration of pollutants into the stormwater system. BMPs specified for the proposed project in the WQMP, which would minimize sediment pollution of stormwater, include a bioretention facility; common area landscape management; sweeping of streets; and use of efficient irrigation systems and landscape design, water conservation, and smart controllers. Compliance with the standard permitting requirements would ensure that

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no significant water quality impact result from the proposed project. Therefore, soil erosion impacts would be less than significant and no mitigation measures are necessary.

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

**Less Than Significant Impact.** Hazards from liquefaction are addressed above in Section 3.7.a.iii, and landslide hazards are addressed above in Section 3.7.a.iv. The proposed project would be designed in accordance with the requirements of the CBC. A comprehensive geotechnical evaluation, including development-specific subsurface exploration and laboratory testing, would be prepared, and recommendations would be implemented as required. Therefore, impacts associated with lateral spreading, liquefaction, subsidence, and other types of ground failure or collapse would be less than significant and no mitigation measures are necessary.

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

**Less Than Significant Impact.** Expansive soils shrink or swell as the moisture content decreases or increases; the shrinking or swelling can shift, crack, or break structures built on such soils. As discussed above, the project site be designed in accordance with the requirements of the CBC. A comprehensive geotechnical evaluation, including development-specific subsurface exploration and laboratory testing would be prepared and recommendations contained therein would be implemented as required. Therefore, impacts related to expansive soil would be less than significant, and no mitigation measures are necessary.

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

**No Impact.** The project site is part of an existing elementary school, and the proposed project would connect to the existing sewer main lines and service lines, which are currently available in the surrounding roadways. The proposed project would not involve the use of septic tanks or other alternative wastewater disposal systems. Therefore, no impact would occur and no mitigation measures are necessary.

- f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?**

**Less Than Significant Impact With Mitigation Incorporated.** Paleontological resources are commonly known as fossils, that is, the recognizable physical remains or evidence of past life forms found on earth in past geological periods. Fossils include bones, shells, leaves, tracks, burrows, and impressions. A paleontological records search was conducted for the project site by the Natural History Museum of Los Angeles County. Results of the record search showed surface sediments for the project site and its surrounding area consist of younger terrestrial Quaternary Alluvium, which typically does not contain significant vertebrate fossils in the uppermost layers. Although deeper excavations could potentially encounter paleontological resources, the proposed project does not involve any habitable structure construction and would not require excavation beyond already disturbed fill materials and the younger terrestrial Quaternary Alluvium. The City of Tustin

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General Plan does not identify the project site with a high paleontological sensitivity (Tustin 2018b). Additionally, California Public Resources Code, Chapter 1.7, Section 5097.5, prohibits persons from knowingly and willfully excavating upon or removing, destroying, injuring, or defacing any vertebrate paleontological site, including fossilized footprints or other paleontological feature. Therefore, the potential to uncover paleontological resources in the project site is low. However, in the event that it is determined that deeper excavation is necessary that reaches beyond fill materials and the younger terrestrial Quaternary Alluvium, mitigation will be necessary to reduce potential paleontological resources to a less than significant level.

#### Mitigation Measure

**GEO-1** Prior to the beginning of ground disturbances, the Tustin Unified School District shall verify that the excavation activities will not disturb older terrestrial Quaternary Alluvium. In the event that the excavation goes beyond the artificial fill materials and the younger terrestrial Quaternary Alluvium, the District shall retain a qualified paleontologist to monitor ground-disturbing activities for the area that could encounter older terrestrial Quaternary Alluvium during grading. Before ground-disturbing activities begin, a qualified paleontologist shall prepare a monitoring plan specifying the frequency, duration, and methods of monitoring. Sediment samples shall be collected in the deposits and processed to determine the small-fossil potential in the project site, and any fossils recovered during mitigation should be deposited in an accredited and permanent scientific institution.

### 3.8 GREENHOUSE GAS EMISSIONS

Scientists have concluded that human activities are contributing to global climate change by adding large amounts of heat-trapping gases, known as greenhouse gases (GHGs), into the atmosphere. The primary source of these GHGs is fossil fuel use. The Intergovernmental Panel on Climate Change (IPCC) has identified four major GHGs—water vapor, carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), and O<sub>3</sub>—that are the likely cause of an increase in global average temperatures observed in the 20th and 21st centuries. Other GHGs identified by the IPCC that contribute to global warming to a lesser extent are nitrous oxide (N<sub>2</sub>O), sulfur hexafluoride (SF<sub>6</sub>), hydrofluorocarbons, perfluorocarbons, and chlorofluorocarbons.<sup>1, 2</sup>

This section analyzes the proposed project's contribution to global climate change impacts in California through an analysis of project-related GHG emissions. Information on manufacture of cement, steel, and other "life

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<sup>1</sup> Water vapor (H<sub>2</sub>O) is the strongest GHG and the most variable in its phases (vapor, cloud droplets, ice crystals). However, water vapor is not considered a pollutant, but part of the feedback loop rather than a primary cause of change.

<sup>2</sup> Black carbon contributes to climate change both directly, by absorbing sunlight, and indirectly, by depositing on snow (making it melt faster) and by interacting with clouds and affecting cloud formation. Black carbon is the most strongly light-absorbing component of PM emitted from burning fuels. Reducing black carbon emissions globally can have immediate economic, climate, and public health benefits. California has been an international leader in reducing emissions of black carbon, with close to 95 percent control expected by 2020 due to existing programs that target reducing PM from diesel engines and burning activities (CARB 2017a). However, state and national GHG inventories do not yet include black carbon due to ongoing work resolving the precise global warming potential of black carbon. Guidance for CEQA documents does not yet include black carbon.



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cycle” emissions that would occur because of the project are not applicable and are not included in the analysis.<sup>3</sup> Black carbon emissions are not included in the GHG analysis because the California Air Resources Board (CARB) does not include this short-lived climate pollutant in the state’s Assembly Bill (AB) 32 inventory but treats it separately (CARB 2017a).<sup>4</sup> Appendix B to this Initial Study provides a background discussion on the GHG regulatory setting and GHG modeling.

Would the project:

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

**Less Than Significant Impact.** Global climate change is not confined to a particular project area and is generally accepted as the consequence of global industrialization over the last 200 years. A typical project, even a very large one, does not generate enough GHG emissions on its own to influence global climate change significantly; hence, the issue of global climate change is, by definition, a cumulative environmental impact.

Table 6, *Project-Related Operation GHG Emissions*, shows project-related construction and operation-phase GHG emissions. As shown in the table, the proposed project would generate GHG emissions from vehicle trips generated by the proposed project (e.g., park visitors), energy use (indirectly from purchased electricity use for park lighting), area sources (e.g., landscaping equipment used on-site, consumer products, coatings), water/wastewater generation associated with the restroom/office, and waste disposal. The analysis amortizes annual average construction emissions over 30 years and includes one-time GHG emissions from the construction phase of the proposed project in the emissions inventory. Overall, development and operation of the proposed project would not generate net annual emissions that exceed the South Coast AQMD bright-line threshold of 3,000 metric tons of carbon dioxide equivalence (MTCO<sub>2e</sub>) per year (South Coast AQMD 2010). Therefore, the proposed project’s cumulative contribution to GHG emissions would be less than significant, and no mitigation measures are required.

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<sup>3</sup> Life cycle emissions include indirect emissions associated with materials manufacture. However, these indirect emissions involve numerous parties, each of which is responsible for GHG emissions of their particular activity. The California Resources Agency, in adopting the CEQA Guidelines Amendments on GHG emissions found that lifecycle analyses was not warranted for project-specific CEQA analysis in most situations, for a variety of reasons, including lack of control over some sources, and the possibility of double-counting emissions (see Final Statement of Reasons for Regulatory Action, December 2009). Because the amount of materials consumed during the operation or construction of the proposed project is not known, the origin of the raw materials purchased is not known, and manufacturing information for those raw materials are also not known, calculation of life cycle emissions would be speculative. A life-cycle analysis is not warranted (OPR 2008).

<sup>4</sup> Particulate matter emissions, which include black carbon, are analyzed in Section 3.3, *Air Quality*. Black carbon emissions have sharply declined due to efforts to reduce on-road and off-road vehicle emissions, especially diesel particulate matter. The State’s existing air quality policies will virtually eliminate black carbon emissions from on-road diesel engines within 10 years (CARB 2017a).

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**Table 6 Project-Related Operation GHG Emissions**

Source	GHG (MTCO <sub>2e</sub> /Year)
Area	<1
Energy	2
Mobile (Vehicle Trips)	193
Solid Waste	<1
Water	<1
Lighting	13
Amortized Construction Emissions <sup>1</sup>	8
<b>Total</b>	<b>216</b>
Proposed South Coast AQMD Bright-Line Threshold	3,000 MTCO <sub>2e</sub> /Year
<b>Exceeds Bright-Line Threshold?</b>	<b>No</b>

Source: CalEEMod, Version 2016.3.2. Totals may not equal to the sum of the values as shown due to rounding

Notes: MTons: metric tons; MTCO<sub>2e</sub>: metric ton of carbon dioxide equivalent

<sup>1</sup> Total construction emission are amortized over 30 years per South Coast AQMD methodology. The construction GHG emissions modeling was performed using three months of construction. However, because the duration was later modified to 12 months, the amortized construction emissions were multiplied by 4 to reflect the increased construction duration.

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

**Less Than Significant Impact.** Applicable plans adopted for reducing GHG emissions include the CARB Scoping Plan and SCAG's Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). Below is a consistency analysis between the proposed project and these plans.

#### CARB Scoping Plan

CARB's Scoping Plan is California's GHG reduction strategy to achieve the state's GHG emissions reduction targets established by AB 32, which is to return to 1990 emission levels by year 2020, and Senate Bill (SB) 32, which is to reduce emissions 40 percent below 1990 levels by 2030. The CARB Scoping Plan is applicable to state agencies and is not directly applicable to cities/counties and individual projects. Nonetheless, the Scoping Plan has been the primary tool used to develop performance-based and efficiency-based CEQA criteria and GHG reduction targets for climate action planning.

Since adoption of the 2008 Scoping Plan, state agencies have adopted programs in the plan, and the legislature has passed additional legislation to achieve the GHG reduction targets. Statewide strategies to reduce GHG emissions include the Low Carbon Fuel Standard (LCFS), California Appliance Energy Efficiency regulations, California Renewable Energy Portfolio standard, changes in the Corporate Average Fuel Economy (CAFE) standards, and other early action measures as necessary to ensure the state is on target to achieve the GHG emissions reduction goals of AB 32. In addition, new buildings are required to comply with the latest applicable Building Energy Efficiency Standards and California Green Building Standards Code (CALGreen). While measures in the Scoping Plan would generally apply to state agencies and not the proposed project, compliance with these statewide measures adopted since AB 32 and SB 32 would reduce the proposed project's GHG

### 3. Environmental Analysis

emissions. Therefore, the proposed project would not obstruct implementation of the CARB Scoping Plan and impacts would be less than significant.

#### **SCAG's Regional Transportation Plan/Sustainable Communities Strategy**

The SCAG Regional Council adopted SCAG's 2016-2040 RTP/SCS on April 7, 2016 (SCAG 2016). SCAG released a draft of the 2020-2045 RTP/SCS (Connect SoCal) on November 7, 2019 (SCAG 2019). The RTP/SCS identifies multimodal transportation investments, including bus rapid transit, light rail transit, heavy rail transit, commuter rail, high-speed rail, active transportation strategies (e.g., bike ways and sidewalks), transportation demand management strategies, transportation systems management, highway improvements (interchange improvements, high-occupancy vehicle lanes, high-occupancy toll lanes), arterial improvements, goods movement strategies, aviation and airport ground access improvements, and operations and maintenance to the existing multimodal transportation system.

The RTP/SCS identifies that land use strategies that focus on new housing and job growth in areas served by high quality transit and other opportunity areas would be consistent with a land use development pattern that supports and complements the proposed regional transportation network from the RTP/SCS. The overarching strategy in the 2016-2040 RTP/SCS is to provide a plan that allows the southern California region to grow in more compact communities in existing urban areas; provide neighborhoods with efficient and plentiful public transit, abundant and safe opportunities to walk, bike and pursue other forms of active transportation; and preserve more of the region's remaining natural lands (SCAG 2016). The 2016-2040 RTP/SCS has transportation projects that help distribute population, housing, and employment growth more efficiently, and it forecasts development that is generally consistent with regional-level general plan data. The projected regional development, when integrated with the proposed regional transportation network from the RTP/SCS, would reduce per capita vehicular travel-related GHG emissions and achieve the GHG reduction per capita targets for the SCAG region.

The RTP/SCS does not require that local general plans, specific plans, or zoning be consistent with the SCS, but offers governments and developers incentives for consistency. The proposed project is a joint-use park within the existing Heideman ES in a residential community and would provide a recreation service to the surrounding community that can be accessed by walking and biking. Consequently, the proposed project is consistent with the overall objectives of SCAG's RTP/SCS. The proposed project would not interfere with SCAG's ability to implement the regional strategies outlined in the RTP/SCS, and impacts would be less than significant. No mitigation measures are required.

### **3.9 HAZARDS AND HAZARDOUS MATERIALS**

Would the project:

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

**Less Than Significant Impact.** Construction activities would involve use of hazardous materials including cleansers and degreasers; fluids used in routine maintenance and operation of construction equipment, such as

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oil and lubricants; fertilizers; pesticides; and architectural coatings including paints. However, the materials used would not be in such quantities or stored in such a manner as to pose a significant safety hazard. These activities would also be short term or one time in nature and would cease upon completion of the construction phase. Project construction workers would also be trained in safe handling and hazardous materials use.

Operation of the proposed park would not involve the use of unusually hazardous materials that could impact surrounding land uses. Project operation would involve the use of small amounts of hazardous materials, such as cleansers, paints, degreasers, adhesive, sealers, fertilizers, and pesticides for cleaning and maintenance purposes. There would be no storage of hazardous waste on the park site.

Furthermore, the use, storage, transport, and disposal of hazardous materials during both construction and operational phases would be governed by existing regulations of several agencies, including the US Environmental Protection Agency, US Department of Transportation, California Division of Occupational Safety and Health, Orange County Health Care Agency, and Orange County Fire Authority (OCFA). Compliance with applicable laws and regulations governing the use, storage, transportation, and disposal of hazardous materials would ensure that all potentially hazardous materials are used and handled in an appropriate manner and would minimize the potential for safety impacts.

Therefore, substantial hazards to the public or the environment arising from the routine use, storage, transport, and disposal of hazardous materials would be less than significant and no mitigation measures are necessary.

**b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?**

**Less Than Significant Impact.** As discussed in Section 3.9.(a), hazards to the public or the environment arising from the routine use of hazardous materials during operation and construction phases would be less than significant. There are no known hazardous materials on the project site other than typical custodial and landscaping related materials, and no known previous site uses that would indicate the presence of hazardous materials. It is not anticipated that construction and operation of the proposed project would create a significant hazard to the public or the environment through reasonably foreseeable upset or accident conditions involving the release of hazardous materials into the environment. Compliance with existing regulations would ensure that construction workers and the general public are not exposed to any unusual or excessive risks related to hazardous materials. Therefore, impacts would be less than significant and no mitigation measures are necessary.

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

**Less Than Significant Impact.** The project site is located on an existing Heideman Elementary School campus. The next closest school to the project site the Saint Jeanne De Lestonnac School, located approximately 0.45 mile from the project site. As discussed in Section 3.9.a and b, hazardous materials used for the proposed project would not create significant hazards to the public or environment. All hazardous materials and substances used would comply with federal, state, and local health and safety regulations. Therefore, impacts related the emission or handling of hazardous or acutely hazardous materials, substances, or wastes within 0.25 mile of an existing or proposed school would be less than significant and no mitigation measures are necessary.

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

**Less Than Significant Impact.** California Government Code Section 65962.5 requires the compiling of lists of the following types of hazardous materials sites: hazardous waste facilities subject to corrective action; hazardous waste discharges for which the State Water Quality Control Board has issued certain types of orders; public drinking water wells containing detectable levels of organic contaminants; underground storage tanks with reported unauthorized releases; and solid waste disposal facilities from which hazardous waste has migrated. The following databases were reviewed for hazardous material site listings on-site or within 0.25 mile of the project site:

- GeoTracker, State Water Resources Control Board (SWRCB 2015)
- EnviroStor, Department of Toxic Substances Control (DTSC 2019)
- EnviroMapper, US Environmental Protection Agency (USEPA 2019)
- EJScreen, US Environmental Protection Agency (USEPA 2018)
- Solid Waste Information System, California Department of Resource Recovery and Recycling (CalRecycle 2019)

As shown in Table 7, *Hazardous Material Site On-Site or within 0.25 Mile of the Project Site*, no hazardous materials sites were listed within the project site. Although there are sites within the project vicinity, project development would be confined to the existing school campus. Therefore, impact to the public or to the environment would be less than significant and no mitigation measures are necessary.

**Table 7 Hazardous Material Site On-Site or within 0.25 Mile of the Project Site**

Site Name & Address	Database	Identifier	Cleanup Status	Proximity to Site
Station Liquor – 16471 McFadden Avenue	GeoTracker	Leaking Underground Storage Tank (LUST)	Open - Site Assessment As Of 3/15/1999	0.24 miles southeast
Advantage Environmental SVC – 1780 E McFadden Avenue Suite 116	EnviroMapper	Transporter	N/A	0.22 miles south
AAMCO Trans #23502 – 1900 E McFadden Avenue	EnviroMapper	Transporter	N/A	0.25 miles southeast

Source: SWRCB 2015; USEPA 2019.

- e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles or a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

**No Impact.** The project site is not within an airport land use plan, and there are no public airports or private airstrips within two miles of the site. The nearest airport is the John Wayne Airport, approximately 4.4 miles southwest. According to Land Use Plan for John Wayne Airport, the project site is not within the Airport Impact Zone (ALUC 2008). Therefore, no impact would occur.

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

**Less Than Significant Impact.** The project site is within the existing Heideman ES campus, and the joint-use park would be used exclusively by the students during school hours and open to public during after school hours from 6:00 pm to 9:00 pm and 9:00 am to 9:00 pm on weekends and holidays. There would be no offsite access improvements to affect any adopted emergency response plan or emergency evacuation plan. There are two existing gated emergency access points that serve the existing school, one from the southern parking lot and one from the norther/eastern parking lot. These two internal emergency access points would continue to serve the school and the joint-use park. As discussed in Section 3.17, *Transportation*, the proposed project is anticipated to generate 74 daily evening trips during weekdays and up to 413 trips on weekends. The proposed joint-use park would not increase the existing school enrollment capacity to affect area traffic during school hours to physically interfere with any adopted emergency response plan, and the evening use of the joint-use park during evening hours (generally from 6 pm to 9 pm), and weekends could be accommodated by the roadway system and existing school facilities that currently accommodate 627 students at the existing school. Therefore, project impacts would be less than significant, and no mitigation measures are required.

**g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?**

**No Impact.** A wildland fire hazard area is typically characterized by areas with limited access, rugged terrain, limited water supply, and combustible vegetation. As shown in Figure 3, *Aerial Photograph*, the project site is in an urbanizing area of the City and is primarily surrounded by residential uses. There is no combustible wildland vegetation on or near the site. The project site is also not located in or next to a Fire Hazard Severity Zone mapped by the California Department of Forestry and Fire Prevention (FRAP 2019b). Therefore, project development would not introduce people or structures to substantial hazards from wildland fires. No impact would occur.

### 3.10 HYDROLOGY AND WATER QUALITY

Would the project:

**a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?**

**Less Than Significant Impact.** Water quality in Tustin is regulated by the Santa Ana Regional Water Quality Control Board and its Water Quality Control Plan (Santa Ana River Basin Plan), which contains water quality standards and identifies beneficial uses for receiving waters along with water quality criteria and standards necessary to support these uses consistent with federal and state water quality laws. As shown in Figure 3, *Aerial Photograph*, the project site is an existing elementary school, and the 3.5-acre main area of disturbance is pervious grass field. Impacts to water quality from receiving waters generally range over three different phases of a development project:

### 3. Environmental Analysis

- During the earthwork and construction phase, when the potential for erosion, siltation, and sedimentation would be the greatest.
- Following construction and before the establishment of ground cover, when the erosion potential may remain relatively high.
- Following project completion, impacts related to sedimentation would decrease markedly, but those associated with urban runoff would increase.

Following is a discussion of the potential water quality impacts resulting from urban runoff that would be generated during the construction and operational phases of the proposed project.

#### **Project Construction**

Construction-related runoff pollutants are typically generated from waste and hazardous materials handling or storage areas, outdoor work areas, material storage areas, and general maintenance areas (e.g., vehicle or equipment fueling and maintenance, including washing). The proposed project's construction phase may cause deterioration in the quality of downstream receiving waters if construction-related sediments or pollutants wash into the existing storm drain system and facilities in the area.

Construction-related activities that are primarily responsible for sediment releases are related to exposing previously stabilized soils to potential mobilization by rainfall/runoff and wind. Such activities include removing vegetation from the site, grading, and trenching for infrastructure improvements. Environmental factors that affect erosion include topographic, soil, wind, and rainfall characteristics. Non-sediment-related pollutants that are also of concern during construction relate to non-stormwater flows and generally include construction materials (e.g., paint and stucco); chemicals, liquid products, and petroleum products used in building construction or the maintenance of heavy equipment; and concrete and related cutting or curing residues. Construction-related activities of the proposed project would generate pollutants that could adversely affect the water quality of downstream receiving waters if appropriate and effective stormwater and non-stormwater management measures are not used to keep pollutants out of and remove pollutants from urban runoff.

Construction projects of one acre or more are regulated under the statewide Construction General Permit (CGP), Order No. 2012-0006-DWQ, issued by the State Water Resources Control Board. Projects obtain coverage by developing and implementing a Stormwater Pollution Prevention Plan (SWPPP) estimating sediment risk from construction activities to receiving waters and specifying best management practices (BMPs) that would be implemented as a part of the project to minimize pollution of stormwater. Categories of BMPs used in SWPPPs are described in Table 8, *Construction Best Management Practices*.

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**Table 8 Construction Best Management Practices**

Category	Purpose	Examples
Erosion Controls and Wind Erosion Controls	Cover and/or bind soil surface, to prevent soil particles from being detached and transported by water or wind	Mulch, geotextiles, mats, hydroseeding, earth dikes, swales
Sediment Controls	Filter out soil particles that have been detached and transported in water.	Barriers such as straw bales, sandbags, fiber rolls, and gravel bag berms; desilting basin; cleaning measures such as street sweeping
Tracking Controls	Minimize the tracking of soil offsite by vehicles	Stabilized construction roadways and construction entrances/exits; entrance/outlet tire wash.
Non-Storm Water Management Controls	Prohibit discharge of materials other than stormwater, such as discharges from the cleaning, maintenance, and fueling of vehicles and equipment. Conduct various construction operations, including paving, grinding, and concrete curing and finishing, in ways that minimize non-stormwater discharges and contamination of any such discharges.	BMPs specifying methods for: paving and grinding operations; cleaning, fueling, and maintenance of vehicles and equipment; concrete curing; concrete finishing.
Waste Management and Controls (i.e., good housekeeping practices)	Management of materials and wastes to avoid contamination of stormwater.	Spill prevention and control, stockpile management, and management of solid wastes and hazardous wastes.

Source: CASQA 2015.

The District's construction contractor is required to prepare and implement an SWPPP and associated BMPs in compliance with the CGP during grading and construction. The SWPPP would specify BMPs, such as those outlined in Table 8, that the construction contractor would implement to protect water quality by eliminating and/or minimizing stormwater pollution prior to and during grading and construction and show the placement of those BMPs. Additional construction BMPs that would be incorporated into the proposed project's SWPPP and implemented during the construction phase include but are not limited to:

- Perimeter control with silt fences and perimeter sandbags and/or gravel bags.
- Stabilized construction exit with rumble strip(s)/plate(s).
- Installation of storm drain inlet protection on affected onsite drains and within roadways.
- Installation of silt fences around stockpile and covering of stockpiles.
- Use of secondary containment around barrels, containers and storage materials that may impact water quality.
- Stabilization of disturbed areas where construction ceases for a determined period of time (e.g., one week) with erosion controls.
- Installation of temporary sanitary facilities and dumpsters.

Adherence to the BMPs in the SWPPP would reduce, prevent, minimize, and/or treat pollutants and prevent degradation of downstream receiving waters. BMPs identified in the SWPPP would reduce or avoid



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contamination of stormwater with sediment and other pollutants such as trash and debris; oil, grease, fuels, and other toxic chemicals; paint, concrete, asphalt, bituminous<sup>5</sup> materials, etc.; and nutrients. Based on the preceding, water quality and waste-discharge impacts from proposed project's grading and construction activities would be less than significant, and no mitigation measures are necessary.

#### Project Operation

Operational-related activities of the proposed project (group gathering space, playgrounds, soccer field, all-weather exercise track, skate pod, etc.) would increase impervious surfaces and generate increase pollutants that could affect the water quality of downstream receiving waters if effective measures are not used to keep pollutants out of and remove pollutants from urban runoff. Requirements for waste discharges to stormwater from operation of developed land uses are set forth in the Municipal Stormwater Permit (MS4 Permit), Order No. R8-2009-0030 as amended by Order R8-2010-0062, issued by the Santa Ana Regional Water Quality Control Board (RWQCB). The proposed project is required to prepare and implement a WQMP pursuant to the MS4 Permit, specifying BMPs to be used during project design and operation to minimize stormwater pollution. The WQMP is required to be prepared in accordance with the Model Water Quality Management Plan and Technical Guidance Document. In compliance with the MS4 Permit, specific nonstructural (e.g., education for staff and visitors, activity restrictions, landscape management, BMP maintenance, litter/debris control, catch basin inspection, street sweeping of driveways and parking lots) and structural source control BMPs (e.g., use efficient irrigation systems and landscape design, water conservation, smart controllers, and source control) would be incorporated into the proposed project. The project site is already developed as an elementary school, and the proposed joint-use park amenities would not involve land uses that could have substantial adverse impacts on the existing water quality. It is anticipated that project conformance with the required BMPs in the WQMP and compliance with applicable local, state, and federal water quality regulations would reduce potential water quality impacts during operation to less than significant level. No mitigation measures are required.

**b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?**

**Less Than Significant Impact.** According to the 2015 Urban Water Management Plan for Tustin, the City will receive approximately 95 percent of its water from groundwater from the Orange County Groundwater Basin (OC Basin) and the rest from the purchased or imported water from the Municipal Water District of Orange County through the East Orange County Water District by 2020. The OC Basin is managed by the Orange County Water District (OCWD). It underlies the northern half of Orange County beneath broad lowlands and covers approximately 350 square miles, bordered by the Coyote and Chino Hills to the north, the Santa Ana Mountains to the northeast, and the Pacific Ocean to the southwest. The City has eight untreated groundwater wells that pump directly into the distribution system and two treatment facilities that treat groundwater from five additional wells. Pumping from the OC Basin is managed through a process that uses financial incentives to encourage groundwater producers to pump a sustainable amount of water. The framework for the financial incentives is based on establishing the basin production percentage, that is, the

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<sup>5</sup> Bituminous = resembling or containing bitumen; bitumen = any of various viscous or solid impure mixtures of hydrocarbons that occur naturally in asphalt, tar, mineral waxes, etc.; used as a road surfacing and roofing material.

### 3. Environmental Analysis

percentage of each producer's total water supply that comes from groundwater pumped from the OC Basin. Groundwater production at or below this percentage is assessed a Replenishment Assessment. The proposed project would include a 1,000-square-foot restroom/office facility, and it would not lead to an increase in groundwater pumping. The project site is already developed as an existing elementary school campus, and the proposed project would serve the existing and future Tustin residents who are already accounted for in the 2015 Urban Water Management Plan. Although the proposed project would increase the impervious surfaces at the project site, the project site does not contain any groundwater wells and does not represent a substantial recharge area. No water features (e.g., streams or creeks) that serve the purpose of groundwater recharge for the area are in the project vicinity. OCWD's groundwater is recharged primarily through artificial replenishment, not natural recharge. Therefore, the proposed project would not substantially interfere with groundwater supplies or recharge. Impacts to groundwater supplies would be less than significant and no mitigation measures are necessary.

**c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:**

**i) Result in a substantial erosion or siltation on- or off-site?**

**Less Than Significant Impact.** See Section 3.10(a). As stated above, the construction contractor would be responsible for preparation and implementation of a SWPPP as defined in the CGP, which includes maintenance of erosion and sediment control during construction. Compliance with NPDES permit and implementation of the SWPPP would ensure that the construction of the proposed project would not result in adverse water quality impacts. Implementation of BMPs identified in the SWPPP would minimize soil erosion impact. Therefore, impacts would be less than significant, and no mitigation measures are necessary.

**ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?**

**Less Than Significant Impact With Mitigation Incorporated.** The project site is already developed as an elementary school and the existing runoff sheet flows to the existing turf field. There are no inlets or other local drainage facilities which the existing school connects to (OCFCD 2008). The proposed project would not substantially alter the existing drainage pattern of the project site, and maintain the existing pattern on-site to the maximum extent feasible. However, the proposed project would increase the impervious surfaces at the project site through provision of various park amenities (e.g., skate area, all-weather track, fitness equipment area), therefore, would be required to implement low impact development features to retain storm water runoff on-site through landscaping and the tactile experience garden feature so that the post-project runoff does not exceed the existing conditions or overflow to the adjacent areas. Provided that adequate LID feature is incorporated to control runoff, impacts would be reduced to a less than significant level.

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#### Mitigation Measure

HYD-1 The Tustin Unified School District shall prepare and implement a water quality management plan in accordance with the Orange County Model Water Quality Management Plan and Technical Guidance Document and demonstrate that the post-development runoff flow rate and volume do not exceed the existing runoff flow rate and volume. The final site plans shall include on-site drainage system and low impact development (LID) treatment design requirements to control and retain on-site stormwater runoff so that post-development storm water runoff conditions do not exceed pre-development conditions.

#### iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

**Less Than Significant Impact With Mitigation Incorporated.** See Section 3.10(c)(i). Grading and drainage improvement plans would be prepared for the proposed project, consistent with local, state, and federal water quality requirements. The proposed project would not create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. All drainage improvements proposed would be in conformance with the grading and drainage improvement plans approved by the Santa Ana RWQCB to reduce potential water quality impacts during construction and operation to less than significant. The proposed project would not connect to the City's existing stormwater infrastructure and it would not increase in rate or amount as compared to existing conditions with implementation of Mitigation Measure HYD-1.

#### Mitigation Measure

See Mitigation Measure HYD-1.

#### iv) Impede or redirect flood flows?

**No Impact.** According to the Federal Emergency Management Agency (FEMA), the project site is not located within flood hazard area. The project site is identified as Zone X, which is defined as areas with minimal flood hazard (FEMA 2009). The proposed project would not construct any large structures or change topography that could impede or redirect flood flows. Therefore, the proposed project would not impede or redirect flood flows and no mitigation measures are necessary.

#### d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

**No Impact.** As discussed above, the project site is not located within a flood hazard zone. A seiche is an oscillating surface wave in a restricted or enclosed body of water, generated by ground motion, usually during an earthquake. Seiches are of concern for water storage facilities, because inundation from a seiche can occur if the wave overflows a containment wall, such as the wall of a reservoir, water storage tank, dam, or other artificial body of water. There are no adjacent or nearby bodies of water that would pose a flood hazard to the site due to a seiche. Therefore, the project site is not at risk of inundation by seiche.

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Tsunamis are a type of earthquake-induced flooding produced by large-scale sudden disturbances of the sea floor. Tsunami waves interact with the shallow sea floor when approaching a landmass, resulting in an increase in wave height and a destructive wave surge into low-lying coastal areas. The project site is approximately 11 miles inland from the Pacific Ocean. Therefore, the site is outside the tsunami hazard zone and would not be affected by a tsunami.

Based on the preceding, the proposed project would not release pollutants as the result of floods, tsunami, or seiche. Therefore, no impact would occur and no mitigation measures are necessary.

**e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?**

**Less Than Significant Impact.** Water quality in the City of Tustin is regulated by Santa Ana Regional Water Quality Control Board and its Basin Plan. The basin plan contains water quality standards and identifies beneficial uses (wildlife habitat, agricultural supply, fishing, etc.) for receiving waters along with water quality criteria and standards necessary to support these uses consistent with federal and state water quality laws. As discussed in Section 3.10.a, above, the project would not violate any water quality standards and would therefore not obstruct the implementation of the Basin Plan. Additionally, the project site is in the Coastal Plain of the Orange County Basin. The basin has a Groundwater Management Plan. As discussed in Sections 3.10.a and b, above, the proposed project would not violate any water quality standards and would not decrease groundwater supplies or interfere substantially with groundwater recharge. Therefore, impacts would be less than significant, and no mitigation measures are necessary.

### 3.11 LAND USE AND PLANNING

Would the project:

**a) Physically divide an established community?**

**No Impact.** The proposed project would occur entirely on an existing school campus and would not divide an established residential community. It is anticipated that all proposed improvements would occur within the existing school boundary, and that no off-site improvements (e.g. construction of new roadways) would be required. Therefore, no impacts would occur and no mitigation measures are necessary.

**b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?**

**Less Than Significant Impact.** The project site is zoned P&I (Public and Institutional) and no changes to the existing land use designation would occur. A public park use is a permitted use in the P&I zoning designation. The proposed project involves development of a join-use park on the existing Heideman ES athletic field. The proposed project would construct a lighted soccer/softball turf field and other various park amenities, which would be used exclusively for the elementary school during school hours. The proposed park would be used by the public in the evening hours and weekends, and would not conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project. The proposed project would

### 3. Environmental Analysis

not conflict with the existing use of the project site as an elementary school or with surrounding residential land uses. Therefore, no substantial changes in land use would occur, and impacts would be less than significant. No mitigation measures are necessary.

#### 3.12 MINERAL RESOURCES

Would the project:

- a) **Result in the loss of availability of a known mineral resource that would be a value to the region and the residents of the state?**

**No Impact.** According to the California Geological Survey, the project site is located in mineral resource zone 3 (MRZ-3), which is defined as areas with mineral occurrences of undetermined mineral resource significance (CGS 1981). According to the City of Tustin General Plan, the only mineral resource identified within the City is the mercury-barite deposit in Red Hill (Tustin 2018b). The project site does not contain known mineral resources of value to the region and the residents of the state. Additionally, the nearest mines to the project site mapped on the Office of Mine Reclamation's Mines Online website are two sand and gravel mines, the R.J. Noble Company Mine and the Irvine Mine, both about 6.09 miles northwest and 8.23 miles northeast of the sites, respectively (OMR 2019). Implementation of the proposed project would not cause a loss of availability of known mineral resources. No impact would occur, and no mitigations measures are required.

- b) **Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?**

**No Impact.** According to the City of Tustin General Plan, there are no designated mining sites in the vicinity of the project site. The project site is surrounded by residential uses that would be incompatible with mining. Therefore, project implementation would have no impact on a mineral resource recovery site, and no mitigation measures are required.

#### 3.13 NOISE

Noise is defined as unwanted sound and is known to have several adverse effects on people, including hearing loss, speech and sleep interference, physiological responses, and annoyance. Based on these known adverse effects of noise, the federal, state, and city governments have established criteria to protect public health and safety and to prevent the disruption of certain human activities, such as classroom instruction, communication, or sleep. Fundamentals of noise and vibration, additional local regulatory background information, and construction noise modeling worksheets are included in Appendix E.

##### Environmental Setting

The noise environment surrounding the project site is influenced primarily by existing school activities, rail noise, and traffic noise from local roadways and nearby highways (i.e., SR-55 and I-5). Baseline noise contours from Tustin's General Plan Noise Element show the project outside the 65 dBA CNEL noise contour.

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#### **Sensitive Receptors**

Certain land uses are particularly sensitive to noise and vibration. These uses include residences, schools, hospital facilities, houses of worship, and open space/recreation areas where quiet environments are necessary for the enjoyment, public health, and safety of the community. The proposed project is in the City of Tustin and borders the City of Santa Ana to the west. The nearest sensitive receptors are the surrounding residences adjacent to the project site in both cities. In addition to residential sensitive receptors, the students at Heideman ES would be considered on-site sensitive receptors when school is in session.

#### **Ambient Noise Measurements**

To determine baseline noise levels within the project vicinity, ambient noise monitoring was conducted by PlaceWorks staff on Wednesday, January 15, 2020. Measurements were made in the evening hours (between 8:00 PM and 9:30 PM) at three short-term (15-minute) measurement locations.

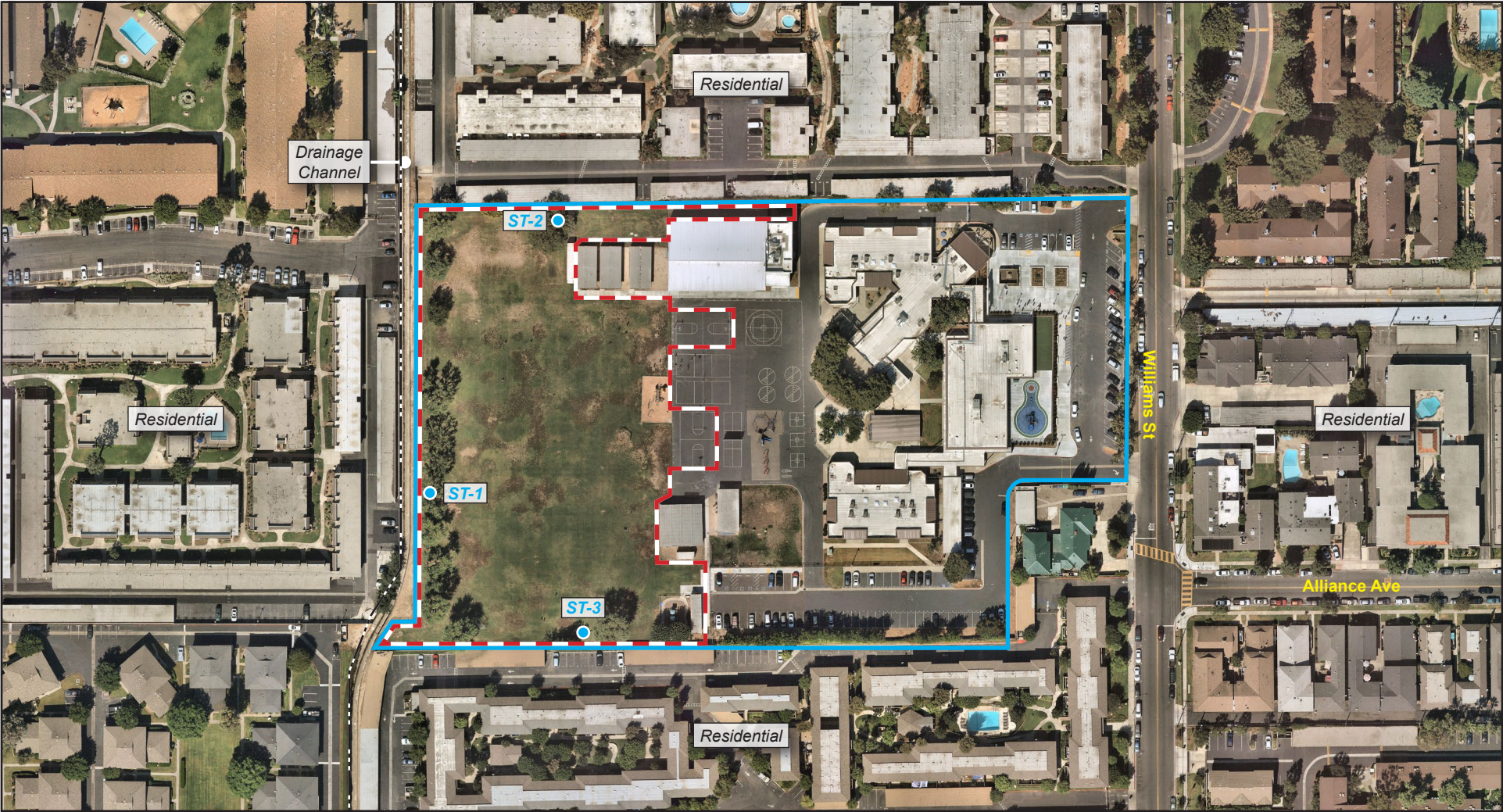
The primary noise source during measurements was traffic noise. Secondary noise sources included birds, train horns, and aircraft overflights. Meteorological conditions during the measurement period were favorable for outdoor noise monitoring and were representative of the typical conditions for the season. Generally, conditions included mostly clear skies with evening temperatures of 49 degrees Fahrenheit (°F), and average wind speeds of 1 mile per hour (mph). The sound level meter was equipped with a windscreen during all sound measurements.

The Larson Davis LxT sound level meter used for noise monitoring satisfies the American National Standards Institute (ANSI) standard for Type 1 instrumentation. The sound level meter was set to “slow” response and “A” weighting (dBA). The meter was calibrated prior to and after the noise monitoring period. All measurements were at least five feet above the ground and away from reflective surfaces. Noise measurement locations are described below and shown in Figure 7, *Approximate Noise Monitoring Locations*.

- Short-Term Location 1 (ST-1) was near the western edge of the project site abutting the Village Meadows Santa Ana Apartments (Santa Ana). A 15-minute noise measurement was conducted, beginning at 8:29 PM on Wednesday, January 15, 2020. The noise environment of this site is characterized primarily by traffic noise from I-5 and SR-55. Secondary noise sources included train horns and aircraft overflights. Noise levels generally ranged from 51 dBA to 66 dBA.
- Short-Term Location 2 (ST-2) was near the northern edge of the project site abutting the Monterey Pines Apartments (Tustin). A 15-minute noise measurement was conducted, beginning at 8:47 PM on Wednesday, January 15, 2020. The noise environment of this site is characterized primarily by traffic noise from I-5 and SR-55. Secondary noise sources included train horns and aircraft overflights. Noise levels generally ranged from 53 dBA to 65 dBA.



Figure 7 - Approximate Noise Monitoring Locations



- School Boundary
- - - Project Boundary
- **ST-X** Short-Term Noise Measurement Locations (3)

Source: Nearmap, 2019

0 175  
Scale (Feet)



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- Short-Term Location 3 (ST-3) was near the southern edge of the project site abutting the Stonebrook Apartments (Tustin). A 15-minute noise measurement was conducted, beginning at 8:12 PM on Wednesday, January 15, 2020. The noise environment of this site is characterized primarily by traffic noise from I-5 and SR-55. Secondary noise sources include birds and aircraft overflights. Noise levels generally ranged from 46 dBA to 61 dBA.

During noise measurements it was observed that the northern and western adjacent properties do not have existing walls. The southern property line of the project site has a wall, with a portion approximately 10 feet high, and the rest approximately 6 feet high.

#### *Ambient Noise Monitoring Results*

The short-term measurement results are summarized in Table 9, *Short-Term Noise Measurements Summary*.

**Table 9 Short-Term Noise Measurements Summary**

Monitoring Location	Description	15-minute Noise Level in dBA <sup>1</sup>			
		Leq	Lmax	Lmin	L50
ST-1	Heideman ES: Western edge of project site – 8:29 PM, 1/15/2020	54.7	66.8	51.0	53.1
ST-2	Heideman ES: Northern edge of project site – 8:47 PM, 1/15/2020	55.8	65.1	52.5	55.6
ST-3	Heideman ES: Southern edge of project site – 8:12 PM, 1/15/2020	50.7	61.7	46.6	49.9

<sup>1</sup> dBA = A-weighted sound levels

#### **City of Tustin Standards**

The City of Tustin's noise standards are set forth in its Municipal Code Chapter 6, Noise Control. Table 10, *City of Tustin Exterior Noise Limits*, summarizes exterior noise standards by zone and time of day. In addition to exterior noise standards, applicable exceptions, exemptions, and prohibited noise sources and activities are also provided.

**Table 10 City of Tustin Exterior Noise Limits**

Zone	Time Period	Allowable Noise Level, dBA
Residential	7:00 AM to 10:00 PM	55
	10:00 PM to 7:00 AM	50
Commercial	Anytime	60
Industrial	Anytime	70
All special properties such as hospitals, convalescent homes, public and institutional schools, libraries and churches.	7:00 AM to 10:00 PM	55
	10:00 PM to 7:00 AM	50
All Mixed-Use Properties	Anytime	60

Source: City of Tustin Municipal Code, Chapter 6, Noise Control.

Notes:

Exterior noise standards may not be exceeded for a cumulative period of more than 30 minutes in any hour (L<sub>50</sub>)

Exterior noise standards may not be exceeded by 5 dBA for a cumulative period of more than 15 minutes in any hour (L<sub>25</sub>)

Exterior noise standards may not be exceeded by 10 dBA for a cumulative period of more than 5 minutes in any hour (L<sub>5</sub>)

Exterior noise standards may not be exceeded by 15 dBA for a cumulative period of more than 1 minutes in any hour (L<sub>2</sub>)

Exterior noise standards may not be exceeded by 20 dBA for less than 1 minute (L<sub>max</sub>).

In the event the ambient noise level exceeds either of the first four noise limit categories above, the cumulative period applicable to said category shall be increased to reflect said ambient noise level.

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#### *Prohibited*

Construction of any building or site is prohibited between the hours of 6:00 PM and 7:00 AM, Monday through Friday, and between 5:00 PM and 9:00 AM on Saturdays. Construction is prohibited Sundays and City-observed federal holidays. Construction vehicles, trucks, and equipment involved with material deliveries, loading, transfer of materials, equipment service, and maintenance of any devices shall not be operated or adjacent to the project site outside of the allowable construction hours.

Ongoing maintenance for the joint-use park would be subject to the City's property maintenance equipment hours of operation of 7:00 am to 10:00 pm, Monday through Friday and 9:00 am to 10:00 pm on Saturdays. Unusually loud maintenance activity is prohibited on Sundays and City-observed federal holidays.

#### *Exemptions*

The following are exempt from the Tustin Municipal Code noise standards under Chapter 6-4617, Exemptions:

- Noise from activities conducted on the public or private schools that include nursery, elementary, intermediate, secondary, and college.
- Noise from activities conducted on any park or playground provided such park or playground is owned and operated by a public entity.
- Construction noise is exempt between the hours of 7:00 AM to 6:00 PM Monday through Friday and 9:00 AM to 5:00 PM Saturdays.

#### **City of Santa Ana Standards**

The project site is adjacent to residential uses in Santa Ana. The City of Santa Ana standards are shown in Table 11, *City of Santa Ana Exterior Noise Limits*, and would apply to project noise affecting residences in Santa Ana.

**Table 11 City of Santa Ana Exterior Noise Limits**

Zone	Time Period	Allowable Noise Level, dBA
All Residential	7:00 AM to 10:00 PM	55
	10:00 PM to 7:00 AM	50

Source: City of Santa Ana Municipal Code.

Notes:

Exterior noise standards may not be exceeded for a cumulative period of more than 30 minutes in any hour ( $L_{50}$ )

Exterior noise standards may not be exceeded by 5 dBA for a cumulative period of more than 15 minutes in any hour ( $L_{25}$ )

Exterior noise standards may not be exceeded by 10 dBA for a cumulative period of more than 5 minutes in any hour ( $L_5$ )

Exterior noise standards may not be exceeded by 15 dBA for a cumulative period of more than 1 minutes in any hour ( $L_2$ )

Exterior noise standards may not be exceeded by 20 dBA for less than 1 minute ( $L_{max}$ ).

In the event the ambient noise level exceeds any of the first four noise limit categories above, the cumulative period applicable to said category shall be increased to reflect said ambient noise level.

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#### *Exemptions*

In addition to exterior noise standards, the following are exempt from the Santa Ana Municipal Code noise standards under Section 18-314, Special Provisions:

- Activities conducted on the grounds of any public or private nursery, elementary, intermediate or secondary school or college.
- Activities conducted on any park or playground, provided such park or playground is owned and operated by a public entity.
- Noise sources associated with construction, repair, remodeling, or grading of any real property, provided said activities do not take place between the hours of 8:00 PM and 7:00 AM on weekdays including Saturday, or any time on Sunday or federal holidays.
- Noise sources associated with the maintenance of real property during the hours of 7:00 AM and 8:00 PM Monday through Saturday and 9:00 AM to 8:00 PM on Sundays and federal holidays.

Would the project result in:

- a) **Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?**

**Less Than Significant Impact.**

#### **Construction**

Two types of short-term noise impacts could occur during construction: (1) mobile-source noise from transport of workers, material deliveries, and debris and soil haul and (2) stationary-source noise from use of construction equipment. Construction activity is anticipated to begin in the summer of 2020 and last 12 months.

#### *Construction Vehicles*

The transport of workers and materials to and from the construction site would incrementally increase noise levels along site access roadways. Individual construction vehicle pass-bys may create momentary noise levels of up to approximately 85 dBA  $L_{max}$  at 50 feet from the worker and vendor vehicles. However, these occurrences would generally be infrequent and short-lived. No soil import or export is anticipated for the proposed project; therefore, no haul trips are assumed.

Worker and vendor trips are anticipated to total a maximum of 20 daily trips. When compared to existing average daily volumes in the vicinity of the project site (see Table 13, *Estimated Project Traffic Noise Increase*), this would result in a noise increase of less than 0.1 dBA CNEL, which is a negligible increase. Temporary noise impacts associated with construction vehicles would be less than significant.

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#### Construction Equipment

Noise generated by on-site construction equipment is based on the type of equipment used, its location relative to sensitive receptors, and the timing and duration of noise-generating activities. Each stage of construction involves different kinds of equipment and has distinct noise characteristics. Noise levels from construction activities are typically dominated by the loudest equipment. The dominant equipment noise source is typically the engine, although work-piece noise (such as dropping of materials) can also be noticeable.

The noise produced at each construction stage is determined by combining the  $L_{eq}$  contributions from each piece of equipment used at a given time, while accounting for the ongoing time-variations of noise emissions. Heavy equipment, such as a dozer or a loader, can have maximum, short-duration noise levels of up to 85 dBA at 50 feet. However, overall noise emissions vary considerably, depending on the specific activity performed at any given moment. Noise attenuation due to distance, the number and type of equipment, and the load and power requirements to accomplish tasks at each construction phase would result in different noise levels from construction activities at a given receptor. Since noise from construction equipment is intermittent and diminishes at a rate of at least 6 dBA per doubling of distance (conservatively ignoring other attenuation effects from air absorption, ground effects, and shielding effects), the average noise levels at noise-sensitive receptors could vary considerably, because mobile construction equipment would move around the site with different loads and power requirements. Noise levels from project-related construction activities were calculated from the simultaneous use of the three loudest pieces of construction equipment at spatially averaged distances (i.e., from the acoustical center of the general construction site) to the property line of the nearest receptors. Although construction may occur across the entire phase area, the area around the center of construction activities best represents the potential average construction-related noise levels at the various sensitive receptors.

The expected construction equipment mix was categorized by construction activity using the Federal Highway Administration's (FHWA) Roadway Construction Noise Model (RCNM). The associated, aggregate sound levels—grouped by construction activity—are summarized in Table 12, *Project-Related Construction Noise*. RCNM modeling input and output worksheets are included in Appendix E.

**Table 12 Project-Related Construction Noise**

Construction Activity Phase <sup>1</sup>	Nearest off-site Sensitive Receptors	
	Residential 150 feet – in Santa Ana <sup>1</sup> (dBA $L_{eq}$ )	Residential 250 feet – in Tustin (dBA $L_{eq}$ )
Demolition	75.0	70.6
Site Preparation	73.3	78.9
Grading	73.6	69.2
Park Construction	72.9	68.5
Architectural Coating	64.1	59.7
Landscaping	67.2	62.8

Notes: Calculations performed with the FHWA's RCNM software are included in Appendix E.

Measurements are estimated using Google Earth and measured from the acoustical center of the proposed project construction site.

<sup>1</sup> Same distance and results as nearest on-site sensitive receptor – Daycare Center.

### 3. Environmental Analysis

#### Off-Site Receptors

Neither the City of Tustin nor the bordering City of Santa Ana has construction noise thresholds. Therefore, the Federal Transit Administration (FTA) criterion of 80 dBA  $L_{eq}$  (8hr) is used to determine significance. As shown in Table 12 above, the nearest sensitive receptor is approximately 150 feet to the west in the City of Santa Ana. To the north and south are residential uses in Tustin (Monterey Pines Apartments and Stonebrook Apartments) at approximately 250 feet. Noise levels could reach up to 75 dBA  $L_{eq}$  on average at the nearest residents and would diminish with distance. Construction noise due to implementation of the proposed project is not estimated to exceed the threshold of 80 dBA  $L_{eq}$  (8hr) and, therefore, would be less than significant.

#### On-Site School Receptors

On-site school buildings or interior spaces are considered noise-sensitive receptors if used as a learning environment such as classrooms (i.e., not administration offices). Because construction is expected to last 12 months, construction is anticipated to overlap with school operations. Under the California Green Building Standards Code (CALGreen) performance method for nonresidential uses, a project must demonstrate that interior noise levels do not exceed 50 dBA  $L_{eq}$  (1hr). While this criterion is intended for use during the design-build portion of a new project and not necessarily for the effect of project construction on sensitive receptors, an interior noise threshold of 50 dBA  $L_{eq}$  (1hr) is reasonable to assess the potential impact to the on-site learning environment in terms of possible speech interference.

The nearest on-site receptor is the daycare center, which could experience exterior noise levels of up to 75 dBA on average (see Table 12 notes). Typical interior-to-exterior noise attenuation is 25 dBA with windows closed. Interior noise levels would, therefore, be 50 dBA  $L_{eq}$  (1hr) or less on average. Therefore, construction noise impacts to on-site students would be less than significant.

#### Mobile Noise

The proposed project would generate weekday and weekend trips. The projected traffic noise increase is determined by comparing the project's daily trip generation to existing average daily traffic volumes (ADT). The project is estimated to generate up to 74 weekday daily trips and up to 413 on weekend trips. Table 13, *Estimated Project Traffic Noise Increase*, shows the existing ADT for roadway segments in the vicinity of the project site and the associated traffic noise increase using the worst-case scenario of 413 weekend trips. This conservatively assumes that all trips would occur on a given roadway.

**Table 13 Estimated Project Traffic Noise Increase**

Roadway Segment	ADT	Noise Increase, dBA CNEL
Williams St. – McFadden Ave. to Main St.	7,700	0.2
Tustin Village Way – North of McFadden Ave.	6,500	0.3
McFadden Ave. – West of Williams St.	26,600	0.1
McFadden Ave. – East of Williams St.	25,200	0.1
Main St. – Williams St. to Pacific St.	11,900	0.2

Source: Tustin 2018c.

### 3. Environmental Analysis

A significant impact could occur if an increase of 3 dBA CNEL or higher would result due to project-related traffic. As shown in Table 13, the estimated traffic noise increase due to the project would be 0.3 dBA CNEL or less, and this impact would be less than significant. No mitigation measures are required.

#### **Stationary Noise**

The proposed park would be developed on an existing turf field of Heideman ES and would be a joint-use park with the City of Tustin. The park would be exclusive to Heideman ES students during school hours and would be open to the public on weekends and holidays (9:00 am to 9:00 pm) and during the evening hours of 6:00 pm to 9:00 pm on weekdays. The project site is an existing turf field used for physical education and other outdoor school activities. The project site also has existing playground equipment, hardcourts, and basketball courts around the turf field.

The proposed joint-use park would have a turf soccer/softball field surrounded by all-weather exercise track, meandering trail, a 1,300-square-foot skate pod, tactile experience garden, a playground, outdoor fitness equipment area, picnic tables and game tables, and two basketball courts. The two basketball courts would be resurfaced and repainted and not newly constructed. The skate pod would be on the northwest corner within the bounds of the proposed track. The tactile experience garden would also be on the northwest corner, outside the bounds of the proposed track. On the south end of the proposed park there would be playgrounds and group gathering space within the bounds of the proposed track. Some of the fitness equipment is proposed within the track and outside the track loop.

The proposed joint-use park would not result in an increase of students or staff, and the space is already utilized by the school during school hours. The proposed joint-use park would be open to the public in the evening hours until 9:00 pm, which is compatible with daytime hours (7:00 am to 10:00 pm) per the Tustin and Santa Ana municipal codes. The proposed project does not include any amplified sound such as a PA system or bleachers for spectators, and the skate pod would be designed for beginner skaters.

Noise measurements taken at a local skate park (Harvard Skate Park in Irvine) indicate that typical skate park evening noise levels are approximately 54 dBA L<sub>50</sub> at 25 feet from the edge of the skate area. The nearest residences to the proposed skate area are approximately 50 feet or more to the north and west. At this distance, skate park noise is anticipated to be approximately 48 dBA L<sub>50</sub>. This is a conservative estimate because the local skate park where the measurements were taken is a larger facility with more skaters. Though public and school parks are exempt from the exterior noise standards by the Tustin and Santa Ana municipal codes, future evening noise levels are not anticipated to exceed the standard of 55 dBA L<sub>50</sub> of both Tustin and Santa Ana. Noise from the proposed turf field is not expected to be substantial since no spectator bleachers are proposed and there would be no PA system. Residences south of the proposed turf field and play structures would be benefited by the existing 6- to 10-foot wall along the southern property line. Noise related to the proposed park activities would be less than significant, and no mitigation measures are required.

#### **b) Generation of excessive groundborne vibration or groundborne noise levels?**

**Less Than Significant Impact With Mitigation Incorporated.**

### 3. Environmental Analysis

#### Construction Vibration

Construction operations can generate varying degrees of ground vibration, depending on the construction procedures and equipment. Operation of construction equipment generates vibrations that spread through the ground and diminish with distance from the source. The effect on buildings in the vicinity of the construction site varies depending on soil type, ground strata, and receptor-building construction. The effects from vibration can range from no perceptible effects at the lowest vibration levels, to low rumbling sounds and perceptible vibrations at moderate levels, to slight structural damage at the highest levels. Vibration from construction activities rarely reaches the levels that can damage structures.

For reference, a vibration level of 0.2 inches per second (in/sec) peak particle velocity (PPV) is used as the limit for nonengineered timber and masonry buildings (which would apply to the surrounding residential structures) and 0.3 in/sec PPV for engineered concrete and masonry (no plaster), which would apply to the surrounding car ports (FTA 2018). Table 14, *Vibration Levels for Typical Construction Equipment*, summarizes vibration levels for typical construction equipment at the nearest sensitive receptors. To determine a significance impact, distances are measured from the edge of the construction site to the nearest structure.

**Table 14 Vibration Levels for Typical Construction Equipment**

Equipment	PPV (in/sec) at 25 feet	PPV (in/sec) at 40 feet	PPV (in/sec) at 12 feet
Large Bulldozer	0.089	0.04	0.27
Loaded Trucks	0.079	0.04	0.23
Jackhammer	0.035	0.02	0.11
Small Bulldozer	0.003	<0.01	0.01

Source: Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual*, September 2018.

The nearest residential structure are the residential structures to the south at approximately 40 feet. As shown in Table 14, at a distance of 40 feet, vibration levels would be less than 0.2 in/sec PPV and, therefore, would be less than significant.

The nearest car port structures are adjacent to the north, south and west of the project site. As shown in Table 14, vibration levels could exceed 0.3 in/sec PPV if large bulldozers operate at distances less than 12 feet. Therefore, this impact is considered potentially significant. Mitigation Measure N-1 would reduce this impact to a level of less than significant.

#### Operational Vibration

The operation of the proposed project would not include any substantial long-term vibration sources such as rail or subways. Therefore, no significant vibration effects from operations sources would occur.

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#### Mitigation Measure

##### *Construction Vibration*

N-1                      Grading and earthwork activities within 12 feet of adjacent car ports shall be conducted with off-road equipment that is limited to 100 horsepower or less (e.g., a small bulldozer).

- c) **For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?**

**No Impact.** The nearest airport to the project site is the John Wayne Airport, approximately four miles south. The latest 2018 annual noise contour map shows the project site outside the 60 dBA CNEL noise contour. Therefore, the project would not expose people residing or working in the project area to excessive noise levels. There would be no impact.

### 3.14 POPULATION AND HOUSING

Would the project:

- a) **Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?**

**No Impact.** The proposed project does not include the development of new homes or businesses that could potentially induce population in the area and would not extend off-site infrastructure to indirectly cause population growth. The proposed project would continue to serve the existing and future students at Heideman ES, while meeting the recreational demands of the existing and future residents in the area. The proposed project is not a growth-inducing project, and no impact to population and housing would occur. No mitigation measures are necessary.

- b) **Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?**

**No Impact.** As shown in Figure 3, *Aerial Photograph*, the project site consists of a grass field for the elementary school, and no housing exists on-site. Therefore, project development would not displace housing or people. No impact would occur, and no mitigation measures are necessary.

### 3.15 PUBLIC SERVICES

Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:



### 3. Environmental Analysis

#### a) Fire protection?

**Less Than Significant Impact.** Fire protection and emergency medical services are provided to the City by the Orange County Fire Authority. The City is served by three fire stations, and the nearest station to the project site is Station 72 at 1668 East 4th Street, approximately 0.74 mile northwest of the project site.

Project implementation could result in a slight increase in calls for fire protection and emergency medical service. However, the proposed project would mainly serve the existing community, already served by OCFA, and would not increase the overall population of the city.

The joint-use park would be served by two on-site emergency access points, one from the north boundary and one from the main entrance of the joint-use park. All site improvements, including emergency vehicle access proposed as a part of the project, would be subject to review and approval by DSA and OCFA.

Furthermore, development of the proposed project is required to comply with the most current adopted fire codes, building codes, and nationally recognized fire and life safety standards, which impose design standards and requirements that seek to minimize and mitigate fire risk. The proposed project is not a growth-inducing project, and it would not adversely affect OCFA's ability to provide adequate service and would not require new or expanded fire facilities that could result in adverse environmental impacts. Therefore, impacts would be less than significant, and no mitigation measures are necessary.

#### b) Police protection?

**Less Than Significant Impact.** The Tustin Police Department (TPD) provides police protection to the City of Tustin and is headquartered at 300 Centennial Way, approximately 1.6 driving miles northeast of the project site. The project site is in the South Area Command. TPD has 100 sworn officers, 48 civilian employees, a fully equipped SWAT team, a gang reduction team, a community engagement team, and other specialized units/equipment (including bicycles) that would assist in suppressing crime and keeping the users of the park safe.

Driving time from TPD headquarters is between 4 and 12 minutes, depending on the time of day, and approximately 10 and 20 minutes from other patrol areas of the City, depending on the time of day. Because TPD officers already patrol the area around Heideman ES regularly, the officers assigned to that area would be able to respond in a timely manner (TPD 2019).

The calls from a park would involve dogs off leash, transient problems, medical aids, use of park after hours, illegal fireworks, and various disturbances. However, the TPD does not anticipate a substantial increase in service calls from the proposed joint use park. The TPD indicated that the proposed project would not have a significant impact on the TPD's ability to provide police services to the area surrounding the project site or any other locations in the city. TPD also has appropriate emergency vehicle access on both sides of the park, which is vital for the safety and security of the park and its users. Although the proposed project could slightly increase the number of calls, the current TPD staffing has the ability to provide the appropriate response while maintaining the high standards for response time. Based on the preceding, the proposed project would not adversely affect TPD's ability to provide adequate service and would not require new or expanded police

### 3. Environmental Analysis

facilities that could result in adverse environmental impacts. Impacts would be less than significant, and no mitigation measures are necessary.

#### c) Schools?

**No Impact.** Demand for schools in an area is usually determined by the area's population. The proposed project does not include the development of new homes, which lead to an increase in student generation and the need for additional school facilities. The proposed project would not induce population growth in the area, either directly or indirectly. Project implementation would result in an improvement to the existing Heideman ES facilities, and would therefore be beneficial for existing and future elementary school students and staff. Therefore, no impact would occur, and no mitigation measures are necessary.

#### d) Parks?

**No Impact.** See response to Section 3.16.a, below. As substantiated in that section, no impact would occur, and no mitigation measures are necessary.

#### e) Other public facilities?

**No Impact.** The need for new or the expansion of existing library services and facilities is tied to population growth. No residential development is proposed as a part of the proposed project, and project development is not expected to generate a need for new or additional library service or facilities. The proposed project involves the development of a joint-use park on an existing elementary school campus. Therefore, no impact to library services and facilities would occur and no mitigation measures are necessary.

### 3.16 RECREATION

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

**No Impact.** Demand for parks and recreational facilities in an area are usually determined by the area's population. The proposed project does not include the development of new homes, which lead to an increase in population and the need for additional park and recreation facilities. The proposed project would provide additional recreational amenities for the Heideman ES students and local residents. Therefore, the proposed project would not increase the use of existing neighborhood and regional parks or other recreational facilities. The proposed project would be beneficial for the existing neighborhood recreational facilities by increasing park supplies in the area. No impact to park and recreational facilities would occur, and no mitigation measures are necessary.

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

**Less Than Significant Impact.** As discussed above, the proposed project involves the development of a new joint-use park. Physical impacts associated with construction of the proposed project are evaluated throughout

## 3. Environmental Analysis

this initial study. The proposed project would not result in physical environmental impacts to other area recreational facilities. Therefore, impacts would be less than significant, and no mitigation measures are necessary.

### 3.17 TRANSPORTATION

Would the project:

- a) **Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?**

**Less Than Significant Impact.**

#### **Impact to Roadway Facilities**

##### *Surrounding Street System*

Roadways in the project vicinity include Williams Street and East Main Street.

**Williams Street** is a 2-lane road with a speed limit of 30 miles per hour and is classified as a Secondary Arterial in the City of Tustin General Plan (Tustin 2008). Curbside parking is allowed on both sides of the roadway. On Thursdays, parking restrictions are in place 7 to 11 AM on the eastern side and on Fridays 7 to 11 AM on the western side for street sweeping. In the study area the intersections along the street are stop-controlled. At the Williams Street and Alliance Avenue intersection there are two school yellow pedestrian crossings.

**East Main Street** is a 2-lane road with two-way left-turn-lane median and speed limit of 35 miles per hour. It is classified as a Divided Collector in the City of Tustin General Plan (Tustin 2008). Curbside parking is allowed on both sides of the roadway. In the study area the intersections along the street are signal-controlled.

##### *Existing Traffic Conditions*

Existing access to the school is through the driveway on Williams Street, which also leads to the school's parking lot and student drop-off/pick-up zone. The project site is currently only accessible by students and staff and not open to the public. Usage of the project site is only during school hours.

##### *Project Traffic Impacts*

Roadway capacity is generally limited by the ability to move vehicles through intersections. A level of service (LOS) is a standard performance measurement to describe the operating characteristics of a street system in terms of the level of congestion or delay experienced by motorists. Service levels range from A through F, which relate to traffic conditions from best (uncongested, free-flowing conditions) to worst (total breakdown with stop-and-go operation). The methodology used to assess the operation of a signalized intersection is based on the Highway Capacity Manual (HCM). The intersection LOS analysis is based on the traffic volumes observed during the peak hour conditions. The peak hours selected for analysis are the highest volumes that occur in four consecutive 15-minute periods from 7:00 am to 9:00 am and from 2:00 pm to 4:00 pm on weekdays. The HCM signalized intersection methodology presents LOS in terms of control delay (in seconds

### 3. Environmental Analysis

per vehicle). Table 15, *Intersection Level of Service Descriptions*, describes the level of service concept and the operating conditions expected under each level of service for signalized and unsignalized intersections. According to the City of Tustin Circulation Element, Table C-2, LOS D is considered acceptable at all roadways, except for facilities in the congestion management network, where LOS E is acceptable.

**Table 15 Intersection Level of Service Descriptions**

LOS	Description	Average Delay Per Vehicle (seconds)	
		Signalized	Unsignalized
A	Level of Service A occurs when progression is extremely favorable and most vehicles arrive during the green phase. Most vehicles do not stop at all. Short cycle lengths may also contribute to low delay.	0 to 10.00	0 to 10.00
B	Level of Service B generally occurs with good progression and/or short cycle lengths. More vehicles stop than for Level of Service A, causing higher levels of average total delay.	10.01 to 20.00	10.01 to 15.00
C	Level of Service C generally results when there is fair progression and/or longer cycle lengths. Individual cycle failures may begin to appear in this level. The number of vehicles stopping is significant at this level, although many still pass through the intersection without stopping.	20.01 to 35.00	15.01 to 25.00
D	Level of Service D generally results in noticeable congestion. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high volume to capacity ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.	35.01 to 55.00	25.01 to 35.00
E	Level of Service E is considered to be the limit of acceptable delay. These high delay values generally indicate poor progression, long cycle lengths, and high volume to capacity ratios. Individual cycle failures are frequent occurrences.	55.01 to 80.00	35.01 to 50.00
F	Level of Service F is considered to be unacceptable to most drivers. This condition often occurs with oversaturation, i.e., when arrival flow rates exceed the capacity of the intersection. It may also occur at high volume to capacity ratios below 1.00 with many individual cycle failures. Poor progression and long cycle lengths may also be major contributing causes to such delay levels.	80.01 and up	50.01 and up

Source: Highway Capacity Manual, Transportation Research Board.

As discussed in Section 1.3.1.1, proposed project would result in the development of joint-use park with a grass soccer field and several park features—including an exercise track, playgrounds, a skate pod, and lighting of two existing basketball courts—that would be available for public use. The soccer field would not include bleachers. The proposed project would not increase the school's student capacity but is expected to increase traffic and parking demand around the project site due to the expanded public usage on weekday evenings and weekends. The trip generation was calculated based on rates in the ITE Trip Generation Manual (10th edition) for public parks and soccer fields. Table 16, *Proposed Trip Generation Summary*, shows the trip generation rates applicable to the proposed project. Trip rates for public parks include features such as soccer fields, hard courts, picnic areas, playground equipment, skate pods, and other recreational uses that are typical park features, and so are accounted for in the trip generation estimates. The skate pod is small, with an area of 1,300 square feet, and designed for beginner skaters. For these reasons, it is not anticipated to be a regional draw for skaters but

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is considered a park feature, with its trips already accounted for under the “public park” trip rates. Although trip rates for public parks include features such as soccer fields, to be conservative, the turf field area for soccer games was estimated separately using the rates for a soccer field, which are higher compared to rates for a typical public park. The rates assumed that it would host soccer games and practices for soccer leagues.

Table 16, *Proposed Trip Generation Summary*, shows the project trip generation for the weekday, Saturday, and Sunday on a daily basis and during the peak hours. As shown in the table, the proposed project is expected to generate 74 average daily trips and 19 trips during the PM peak hour on weekdays. On Saturdays and Sundays, the proposed project is expected to generate up to 413 average daily trips. The park and soccer field users would use the same access driveways and parking lot; no changes to the circulation system would occur with the proposed project. According to the City of Tustin traffic counts database, the existing daily traffic volume on Williams Street is 7,700 (Tustin 2020). The proposed project would add up to 74 daily trips, which is an 0.96 percent increase. During the PM peak hour the number of trips would be 19, which is negligible. Although weekend daily trips volumes are not available, it should be noted that weekend traffic volumes on roads are generally less than the weekday volume since there is no school traffic and commuter traffic. Addition of up to 413 trips on weekends on Williams Street, which handles 7,700 trips on weekdays, would not be considered a significant impact. The number of project trips generated are small in comparison to the existing traffic and would not cause a significant impact at any facility. Based on the preceding, the proposed project would not result in a conflict with a program, plan, ordinance, or policy addressing the roadway facilities, and impacts would be less than significant.

**Table 16 Proposed Trip Generation Summary**

Land Use	Unit	Daily	Weekday PM Peak			Saturday <sup>4</sup>		Sunday <sup>5</sup>	
			In	Out	Total	Daily	Total Peak	Daily	Peak Total
Trip Generation Rates									
Soccer Field <sup>1</sup>	Field	71.33	10.84	5.59	16.43	404.88	40.1	N/A	28.78
Public Park <sup>2</sup>	Acre	0.78	0.06	0.05	0.11	1.96	0.28	2.19	0.31
Proposed Trip Generation <sup>3</sup>									
Joint-Use Soccer Field	1 Field	71	11	6	17	405	40	405	29
Joint-Use Park	3.5 Acre <sup>4</sup>	3	1	1	2	7	1	8	1
Total		74	12	7	19	412	41	413	30

<sup>1</sup> ITE Code 488, Soccer Complex

<sup>2</sup> ITE Code 411, Public Park

<sup>3</sup> Trip generation rates for peak hour of adjacent streets, per the ITE Trip Generation Manual 10th Edition.

<sup>4</sup> Since there is no assumption for Sunday trip generation for soccer complex, for the purpose of this project, Sunday trip generation is assumed to be the same as Saturday.

<sup>5</sup> Weekend peak hour occurs midday generally between 11 am to 1 pm.

### Pedestrian and Bicycle Facilities

As shown in Figure 4, *Conceptual Site Plan*, pedestrian access to the project site would be via the existing sidewalks and internal walkways that would connect to the new proposed park. Under the proposed project, the existing access driveway would remain the same and no closure to public sidewalk would be required.

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Additionally, there is no bicycle lane or facility along Williams Street and there are none within proximity of the project site. Project implementation would remain within the current fence line of the project site. The proposed project would provide bike racks near the main entrance to the project site. Therefore, no impacts to bicycle facilities are anticipated.

Orange County Transportation Authority (OCTA) operates public transit bus routes in the City of Tustin. Route 66 is the closest route to the project site; buses along this route travel east-west along McFadden Avenue. The closest bus stop for this route is approximately 0.21 mile south of the project site at the McFadden Avenue and Williams Street intersection. The proposed project would not displace any existing or future bus stop or degrade transit service in the area.

The project site is an existing elementary school currently serving 627 students. Public use of the joint-use park would not coincide with the operation of the existing elementary school, and the proposed project would not involve any design feature that would adversely affect off-site circulation for cyclists and pedestrians in the area. Although the proposed project would increase traffic during after-school hours and on weekends, provided that the existing roadway system is adequate to serve the existing elementary school, it is anticipated that the increase in pedestrian and bicycle traffic from the proposed project could also be accommodated by the existing sidewalks and circulation system in the area. Therefore, impacts would be less than significant, and no mitigation measures are necessary.

#### **b) Conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)?**

**Less Than Significant Impact.** On September 27, 2013, SB 743 was signed into law, starting a process that could fundamentally change transportation impact analysis as part of CEQA compliance. These changes include the elimination of auto delay, level of service, and other similar measures of vehicular capacity or traffic congestion as a basis for determining significant impacts. As part of the updated CEQA Guidelines, the new criteria “shall promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses” (Public Resources Code Section 21099(b)(1)). On January 20, 2016, OPR released revisions to its proposed CEQA guidelines for the implementation of SB 743. Final review and rulemaking for the new guidelines were completed on December 28, 2018, when the California Natural Resource Agency certified and adopted the CEQA Guidelines update package, including guidelines implementing SB743. OPR allows agencies an opt-in period to adopt the guidelines; they become mandatory on July 1, 2020. Vehicle miles traveled (VMT) is an indicator of the travel levels on the roadway system by motor vehicles. It corresponds to the number of vehicles multiplied by the distance traveled in a given period over a geographical area. In other words, VMT is a function of (1) number of daily trips and (2) the average trip length ( $VMT = \text{daily trips} \times \text{average trip length}$ ). The City of Tustin has not implemented VMT metrics yet and currently uses the established LOS criteria.

The proposed project would only be open for student access during school hours; therefore, the proposed project would not lead to an increase in VMT during those hours. The proposed park would be open during weekday evenings and weekends for public usage, generating vehicle trips by the park users. However, since the joint-use park is intended to serve local residents that currently drive to other parks in the area, the proposed project would result in a shift in travel patterns among local streets rather than an overall increase in trips

### 3. Environmental Analysis

compared to existing traffic levels and the increase in VMT is anticipated to be minimal. The closest public park to the project site is Peppertree Park, approximately 0.9 mile to the northeast, and Frontier Park, approximately 1.2 miles to the east. Both parks feature similar amenities under the proposed project. Additionally, the closest park with a skate park is located at Pine Tree Park, approximately 1.74 miles to the northeast. Therefore, the proposed project would not result in a conflict with CEQA Guidelines Section 15064.3 (b). Impacts would be less than significant, and no mitigation measures are necessary.

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

**Less Than Significant Impact.** The increased levels of traffic during construction and the increased number of pedestrians and bicycles at the site during operation could result in an increased number of traffic conflicts and a corresponding increase in the probability of an accident occurring. However, there are no sharp curves or dangerous intersections, or incompatible uses adjacent to the project site. And there are existing sidewalks along the project frontage and crossing striping for the elementary school.

As shown in Figure 4, no off-site improvements are proposed or required to implement the proposed project. The main access points to the project site would be from the existing driveways on Williams Street. A new access entry for emergency vehicles would be provided for the joint-use park area at the northeastern corner of the project site. As shown in Figure 4, emergency vehicles would enter through an existing gated access located near School Building C to reach the new access entry. The design of the emergency access driveways would be required to adhere to the DSA and OCFA design standards during the plan review and approval process. Compliance with these established design standards would ensure that hazards due to design features would not occur. Additionally, the proposed project would not change the existing land use of the site, as the property currently is developed as a public elementary school with turf play field. Therefore, impacts resulting from hazards due to design features or incompatible uses would be less than significant, and no additional mitigation measures are necessary.

**d) Result in inadequate emergency access?**

**Less Than Significant Impact.** The proposed project is an existing elementary school with one street frontage on Williams Street. There are two driveways on Williams Street for site access, and no changes to these access points would occur. As shown in Figure 4, the joint-use park would have two on-site emergency access on the northeast and southeast corner of the project site. To address emergency and fire access needs, the improvements would be required to be designed in accordance with all applicable DSA and OCFA design standards for emergency access (e.g., minimum lane width and turning radius). The proposed project would not increase the existing school's capacity or expand boundaries; and furthermore, implementation of the proposed project would not require major road closures or otherwise impact the functionality of Williams Street as a public safety access route. Therefore, impact to emergency access would be less than significant, and no mitigation measures are necessary.

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#### 3.18 TRIBAL CULTURAL RESOURCES

- a) **Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:**
- i) **Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or**

**No Impact.** The project site is currently developed with the existing Heideman ES facilities and the majority of soil disturbance and excavation would occur within the limits of the turf athletic field area. The project site does not contain any structures that are eligible or listed in the National Register of Historic Places (NRHP), the California Register of Historical Resources, or other local register of historical resources (Public Resources Code Section 21074) (NPS 2020; OHP 2019). Implementation of the proposed project would not result in any substantial adverse change in a tribal cultural resource (TCR) defined pursuant to Public Resources Code Sections 5024.1 or 5020.1(k). No impact is anticipated, and no mitigation measures are required.

- ii) **A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.**

**Less Than Significant Impact With Mitigation Incorporated.** Public Resources Code Section 5024.1(c) indicates that a resource may be listed as an historical resource in the California Register if it meets any of the listed NRHP criteria. The project site does not contain any historical resources that meets the NRHP criteria and is not listed in the Sacred Lands File by the Native American Heritage Commission. AB 52 requires meaningful consultation with California Native American tribes on potential impacts to tribal cultural resources, as defined in Public Resources Code Section 21074. Tribal cultural resources are sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either eligible or listed in the California Register or local register of historical resources.

As part of the AB 52 process, Native American tribes must submit a written request to the District (lead agency) to be notified of projects within their traditionally and culturally affiliated area. To those tribal groups, the District must provide written, formal notification within 14 days of deciding to undertake a project. The tribe must respond to the District within 30 days of receiving this notification if they want to engage in consultation on the project, and the District must begin the consultation process within 30 days of receiving the tribe's request. Consultation concludes when either 1): the parties agree to mitigation measures to avoid a significant effect on a tribal cultural resource, or 2) a party, acting in good faith and after reasonable effort, concludes mutual agreement cannot be reached.



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The District has not received a written notification from any Native American tribes requesting to be notified per AB 52. Therefore, the District is in compliance with AB 52 regulations. Considering the disturbed nature of the project site and the limited grading and excavation required for the proposed project, the potential for discovery of tribal cultural resources is minimal. However, in the event that future excavation goes beyond artificial fill materials, mitigation will be required to reduce any impacts associated with tribal cultural resources. A mitigation measure has been incorporated to reduce potential impacts to a less than significant level.

#### Mitigation Measure

TCR-1            During grading, if the professional archaeologist implementing Mitigation Measure CUL-1 believes that a cultural resource encountered on-site is of “tribal cultural resources” pursuant to Public Resources Code Section 21074, the archaeologist shall notify representatives of Native American tribes with traditional territories in the project region. If requested by the Native American tribe(s), the archaeologist on call shall, in good faith, consult on the discovery and its disposition (e.g., avoidance, preservation, return of artifacts to tribe). If the resources are Native American in origin, a tribal monitor from the consulting tribe shall be present during the remaining site-grading activities.

### 3.19 UTILITIES AND SERVICE SYSTEMS

Would the project:

- a) **Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?**

**Less Than Significant Impact.**

#### Water Supply Facilities

Domestic water for the project site is provided by the Water Operation Division of the Tustin Public Works. The City receives approximately 74 percent of its water from underlying groundwater in the Lower Santa Ana Groundwater Basin and the remaining 26 percent is imported water purchased from East Orange County Water District (Tustin 2016). According to the City’s Urban Water Management Plan, factors affect water demand include local climate, demographics, and land use. Land use categories defined under the Urban Water Management Plan include single-family residential, multifamily residential, commercial, and institutional/government. Implementation of the proposed project would continue to be under institutional/government and would not lead to a change in land use assumptions. The proposed project includes a restroom/office, drinking fountain, turf sports field, and landscaping and garden, which would lead to a slight increase in water demand. However, this increase would have minimal impact on the overall water demand or on the City’s ability to supply water. Therefore, the proposed project would not result in the construction of new or expanded water supply facilities. Impact would be less than significant, and no mitigation measures are necessary.

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#### Stormwater Drainage Facilities

As substantiated in *Hydrology and Water Quality*, Section 3.10.c.iii, impacts would be less than significant, and no mitigation measures are necessary.

#### Wastewater Treatment Facilities

Wastewater generated by land uses in the City is collected by the East Orange County Water District and treated by the County of Orange Sanitation District (OCSD). Wastewater generated on-site would be collected and conveyed to OCSD's Wastewater Treatment Plant via the City's existing local sewer system. OCSD currently has two facilities: Reclamation Plant No. 1 in Fountain Valley with a 120 million gallons per day (mgd) average daily flow, and Treatment Plant No. 2 with a 65 mgd average daily flow (OCSD 2019). The proposed project would result in a slight increase to wastewater generation, but it would not involve any activities that would adversely affect the OCSD's treatment capacity or require the construction of new or expanded wastewater treatment facilities. Therefore, impacts would be less than significant, and no mitigation measures are necessary.

#### Electricity Facilities

Electrical needs to the project site would be provided by Southern California Edison via existing infrastructure in the immediate area of the project site. The proposed project would result in a slight increase in electricity consumption that would be adequately served by the existing infrastructure. Therefore, the proposed project would not require the construction of new or expanded electricity facilities. Impacts would be less than significant, and no mitigation measures are necessary.

#### Natural Gas and Telecommunication Facilities

The proposed project would not require natural gas or telecommunication facilities. Therefore, no impact would occur, and no mitigation measures are necessary.

#### **b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?**

**Less Than Significant Impact.** As substantiated above in Section 3.19.a., the proposed project would result in a minimal increase in water demand that would be adequately served by City of Tustin's current water supplies. Moreover, as stated in the City's Urban Water Management Plan, there is available water supply to meet the projected demand during normal, dry and multiple dry years due to diversified supply and conservation measures (Tustin 2016). Therefore, the proposed project would not require new or expanded water supplies. Impacts would be less than significant, and no mitigation measures are necessary.

#### **c) Result in a determination by the waste water 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?**

**Less Than Significant Impact.** As substantiated above in Section 3.19.a, the proposed project would result in a slight increase in sewer demand, but no new or expanded sewer capacities would be necessary to

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accommodate the proposed project. Project development would not require the construction of new or expanded wastewater treatment facilities. Therefore, impacts would be less than significant, and no mitigation measures are necessary.

**d) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?**

**Less Than Significant Impact.** Solid waste generated from the proposed project would be collected by the CR&R Waste and Recycling, who is contracted by the City, and hauled to the Olinda Alpha Landfill at 1942 North Valencia Avenue in the City of Brea. The average disposal rate at Olinda Alpha Landfill is approximately 7,000 tons per day, and it is permitted for up to 8000 tons per day. Under existing conditions, the landfill is projected to have enough capacity until 2030. The California Integrated Waste Management Act of 1989 (AB 939) required city and county jurisdictions to identify an implementation schedule to divert 50 percent of the total waste stream from landfill disposal by the year 2000 and 70 percent by the year 2020. During the construction phase, waste generated would be on a short-term basis and would be recycled and hauled to the authorized construction disposal facility. During operation, the proposed project would result in a minimal increase in solid waste from the restroom/office facilities, minor landscaping cuttings, and residents using the proposed park during weekday evenings and weekends. Given the current capacity and daily disposal rate of the Olinda Alpha Landfill, the proposed project would not generate solid waste in excess of state or local standards or the capacity of local infrastructures.

**e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?**

**No Impact.** The following federal and state laws and regulations govern solid waste disposal. The EPA administers the Resource Conservation and Recovery Act of 1976 and the Solid Waste Disposal Act of 1965, which govern solid waste disposal. In the State of California, AB 939 (Integrated Solid Waste Management Act of 1989; PRC 40050 et seq.) required every California city and county to divert 50 percent of its waste from landfills by the year 2000 by such means as recycling, source reduction, and composting. In addition, AB 939 requires each county to prepare a countywide siting element specifying areas for transformation or disposal sites to provide capacity for solid waste generated in the county that cannot be reduced or recycled for a 15-year period.

AB 1327, the California Solid Waste Reuse and Recycling Access Act of 1991, requires local agencies to adopt ordinances mandating the use of recyclable materials in development projects. The proposed project would comply with all laws and regulations governing solid waste and the county's strategies for waste reduction. Additionally, to reduce the amount of waste going into local landfills from schools, the state passed the School Diversion and Environmental Education Law, Senate Bill 373, which required CalRecycle to develop school waste reduction tools. In compliance with this law, CalRecycle encourages school districts to establish and maintain a paper recycling program in all classrooms, administrative offices, and other areas owned and leased by the school district. Participation in this and other such programs would further reduce solid waste generated from the proposed project and assist in the county's compliance with AB 939. AB 341 also requires businesses generating four cubic yards a week of waste, including school districts, to recycle and compost to meet the

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statewide 75 percent waste recycling goal. The proposed project would comply with all federal, state, and local statutes and regulations related to solid waste. Therefore, no impact would occur, and no mitigation measures are necessary.

#### 3.20 WILDFIRE

Wildland fire protection in California is the responsibility of either the local government, state, or the federal government. The project site is not in or near the state responsibility areas (SRA) for wildland fire protection. The project site is in the local responsibility areas (LRA) of the OCFA. Fire Hazard Severity Zones are identified by Very High Fire Hazard Severity Zone (VHFHSZ) and Non-VHFHSZ in an LRA, and the project site and its one-mile radius area are designated Non-VHFHSZ (FRAP 2020).

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:

**a) Substantially impair an adopted emergency response plan or emergency evacuation plan?**

**No Impact.** The project site is not in or near an SRA or lands classified as VHFHSZ. Therefore, no impact would occur.

**b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?**

**No Impact.** The project site is not in or near an SRA or lands classified as VHFHSZ. Therefore, no impact would occur.

**c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?**

**No Impact.** The project site is not in or near an SRA or lands classified as VHFHSZ. Therefore, no impact would occur.

**d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?**

**No Impact.** The project site is not in or near an SRA or lands classified as VHFHSZ. Therefore, no impact would occur.

#### 3.21 MANDATORY FINDINGS OF SIGNIFICANCE

**a) Does the project have the potential to substantially 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, substantially**

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**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?**

**Less Than Significant Impact.** Implementation the proposed project would not substantially reduce the quality of biological resources or any sensitive habitats. The joint-use park site is currently developed as an elementary school and are surrounded by residential uses. There are no protected biological resources except for trees, which would be surveyed prior to removal, if removal of the vegetation occurs during nesting season (typically between February 1 and September 1), in compliance with the applicable California Fish and Game Code. In addition, as discussed in Section 3.5, *Cultural Resources*, the project site does not contain any examples of the major periods of California history or prehistory, and potential impacts to the discovery of subsurface cultural resources would be reduced to a less than significant level by incorporating mitigation measures CUL-1 and TCR-1. Therefore, no further mitigation is necessary, and impacts would be less than significant.

**b) Does the project have the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals?**

**Less Than Significant Impact.** The proposed project would serve the surrounding residential community by meeting the recreational demands without having to drive farther away to other park facilities. As discussed throughout the Initial Study, both temporary construction impacts and long-term operational impacts would be less than significant, with and without mitigation measures. Therefore, the proposed project would not result in disadvantage of short or long-term goals.

**c) 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.)**

**Less Than Significant Impact.** As discussed throughout the Initial Study, implementation of the proposed project would result in individually limited environmental impacts that would be reduced to a less than significant level. Considering the small size and scale of the proposed joint-use park, and temporary nature of construction, which would only occur for about two to three months, cumulatively considerable impacts are not anticipated.

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

**Less Than Significant Impact.** As discussed through the Initial Study, all environmental topics evaluated were determined to have less than significant impacts with and without mitigation. Therefore, the proposed project would not cause direct or indirect substantial adverse effect on human beings. Impacts would be less than significant.

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## 5. List of Preparers

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### **TUSTIN UNIFIED SCHOOL DISTRICT**

Tom Rizzuti, Director of Facilities and Planning

### **CITY OF TUSTIN**

Clad Clanton, Deputy Director, Parks and Recreation

### **PLACEWORKS**

Dwayne Mears, AICP, Principal, Environmental Services

Elizabeth Kim, Senior Associate

Tracy Chu, Associate

John Vang, Senior Associate

Josh Carman, Senior Planner

Izzy Garcia, Associate

Cary Nakama, Graphic Designer

## 5. List of Preparers

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## Appendix

# Appendix A    Lighting Plan

## Appendix

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## Appendix

# Appendix B    Air Quality/GHG Data

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## Appendix

# Appendix C1 Cultural Resources Data

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## Appendix

# Appendix C2 Native American Heritage Commission Letter

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# Appendix D Paleontological Data

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## Appendix

# Appendix E   Noise Data

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