Draft

Arden Middle School
Initial Study/Mitigated Negative Declaration

Prepared for:

San Juan Unified School District

AECOM

December 2019

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Initial Study/Mitigated Negative Declaration

Prepared for:

San Juan Unified School District
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ACRONYMS AND OTHER ABBREVIATIONS

2017 Scoping Plan Update	Strategy for Achieving California's 2030 Greenhouse Gas Target
AB	Assembly Bill
ACMs	asbestos-containing materials
ADA	Americans with Disabilities Act
AEP	annual exceedance probability
ARB	California Air Resources Board
B.P.	Before Present
BMPs	best management practices
CAA	Clean Air Act
CAAQA	California ambient air quality standards
CAAQS	California Ambient Air Quality Standards
CAL FIRE	California Department of Forestry and Fire Protection
CalEEMod	California Emissions Estimator Model
Caltrans	California Department of Transportation
CBC	California Building Standards Code
CDE	California Department of Education
CFR	Code of Federal Regulations
CGS	California Geological Survey
CH_4	Methane
CHP	California Highway Patrol
CO_2	Carbon Dioxide
CO_2e	carbon dioxide equivalents
Construction General Permit	*General Permit for Storm Water Discharges Associated With Construction and Land Disturbance Activities* [Order 2009-009-DWQ as amended by Order 2012-0006-DWQ]
CRHR	California Register of Historical Resources
CVRWQCB	Central Valley Regional Water Quality Control Board
CWA	Clean Water Act
dB	decibels
dBA	A-weighted decibels
dbh	diameter at breast height
District	San Juan Unified School District
DOC	California Department of Conservation
DPM	particulate matter exhaust from diesel-fueled engines
DSA	Division of State Architect
DSA	Division of the State Architect
DTSC	California Department of Toxic Substances Control
DWR	California Department of Water Resources
EIR	Environmental Impact Report
EMT	emergency medical technicians
EPA	U.S. Environmental Protection Agency

FIRM	Flood Insurance Rate Map
FMMP	Farmland Mapping and Monitoring Program
g	percentage of gravity
GHG	greenhouse gas
Guide	SMAQMD *Guide to Air Quality Assessment in Sacramento County*
GWP	Global warming potential
HVAC	heating, ventilation and air conditioning
Hz	hertz
in/sec	inches per second
IPCC	Intergovernmental Panel on Climate Change
IS	initial study
ITE	Institute of Transportation Engineers
lb/day	pounds per day
LDL	Larson Davis Laboratories
L_{dn}	Day-Night Noise Level
LED	Light-emitting diode
L_{eq}	Equivalent sound level
$L_{eq[h]}$	1-hour, A-weighted equivalent sound level
LID	low impact development
L_{max}	Maximum sound level
LOS	Level of Service
MBTA	Migratory Bird Treaty Act
MND	mitigated negative declaration
mph	miles per hour
MRZ	mineral resource zone
MT	metric tons
MT CO_2e	CO_2 equivalent emissions
MTPS	Metropolitan Transportation Plan
N_2O	Nitrous Oxide
NAAQS	national ambient air quality standards
NAHC	Native American Heritage Commission
ND	Negative Declaration
NO_X	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NRCS	U.S. Natural Resources Conservation Service
NRHP	National Register of Historic Places
OSHA	Occupational Health and Safety Administration
PGA	Peak horizontal ground acceleration
PM	particulate patter
PM_{10}	particulate matter with an aerodynamic diameter of 10 microns or less
$PM_{2.5}$	respirable particulate matter with an aerodynamic diameter of 2.5 microns or less
PPV	peak particle velocity
RD-3	Residential
RMS	root mean square

SACOG	Sacramento Area Council of Governments
Sacramento County General Plan	*Sacramento County General Plan of 2005-2030*
SB	Senate Bill
Scoping Plan	Climate Change Scoping Plan
SCS	Sustainable Communities Strategy
SEL	sound exposure level
SJUSD	San Juan Unified School District
SMAQMD	Sacramento Metropolitan Air Quality Management District
SMARA	Surface Mining and Reclamation Act
State CEQA Guidelines	California Environmental Quality Act Guidelines
SVAB	Sacramento Valley Air Basin
SVP	Society of Vertebrate Paleontology
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TACs	toxic air contaminants
the project	Arden Middle School project
TMDLs	Total Maximum Daily Loads
TMP	Traffic Management Plan
tons/yr	tons per year
UAIC	United Auburn Indian Community
UCMP	University of California, Berkeley Museum of Paleontology
USC	United States Code
UST	underground storage tanks
VMT	vehicle miles traveled
VOC	volatile organic compounds
WDRs	reports of waste discharge
WHO	World Health Organization
WWTP	Wastewater Treatment Plant

1 INTRODUCTION

1.1 BACKGROUND

Section 21080(a) of the California Public Resources Code states that analysis of a project's environmental impact is required for any "discretionary projects proposed to be carried out or approved by public agencies…" In this case, San Juan Unified School District (the District) has determined that an initial study is required to determine whether there is substantial evidence that implementing the Arden Middle School project (the project) could result in significant environmental impacts.

Section 15070 of the California Environmental Quality Act Guidelines (CEQA Guidelines) (Title 14, California Code of Regulations, Section 15000 et seq.) provides that a lead agency may prepare a mitigated negative declaration when (1) the initial study shows that there is no substantial evidence that the project may have a significant effect on the environment; or (2) the initial study identifies potentially significant effects, but incorporation of mitigation measures into the project would reduce all impacts to a less-than-significant level. Mitigation measures are identified to avoid, eliminate, or reduce potentially significant adverse impacts of the proposed project. If an initial study determines that significant environmental impacts could result even after implementation of feasible mitigation, the lead agency must prepare an Environmental Impact Report (EIR) (CEQA Guidelines Sections 15063, 15064).

1.2 PURPOSE OF DOCUMENT

Pursuant to Section 15063 of the CEQA Guidelines, an initial study is a preliminary environmental analysis that is used by the lead agency as a basis for determining whether an EIR, a mitigated negative declaration, or a negative declaration is required for a project. The CEQA Guidelines suggest that an initial study contain, in brief form, a project description; a description of the environmental setting; an identification of environmental effects by checklist or other similar form; an explanation of environmental effects; a discussion of mitigation for significant environmental effects; an evaluation of the project's consistency with existing, applicable land use controls; the names of persons who prepared the study; and identification of data sources used in the review of environmental impacts and the conclusions reached in the document.

1.3 SUMMARY OF FINDINGS

The analysis in this initial study concludes that the proposed project, with implementation of mitigation measures, would have no significant impacts. As such, further environmental review is not required by CEQA.

1.4 APPROVALS

The California Environmental Quality Act ("CEQA"), Public Resources Code sections 21000 et seq., requires that lead agencies consider the environmental consequences of projects over which they have discretionary authority prior to taking action on those projects. This initial study has been prepared to satisfy CEQA and the CEQA Guidelines.

A negative declaration or mitigated negative declaration is a written statement prepared by the lead agency describing the reasons why the proposed project would not have a significant impact on the environment, and

therefore, would not require preparation of an environmental impact report (CEQA Guidelines Section 15371). According to Section 15070 of the CEQA Guidelines, a negative declaration (ND) or mitigated negative declaration (MND) for a project subject to CEQA should be prepared when either:

- the initial study shows that there is no substantial evidence, in light of the whole record before the lead agency, that the project may have a significant impact on the environment; or
- the initial study identifies potentially significant impacts, but:
    - revisions made to the project plans or proposal before the proposed mitigated negative declaration is released for public review would avoid the impacts or mitigate the impacts to a point where clearly no significant impacts would occur; and
    - there is no substantial evidence, in light of the whole record before the agency, that the proposed project as revised may have a significant impact on the environment.

The District has analyzed the potential environmental impacts of the proposed project, determined that the proposed project's impacts would be less than significant or can be reduced to a less-than-significant level with the implementation of mitigation measures, and has prepared this initial study/mitigated negative declaration (IS/MND). This IS/MND addresses all questions in the CEQA Initial Study Checklist, Appendix G to the CEQA Guidelines.

Approval of the proposed project requires discretionary action by the District. The District is the lead agency for the proposed project. Pursuant to CEQA Section 21067, the *lead agency* is "the public agency which has the principal responsibility for carrying out or approving a project which may have a significant effect upon the environment." As the lead agency, the District has the responsibility for, among other things, preparing a CEQA document that analyzes the potential environmental impacts of the proposed project; identifying feasible mitigation measures that could avoid or minimize significant environmental impacts; and adopting a Mitigation Monitoring and Reporting Program to ensure that all required mitigation measures are implemented.

The proposed project would be reviewed by the Office of Public School Construction of the California Department of General Services, Division of the State Architect, and by the California Department of Education (CDE). The CDE is responsible for approving the proposed site of any public school in California (Education Code Section 17213) to ensure that the location meets certain specific standards for public health and safety. Major constraints to selecting a given school site that could require additional investigation may include high-voltage power lines, railroad tracks, earthquake faults, pipelines, airport runways, wetlands, hazardous waste sites, and excessive noise levels (Title 5 California Code of Regulations Sections 14010–14011).

Approvals that may be needed for construction and operation of the school include, but are not necessarily limited to:

- California Department of Education/Division of State Architect – final school site and design approval (per California Education Code Section 17213)
- Sacramento Metropolitan Fire District – site plan review for emergency access and water availability.

- Sacramento Metropolitan Air Quality Management District – Authority to Construct, permit to operate.
- California American Water District – domestic water supply and fire flow.
- Sacramento Area Sewer District – sewer connections and conveyance.
- Sacramento County – storm drain connection and stormwater runoff treatment, encroachment permit/s if changes to transportation access are required, approval of a grading permit.

1.5 DOCUMENT ORGANIZATION

This Initial Study is organized into five chapters:

- **Chapter 1, "Introduction,"** provides summary information about the proposed project and describes the purpose and content of the Initial Study.
- **Chapter 2, "Project Description,"** provides the project location, project background, project objectives, detailed project description, and the needed permits and approvals.
- **Chapter 3, "Environmental Checklist,"** contains the completed initial study checklist. The checklist contains an assessment and discussion of impacts associated with each particular environmental issue. When the evaluation identifies potentially significant effects, as identified in the checklist, mitigation measures are provided to reduce such impacts to less-than-significant levels.
- **Chapter 4, "Summary of Mitigation Measures."**
- **Chapter 5, "References,"** identifies the information sources used in preparing this Initial Study.

Appendices contain technical reports and other information to supplement the mitigated negative declaration.

2 PROJECT DESCRIPTION

2.1 PROJECT LOCATION AND BACKGROUND

The proposed project would be situated at an existing District school property located at 1640 Watt Avenue in the urbanized Arden-Arcade area of unincorporated Sacramento County, CA. The property comprises 17.2 acres southeast of the intersection of Watt Avenue and Arden Way. The project site currently consists of the Arden Middle School, which was originally constructed in 1938. Several additions to the school were made in 1948–1950, 1954, 1956, and 1995, and several modernizations were performed in 1997, 2000, and 2004. The campus includes 74,508 square feet of building space, which includes two multi-purpose rooms, both permanent and portable classrooms, administration space, a library, technology lab, kitchen, and physical education space. The campus also includes outdoor hardcourt and turf playfields, faculty parking, and a bus drop-off and pick-up area.

Arden Middle School serves students in grades 6–8, and had a total enrollment of 953 students in 2013 (San Juan Unified School District 2014). The school's enrollment increased to 1,060 students for the 2018–2019 school year (California Department of Education 2019).

Land surrounding the project site is primarily residential, with some commercial uses, public/quasi-public (schools and places of worship), and small parks in the vicinity. The project site is zoned RD-3 (Residential) and is within a Neighborhood Preservation Area overlay area (Sacramento County 2019). The Sacramento County General Plan land use designation is Low-Density Residential (Sacramento County 2013), and the Arden-Arcade Community Plan land use designation is Public/Quasi-Public (Sacramento County 1980). Schools are a permitted use in areas that are zoned residential under the Sacramento County Zoning Code Chapter 3, Section 3.2.5.

2.2 PROJECT CHARACTERISTICS AND PHASING

The proposed project is intended to modernize the existing school campus to meet current building code requirements, to provide an improved learning environment that better meets the needs of today's student body, and to provide an improved factor of safety. The reconfigured school campus would help the District in its mission to embrace the current trend to shift from traditional teacher-centered to student-centered education. This mission includes a campus that is oriented towards integrating the whole student body as a community, through both interior and exterior spaces.

With the exception of one of the existing multi-purpose buildings, all of the existing buildings at the campus would be demolished. As shown in the conceptual site plan (Exhibit 2-1), the school campus would be designed to move the school buildings away from Watt Avenue and Arden Way, which would not only provide an improved margin of safety for students and teachers, but would also reduce the vehicular noise level in the campus buildings and the new outdoor common areas, thereby promoting a better learning environment.

One of the existing multi-purpose buildings would be retained, but would be redesigned both inside and out, and would be connected to new buildings to the east and southwest that would incorporate a modern exterior and interior. Interior modernization of the multi-purpose building would include new flooring, ceilings, paint, and cabinetry. Modernization would also include heating, ventilation, and air conditioning (HVAC) system replacements and upgrades; replacing the doors and hardware; replacing and upgrading the windows from single

pane to double pane to improve energy efficiency and provide better ventilation; improved energy-efficient lighting that provides better illumination for student workspaces; and staff and student restroom upgrades, including improvements required to comply with the Americans with Disabilities Act (ADA). The building exterior would be updated with new architectural coatings, paint, landscaping, and entry doors.

The new classrooms would be located adjacent to one another in a new, larger building, which would be connected to new outdoor learning spaces, outdoor eating areas, and an outdoor amphitheater. Building exteriors would incorporate modern design features such as cantilevered roofs and covered walkways, new architectural coatings designed to reduce glare, and connectivity between indoor and outdoor learning environments.

The campus currently does not have adequate parking to meet current demand, and the new parking areas, which would be landscaped with trees, shrubs, and grass, would be constructed adjacent to Arden Way and Watt Avenue (where the existing school buildings are located now).

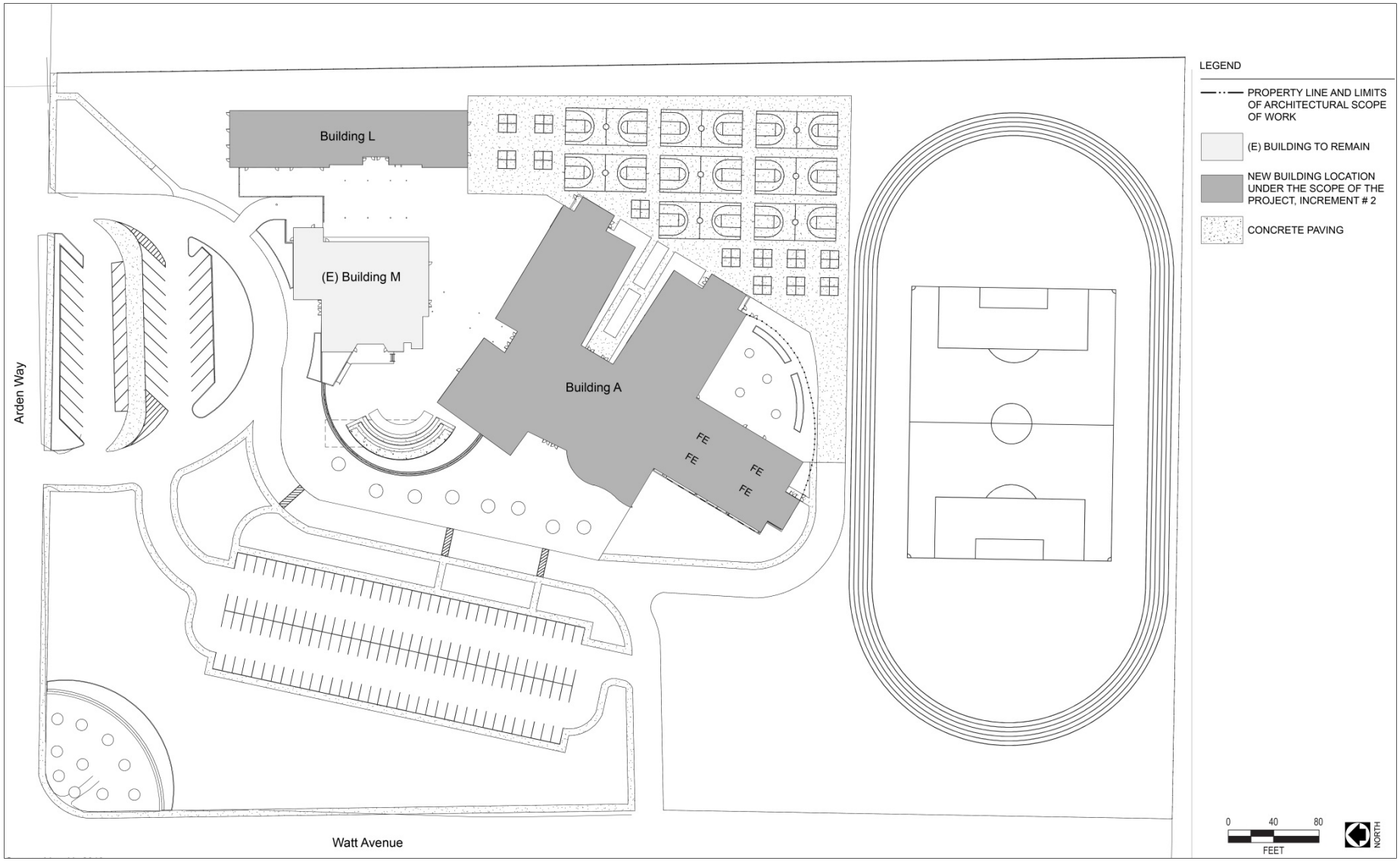
New drought-tolerant landscaping would be installed around the new buildings and the outdoor gathering and learning areas. The existing turf playfields would be retained, and new paved hardcourt playfields would be constructed between the new buildings and the eastern property boundary. New high-mast street lights would be installed along Arden Way and Watt Avenue in front of the campus, along with sidewalk, curb, and gutter work. Minor outdoor security lighting would also be provided on the new buildings. All nighttime lighting fixtures will be shielded and directed downward to prevent light spillover, consistent with current design practices. High-mast street lights, and sidewalk, curb, and gutter work, would be conducted in accordance with Sacramento County Improvement Standards (Sacramento County 2018). All existing portable classrooms would be removed.

The proposed project would include all building upgrades necessary to bring the multi-purpose building into compliance with current building codes. All project-related facilities would be designed to meet the requirements of the Division of the State Architect (DSA).

A total of 93,160 square feet of new building space would be constructed (a net increase of 18,652 square feet). The proposed project also includes upgrades to on-site sewer, water, wastewater, and electrical systems, as necessary, in coordination with the current utility service providers to support the new building space. A limited amount of off-site trenching within an existing utility easement may be necessary to connect with a 10-inch water main located in El Nido Way.

The proposed project would allow for an increase in the maximum student capacity. The existing capacity of Arden Middle School is 1,000 students and the proposed project would increase the school's capacity to 1,200 students (Leet, pers. comm., 2019).

All construction equipment and vehicles would be staged on the existing school campus. Project-related construction is anticipated to take 22 months. The construction contractor would be responsible for erecting a chain-link fence with fabric screening or webbing around the construction area, to ensure that only authorized construction personnel and District representatives are allowed entry. In addition, warning signs indicating that the construction site poses a hazard to non-authorized personnel along with signs stating "No Admittance" would be posted on the fencing around the site. Construction activities would be limited to the less-sensitive daytime hours between 7am and 8pm, Monday through Friday. Occasional daytime construction work on Saturdays and Sundays may be necessary and if this occurs, construction will be limited to the hours between 7am and 8pm.



Source: Lionakis 2019

Exhibit 2-1: Site Plan

3 ENVIRONMENTAL CHECKLIST

PROJECT INFORMATION

1.	**Project Title:**	Arden Middle School
2.	**Lead Agency Name and Address:**	San Juan Unified School District 3738 Walnut Avenue Carmichael, CA 95608
3.	**Contact Person and Phone Number:**	Laura Leet, Construction Manager (916) 971-8403
4.	**Project Location:**	1640 Watt Avenue, unincorporated Sacramento County
5.	**Project Sponsor's Name and Address:**	San Juan Unified School District 3738 Walnut Avenue Carmichael, CA 95608
6.	**General Plan Designation:**	Low-Density Residential
7.	**Zoning:**	RD-3 (Residential)

8. Description of Project:

The proposed project is intended to modernize the existing school campus to meet current building code requirements, to provide an improved learning environment that better meets the needs of today's student body, and to provide an improved factor of safety. The reconfigured school campus would help the District in its mission to embrace the current trend to shift from traditional teacher-centered to student-centered education. This mission includes a campus that integrates the whole student body as a community, through both interior and exterior spaces.

9.	**Surrounding Land Uses and Setting:**	Land surrounding the project site is primarily residential, with some commercial uses, public/quasi-public (schools and places of worship), and small parks in the vicinity.
10:	**Other public agencies whose approval is required:**	Sacramento County

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.

☐ Aesthetics	☐ Agriculture Resources	☐ Air Quality
☐ Biological Resources	☐ Cultural Resources	☐ Geology / Soils
☐ Hazards & Hazardous Materials	☐ Hydrology / Water Quality	☐ Land Use / Planning
☐ Mineral Resources	☐ Noise	☐ Population / Housing
☐ Public Services	☐ Recreation	☐ Transportation / Traffic
☐ Utilities / Service Systems	☐ Mandatory Findings of Significance	☒ None with Mitigation

DETERMINATION (To be completed by the Lead Agency)

On the basis of this initial evaluation:

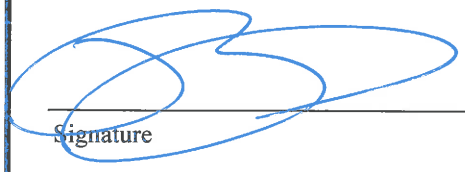
I find that the proposed project **COULD NOT** have a significant effect on the environment, and a **NEGATIVE DECLARATION** will be prepared. ☐

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

January 6, 2020

Date

Nicholas Arps

Printed Name

Director Facilities, Construction + modernization

Title

San Juan Unified School District

Agency

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 will 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 (mitigation measures from "Earlier Analyses," as described in (5) below, may be cross-referenced).
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 Analysis 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.
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.

3.1 AESTHETICS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
I. Aesthetics. Except as provided in Public Resources Code Section 21099, would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☒	☐	☐

3.1.1 ENVIRONMENTAL SETTING

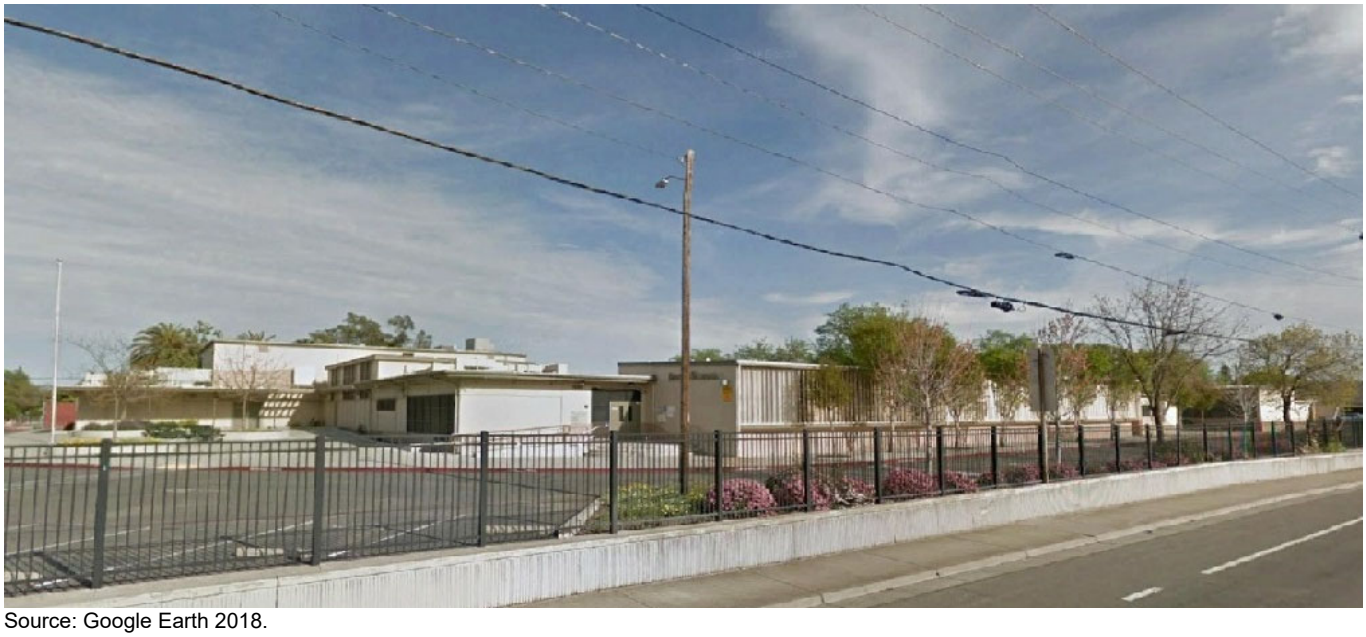
The approximately 17-acre project site is located at the intersection of Watt Avenue and Arden Way in the urbanized Arden-Arcade area of unincorporated Sacramento County. The project site currently consists of the Arden Middle School, which was originally constructed in 1938. Several additions to the school were made in 1948–1950, 1954, 1956, and 1995, and several modernizations were performed in 1997, 2000, and 2004. The existing permanent buildings were constructed in the California finger-style, which followed the post-war 1950s design aesthetic of one-story buildings with flat roofs, and finger-like classroom corridors that isolated individual classrooms from other campus learning centers. These buildings are clad in stucco and are painted a tan color. Most buildings are wood-framed, but the Physical Education building, added to the campus within the last 15 years, consists of painted concrete block. There are seven portable classrooms at the southern end of the campus. The exterior spaces between classroom wings have never been modernized. Paved asphalt parking areas with urban street trees are present in the northern part of the project site adjacent to Arden Way. Paved hardcourt playfields are present in the middle of the project site, behind the existing classroom buildings. The southern third of the project site consists of turf playfields.

The project site itself does not have a full perimeter fence, but existing fencing by adjacent homeowners is already present and is visible along the eastern and southern sides of the property. However, black wrought-iron perimeter fencing with vertical bars is present on the western and northern sides of the property, along with urban landscape trees.

Exhibits 3.1-1 through 3.1-4 illustrate the existing visual character of the project site.

Source: Google Earth 2018.

Exhibit 3.1-1. View of Arden Middle School north entrance, multi-purpose building, and classrooms, looking southwest from Arden Way.

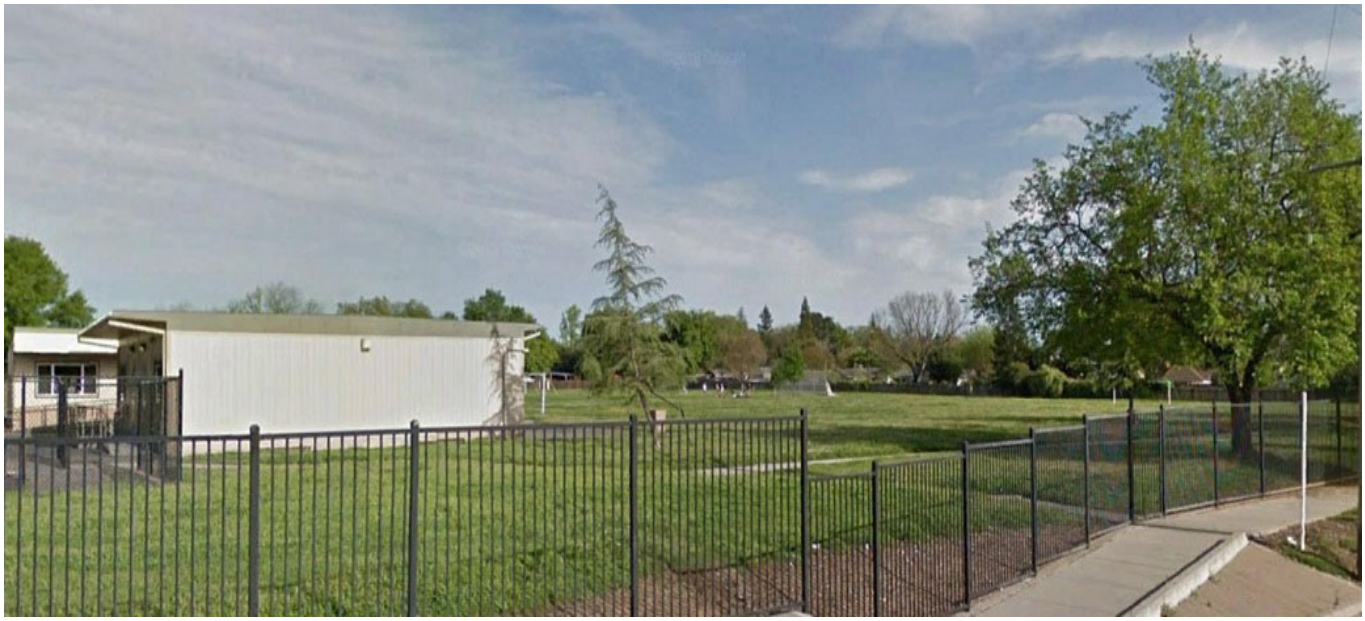


Source: Google Earth 2018.

Exhibit 3.1-2. View of Arden Middle School library, technology lab, and office, looking southeast from Watt Avenue.

Source: Google Earth 2018.

Exhibit 3.1-3. View of Arden Middle School west entrance and classroom buildings, looking northeast from Watt Avenue.



Source: Google Earth 2018.

Exhibit 3.1-3. View of Arden Middle School portable classrooms and turf playfields, looking southeast from Watt Avenue.

The existing viewshed to the north and west consists of four-lane arterial roadways with high traffic volumes and associated signage and traffic signals, and commercial development including restaurants, shopping centers, and businesses. The back sides of residential fencing and partial views of housing and associated landscaping are visible to the east and south.

3.1.2 DISCUSSION

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

No Impact. There are no scenic vistas at the project site or vicinity, which consists of an existing school at the intersection of Watt Avenue and Arden Way in the urbanized Arden-Arcade area. Thus, there would be no impact.

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

No Impact. There are no state- or locally-designated scenic highways in the project vicinity. Garden Highway, the closest locally-designated scenic highway, is approximately nine miles to the west (Sacramento County 2017). State Route 160, the closest state-designated scenic highway, is approximately 12 miles to the southwest (California Department of Transportation 2016). Thus, there would be no impact.

c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from 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 located at the intersection of Watt Avenue and Arden Way in the urbanized Arden-Arcade area of unincorporated Sacramento County. The project site is zoned for residential development (Sacramento County 2019), and schools are a permitted use in residential areas under the Sacramento County Zoning Code Chapter 3, Section 3.2.5. The County Zoning Code does not include design guidelines related to schools, other than signage requirements (Section 5.10.1.M).

Neither the Sacramento County General Plan (Sacramento County 2017a) nor the Sacramento County Design Guidelines (Sacramento County 2017b) contain standards or guidelines that are specific to school design. These policies and guidelines are related to topics such as new development that complements the aesthetic style and character of nearby existing development, land use connectivity including walkable communities, high-quality architectural design, incorporation of natural features such as trees and rock outcroppings into site-specific design, the use of anti-reflective exterior coatings, and the need for shielding of nighttime lighting to reduce light pollution. The modernized school campus would generally be consistent with these types of General Plan policies and the County's Design Guidelines because these policies and guidelines include basic design principles that form the foundation of both functional and aesthetically pleasing architectural design and land use planning.

The project site is also located within the Arden-Arcade Community Plan Area (Sacramento County 1980), and the site is zoned with a Neighborhood Preservation overlay. This zoning overlay means that the neighborhood has unique social, architectural, environmental, or other characteristics that should be protected and preserved

(Sacramento County Zoning Code Chapter 4, Section 4.6). As indicated in the Arden-Arcade Community Plan, the Neighborhood Preservation overlay is intended to preserve the large-lot character of the Arden Park area.

The project site currently includes buildings in square blocks, which are lacking in architectural details or interest. The buildings were constructed over a 70-year time period, and although they have been upgraded at various times to meet code requirements, the campus does not present a unified architectural style.

As shown in the site plan (Exhibit 2-2 in Chapter 2, "Project Description"), the school campus would be designed to move the school buildings closer to the eastern property line, away from Watt Avenue and Arden Way, which would not only provide an improved margin of safety for students and teachers, but would also reduce the vehicular noise level in the campus buildings and the new outdoor common areas, thereby promoting a better learning environment. New parking areas, which would be landscaped with trees, shrubs, and grass, would be constructed adjacent to Arden Way and Watt Avenue (where the existing school buildings are located now) and some trees along Arden Way would be removed. Aside from one of the existing multi-purpose buildings, all of the other buildings on campus would be demolished. The existing multi-purpose building to be retained would be redesigned both inside and out, and would be connected to new buildings to the east and southwest that would incorporate a modern exterior and interior. The classrooms would be located adjacent to one another in a new, larger building, which would be connected to new outdoor learning spaces, outdoor eating areas, and an outdoor amphitheater.

The new buildings throughout the campus would be upgraded with new exterior architectural coatings, modern roof styles, new energy efficient windows and security light fixtures, new doors, and new landscaping. The existing turf playfields would be retained, and new paved hardcourt playfields would be constructed between the new buildings and the eastern property boundary. All of the existing portable classrooms would be removed, and the curb, gutter, and sidewalk areas adjacent to the campus along Arden Way and Watt Avenue would be improved.

The proposed project is required to conform to all California Department of Education (CDE) and Division of State Architect (DSA) requirements, which are specific to schools. Because the entire school campus would be completely modernized and redesigned, the visual character and scenic quality of the project site would be substantially improved as compared to existing conditions. Therefore, this impact is considered less than significant.

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

Less-than-Significant with Mitigation Incorporated. As discussed above, the project site is located in the urbanized Arden-Arcade area. A high degree of nighttime lighting associated with commercial, public/quasi-public, and residential development is already presented adjacent to the project site and in the project vicinity. The existing Arden Middle School contains minor nighttime security lighting.

The proposed project would introduce minor new sources of nighttime lighting for security purposes associated with the buildings and facilities, access road, parking lots, and entryways. However, the outdoor sports fields would not have lighting for nighttime use. The proposed project would also include installation of high-mast lighting along Arden Way and Watt Avenue, adjacent to the school campus. Without a lighting plan, nighttime

lighting could result in light spillover onto adjacent properties, and could result in nighttime glare and skyglow effects. Therefore, this impact is considered **potentially significant.**

Mitigation Measure AES-1: Prepare and Implement a Lighting Plan.

To reduce impacts associated with light and glare, San Juan Unified School District (SJUSD) shall prepare and implement a lighting plan for the proposed project that includes the following elements:

- Shield or screen lighting fixtures to direct the light downward and prevent light spill on adjacent properties.
- Place and shield or screen flood and area lighting needed for security so as not to disturb adjacent residential areas and passing motorists.
- Light fixtures that are of unusually high intensity or brightness (e.g., harsh mercury vapor, low-pressure sodium, or fluorescent bulbs) or that blink or flash, shall not be used. Light-emitting diode (LED) lighting shall be used where feasible.
- Motion-controlled exterior nighttime lighting, rather than lighting that is always on, shall be used where feasible.
- Use appropriate building materials (such as low-glare glass, low-glare building glaze or finish, neutral, earth-toned colored paint and roofing materials), shielded or screened lighting, and appropriately shielded lighting for signage, to prevent light and glare from adversely affecting adjacent housing and motorists on nearby roadways.
- Design and construct the high-mast lighting along Arden Way and Watt Avenue in compliance with Sacramento County Improvement Standards (Sacramento County 2018, or the current version that is in effect at the time design and construction occur).

Significance after Mitigation

Implementation of Mitigation Measure AES-1 would reduce potentially significant impacts from nighttime lighting, glare, and skyglow effects to a **less-than-significant** level because a lighting plan with measures specifically designed to reduce light spillover, glare, and skyglow effects would be prepared and implemented by SJUSD, and high-mast lighting along Arden Way and Watt Avenue would be designed and constructed in accordance with Sacramento County Improvement Standards (Sacramento County 2018).

3.2 AGRICULTURE AND FORESTRY RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
II. 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, as updated) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and 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?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

3.1.3 ENVIRONMENTAL SETTING

Based on a review of the 2016 Important Farmland Map for Sacramento County produced by the California Department of Conservation (DOC) under the Farmland Mapping and Monitoring Program (FMMP), the project site is designated as Urban and Built-Up Land (DOC 2017). There is no Farmland at the project site or in the project vicinity, which is located in the urbanized Arden-Arcade area. The project site is zoned and designated for

residential land use. The project area is zoned primarily for residential and commercial land uses (Sacramento County 2017).

3.1.4 DISCUSSION

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 proposed project involves demolition and construction on the existing Arden Middle School campus. There is no Farmland at the project site or in the project vicinity, which is located in the urbanized Arden-Arcade area. Thus, the proposed project would not result in conversion of the Farmland to a non-agricultural use, and there would be no impact.

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

No Impact. The project site is zoned residential (Sacramento County 2019). There are no Williamson Act contracts at the project site or in the project vicinity, which is located in the urbanized Arden-Arcade area. Thus, the proposed project would not conflict with existing zoning for agricultural use or a Williamson Act contract, and there would be no impact.

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. The existing Arden Middle School was constructed in 1938. The project site is zoned and designated for residential land uses, which includes the existing school use (Sacramento County 2017). The project site is not zoned or designated for forest land, timberland, or timberland production. Thus, there would be no impact.

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

No Impact. The project site is located in the urbanized Arden-Arcade area. Neither the project site nor the surrounding area contains any forest land. Thus, there would be 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?

No Impact. There is no Farmland at the project site or in the project area. The proposed project is an urban infill project to modernize the existing Arden Middle School. All construction and operational activities would take place on the existing school campus. Thus, the proposed project would not result in conversion of Farmland or forest land to other uses, and there would be no impact.

3.3 AIR QUALITY

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
III. Air Quality.				
Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☒	☐	☐
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☒	☐	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

3.3.1 ENVIRONMENTAL SETTING

The project site is located in unincorporated Sacramento County. The Sacramento Metropolitan Air Quality Management District (SMAQMD) is the local agency with the responsibility for regulating air quality in Sacramento County. The County is within the Sacramento Valley Air Basin (SVAB), which also includes all of Butte, Colusa, Glenn, Sacramento, Shasta, Sutter, Tehama, Yolo, and Yuba counties, the western portion of Placer County, and the eastern portion of Solano County.

Air quality is defined as the concentration of pollutants in relation to their impact on human health. Ambient concentrations of air pollutants are determined by the amount of emissions released by pollutant sources and the ability of the atmosphere to transport and dilute such emissions. Natural factors that affect transport and dilution include terrain, wind, atmospheric stability, and the presence of sunlight. Air quality is influenced by factors such as topography, meteorology, and climate, as well as the quantity emissions released by air pollutant sources.

The SVAB climate is characterized by hot, dry summers and cool, rainy winters. Typically, winds transport air pollutants northward out of the SVAB; however, during approximately half of the time from July to September, the wind pattern shifts southward, blowing air pollutants back into the SVAB and exacerbating the concentration of air pollutant emissions. In addition, between winter storms, high pressure and light winds contribute to low-level temperature inversions and stable atmospheric conditions, resulting in the concentration of air pollutants.

Individual air pollutants at certain concentrations may adversely affect human or animal health, reduce visibility, damage property, and reduce the productivity or vigor of crops and natural vegetation. Six air pollutants have been identified by the U.S. Environmental Protection Agency (EPA) and the California Air Resources Board (ARB) as being of concern both on a nationwide and statewide level: ozone; carbon monoxide; nitrogen dioxide; sulfur dioxide; lead; and particulate patter (PM), which is subdivided into two classes based on particle size – PM

equal to or less than 10 micrometers in diameter (PM_{10}) and PM equal to or less than 2.5 micrometers in diameter ($PM_{2.5}$).

Health-based air quality standards have been established for these pollutants by EPA at the national level and by ARB at the state level. These standards are referred to as the national ambient air quality standards (NAAQS) and the California ambient air quality standards (CAAQA), respectively. The NAAQS and CAAQS were established to protect the public with a margin of safety from adverse health impacts caused by exposure to air pollution. Both EPA and ARB designate areas of California as "attainment," "nonattainment," "maintenance," or "unclassified" for the various pollutant standards according to the federal Clean Air Act (CAA) and the California Clean Air Act, respectively. Because the air quality standards for these air pollutants are regulated using human and environmental health-based criteria, they are commonly referred to as "criteria air pollutants." With respect to regional air quality, the SMAQMD region, including Sacramento County, is currently designated as nonattainment for the NAAQS and CAAQS for ozone, and nonattainment for the NAAQS for 24-hour $PM_{2.5}$, and the CAAQS for PM_{10} (SMAQMD 2017a).

3.3.2 THRESHOLDS OF SIGNIFICANCE

As stated in Appendix G of the CEQA Guidelines, the significance criteria established by the applicable air quality management district may be relied on to support determinations of significance. The project site is located within unincorporated Sacramento County in an area regulated by SMAQMD. Thus, pursuant to the SMAQMD-recommended thresholds (SMAQMD 2016) for evaluating project-related air quality impacts, the project's impacts would be considered significant if the project would:

- generate construction-related criteria air pollutant or precursor emissions that exceed the SMAQMD-recommended daily thresholds of 85 pounds per day (lb/day) for nitrogen oxides (NO_X), 80 lb/day or 14.6 tons per year (tons/yr) of respirable particulate matter with an aerodynamic diameter of 10 microns or less (PM_{10}), 82 lb/day or 15 tons/yr of respirable particulate matter with an aerodynamic diameter of 2.5 microns or less ($PM_{2.5}$), or result in or substantially contribute (at a level equal to or greater than 5 percent of a California Ambient Air Quality Standards [CAAQS]) to a violation of a CAAQS;

- generate long-term regional criteria air pollutant or precursor emissions that exceed the SMAQMD-recommended daily thresholds of 65 lb/day of volatile organic compounds (VOC) or NO_X, 80 lb/day 14.6 tons/yr of $PM_{2.5}$ of PM_{10}, 82 lb/day 15 tons/yr of PM2.5, or result in a violation of the CAAQS or result in or substantially contribute (at a level equal to or greater than 5 percent of a CAAQS) to a violation of a CAAQS;

- expose sensitive receptors to excessive nuisance odors, as defined under SMAQMD Rule 402.

3.3.3 DISCUSSION

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

Less than Significant with Mitigation Incorporated. Air quality plans describe air pollution control strategies to be implemented by a city, county, or region. The primary purpose of an air quality plan is to bring an area that does not attain federal or state air quality standards into compliance with the requirements of the CAA and California Clean Air Act requirements. SMAQMD prepares plans to attain state and national ambient air quality standards in the SVAB. The Sacramento Federal Nonattainment Area was designated as "severe" nonattainment

for the 1979 1-Hour ozone NAAQS. However, the 1-Hour standard was revoked when the EPA implemented the more stringent 1997 8-Hour ozone NAAQS. The EPA determined that areas may demonstrate attainment with a revoke standard by submitting a Redesignation Substitution Request. SMAQMD submitted a Redesignation Substitution Request for the 1979 1-Hour ozone standard to ARB in October 2017; this Redesignation Substitution Request is still pending EPA approval. The 2017 Sacramento Regional 2008 8-Hour Ozone Attainment and Further Reasonable Progress Plan is the most updated plan issued by SMAQMD, approved by ARB on November 16, 2017. This plan addresses the Severe ozone nonattainment status of the Sacramento Federal Ozone Nonattainment Area and demonstrates attainment by July 20, 2015. This plan satisfies the CAA requirement to attain air quality standards as expeditiously as practicable. As this plan is yet to be approved by EPA, the most recently approved plans include the:

- 2013 Sacramento Regional 2008 8-Hour Ozone Attainment and Further Reasonable Progress Plan (known as the 2013 State Implementation Plan Revisions);
- 2015 Triennial Report and Plan Revision;
- 2013 $PM_{2.5}$ Maintenance Plan and Redesignation Request; and
- 2010 PM_{10} Implementation /Maintenance Plan and Redesignation Request for Sacramento County.

Air quality plans identify potential control measures and strategies, including rules and regulations that could be implemented to reduce air pollutant emissions from industrial facilities, commercial processes, on- and off-road motor vehicles, and other sources. The SMAQMD *Guide to Air Quality Assessment in Sacramento County* (Guide) is intended to provide a tool to identify proposed development projects that may have a significant adverse effect on air quality. According to the Guide, projects whose emissions are expected to meet or exceed the recommended significance criteria will have a potentially significant adverse impact on air quality, therefore potentially conflict with or obstruct implementation of the SMAQMD air quality plans. Project emissions that do not meet or exceed these thresholds would not impact SMAQMD's ability to reach attainment.

As discussed in detail below in item b) below, modeled project construction and operational emissions would not exceed the SMAQMD thresholds of significance. Although construction emissions would not exceed SMAQMD thresholds, due to the nonattainment status of the SVAB with respect to ozone, PM_{10}, and $PM_{2.5}$, SMAQMD recommends that all construction projects implement the SMAQMD Basic Construction Emission Control Practices (SMAQMD 2017b). SMAQMD's Basic Construction Emission Control Practices include such measures as watering the construction site twice daily, limiting vehicle speeds on unpaved roadways, minimizing vehicle idling, covering haul trucks transporting soil, and cleaning paved roads. Without incorporation of SMAQMD's Basic Construction Control Practices, the project construction activities would be considered to potentially conflict with or obstruct implementation of the SMAQMD's air quality plans for PM and the impact is conservatively considered to be **potentially significant**.

Mitigation Measure AIR-1: Implement the SMAQMD Basic Construction Emission Control Practices.

Comply with Basic Construction Emission Control Practices identified by the SMAQMD and listed below or as they may be updated in the future:

- Water all exposed surfaces two times daily. Exposed surfaces include, but are not limited to soil piles, graded areas, unpaved parking areas, staging areas, and access roads.

- Cover or maintain at least two feet of free board space on haul trucks transporting soil, sand, or other loose material on the site. Any haul trucks that would be traveling along freeways or major roadways should be covered.

- Use wet power vacuum street sweepers to remove any visible track out mud or dirt onto adjacent public roads at least once a day. Use of dry powered sweeping is prohibited.

- Limit vehicle speeds on unpaved roads to 15 miles per hour (mph).

- All roadways, driveways, sidewalks, parking lots to be paved should be completed as soon as possible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used.

- Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to 5 minutes, as required by California Code of Regulations, Title 13, sections 2449(d) and 2485. Provide clear signage that posts this requirement for workers at the entrances to the site.

- Maintain all construction equipment in proper working condition according to manufacturer's specifications. The equipment must be checked by a certified mechanic and determined to be running in proper condition before it is operated.

Significance after Mitigation

With implementation of Mitigation Measure AIR-1, the proposed project would not conflict with or obstruct an applicable air quality plan. This impact would be **less than significant**.

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 (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

Less than Significant with Mitigation Incorporated. Nonattainment status is a result of past and present development within the SVAB, and this regional impact is cumulative in nature rather than being attributable to any one source. A single project's emissions may be individually limited, but could be cumulatively considerable when considered in combination with past, present, and future emissions sources within the air basin. If a project's emissions are below the SMAQMD thresholds of significance, the project is not considered to result in a cumulatively considerable contribution to a significant impact on regional air quality.

The SMAQMD has established project-level construction and operational emissions thresholds of significance for VOC, NO_X, PM_{10}, and $PM_{2.5}$. Projects resulting in emissions that exceed the SMAQMD-adopted thresholds of significance for either or both construction and operational phases would be considered to violate air quality standards or contribute substantially to an existing or projected air quality violation.

Construction

Construction emissions are described as "short-term" or temporary in duration but have the potential to adversely affect air quality. Construction would result in temporary emissions of VOC, NO_X, PM_{10}, and $PM_{2.5}$. These activities would include site preparation (e.g., excavation, grading, and clearing); exhaust emissions from use of off-road equipment, material delivery, and construction worker commutes; asphalt paving; and application of architectural coatings. Ozone precursor emissions of VOC and NO_X are associated primarily with construction equipment exhaust and the application of architectural coatings. PM emissions are associated primarily with fugitive dust generated during site preparation and grading and vary depending on the soil silt content, soil moisture, wind speed, acreage of disturbance, vehicle travel to and from the construction site, and other factors. PM emissions are also generated by equipment exhaust and re-entrained road dust from vehicle travel on paved and unpaved surfaces.

Construction emissions were modeled using the California Emissions Estimator Model (CalEEMod) Version 2016.3.2. Table 3.3-1 summarizes the maximum emissions of VOC, NO_X, PM_{10}, and $PM_{2.5}$ associated with each phase of each construction. Refer to Appendix A for model output files and assumptions. As shown in Table 3.3-1, the modeled daily emissions generated by construction would not exceed the SMAQMD-recommended thresholds of significance.

Table 3.3-1. Summary of Modeled Maximum Construction-Related Emissions of Criteria Air Pollutants and Precursors

Portion of Construction Phase	Maximum Daily Emissions (pounds per day)				Maximum Annual Emissions (tons per year)	
	VOC	NO_X	PM_{10}	$PM_{2.5}$	PM_{10}	$PM_{2.5}$
Year 1 Construction Activities	0.805581	8.1	2.2	0.9	0.4	0.2
Year 2 Construction Activities	2.2	19.7	2.7	1.1	0.5	0.2
Year 3 Construction Activities	5.5	1.7	0.2	0.1	0.1	0.02
Maximum daily emissions in any year	**5.5**	**19.7**	**2.7**	**1.1**	**0.5**	**0.2**
SMAQMD significance threshold	**-**	**85**	**80**	**82**	**14.6**	**15**
Exceeds Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Notes: VOC = volatile organic compounds; NO_X = oxides of nitrogen; PM_{10} = respirable particulate matter with an aerodynamic diameter of 10 micrometers or less; $PM_{2.5}$ = respirable particulate matter with an aerodynamic diameter of 2.5 micrometers or less; SMAQMD = Sacramento Metropolitan Air Quality Management District. Although years 1, 2, and 3 are identified, the project is assumed to occur for only parts of years 1 and 3.

Source: AECOM 2019; See Appendix A for detailed modeling assumptions, outputs, and results.

The proposed project would generate emissions of air pollutants that would not exceed SMAQMD thresholds of significance. Therefore, these emissions are not considered cumulatively considerable. However, as also discussed above under item a), although construction emissions would not exceed SMAQMD thresholds, due to the nonattainment status of the SVAB with respect to ozone, PM_{10}, and $PM_{2.5}$, SMAQMD recommends that all construction projects implement the SMAQMD Basic Construction Emission Control Practices (SMAQMD 2017b). Without implementation of the SMAQMD Basic Construction Emission Control Practices, the contribution of construction-related emissions from the proposed project are assumed to be cumulatively considerable, resulting in a **potentially significant** impact.

Mitigation Measure AIR-2: Implement Mitigation Measure AIR-1 (Implement the SMAQMD Basic Construction Emission Control Practices).

Significance after Mitigation

Implementation of Mitigation Measure AIR-2 would ensure that construction would not exceed SMAQMD's thresholds of significance. Operational emissions are below SMAQMD thresholds of significance. Therefore, implementation of Mitigation Measure AIR-2 would reduce this impact to a level considered **less than significant**.

Operations

Daily activities associated with long-term school operations would generate criteria air pollutant emissions and precursors from mobile, energy, and area sources. Mobile sources include vehicle trips arriving at, and departing from the proposed school. Area sources include consumer products (i.e., cleaning supplies, kitchen aerosols, toiletries), natural gas combustion for water and space heating, landscape maintenance equipment, and periodic architectural coatings. While construction emissions are considered short-term and temporary, operational emissions are considered long-term and would occur for the lifetime of the project. Therefore, operational emissions have greater potential to affect the attainment status of an air basin, particularly as a result of increased traffic.

Long-term emissions were modeled using CalEEMod Version 2016.3.2. As shown in Table 3.3-2, the school's total operational emissions would not exceed any SMAQMD threshold. This comparison to the SMAQMD thresholds shows that school operations would not contribute substantially to any existing or projected air quality violation and would not conflict with efforts to reach attainment of any air quality standards. Therefore, the school's long-term operational impact would be **less than significant**.

Table 3.3-2. Summary of Modeled Maximum Daily Long-Term Operational Emissions of Criteria Air Pollutants and Precursors[1]

Emissions Source	Daily Emissions (lbs./day)			
	VOC	NO_X	PM_{10}	$PM_{2.5}$
Area	3	0.0009	0.0004	0.0004
Mobile	1	6	7	2
Energy	0.06	0.58	0.04	0.04
Total Operational Emissions[2]	**5**	**7**	**7**	**2**
SMAQMD Thresholds of Significance	**65**	**65**	**80**	**82**
Exceeds Thresholds?	**No**	**No**	**No**	**No**

Notes: lbs./day = pounds per day; ROG = reactive organic gases; NO_X = oxides of nitrogen; PM_{10} = respirable particulate matter; $PM_{2.5}$ = fine particulate matter; SMAQMD = Sacramento Metropolitan Air Quality Management District.

[1] Operational emissions were modeled for year 2022.

[2] Total emissions may not add correctly due to rounding.

Source: AECOM 2019; See Appendix A for detailed modeling assumptions, outputs, and results.

c) Expose sensitive receptors to substantial pollutant concentrations?

Less-than-Significant Impact. Some land uses are considered more sensitive to air pollution than others, due to the types of population groups or activities involved. Children, pregnant women, the elderly, those with existing health conditions, and athletes or others who engage in frequent exercise are especially vulnerable to the effects of air pollution. Accordingly, land uses that are typically considered sensitive receptors include schools, daycare centers, parks and playgrounds, and medical facilities.

Residential areas are considered sensitive to air pollution because residents (including children and the elderly) tend to be at home for extended periods of time, resulting in sustained exposure to pollutants present. Recreational land uses are considered moderately sensitive to air pollution. Exercise places a high demand on respiratory functions, which can be impaired by air pollution, even though exposure periods during exercise are generally short. In addition, noticeable air pollution can detract from the enjoyment of recreation. Industrial and commercial areas are considered the least sensitive to air pollution. Exposure periods are relatively short and intermittent as the majority of the workers tend to stay indoors most of the time.

Sensitive receptors nearest to the project are the students within school and the residential neighborhoods adjacent to the east and south of the project site.

Construction-Related Toxic Air Contaminant Emissions

Construction would generate diesel particulate matter emissions from the use of off-road diesel-powered equipment required for site grading and excavation, paving, and other construction activities. These activities may expose nearby receptors to toxic air contaminants (TACs), including residents in adjacent areas; the nearest residence is located approximately 100 feet (30 meters) east of the project site. For this analysis, particulate matter exhaust from diesel-fueled engines (DPM) is considered to be less than or equal to 10 micrometers in diameter. Therefore, PM_{10} represents the upper limit for DPM emissions associated with construction of the proposed project.

Health risk is a function of the concentration of contaminants in the environment and the duration of exposure to those contaminants. Concentrations of mobile-source DPM emissions are typically reduced by approximately 60 percent at a distance of around 300 feet (100 meters) (Zhu and Hinds 2002). The nearest sensitive receptors are the students within school and the residences present east and south of the project site, approximately 100 feet from the project site boundary; however, construction activities would be dispersed throughout the entire project site, so the majority of construction activities would take place farther than 300 feet from the nearest residences. The risks estimated for an exposed individual are higher if a fixed exposure occurs over a longer period of time.

Health effects from TACs are often described in terms of individual cancer risk, which is based on a 30-year lifetime exposure to TACs (OEHHA 2015). Construction activities for the proposed project would last approximately 22 months, would vary in activity and equipment intensity over that time, and would take place throughout the entirety of the project site, thereby limiting the amount of time that emitting equipment would be within a distance that would expose sensitive receptors to substantial concentrations. As described in item b), diesel exhaust emissions of NO_X during construction would not exceed SMAQMD's threshold of significance of 85 lb/day (Table 3.3-1). In addition, the project would implement AIR-1, which would help reduce construction-related TAC emissions. If the duration of construction activities near a sensitive receptor was for the entirety of two years and half, which is not anticipated, then the exposure would be less than 10 percent of the total exposure

period used for typical health risk calculations (i.e., 30 years). Due to the intermittent and temporary nature of construction activities, and the dispersive properties of TACs, as well as the fact that PM emissions would be far less than the SMAQMD emission threshold, short-term construction would not expose sensitive receptors to DPM emission levels that would result in a health hazard. As a result, this impact would be **less than significant**.

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

Less-than-Significant Impact. The occurrence and severity of odor impacts depend on numerous factors, including the nature, frequency, and intensity of the source; wind speed and direction; and the presence of sensitive receptors. Typically, odors are generally regarded as an annoyance rather than a health hazard. However, manifestations of a person's reaction to foul odors can range from the psychological (i.e., irritation, anger, or anxiety) to the physiological, including circulatory and respiratory effects, nausea, vomiting, and headache. The ability to detect odors varies considerably among the population and overall is quite subjective.

Odor Emissions Related to Short-Term Construction

The predominant source of power for construction equipment is diesel engines. Exhaust odors from diesel engines and emissions associated with asphalt paving and the application of architectural coatings may be considered offensive to some individuals. Depending on the wind direction, residents to the east and south may be exposed to odors from construction-related activities. However, because the prevailing wind direction is from the south, opposite the direction of these residents, as well as the fact that odors would be temporary and disperse rapidly with distance from the source, construction-generated odors would not result in the frequent exposure of receptors to objectionable odor emissions. Furthermore, the District and construction contractors are required to comply with SMAQMD Rules 402 (Nuisance) and 442 (Architectural Coatings), which would ensure that odors generated by short-term construction would not affect a substantial number of people. Therefore, this impact would be **less than significant**.

Odor Emissions Related to Long-Term Operations

The proposed project is replacing an existing school. Schools are not typically considered to be sources of objectionable odors. Industries and/or facilities that are likely to emit objectionable odors include wastewater treatment plants, landfills, composting facilities, petroleum refineries, and manufacturing plants. The proposed project would not include any of these types of facilities. Other minor sources of odor that could be generated during operations of the school include landscaping equipment. These activities would take place intermittently and the nearby sensitive receptors are located opposite the direction of the prevailing winds in the area. As a result, this impact would be **less than significant**.

The surrounding nearby land uses are residential and commercial. These land uses are not typically associated with odor emitting sources. Therefore, the proposed project would not expose sensitive receptors at the project site to objectionable odors from off-site. As a result, this impact would be **less than significant**.

3.4 BIOLOGICAL RESOURCES

ENVIRONMENTAL ISSUES	Significant Impact	Less Than Significant	Less Than Significant with Mitigation Incorporated	No Impact
IV. 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 Game or the U.S. Fish and Wildlife Service?	☐	☐	☒	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service?	☐	☐	☐	☒
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?	☐	☐	☐	☒
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?	☐	☐	☐	☒
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☒	☐
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?	☐	☐	☐	☒

3.4.1 DISCUSSION

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 Game or the U.S. Fish and Wildlife Service?

Less than Significant with Mitigation Incorporated. The project site consists entirely of developed land, including buildings, parking lots, walkways, sidewalks, playgrounds, mowed lawns, and ornamental plantings. The project site is in a developed portion of unincorporated Sacramento County and is surrounded by residential and commercial development.

Common wildlife that utilize urban habitat include several species of birds and rodents, as well as opportunistic carnivores and omnivores such as skunk, opossum, raccoon, and coyote.

No wetlands, riparian habitat, sensitive natural communities, or suitable habitats for special-status plants or wildlife are likely to occur within the project site. However, the trees, shrubs, and structures throughout the project site could provide suitable nesting habitat for songbirds, and large mature trees could provide nest sites for common raptors such as red-tailed hawk, great horned owl, and American kestrel. Due to a lack of suitable foraging habitat in the project and vicinity, special-status raptors such as Swainson's hawks and white-tailed kites are not expected to nest in the project area.

The Migratory Bird Treaty Act (MBTA) (Title 16, Section 703 and following sections of the United States Code [16 USC 703 et seq.]), states that it is unlawful, except as permitted by regulations, to pursue, take, or kill any migratory bird, or any part, nest, or egg of any such bird. The current list of species protected by the MBTA can be found in Title 50, Section 10.13 of the Code of Federal Regulations (50 CFR 10.13) and includes nearly all birds native to the United States. Furthermore, Sections 3503 and 3503.5 of the California Fish and Game Code state that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird. Section 3503.5 specifically states that it is unlawful to take, possess, or destroy any raptors (i.e., species in the orders Accipitriformes, Falconiformes, and Strigiformes), including their nests or eggs. Typical violations of these codes include destruction of active nests resulting from the removal of vegetation in which the nests are located. Violation of Section 3503.5 could also include failure of active raptor nests resulting from disturbance of nesting pairs by nearby project construction. As discussed above, suitable migratory bird and raptor nesting substrate exists in and adjacent to the project site.

Removal of mature trees is proposed as part of the project. Trimming or removal of trees or shrubs that exist next to buildings to accommodate equipment access and/or upgrades to existing facilities, as well as demolition of all or part of existing structures may potentially directly affect nesting birds if a nest is within the vegetation or structure to be trimmed and/or removed and is destroyed during project activities. Project construction would involve the use of heavy equipment for grading, trenching, and excavation, and power tools for building assembly that could potentially disturb nesting raptors in the project vicinity leading to nest abandonment and failure. This impact is considered **potentially significant**.

Mitigation Measure BIO-1: Avoid impacts on nesting birds and raptors.

The San Juan Unified School District (District) will implement the following measures to avoid directly affecting nesting birds during project construction:

- The District will commission preconstruction nesting bird surveys to locate any active nests of birds protected under the MBTA and California Fish and Game Code Sections 3503. Before any construction activities occur during the nesting season (February 15–August 31), a qualified biologist shall conduct nesting bird surveys to identify any non-raptor migratory bird nests within 50 feet and raptor nests within 300 feet of proposed demolition and construction areas. A qualified wildlife biologist shall determine the timing of preconstruction surveys based on the time of year and habitats that are present and shall conduct the surveys no more than 30 days before construction.

- If nests are detected during the preconstruction surveys, the District will maintain no-disturbance buffers around active bird nests during the breeding season, or until it is determined the young have fledged. The no-disturbance zone would generally include a 50-foot exclusion zone around the nests of non-raptor migratory birds, and a 300-foot buffer around all raptor nests (including owls) in which no work will be allowed until the young have successfully fledged or nesting activity has ceased. The qualified biologist will make the determination of fledging or cessation of nesting. The size of the exclusion zone may be modified by the qualified biologist depending on the species and the type of construction activity and associated disturbance anticipated near the nest. Before construction, the qualified biologist shall flag or fence the setback areas.

- If no nests are observed during the preconstruction survey but nesting occurs after the start of construction, it will be assumed that the individuals are acclimated to the level of ongoing disturbance.

- If construction is scheduled to occur during the non-nesting season, then no nesting bird surveys are required before construction activity begins.

Significance after Mitigation

With implementation of Mitigation Measure BIO-1, the potential impacts to common nesting birds and raptors as a result of project construction would be avoided by conducting tree removal and pruning of vegetation outside of the nesting season whenever possible, conducting pre-construction surveys if construction activities are to occur during the nesting season, and establishing no disturbance buffers to protect active nests if present. Therefore, this impact would be reduced to a **less-than-significant** level with incorporation of this mitigation measure.

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

No impact. No riparian habitat or other sensitive natural communities are present within or adjacent to the project site. Therefore, there would be **no impact**.

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. There are no wetlands within or adjacent to the project site and therefore there would be **no impact**.

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?

No impact. There are no wildlife corridors present within or adjacent to the project site; therefore, there would be **no impact.**

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

Less than Significant with Mitigation Incorporated. The project would involve the removal and potentially trimming of trees, some of which include mature trees that could be protected under Sacramento County's Tree Preservation Ordinance. Protected trees include native oak trees with a diameter at breast height (dbh) of 6 inches or multi-trunked native oak tree with an aggregate dbh of 10 inches or more.[1]

A Sacramento County tree permit is required to impact native oak trees of the following species: valley oak (*Quercus lobata*), interior live oak (*Quercus wislizenii*), blue oak (*Querucs douglasii*), or oracle oak (*Quercus x morehaus*) that have at least one trunk of six inches or more in diameter measured four and one-half feet above the ground, or a multi-trunked native oak tree having an aggregate diameter of 10 inches or more, measured four and one-half feet above the ground (dbh). Several valley oak trees were observed within the project site during the site visit conducted on August 12, 2019. These trees were small, but still large enough to be protected by the Sacramento County ordinance. The majority of the valley oaks were located in a row along the center of the field (tree #1, dbh 7 inches; tree #2, dbh 10 inches; tree#3, dbh 9 inches; tree#4, dbh 16 inches; and tree #5, dbh 14 inches). Two additional valley oaks were located amongst the buildings of the school (tree #6, dbh 17 inches; and tree #7, dbh 12 inches).

Other tree species observed within the project site included (but was not limited to) the following non-native trees: Crape myrtle (Lagerstroemia sp.), Chinese pistache (*Pistacia chinensis*), eucalyptus (*Eucalyptus* sp.), date palm (*Phoenix* sp.), fan palm (*Washingtonia* sp.), London planetree (*Platanus x acerifolia*), maple (*Acer* sp.), trident maple (*Acer buergerianum*), cottonwood (*Populus* sp.), magnolia (*Magnolia* sp.), catalpa (*Catalpa* sp.), and empress tree (*Paulownia tomentosa*). In addition, three small native coast live oaks (*Quercus agrifolia*) were observed along the fence line in the northeastern portion of the project site.

The project would involve the removal and potentially trimming of trees, some of which include mature trees that could be protected under Sacramento County's Tree Preservation Ordinance. Based on the current site plan, it appears as though most or all of the valley oaks may need to be removed, although three valley oaks could potentially be preserved, depending on the engineering of the newly designed access from Watt Avenue and the detailed approach to landscaping south of Building A. This impact is assumed to be **potentially significant**.

Mitigation Measure BIO-2: Comply with the County of Sacramento's Tree Preservation Ordinance and Obtain a Tree Permit

Prior to project construction, the San Juan Unified School District (District) shall contact the County of Sacramento's tree administrator to discuss the proposed activity and if deemed necessary, the tree administrator will inspect the site of the proposed activity. After consultation between the District and the tree administrator, if the tree administrator determines that a permit is required, the District shall apply for a permit and comply with relevant permit conditions, including permit conditions that may be met through on-site replanting and the landscaping plan. The application for a tree permit would contain the following information:

1. Location, size and species of the tree(s);

[1] For more information, please see: https://qcode.us/codes/sacramentocounty/view.php?topic=19-19_12&showAll=1&frames=on.

2. The type of activity for which the permit is sought;
3. A statement of the reasons for the activity; and
4. Funds for an arborist report, if applicable.

Significance after Mitigation

Mitigation Measure BIO-2 requires compliance with the County's Tree Preservation Ordinance policies protecting heritage trees, which would reduce significant impact related to conflict with local ordinances to a **less-than-significant level**.

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?

The project site is not within or adjacent to the area covered by the American River Parkway Plan or any adopted habitat conservation plan or natural community conservation plan. Therefore, there would be **no impact**.

3.5 CULTURAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
V. Cultural Resources. Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	☐	☐	☐	☒
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☐	☐	☒	☐
c) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☒	☐

3.5.1 ENVIRONMENTAL SETTING

GEOLOGIC SETTING

The project site is located in the southern Sacramento Valley, on a flat alluvial plain. Based on geologic mapping prepared by Gutierrez (2011), the project site is located in the Pleistocene-age Riverbank Formation.

HISTORIC SETTING

The Arden area was once part of the 44,000-acre Rancho del Paso Mexican land grant secured by Eliab Grimes in 1844. The southern boundary of the rancho fell along the north bank of the American River with approximate modern boundaries of Northgate Boulevard on the west, Elkhorn Boulevard on the north, and Manzanita Avenue to the east. Until his death in 1848, Eliab Grimes and his business partner John Sinclair, who was the alcade of Sacramento, operated the rancho as a wheat and cattle ranch. Grimes did not have children and left his portion of the rancho to his nephew, Hiram Grimes, who purchased Sinclair's share of the rancho in 1849. Hiram Grimes then sold the entire rancho to San Francisco merchant and trader Samuel Norris. Members of Eliab Grimes' family took Norris to court in the 1850s over the legality of the rancho purchase and after accruing a decade's worth of legal fees, Norris sold the rancho to his lawyers, Lloyd Tevis and James Ben Ali Haggin (Sacramento Union 1914a; Beck and Haase 1974).

Tevin and Haggin retained ownership of the ranch lands for nearly half a century with a shared vision to keep the ranch intact.[2] In 1891, Tevis and Haggin began planning for the eventual sale of the rancho to a single buyer who would parcel out the land by incorporating the Rancho Del Paso Land Company and selling their holdings to the corporation for $10. A suitable buyer was secured in 1910 when the Sacramento Valley Colonization Company purchased the 44,000 acres for $1.5 million (Haggin 1914; The Thoroughbred Record 1915; Sacramento Union 1891 and 1914b).

[2] The men owned 400,000 acres throughout California and operated their own wheat, hops, cattle, and sheep operations and also leased land to farmers. Haggin set aside a portion of Rancho Del Paso to establish a thoroughbred horse racing ranch. Between 1894 and 1905, Haggin maintained 600 to 1,000 horses.

Sacramento Valley Colonization Company immediately started improvements to the tract of land including removing fences, cutting a few new roads, and creating parcels as small as 10 acres each. The company sold to both private individuals and other development companies, such as Haggin Grant Irrigated Land Company, which purchased 1,200 acres in 1911. The last of the former Del Paso Rancho land was sold in December of 1915 in an 814-acre purchase by another subdivider (Ehrenreich-Risner 2010; Sacramento Union 1911 and 1915).

Although many development companies purchased large tracts for residential subdivisions, the area was relatively untouched for 30 years. Into the late 1930s, the former rancho land remained mostly rural, with some small orchards, and only a few residential developments, mostly concentrated around Fair Oaks Boulevard. Not until after World War II did development in the Arden area begin in earnest with prominent local developers, Wright & Kimbrough's Arden Park Vista tract and Williams and Williams Development's Arden Oak tract in late 1945. Arden Park Vista was located on Fair Oaks Boulevard at Watt Avenue and Arden Oaks was on the north side of Watt Avenue and Arden Way. The first unit of the Arden Park Vista tract included 208 lots. Referred to in advertisements as "the country," these new tracts ranged from a quarter-acre to an acre in land area.[3]

The post-war growth experienced throughout the country also occurred in the Sacramento region, and 75 percent of the Arden-Arcade land area was developed by the mid-1960s, with large-scale residential subdivisions, shopping centers, and schools. Residents of this 18-square-mile area have opposed annexation to the City of Sacramento – both in the 1960s and most recently in the 2000s (United States Census Bureau 2019).

PREHISTORIC SETTING

In an attempt to unify the various hypothesized cultural periods in California, Fredrickson proposed an all-encompassing scheme for cultural development, while acknowledging that these general trends may manifest themselves differently and that there may be some variation between sub-regions. These general cultural periods (Paleo-Indian, Early, Middle and Late Archaic, and Emergent periods) are used in this section in connection with the North-Central Sierra Nevada chronology because of their relevancy to the vicinity of the project site.

The Late Pleistocene Pattern and Period (>10,000 Before Present [B.P.]) in the foothill and eastern Sacramento Valley is practically non-existent. Sites CA-SAC-370 and CA-SAC-379, located near Rancho Murieta, produced numerous bifaces, cores, and raw materials from gravel strata estimated to be between 12,000 and 18,000 years in age. Early Holocene Pattern and Period (circa [ca.] 10,000–7000 B.P.) was first defined by Bedwell (1970) as a human adaptation to lake, marsh, and grassland environments that were prevalent at this time. Appearing after 11,000 years B.P., the tradition slowly disappeared ca. 8000–7000 B.P.

During the Archaic Pattern and Period – (ca. 7000–3200 B.P.), the climate in the valleys and foothills of Central California became warmer and dryer, and millingstones are found in abundance.

The Early and Middle Sierran Pattern (ca. 3200–600 B.P.) evidences an expansion in use of obsidian, which is interpreted with reservation to indicate an increase in regional land use, and the regular use of certain locales. During this time, a much heavier reliance on acorns as a staple food develops, and supports large, dense populations.

[3] One advertisement for Arden Park Vista touted, "Out of a portion of the romantic old Spanish Rancho Del Paso has been created a modern wonderland for convenient, peaceful community living" (Sacramento County Planning & Community Development 1980; Sacramento Bee 1945a and 1945b; and Castaneda and Simpson 2013).

During the Late Sierran Period (ca. 600–150 B.P.), archaeological village sites generally correspond to those identified in the ethnographic literature. Diagnostic artifacts are small contracting-stem points, clam shell disk beads, and trade beads introduced near the end of the period, marking the arrival of European groups (Beardsley 1954:77–79; Elsasser 1978:44; Fredrickson 1984).

ETHNOGRAPHIC SETTING

Ethnographically, the project site is situated in the Nisenan (sometimes referred to as the Southern Maidu) sphere of influence. The Nisenan territory included the drainages of the Yuba, Bear, and American rivers, and the lower drainages of the Feather River, extending from the crest of the Sierra Nevada to the banks of the Sacramento River. In the Nisenan territory, several political divisions, constituting tribelets, each had their own respective headmen who lived in the larger villages. However, it is not known which of these larger population centers wielded more influence than others, although they were all located in the foothill areas. In general, more substantial and permanent Nisenan villages were not established on the valley plain between the Sacramento River and the foothills, although this area was used as a rich hunting and gathering ground.

PREVIOUS CULTURAL STUDIES

A records search conducted by the North Central Information Center of the California Historical Resources Information System indicated that no previous cultural resources studies have been conducted for the project site, and only one study has been conducted with ¼ mile of the project site, which did not result in the identification of resources in the vicinity of the project site.

CULTURAL RESOURCE INVESTIGATIONS

Cultural resource investigations consisted of an assessment of the built environment, i.e., the existing Arden Middle School, conducted by AECOM architectural historian, Heather Miller, on June 19, 2019 and an archaeological survey conducted by AECOM senior archaeologist, Richard Deis, on July 30, 2019. The results of these investigations are summarized below.

Built Environment

Arden Middle School consists of five stages of building construction: 1914, 1936, Post-war (late 1940s–1956), 1965, and 2015. The school's origin can be traced back to 1914 when the newly formed Arden School District commissioned construction of its first school. At the time, this area was referred to as "Little Oklahoma" after the 35 families who recently settled in the 7,000-acre Arden tract what was sold through the Farmers' and Bankers' Investment Company. The location of the school was contested, but eventually 3.5 acres were secured at the desolate intersection of Arden Way and Watt Avenue. When the school was completed in 1914, it consisted of a central auditorium that was flanked by two small classrooms with a semi-circular driveway. Funding was approved for an addition in 1932, which expanded the auditorium and added two new classroom wings. It was designed by prominent and prolific local architect Charles F. Dean in 1934 and was completed in 1936. A residence and a detached garage (often referred to as the "teacherage") was also constructed in 1938 for the principal, Herbert E. Winterstein, and his family near the eastern parcel boundary and was occupied by the family until 1953. The house and garage have since been demolished.

The school remained in its new configuration for nearly a decade but needed to expand in the post-war years as population increased in the Arden area. In anticipation of planned post-war housing tracts in the Arden area and an influx of new students, an adjacent 11 ½-acres of land was purchased in 1945 for the school's future building expansion projects and playgrounds. Two years later, after passing a $95,000 bond for school construction, Charles F. Dean, who was serving as the Arden School District's architect, designed a six-classroom addition that included a kindergarten room. This classroom wing was built at what would become the south end of the current main campus building. The long-term building plan for the school was to methodically construct connected classroom wings in the popular "finger-style" plan, starting at the south end and moving north, that would eventually connect the older section of the school at the north end of the property.

After the southern-most wing was completed in 1948, Dean designed a music room, administrative space, and three new classrooms section on the west side, which were constructed in 1949. Another wing was completed in 1949. An additional wing, which was most likely designed by architect Gordon Stafford, was completed in 1950. Between 1952 and 1953, three more classroom wing additions designed by Gordon Stafford were approved for Arden School, including a library wing that fronts Watt Avenue and the flat roof connecting walkways. The library wing and one of the classroom wings were not completed until the 1955 school year.

In 1956, architect Gordon Stafford designed the last stages that would connect the 1936 portion of the school to the library wing that was completed in 1955. Stafford's design required the demolition of the two original wings from the 1914 school and the 1936 wing on the west side of the auditorium. After the buildings were cleared from the site, the new L-shaped building section contained the new administration office, a science classroom, and a band room.

A new building with locker rooms and showers, a science classroom, and an industrial arts classroom was constructed in 1965 east of the main school building when the school was selected to transition from an elementary school to a middle school to serve 7th and 8th graders. Since becoming a middle school in 1965, the campus remained relatively unchanged for decades. A new $5.5 million, 10,145 square-foot multi-purpose building was added to the campus in 2014 and completed in 2015.

Archaeological Investigations

The majority of the project site (approximately 90 percent) consists of areas covered in concrete, structures, and grass. Exposed soils were limited to the fringes of the grass areas, which were intensively surveyed for the presence of archaeological resources. No cultural resources were observed. Because the project site consists of Pleistocene-age alluvial fan deposits, subsurface archaeological deposits are most likely not present.

3.5.2 DISCUSSION

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

No impact. The Arden Middle School campus was evaluated for the California Register of Historical Resources (CRHR) and does not meet any of the criteria for listing and, therefore, is not a historical resource for the purposes of the CEQA. Because Arden Middle School is not a historical resource, there would be no impact from project construction activities. This property has been evaluated in accordance with Section 15064.5(a)(2)-(3) of

the CEQA Guidelines, using the criteria outlined in Section 5024.1 of the California Public Resources Code. There is **no impact**.

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

Less than Significant with Mitigation Incorporated. Previous studies and the current investigation did not result in the identification of archaeological resources in the proposed project site, as defined by Section 15064.5 of the CEQA Guidelines. Because the proposed project is located in a non-depositional environment, subsurface deposits are most likely not present. However, a possibility still exists that archaeological features could be discovered in the project site. The impact is considered **potentially significant**.

Mitigation Measure CUL-1: Notification and inspection and appropriate treatment for inadvertent discovery of archaeological resources

A minimum of seven days prior to beginning earthwork or other soil disturbance activities, the District shall notify tribal representative/s from any traditionally and culturally affiliated Native American Tribe and offer an invitation to inspect the project site, including soil piles, trenches, or other disturbed areas, within the first five days of groundbreaking activity. If this site visit occurs, during the site visit, the tribal representative/s will be provided with the opportunity to provide construction personnel with tribal cultural resources awareness information.

The School District will require that, in the event of any inadvertent discovery of archaeological resources during this inspection or construction activities, all such finds will be subject to Public Resources Code Section 21083.2 and CEQA Guidelines Section 15064.5. Procedures for inadvertent discovery are listed below.

- Before the start of any earthmoving activities, the School District will retain a qualified archaeologist to inform construction personnel involved with earthmoving activities regarding the types of cultural resources or features that could be encountered during construction. These include, but are not limited to flaked stone tools or ground stone milling tools. Historic-era artifacts may include, but are not limited to ceramic, glass, or metal objects, nails, and miscellaneous hardware. Contractors involved in any excavation activities will be instructed on what to do and whom to contact if any potential archaeological resources or artifacts are encountered, and that any such find is confidential.

- If unrecorded cultural resources (e.g., midden, unusual amounts of shell, animal bone, bottle glass, ceramics, structure/building remains, etc.) are encountered during construction, all ground-disturbing activities will be restricted within a 100-foot radius of the find or a distance determined by a qualified professional archaeologist to be appropriate based on the potential for disturbance of additional cultural resource materials.

- All work within 100 feet of the find will be halted until a professional archaeologist and, if available, a tribal representative from a traditionally and culturally affiliated Native American Tribe can evaluate the significance of the find in accordance with National Register of Historic Places (NRHP) and CRHR criteria.

- If any find is determined to be significant by the archaeologist, representatives of the School District will meet with the archaeologist to determine the appropriate course of action, in accordance with applicable State requirements and/or in consultation with affiliated Native American Tribal representative/s. If necessary, a Treatment Plan will be prepared by an archeologist, outlining recovery of the resource, analysis, and reporting of the find. The Treatment Plan will be submitted to the School District for review and approval prior to resuming construction.

- All significant cultural materials recovered will be subject to scientific analysis, professional curation, and a report prepared by the professional archaeologist according to current professional standards.

- If tribal cultural resources are identified that have the potential to be adversely affected by the project, SJUSD will consult with available and affiliated Native American representatives to minimize those impacts through:

    - Avoidance and preservation of the resources in place, including but not limited to planning and construction to avoid the resources and protect the cultural and natural context, or planning greenspace, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.

    - Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including but not limited to the following: protecting the cultural character and integrity of the resource; protecting the traditional use of the resource; or protecting the confidentiality of the resource.

- Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.

- Protecting the resource.

Significance after Mitigation

Implementation of the above described mitigation measure would reduce potential impacts on previously undiscovered cultural resources to a less-than-significant level because compliance with the above-listed procedures would address concerns about loss of, or substantial adverse changes to, significant cultural resources. If an inadvertent discovery of cultural materials is made during project-related construction activities, disturbances in the area of the find must be halted and appropriate treatment and protection measures must be implemented, all in consultation with a professional archaeologist. The impact is less than **significant with mitigation.**

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

There has been no indication or evidence that the area has been used for human burials in the recent or distant past. Therefore, human remains are unlikely to be encountered. Project construction would involve grading, trenching, excavation, and potentially other earthmoving activities. Human remains are unlikely to be

encountered. However, in the unlikely event that human remains are discovered during subsurface activities, they could be inadvertently damaged. Therefore, this impact would be **potentially significant**.

Mitigation Measure CUL-2: Stop Work If Human Skeletal Remains Are Uncovered, and Follow the Procedures Set Forth in CEQA Guidelines Section 15064.5(e)(1).

In the event of the accidental discovery or recognition of any human remains, the District will take the following steps:

(1) No further excavation or disturbance of the project site or any nearby area reasonably suspected to overlie adjacent human remains will occur until:

(A) the coroner of Sacramento County has been contacted to determine that no investigation of the cause of death is required, and

(B) if the coroner determines the remains to be Native American:

(1) the coroner shall contact the Native American Heritage Commission (NAHC) within 24 hours (pursuant to Health and Safety Code Section 7050[c]);

(2) the NAHC shall identify the person or persons it believes to be the most likely descendant from the deceased Native American pursuant to the provisions of Public Resources Code Section 5097.98; and

(3) the most likely descendant may make recommendations to the District/contractors, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods, as provided in Public Resources Code Section 5097.98; or

(2) Where the following conditions occur, the District/contractors shall rebury the Native American remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance:

(A) the NAHC is unable to identify a most likely descendant or the most likely descendant fails to make a recommendation within 24 hours after being notified by the NAHC;

(B) the most likely descendant identified fails to make a recommendation; or

(C) the District rejects the recommendation of the most likely descendant, and mediation by the NAHC fails to provide measures acceptable to the District.

Significance after Mitigation

Implementation of Mitigation Measure CUL-2 would reduce any impacts related to the disturbance or destruction of human remains to a **less-than-significant** level. If remains are encountered, the above described mitigation measure would require compliance with the procedures in the California Section 7050.5 of the Health and Safety Code and Public Resources Code 5097.98. Public Resources Code Section 5097.94 identifies the responsibilities for acting upon notification of a discovery of Native American human remains. These procedures are specifically

designed to reduce the adverse effect of project implementation related to human remains by requiring that the human remains are treated in an appropriate and respectful manner and in accordance with applicable laws and regulations.

3.6 ENERGY

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VI. 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?	☐	☐	☒	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☐	☒

3.1.5 ENVIRONMENTAL SETTING

The proposed project would be situated at an existing District school property. The project would reduce consumed conventional power produced by the local regional electric utility and would reduce utility billing costs and provide long-term energy cost savings as the project is intended to modernize the existing school campus to meet current building code requirements, and to provide an improved factor of safety.

3.1.6 DISCUSSION

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

The proposed project would not have a substantial impact on energy consumption or conservation. The project would not increase consumption or inefficient energy use. Construction equipment and haul trucks would consume fuel during the construction process; however, the site's small size and relative lack of grading would minimize the energy consumed.

During operations, the project would require fuel for vehicles and equipment used by site maintenance workers, which would be similar to that of existing site maintenance activities. The site's energy use would not increase the area's peak demand for power. Furthermore, the project would improve energy efficiency on-site by replacing older buildings with new energy efficient buildings that will comply with the current version of the CalGreen Code.

Therefore, the proposed project would not adversely affect energy resources or energy conservation. Further, the project would not result in an unnecessary or wasteful use of energy. The project's electricity demand would not constitute a wasteful, inefficient, or unnecessary use of energy. Potential impacts on base or peak energy demand would be **less than significant**.

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

The proposed project would not conflict with a state or local plan for renewable energy. There is no relevant state or local plan that would conflict with this reconstruction of an existing school. Structures built as part of the

proposed project would be subject to Titles 20 and 24 of the California Code of Regulations, which serve to reduce demand for electrical energy by implementing energy-efficient standards for residential and non-residential buildings. N**o impact** would occur.

3.7 GEOLOGY AND SOILS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VII. Geology and Soils. 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 California Geological Survey Special Publication 42.)	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
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?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994, as updated), creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐
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?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

3.7.1 ENVIRONMENTAL SETTING

GEOLOGY, SEISMICITY, AND SOILS

The project site is located in the southern Sacramento Valley, on a flat alluvial plan composed of Pleistocene (2.6 million years B.P. to 11,700 years B.P.) and Holocene (11,700 years B.P. and younger) age deposits. These sediments overlie the thick sequence of sedimentary rock units that form the deeply buried bedrock units in the

mid-basin areas of the valley. Elevations at the project site range from approximately 74–69 feet above mean sea level, sloping gently from north to south.

The Sacramento Valley has historically experienced a very low level of seismic activity. The nearest potentially active faults are located approximately 25 miles east in the Foothills Fault System, and active faults are located approximately 50 miles north near Lake Oroville and west in the Coast Ranges (Jennings and Bryant 2010).

Based on a review of U.S. Natural Resources Conservation Service (NRCS) (NRCS 2018) soil survey data, the northwestern portion of the project site where the existing buildings are located is classified as Urban Land (i.e., artificial fill). Of the remaining undeveloped portion of the school site, approximately 9 acres consist of the Urban land-Xerarents-Fiddyment complex 0–8 percent slopes, and approximately 1 acre consists of the San Joaquin-Urban land complex 0–3 percent slopes. Urban land and Xerarents are not rated by NRCS in terms of soil characteristics. The San Joaquin-Urban land complex, located at the southern end of the school site, has a moderate water erosion hazard, a moderately high stormwater runoff potential, a moderately high wind erosion hazard, and a low shrink-swell potential.

PALEONTOLOGICAL RESOURCES

Based on geologic mapping prepared by Gutierrez (2011), the project site is located in the Pleistocene-age Riverbank Formation. The results of a paleontological resources records search performed at the University of California, Berkeley Museum of Paleontology (UCMP) on April 5, 2019 indicate there are no recorded fossil localities at the project site. However, the Riverbank Formation is known to contain unique, scientifically important vertebrate fossil remains. Nine recorded vertebrate fossil localities in the Sacramento area have yielded remains of Rancholabrean-age mammoth, bison, camel, coyote, horse, Harlan's ground sloth, mammoth, antelope, deer, rabbit, woodrat, fish, mole, mice, squirrel, snake, and gophers, dire wolf, frog, Pacific pond turtle, and the family Anatidae (ducks, geese, and swans) (UCMP 2019, Jefferson 1991a and 1991b, Kolber 2004, Hilton et al. 2000). The closest recorded vertebrate fossil localities are at Chicken Ranch Slough, located in the Riverbank Formation, approximately 2 miles southwest of the project site (UCMP 2019). There are numerous vertebrate fossil localities from the Riverbank Formation and from similar unnamed Rancholabrean-age alluvial sediments in Yolo, San Joaquin, Merced, Stanislaus, Fresno, and Madera Counties, in addition to Sacramento County (UCMP 2019, Jefferson 1991a and 1991b). Because of the high number of vertebrate fossils that have been recovered from the Riverbank Formation throughout the Central Valley, it is considered paleontologically sensitive.

For the purposes of this analysis, a unique paleontological resource or site is one that is considered significant under the following professional paleontological standards. An individual vertebrate fossil specimen may be considered unique or significant if it is identifiable and well preserved, and it meets one of the following criteria:

- a type specimen (i.e., the individual from which a species or subspecies has been described);
- a member of a rare species;
- a species that is part of a diverse assemblage (i.e., a site where more than one fossil has been discovered) wherein other species are also identifiable, and important information regarding life history of individuals can be drawn;

- a skeletal element different from, or a specimen more complete than, those now available for its species; or
- a complete specimen (i.e., all or substantially all of the entire skeleton is present).
- The value or importance of different fossil groups varies depending on the age and depositional environment of the rock unit that contains the fossils, their rarity, the extent to which they have already been identified and documented, and the ability to recover similar materials under more controlled conditions (such as for a research project). Marine invertebrates are generally common; the fossil record is well developed and well documented, and they would generally not be considered a unique paleontological resource. Identifiable vertebrate marine and terrestrial fossils are generally considered scientifically important because they are relatively rare.

3.7.2 DISCUSSION

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 California Geological Survey Special Publication 42.)

No Impact. The project site is not located within or adjacent to a fault zoned under the Alquist-Priolo Earthquake Fault Zone Act, or any other known fault. The nearest fault zoned under the Alquist-Priolo Act is the Cleveland Hill Fault south of Lake Oroville, approximately 50 miles to the north (California Geological Survey 2017). Thus, there would be no impact.

ii) Strong seismic ground shaking?

Less-than-Significant (Beneficial) Impact. The nearest active faults are located approximately 50 miles to the north and west. The intensity of ground shaking depends on the distance from the earthquake epicenter to the site, the magnitude of the earthquake, and site soil conditions. Peak horizontal ground acceleration (PGA), which is a measure of the projected intensity of ground shaking from seismic events, can be estimated by probabilistic method using a computer model. The California Building Standards Code (CBC) requires a site-specific calculation of the PGA for use in earthquake-resistant design. The CGS Probabilistic Seismic Hazards Assessment Model (CGS 2008) indicates there is a 1-in-10 probability that an earthquake within 50 years would result in a PGA of 0.174*g* (where *g* is a percentage of gravity) at the project site, which indicates that a low level of seismic shaking is anticipated.

All project-related facilities would be designed and constructed in accordance with standard engineering practices and CDE requirements, including California Code of Regulations Title 5, Division, Chapter 14, Sections 14001-14036, which requires preparation of a site-specific geotechnical and engineering report that contains recommendations to reduce seismic, geologic, and soils hazards. The purpose of the proposed project is to provide a new, modernized school campus that better meets the needs of today's student and teacher populations. The new school buildings are required by law to be designed and constructed in accordance with the current edition of the CBC, which contains engineering and design requirements that are specifically intended to reduce the loss of life and property from seismic hazards. Because the original school buildings were constructed in 1938 with various

additions and modernizations over time, the proposed project would result in an improvement in terms of seismic safety by constructing new buildings that meet the current building standards code. Therefore, this impact would be beneficial (less than significant) and no mitigation would be required.

iii) Seismic-related ground failure, including liquefaction?

No Impact. Soil liquefaction occurs when ground shaking from an earthquake causes a sediment layer saturated with groundwater to lose strength and take on the characteristics of a fluid, becoming similar to quicksand. Factors determining liquefaction potential are soil type, level and duration of ground motions, and depth to groundwater. Liquefaction is most likely to occur in low-lying areas where the substrate consists of poorly consolidated to unconsolidated water-saturated sediments, recent Holocene-age sediments, or deposits of artificial fill. The project site is underlain by compacted artificial fill and stable, well cemented Pleistocene-age sediments, and the nearest seismic sources are at least 25 miles away. Furthermore, the depth to groundwater at the project site is approximately 80 feet (California Department of Water Resources [DWR] 2018). Therefore, liquefaction would not represent a hazard at the project site, and there would be no impact.

iv) Landslides?

No Impact. The project site is located on a nearly flat alluvial plain in the central Sacramento Valley. There are no steep slopes at the project site or in the project vicinity where landslides could occur. Thus, there would be no impact.

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

Less-than-Significant Impact. Project implementation would include earthmoving activities on an approximately 17-acre existing school campus. Most of the project site consists of compacted artificial fill. The San Joaquin-Urban land complex, located at the southern end of the school site, has a moderate water erosion hazard, a moderately high stormwater runoff potential, and a moderately high wind erosion hazard. Earthwork would include soil removal; grading; trenching and pipe installation; installation of building, road, and parking lot foundations; and landscaping. Construction activities during the winter months would expose soils to rain events, which could mobilize loose soil and result soil erosion. Subsequent soil transport during storm events could result in sedimentation both within and downstream of the project site. Furthermore, earthmoving activities during the summer months could result in wind erosion.

However, all project-related facilities would be designed and constructed in accordance with standard engineering practices and CDE requirements, including California Code of Regulations Title 5, Division, Chapter 14, Sections 14001–14036, which requires preparation of a site-specific geotechnical and engineering report that contains recommendations to reduce seismic, geologic, and soils hazards, including soil erosion.

Furthermore, as discussed in detail in Section 3.10, “Hydrology and Water Quality,” because the proposed project would disturb more than 1 acre of land, the District would be required by law to prepare a Storm Water Pollution Prevention Plan (SWPPP) and to implement associated Best Management Practices (BMPs) that are specifically designed to reduce construction-related erosion. Construction techniques that could be implemented to reduce the potential for stormwater runoff may include minimizing site disturbance, controlling water flow over the construction site, stabilizing bare soil, and ensuring proper site cleanup. BMPs that could be implemented to

reduce erosion may include silt fences, staked straw bales/wattles, silt/sediment basins and traps, geofabric, trench plugs, terraces, water bars, soil stabilizers and re-seeding and mulching to revegetate disturbed areas.

Compliance with CDE requirements along with preparation of a SWPPP and implementation of BMPs designed to control stormwater runoff and reduce erosion, would result in a less-than-significant impact.

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. Nearly the entire project site is composed of compacted artificial fill (underneath the existing buildings, roads, and parking lots), and heavily disturbed soil (Xerarents) underneath the existing turf grass. The depth to groundwater in the project area is approximately 80 feet below the ground surface (DWR 2018). Currently, no information about the properties of the existing soils at the project site is available. However, compliance with the CBC and CDE requirements to prepare geotechnical engineering reports that include specific recommendations for construction in unstable soils would ensure that buildings, roads, and parking lots are designed appropriately based on site-specific conditions. Thus, this impact would be less than significant.

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

Less-than-Significant Impact. As noted in c) above, nearly the entire project site is composed of compacted artificial fill (underneath the existing buildings, roads, and parking lots), and heavily disturbed soil (Xerarents) underneath the existing turf grass. Currently, no information about the properties of the existing soils at the project site is available. However, compliance with the CBC and CDE requirements to prepare geotechnical engineering reports that include specific recommendations for construction in expansive soil would ensure that buildings, roads, and parking lots are designed appropriately based on site-specific conditions. Thus, this impact would be less than significant.

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 located within the area served by a municipal wastewater system. Wastewater generated by the existing school is conveyed to the Sacramento Regional Wastewater Treatment plant for treatment. The reconfigured school buildings on the project site would install new on-site connections (as needed) to existing off-site underground Sacramento Regional Wastewater Treatment Plant (WWTP) conveyance lines. Because the proposed project would not require installation of a septic system or alternative wastewater disposal system, there would be no impact.

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

Less than Significant with Mitigation Incorporated. The project site is located in the middle unit of the Riverbank Formation. This formation is composed of weathered reddish gravel, sand, and silt comprising older alluvial fans and terraces of the American River and other major rivers and streams in the Sacramento Valley. The sediments of the Riverbank Formation were deposited approximately 130,000–450,000 years B.P. (Helley and Harwood 1985). As described previously, vertebrate fossil specimens have been recovered from the Riverbank

Formation in various locations throughout the greater Sacramento area and the Sacramento and San Joaquin valleys. Therefore, it is considered to be paleontologically sensitive.

The project site was developed as a school in 1938, with various additions and modernizations over the years. Based on NRCS soil survey data, nearly the entire project site consists of either (1) compacted artificial fill (underneath the existing buildings, roads, and parking lots), or (2) heavily disturbed soil (Xerarents) underneath the existing turf grass. Therefore, any fossils that may have originally been present at the project site have likely long since been destroyed during repeated development at the school campus from 1938 to the present. However, because the new school would be completely reconfigured and facilities would be located on different parts of the project site, and given that excavation ranging from 6–8 feet below the ground surface may be required for utilities, project-related construction activities could result in accidental damage to or destruction of unique paleontological resources. Therefore, this impact is considered potentially significant.

Mitigation Measure GEO-1: Conduct Construction Personnel Education, Stop Work if Paleontological Resources are Discovered, Assess the Significance of the Find, and Prepare and Implement a Recovery Plan, as Required.

To minimize the potential for destruction of, or damage to potentially unique, scientifically important paleontological resources during earth-moving activities, the District shall implement the measures described below.

- Prior to the start of earthmoving activities at the project site, inform all construction personnel involved with earthmoving activities regarding the possibility of encountering fossils, the appearance and types of fossils likely to be seen during construction, and proper notification procedures should fossils be encountered. This worker training may either be prepared and presented by an experienced field archaeologist at the same time as construction worker education on cultural resources or prepared and presented separately by a qualified paleontologist.

- If paleontological resources are discovered during earthmoving activities, immediately cease work in the vicinity of the find and notify the District. Retain a qualified paleontologist to evaluate the resource and prepare a recovery plan based on Society of Vertebrate Paleontology (SVP) Guidelines (SVP 1996). The recovery plan may include, but is not limited to, a field survey, construction monitoring, sampling and data recovery procedures, museum curation for any specimen recovered, and a report of findings. Recommendations in the recovery plan that are determined by the District to be necessary and feasible shall be implemented before construction activities can resume at the site where the paleontological resources were discovered.

Significance after Mitigation

Implementation of Mitigation Measure GEO-1 would reduce project-related impacts on unique paleontological resources to a **less-than-significant** level because construction workers would be alerted to the possibility of encountering paleontological resources and, in the event that resources were discovered, fossil specimens would be recovered and recorded and would undergo appropriate curation.

3.8 GREENHOUSE GAS EMISSIONS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VII. Greenhouse Gas Emissions. Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

3.8.1 THRESHOLDS OF SIGNIFICANCE

GHG emissions contribute, on a cumulative basis, to global climate change. The proposed project would not contribute significantly to climate change by itself. However, cumulative emissions from many projects and plans would all contribute to global GHG concentrations and the climate system. This section considers the proposed project's cumulative contribution to the significant cumulative impact of climate change.

For the purposes of determining whether the proposed project's construction-related and operational greenhouse gas (GHG) emissions may result in a cumulatively considerable contribution to the cumulative impact of climate change, for land development and construction projects, SMAQMD considers a project to exceed GHG emission thresholds if:

- the annual construction-related emissions exceed 1,100 metric tons (MT) carbon dioxide equivalents (CO_2e)/year; or
- the annual operational emissions exceed 1,100 MT CO_2e/year.

For the purposes of determining whether the proposed project would conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs, consideration is given to applicable State, local, and regional plans, including:

- Assembly Bill (AB) 32 and Senate Bill (SB) 32;
- California Air Resources Board (ARB) Climate Change Scoping Plan (2008), ARB's First Update to the Climate Change Scoping Plan (2014), and California's 2017 Climate Change Scoping Plan: The Strategy for Achieving California's 2030 Greenhouse Has Target (2017 Scoping Plan Update) (2017); and
- The Sacramento Area Council of Governments (SACOG) 2035 Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS).

3.8.2 ENVIRONMENTAL SETTING

Certain gases in the earth's atmosphere, classified as GHGs, play a critical role in determining the earth's surface temperature. Solar radiation enters the earth's atmosphere from space. A portion of the radiation is absorbed by the earth's surface, and a smaller portion of this radiation is reflected back toward space through the atmosphere. However, infrared radiation is selectively absorbed by GHGs in the atmosphere. As a result, infrared radiation released from the earth that otherwise would have escaped back into space is instead "trapped," resulting in a warming of the atmosphere. This phenomenon, known as the "greenhouse effect," is responsible for maintaining a habitable climate on Earth. Anthropogenic (e.g., human caused) emissions of these GHGs lead to atmospheric levels in excess of natural ambient concentrations and have the potential to adversely affect the environment because such emissions contribute, on a cumulative basis, to global climate change.

The Intergovernmental Panel on Climate Change (IPCC) concluded that variations in natural phenomena, such as solar radiation and volcanoes, produced most of the warming of the earth from pre-industrial times to 1950. Some variations in natural phenomena also had a small cooling effect. From 1950 to the present, increasing GHG concentrations resulting from human activity, such as fossil fuel burning and deforestation, have been responsible for most of the observed temperature increase (IPCC 2013).

GHGs are present in the atmosphere naturally, are released by natural and anthropogenic (human-caused) sources, and are formed from secondary reactions taking place in the atmosphere. Natural sources of GHGs include the respiration of humans, animals, and plants; decomposition of organic matter; volcanic activity; and evaporation from the oceans. Anthropogenic sources include the combustion of fossil fuels by stationary and mobile sources, waste treatment, and agricultural processes. The following are the GHGs that are widely accepted as the principal contributors to human-induced global climate change that are relevant to the project:

- Carbon Dioxide: Natural sources of CO_2 include decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; and evaporation from oceans. Anthropogenic (human) sources include burning of coal, oil, natural gas, and wood.

- Methane: CH_4 is emitted during the production and transport of coal, natural gas, and oil. Methane emissions also result from livestock and other agricultural practices and by the decay of organic waste in municipal solid waste landfills.

- Nitrous Oxide: N_2O is produced by both natural and human-related sources. Primary human-related sources of N_2O are agricultural soil management, sewage treatment, mobile and stationary combustion of fossil fuel, adipic acid production, and nitric acid production. N_2O is also produced naturally from a wide variety of biological sources in soil and water, particularly microbial action in wet tropical forests.

Global warming potential (GWP) is a concept developed to compare the ability of each GHG to trap heat in the atmosphere relative to another gas GWP is based on several factors, including the relative effectiveness of a gas to absorb infrared radiation and the length of time the gas remains in the atmosphere ("atmospheric lifetime"). The GWP of each gas is measured relative to CO_2, therefore, CO_2 has a GWP of 1. The other main GHGs that have been attributed to human activity include CH_4, which has a GWP of 28, and N_2O, which has a GWP of 265 (IPCC 2013). For example, 1 ton of CH_4 has the same contribution to the greenhouse effect as approximately 28 tons of CO_2. GHGs with lower emissions rates than CO_2 may still contribute to climate change, because they are more

effective at absorbing outgoing infrared radiation than CO_2 (i.e., high GWP). The concept of CO_2 equivalence (CO_2e) is used to account for the different GWP potentials of GHGs to absorb infrared radiation. GHG emissions are typically measured in terms of pounds or tons of CO_2e and are often expressed in metric tons of CO_2 equivalent emissions (MT CO_2e).

3.8.3 DISCUSSION

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

Less-than-Cumulatively-Considerable Impact. Implementation of the proposed project would generate short-term construction and long-term operational GHG emissions. Construction-related GHG emissions would cease following construction of the proposed project. Operational emissions are considered long-term and assumed to occur for the lifetime the project. Construction emissions have been amortized over the lifetime of the project (assumed for the purpose of analysis to be 25 years) and added to the annual operational emissions to compare with the applicable threshold of significance.

Construction-related exhaust GHG emissions would be generated from a variety sources during construction of the proposed project including, but not limited to heavy-duty construction equipment, haul trucks, material delivery trucks, and construction worker vehicles. Similar to criteria air pollutant emissions, daily GHG emissions would vary depending on the type of construction activities planned for each day. For example, during construction equipment-intensive phases, daily GHG emissions would be higher than daily emissions generated during less equipment-intensive phases.

Operational GHG emissions can be categorized as direct and indirect GHG emissions. Direct GHG emissions are those emissions that are generated at the location of consumption or use. For example, mobile-source emissions are direct emissions because GHG emissions are generated as a vehicle begins to move. Conversely, indirect emissions are those emissions that occur at a different time or location from the point of consumption or use. For example, electricity-related GHG emissions are indirect because as a consumer uses electricity at their home, the fuel combustion and emissions associated with creating that electricity likely occurred off-site or at a different time. Other indirect GHG emissions include emissions associated with solid waste disposal and water consumption. CalEEMod estimates direct emissions associated with the proposed project's emission sources, including area (e.g., landscape maintenance equipment), and energy (e.g., natural gas) sources, and indirect emissions associated with energy (i.e., electricity), water (i.e., conveyance and distribution), and solid waste (i.e., decomposition) sources.

Table 3.8-1 presents a summary of the proposed project's annual construction-related GHG emissions and annual operational emissions by emissions source. Annual operational GHG emissions were conservatively calculated for the total rebuilt school. The existing school (baseline) has 1,000 students and the project would add 200 students. As shown in Table 3.8-1, annual operational GHG emissions are added with the amortized construction emissions to compare with the applicable threshold of significance.

Table 3.8-1. Modeled GHG Emissions for Construction and Operations of the Proposed Project

Emissions Source	GHG Emissions ($MTCO_2e$ / year)
Construction GHG Emissions	
Maximum Annual Construction Emissions	857
Total Potential Construction Emissions*	1,113
Amortized Construction-Related Emissions**	45
Operational GHG Emissions	
Area	0.04
Energy	400
Mobile	203
Waste	111
Water	24
Total Annual Operational Emissions	**738**
Total Emissions, including Amortized Construction Emissions + Operational Emissions* **	**783**
SMAQMD Threshold of Significance (Construction-related and Operational)	**1,100**
Exceed Thresholds?	**No**

Notes:

* Total construction emissions are for the potential emissions over the entirety of the proposed construction period, which are modeled to occur in two separate calendar years.

** Total construction emissions are amortized over 25 years, which the suggested operational lifetime for a new conventional commercial building, per the SMAQMD *Guide to Air Quality Assessment in Sacramento County*. The operational lifetime estimate is derived from the State of California Executive Order D-16-00 and US Green Building Council's October 2003 report on The Costs and Financial Benefits of Green Buildings (SMAQMD 2016).

*** Total project GHG emissions include annual operational emissions and amortized construction emissions. Mobile emissions are pro-rated according to the anticipated increase in capacity.

Totals do not add due to rounding.

GHG = greenhouse gas
$MTCO_2e$ / year = metric tons carbon dioxide equivalents emissions per year
SMAQMD = Sacramento Metropolitan Air Quality Management District

Source: Modeled by AECOM in 2019

As shown in Table 3.8-1, the proposed project's short-term construction and long-term operational GHG emissions would not exceed the SMAQMD thresholds of significance of 1,100 MT CO_2e/year.

As GHGs are considered in the context of a cumulative impact due to their persistence in the environment and broad region in influence, it is also appropriate to consider the long-term impact of the short-term emissions from construction-related activities. Construction-related emissions have been amortized over a 25-year period; this is the conservative timeline for the operational life of a building. When construction-related emissions are amortized over the (conservative estimate) lifetime of the project, annual long-term emissions would be 45 MT CO_2e/year, and total for combined amortized annual construction GHG emissions plus annual operational GHG emission would be 783 MT CO_2e/year, which is less than the SMAQMD threshold of significance of 1,100 MT CO_2e/year. Therefore, contribution of the GHG emissions that would be generated by the construction and operations of the

proposed project to climate change would result in a **less than cumulatively considerable** contribution to the cumulative impact of climate change.

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

Less-than-Significant Impact. As mentioned above, the project would not exceed the emissions threshold adopted by SMAQMD. Because the project's construction and operational GHG emissions would be less than cumulatively considerable, it also would not generate emissions that would impede the State's ability to meet GHG reduction goals. The proposed project would be situated at an existing District school property, and represents an infill reinvestment project. The project would decrease energy and water related emissons by complying with the current CalGreen Code, compared to the existing, relatively older buldings that were constructed under a code that did not require as much energy efficiency and water conservation. Therefore, the project would not conflict with any applicable plan, policy, or regulation for the purpose of reducing GHG emissions, and the impact would be **less than significant**.

In 2006, California passed the California Global Warming Solutions Act of 2006 (Assembly Bill [AB] 32; California Health and Safety Code Division 25.5, Sections 38500, et seq.). AB 32 establishes regulatory, reporting, and market mechanisms to achieve quantifiable reductions in GHG emissions and establishes a cap on statewide GHG emissions. It requires that statewide GHG emissions be reduced to 1990 levels by 2020. In December 2008, the ARB adopted its Climate Change Scoping Plan (Scoping Plan), which contains the main strategies the State of California will implement to achieve the required GHG reductions required by AB 32 (ARB 2014).

ARB's First Update to the Climate Change Scoping Plan: Building on the Framework includes measures to meet California's goal of reducing emissions to 1990 levels by 2020 and reiterates the State's role in the long-term goal to reduce GHG emissions to 80 percent below 1990 levels by 2050. The Scoping Plan Update provides discussions of sector-specific (e.g., transportation) issues, technologies, needs, and ongoing state activities to significantly reduce emissions through 2050. Achieving California's long-term goal will require improved vehicle efficiency, reduced carbon content of fuels, planning and building of communities to reduce vehicular GHG emissions and provide more transportation options, and improved efficiency throughout the existing transportation systems (ARB 2014). ARB's Scoping Plan Update includes measures that would indirectly address GHG emissions from construction activities, including the phasing-in of cleaner technology for diesel engine fleets and the development of a Low Carbon Fuel Standard. Policies formulated under the mandate of AB 32 that apply to construction-related activity, either directly or indirectly, are assumed to be implemented statewide and would affect the proposed project should those policies be implemented before construction begins.

In November 2017, ARB released California's 2017 Climate Change Scoping Plan: The Strategy for Achieving California's 2030 Greenhouse Gas Target (2017 Scoping Plan Update) (ARB 2017). The 2030 target of a 40 percent reduction in GHG emissions below 1990 statewide GHG emissions (consistent with Executive Order B-30-15, which is outlined below) guides the 2017 Scoping Plan Update (ARB 2017). The 2017 Scoping Plan Update establishes a plan of action, consisting of a variety of strategies to be implemented rather than a single solution, for California to reduce statewide emissions by 40 percent by 2030 compared to 1990 levels (ARB 2017).The proposed project would comply with any mandate or standards set forth by the Scoping Plan Update and any subsequent updates.

The SMAQMD quantitative thresholds of significance for GHGs were developed to allow local lead agencies to assess projects' consistency with State GHG reduction mandates, including those embodied in AB 32 and SB 32. As described in item a) above, the proposed project would not exceed GHG emission thresholds established by SMAQMD. Due to the project's consistency with the above described plans, as well as not exceeding thresholds of significance, the proposed project would not conflict with applicable plans, policies, or regulations adopted for the purposes of reducing GHG emissions. This impact would result in a **less than cumulatively considerable** contribution to the significant impact of climate change.

3.9 HAZARDS AND HAZARDOUS MATERIALS

	ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
IX.	**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?	☐	☐	☒	☐
b)	Create a significant hazard to the public or the environment through reasonably foreseeable upset and/or accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c)	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d)	Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e)	For a project located within an airport land use plan or, where such a plan has not been adopted, within 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?	☐	☐	☐	☒
f)	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
g)	Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	☐	☐	☐	☒

3.9.1 ENVIRONMENTAL SETTING

AECOM performed a search of publicly available databases maintained under Public Resources Code Section 65962.5 (i.e., the "Cortese List") to determine whether any known hazardous materials are present either in or within 0.25 mile of the project site. The Hazardous Waste and Substances Site List (the "EnviroStor" database) is maintained by the California Department of Toxic Substances Control (DTSC) as part of the requirements of Public Resources Code Section 65962.5. The State Water Resources Control Board (SWRCB) maintains the GeoTracker database, an information management system for groundwater. The results of records searches from the EnviroStor and GeoTracker databases indicate there are no open active cases within 0.75 mile of the project site. The closest site, which is closed, is across the street from the Arden Middle School, at 1661 Watt Avenue (SWRCB Site No. T0606700031). This site is former Mobile Gasoline Station, which was demolished and redeveloped with a Jack-in-the-Box restaurant. A total of nine underground storage tanks (UST) were removed

from the former gas station. Contaminated soil from leaking USTs was excavated and removed, and a soil vapor extraction system was installed to remediate petroleum hydrocarbon contamination from gasoline and diesel. Groundwater was encountered at a depth of 95 feet below the ground surface, and following extraction and treatment, samples indicated that the groundwater concentrations were at or near the applicable human health screening levels (Alton Geoscience 1996). Therefore, the case was closed by the Sacramento County Department of Environmental Health in 1997 (SWRCB 2019) and no further remedial actions are required.

The nearest currently operating permitted underground storage tank is approximately 1,000 feet northwest of the project site at an ARCO gasoline station, at 1855 Watt Avenue (SWRCB 2019).

Lead is a highly toxic metal that was used until the late 1970s in a number of products, most notably paint. The use of lead as an additive to paint was discontinued in 1978 because human exposure to lead was determined by EPA and the Occupational Health and Safety Administration (OSHA) to be an adverse human health risk, particularly to young children. Demolition of structures containing lead-based paint requires specific remediation activities regulated by federal, State, and regional and local laws.

Asbestos is designated as a hazardous substance when the fibers have potential to come in contact with air because the fibers are small enough to lodge in lung tissue and cause health problems. The presence of asbestos-containing materials (ACMs) in existing buildings poses an inhalation threat only if the ACMs are in a friable state. If the ACMs are not friable, then there is no inhalation hazard because asbestos fibers remain bound in the material matrix. People exposed to asbestos may develop lung cancer and mesothelioma. Emissions of asbestos fibers to the ambient air, which can occur during activities such as renovation or demolition of structures made with ACMs (e.g., insulation), are regulated locally by SMAQMD in accordance with EPA's Asbestos National Emission Standards for Hazardous Air Pollutants.

There are no schools within 0.25 mile of the project site, and the nearest airport is 3.75 miles to the north. The project site is not located in a wildland fire hazard area.

3.9.2 DISCUSSION

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. Transportation of hazardous materials on area roadways is regulated by the California Highway Patrol (CHP) and the California Department of Transportation (Caltrans), and use of these materials is regulated by DTSC, as outlined in CCR Title 22. The District and its construction contractors would be required to use, store, and transport hazardous materials in compliance with applicable federal and State regulations during project construction and operation. Because the project would be required to implement and comply with existing hazardous material regulations, and because each of these regulations is specifically designed to protect the public health through improved procedures for the handling of hazardous materials, better technology in the equipment used to transport these materials, and a more coordinated quicker response to emergencies, this impact would be less than significant.

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

Less-than-Significant Impact. Due to the age of some of the on-site buildings and underground pipelines, asbestos and lead-based paint could be encountered during project-related demolition activities. However, the handling and disposal of these materials is regulated by SMAQMD, OSHA, and EPA. Because the District and its construction contractors are required to comply with these materials handling regulations, and because the project-related construction area would be fenced to exclude the presence of students and other non-authorized personnel, project-related impacts related to asbestos and lead-based paint would be less than significant.

Construction and operation of the proposed project would entail the use of small amounts of hazardous materials such as fuel, oils, paints, and solvents. However, the use of these materials is heavily regulated at both the state and federal level. Furthermore, because the proposed project would disturb more than 1 acre of land, the District is required by law to develop and implement a Storm Water Pollution Prevention Plan (SWPPP) with appropriate best management practices (BMPs), such as spill prevention and contingency measures to reduce the potential for accidental spills and procedures for implementation of appropriate and timely cleanup activities if spills do occur. Therefore, this impact would be less than significant.

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

No Impact. The proposed project would be implemented at the site of the existing Arden Middle School, which would be demolished. The existing school buildings are on the west side of the property immediately adjacent to Watt Avenue and Arden Way. Minor amounts of hazardous materials such as fuel, oils, paints, and solvents would be used during construction activities (some of which could occur while school classes are in session), and would also be stored on-site during the project's operational phase. The construction area would be surrounded by exclusionary fencing, and long-term storage of hazardous materials on site would occur in locked areas to exclude students. None of the materials used at the project site would be acutely hazardous. There are no other schools within 0.25 mile of the project site. Thus, there would be no impact.

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?

No Impact. Based on a search of hazardous waste databases, the project site is not included on the Cortese List (DTSC 2019, SWRCB 2019). Groundwater in the vicinity of the project site was found to be contaminated with petroleum hydrocarbons, particularly benzene, from leaking USTs at the former Mobil gasoline station on the west side of Watt Avenue, across the street from the project site. However, the depth to groundwater ranges from 80–95 feet below the ground surface, and Alton Geoscience (1996) noted that over time, the benzene levels would continue to drop from the effects of natural attenuation. Project-related construction activities would only extend 6–8 feet below the ground surface, and therefore would not be deep enough to encounter groundwater. Furthermore, the project site obtains potable water from the Sacramento County Water Agency Zone 41, and there are no on-site groundwater wells. Thus, there would be no impact.

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?

No Impact. The nearest airport is the Sacramento McClellan Airport (the site of the former McClellan Air Force Base) approximately 3.75 northwest of the project site. Redevelopment of the existing school campus with a modern school (which would not be taller than two stories in height), would have no effect on airport safety hazards. Thus, there would be no impact. (Please see Section 3.12, "Noise," for an evaluation of airport noise hazards.)

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

Less-than-Significant Impact. The approximately 17-acre project site is developed with the existing Arden Middle School, which would be demolished. Construction materials, equipment, and personnel would be staged on site during construction of the new school. The project site is accessible by emergency vehicles from the west via Watt Avenue and from the north via Arden Way. The relatively limited amount of proposed redevelopment and the limited amount of associated construction would result in only minor increases in short-term, temporary, construction-related traffic on local roadways. Emergency access, parent drop off and pick up, bus loading areas, and on-site parking would all be designed in accordance with CDE requirements (California Code of Regulations Title 5, Division, Chapter 14, Section 14030), which are intended to provide for the safety of all persons during the project's operational phase. Therefore, project-related construction activities would not substantially impair or physically interfere with an adopted emergency response plan or emergency evacuation plan. This impact is considered less than significant.

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

No Impact. The project site is located in the developed and urbanized Arden-Arcade area, and is not within a very high fire hazard severity zone. The project site consists of the Arden Middle School buildings and parking lots, with turf grass playfields and a few urban shade trees around the perimeter. The existing Arden Middle School is currently served by the Sacramento Metropolitan Fire District, and those services would continue in the future after the existing campus is redeveloped with modernized school buildings. Thus, there would be no impact. (See Section 3.20, "Wildfire," for additional analyses related to wildland fire hazards, which were determined to result in no impact.)

3.10 HYDROLOGY AND WATER QUALITY

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
X. 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?	☐	☐	☒	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that there the project may impede sustainable groundwater management of the basin?	☐	☐	☐	☒
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i) Result in substantial erosion or siltation on- or off-site;	☐	☐	☒	☐
ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	☒	☐
iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☒	☐
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☐	☒

3.10.1 ENVIRONMENTAL SETTING

SURFACE WATER HYDROLOGY

The project site is located in the Arden-Arcade area, just east of the city of Sacramento within the Sacramento River Basin. The Sacramento River Basin encompasses about 27,000 square miles and is bounded by the Sierra Nevada to the east, the Coast Ranges to the west, the Cascade Range and Trinity Mountains to the north, and the Delta to the southeast. The American River is approximately 1.75 miles south of the project site. The three forks of the upper American River originate high in the Sierra Nevada and drain approximately 1,875 square miles of mountainous terrain before converging at Folsom Reservoir. Folsom Dam and Reservoir were constructed to regulate water releases for power generation, flood control, and protection of downstream fish and wildlife species. Nimbus Dam, which forms Lake Natoma, regulates water released from the Folsom Reservoir hydroelectric facility. The Lower American River runs from below Nimbus Dam downstream 23 miles to its

confluence with the Sacramento River. This highly regulated river system is contained by natural bluffs and terraces, and by constructed levees. Flow in the Lower American River varies throughout the year and is controlled primarily by water releases at Folsom Dam to reduce flooding or to meet downstream water demands.

Flooding

The American River Flood Control System includes Folsom Dam, Nimbus Dam, an auxiliary dam at Mormon Island, and eight earth-filled dikes. According to the most recent Flood Insurance Rate Map (FIRM) prepared by FEMA's National Flood Insurance Program, the project site is located in Zone X—an area of minimal flood hazard (FEMA 2012). Furthermore, the project site is not located in a 200-year flood (0.5% annual exceedance probability [AEP]) hazard area as mapped by the U.S. Army Corps of Engineers and the Reclamation Board in 2002, or in a California Department of Water Resources (DWR) 100-year (1% AEP) Awareness Floodplain (DWR 2019). The project site is located within the Folsom Dam inundation area (Sacramento County 2017).

SURFACE WATER QUALITY

Beneficial uses of the American River between Folsom Dam and the Sacramento River, as listed in the Sacramento and San Joaquin River Basin Plan (Central Valley Regional Water Quality Control Board [CVRWQCB] 2018), are summarized in Table 3.10-1.

Table 3.10-1. Beneficial Uses of the Lower American River Watershed

Municipal and Domestic Supply	Canoeing and Rafting
Agricultural (Irrigation) and Industrial Supply	Warm-Water and Cold-Water Freshwater Habitat (including fish migration and spawning habitat)
Hydropower Generation	Wildlife Habitat
Contact and Noncontact Recreation	

Source: Central Valley Regional Water Quality Control Board 2018

The Lower American River is included on the State Water Resources Control Board's (SWRCB) 303(d) list of impaired water bodies (SWRCB 2017). The pollutants of concern and the status of development of Total Maximum Daily Loads (TMDLs) required by the federal Clean Water Act (CWA) are presented in Table 3.10-2.

Table 3.10-2. Section 303(d) List of Impaired Waterbodies

Impaired Water Body	Pollutant	Pollutant Source	TMDL Status
Lower American River	Bifenthrin[1]	Unknown	Expected in 2027
	Indicator Bacteria (*Escherichia coli*)	Unknown	Expected in 2027
	Mercury	Legacy mining	Expected in 2010; still in process
	Polychlorinated biphenyls (PCBs)	Unknown	Expected in 2021
	Pyrethroids[2]	Unknown	Expected in 2027
	Toxicity	Unknown	Expected in 2021

Notes: TMDL = total maximum daily load

[1] A commercial pyrethroid insecticide.

[2] A group of manufactured chemicals that are used as insecticides. Pyrethroids can enter waterbodies from stormwater and agricultural runoff, and are extremely toxic to aquatic life. They are commonly sprayed on crops, and are sprayed in the air to control mosquitoes.

Source: State Water Resources Control Board 2017

3.10.2 DISCUSSION

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

Less-than-Significant Impact. The proposed project would require construction over an approximately 17-acre site. Because groundwater is located approximately 80 feet bgs (DWR 2018), the need for construction dewatering is unlikely. Project construction would require vegetation removal, excavation, grading, material stockpiling, and staging at the project site that would temporarily disturb surface soils. These activities would expose soil to the erosive forces of wind and water. The soil could ultimately be transported via the storm drainage system to the American River, increasing turbidity and degrading water quality.

Erosion and construction-related wastes have the potential to degrade water quality and beneficial uses if they enter runoff and flow into waterways, potentially altering the dissolved oxygen content, temperature, pH, suspended sediment and turbidity levels, and/or nutrient content of receiving waters or causing toxic effects in the aquatic environment. Therefore, project-related construction activities could violate water quality standards or otherwise substantially degrade water quality.

Sacramento County has a National Pollutant Discharge Elimination System (NPDES) Municipal Stormwater Permit issued by the Central Valley Regional Water Quality Board (Order No. R5-2016-0040-010) (Central Valley RWQCB 2016). The Municipal Stormwater Permit requires the County to reduce pollutants in stormwater discharges to the maximum extent practicable and to effectively prohibit non-stormwater discharges. The County has also established a Stormwater Ordinance (Sacramento County Code 15.12), which prohibits the discharge of unauthorized non-stormwater to the County's stormwater conveyance system and local creeks.

The project is required by law to comply with the provisions of the SWRCB's *National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated With Construction and Land Disturbance Activities* (Order 2009-009-DWQ as amended by Order 2012-0006-DWQ) (Construction General Permit) (SWRCB 2012). The Construction General Permit regulates stormwater discharges for construction activities under the CWA, and applies to all land-disturbing construction activities that would disturb 1 acre or more of land area. Under these requirements, project applicants must submit a notice of intent to discharge to the CVRWQCB, and must prepare and implement a Storm Water Pollution Prevention Plan (SWPPP) that includes Best Management Practices (BMPs) to minimize those discharges. All NPDES permits also have inspection, monitoring, and reporting requirements. CVRWQCB requires dischargers to implement construction and operational design features and BMPs that are specifically intended to reduce the potential for downstream hydromodification. The Construction General Permit also requires implementation of BMPs that are designed to prevent accidental spills of hazardous materials during the construction phase to the maximum extent practicable, and the SWPPP must include procedures for immediate cleanup should any releases occur. CVRWQCB also has the authority to issue waivers to reports of waste discharge (WDRs) and/or WDRs for broad categories of "low threat" discharge activities that have minimal potential for adverse water quality effects when implemented according to prescribed terms and conditions.

Because the project is required by law to comply with CVRWQCB requirements to obtain WDRs (if applicable) and comply with the provisions therein, and to prepare and implement a SWPPP with associated BMPs specifically designed to protect beneficial uses of downstream waterbodies in compliance with the federal CWA,

the state Porter-Cologne Water Quality Act, and the regional Basin Plan (*Water Quality Control Plan for the Sacramento and San Joaquin River Basins* [CVRWQCB 2018]), this impact would be less than significant.

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

No Impact. There are no known on-site groundwater wells. The existing Arden Middle School is currently supplied with potable water via underground pipelines operated by the Sacramento County Department of Water Resources. Under the proposed project, the campus would continue to receive water from the Sacramento County Water Agency Zone 41 (SCWA 2008) in the same manner as it does currently. The proposed project would not require the installation of on-site groundwater wells, and the small increase in student capacity at the new school would not result in an increase in the need for potable water such that the County would need to drill additional groundwater wells to support its regional supply. Thus, there would be no impact.

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

i) Result in substantial erosion or siltation on- or off-site;

Less-than-Significant Impact. The CVRWQCB requires that projects include source and/or treatment control measures on selected new development and redevelopment projects. Source control BMPs are intended to keep pollutants from contacting site runoff. Treatment control measures are intended to remove pollutants that have already been mobilized in runoff. Examples include vegetated swales and water quality detention basins. These facilities slow the rate of water movement and allow sediments and pollutants to settle out prior to discharge to receiving waters. Additionally, vegetated facilities provide filtration and pollutant uptake/adsorption.

The project site already contains an existing school campus with an existing drainage system. As part of the new school redesign, the District would include the use of "low impact development" (LID) techniques in the proposed project design, to the extent feasible, to reduce the amount of imperviousness on the site, since this would reduce the volume of runoff and therefore will reduce the size/cost of stormwater quality treatment required. Examples of low impact development techniques that could be implemented to reduce stormwater runoff include the following.

- Conditioning the soil in landscape areas to promote increased infiltration.
- Planting trees to promote retention of water.
- Providing vegetative swales to promote infiltration and evapotranspiration.
- Providing surface or underground detention basins, with or without infiltration.

Redevelopment of the existing school campus will include an appropriately designed and engineered stormwater runoff collection and treatment system to meet applicable CDE and CVRWQCB requirements. Conditioned topsoil will be placed in new planters. Approximately 132 trees of various sizes will be planted. Swales will be provided on-site, and stormwater treatment devices will also be provided in areas that cannot connect to swales. Underground detention facilities will be installed for localized flood control. Overall, runoff increases are expected to be negligible from the pre-development state, reduced further by LID measures. As discussed in detail

in a) above, the District would prepare and implement a SWPPP with appropriate BMPs specifically designed to reduce erosion and downstream siltation. Therefore, this impact would be less than significant.

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. Because the school buildings and parking lots would be reconfigured on the campus, the on-site stormwater drainage system would require reconfiguration. A drainage study would be prepared to calculate the runoff rates using the hydrology standards contained in Volume 2 of the *Sacramento City/County Drainage Manual* using the "Sacramento Method" (Sacramento County Department of Water Resources and City of Sacramento Utilities Engineering Department 1996). The calculated Sacramento Method runoff rates for both 10-year and 100-year storm events would be used to design the necessary modifications to the existing storm drainage system. The District would design the new school facilities such that runoff rates would either be maintained or reduced from their current state, so as not to pose a potential for downstream flooding. Furthermore, the LID strategies listed in c) i) above would also help to reduce the rate and volume of stormwater runoff. Finally, the project site is not located in a FEMA flood zone (FEMA 2012). Therefore, this impact would be less than significant.

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

Less-than-Significant Impact. The proposed project includes changes and upgrades, where necessary, to the existing on-site drainage system to accommodate the proposed new school facilities. The minor increase in student capacity at the new school would not exceed the capacity of the existing Sacramento County Department of Water Resources storm drain facilities. As described in c) i) above, the modified drainage system for the new school facilities would include pollutant source and/or treatment control measures as required by the CVRWQCB. Therefore, this impact would be less than significant.

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

No Impact. The project site is not located in a flood hazard, tsunami, or seiche zone; thus, there would be no impact.

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

No Impact. For the reasons discussed in a) and b) above, the proposed project would not obstruct implementation of a water quality control plan or sustainable groundwater management plan. Thus, there would be no impact.

3.11 LAND USE AND PLANNING

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XI. Land Use and Planning. Would the project:				
a) Physically divide an established community?	☐	☐	☐	☒
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒

3.11.1 ENVIRONMENTAL SETTING

The project site is located in the Arden-Arcade area of unincorporated Sacramento County, which encompasses approximately 18 square miles east of downtown Sacramento. The Arden Middle School, originally built in 1938, currently occupies the site. Land surrounding the project site is primarily residential, with some commercial mixed use, public/quasi-public (schools and churches), and small parks.

The *Sacramento County General Plan of 2005–2030* (Sacramento County General Plan), amended in 2017, includes various community plans covering locations throughout the county. The project site is located within the Arden-Arcade Community Plan Area (Sacramento County 1980). These plans identify the need for public facilities and services in the county and provide the basis for county zoning and approvals, as well as other regulatory actions.

The project site is zoned RD-3 (Residential) within a Neighborhood Preservation Area overlay (Sacramento County 2019). Schools are a permitted use in areas that are zoned residential under the Sacramento County Zoning Code Chapter 3, Section 3.2.5. The purpose of neighborhood preservation areas is to ensure that the basic character of existing neighborhoods is preserved. The Sacramento County General Plan land use designation is Low-Density Residential (Sacramento County 2013), and the Arden-Arcade Community Plan land use designation is Public/Quasi-Public (Sacramento County 1980).

3.11.2 DISCUSSION

a) Physically divide an established community?

No Impact. The existing Arden Middle School was originally constructed in 1938, early in the development of the Arden-Arcade area. The project site is located at the corner of Arden Way and Watt Avenue, in an urbanized area. The replacement of this school on the same site would not physically divide an established community. Thus, there would be no impact.

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?

No Impact. The project site would continue to be used as a school, consistent with existing land use and zoning designations. The proposed project would not conflict with policies or objectives adopted in the Sacramento

County General Plan or the Arden-Arcade Community Plan in a way that would generate any potentially significant adverse environmental impact. Thus, there would be no impact.

3.12 MINERAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XII. Mineral Resources. Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☐	☐	☒

3.12.1 ENVIRONMENTAL SETTING

Under the Surface Mining and Reclamation Act (SMARA), the State Mining and Geology Board may designate certain mineral deposits as being regionally significant to satisfy future needs. The board's decision to designate an area is based on a classification report prepared by the California Geological Survey (CGS) and on input from agencies and the public.

The project site lies within the designated Sacramento-Fairfield Production-Consumption Region for Portland cement concrete aggregate. CGS has classified the entire project site as mineral resource zone (MRZ)-1: areas where adequate information indicates that no significant mineral deposits are present or where it is judged that little likelihood exists for their presence (Dupras 1999). The project site is not located in a designated regionally important area of known mineral resources (i.e., MRZ-2), and is not located within a designated locally important area of known mineral resources under the *Sacramento County General Plan of 2005-2030* (Sacramento County General Plan) (Sacramento County 2017).

3.12.2 DISCUSSION

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

No Impact. Active aggregate mineral resource production in Sacramento County is located along ancestral channels of the American River (south of U.S. 50) and the Cosumnes River (near Rancho Murieta). Kaolin clay deposits are present in the Sierra Nevada foothills. The project site is located in the urbanized Arden-Arcade area, which is classified as MRZ-1: areas where no significant minerals are present (Dupras 1999). Thus, there would be no impact.

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. The Sacramento County General Plan (Sacramento County 2017) indicates that the only locally important mineral resource recovery sites in the county are those designated by CGS as MRZ-2. These MRZ-2 areas for aggregate minerals are located along the active and ancestral channels of the American and Cosumnes

Rivers. Additional MRZ-2 areas for kaolin clay are located in the Sierra Nevada foothills. As described in a) above, there are no mineral resources at the project site or in the vicinity of the project site. Thus, there would be no impact.

3.13 NOISE AND VIBRATION

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XII. Noise. Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☒	☐	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within 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?	☐	☐	☐	☒

3.13.1 ENVIRONMENTAL SETTING

The project site is surrounded by residential and commercial uses, roadways, and public/quasi-public uses. The most significant source of noise generated in the project area is vehicular traffic on Arden Way and Watt Avenue, and to a lesser extent, noise associated with landscape maintenance and other activities on residential and commercial properties in the vicinity. Nearest existing noise-sensitive land uses include the interior and exterior uses at the school, and the residences east and south of the project site.

SOUND, NOISE, AND ACOUSTICS

Sound is the mechanical energy of a vibrating object transmitted by pressure waves through a liquid or gaseous medium (e.g., air). Noise is defined as sound that is unwanted (i.e., loud, unexpected, or annoying). Acoustics is the physics of sound.

The amplitude of pressure waves generated by a sound source determines the perceived loudness of that source. A logarithmic scale is used to describe sound pressure level in terms of decibels (dB). The threshold of human hearing (near-total silence) is approximately 0 dB. A doubling of sound energy corresponds to an increase of 3 dB. In other words, when two sources at a given location are each producing sound of the same loudness, the resulting sound level at a given distance from that location is approximately 3 dB higher than the sound level produced by only one of the sources. For example, if one automobile produces a sound pressure level of 70 dB when it passes an observer, two cars passing simultaneously do not produce 140 dB; rather, they combine to produce 73 dB.

The typical human ear is not equally sensitive to all frequencies of the audible sound spectrum. As a consequence, when assessing potential noise impacts, sound is measured using an electronic filter that de-emphasizes the

frequencies below 1,000 hertz (Hz) and above 5,000 Hz in a manner corresponding to the human ears decreased sensitivity to low and extremely high frequencies instead of the frequency mid-range. This method of frequency weighting is referred to as A-weighting and is expressed in units of A-weighted decibels (dBA). All noise levels reported in this section are in terms of A-weighting. There is a strong correlation between A-weighted sound levels and community response to noise. As discussed above, doubling sound energy results in a 3-dB increase in sound. In typical noisy environments, noise-level changes of 1 to 2 dB are generally not perceptible by the healthy human ear; however, people can begin to detect 3-dB increases in noise levels. An increase of 5 dB is generally perceived as distinctly noticeable and a 10-dB increase is generally perceived as a doubling of loudness. The following are the sound level descriptors commonly used in environmental noise analysis:

- Equivalent sound level (L_{eq}): An average of the sound energy occurring over a specified time period. In effect, the L_{eq} is the steady-state sound level containing the same acoustical energy as the time-varying sound that actually occurs during the same period. The 1-hour, A-weighted equivalent sound level ($L_{eq[h]}$) is the energy average of A-weighted sound levels occurring during a 1-hour period.

- Maximum sound level (L_{max}): The highest instantaneous sound level measured during a specified period.

- L_{dn} (Day-Night Noise Level): The 24-hour L_{eq} with a 10 dB "penalty" applied during nighttime noise-sensitive hours, 10:00 p.m. through 7:00 a.m. The L_{dn} attempts to account for the fact that noise during this specific period of time is a potential source of disturbance with respect to normal sleeping hours.

- L_n (Statistical Descriptor): The noise level exceeded n percent of a specific period of time, generally accepted as an hourly statistic. An L_{10} would be the noise level exceeded 10 percent of the measurement period.

Sound from a localized source (i.e., point source) propagates uniformly outward in a spherical pattern, and the sound level attenuates (decreases) at a rate of 6 dB for each doubling of distance from a point/stationary source. Roadways and highways and, to some extent, moving trains consist of several localized noise sources on a defined path; these are treated as "line" sources, which approximate the effect of several point sources. Sound levels attenuate at a rate of 3 dB for each doubling of distance from a line source. Therefore, noise from a line source attenuates less with distance than noise from a point source with increased distance.

GROUNDBORNE VIBRATION

Groundborne vibration is energy transmitted in waves through the ground. Vibration attenuates at a rate of approximately 50 percent for each doubling of distance from the source. This approach considers only the attenuation from geometric spreading and tends to provide for a conservative assessment of vibration level at the receiver.

Vibration is an oscillatory motion that can be described in terms of the displacement, velocity, or acceleration. Vibration typically is described by its peak and root-mean-square (RMS) amplitudes. The RMS value can be considered an average value over a given time interval. The peak vibration velocity is the same as the "peak particle velocity" (PPV), generally presented in units of inches per second. PPV is the maximum instantaneous positive or negative peak of the vibration signal and is generally used to assess the potential for damage to buildings and structures. The RMS amplitude typically is used to assess human annoyance to vibration, and the abbreviation "VdB" is used in this document for vibration decibels to reduce the potential for confusion with sound decibels.

EXISTING NOISE ENVIRONMENT

The existing noise environment within the project area is primarily influenced by surface-transportation noise emanating from vehicular traffic on Arden Way and Watt Avenue. Existing school activities (public announcement and school playgrounds) contribute to noise environment in the area. Existing commercial uses also contribute to the noise environment at existing adjacent residential uses due to loading dock activities, parking lot vehicle movements, and people walking and talking. Intermittent noise from outdoor activities at the surrounding residences (e.g., people talking, operation of landscaping equipment, car doors slamming, and dogs barking), also influences the existing noise environment.

An ambient noise survey was conducted in the vicinity of the project site on June 26, 2018. The purpose of the survey was to establish existing noise conditions. Ambient noise measurements were conducted near existing noise-sensitive uses at various locations in the vicinity of the project site. The results of the noise survey are shown in Table 3.13-1. Exhibit 3.13.1 shows the locations of the ambient noise measurement sites. Two long-term (24-hour) measurements were conducted. Long-term measurement sites LT-1 and LT-2, measured ambient noise levels of 53 dBA and 60 dBA L_{dn}, respectively, which is relatively low considering that the sound level meter at LT-1 was exposed to Watt Avenue traffic noise. One short-term measurement of ambient noise levels was conducted during daytime hours. As shown in Table 3.13-1, measured ambient noise levels at the noise-sensitive land uses closest to the project site range from 54 to 79 dBA L_{eq}.

Table 3.13-1. Summary of Ambient Noise Level Survey Results in the Vicinity of the Project Site

					Measured Sound Level, dB Daytime (7 a.m.–7 p.m.)				
Site	Location	Date	Time	Duration	L_{eq}	L_{max}	L_{50}	L_{90}	L_{dn}
LT-1	On site, center of project site	12-20/21-2017	7:00	11 Hour	54.7	80.8	57.8	55.5	52.6
LT-2	On site, southeastern edge of project site	12-20/21-2017	7:00	11 Hour	62.8	93.3	62.7	58.5	60.7
ST-01	On site, near Watt Avenue	12-20-2017	13:30	0:10 mins	78.5	103.4	69.5	60.6	NA

Notes: dB = decibels; L_{eq} = equivalent sound level (the sound energy averaged over a continuous period of time); L_{max} = maximum instantaneous sound level; ST = short-term measurement

Noise-level measurements were completed using a Larson Davis Laboratories (LDL) Model 824 precision integrating sound-level meter. The meter was calibrated before the measurements using an LDL Model CAL200 acoustical calibrator. The meter was programmed to recorded A-weighted sound levels using a "slow" response. The equipment used complies with all pertinent requirements of the American National Standards Institute for Class 1 sound-level meters (ANSI S1.4).

Source: Data compiled by AECOM in 2017

Exhibit 3.13-1. Ambient Noise Survey

3.13.2 THRESHOLDS OF SIGNIFICANCE

The following thresholds of significance are based on the environmental checklist in Appendix G of the State CEQA Guidelines, as amended. Implementing the project would result in a significant noise impact if it would result in:

- 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;
- generation of excessive groundborne vibration or groundborne noise levels; or
- for a project within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, exposure of people residing or working in the project area to excessive noise levels.

The County of Sacramento General Plan Noise Element (County of Sacramento 2017) provides several policies related to land use and noise compatibility. While these policies do not directly apply to the project, they are presented for context. For non-transportation noise sources, the County has established interior and exterior noise standards for daytime and nighttime hours (Table 3.13-2).

For transportation noise sources, the County of Sacramento has established interior and exterior noise standards of 40 dB L_{dn} and 65 dB L_{dn}, respectively, for school uses.

Table 3.13-2. Non-Transportation Noise Standards, Sacramento County Noise Element

	Outdoor Area[1, 2]				Interior[3]	
	Daytime		Nighttime		Day & Night	
Receiving Land Use	Median L_{50}[6]	Maximum (L_{max})	Median L_{50}	Maximum (L_{max})	Median L_{50}	Maximum (L_{max})
All Residential	55	75	50	70	35	55
Churches, Meeting Halls, Schools, Libraries, etc.	55	75	-[5]	-[5]	35	60
Office Buildings	60	75	-[5]	-[5]	45	65
Commercial Buildings	-	-	-[5]	-[5]	45	65
Playgrounds, Parks, etc.	65	75	-[5]	-[5]	-	-
Industry	60	80	-[5]	-[5]	50	70

Notes:

1 The standards shall be reduced by 5 dB for sounds consisting primarily of speech or music, and for recurring impulsive sounds. If the existing ambient noise level exceeds the standards, then the noise level standards shall be increased at 5 dB increments to encompass the ambient.

2 Sensitive areas are defined acoustic terminology section.

3 Interior noise level standards are applied within noise-sensitive areas of the various land uses, with windows and doors in the closed positions.

5 The outdoor activity areas of these uses (if any), are not typically utilized during nighttime hours.

6 Where median (L_{50}) noise level data is not available for a particular noise source, average (L_{eq}) values may be substituted for the standards of this table provided the noise source in question operates for at least 30 minutes of an hour. If the source in question operates less than 30 minutes per hour, then the maximum noise level standards shown would apply.

Source: Sacramento County 2017

The Sacramento County Code Noise Control Ordinance contains performance standards for the purpose of preventing unnecessary, excessive and offensive noise levels within the county. Section 6.68.090 of the Sacramento County Code establishes that noise associated with construction, repair, remodeling, demolition, paving, or grading is exempt from the Noise Ordinance, provided said activities do not take place between the hours of 8:00 p.m. and 6:00 a.m. on weekdays and Friday commencing at 8:00 p.m. through and including 7:00 a.m. on Saturday; Saturdays commencing at 8:00 p.m. through and including 7:00 a.m. on the next following Sunday; and on each Sunday after the hour of 8:00 p.m.

3.13.3 DISCUSSION

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?

Short-Term Project-Generated Construction Source Noise

Less than Significant with Mitigation Incorporated. Construction of proposed structures would occur over on the project site and include site preparation (e.g., excavation, and construction); material transport; construction of the new facilities, and related-support structures; and other miscellaneous activities (e.g., paving).

Site preparation generates the highest anticipated noise levels due to construction activities as the equipment mix would include earth-moving equipment such as scrapers, dozers, loaders, and a motor grader. The simultaneous operation of on-site construction equipment associated with the proposed project, as identified above, could result in combined noise levels up to approximately 86 dB L_{eq} at 50 feet from the center of construction activity.

Based upon the equipment noise levels, usage factors, and a typical noise-attenuation rate of 6 dB for every doubling of distance, exterior noise levels at noise-sensitive receptors located within 100 feet of the project site could be as high as 80 dB L_{eq}. Table 3.13-3 summarizes modeled construction noise levels compared to existing noise levels at noise sensitive locations measured during the ambient noise survey.

Table 3.13-3. Ambient and Project Construction Noise Levels at Closest Sensitive Receptors

Receiver	Distance (ft) From Acoustical Center Between Noise-Sensitive Receiver locations and Proposed Construction Areas	Exterior Noise Level, dBA L_{eq}		Interior Noise Level, dBA L_{eq}	
		Ambient Noise	Project Noise	Project Noise, Doors/Windows Open	Project Noise, Doors/Windows Closed (EPA)
Residences to the east	100	79	80	65	55
Residences to the south	100	79	80	65	55

Refer to Appendix B for modeling input parameters and output results.
dBA = A-weighted decibels
EPA = U.S. Environmental Protection Agency
ft = foot/feet
L_{eq} = Equivalent Noise Level
Sources: Modeled by AECOM 2019

As shown in Table 3.13-3, daytime project construction noise levels at the closest noise sensitive backyard area, located approximately 100 feet from the acoustical center of proposed construction activities, could reach as high as 80 dB $L_{eq.}$

Noise from permitted construction activities that do not occur during the more noise-sensitive hours (e.g., evening, nighttime, and early morning) is exempt from daytime noise standards, given that construction equipment is fitted with feasible noise control devices.

Nevertheless, if construction activities were to occur during the more noise-sensitive hours (e.g., evening, nighttime, and early morning) or construction equipment were not properly equipped with noise control devices, construction-generated source noise could result in annoyance and/or sleep disruption of occupants of the nearby existing noise-sensitive land uses (e.g., single-family) and create a substantial temporary increase in ambient noise levels in the direct vicinity of the project site. Potential construction-related project impacts on existing noise-sensitive land uses are therefore considered **potentially significant**.

Mitigation Measure NOI-1: Implement Measures to Reduce Short-Term, Construction-Related Noise.

- Provide written notification to the residents south of the project site and within 500 feet[4] from the southern project boundary at least three weeks prior to construction, identifying the type, duration, and frequency of construction activities. Notification materials shall also identify a mechanism for residents to contact regarding construction noise. Post contact information in conspicuous locations adjacent to the site with contact information regarding construction noise and activities. The notification shall include anticipated dates and hours during which construction activities are anticipated to occur and contact information, including a daytime telephone number, for the project representative to be contacted in the event that noise levels are deemed excessive. Recommendations to assist noise-sensitive land uses in reducing interior noise levels (e.g., closing windows and doors) shall be included in the notification. If there is communication related to construction noise, implement feasible methods to reduce noise exposure effects, such as shielding, changing the location of stationary sources, and changing construction hours.

- Prohibit the start-up of machines or equipment before place between the hours of 8:00 p.m. and 6:00 a.m. on weekdays and Friday commencing at 8:00 p.m. through and including 7:00 a.m. on Saturday; Saturdays commencing at 8:00 p.m. through and including 7:00 a.m. on the next following Sunday and on each Sunday after the hour of 8:00 p.m.

- Prohibit use of materials and equipment deliveries before 7:00 a.m. and after 7:00 p.m., Monday through Saturday and before 9:00 a.m. and past 5:00 p.m. on Sunday.

- Restrict the use of bells, whistles, alarms, and horns to safety-warning purposes.

- Equip all construction equipment with noise-reduction devices, such as mufflers to minimize construction noise and operate all internal combustion engines with exhaust and intake silencers.

- Locate fixed construction equipment (e.g., compressors and generators), construction staging and stockpiling areas, and construction vehicle routes as far as feasible from noise-sensitive receptors, northern portion of the site and/or off-site staging areas north of the site.

[4] Building rows located within 500 feet of the construction site, would shield construction noise. Therefore, construction noise would be attenuated to ambient level beyond this distance.

Significance after Mitigation

Implementation of Mitigation Measure NOI-1 would reduce the potentially significant impact resulting from construction activities to a **less-than-significant level** because it would ensure that construction activities would avoid noise-sensitive hours, reduce equipment noise levels, reduce other sources of noise on-site, and provide the District with the opportunity to further reduce temporary noise exposure effects during the course of construction, if necessary.

Long-Term Project-Generated Stationary Source Noise

Mechanical Building Equipment (HVAC)

Less than Significant with Mitigation Incorporated. Mechanical building equipment (e.g., heating, ventilation and air conditioning systems or HVAC) could result in noise levels of approximately 90 dBA at 3 feet from the source or 65 dBA at 50 feet, assuming no shielding (U.S. EPA 1971). However, normally these mechanical equipment systems are shielded from direct public exposure, which substantially reduces noise exposure.

The closest residential uses would be approximately 200 feet to the west from the proposed school Building A, 100 feet to the west of proposed Building L, and 200 feet to the west of proposed Building M, resulting in a combined modeled noise level of 59 dBA L_{eq}.[5] Noise levels associated with future mechanical equipment would be lower for residences located farther away. Existing ambient noise levels at the residential uses to the south of the project site range between 55 and 79 dBA L_{eq}. In typical noisy environments, noise-level changes of 1 to 2 dB are not perceptible by the healthy human ear. However, the District has imposed the following mitigation measure to ensure against a significant impact.

> **Mitigation Measure NOI-2: Shield Mechanical Equipment, including HVAC Units, from adjacent Residences.**
>
> Shield on-site, noise-generating mechanical equipment, including HVAC units, from adjacent residences by interrupting the line of sight or locate such equipment within proposed buildings.

Significance after Mitigation

Implementation of Mitigation Measure NOI-2 would ensure a **less-than-significant** impact because it would ensure that on-site, noise-generating mechanical equipment noise levels are reduced through rooftop shielding or placement inside buildings.

Parking Lot Activities

Less-than-Significant Impact. The proposed project would introduce 186 new parking stalls approximately 460 feet from adjacent noise-sensitive residential uses to the east. Based upon previous noise measurements, the sound exposure level (SEL) associated with a parking event is approximately 71 dB SEL at 50 feet. Assuming that each parking stall adjacent to residential uses were to fill and empty (186 parking events total) during the peak hour, the noise level is predicted to be 58 dBA L_{eq} at 50 feet from the center of the parking stalls. This would generate a noise level of 39 dBA L_{eq} at 450 feet. Existing ambient noise levels range between 54 and 79 dBA L_{eq}. Therefore, noise levels associated with parking would not be distinguishable from the existing ambient noise levels. As a result, this impact would be **less than significant**.

[5] These distances are intended to represent locations on proposed buildings where rooftop mechanical equipment could be located.

Increase in Project Area Traffic

Less-than-Significant Impact. The project would add approximately 200 students to already 1,000 students at the existing school. Typically, traffic volumes have to double before the associated increase in noise levels is noticeable (3 dBA L_{dn}) along roadways (Caltrans 2013a). The incremental addition of proposed project traffic would not cause a doubling of those volumes. Consequently, construction of the proposed project would not result in a noticeable change in the traffic noise contours of area roadways. Long-term, off-site operational traffic source noise would not result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project. As a result, this impact would be **less than significant**.

On-Site Noise Levels at Proposed Receptors

Less than Significant. As measured at the closest point, the project site would be exposed to existing traffic noise levels of approximately 59 dBA L_{dn}, as represented by ambient noise measurement LT-1, located 350 feet from the centerline of Watt Avenue. Based on the proposed site design, the closest school building or outdoor activity area would be approximately 400 feet from the centerline of Watt Avenue. The resulting noise level associated with Watt Avenue traffic would be 58 dBA L_{dn}. Standard construction practices would produce a 20-dBA to 25-dBA exterior-to-interior reduction with windows closed (U.S. EPA 1974). This would result in an interior noise level ranging between 33 dBA and 38 dBA L_{dn}.

Studies have been conducted to evaluate effects of single-event noise on core learning spaces. Sentence intelligibility in the classroom is vital to learning, and different metrics may be warranted to accurately predict impacts associated with aircraft overflights, such as peak-hour L_{eq}, speech interference level, L_{max}, and SEL. The World Health Organization (WHO) recommends a maximum level of 35 dB L_{eq} for 100 percent speech intelligibility. Speech can be fairly well understood with background noise levels of 45 dB L_{eq} (WHO 1999). Some researchers recommend an interior noise level criterion of 64 dB SEL per event for estimating speech interference and an L_{max} of 50 dB (PSU 2018). The District does not anticipate that interior noise levels associated with the existing ambient environment would interfere with proposed activities. In addition, CEQA is focused on the impact of projects on the environment, generally, and not impacts of the exiting environment on proposed projects (unless exacerbated). The impact would be **less than significant**.

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

Less-than-Significant Impact. Construction activities have the potential to result in varying degrees of temporary groundborne vibration, depending on the specific construction equipment used and operations involved. Vibration generated by construction equipment spreads through the ground and diminishes in magnitude with increases in distance.

As discussed above, on-site construction equipment could include scrapers, dozers, loaders, and a motor grader. According to Federal Transit Administration (FTA 2018), vibration levels associated with the use of a large dozer is 0.089 inches per second (in/sec) peak particle velocity (PPV) and 87 vibration decibels [VdB referenced to 1 microinch per second (μin/sec) and based on the root mean square (RMS) velocity amplitude] at 25 feet. Table 3.13-4 summarizes modeled construction vibration levels at noise sensitive locations.

Table 3.13-4. Project Construction Vibration Levels at Closest Sensitive Receptors

Receiver	Location	Shortest Distance (ft) Between Noise-Sensitive Uses and Proposed Construction Areas	Vibration Levels	
			PPV	VdB
On-site	Adjacent to the project site	50	0.031	78
Off-site	Adjacent to the project site	100	0.011	69

Source: FTA, Transit Noise and Vibration Impact Assessment, September 2018.

Modeled by AECOM 2018.

Using FTA's recommended procedure for applying a propagation adjustment to these reference levels, predicted worst-case vibration levels of approximately 0.031 in/sec PPV and 78 VdB at the closest existing sensitive receptor could occur. These vibration levels would not exceed Caltrans's recommended standard of 0.2 in/sec PPV (Caltrans 2013b) with respect to the prevention of structural damage for normal buildings or the FTA's maximum-acceptable vibration standard of 80 VdB (Federal Transit Administration 2018) with respect to human annoyance for residential uses. The long-term operation of the proposed project would not include any vibration sources, and short-term construction would not result in the exposure of persons or structures to or generation of excessive groundborne vibration or groundborne noise levels. As a result, this impact would be **less than significant**.

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 project site is not located within 2 nautical miles of an airport. The closest airport is McClellan AFB, which is located approximately 4.3 nautical miles to the north of the project site. Thus, the project would not expose people residing or working in the project area to excessive noise levels. **No impact would occur**.

3.14 POPULATION AND HOUSING

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIV. 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)?	☐	☐	☐	☒
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

3.14.1 ENVIRONMENTAL SETTING

The project site is located in the Arden-Arcade area, which is a census-designated place in unincorporated Sacramento County that encompasses approximately 18 square miles east of the city of Sacramento. The project site is surrounded primarily by residential development, with areas of commercial mixed-use, public/quasi-public (places of worship and schools), and small parks. At the time of the 2010 Census, the Arden-Arcade area had a population of 92,186, of which approximately 65 percent were white, 19 percent were Hispanic or Latino, and 10 percent were black or African American. As of 2017, approximately 61 percent of the population over the age of 16 was employed in the civilian labor force. There are approximately 2.37 persons per household, on average, and a total of 41,111 households. The median household income is $48,156, and approximately 22 percent of the population lives below the poverty level. (U.S. Census Bureau 2010–2017).

3.14.2 DISCUSSION

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 consists of redevelopment of the existing Arden Middle School campus with a new, more modern school. Arden Middle School has occupied the site since 1938, and the proposed project would provide modernization of learning facilities.

In 2013, Arden Middle School had an enrollment of 953 students (San Juan Unified School District 2014). The school's enrollment increased to 1,060 students for the 2018-2019 school year (California Department of Education 2019). The existing capacity of Arden Middle School is 1,000 and this project would increase the school's capacity to 1,200 (Leet, pers. comm., 2019). The proposed project does not include a residential component. No new houses would be built as a result of the project. The proposed project would replace and improve existing on-site utilities and transportation facilities. The proposed project does not include an extension of roads or other infrastructure that would induce population growth, would not increase the population in the area, and would not contribute to population growth in the area. Therefore, the proposed project would have no impact.

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

No Impact. The proposed project would take place entirely within the existing Arden Middle School campus. Therefore, it would not displace any homes. Because no homes would be displaced, a substantial number of people would also not be displaced. Thus, there would be no impact.

3.15 PUBLIC SERVICES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XV. Public Services. Would the project:				
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
Fire protection?	☐	☐	☐	☒
Police protection?	☐	☐	☐	☒
Schools?	☐	☐	☒	☐
Parks?	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒

3.15.1 ENVIRONMENTAL SETTING

The Sacramento Metropolitan Fire District serves a population of over 745,000 in a 359-square-mile service area. The Operations Branch (firefighting and emergency medical technicians [EMT]) oversees all aspects of the District's emergency services, which are delivered from 40 stations with daily shift staffing of 160 personnel. The closest fire station to the project site is Station No. 110, located at 1432 Eastern Avenue, approximately 1 mile southeast of the project site.

The North Division of the Sacramento County Sheriff's Department provides patrol services for approximately 415,000 people living in the communities of Arden-Arcade, Carmichael, Fair Oaks, Gold River, Orangevale, Foothill Farms, Antelope, North Highlands, Rio Linda, Elverta, and the Garden Highway. The North Division is currently staffed with 134 sworn officers and a support staff of 19. The patrol officers serving the above areas work out of the Garfield Station, located at 5510 Garfield Avenue, approximately 6 miles northeast of the project site.

The project site is home to Arden Middle School—a public school in the San Juan Unified School District. Arden Middle School serves students in grades 6–8, and had a total enrollment of 953 students in 2013 (San Juan Unified School District 2014). During the 2018–2019 school year, the enrollment at Arden Middle School increased to 1,060 students (CDE 2019).

3.15.2 DISCUSSION

a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered

governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:

Fire protection?

No Impact. The existing Arden Middle School is currently served by the Sacramento Metropolitan Fire District. The modernized school would continue to be served by this provider, and would not increase the need for additional fire-fighting personnel, facilities, or equipment. Thus, there would be no impact.

Police protection?

No Impact. The existing Arden Middle School is currently served by the North Division of the Sacramento County Sheriff's Department. The modernized school would continue to be served by this provider, and would not increase the need for additional police personnel, facilities, or equipment. Thus, there would be no impact.

Schools?

Less-than-Significant Impact. The proposed project is a school project. The existing Arden Middle School would be demolished, and a new, more modern school would be constructed on the current school campus. The proposed project would enable the District to better meet the needs of today's students and teachers. The existing capacity of Arden Middle School is 1,000 and this project would increase the school's capacity to 1,200 (Leet, pers. comm., 2019). Environmental impacts associated with redevelopment of a new school on the existing campus are evaluated in the individual topic areas throughout this Initial Study. Where necessary, mitigation measures are included as part of each topic area analysis to reduce all project impacts to a less-than-significant level.

Parks?

No Impact. The proposed project entails redevelopment of the existing Arden Middle School on the current school campus. All recreational facilities necessary for children attending the school during school hours would be provided on campus. The project does not include new housing that would result in a demand for additional off-campus park facilities. Thus, there would be no impact.

Other public facilities?

No Impact. The proposed project entails redevelopment of the existing Arden Middle School on the current school campus. The new, more modern school campus would have no effect on other public facilities. Thus, there would be no impact.

3.16 RECREATION

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVI. 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?	☐	☐	☒	☐
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	☐	☐	☒	☐

3.16.1 ENVIRONMENTAL SETTING

The project site is located in the urbanized Arden-Arcade area of unincorporated Sacramento County, and is within the Arden Manor Recreation and Park District. There are a variety of neighborhood and community parks in the vicinity of the project site, including Cresta, Detering, Crabtree, Jonas Larkspur, Windemere, Orville Wright, Cottage, Arden, Valley Oak (Sacramento County Department of Parks and Recreation 2019). These parks have a variety of recreational facilities, including outdoor sports fields, walking paths, picnic tables, tot lots, drinking fountains, and restrooms. Several parks have a community center, and Detering Park and Cottage Park have aquatics centers (Arden Manor Recreation and Park District 2015, Arden Park Recreation and Park District 2019, Fulton-El Camino Recreation and Park District 2012, Mission Oaks Recreation and Park District 2019). The playfields at the existing Arden Middle School are utilized for various public recreational activities on the weekends such as soccer leagues. The American River Parkway Regional Park, which includes the 32-mile-long Jedediah Smith Memorial Trail, is approximately 1.75 miles south of the project site. The Lower American River runs from below Nimbus Dam downstream 23 miles to its confluence with the Sacramento River, and is designated as "Recreational" under both the California Wild and Scenic Rivers Act and the National Wild and Scenic Rivers Act (California Wilderness Coalition 2019).

3.16.2 DISCUSSION

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?

Less-than-Significant Impact. The project does not involve the construction of any new housing that would generate new residents who would increase the use of existing recreational facilities. Furthermore, the proposed new school on the existing campus would include all necessary recreational facilities for the student population at the project site, as required by the CDE. During project-related construction activities, public use of the school's existing turf playfields on the weekends (e.g., for soccer leagues) would be disrupted. However, the Arden Manor Recreation and Park District, along with the nearby Arden Park Recreation and Park District, Fulton-El Camino Recreation and Park District, and Mission Oaks Recreation and Park District operate and maintain a variety of

public parks that could host the recreational activities currently occurring at Arden Middle School on the weekends. Furthermore, the school's recreational facilities are owned and operated solely by the District and are not designated for joint-use as a public park. Disruption of weekend use of the school's outdoor playfields would be short-term and temporary, and such uses would resume at the conclusion of project-related construction activities. Therefore, the project would have a less-than-significant impact.

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

Less-than-significant Impact. The proposed new school on the existing campus would include all necessary recreational facilities for the student population at the project site, as required by the CDE. The on-site school-related recreational facilities are evaluated throughout this Initial Study as part of the proposed project. Where necessary, mitigation measures are included as part of each topic area analysis to reduce all project impacts to a less-than-significant level.

3.17 TRANSPORTATION/TRAFFIC

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

3.17.1 DISCUSSION

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

The proposed project is intended to modernize the existing school campus to meet current building code requirements, to provide an improved learning environment that better meets the needs of today's student body, and to provide an improved factor of safety. The campus currently does not have enough adequate parking to meet current levels of parking demand, and new parking areas would be constructed adjacent to Arden Way and Watt Avenue (where the existing school buildings are located now). Improvements will allow greater numbers of student drop-off and pick-up on the school site, rather than using commercial parking lots in the vicinity (see Appendix C for more detail). The project would not conflict with any applicable transportation policy, plan, or ordinance. There is **no impact**.

The proposed school expansion could accommodate up to 200 additional students. The District estimated traffic volumes were estimated based on the numbers of anticipated new students and trip generation rates for middle schools published in the Institute of Transportation Engineers (ITE) Trip Generation, 9th Edition. Traffic volumes were estimated for intersections surrounding the school site for peak periods. Level of Service (LOS) is a tool used to describe traffic congestion, with A being the best and F being the worst. All intersections studied would operate at LOS E or better under existing plus project conditions.

The queue lengths for existing plus project conditions were determined based on the observed existing queue lengths, estimated project-related traffic, and dwell times at the drop-off and pick-up locations. There is sufficient vehicle storage for the drop-off/pick-up area accessed from Watt Avenue with implementation of the project. The same is true of the eastbound drop-off/pick-up area accessed from Arden Way. Either with or without the project,

during the peak queueing period, there is not sufficient storage on Arden Way for vehicles turning left into the school campus.

In addition to the project scenario, the District also directed study of long-term, cumulative traffic conditions. All study intersections will operate at LOS E or better under cumulative with project conditions, except for the intersection of Arden Way and El Nido Way during the afternoon peak hour of school operations. The project is estimated to add approximately six seconds delay at this intersection. The queue lengths in the cumulative with project conditions are anticipated to be similar to those in the existing plus project conditions (see Appendix C for more detail).

The proposed reconstruction of the school is anticipated to generate a variety of truck and construction employee trips. Since the percentage of these trips compared to the existing arterial traffic would not be high, the impacts (in terms of delay and queuing) would not be noticeable.

Overall, peak traffic in the vicinity of the campus during drop-off and pick-up times lasts for approximately 15 to 20 minutes. The school expansion will add traffic to study intersections and is anticipated to increase average delay for each vehicle by approximately 15 seconds. The additional proposed parking in the school campus is anticipated to attract more vehicles entering the school campus for drop off and pick up of the students rather than using the adjacent commercial parking lots. Queues at the westbound left-turn pocket at Arden Way and Entry Driveway, as well as the drop-off/pick-up areas within the school are anticipated to increase slightly with the additional project traffic.

Following are recommendations to minimize inconvenience during construction and improve operations.

Recommendation Traffic-1: Construction

It is recommended that the District develop and implement a Construction Traffic Management Plan (TMP). The plan may include items such as: the number and size of trucks per day, expected arrival/departure times, truck circulation patterns, location of truck staging areas, location/amount of employee parking, a driveway access plan (including provisions for safe vehicular, pedestrian, and bicycle travel, minimum distance from any open trench, special signage, and private vehicle access points), and the proposed use of traffic control/partial street closures on public streets. The overall goal of the Construction TMP would be to minimize traffic impacts to public streets and maintain a high level of safety for all roadway users. The Construction TMP will adhere to the following performance standards throughout project construction:

- Delivery trucks shall not be permitted during school drop-off and pick-up times, and shall not idle/stage on Arden Way or Watt Avenue.
- Safe and efficient access routes shall be maintained for existing businesses (and emergency vehicles) in the adjacent commercial places.
- Although unlikely to be necessary, any lane closures on Arden Way or Watt Avenue during project construction shall be limited to a single lane during off-peak hours.

- Roadways, sidewalks, crosswalks, and bicycle facilities shall be maintained clear of debris (e.g., rocks) that could otherwise impede travel and impact public safety.

- Implementation of the Construction TMP will help ensure against any impact during construction.

Recommendation Traffic-2: Operations

To further reduce congestion during the 15 to 20 minutes where this congestion occurs, the following strategies are recommended:

- Different school dismissal times for certain grades can reduce congestion during the pick-up operations.

- Pre-planned drop-off/pick-up locations on the campus can help school guards anticipate the traffic accurately and facilitate quicker and more efficient pick up and drop off.

- Additional school staff to assist with the loading/unloading of students can help to reduce the dwell times and clear queues faster.

- Additional guards near the parking area and exit driveway may be added for efficient circulation and avoid longer period of bottlenecks and congestion during the peak operations.

- The District should encourage parents to use the additional parking included as a part of the project and pre-planned pick-up and drop-off areas, rather than using off-site parking areas across Arden Way and Watt Avenue north and west of the campus.

- Vehicles entering the school from Arden Way should be allowed to use the expanded parking area, as well as exit onto Watt Avenue, as shown in the proposed site plan. This will allow more flexibility to the vehicles coming from different directions and continue to their next destination after the drop-off/pick-up.

b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

The referenced section provides guidance for analysis of travel demand impacts. This section of the CEQA Guidelines suggests that vehicle miles traveled (VMT) is the most appropriate measure of travel demand impacts. The Guidelines also clarify that a project's effect on automobile delay shall not constitute a significant environmental impact. VMT can be an indicator of potential adverse physical environmental effects. The actual adverse physical environmental effects associated with VMT are analyzed in other sections of this document, including Air Quality, Greenhouse Gas Emissions, Noise and Vibration, and Energy.

Transportation is the primary source of the ozone precursor, NOx, as well as the leading source of GHG emissions in the county and state (Sacramento County 2016, California Air Resources Board 2018).[6,7] As

[6] For more detail on the County's inventory, please see Sacramento County's Climate Action Plan website: http://www.per.saccounty.net/PlansandProjectsIn-Progress/Pages/CAP.aspx.

explained in the County's Climate Action Plan Strategy and Framework, promoting infill development (such as the project) along the County's corridors (such as Arden Way and Watt Avenue) is a key strategy for reducing travel demand and associated greenhouse gas emissions (Sacramento County 2011).[8] The project would not substantially increase VMT since it will provide for students in the vicinity of the school site as that demand increases through demographic changes and increases in housing capacity through infill development. There is no adverse physical environmental impact associated with VMT that is not addressed fully in other relevant technical sections of this Initial Study. The impact is **less than significant.**

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

Site access will be slightly improved as a part of the project. The driveway length from both the access points from Watt Avenue and eastbound Arden Way will be longer after implementation of the project. Parking will be expanded on-site, reducing congestion and queueing, and the need for drop-off/pick-up at commercial properties north and west of the school site. The project does not add dangerous curves, does not introduce transportation facilities where there is inadequate site distance, or otherwise increase any hazards. There is **no impact.**

d) Result in inadequate emergency access?

The project is the modernization and reuse of an existing school site. The project site will maintain the same emergency access as under existing conditions. There is **no impact**.

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7 For more detail, please see California Air Resources Board (ARB) 2018, California Greenhouse Gas Emissions for 2000 to 2016, available: https://ww3.arb.ca.gov/cc/inventory/pubs/reports/2000_2016/ghg_inventory_trends_00-16.pdf.

8 For more detail on the County's Climate Action Plan Framework, please see: http://www.per.saccounty.net/PlansandProjectsIn-Progress/Documents/Climate%20Action%20Plan/CAP%20Strategy%20and%20Framework%20Document.PDF.

3.18 TRIBAL CULTURAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVIII. Tribal Cultural Resources. 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:				
a) 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) 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 Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☒	☐	☐

3.18.1 ENVIRONMENTAL SETTING

NATIVE AMERICAN CONSULTATION

On behalf of SJUSD a sacred lands search was requested by AECOM from the Native American Heritage Commission (NAHC). The purpose of the search was to ascertain whether additional resources or locations exist that may be of importance to Native Americans who traditionally have resided in the project area. On May 31, 2019, the NAHC responded, stating that a review of their files yielded negative results. The NAHC also provided the contact information for local Native American tribes and individuals that may have information regarding tribal cultural resources that maybe located within or in the vicinity of the project site, and that could be significantly altered by project implementation.

SJUSD contacted the Buena Vista Rancheria of Me-Wuk Indians, Colfax-Todds Valley Consolidated Tribe, Ione Band of Miwok Indians, Nashville Enterprise Miwok-Maidu-Nishinam Tribe, Shingle Springs Band of Miwok Indians, the Tsi Akim Maidu, United Auburn Indian Community of the Auburn Rancheria (UAIC), and the Wilton Rancheria. The District invited consultation on the project.

UAIC representative, Cherilyn Neider, responded, requesting consultation for the project, copies of existing cultural resource assessments, the results of records searches, and incorporation of mitigation measures into the project's environmental documents. These mitigation measures address inadvertent discoveries, incorporation of a tribal cultural resources section in the worker environmental awareness and protection training, and a post-ground

disturbance visit to the project area. The UAIC representative further stated that although existing records do not indicate that recorded resources overlap with the project area, given the location and proximity to villages from Tribal Records, there is an increased likelihood that unanticipated discoveries may be made in the removal of the existing buildings.

3.18.2 DISCUSSION

a) 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. There is no information suggesting that there are any tribal cultural resources in the vicinity of the project site. Consultation with local Native American groups and individuals failed to identify tribal cultural resources in the vicinity of the project site and the NAHC Sacred Lands database search was negative. There is **no impact**.

b) 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 Resources 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. There is no information suggesting that there are any tribal cultural resources in the vicinity of the project site. Consultation with local Native American groups and individuals failed to identify tribal cultural resources in the vicinity of the project site and the NAHC Sacred Lands database search was negative. The following mitigation measure has been added to further ensure against an impact.

Mitigation Measure TCR-1: Implement Mitigation Measure CUL-1

Significance after Mitigation

Mitigation Measure CUL-1 requires site inspection of an excavated area of the project site, worker awareness of what to do in the event of a potential cultural resources find, and appropriate actions for discovery of archaeological resources, including tribal cultural resources.

Implementation of the above described mitigation measure would reduce potential impacts on tribal cultural resources to a less-than-significant level because compliance with the above-listed procedures would address concerns about loss of, or substantial adverse changes to, tribal cultural resources. The impact is **less than significant with mitigation.**

3.19 UTILITIES AND SERVICE SYSTEMS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIX. 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?	☐	☐	☒	☐
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐
c) Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand, in addition to the provider's existing commitments?	☐	☐	☒	☐
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐
e) Comply with federal, State, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☐	☒

3.19.1 ENVIRONMENTAL SETTING

The project site consists of the existing Arden Middle School, which was originally constructed in 1938. The school campus has received additions and modernizations over the years, the most recent of which was in 2004. The existing school is served by a variety of utility providers, including Sacramento County Water Agency Zone 41 (water supply), Sacramento County Department of Water Resources (stormwater drainage), Sacramento Area Sewer District and Sacramento Regional Wastewater Treatment Plant (wastewater), Sacramento Metropolitan Utility District (electricity and natural gas), and the L&D and Kiefer Landfills (solid waste). A variety of telecommunications providers, including telephone and television, have existing facilities in the project area and are currently providing services to the project site.

In 2013, Arden Middle School had an enrollment of 953 students (San Juan Unified School District 2014). During the 2018–2019 school year, the enrollment at Arden Middle School increased to 1,060 students (CDE 2019). The existing capacity of Arden Middle School is 1,000 and this project would increase the school's capacity to 1,200 (Leet, pers. comm., 2019).

3.19.2 DISCUSSION

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. The minor projected increase in the student population at the redeveloped school on the existing campus would not be large enough to require capacity expansions for water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities. Since more recent building code requirements increase both indoor and outdoor water conservation, the project could actually reduce water and wastewater treatment demand compared to existing conditions. The project will not require any substantial off-site infrastructure improvements, the construction or operation of which could result in any significant impact. The project would require relocation of connections to infrastructure with the new building locations. The environmental effects of on-site utility modifications are evaluated in the individual topic areas throughout this Initial Study, and mitigation measures are recommended (where necessary) to reduce all environmental impacts to a less-than-significant level.

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. Sacramento County Water Agency Zone 41 currently provides water to the existing Arden Middle School, and would continue to supply water to the redeveloped school on the existing campus in the future. The minor projected increase in the student population would not adversely affect Zone 41's ability to provide the necessary water supply to the school in this future. Since more recent building code requirements increase both indoor and outdoor water conservation, the project could actually reduce water demand compared to existing conditions. This impact is considered less than significant.

c) Result in a determination by the wastewater treatment provider that 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. The Sacramento Area Sewer District currently conveys and disposes of wastewater generated by the existing Arden Middle School, in existing utility lines adjacent to the project site, and would continue to do so in the future. The reconfigured and remodeled school on the existing campus would include minor on-site renovations or replacements, as necessary, of on-site conveyance pipelines that tie-in to Sacramento Area Sewer District laterals off the project site. The minor projected increase in the student population would not adversely affect the County's ability to provide the necessary wastewater conveyance or treatment at the Sacramento Regional Wastewater Treatment Plant for the school in this future. This impact is considered less than significant.

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. The proposed project includes demolition of the existing school buildings (approximately 74,508 square feet of floor space), and some of the existing pavement. There are two landfills that could accept solid waste from the project site. L&D Landfill, located at 8635 Fruitridge Road in Sacramento,

primarily receives construction and demolition debris, household garbage, and other non-hazardous waste. Kiefer Landfill, located at 12701 Kiefer Boulevard in Sloughhouse, is operated by the County. Kiefer Landfill is classified as a Class III municipal solid waste landfill facility and is permitted to accept general residential, commercial, and industrial refuse for disposal. Kiefer Landfill has a total capacity of 117 million cubic yards – or 58 million tons. The solid waste facility permit allows for 10,815 total tons of refuse per day. Kiefer landfill is divided into 12 modules and Module 4 is currently being filled. Based on projected waste flows the landfill has capacity until the year 2092 (Sacramento County 2017).

Because both landfills have capacity to receive project waste during both the construction and operational phase, and because the District would continue to implement a recycling program, the proposed project would not 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. Thus, this impact is considered less than significant.

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

No Impact. The District already has and would continue to implement recycling programs during the project's operational phase. During the demolition phase, construction and demolition debris would be recycled at local facilities. The California Green Building Code requires that at least 65 percent of construction and demolition waste be diverted from landfills. A Waste Management Plan must be approved that identifies a waste hauler and a construction and demolition sorting facility and waste log must document the 65 percent diversion requirement. The proposed project would comply with federal, State, and local management and reduction statutes and regulations related to solid waste, and there would be no impact.

3.20 WILDFIRE

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

3.20.1 ENVIRONMENTAL SETTING

Public Resources Code Sections 4201–4204 and Government Code Sections 51175–51189 require identification of fire hazard severity zones within the State of California. The California Department of Forestry and Fire Protection (CAL FIRE) has established a fire hazard severity classification system. Fire prevention areas considered to be under state jurisdiction are referred to as "state responsibility areas" (SRAs). In SRAs, CAL FIRE is required to delineate three wildfire hazard ranges: moderate, high, and very high. "Local responsibility areas" (LRAs), which are under the jurisdiction of local entities (e.g., cities, counties), are required only to identify very high fire hazard severity zones.

The project site is located in the urbanized Arden-Arcade area, which is not located in or near an SRA (CAL FIRE 2007). The project site and the surrounding area are in a LRA, and CAL FIRE has not designated any very high fire hazard severity zones at the project site or in the project area (CAL FIRE 2008). Vegetation at the project site consists of turf grass and a few urban street trees and ornamental shrubs around the perimeter.

In addition to the CAL FIRE mapping, local agencies may adopt ordinances that may affect communities' hazard mapping and building code requirements. Local agencies are not required to report such zoning actions to CAL FIRE, and therefore locally designated very high fire hazard severity zones may not be reflected on CAL FIRE maps. Based on a review of the Sacramento County General Plan Safety Element, the County has not designated any additional areas as very high fire hazard severity zones other than those already classified by CAL FIRE (Sacramento County 2017).

3.20.2 DISCUSSION

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

No Impact. The project site is not located in an SRA or very high or high fire hazard severity zone. The new school, which would be constructed on the existing Arden Middle School Campus, would include appropriate emergency vehicle ingress and egress, as required by the CDE. All construction materials and equipment would be staged on the project site, and no roads or lanes would be closed during project-related construction activities. Therefore, the project would have no impact on emergency response or emergency evacuation plans as related to fire hazards.

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 located in an SRA, and is not located in a very high or high fire hazard severity zone. Redevelopment of the existing school site would not increase the existing the fire hazard, which is very low due to the developed nature of the surrounding area. The project site would continue to be served by existing Sacramento County fire stations. Thus, there would be no impact.

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 located in an SRA, and is not located in a very high or high fire hazard severity zone. Redevelopment of the existing school site would not increase the existing the fire hazard, which is very low due to the developed nature of the project area. The redeveloped school would continue to be served by existing Sacramento County fire stations, and would not result in a need for additional fire personnel, equipment, or other infrastructure. Thus, there would be no impact.

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 located in an SRA, and is not located in a very high fire hazard severity zone. The project site is located in the urbanized Arden-Arcade area, which is nearly flat. Therefore, the project would not result in exposure of people or structures to significant risks from flooding or landslides following a wildfire. Thus, there would be no impact.

3.21 MANDATORY FINDINGS OF SIGNIFICANCE

	ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XXI.	**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 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) 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.)	☐	☐	☒	☐
	c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

Authority: Public Resources Code Sections 21083, 21083.5.

Reference: Government Code Sections 65088.4.
Public Resources Code Sections 21080(c), 21080.1, 21080.3, 21083, 21083.3, 21083.5, 21093, 21094, 21095, 21151; *Sundstrom v. County of Mendocino* (1988) 202 Cal.App.3d 296*; Leonoff v. Monterey Board of Supervisors* (1990) 222 Cal.App.3d 1337; *Eureka Citizens for Responsible Govt. v. City of Eureka* (2007) 147 Cal.App.4th 357; *Protect the Historic Amador Waterways v. Amador Water Agency* (2004) 116 Cal.App.4th at 1109; *San Franciscans Upholding the Downtown Plan v. City and County of San Francisco* (2002) 102 Cal.App.4th 656.

3.21.1 DISCUSSION

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?

The analysis presented in this Initial Study concludes that the proposed project with mitigation would not have a significant adverse effect on the physical environment and would not result in any of the impacts defined in a) above.

As evaluated in Section 3.1, "Aesthetics," the proposed project could have potential adverse effects from the introduction of new sources of nighttime light and glare. However, with implementation of Mitigation Measure

AES-1 (Prepare and Implement a Lighting Plan) included in Section 3.1, these impacts would be reduced to a **less-than-significant level**.

As evaluated in Section 3.2, "Air Quality," project-related construction activities could conflict with or obstruct implementation of Sacramento Metropolitan Air Quality Management District (SMAQMD's) air quality plans for particulate matter. However, with implementation of Mitigation Measure AIR-1 (Implement the SMAQMD Basic Construction Emission Control Practices) included in Section 3.2, this impact would be reduced to a **less-than-significant level**.

As also evaluated in Section 3.2, "Air Quality," although modeled project construction and operational emissions would not exceed SMAQMD thresholds of significance, the Sacramento Valley Air Basin is currently in nonattainment status with respect to ozone and particulate matter. With implementation of Mitigation Measure AIR-2 (Implement Mitigation Measure AIR-1: Implement the SMAQMD Basic Construction Emission Control Practices) included in Section 3.2, this impact would be reduced to a **less-than-significant level**.

As evaluated in Section 3.3, "Biological Resources," the proposed project could have potential adverse effects during construction activities on nesting raptors and trees. However, with implementation of Mitigation Measure BIO-1 and BIO-2 included in Section 3.3, these impacts would be reduced to a **less-than-significant level**.

As devaluated in Section 3.4, "Cultural Resources," the proposed project could result in a substantial adverse change in the significance of an archaeological resource or disturb human remains, during construction activities. However, with implementation of Mitigation Measure CUL-1 these impacts would be reduced to a **less-than-significant level**.

As evaluated in Section 3.7, "Geology and Soils," the proposed project could result in construction-related damage to or destruction of unique paleontological resources. However, with implementation of Mitigation Measure GEO-1 (Conduct Construction Personnel Education, Stop Work if Paleontological Resources are Discovered, Assess the Significance of the Find, and Prepare and Implement a Recovery Plan, as Required) included in Section 3.7, this impact would be reduced to a **less-than-significant level**.

As evaluated in Section 3.12, "Noise," if construction activities were to occur during the more noise-sensitive hours (e.g., evening, nighttime, and early morning) or construction equipment were not properly equipped with noise control devices, construction-generated source noise could result in annoyance and/or sleep disruption of occupants of the nearby existing noise-sensitive land uses (e.g., single-family) and create a substantial temporary increase in ambient noise levels in the direct vicinity of the project site. With implementation of Mitigation Measure NOI-1 (Implement Measures to Reduce Short-Term, Construction-Related Noise), these impacts would be reduced to a **less-than-significant level.**

As also evaluated in Section 3.12, "Noise," new mechanical building equipment (e.g., heating, ventilation and air conditioning systems or HVAC) could generate excessive long-term operational noise levels. With implementation of Mitigation Measure NOI-2 (Shield Mechanical Equipment, including HVAC Units, from adjacent Residences), this impact would be reduced to a **less-than-significant level**.

As evaluated in Section 3.17, "Transportation," the project would not have any potentially significant impact.

b) 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.)

Construction of the proposed project would result in temporary and short-term impacts that would be limited to the project site and immediate vicinity. Although impacts related to resources such as air quality, greenhouse gas emissions, and traffic would contribute to regional impacts, these impacts would not make a cumulatively considerable incremental contribution to any significant cumulative impact resulting from other past, present, and reasonably foreseeable future projects in the project vicinity. This result stems from the small size of the proposed project, limited nature of construction-related impacts over a relatively short construction period, and mitigation measures that are proposed to avoid, minimize, rectify, reduce, eliminate, and/or compensate for any potentially significant impacts.

As discussed in this Initial Study the proposed project would result in less-than-significant impacts or no impacts on the following resource areas: agriculture and forestry resources, energy, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, population and housing, public services, recreation, tribal cultural resources, utilities and service systems, and wildfire. Furthermore, mitigation measures have been included in this Initial Study that would reduce impacts to a less-than-significant level in the following areas: aesthetics, air quality, biological resources, cultural resources and tribal cultural resources, geology and soils, and noise. Therefore, all impacts would be less than significant or would be reduced to a less-than-significant level through implementation of required mitigation measures, and the proposed project would not make a cumulatively considerable incremental contribution to significant cumulative adverse impacts on those resource areas. The incremental effects of the proposed project would not be cumulatively considerable when viewed in connection with the effects of past, present, and reasonably foreseeable future projects. This impact would be **less than significant**.

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

For the reasons described in a) above, the analysis conducted in this Initial Study concludes that the proposed project with mitigation would not have a significant adverse effect on human beings. The proposed project is being implemented for the specific purpose of improving the learning environment for students and faculty members at the existing Arden Middle school campus. With implementation of the mitigation measures described in a) above, this impact would be **less than significant.**

4 SUMMARY OF MITIGATION MEASURES

Mitigation Measure AES-1: Prepare and Implement a Lighting Plan.

To reduce impacts associated with light and glare, San Juan Unified School District (SJUSD) shall prepare and implement a lighting plan for the proposed project that includes the following elements:

- Shield or screen lighting fixtures to direct the light downward and prevent light spill on adjacent properties.
- Place and shield or screen flood and area lighting needed for security so as not to disturb adjacent residential areas and passing motorists.
- Light fixtures that are of unusually high intensity or brightness (e.g., harsh mercury vapor, low-pressure sodium, or fluorescent bulbs) or that blink or flash, shall not be used. Light-emitting diode (LED) lighting shall be used where feasible.
- Motion-controlled exterior nighttime lighting, rather than lighting that is always on, shall be used where feasible.
- Use appropriate building materials (such as low-glare glass, low-glare building glaze or finish, neutral, earth-toned colored paint and roofing materials), shielded or screened lighting, and appropriately shielded lighting for signage, to prevent light and glare from adversely affecting adjacent housing and motorists on nearby roadways.
- Design and construct the high-mast lighting along Arden Way and Watt Avenue in compliance with Sacramento County Improvement Standards (Sacramento County 2018, or the current version that is in effect at the time design and construction occur).

Mitigation Measure AIR-1: Implement the SMAQMD Basic Construction Emission Control Practices.

Comply with Basic Construction Emission Control Practices identified by the SMAQMD and listed below or as they may be updated in the future:

- Water all exposed surfaces two times daily. Exposed surfaces include, but are not limited to soil piles, graded areas, unpaved parking areas, staging areas, and access roads.
- Cover or maintain at least two feet of free board space on haul trucks transporting soil, sand, or other loose material on the site. Any haul trucks that would be traveling along freeways or major roadways should be covered.
- Use wet power vacuum street sweepers to remove any visible track out mud or dirt onto adjacent public roads at least once a day. Use of dry powered sweeping is prohibited.
- Limit vehicle speeds on unpaved roads to 15 miles per hour (mph).

- All roadways, driveways, sidewalks, parking lots to be paved should be completed as soon as possible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used.

- Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to 5 minutes, as required by California Code of Regulations, Title 13, sections 2449(d) and 2485. Provide clear signage that posts this requirement for workers at the entrances to the site.

- Maintain all construction equipment in proper working condition according to manufacturer's specifications. The equipment must be checked by a certified mechanic and determined to be running in proper condition before it is operated.

Mitigation Measure AIR-2: Implement Mitigation Measure AIR-1 (Implement the SMAQMD Basic Construction Emission Control Practices).

Mitigation Measure BIO-1: Avoid impacts on nesting birds and raptors.

The San Juan Unified School District (District) will implement the following measures to avoid directly affecting nesting birds during project construction:

- The District will commission preconstruction nesting bird surveys to locate any active nests of birds protected under the MBTA and California Fish and Game Code Sections 3503. Before any construction activities occur during the nesting season (February 15–August 31), a qualified biologist shall conduct nesting bird surveys to identify any non-raptor migratory bird nests within 50 feet and raptor nests within 300 feet of proposed demolition and construction areas. A qualified wildlife biologist shall determine the timing of preconstruction surveys based on the time of year and habitats that are present and shall conduct the surveys no more than 30 days before construction.

- If nests are detected during the preconstruction surveys, the District will maintain no-disturbance buffers around active bird nests during the breeding season, or until it is determined the young have fledged. The no-disturbance zone would generally include a 50-foot exclusion zone around the nests of non-raptor migratory birds, and a 300-foot buffer around all raptor nests (including owls) in which no work will be allowed until the young have successfully fledged or nesting activity has ceased. The qualified biologist will make the determination of fledging or cessation of nesting. The size of the exclusion zone may be modified by the qualified biologist depending on the species and the type of construction activity and associated disturbance anticipated near the nest. Before construction, the qualified biologist shall flag or fence the setback areas.

- If no nests are observed during the preconstruction survey but nesting occurs after the start of construction, it will be assumed that the individuals are acclimated to the level of ongoing disturbance.

- If construction is scheduled to occur during the non-nesting season, then no nesting bird surveys are required before construction activity begins.

Mitigation Measure BIO-2: Comply with the County of Sacramento's Tree Preservation Ordinance and Obtain a Tree Permit

Prior to project construction, the San Juan Unified School District (District) shall contact the County of Sacramento's tree administrator to discuss the proposed activity and if deemed necessary, the tree administrator will inspect the site of the proposed activity. After consultation between the District and the tree administrator, if the tree administrator determines that a permit is required, the District shall apply for a permit and comply with relevant permit conditions, including permit conditions that may be met through on-site replanting and the landscaping plan. The application for a tree permit would contain the following information:

2. Location, size and species of the tree(s);
2. The type of activity for which the permit is sought;
3. A statement of the reasons for the activity; and
4. Funds for an arborist report, if applicable.

Mitigation Measure CUL-1: Notification and inspection and appropriate treatment for inadvertent discovery of archaeological resources

A minimum of seven days prior to beginning earthwork or other soil disturbance activities, the District shall notify tribal representative/s from any traditionally and culturally affiliated Native American Tribe and offer an invitation to inspect the project site, including soil piles, trenches, or other disturbed areas, within the first five days of groundbreaking activity. If this site visit occurs, during the site visit, the tribal representative/s will be provided with the opportunity to provide construction personnel with tribal cultural resources awareness information.

The School District will require that, in the event of any inadvertent discovery of archaeological resources during this inspection or construction activities, all such finds will be subject to Public Resources Code Section 21083.2 and CEQA Guidelines Section 15064.5. Procedures for inadvertent discovery are listed below.

- Before the start of any earthmoving activities, the School District will retain a qualified archaeologist to inform construction personnel involved with earthmoving activities regarding the types of cultural resources or features that could be encountered during construction. These include, but are not limited to flaked stone tools or ground stone milling tools. Historic-era artifacts may include, but are not limited to ceramic, glass, or metal objects, nails, and miscellaneous hardware. Contractors involved in any excavation activities will be instructed on what to do and whom to contact if any potential archaeological resources or artifacts are encountered, and that any such find is confidential.

- If unrecorded cultural resources (e.g., midden, unusual amounts of shell, animal bone, bottle glass, ceramics, structure/building remains, etc.) are encountered during construction, all ground-disturbing activities will be restricted within a 100-foot radius of the find or a distance determined by a qualified professional archaeologist to be appropriate based on the potential for disturbance of additional cultural resource materials.

- All work within 100 feet of the find will be halted until a professional archaeologist and, if available, a tribal representative from a traditionally and culturally affiliated Native American Tribe can evaluate the significance of the find in accordance with National Register of Historic Places (NRHP) and CRHR criteria.

- If any find is determined to be significant by the archaeologist, representatives of the School District will meet with the archaeologist to determine the appropriate course of action, in accordance with applicable State requirements and/or in consultation with affiliated Native American Tribal representative/s. If necessary, a Treatment Plan will be prepared by an archeologist, outlining recovery of the resource, analysis, and reporting of the find. The Treatment Plan will be submitted to the School District for review and approval prior to resuming construction.

- All significant cultural materials recovered will be subject to scientific analysis, professional curation, and a report prepared by the professional archaeologist according to current professional standards.

- If tribal cultural resources are identified that have the potential to be adversely affected by the project, SJUSD will consult with available and affiliated Native American representatives to minimize those impacts through:

    - Avoidance and preservation of the resources in place, including but not limited to planning and construction to avoid the resources and protect the cultural and natural context, or planning greenspace, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.

    - Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including but not limited to the following: protecting the cultural character and integrity of the resource; protecting the traditional use of the resource; or protecting the confidentiality of the resource.

- Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.

- Protecting the resource.

Mitigation Measure CUL-2: Stop Work If Human Skeletal Remains Are Uncovered, and Follow the Procedures Set Forth in CEQA Guidelines Section 15064.5(e)(1).

In the event of the accidental discovery or recognition of any human remains, the District will take the following steps:

(1) No further excavation or disturbance of the project site or any nearby area reasonably suspected to overlie adjacent human remains will occur until:

(A) the coroner of Sacramento County has been contacted to determine that no investigation of the cause of death is required, and

(B) if the coroner determines the remains to be Native American:

(1) the coroner shall contact the Native American Heritage Commission (NAHC) within 24 hours (pursuant to Health and Safety Code Section 7050[c]);

(2) the NAHC shall identify the person or persons it believes to be the most likely descendant from the deceased Native American pursuant to the provisions of Public Resources Code Section 5097.98; and

(3) the most likely descendant may make recommendations to the District/contractors, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods, as provided in Public Resources Code Section 5097.98; or

(2) Where the following conditions occur, the District/contractors shall rebury the Native American remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance:

(A) the NAHC is unable to identify a most likely descendant or the most likely descendant fails to make a recommendation within 24 hours after being notified by the NAHC;

(B) the most likely descendant identified fails to make a recommendation; or

(C) the District rejects the recommendation of the most likely descendant, and mediation by the NAHC fails to provide measures acceptable to the District.

Mitigation Measure GEO-1: Conduct Construction Personnel Education, Stop Work if Paleontological Resources are Discovered, Assess the Significance of the Find, and Prepare and Implement a Recovery Plan, as Required.

To minimize the potential for destruction of, or damage to potentially unique, scientifically important paleontological resources during earth-moving activities, the District shall implement the measures described below.

- Prior to the start of earthmoving activities at the project site, inform all construction personnel involved with earthmoving activities regarding the possibility of encountering fossils, the appearance and types of fossils likely to be seen during construction, and proper notification procedures should fossils be encountered. This worker training may either be prepared and presented by an experienced field archaeologist at the same time as construction worker education on cultural resources or prepared and presented separately by a qualified paleontologist.

- If paleontological resources are discovered during earthmoving activities, immediately cease work in the vicinity of the find and notify the District. Retain a qualified paleontologist to evaluate the resource and prepare a recovery plan based on Society of Vertebrate Paleontology

(SVP) Guidelines (SVP 1996). The recovery plan may include, but is not limited to, a field survey, construction monitoring, sampling and data recovery procedures, museum curation for any specimen recovered, and a report of findings. Recommendations in the recovery plan that are determined by the District to be necessary and feasible shall be implemented before construction activities can resume at the site where the paleontological resources were discovered.

Mitigation Measure NOI-1: Implement Measures to Reduce Short-Term, Construction-Related Noise.

- Provide written notification to the residents south of the project site and within 500 feet[9] from the southern project boundary at least three weeks prior to construction, identifying the type, duration, and frequency of construction activities. Notification materials shall also identify a mechanism for residents to contact regarding construction noise. Post contact information in conspicuous locations adjacent to the site with contact information regarding construction noise and activities. The notification shall include anticipated dates and hours during which construction activities are anticipated to occur and contact information, including a daytime telephone number, for the project representative to be contacted in the event that noise levels are deemed excessive. Recommendations to assist noise-sensitive land uses in reducing interior noise levels (e.g., closing windows and doors) shall be included in the notification. If there is communication related to construction noise, implement feasible methods to reduce noise exposure effects, such as shielding, changing the location of stationary sources, and changing construction hours.

- Prohibit the start-up of machines or equipment before place between the hours of 8:00 p.m. and 6:00 a.m. on weekdays and Friday commencing at 8:00 p.m. through and including 7:00 a.m. on Saturday; Saturdays commencing at 8:00 p.m. through and including 7:00 a.m. on the next following Sunday and on each Sunday after the hour of 8:00 p.m.

- Prohibit use of materials and equipment deliveries before 7:00 a.m. and after 7:00 p.m., Monday through Saturday and before 9:00 a.m. and past 5:00 p.m. on Sunday.

- Restrict the use of bells, whistles, alarms, and horns to safety-warning purposes.

- Equip all construction equipment with noise-reduction devices, such as mufflers to minimize construction noise and operate all internal combustion engines with exhaust and intake silencers.

- Locate fixed construction equipment (e.g., compressors and generators), construction staging and stockpiling areas, and construction vehicle routes as far as feasible from noise-sensitive receptors, northern portion of the site and/or off-site staging areas north of the site.

Mitigation Measure NOI-2: Shield Mechanical Equipment, including HVAC Units, from adjacent Residences.

Shield on-site, noise-generating mechanical equipment, including HVAC units, from adjacent residences by interrupting the line of sight or locate such equipment within proposed buildings.

[9] Building rows located within 500 feet of the construction site, would shield construction noise. Therefore, construction noise would be attenuated to ambient level beyond this distance.

Recommendation Traffic-1: Construction

It is recommended that the District develop and implement a Construction Traffic Management Plan (TMP). The plan may include items such as: the number and size of trucks per day, expected arrival/departure times, truck circulation patterns, location of truck staging areas, location/amount of employee parking, a driveway access plan (including provisions for safe vehicular, pedestrian, and bicycle travel, minimum distance from any open trench, special signage, and private vehicle access points), and the proposed use of traffic control/partial street closures on public streets. The overall goal of the Construction TMP would be to minimize traffic impacts to public streets and maintain a high level of safety for all roadway users. The Construction TMP will adhere to the following performance standards throughout project construction:

- Delivery trucks shall not be permitted during school drop-off and pick-up times, and shall not idle/stage on Arden Way or Watt Avenue.
- Safe and efficient access routes shall be maintained for existing businesses (and emergency vehicles) in the adjacent commercial places.
- Although unlikely to be necessary, any lane closures on Arden Way or Watt Avenue during project construction shall be limited to a single lane during off-peak hours.
- Roadways, sidewalks, crosswalks, and bicycle facilities shall be maintained clear of debris (e.g., rocks) that could otherwise impede travel and impact public safety.
- Implementation of the Construction TMP will help ensure against any impact during construction.

Recommendation Traffic-2: Operations

To further reduce congestion during the 15 to 20 minutes where this congestion occurs, the following strategies are recommended:

- Different school dismissal times for certain grades can reduce congestion during the pick-up operations.
- Pre-planned drop-off/pick-up locations on the campus can help school guards anticipate the traffic accurately and facilitate quicker and more efficient pick up and drop off.
- Additional school staff to assist with the loading/unloading of students can help to reduce the dwell times and clear queues faster.
- Additional guards near the parking area and exit driveway may be added for efficient circulation and avoid longer period of bottlenecks and congestion during the peak operations.
- The District should encourage parents to use the additional parking included as a part of the project and pre-planned pick-up and drop-off areas, rather than using off-site parking areas across Arden Way and Watt Avenue north and west of the campus.

- Vehicles entering the school from Arden Way should be allowed to use the expanded parking area, as well as exit onto Watt Avenue, as shown in the proposed site plan. This will allow more flexibility to the vehicles coming from different directions and continue to their next destination after the drop-off/pick-up.

Mitigation Measure TCR-1: Implement Mitigation Measure CUL-1

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