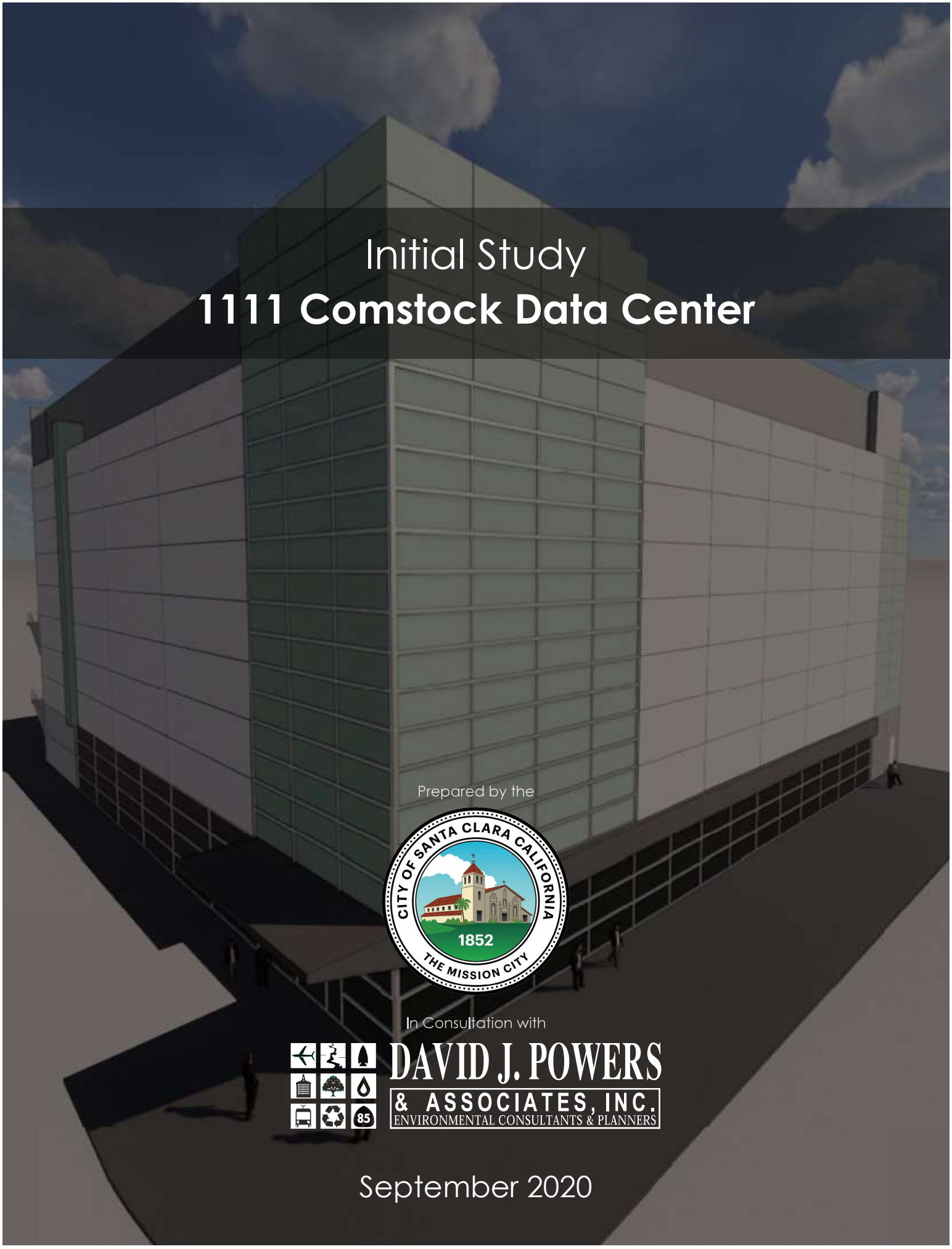

Initial Study
1111 Comstock Data Center

Prepared by the

CITY OF SANTA CLARA CALIFORNIA
1852
THE MISSION CITY

In Consultation with

DAVID J. POWERS
& ASSOCIATES, INC.
ENVIRONMENTAL CONSULTANTS & PLANNERS

September 2020

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Appendices

All appendices are incorporated by this reference into this document. No other documents are incorporated by reference.

SECTION 1.0 INTRODUCTION AND PURPOSE

1.1 PURPOSE OF THE INITIAL STUDY

The City of Santa Clara, as the Lead Agency, has prepared this Initial Study for the Comstock Data Center in compliance with the California Environmental Quality Act (CEQA), the CEQA Guidelines (California Code of Regulations §15000 et. seq.) and the regulations and policies of the City of Santa Clara, California.

The project proposes to construct a new data center. This Initial Study evaluates the environmental impacts that might reasonably be anticipated to result from implementation of the proposed project.

1.2 PUBLIC REVIEW PERIOD

Publication of this Initial Study marks the beginning of a 30-day public review and comment period. During this period, the Initial Study will be available to local, state, and federal agencies and to interested organizations and individuals for review. Written comments concerning the environmental review contained in this Initial Study during the 30-day public review period should be sent to:

City of Santa Clara
Community Development Department
Rebecca Bustos, Senior Planner
1500 Warburton Avenue
Santa Clara, CA 95050
(408) 615-2450

1.3 CONSIDERATION OF THE INITIAL STUDY AND PROJECT

Following the conclusion of the public review period, the City of Santa Clara will consider the adoption of the Initial Study/Mitigated Negative Declaration (MND) for the project at a regularly scheduled meeting. The City shall consider the Initial Study/MND together with any comments received during the public review process. Upon adoption of the MND, the City may proceed with project approval actions.

1.4 NOTICE OF DETERMINATION

If the project is approved, the City of Santa Clara will file a Notice of Determination (NOD), which will be available for public inspection and posted within 24 hours of receipt at the County Clerk's Office for 30 days. The filing of the NOD starts a 30-day statute of limitations on court challenges to the approval under CEQA (CEQA Guidelines Section 15075(g)).

SECTION 2.0 PROJECT INFORMATION

2.1 PROJECT TITLE

1111 Comstock Data Center

2.2 LEAD AGENCY CONTACT

Rebecca Bustos, Senior Planner
City of Santa Clara
Community Development Department
1500 Warburton Avenue
Santa Clara, CA 95050
(408) 615-2450
rbustos@santaclaraca.gov

2.3 PROJECT APPLICANT

John Kolar
Integra Mission Critical
jkolar@integra-mc.com

2.4 PROJECT LOCATION

1111 Comstock Street, Santa Clara CA (refer to Figures 2.4-1, 2.4-2, and 2.4-3)

2.5 ASSESSOR'S PARCEL NUMBER

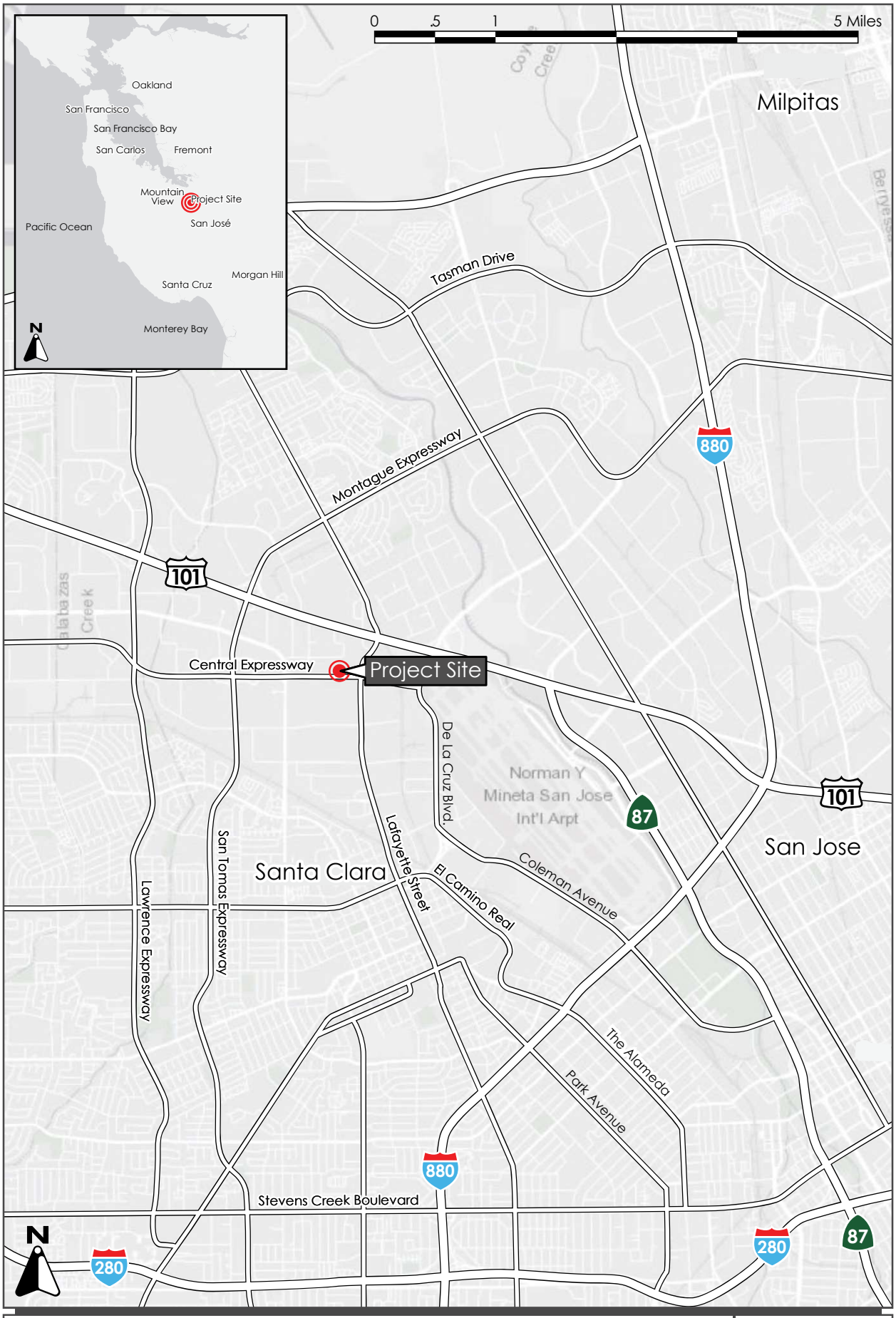
224-08-092

2.6 GENERAL PLAN DESIGNATION AND ZONING DISTRICT

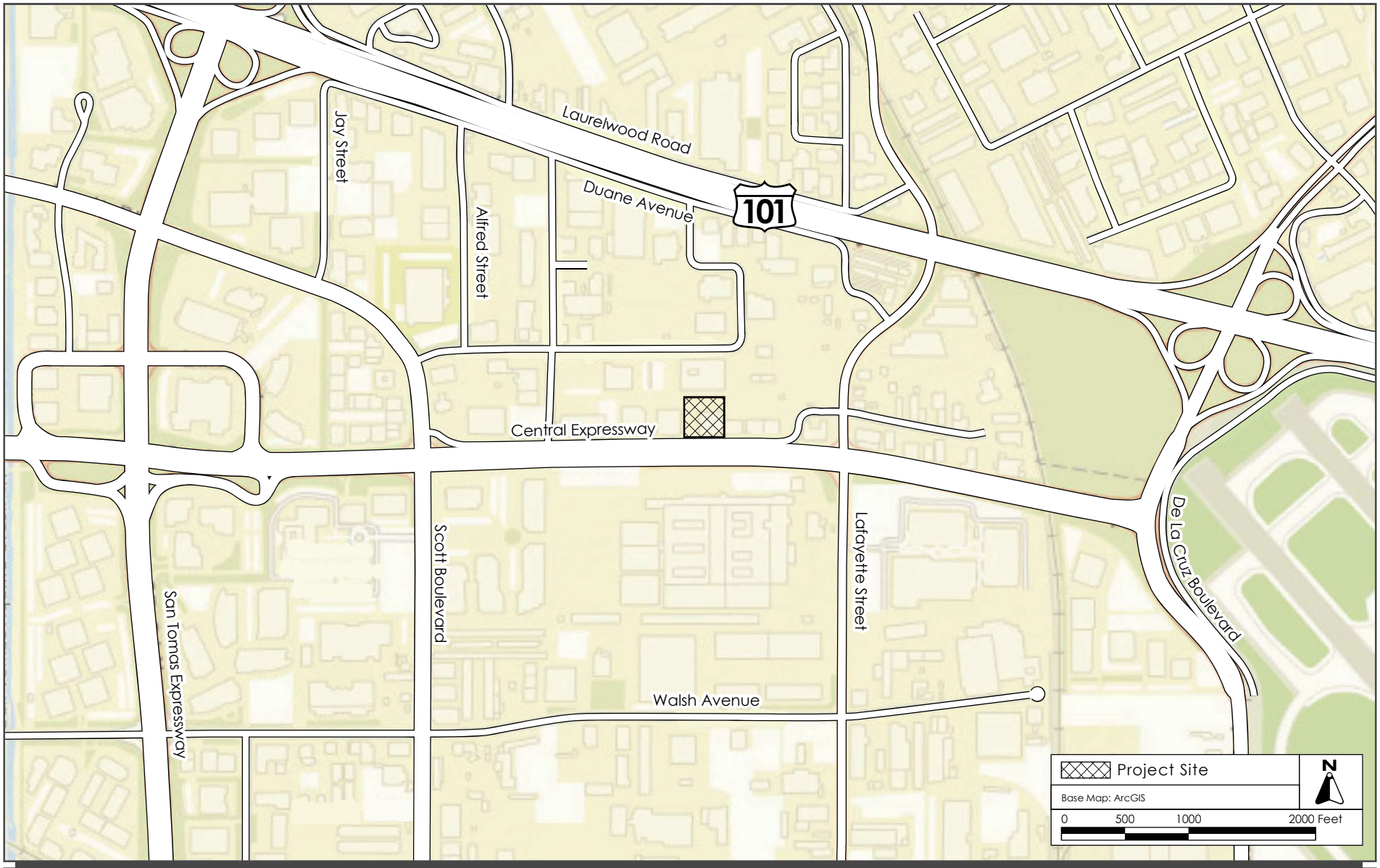
General Plan: *Low Intensity Office/R&D*
Zoning: *Light Industrial*

2.7 PROJECT-RELATED APPROVALS, AGREEMENTS, AND PERMITS

Architectural Review
Demolition Permit
Building Permit



REGIONAL MAP | FIGURE 2.4-1



VICINITY MAP

FIGURE 2.4-2

AERIAL PHOTOGRAPH AND SURROUNDING LAND USES | FIGURE 2.4-3

SECTION 3.0 PROJECT DESCRIPTION

1.1 PROPOSED DEVELOPMENT

The approximately 1.38-acre project site, located at 1111 Comstock Street (APN 224-08-092) in Santa Clara, is currently developed with a one-story, 23,765 square foot (sf) industrial building and a paved parking lot. The site is zoned as Light Industrial, and has a General Plan designation of Low Intensity Office/R&D. The project proposes to demolish the existing improvements on the site to construct a four-story, 121,170 sf data center building. The data center building would house computer servers for private clients in a secure and environmentally controlled structure and would be designed to provide 10 megawatts (MW) of information technology (IT) power. Mechanical equipment for building cooling would be located on the roof.

Standby backup emergency electrical generators would be installed to provide for an uninterrupted power supply. Six 3,000-KW diesel-fueled engine generators and one 500-kW diesel-fueled engine generator would be located within a generator room on the first floor of the building. Fuel for the generators would be stored in two 30,000-gallon underground storage tanks which would feed individual 160-gallon daytanks located adjacent to each generator. The conceptual site plan is shown on Figure 3.1-1.

1.1.1 Building Heights and Setbacks

The data center building would be approximately 80 feet in height, with parapets extending to a height of 87.5 feet. A metal roof screen would extend to a height of 98 feet to shield mechanical equipment. Building elevations are shown on Figures 3.1-2 and 3.1-3.

The building would be located in the southern, central portion of the site and set back approximately 15 feet from the southern property line on Comstock Street, 45 feet from the northern property line, 50 feet from the western property line, and 25 feet from the eastern property line.

1.1.2 Site Access and Parking

Access to the site would be provided by a primary driveway on Comstock Street. The primary driveway would be approximately 26 feet wide and would be located in the southwestern portion of the site in the same location as the existing driveway entrance. A secondary driveway entrance for emergency access would be constructed on Comstock Street in the southeastern portion of the site and would be approximately 22 feet wide. The emergency driveway would wrap around the perimeter of the building and would include a curb and handicap ramp. The project would provide approximately 24 parking spaces, including one accessible space and two clean air/vanpool/EV spaces, located along the western side of the building.

1.1.3 Site Grading, Excavation, and Construction

The existing improvements on the site would be demolished to allow for construction of the project. Demolition and construction activities would last approximately 12 months. Excavation for utilities would extend to depths of up to eight feet. Roughly 860 cubic yards of soil would be removed from the site as a result of excavation activities. Augered foundation piles would extend to a depth of 80

feet. The site would be graded to direct stormwater flows towards the biotreatment area located along the western boundary of the site.

1.1.4 Landscaping

The project proposes to remove approximately 24 existing trees on-site and plant five replacement trees. New landscaping consisting of trees, shrubs, sedge, perennials, bulbs, annuals and groundcover would be installed in the northeastern, northwestern, and southwestern corners of the site, as well as the southern perimeter of the site, and the western side of the proposed building. The landscape plan is shown on Figure 3.1-4.

1.1.5 Stormwater Controls

The project proposes to construct a stormwater treatment area between the west side of the building and the parking lot. The existing storm drain line on the site would be removed and a new 12-inch storm drain line would connect the treatment area to the existing storm drain line in Comstock Street. Pedestrian walkways would be composed of permeable pavers. The site would have a total of approximately 28,337 sf of pervious surface, which would be an increase compared to existing conditions. The stormwater management plan is shown on Figure 3.1-5.

1.1.6 Sanitary Sewer and Electric Infrastructure Improvements

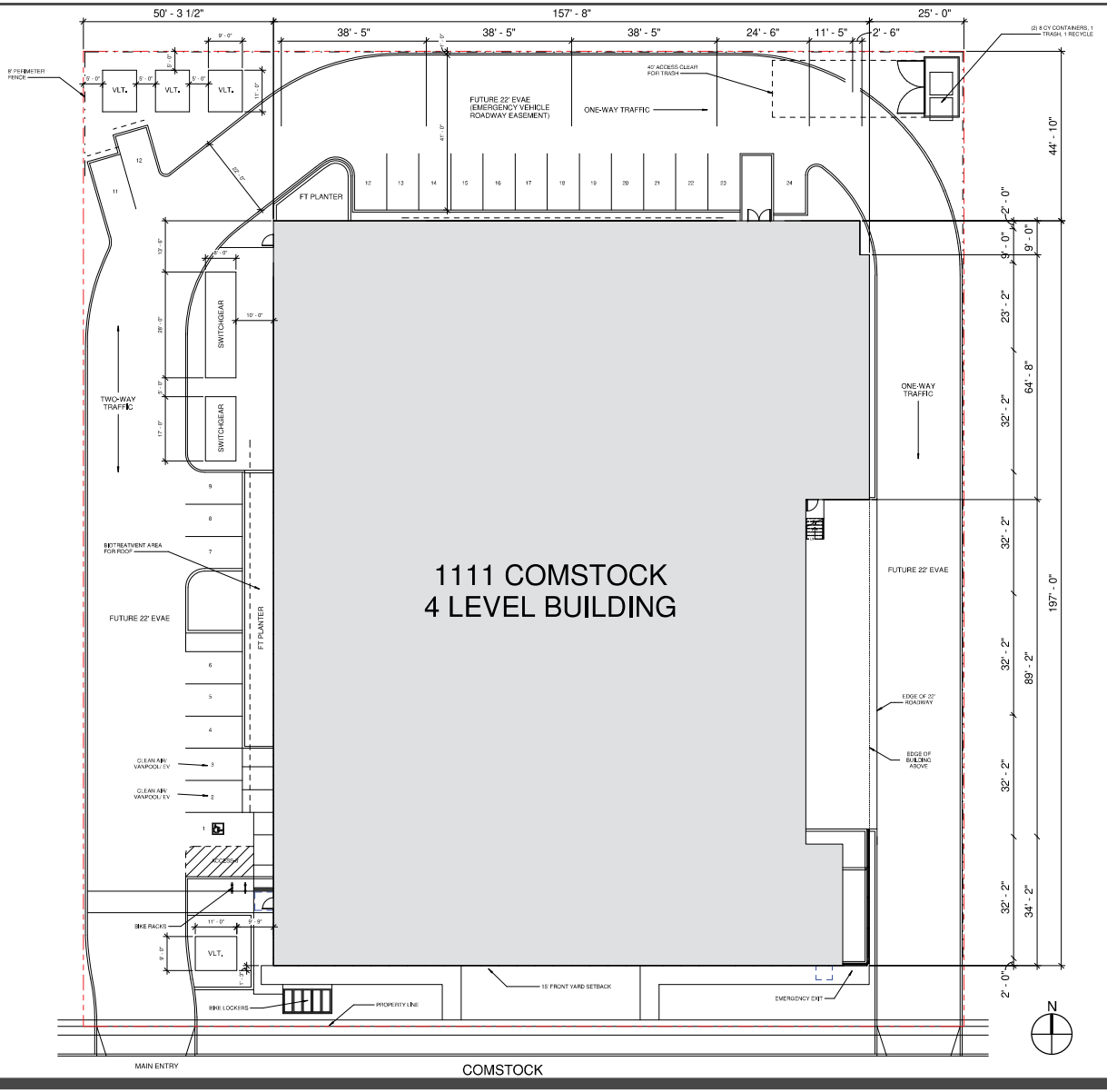
A six-inch sanitary line would be installed adjacent to the west side of the proposed building. The sanitary sewer line would connect to the existing line in Comstock Street.

Underground electrical conduit with concrete encasement would be installed onsite and would connect to an existing underground electric line in Comstock Street.

1.1.7 Generator Testing Schedule

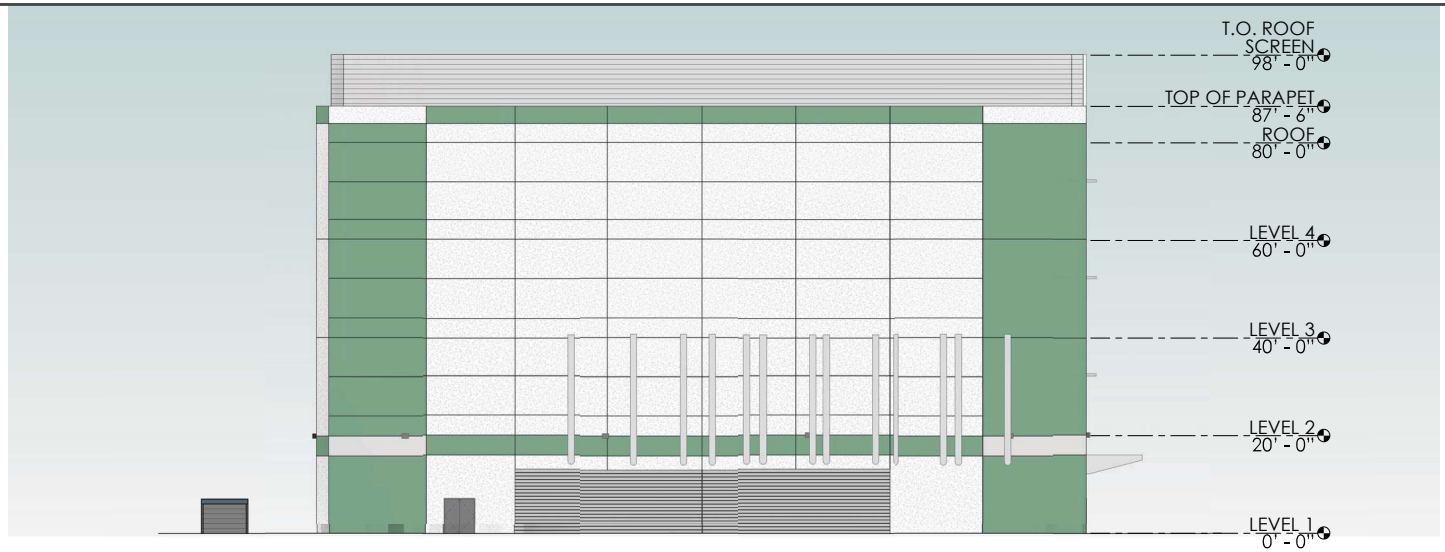
The seven emergency backup generators would each be tested once per month for up to one hour. Tests would be conducted with no load for 11 months out of the year, and at with full load one month out of the year.[1]

[1] Generator load refers to the actual electricity generation of the generator while it is running. For example, a generator running at no load generates no electricity, and is analogous to an idling engine. A generator running at full load is generating the maximum amount of electricity it is capable of producing. Generally, the higher the load that is placed on the engine, the more fuel it will consume, resulting in greater air quality and greenhouse gas emissions, as well as higher noise levels.

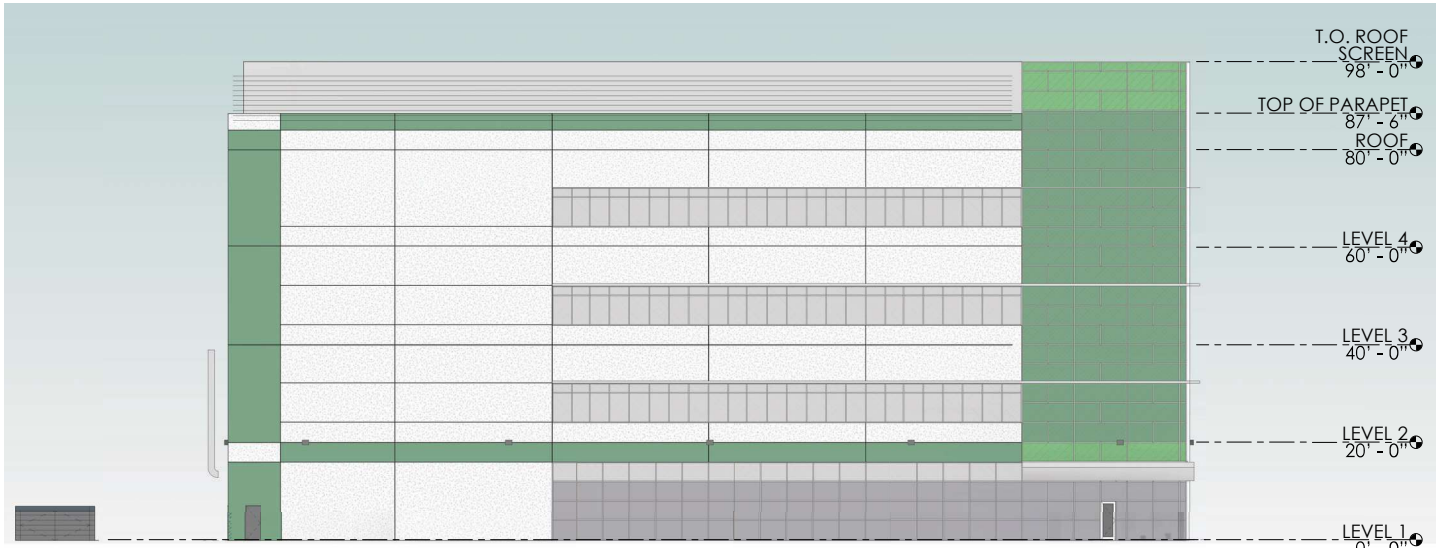


SITE PLAN

FIGURE 3.1-1

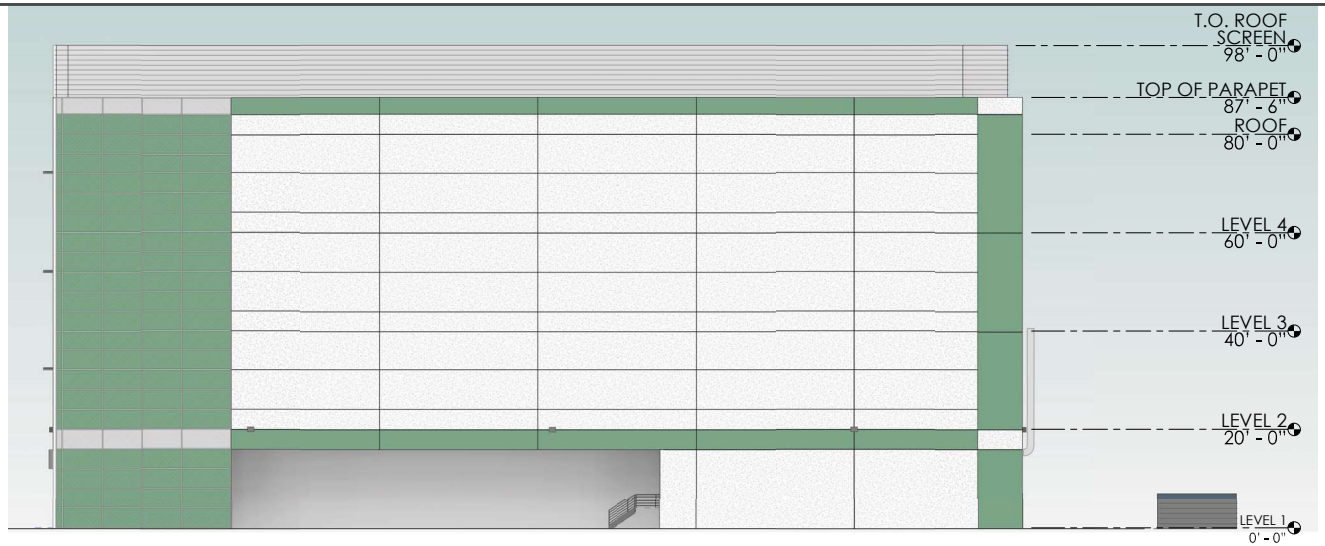


NORTH ELEVATION

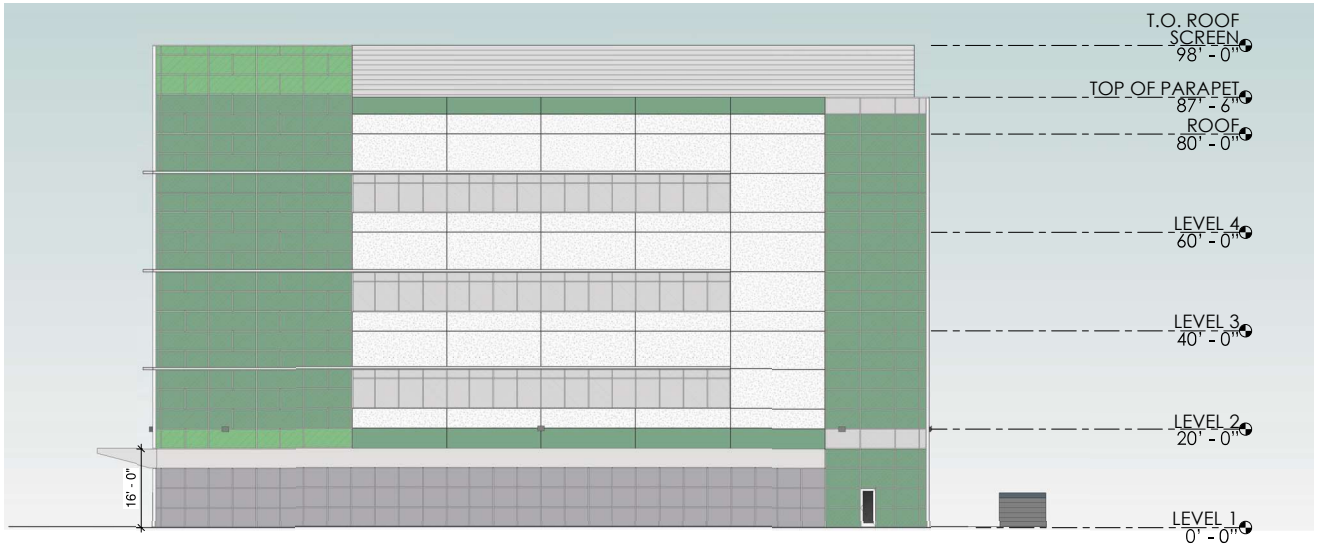


WEST ELEVATION

NORTH AND WEST BUILDING ELEVATIONS | FIGURE 3.1-2

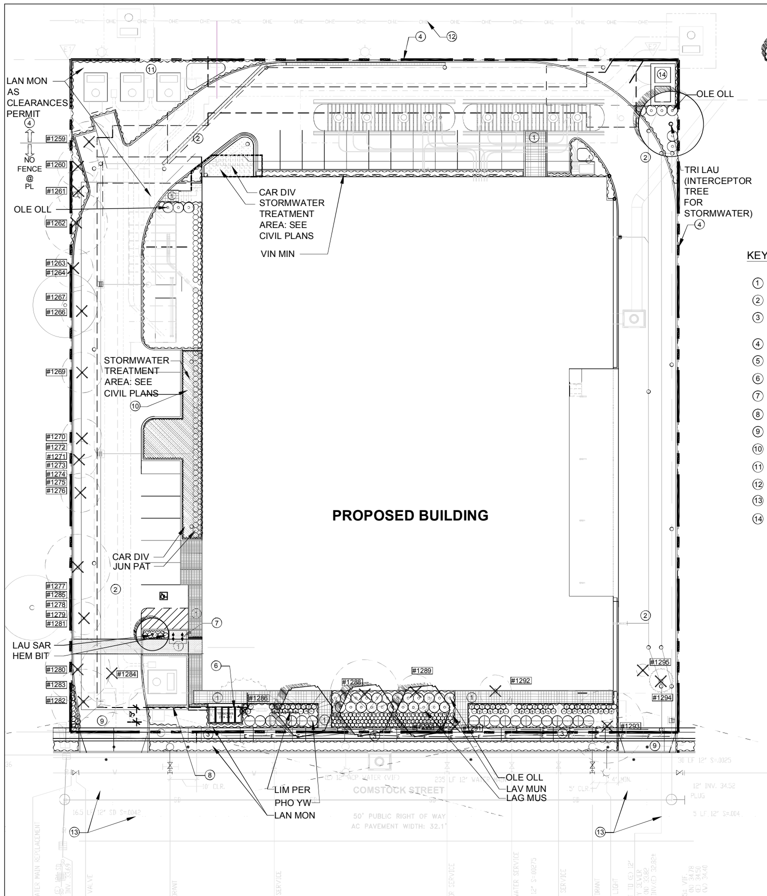


EAST ELEVATION



SOUTH ELEVATION

EAST AND SOUTH BUILDING ELEVATIONS | FIGURE 3.1-3



PLAN

SCALE: 1" = 16'-0"

LEGEND

- PROPOSED TREES
- EXISTING TREES TO BE REMOVED
- #99 TREE NUMBER--REFER TO ARBORIST REPORT AND EXISTING TREE TABLE
- EXISTING TREES TO REMAIN
- SHRUB AND GROUNDCOVER AREA

KEYNOTES

1. PERVIOUS CONCRETE PAVERS--BANDED PATTERN
2. PERVIOUS PAVING
3. CONCRETE SIDEWALK--5' WIDE W/4' WIDE PLANTING STRIP AT BACK OF CURB--REPLACE EXISTING
4. FENCE (6 FT HIGH) AT PROPERTY LINE
5. NOT USED
6. BIKE LOCKER A (STORAGE FOR 10 BIKES)
7. BIKE RACKS (STORAGE FOR 2 BIKES)
8. CONCRETE FEATURE WALL AT ENTRY--FUTURE SIGNAGE/SITE ID
9. DRIVEWAY
10. STORMWATER TREATMENT AREA--SEE CIVIL DRAWINGS
11. PLANTING AREA--AREA FOR FUTURE UTILITIES
12. EXISTING OVERHEAD UTILITY LINES
13. VISION TRIANGLES AT DRIVEWAYS
14. TRASH ENCLOSURE

NOTES

1 FOR STORMWATER TREATMENT FACILITIES REFER TO CIVIL PLANS

2 CLEARANCES FROM UTILITY LINES
- 10' SEWERS
- 5' ELECTRICITY/GAS
- 5' DOMESTIC WATER/RECYCLED WATER (WITH ROOT BARRIER)
- 10' DOMESTIC WATER/RECYCLED WATER (WITHOUT ROOT BARRIER)

3 ROOT BARRIERS PER CITY OF SANTA CLARA WILL BE USED WHEN THE DRIP LINE OF THE CANOPY AT MATURITY COVERS THE SIDEWALK. ROOT BARRIERS SHALL BE 16 FEET LONG OR EXTEND TO THE DRIP LINE OF THE MATURE TREE, WHATEVER IS GREATER, AND BE 1.5 FEET DEPT, AND CENTERED ON TREES. ROOT BARRIERS FOR CURB AND GUTTER PROTECTION SHALL BE 16 FEET LONG OR EXTEND TO DRIP LINE OF THE MATURE TREE, WHICHEVER IS GREATER, AND BE 2 FEET DEEP, AND CENTERED ON TREES.

I HAVE COMPLIED WITH THE CRITERIA OF THE ORDINANCE AND APPLIED THEM FOR THE EFFICIENT USE OF WATER IN THE LANDSCAPE DESIGN PLAN

DENNIS M TANIGUCHI, CLA 2942

PLANT LIST

ABBREV.	BOTANICAL NAME	COMMON NAME	SIZE	MISC. NOTES & RECUIREMENTS	EST. QUANTITY
TREES					
LAG MUS	*Lagerstroemia x 'Muskogee'*	Crape Myrtle (Lavender)	24" Box	Hi. Br./SL/Match	3
LAU SAR	*Laurus n. 'Saratoga'*	Hybrid Laurel	24" Box	S.L./No. Whol. Br./N. Drp. Br./Match	1
TRI LAU	*Tristania laurina 'Elegant'*	Tristania	24" Box	S.L./No. Whol. Br./N. Drp. Br./Match	1
SHRUBS					
OLE OLL	*Olea europaea 'Little Ollie'*	Dwarf Olive (fruitless)	5 G.C	F & B	33
PHO YW	*Phormium tenax 'Yellow Wave'+*	Cream New Zealand Flax	5 G.C.	2'-6" o.c. /Match	19
PERENNIALS/BULBS/ANNUALS					
HEM BIT	*Hemerocallis 'Bitsy'**	Evergreen, repeat bloom Daylily	B.R.	Double fan min., plant at 18" o.c. max.	17
LAV MUN	*Lavandula angustifolia 'Munstead'*	English Lavender	1 G.C.		124
LIM PER	*Limonium perezii*	Sea Lavender	1 G.C.	spacing varies	79
GROUNDCOVERS					
LAN MON	*Lantana montevidensis*	Trailing Lantana	1 G.C.	Plant at 2'-6" o.c.	4149 SF
VIN MIN	*Vinca minor*	Dwarf Periwinkle	1 G.C.	Plant at 2'-6" o.c.	171 SF
SEDGE (STORMWATER AREAS)					
CAR TUM	*Carex tumicuola*	Berkeley Sedge	1 G.C.	Plant at 15" o.c.	987 SF
JUN PAT	*Juncus patens*	Common Rush	1G.C.	Plant at 18" o.c.	126

NOTES:

2. * *Hemerocallis* available only from Greenwood Daylilies, 5595 E. 7th #490, Long Beach, CA 90804, (562) 494-8944.

3. + *Phormum t. hybrids* must be accompanied by a written guarantee stating they are the named cultivar and are stable in size, form and color. Submit to owner and landscape architect. Proof of securement and purchase must also be submitted with in two weeks of award of contract.

PLANT LIST ABBREVIATIONS:

Note	This list together with the plant list prepared by Taniguchi Landscape Architecture must accompany the contractor's nursery order(s)
SL	Single main, straight, dominant, leader
Hi. Br.	High branched—lowest limbs held above rootball 5' min. for 15 gallon can 6' min. for 24" box trees
No Top	No topping or pruning of upper branches
Br. Gr.	Branched to ground
F & B	Full dense, bushy, vigorous plants, with young growth closely spaced on branches, no old/woody plants.
N.V.S.-30 deg.	Narrow upright vase shape 30 degrees or less spread in branch/trunk structure
N.V.S.-45 deg.	Narrow upright vase shape 45 degrees or less spread in branch/trunk structure
No. Whorl. Br.	No closely spaced whirled branches. Select even symmetrical branch distribution
Match	Matched size, form, caliper, branching and cultivar. Select from one lot, one grower, for guaranteed consistency through life of plants. In general plants within a group or area are to be matched, unless noted otherwise.
T.F.	Tree Form
S.F.	Shrub Form
N.F.	Narrow upright Form
B.R.	Bare Root
B & B	Balled and Burlap
Mult. St.	Multi stemmed
Flat	Rooted cuttings from flats at on center distance specified in list. See groundcover/shrub o.c. planting detail for layout.
Cal.	Caliper
EV.	Evergreen
G.C.	Gallon Can
N.C.N.	No Common Name
Trail F	Select trailing Forms for prostrate growth
Veg. Gr.	Vegetative Grown
Hed. F.	Hedge Form (clipped)
Stem up.	Stem up to expose trunk and lower branch pattern
N. Drp. Br.	No long heavy drooping branches

EXISTING TREES--REFER TO ARBORIST REPORT

BY ROBERT BOOTY, DATED MAY 20, 2019

Tree Inventory Data

* Indicates multi-Stem trunk

Tree Tag #	Common Name / Botanical Name	DBH	Height	Crown Radius	% Vigor	% Structural Condition	% Overall Condition	Suitability for Preservation	Age Evaluation	Observations / Comments
1259	*Xylosma* / *Xylosma congestum*	*15.5	17'	15'	80%	65%	70% Fair	Low	Overly Mature	Located in small narrow parking strip. Surrounded by asphalt. Tree has out grown its space.
1260	*Xylosma* / *Xylosma congestum*	*13"	12'	10'	45%	50%	60% Fair	Low	Overly Mature	Located in small narrow parking strip. Surrounded by asphalt. Tree has out grown its space.
1261	Unknown	3"					0% Dead	Very Low		Located in small narrow parking strip. Surrounded by asphalt. Tree is dead.
1262	Evergreen Ash / *Fraxinus ubdei*	5"	15'	10'	80%	80%	80% Good	Low	Young	Located in small narrow parking strip. Surrounded by asphalt. Tree will out grow its space.
1264	Glossy Privet / *Ligustrum lucidum*	2.5"	8'	8'	75%	70%	75% Good	Low	Young	Located in small narrow parking strip. Surrounded by asphalt. Tree will out grow its space.
1263	Evergreen Ash / *Fraxinus ubdei*	* 26"	30'	15'	75%	75%	75% Good	Low	mature	Located in small narrow parking strip. Surrounded by asphalt. Tree has out grown its space.
1266	Evergreen Ash / *Fraxinus ubdei*	*5.5"	12'	8'	80%	80%	80% Good	Low	young	Located in small narrow parking strip. Surrounded by asphalt. Tree will out grow its space.
1267	Evergreen Ash / *Fraxinus ubdei*	*21.5	42'	14'	80%	80%	80% Good	Low	mature	Located in small narrow parking strip. Surrounded by asphalt. Tree has out grown its space.
1269	Evergreen Ash / *Fraxinus ubdei*	7.5"	27'	10'	80%	80%	80% Good	Low	Young	Located in small narrow parking strip. Surrounded by asphalt. Tree will out grow its space.
1270	Evergreen Ash / *Fraxinus ubdei*	8"	25'	6'	80%	80%	80% Good	Low	mature	Located in small narrow parking strip. Surrounded by asphalt. Tree has out grown its space.
1271	Evergreen Ash / *Fraxinus ubdei*	5"	22'	6'	80%	80%	80% Good	Low	Young	Located in small narrow parking strip. Surrounded by asphalt. Tree will out grow its space.
1272	Evergreen Ash / *Fraxinus ubdei*	3"	22'	6'	80%	80%	80% Good	Low	Young	Located in small narrow parking strip. Surrounded by asphalt. Tree will out grow its space.
1273	Evergreen Ash / *Fraxinus ubdei*	3"	12'	6'	80%	80%	80% Good	Low	Young	Located in small narrow parking strip. Surrounded by asphalt. Tree will out grow its space.
1274	Evergreen Ash / *Fraxinus ubdei*	5"	8'	2'	30%	30%	35% Poor	Low	Young	Located in small narrow parking strip. Surrounded by asphalt. Tree will out grow its space.
1275	Evergreen Ash *Fraxinus ubdei*	3.5"	13'	6'	80%	80%	80% Good	Low	Young	Located in small narrow parking strip. Surrounded by asphalt. Tree will out grow its space.
1276	Evergreen Ash *Fraxinus ubdei*	13"	45'	20'	80%	80%	80% Good	Low	mature	Located in small narrow parking strip. Surrounded by asphalt. Tree has out grown its space.
1268	Evergreen Ash *Fraxinus ubdei*	*18"	15'	10'	70%	70%	70% Fair	Low	mature	Located in small narrow parking strip. Surrounded by asphalt. Tree has out grown its space.
1277	Evergreen Ash *Fraxinus ubdei*	6"	20'	10'	75%	75%	75% Good	Low	Young	Located in small narrow parking strip. Surrounded by asphalt. Tree will out grow its space.

Tree Tag #	Common Name / Botanical Name	DBH	Height	Crown Radius	% Vigor	% Structural Condition	% Overall Condition	Suitability for Preservation	Age Evaluation	Observations / Comments
1285	Glossy Privet / *Ligustrum lucidum*	4"	15'	10'	75%	35%	75% Good	Low	mature	Located in small narrow parking strip. Surrounded by asphalt. Tree has out grown its space.
1278	*Xylosma* / *Xylosma congestum*	8"	12'	6'	30%	30%	30% Poor	Low	Overly Mature	Located in small narrow parking strip. Surrounded by asphalt. Tree has out grown its space.
1279	*Xylosma* / *Xylosma congestum*	*19"	12'	10'	30%	30%	30% Poor	Low	Overly Mature	Located in small narrow parking strip. Surrounded by asphalt. Tree has out grown its space.
1280	Evergreen Ash *Fraxinus ubdei*	2"	15'	4'	45%	45%	45% Poor	Low	Young	Located in small narrow parking strip. Surrounded by asphalt. Tree will out grow its space.
1281	Evergreen Ash *Fraxinus ubdei*	*23"	30'	14'	70%	70%	70% Fair	Low	mature	Located in small narrow parking strip. Surrounded by asphalt. Tree has out grown its space.
1283	Evergreen Ash *Fraxinus ubdei*	1"	9'	4'	75%	75%	75% Good	Low	Young	Located in parking strip. Surrounded by asphalt. Tree will out grow its space.
1282	Cherry Tree / *Prunus avium*	*15"	9'	9'	0%	0%	0% Dead	Low		Dead
1284	Cherry Tree / *Prunus avium*	*16"	10'	10'	0%	0%	0% Dead	Low		Dead
1286	Canary Island Pine / *Pinus canariensis*	27"	84'	28'	80%	75%	75% Good	Moderate	mature	Tree has a slight lean towards the parking lot. 13 feet away from building.
1288	Crape Myrtle / *Lagerstroemia indica*	6"	19'	8'	80%	80%	80% Good	Moderate	Mature	13 feet away from building.
1289	Crape Myrtle / *Lagerstroemia indica*	6"	18'	8'	80%	80%	80% Good	Moderate	mature	13 feet away from building.
1290	Incense Cedar / *Calocedrus decurrens*	10"	23'	6'	70%	50%	60% Fair	Moderate	Semi-mature	29 feet away from building. Slight lean towards street.
1291	Incense Cedar / *Calocedrus decurrens*	8"	23'	6'	70%	50%	60% Fair	Moderate	Semi-mature	29 feet away from building. Slight lean towards street.
1292	Tulip Poplar / *Liriodendron tulipifera*	17"	47'	20'	75%	50%	50% Fair	Moderate	mature	Improperly pruned. Lower branches removed, canopy too high. Leaving the tree top-heavy, prone to failure. 14 feet away from building.
1293	Eucalyptus / Eucalyptus species	31"	39'	25'	70%	75%	70% Good	Moderate	mature	29 feet away from building.
1294	Canary Island Pine / *Pinus canariensis*	16"	45'	15'	75%	70%	75% Good	Moderate	mature	9 feet away from building.
1295	Peach tree	5"	8'	9'	75%	70%	75% Good	Moderate	mature	9 feet away from building.

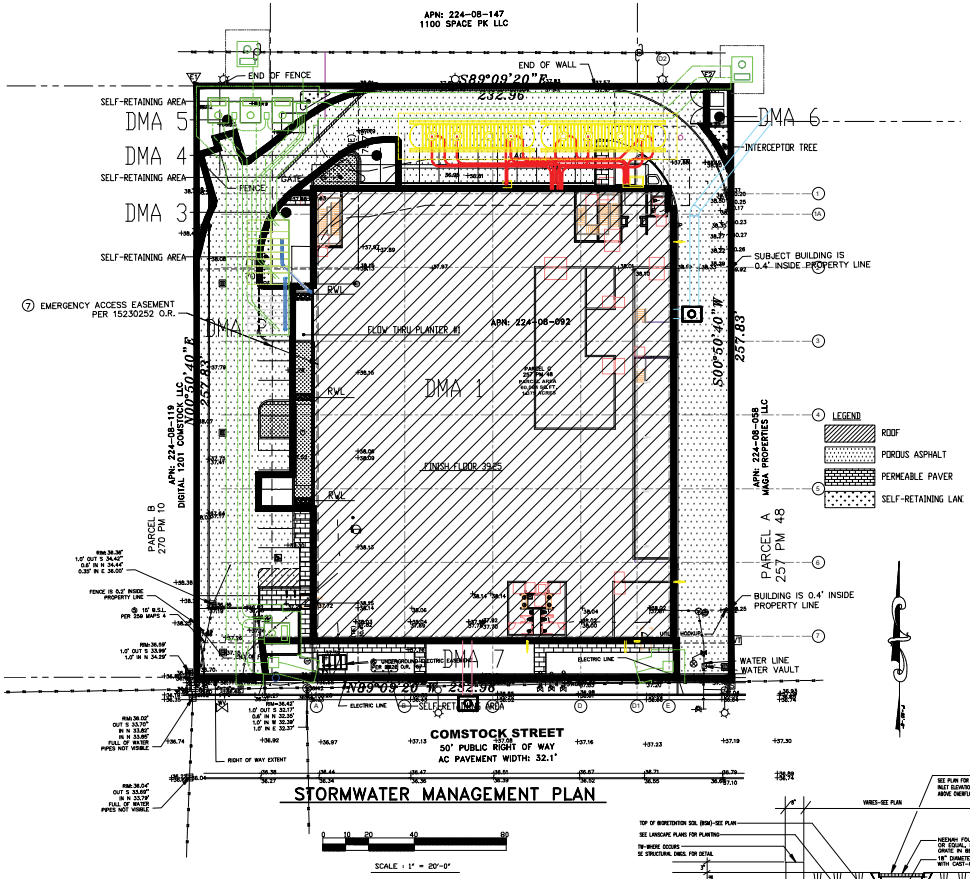


TABLE 1-IMPERVIOUS AREA

AREA ID	SURFACE	PERVIOUS AREA	IMPERVIOUS AREA	SIZE(SF)	BMP TO BE USED	SIZING FACTOR	SURFACE AREA AS DESIGNED
IMA 1	ROOF LANDSCAPE	937	30,912	31,849	FLOW THRU PLANTER	COMBINATION FLOW AND VOLUME	930 SF REQUIRED 937 SF PROVIDED
IMA 2	POROUS PAVING SVP-GEAR	21,685	180	21,865	✱ SELF-TREATING ✱✱✱ PAVING	N/A	N/A
IMA 3	PERMEABLE PAVERS CONCRETE LANDSCAPE	598	233	831	✱ SELF-RETAINING LANDSCAPE	50% OF IMPERVIOUS AREA	114 SF OF SELF-RETAINING LANDSCAPE
IMA 4	PERMEABLE PAVERS CONCRETE LANDSCAPE	510	136	646	✱ SELF-RETAINING LANDSCAPE	50% OF IMPERVIOUS AREA	112 SF OF SELF-RETAINING LANDSCAPE
IMA 5	SVP-GEAR CONCRETE LANDSCAPE	1,443	90	1,533	✱ ✱✱ SELF-RETAINING LANDSCAPE	50% OF IMPERVIOUS AREA	63 SF OF SELF-RETAINING LANDSCAPE
IMA 6	TRASH ENCLOSURE LANDSCAPE	144	152	296	INTERCEPTOR TREE	200 SF FOR EVERGREEN TREE	200 SF FOR INTERCEPTOR TREE
IMA 7	SVP-GEAR LANDSCAPE, PERMEABLE PAVERS	2,766	116	2,882	✱ ✱✱ SELF-RETAINING LANDSCAPING & PERMEABLE PAVERS	50% OF IMPERVIOUS AREA	588 SF OF SELF-RETAINING LANDSCAPE

✱RATIO OF IMPERVIOUS AREA TO ADJACENT PERMEABLE SURFACE IS LESS THAN 2:1.
✱✱AREA IS DEPRESSED 3" TO RETAIN STORMWATER.
✱✱✱IMPERVIOUS AREA DRAINS TO SELF-TREATING AREA - DOES NOT MEET C.3 REQUIREMENTS.

PERVIOUS AND IMPERVIOUS SURFACES COMPARISON

	EXISTING CONDITION (SQFT)	%	PROPOSED CONDITION (SQFT)	%	DIFFERENCE (SQFT)	%
SITE (ACRES): 1.378 ACRES	60,064 S.F.	100	60,064 S.F.	100	0 S.F.	-
BLDG. FOOTPRINT(S)	23,807 S.F.	39.64	30,912 S.F.	51.46	7,105 S.F.	11.82
PAVING/ SIDEWALKS, PATIOS, PATHS, EQUIP., YARD	29,773 S.F.	49.57	815 S.F.	1.36	-28,958 S.F.	-48.21
LANDSCAPING	6,484 S.F.	10.79	5,882 S.F.	9.79	-602 S.F.	- 1.00
PERMEABLE PAVING	-	-	22,455 S.F.	37.39	22,455 S.F.	37.39
TOTAL	60,064 S.F.	100	60,064 S.F.	100	0 S.F.	0
IMPERVIOUS SURFACES	53,580 S.F.	89.21	31,727 S.F.	52.82	-21,853 S.F.	-36.39
PERVIOUS SURFACES	6,484 S.F.	10.79	28,337 S.F.	47.18	21,853 S.F.	36.39
TOTAL	60,064 S.F.	100	60,064 S.F.	100	0	0

STORMWATER CONTROL MEASURES USED

SITE DESIGN MEASURES
1. DISCONNECT DOWNSPOUTS
2. SELF-TREATING PERMEABLE PAVING
3. SELF-RETAINING LANDSCAPE

SOURCE CONTROL MEASURE
1. BENEFICIAL LANDSCAPING (MINIMIZES IRRIGATION RUNOFF, PESTICIDES & FERTILIZERS) PROMOTES TREATMENT
2. MAINTENANCE (STREET SWEEPING, CATCH BASIN CLEANING)
3. COVERED DUMPSTER AREA, DRAIN TO SANITARY SEWER
4. STORM DRAIN LABELING

TREATMENT SYSTEMS
1. FLOW THRU PLANTER

GROUNDWATER

BASED ON THE APRIL 25, 2019 GEOTECHNICAL REPORT BY KLEINFELDER FOR THE 1111 COMSTOCK STREET PROJECT, THE DEPTH TO STATIC GROUNDWATER IS ESTIMATED TO BE 7 TO 8 1/2 FEET BELOW GROUND SURFACE.

FLOOD ZONE:

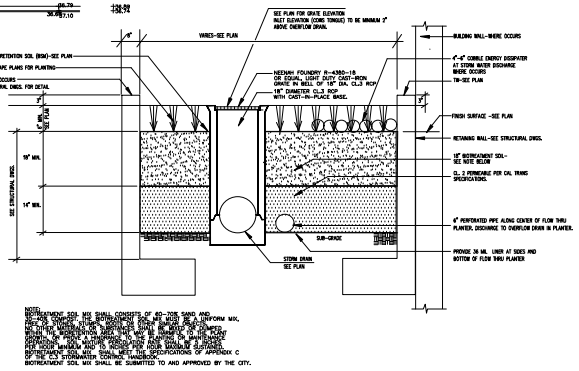
THE ON-SITE NEAR-SURFACE SOILS ARE CLAYEY SOILS CONSIDERED TO HAVE HIGH EXPANSION POTENTIAL. THESE SURFICIAL SOILS TEND TO SHRINK AND SWELL AS A RESULT OF SEASONAL OR HUMAN-INDUCED SOIL MOISTURE CONTENT CHANGES.
THE SUBJECT PROPERTY RESIDES IN THE FOLLOWING FLOOD ZONE(S) SHADED X AS DETERMINED BY OR SHOWN BY FIRM COMMUNITY PANEL NO. 06085C0064H DATED 05/18/2009 AND IS NOT IN A FLOOD ZONE AREA.

SOIL TYPES

BASED ON THE APRIL 25, 2019 GEOTECHNICAL REPORT BY KLEINFELDER FOR THE 1111 COMSTOCK STREET PROJECT, BELOW THE HIGH PLASTICITY CLAY WAS A STIFF CLAY TO A DEPTH OF APPROXIMATELY 7 1/2 FEET BELOW GROUND SURFACE UNDERLAIN BY A STIFF CLAY MATERIAL TO A DEPTH OF APPROXIMATELY 18 1/2 FEET BELOW GROUND SURFACE. THIS WAS FOLLOWED BY A MEDIUM DENSE TO DENSE POORLY GRADED SAND TO A DEPTH OF APPROXIMATELY 26 FEET, UNDERLAIN BY A DENSE POORLY GRADED SAND TO A DEPTH OF APPROXIMATELY 29 BELOW GROUND SURFACE.

GENERAL NOTE

1. STENCIL ALL CATCH BASINS "NO DUMPING! FLOWS TO BAY" STORM WATER STENCILING. CONTACT CITY OF SANTA CLARA FOR STENCILS.



FLOW THROUGH PLANTER @ GRADE

IMPERVIOUS DATA

SITE AREA	60,064 SF	
PRE-CONSTRUCTION		
LANDSCAPE		6,484 SF
BUILDING	23,807 SF	
PAVING/HARDSCAPE	29,773 SF	
TOTAL IMPERVIOUS AREA	53,580 SF	
POST-CONSTRUCTION		
LANDSCAPE		5,882 SF
PERMEABLE PAVING		22,455 SF
BUILDING	30,912 SF	
PAVING/HARDSCAPE	815 SF	
TOTAL IMPERVIOUS AREA	31,727 SF	
NET DECREASE IN IMPERVIOUS AREA	21,853 SF	
AREA OF DISTURBANCE	60,064 SF	
IMPERVIOUS AREA CREATED OR REPLACED	31,727 SF	

RECEIVING BODY OF WATER:
CITY OF SANTA CLARA STORM DRAIN TO SAN FRANCISCO BAY

PAVING MATERIALS:
POROUS ASPHALTIC CONCRETE
PERMEABLE PAVERS

SECTION 4.0 ENVIRONMENTAL SETTING, CHECKLIST, AND IMPACT DISCUSSION

This section presents the discussion of impacts related to the following environmental subjects in their respective subsections:

4.1	Aesthetics	4.12	Mineral Resources
4.2	Agriculture and Forestry Resources	4.13	Noise
4.3	Air Quality	4.14	Population and Housing
4.4	Biological Resources	4.15	Public Services
4.5	Cultural Resources	4.16	Recreation
4.6	Energy	4.17	Transportation
4.7	Geology and Soils	4.18	Tribal Cultural Resources
4.8	Greenhouse Gas Emissions	4.19	Utilities and Service Systems
4.9	Hazards and Hazardous Materials	4.20	Wildfire
4.10	Hydrology and Water Quality	4.21	Mandatory Findings of Significance
4.11	Land Use and Planning		

The discussion for each environmental subject includes the following subsections:

- **Environmental Setting –** This subsection 1) provides a brief overview of relevant plans, policies, and regulations that compose the regulatory framework for the project and 2) describes the existing, physical environmental conditions at the project site and in the surrounding area, as relevant.
- **Impact Discussion –** This subsection 1) includes the recommended checklist questions from Appendix G of the CEQA Guidelines to assess impacts and 2) discusses the project's impact on the environmental subject as related to the checklist questions. For significant impacts, feasible mitigation measures are identified. "Mitigation measures" are measures that will minimize, avoid, or eliminate a significant impact (CEQA Guidelines Section 15370). Each impact is numbered to correspond to the checklist question being answered. For example, Impact BIO-1 answers the first checklist question in the Biological Resources section. Mitigation measures are also numbered to correspond to the impact they address. For example, MM BIO-1.3 refers to the third mitigation measure for the first impact in the Biological Resources section.

4.1 AESTHETICS

4.1.1 Environmental Setting

4.1.1.1 *Regulatory Framework*

State

Streets and Highway Code Sections 260 through 263

The California Scenic Highway Program (Streets and Highway Code, Sections 260 through 263) is managed by the California Department of Transportation (Caltrans). The program is intended to protect and enhance the natural scenic beauty of California highways and adjacent corridors through special conservation treatment. There are no state-designated scenic highways in Santa Clara.

Interstate 280 from the San Mateo County line to SR 17 is an Eligible State Scenic Highway, yet not officially designated.

Local

Santa Clara General Plan

General Plan policies applicable to aesthetics include, but are not limited to, the following listed below.

Policies	Description
General Land Use	
5.3.1-P3	Support high quality design consistent with adopted design guidelines and the City's architectural review process.
5.3.1-P10	Provide opportunities for increased landscaping and trees in the community, including requirements for new development to provide street trees and a minimum 2:1 on- or off-site replacement for trees removed as part of the proposal to help increase the urban forest and minimize the heat island effect.
5.3.1-P28	Encourage undergrounding of new utility lines and utility equipment throughout the City.

City Code

The City Code includes regulations associated with protection of the City's visual character. The Code includes regulations for the maintenance of property or premises, to promote a sound and attractive community appearance that is in character with the City. The City Code also includes an Architectural Review process, as outlined in Zoning Ordinance Chapter 18.76. The Architectural Review process is intended to serve the following purposes:

- Encourage the orderly and harmonious appearance of structures and properties;
- Maintain the public health, safety, and welfare;
- Maintain property and improvement values throughout the City;

- Encourage the physical development of the City that is consistent with the General Plan and other City regulations; and
- Enhance the aesthetic appearance, functional relationships, neighborhood compatibility and excellent design quality.

No building permit shall be issued, and no structure, building, or sign shall be constructed or undergo exterior alternations until such plans and drawings have been approved by the City's architectural review process.

Architectural Review Process – Community Design Guidelines

The City's architectural review process requires that the Director of Community Development or a designee review plans and drawings submitted for design, aesthetic considerations, and consistency with zoning standards, generally prior to submittal for building permits. The review takes place at a publicly noticed Development Review Hearing and the hearing officer follows the City's Community Design Guidelines. The intent of these guidelines for architectural review is to provide a manual of consistent development standards in the interest of continued maintenance and enhancement of the high-quality living and working environment in the City.

4.1.1.2 *Existing Conditions*

Project Site

The project site is currently developed with a one-story, 23,765 sf industrial building and a paved parking lot. The building facades are primarily stucco and cement. The main entrance to the building is located on the southern side of the structure facing Comstock Street and is composed of large, reflective windows, stucco, and cement. The roof is flat, with a screening wall adding approximately two additional feet in elevation. Trees and ornamental landscaping are located along the southern and western property boundaries.

The site is within a fully developed area in Santa Clara. The topography is flat and views of the eastern and western foothills from public view points are partially blocked by existing industrial and commercial structures in the area.

Surrounding Area

The project site is located north of Comstock Street, east of Kenneth Street, south of Bayshore Freeway, and west of Lafayette Street. The project consists primarily of light industrial and R&D uses. Buildings in the area are similar in height and scale to both the existing building and the proposed building. The Norman Y Mineta San Jose International Airport is located approximately 0.6 miles southeast of the site. Aircraft, along with truck and other vehicle traffic, are readily apparent in the area. Views of the project site can be seen in Photos 4.1-1 – 4.1-7.

There are no scenic resources on site, and the site is not visible from a scenic highway.

Photo 4.1-1 View of building front on Comstock Street, facing north.

Photo 4.1-2 View of current driveway on Comstock Street, facing north.

PHOTOS 4.1-1 & 4.1-2

Photo 4.1-3 View of Comstock Street, facing east.

Photo 4.1-4 View of Comstock Street, facing west.

PHOTOS 4.1-3 & 4.1-4

Photo 4.1-5 View of neighboring industrial land use, east of project site.

Photo 4.1-6 View of neighboring industrial land use, south of project site.

Photo 4.1-7 View of neighboring industrial land use, west of project site.

4.1.2 Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Except as provided in Public Resources Code Section 21099, would the project:				
1) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
2) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
3) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? [2] If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
4) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

Impact AES-1: The project would not have a substantial adverse effect on a scenic vista. **(No Impact)**

According to the EIR for the 2010-2035 General Plan, there are no scenic vistas within the City. There would be no impact to scenic vistas. **(No Impact)**

Impact AES-2: The project would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway. **(No Impact)**

The City of Santa Clara 2010-2035 General Plan EIR lists the Santa Cruz Mountains, Diablo range, San Tomas Aquino Creek, and the Guadalupe River as "visual resources" within the City. The topography of the project area is relatively flat and prominent viewpoints of the mountains are limited, as buildings, trees, and infrastructure (e.g., utility lines, elevated roadways, etc) obscure viewpoints. Views of the mountains are only available when roadways provide a break in the built environment or are elevated. The foothills to the east and west are partially visible through the Comstock Street throughway. The proposed project would not obstruct this view.

As discussed in Section 4.1.1.2, the project site is not near a state scenic highway. Impacts to trees and historic buildings outside a state scenic highway are discussed in Section 4.4 *Biological*

[2] Public views are those that are experienced from publicly accessible vantage points.

Resources and 4.5 *Cultural Resources*, respectively. The project would not damage resources within a designated state scenic highway. **(No Impact)**

Impact AES-3:	The project would not substantially degrade the existing visual character or quality of public views of the site and its surroundings. The project would not conflict with applicable zoning and other regulations governing scenic quality. **(Less than Significant Impact)**

The current character of the project area is built-up with single- and multi-story industrial buildings and has few landscaped areas. As described in Section 4.1.1.2 *Existing Conditions*, the project site is an existing industrial building. There would be a change from a one-story building to a larger, four-story structure. Though larger in mass and scale than the existing building, the proposed data center facility would be similar in scale to nearby development. The exterior of the building and the proposed screening fences would be subject to the City's design review process and would conform to current architectural and landscaping standards. The project, therefore, would not degrade the existing visual character or quality of the site and its surroundings. **(Less Than Significant Impact)**

Impact AES-4:	The project would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area. **(Less than Significant Impact)**

The project would install wall mounted sconce lights on all sides of the building's exterior to provide lighting. The outside lighting would comply with the City's lighting requirements (City Code Section 18.48.140), as well as requirements in the California Energy Code and in compliance with CALGreen Code (CGC) 5.106.8. Outside lighting would be comparable in brightness to the ambient lighting in the surrounding area. Additionally, outdoor lighting would be angled downward and would include light visors and light hoods. The exterior surfaces of the building would consist primarily of precast concrete and structural steel and would not be a significant source of glare during daytime hours.

Building materials and lighting plans would be subject to the City's architectural review process prior to issuance of building permits to ensure that the project would not create a substantial new source of light or glare. The project, therefore, would not create a new source of substantial light or glare, nor would it adversely affect day or nighttime views in the area. **(Less Than Significant Impact)**

4.2 AGRICULTURE AND FORESTRY RESOURCES

4.2.1 Environmental Setting

4.2.1.1 *Regulatory Framework*

State

Farmland Mapping and Monitoring Program

The California Department of Conservation's Farmland Mapping and Monitoring Program (FMMP) assesses the location, quality, and quantity of agricultural land and conversion of these lands over time. Agricultural land is rated according to soil quality and irrigation status. The best quality land is called Prime Farmland. In CEQA analyses, the FMMP classifications and published county maps are used, in part, to identify whether agricultural resources that could be affected are present on-site or in the project area.[3]

California Land Conservation Act

The California Land Conservation Act (Williamson Act) enables local governments to enter into contracts with private landowners to restrict parcels of land to agricultural or related open space uses. In return, landowners receive lower property tax assessments. In CEQA analyses, identification of properties that are under a Williamson Act contract is used to also identify sites that may contain agricultural resources or are zoned for agricultural uses.[4]

Fire and Resource Assessment Program

The California Department of Forestry and Fire Protection (CAL FIRE) identifies forest land, timberland, and lands zoned for timberland production that can (or do) support forestry resources.[5] Programs such as CAL FIRE's Fire and Resource Assessment Program and are used to identify whether forest land, timberland, or timberland production areas that could be affected are located on or adjacent to a project site.[6]

4.2.1.2 *Existing Conditions*

The project site is not designated as farmland or the subject of a Williamson Act contract.[7] According to the Santa Clara County Important Farmlands 2016 Map, the project site is designated

[3] California Department of Conservation. "Farmland Mapping and Monitoring Program." Accessed April 26, 2019. http://www.conservation.ca.gov/dlrp/fmmp/Pages/Index.aspx.
[4] California Department of Conservation. "Williamson Act." http://www.conservation.ca.gov/dlrp/lca.
[5] Forest Land is land that can support 10 percent native tree cover and allows for management of forest resources (California Public Resources Code Section 12220(g)); Timberland is land not owned by the federal government or designated as experimental forest land that is available for, and capable of, growing trees to produce lumber and other products, including Christmas trees (California Public Resources Code Section 4526); and Timberland Production is land used for growing and harvesting timber and compatible uses (Government Code Section 51104(g)).
[6] California Department of Forestry and Fire Protection. "Fire and Resource Assessment Program." Accessed October 21, 2019. http://frap.fire.ca.gov/.
[7] Agricultural lands in California can be protected from development and reserved for agricultural purposes or open-space conservation under the California Land Conservation Act, commonly known as the Williamson Act.

as *Urban and Built-Up Land*.[8] *Urban and Built-Up Land* is defined as land with at least six structures per 10 acres and utilized for residential, institutional, industrial, commercial, landfill, golf course, and other urban-related purposes.

The project site and surrounding properties are designated for and developed (or planned to be developed) with urban uses. The project site is currently developed with an industrial building. There are no agricultural or forest lands in the vicinity of the project site.

4.2.1.3 *Impact Discussion*

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

[8] California Department of Conservation. *Santa Clara County Important Farmland 2016 Map.* September 2018.

Impact AG-1:	The project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, 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)**

As discussed in Section 4.2.1.2 *Existing Conditions*, the project site is not designated as farmland pursuant to the Farmland Mapping and Monitoring Program. The project site and surrounding properties are designated for and developed with urban uses. For these reasons, the project would not convert designated farmland to non-agricultural use. **(No Impact)**

Impact AG-2:	The project would not conflict with existing zoning for agricultural use, or a Williamson Act contract. **(No Impact)**

The project site is not zoned for agricultural use, nor is it subject of a Williamson Act contract. The project, therefore, would not conflict with zoning for agricultural use or a Williamson Act contract. **(No Impact)**

Impact AG-3:	The project would not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production. **(No Impact)**

The project site and surrounding properties are not zoned for forest land or timberland. For this reason, the project would not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production. **(No Impact)**

Impact AG-4:	The project would not result in a loss of forest land or conversion of forest land to non-forest use. **(No Impact)**

The project site and surrounding properties are developed with urban uses, not forest land. For this reason, the development of the project would not result in the loss of forest land or conversion of forest land to non-forest use. **(No Impact)**

Impact AG-5:	The project would not 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)**

The project site is not designated agricultural or forest land, and is located within a developed urban area with no agricultural or forestry land nearby. As a result, the development of the project would not result in the conversion of farmland to non-agricultural use or forest land to non-forest uses. **(No Impact)**

4.3 AIR QUALITY

The following analysis is based, in part, on an Air Quality and Greenhouse Gas Emissions Assessment prepared by *Illingworth & Rodkin, Inc*. in May 2020. A copy of this report is included in Appendix A of this IS.

4.3.1 Environmental Setting

4.3.1.1 *Background Information*

Criteria Pollutants

Air quality in the Bay Area is assessed related to six common air pollutants (referred to as criteria pollutants), including ground-level ozone (O_3), nitrogen oxides (NO_x), particulate matter (PM), carbon monoxide (CO), sulfur oxides (SO_x), and lead.[9] Criteria pollutants are regulated because they result in health effects. An overview of the sources of criteria pollutants and their associated health are summarized in Table 4.3-1. The most commonly regulated criteria pollutants in the Bay Area are discussed further below.

Table 4.3-1: Health Effects of Air Pollutants

Pollutants	Sources	Primary Effects
O_3	Atmospheric reaction of organic gases with nitrogen oxides in sunlight	• Aggravation of respiratory and cardiovascular diseases • Irritation of eyes • Cardiopulmonary function impairment
Nitrogen Dioxide (NO_2)	Motor vehicle exhaust, high temperature stationary combustion, atmospheric reactions	• Aggravation of respiratory illness • Reduced visibility
Fine Particulate Matter ($PM_{2.5}$) and Coarse Particulate Matter (PM_{10})	Stationary combustion of solid fuels, construction activities, industrial processes, atmospheric chemical reactions	• Reduced lung function, especially in children • Aggravation of respiratory and cardiorespiratory diseases • Increased cough and chest discomfort • Reduced visibility
Toxic Air Contaminants (TACs)	Cars and trucks, especially diesel-fueled; industrial sources, such as chrome platers; dry cleaners and service stations; building materials and products	• Cancer • Chronic eye, lung, or skin irritation • Neurological and reproductive disorders

High O_3 levels are caused by the cumulative emissions of reactive organic gases (ROG) and NO_x. These precursor pollutants react under certain meteorological conditions to form high O_3 levels. Controlling the emissions of these precursor pollutants is the focus of the Bay Area's attempts to

[9] The area has attained both state and federal ambient air quality standards for CO. The project does not include substantial new emissions of sulfur dioxide or lead. These criteria pollutants are not discussed further.

reduce O_3 levels. The highest O_3 levels in the Bay Area occur in the eastern and southern inland valleys that are downwind of air pollutant sources.

PM is a problematic air pollutant of the Bay Area. PM is assessed and measured in terms of respirable particulate matter or particles that have a diameter of 10 micrometers or less (PM_{10}) and fine particulate matter where particles have a diameter of 2.5 micrometers or less ($PM_{2.5}$). Elevated concentrations of PM_{10} and $PM_{2.5}$ are the result of both region-wide emissions and localized emissions.

Toxic Air Contaminants

TACs are a broad class of compounds known to have health effects. They include but are not limited to criteria pollutants. TACs are found in ambient air, especially in urban areas, and are caused by industry, agriculture, diesel fuel combustion, and commercial operations (e.g., dry cleaners). TACs are typically found in low concentrations, even near their source (e.g., diesel particulate matter [DPM] near a freeway).

Diesel exhaust is the predominant TAC in urban air and is estimated to represent about three-quarters of the cancer risk from TACs. Diesel exhaust is a complex mixture of gases, vapors, and fine particles. Medium- and heavy-duty diesel trucks represent the bulk of DPM emissions from California highways. The majority of DPM is small enough to be inhaled into the lungs. Most inhaled particles are subsequently exhaled, but some deposit on the lung surface or are deposited in the deepest regions of the lungs (most susceptible to injury).[10] Chemicals in diesel exhaust, such as benzene and formaldehyde, have been previously identified as TACs by the California Air Resources Board (CARB).

Sensitive Receptors

Some groups of people are more affected by air pollution than others. CARB has identified the following persons who are most likely to be affected by air pollution: children under 16, the elderly over 65, athletes, and people with cardiovascular and chronic respiratory diseases. These groups are classified as sensitive receptors. Locations that may contain a high concentration of these sensitive population groups include residential areas, hospitals, daycare facilities, elder care facilities, and elementary schools.

4.3.1.2 *Regulatory Framework*

Federal and State

Clean Air Act

At the federal level, the United States Environmental Protection Agency (EPA) is responsible for overseeing implementation of the Clean Air Act and its subsequent amendments. The federal Clean Air Act requires the EPA to set national ambient air quality standards for the six common criteria pollutants (discussed previously), including PM, O_3, CO, SO_x, NO_x, and lead.

[10] California Air Resources Board. "Overview: Diesel Exhaust and Health." Accessed June 16, 2018. https://www.arb.ca.gov/research/diesel/diesel-health.htm.

CARB is the state agency that regulates mobile sources throughout the state and oversees implementation of the state air quality laws and regulations, including the California Clean Air Act. The EPA and the CARB have adopted ambient air quality standards establishing permissible levels of these pollutants to protect public health and the climate. Violations of ambient air quality standards are based on air pollutant monitoring data and are determined for each air pollutant. Attainment status for a pollutant means that a given air district meets the standard set by the EPA and/or CARB.

Risk Reduction Plan

To address the issue of diesel emissions in the state, CARB developed the Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles. In addition to requiring more stringent emission standards for new on-road and off-road mobile sources and stationary diesel-fueled engines to reduce particulate matter emissions by 90 percent, the plan involves application of emission control strategies to existing diesel vehicles and equipment to reduce DPM (in additional to other pollutants). Implementation of this plan, in conjunction with stringent federal and CARB-adopted emission limits for diesel fueled vehicles and equipment (including off-road equipment), will significantly reduce emissions of DPM and NO_X.

Regional

2017 Clean Air Plan

The Bay Area Air Quality Management District (BAAQMD) is the agency primarily responsible for assuring that the federal and state ambient air quality standards are maintained in the San Francisco Bay Area. Regional air quality management districts, such as BAAQMD, must prepare air quality plans specifying how state and federal air quality standards will be met. BAAQMD's most recently adopted plan is the Bay Area 2017 Clean Air Plan (2017 CAP). The 2017 CAP focuses on two related BAAQMD goals: protecting public health and protecting the climate. To protect public health, the 2017 CAP describes how BAAQMD will continue its progress toward attaining state and federal air quality standards and eliminating health risk disparities from exposure to air pollution among Bay Area communities. To protect the climate, the 2017 CAP includes control measures designed to reduce emissions of methane and other super-greenhouse gases (GHGs) that are potent climate pollutants in the near-term, and to decrease emissions of carbon dioxide by reducing fossil fuel combustion.[11]

CEQA Air Quality Guidelines

The BAAQMD CEQA Air Quality Guidelines are intended to serve as a guide for those who prepare or evaluate air quality impact analyses for projects and plans in the San Francisco Bay Area. Jurisdictions in the San Francisco Bay Area Air Basin utilize the thresholds and methodology for assessing air quality impacts developed by BAAQMD within their CEQA Air Quality Guidelines. The guidelines include information on legal requirements, BAAQMD rules, methods of analyzing impacts, and recommended mitigation measures.

[11] BAAQMD. *Final 2017 Clean Air Plan.* April 19, 2017. http://www.baaqmd.gov/plans-and-climate/air-quality-plans/current-plans.

Community Air Risk Evaluation Program

Under the Community Air Risk Evaluation (CARE) program, BAAQMD has identified areas with high TAC emissions, and sensitive populations that could be affected by them, and uses this information to establish policies and programs to reduce TAC emissions and exposures. Impacted communities identified to date are located in Concord, Richmond/San Pablo, San José, eastern San Francisco, western Alameda County, Vallejo, San Rafael, and Pittsburg/Antioch. The main objectives of the program are to:

- Evaluate health risks associated with exposure to TACs from stationary and mobile sources;
- Assess potential exposures to sensitive receptors and identify impacted communities;
- Prioritize TAC reduction measures for significant sources in impacted communities; and
- Develop and implement mitigation measures to improve air quality in impacted communities.

Local

Santa Clara General Plan

General Plan policies applicable to air quality include, but are not limited to, the following listed below.

Policies	Description
Stationary Source Control Measures	
5.10.2-P1	Support alternative transportation modes and efficient parking mechanisms to improve air quality.
5.10.2-P2	Encourage development patterns that reduce vehicle miles traveled and air pollution.
5.10.2-P3	Encourage implementation of technological advances that minimize public health hazards and reduce the generation of air pollutants.
5.10.2-P4	Encourage measures to reduce greenhouse gas emissions to reach 30 percent below 1990 levels by 2020.
5.10.2-P5	Promote regional air pollution preventing plans for local industry and businesses.
5.10.2-P6	Require “Best Management Practices” for construction dust abatement.
Transportation Demand Management	
5.8.5-P1	Require new development and City employees to implement transportation demand management programs that can include site-design measures, including preferred carpool and vanpool parking, enhanced pedestrian access, bicycle storage and recreational facilities.

4.3.1.3 *Existing Conditions*

The Bay Area is considered a non-attainment area for ground-level O_3 and $PM_{2.5}$ under both the federal Clean Air Act and state Clean Air Act. The area is also considered nonattainment for PM_{10} under the state act, but not the federal act. The area has attained both state and federal ambient air quality standards for CO. As part of an effort to attain and maintain ambient air quality standards for O_3 and PM_{10}, BAAQMD has established thresholds of significance for these air pollutants and their

precursors. These thresholds are for O_3 precursor pollutants (ROG and NO_X), PM_{10}, and $PM_{2.5}$, and apply to both construction period and operational period impacts.

Climate and Topography

Topography can restrict horizontal dilution and mixing of pollutants by creating a barrier to air movement. The South Bay has significant terrain features that affect air quality. The Santa Cruz Mountains and Diablo Range on either side of the South Bay restrict horizontal dilution, and this alignment of the terrain also channels winds from the north to south, carrying pollution from the northern Peninsula toward Santa Clara.

The combined effects of moderate ventilation, frequent inversions that restrict vertical dilution and terrain that restricts horizontal dilution give Santa Clara a relatively high atmospheric potential for pollution compared to other parts of the San Francisco Bay Air Basin and provide a high potential for transport of pollutants to the east and south.

Existing Air Pollutant Levels

BAAQMD monitors air pollution at various sites within the Bay Area. The nearest official monitoring station to the City of Santa Clara is located at 158 East Jackson Street in San José, approximately 3.7 miles southeast of the site. Pollutant monitoring results for the years 2016 to 2018 at the San José monitoring station are shown in Table 4.3-2

Table 4.3-2: Ambient Air Quality Standards Violations and Highest Concentrations

Pollutant	Standard	Days Exceeding Standard		
		2016	2017	2018
SAN JOSÉ STATION				
Ozone	State 1-hour	0	3	0
	Federal 8-hour	0	4	0
Carbon Monoxide	Federal 8-hour	0	0	0
	State 8-hour	0	0	0
Nitrogen Dioxide	State 1-hour	0	0	0
PM_{10}	Federal 24-hour	0	0	0
	State 24-hour	0	6	4
$PM_{2.5}$	Federal 24-hour	0	6	15

Source: BAAQMD. Air Pollution Summaries (2016-2018). Available at: http://www.baaqmd.gov/about-air-quality/air-quality-summaries.

The Bay Area, as a whole, does not meet state or federal ambient air quality standards for ground level O_3 and $PM_{2.5}$, nor does it meet state standards for PM_{10}. The Bay Area is considered in attainment or unclassified for all other pollutants.

Sensitive Receptors

There are no sensitive receptors within 1,000 feet of the project site. The nearest sensitive receptors are the Granada Islamic School, approximately 1,700 feet northwest of the site and residences north of U.S. 101, approximately 3,315 feet north of the site.

Odors

Common sources of odors and odor complaints include wastewater treatment plants, transfer stations, coffee roasters, painting/coating operations, and landfills. Significant sources of offending odors are typically identified based on complaint histories received and compiled by BAAQMD. Typical large sources of odors that result in complaints are wastewater treatment facilities, landfills including composting operations, food processing facilities, and chemical plants. Other sources, such as restaurants, paint or body shops, and coffee roasters typically result in localized sources of odors.

The project site is in an industrial area and is not surrounded by facilities that produce substantial odors.

4.3.2 Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
1) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
2) 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?	☐	☐	☒	☐
3) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
4) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

4.3.2.1 *Thresholds of Significance*

Impacts from the Project

As discussed in CEQA Guidelines Section 15064(b), the determination of whether a project may have a significant effect on the environment calls for judgment on the part of the lead agency and must be based to the extent possible on scientific and factual data. The City of Santa Clara has considered the air quality thresholds updated by BAAQMD in May 2017 and regards these thresholds to be based on the best information available for the San Francisco Bay Area Air Basin and conservative in terms of the assessment of health effects associated with TACs and $PM_{2.5}$. The BAAQMD CEQA Air Quality thresholds used in this analysis are identified in Table 4.3-3 below.

Table 4.3-3: BAAQMD Air Quality Significance Thresholds			
Pollutant	**Construction Thresholds**	**Operation Thresholds**	
	Average Daily Emissions (pounds/day)	**Annual Daily Emissions (pounds/year)**	**Annual Average Emissions (tons/year)**
Criteria Air Pollutants			
ROG, NO_x	54	54	10
PM_{10}	82 (exhaust)	82	15
$PM_{2.5}$	54 (exhaust)	54	10
CO	Not Applicable	9.0 ppm (eight-hour) or 20.0 ppm (one-hour)	
Fugitive Dust	Dust Control Measures/Best Management Practices	Not Applicable	
Health Risks and Hazards for New Sources (within a 1,000-foot Zone of Influence)			
Health Hazard	**Single Source**	**Combined Cumulative Sources**	
Excess Cancer Risk	10 per one million	100 per one million	
Hazard Index	1.0	10.0	
Incremental Annual $PM_{2.5}$	0.3 µg/m^3	0.8 µg/m^3 (average)	

Health Effects from Criteria Pollutants

In a 2018 decision (*Sierra Club v. County of Fresno,* also referred to as *Friant Ranch*), the Supreme Court of California determined that CEQA requires that the potential for the project's emissions to affect human health in the air basin must be disclosed when a project's criteria air pollutant emissions would exceed applicable thresholds and contribute a considerably to a significant cumulative impact. State and federal ambient air quality standards are health-based standards and exceedances of those standards result in continued unhealthy levels of air pollutants. As stated in the BAAQMD CEQA Air Quality Guidelines, air pollution by its nature is largely a cumulative impact. No single project is sufficient in size to result in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. In developing thresholds of significance for air pollutants, BAAQMD considered the emission levels for which a project's individual emissions would be cumulatively considerable. If a project has a less than significant impact for criteria pollutants, it is assumed not to have an adverse health effect.

Impact AIR-1:	The project would not conflict with or obstruct implementation of the applicable air quality plan. **(Less than Significant Impact)**

2017 BAAQMD Clean Air Plan

The BAAQMD CEQA Air Quality Guidelines set forth criteria for determining consistency with the Clean Air Plan. In general, a project is considered consistent if, a) the plan supports the primary goals of the Clean Air Plan; b) includes relevant control measures; and c) does not interfere with implementation of Clean Air Plan control measures. The project supports the goals of the 2017 BAAQMD CAP of protecting public health and protecting the climate and is consistent with BAAQMD CAP transportation, building, natural and working lands, and water control measures by:

- Implementing standard measures to reduce criteria air pollutant emissions during construction,
- Complying with applicable regulations that would result in energy and water efficiency including Title 24 and California Green Building Standards Code,
- Planting new trees in accordance with the City's tree ordinance to reduce the urban heat island effect, and
- Complying with the City's construction debris diversion ordinance and state waste diversion requirements to reduce the amount of waste in landfills.

Stationary equipment to be installed on the project site will be subject to the permit requirements of BAAQMD, which incorporate BAAQMD measures to reduce emissions from stationary sources such as the diesel-fueled emergency backup generators. Emissions of non-attainment air pollutants from the proposed project are addressed under Impact AIR-2. Additionally, exposure of sensitive receptors to TAC and $PM_{2.5}$ emissions associated with the project is addressed under Impact AIR-3. As noted in those discussions, the project will result in air quality impacts that are less than significant with the incorporation standard measures. The project would not conflict with implementation of the 2017 CAP. **(Less than Significant Impact)**

Impact AIR-2:	The project would not 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. **(Less than Significant Impact)**

The Bay Area is considered a nonattainment area for ground-level ozone and $PM_{2.5}$ under both the federal Clean Air Act and the California Clean Air Act. The area is also considered non-attainment for PM_{10} under the California Clean Air Act, but not the federal Act. The area has attained both State and federal ambient air quality standards for carbon monoxide. As part of an effort to attain and maintain ambient air quality standards for ozone, PM_{10} and $PM_{2.5}$, BAAQMD has established thresholds of significance for air pollutants. These thresholds are for ozone precursor pollutants (ROG and NOx), PM_{10} and $PM_{2.5}$ and apply to both construction period and operational period impacts.

Both construction and operational emissions were computed using the California Emissions Estimator Model, Version 2016.3.2 (CalEEMod). In addition, emissions from routine testing and maintenance of the standby emergency generators were computed using emissions data published by the emergency generator manufacturer and assuming maximum allowable testing conditions.

Construction Period Emissions

Average daily construction emissions were calculated based on 240 construction workdays. As indicated in Table 4.3-4, construction period emissions would not exceed the BAAQMD significance thresholds.

Table 4.3-4: Construction Emissions (pounds/day)

	ROG	**NO_x**	**PM_{10}**	**$PM_{2.5}$**
Construction Emissions	5	17	1	1
BAAQMD Thresholds (pounds/day)	*54*	*54*	*82*	*54*
Significant?	**No**	**No**	**No**	**No**

Construction Fugitive Dust

During grading and construction activities, dust would be generated. Most of the dust would occur during grading activities. The amount of dust generated would be highly variable and is dependent on the size of the area disturbed at any given time, amount of activity, soil conditions and meteorological conditions. Nearby areas could be adversely affected by dust generated during construction activities. Nearby land uses are primarily commercial and office uses that are separated by roadways or open areas. The BAAQMD CEQA Air Quality Guidelines consider these impacts to be less than significant if best management practices are employed to reduce these emissions. The following measures are included in the project, consistent with BAAQMD best management practices, to reduce construction dust generation and other particulate matter.

Standard Measures:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
- All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 miles per hour (mph).
- All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne

toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
- Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

According to the BAAQMD CEQA Air Quality Guidelines, incorporation of these measures would be considered Best Management Practices for controlling fugitive PM_{10} and $PM_{2.5}$ emissions and the emissions would be considered less than significant.

Operational Emissions

The primary emission sources associated with operation of the proposed project would be from engine operation during testing or maintenance of the six diesel-fueled 3,000-kW and one diesel-fueled 500-kW emergency backup generators. There would also be emissions from traffic and area sources associated with operation of the data center facilities. Emissions from these sources are described below. The seven generators would be located within a generator room on the first floor of the building. Exhaust gases from the generators would pass through passive diesel particulate fileters (DPFs) an then would be discharged from exhaust stacks that pass through the northern wall of the first floor generator room then rise vertically to a height of 41 feet. For each of the 3,000-kW generators there would be two exhaust stacks, and for the 500-kW generator there would be a single exhaust stack. Fuel for the generators would be stored in two 30,000-gallon underground storage tanks which would feed individual 160-gallon day tanks located adjacent to each generator. The generators would have a combined diesel fuel storage capacity of 60,000 gallons. Due to the low volatility of diesel fuel there would be minor evaporative emissions of ROG.

Emergency Generator Emissions

During normal facility operation, the generators would not be operated other than for periodic testing and maintenance requirements. The generator engines would be fueled using ultra low sulfur diesel fuel with a maximum sulfur content of 15 ppm. The diesel engines would meet U.S. EPA Tier 2 emission standards.

The backup generators would have maintenance testing performed throughout the year to ensure performance when needed during a power failure. The operations of these generators are limited to 50 hours per year of non-emergency use (i.e. testing and maintenance) by the State's Air Toxic Control Measure for Stationary Compression Ignition Engines. For purposes of estimating emissions and potential air quality impacts from the engines, it was assumed that each engine could be operated for 50 hours per year (maximum operation hours allowed by the State's Air Toxic Control Measure and BAAQMD for testing and maintenance) at an average load of 74 percent. The emissions were calculated with CalEEMod and are shown in Table 4.3-5. Note that the project intends that emergency backup generators would each be tested once per month for up to one hour. Tests would be conducted with no load for 11 months out of the year, and at with full load one month out of the

year.[12]. Therefore, the emissions reported in this assessment are an overestimate and represent a maximum scenario based on the allowed operation per CARB and BAAQMD permit conditions.

Cooling Unit Particulate Matter Emissions

The project would use three hybrid coolers. The hybrid coolers can use evaporative cooling (water sprays) or dry cooling methods. Particulate matter emissions from evaporative cooling can occur and are a result of evaporation of liquid water entrained in the discharge air stream and carried out of the tower as "drift" droplets that contain dissolved solids in the water. Drift droplets that evaporate can produce small particulate matter (i.e., PM_{10} and $PM_{2.5}$) emissions. These emissions are generated when the drift droplets evaporate and leave the particulate matter formed by crystallization of dissolved solids. There are no emissions from dry cooling.

PM_{10} and $PM_{2.5}$ emissions from evaporative cooling, if used for the proposed project, were calculated based on a worst-case assumptions including use of evaporative cooling for 100 percent of the time, a water flow rate of 720 gallons per minute (gpm) per cooler, use of 0.005 percent drift eliminators, a total dissolved solids (TDS) concentration of 292 parts per million (ppm) for the makeup water, and six cycles of TDS concentration in the recirculating water. Based on a calculated total drift rate and recirculating water TDS concentration of 1,752 ppm, the PM_{10} emissions were estimated as 2.3 pounds per day and annual emissions of 0.4 tons per year. $PM_{2.5}$ emissions were assumed to be the same as the PM_{10} emissions.

Total Project Emissions

Total daily and annual emissions from the emergency generators, mobile and area sources are summarized in Table 4.3-5. Total increased average daily and annual emissions from operation of the project are modeled to be below the significance thresholds established by the BAAQMD. **(Less than Significant Impact)**

[12] Generator load refers to the actual electricity generation of the generator while it is running. For example, a generator running at no load generates no electricity, and is analogous to an idling engine. A generator running at full load is generating the maximum amount of electricity it is capable of producing. Generally, the higher the load that is placed on the engine, the more fuel it will consume, resulting in greater air quality and greenhouse gas emissions, as well as higher noise levels.

Table 4.3-5: Operational Emissions (pounds/day)				
	ROG	**NOx**	**PM_{10}**	**$PM_{2.5}$**
Data Center Operation	3.2	1.6	0.5	0.2
Emergency Generators (Permitted Maximum)[1]	6.2	27.5	0.9	0.9
Evaporative Cooling	--	--	2.3	2.3
Project Total	9.4	29.1	3.7	3.4
BAAQMD Threshold	*54*	*54*	*82*	*54*
Significant?	***No***	***No***	***No***	***No***

[1] Generator emissions were calculated based on the maximum permitted operation of 50 hours per year per engine. The project proposes to operate each engine for only 12 hours per year. This analysis represents a conservative estimate of maximum permitted project emissions. Actual project emissions would be lower than the values shown.

Impact AIR-3: The project would not expose sensitive receptors to substantial pollutant concentrations**. (Less than Significant Impact)**

The proposed project would be a source of air pollutant emissions during project construction and during operation of emergency generators for testing and maintenance purposes. The proposed generators are diesel fueled, so they would emit DPM, which is a toxic air contaminant (TAC). The generators are also a source of $PM_{2.5}$, which has known adverse health effects.

The BAAQMD CEQA Air Quality Guidelines considers exposure of sensitive receptors to air pollutant levels that result in an unacceptable cancer risk or hazard to be significant. BAAQMD recommends a 1,000-foot zone of influence around project boundaries. There are no sensitive receptors within 1,000 feet of the project site. Since construction activities are temporary and would occur well over 1,000 feet from the nearest sensitive receptor, community risk impacts from construction activities would be less than significant.

Since the proposed project would emit DPM from the generator engines over the project lifetime, an analysis was performed to assess what ambient concentrations would result from their operation, and to quantify potential long-term health risks at the closest sensitive receptors. DPM concentrations and potential cancer risks from operation of the generators were evaluated at existing residences in the vicinity of the proposed data center site. The closest sensitive receptors to the proposed project site are the Granada Islamic School about 1,700 feet northwest of the project site, existing residences about 3,315 feet north of the project site, and additional residences about 4,330 and 4,590 feet south of the project site. The maximum average annual off-site DPM concentrations were used to calculate potential increased cancer risks from the project. Average annual DPM concentrations were used as being representative of long-term (30-year) exposures for calculation of cancer risks.

The maximum modeled annual DPM and $PM_{2.5}$ concentration from operation of the generators at the data center was 0.0001 $\mu g/m^3$ at several residential receptors north of the project site on Lafayette Street. Concentrations at all other existing residential locations would be lower than the maximum concentration.

Based on the maximum modeled DPM concentrations that assume operation for 50 hours per year per generator, maximum increased cancer risks and non-cancer health impacts were calculated using BAAQMD recommended methods. The maximum increased cancer risk at the closest sensitive receptor, Granada Islamic School, would be 0.02 in one million, and the maximum increased cancer risk at the closest residence would be 0.1 in one million. The maximum hazard index would be less than 0.01 from operation of the proposed emergency generators and would be below the BAAQMD maximum hazard index significance threshold of 1.0.[13] **(Less than Significant Impact)**

Impact AIR-4:	The project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people. **(Less than Significant Impact)**

The project would generate localized emissions of diesel exhaust during construction equipment operation, and routine maintenance of emergency generators of the site. The odor emissions may be noticeable from time to time by adjacent receptors; however, the odors would be localized and temporary. **(Less Than Significant Impact)**

[13] Bay Area Air Quality Management District. California Environmental Quality Act Air Quality Guidelines. May 2017.

4.4 BIOLOGICAL RESOURCES

4.4.1 Environmental Setting

4.4.1.1 *Regulatory Framework*

Federal and State

Endangered Species Act

Individual plant and animal species listed as rare, threatened, or endangered under state and federal Endangered Species Acts are considered special-status species. Federal and state endangered species legislation has provided the United States Fish and Wildlife Service (USFWS) and the California Department of Fish and Wildlife (CDFW) with a mechanism for conserving and protecting plant and animal species of limited distribution and/or low or declining populations. Permits may be required from both the USFWS and CDFW if activities associated with a proposed project would result in the take of a species listed as threatened or endangered. To "take" a listed species, as defined by the State of California, is "to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill" these species. Take is more broadly defined by the federal Endangered Species Act to include harm of a listed species.

In addition to species listed under state and federal Endangered Species Acts, Sections 15380(b) and (c) of the CEQA Guidelines provide that all potential rare or sensitive species, or habitats capable of supporting rare species, must be considered as part of the environmental review process. These may include plant species listed by the California Native Plant Society and CDFW-listed Species of Special Concern.

Migratory Bird Treaty Act

The federal Migratory Bird Treaty Act (MBTA) prohibits killing, capture, possession, or trade of migratory birds except in accordance with regulations prescribed by the Secretary of the Interior. Hunting and poaching are also prohibited. The taking and killing of birds resulting from an activity is not prohibited by the MBTA when the underlying purpose of that activity is not to take birds.[14] Nesting birds are considered special-status species and are protected by the USFWS. The CDFW also protects migratory and nesting birds under California Fish and Game Code Sections 3503, 3503.5, and 3800. The CDFW defines taking as causing abandonment and/or loss of reproductive efforts through disturbance.

Sensitive Habitat Regulations

Wetland and riparian habitats are considered sensitive habitats under CEQA. They are also afforded protection under applicable federal, state, and local regulations, and are generally subject to regulation by the United States Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), CDFW, and/or the USFWS under provisions of the federal Clean Water Act (e.g., Sections 303, 304, 404) and State of California Porter-Cologne Water Quality Control Act.

[14] United States Department of the Interior. "Memorandum M-37050. The Migratory Bird Treaty Act Does Not Prohibit Incidental Take." Accessed October 22, 2019. https://www.doi.gov/sites/doi.gov/files/uploads/m-37050.pdf.

Fish and Game Code Section 1602

Streambeds and banks, as well as associated riparian habitat, are regulated by the CDFW per Section 1602 of the Fish and Game Code. Work within the bed or banks of a stream or the adjacent riparian habitat requires a Streambed Alteration Agreement from the CDFW.

Regional and Local

Santa Clara Valley Habitat Plan/Natural Community Conservation Plan

The Santa Clara Valley Habitat Plan/Natural Community Conservation Plan (Habitat Plan) covers approximately 520,000 acres, or approximately 62 percent of Santa Clara County. It was developed and adopted through a partnership between Santa Clara County, the Cities of San José, Morgan Hill, and Gilroy, Santa Clara Valley Water District (Valley Water), Santa Clara Valley Transportation Authority (VTA), USFWS, and CDFW. The Habitat Plan is intended to promote the recovery of endangered species and enhance ecological diversity and function, while accommodating planned growth in southern Santa Clara County. The Santa Clara Valley Habitat Agency is responsible for implementing the plan. The project site is outside of the Santa Clara Valley Habitat Plan's study area.

Santa Clara General Plan

General Plan policies applicable to biological resources include, but are not limited to, the following listed below.

Policies	Description
5.3.1-P10	Provide opportunities for increased landscaping and trees in the community, including requirements for new development to provide street trees and a minimum 2:1 on- or off-site replacement for trees removed as part of the proposal to help increase the urban forest and minimize the heat island effect.
5.10.1-P4	Protect all healthy cedars, redwoods, oaks, olives, bay laurel, and pepper trees of any size, and all other trees over 36 inches in circumference measured from 48 inches above-grade on private and public property, as well as in the public right-of-way.

4.4.1.2 *Existing Conditions*

The project site is developed with a one-story, 23,765 sf industrial building and a paved parking lot. Minimal landscaping and mature trees are located along the southern and western property boundaries.

Wildlife habitats in such developed urban areas are low in species diversity. Species that use the habitat on the site are predominately urban adapted birds, such as rock doves, mourning doves, house sparrows, finches, and starlings.

Special Status Species

Special status plants and wildlife species are not present on the highly urbanized project site, although raptors (birds of prey) could use the trees on the site for nesting or as a roost. Raptors are protected by the Federal Migratory Bird Treaty Act (MBTA) (16 U.S.C. Section 703, et seq.).

Trees

Trees located on the project site are primarily non-native species in varying sizes and levels of health. City policy is to protect all healthy cedars, redwoods, oaks, olives, bay laurel and pepper trees of any size and all other trees over 36 inches in circumference (approximately 11 inches in diameter) as measured from 48 inches above the ground surface. Within the boundaries of the proposed modifications, there are a total of 35 trees, 16 of which are considered protected by City of Santa Clara policy. A summary of tree diameter and conditions is provided in Table 4.4-1.

Table 4.4-1: Summary of Existing On-Site Trees

Common Name	Diameter	Condition
Xylosma	15.5	Fair
Xylosma	13	Fair
Unknown	3	Dead
Evergreen Ash	5	Good
Glossy Privet	2.5	Good
Evergreen Ash	26	Good
Evergreen Ash	5.5	Good
Evergreen Ash	21.5	Good
Evergreen Ash	7.5	Good
Evergreen Ash	8	Good
Evergreen Ash	5	Good
Evergreen Ash	3	Good
Evergreen Ash	3	Good
Evergreen Ash	5	Poor
Evergreen Ash	3.5	Good
Evergreen Ash	13	Good
Evergreen Ash	18	Fair
Evergreen Ash	6	Good
Glossy Privet	4	Good
Xylosma	8	Poor
Xylosma	19	Poor
Evergreen Ash	2	Poor
Evergreen Ash	23	Fair
Evergreen Ash	1	Good
Cherry Tree	15	Dead
Cherry Tree	16	Dead
Canary Island Pine	27	Good
Crape Myrtle	6	Good
Crape Myrtle	6	Good
Incense Cedar	10	Fair
Incense Cedar	8	Fair
Tulip Poplar	17	Fair
Eucalyptus	31	Good
Canary Island Pine	16	Good
Peach Tree	5	Good

4.4.2 Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
1) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife (CDFW) or United States Fish and Wildlife Service (USFWS)?	☐	☒	☐	☐
2) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or USFWS?	☐	☐	☐	☒
3) 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?	☐	☐	☐	☒
4) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, impede the use of native wildlife nursery sites?	☐	☐	☐	☒
5) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☒	☐
6) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

Impact BIO-1: As mitigated, the project would not 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 CDFW or USFWS. **(Less than Significant Impact with Mitigation Incorporated)**

Given the urbanized nature of the project site and surrounding area, there are no sensitive habitats or special-status animal or plant species on or adjacent to the project site. The project site, however, includes trees which could be used by nesting birds (including migratory birds and raptors). Nesting birds are protected under the MBTA and by the California Fish and Game Code 3503, 3503.5, and

2800. Construction disturbance during breeding season could result in incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment. Disturbance that causes abandonment and/or loss of reproductive effort is considered a taking by CDFW. Any loss of fertile eggs, nesting raptors, or any activities resulting in nest abandonment would constitute a significant impact. Construction activities such as site grading that disturb a nesting bird or raptor on-site or immediately adjacent to the construction zone would constitute a significant impact.

Mitigation Measure:

MM BIO-1.1: Construction shall be scheduled to avoid the nesting bird season to the extent feasible. The nesting season for most birds, including most raptors, in the San Francisco Bay Area extends from February 1 through August 31.

If it is not possible to schedule construction activities between September 1 and January 31, then pre-construction surveys for nesting birds shall be completed by a qualified ornithologist to ensure no nest shall be disturbed during project implementation. This survey shall be completed no more than 14 days prior to the initiation of grading, tree removal, or other demolition or construction activities during the early part of the breeding season (February through April) and no more than 30 days prior to the initiation of these activities during the late part of the breeding season (May through August).

During this survey, the ornithologist shall inspect all trees and other possible nesting habitats within and immediately adjacent to the construction area for nests. If an active nest is found sufficiently close to work areas to be disturbed by construction, the ornithologist, in consultation with CDFW, shall determine the extent of a construction-free buffer zone to be established around the nest to ensure that nests of bird species protected by the MBTA or Fish and Game Code shall not be disturbed during project construction.

A final report of nesting birds, including any protection measures, shall be submitted to the Director of Community Development prior to the start of grading or tree removal.

The project, with implementation of the above mitigation measure, would reduce impacts to nesting birds (if present) by avoiding construction during nesting bird season or completing pre-construction nesting bird surveys to minimize and/or avoid impacts to nesting birds. **(Less than Significant Impact with Mitigation Incorporated)**

Impact BIO-2:	The project would not have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS. **(No Impact)**

As discussed in Section 4.4.1 and under Impact BIO-1, the project site is developed and located in an urbanized area. There are no riparian habitats located within or adjacent to the site, and the project site does not support other sensitive natural communities. The nearest riparian habitat is the

Guadalupe River, which is approximately .85 miles east of the project site. The project would not result in any changes to the river. For these reasons, the project would not have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulation or by the CDFW or USFWS. **(No Impact)**

Impact BIO-3:	The project would not have a substantial adverse effect on state or federally protected wetlands through direct removal, filling, hydrological interruption, or other means. **(No Impact)**

The project site is developed and located in an urbanized area. The project site does not contain state or federally protected wetlands. **(No Impact)**

Impact BIO-4:	The project would not 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)**

The project site is developed and surrounded by urban development. There are no sensitive habitats or waterways on or adjacent to the site. For these reasons, the project site does not facilitate substantial wildlife movement. There are no native wildlife nursery sites in the vicinity. For these reasons, the project would not 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)**

Impact BIO-5:	The project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. **(Less than Significant Impact)**

As discussed in Section 4.4.1, there are a total of approximately 32 trees on-site.

The project would remove 24 trees on-site. The project does, however, propose to plant new landscaping around the southern and western perimeter of the site. The City's General Plan (Policy 5.3.1-P10) requires new development to include new street trees and at least a 2:1 on- or off-site replacement for removal of existing trees. While the proposed project would need to plant a minimum of 48 trees, the landscape plan shows five new trees would be planted on the project site. At the City's directive, the project would plant, at a minimum, 43 trees off-site to offset the loss of the trees to be removed as a result of the project. If additional trees are removed, whether due to deterioration, construction injury, or a mitigation measure, the project would need to offset the loss of trees in accordance with General Plan Policy 5.3.1-P10. Because the project would be required to comply with the City's tree replacement policy, the loss of these trees on-site would result in a less than significant impact on trees in the project area.

Of the 24 trees to be removed on-site, 16 trees are classified as protected by the City. The removal of these trees would be inconsistent with General Plan Policy 5.10.1-P4 to protect healthy cedars and all

types of trees over 36 inches in circumference measured from 48 inches above-grade on private and public property. Although 16 City-protected trees would be removed as part of the project, the project would be required to comply with the City's tree replacement policy and, as a result, the overall loss of these trees would be less than significant. **(Less than Significant Impact)**

Impact BIO-6:	The project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. **(No Impact)**

The project site is not located within a adopted Habitat Conservation Plan, Natural Community Plan, or other approved, local, regional, or state habitat conservation plan. The proposed project, therefore, would not conflict with provisions of any of these plans. **(No Impact)**

4.5 CULTURAL RESOURCES

The discussion in this section is based in part upon a Cultural Resources Literature Search prepared for the project by Holman & Associates, Inc. in October 2019. A copy of the report is included in Appendix B of this IS.

4.5.1 Environmental Setting

Cultural resources are evidence of past human occupation and activity and include both historical and archaeological resources. These resources may be located above ground or underground and have significance in the history, prehistory, architecture, architecture of cultural of the nation, State of California, or local or tribal communities.

4.5.1.1 *Regulatory Framework*

Federal and State

National Historic Preservation Act

Federal protection is legislated by the National Historic Preservation Act of 1966 (NHPA) and the Archaeological Resource Protection Act of 1979. These laws maintain processes for determination of the effects on historical properties eligible for listing in the National Register of Historic Places (NRHP). Section 106 of the NHPA and related regulations (36 Code of Federal Regulations [CFR] Part 800) constitute the primary federal regulatory framework guiding cultural resources investigations and require consideration of effects on properties that are listed or eligible for listing in the NRHP. Impacts to properties listed in the NRHP must be evaluated under CEQA.

California Register of Historical Resources

The California Register of Historical Resources (CRHR) is administered by the State Office of Historic Preservation and encourages protection of resources of architectural, historical, archeological, and cultural significance. The CRHR identifies historic resources for state and local planning purposes and affords protections under CEQA. Under Public Resources Code Section 5024.1(c), a resource may be eligible for listing in the CRHR if it meets any of the NRHP criteria.[15]

Historical resources eligible for listing in the CRHR must meet the significance criteria described previously and retain enough of their historic character or appearance to be recognizable as historical resources and to convey the reasons for their significance. A resource that has lost its historic character or appearance may still have sufficient integrity for the CRHR if it maintains the potential to yield significant scientific or historical information or specific data.

The concept of integrity is essential to identifying the important physical characteristics of historical resources and, therefore, in evaluating adverse changes to them. Integrity is defined as "the authenticity of a historical resource's physical identity evidenced by the survival of characteristics that existed during the resource's period of significance." The processes of determining integrity are similar for both the CRHR and NRHP and use the same seven variables or aspects to define integrity

[15] California Office of Historic Preservation. "CEQA Guidelines Section 15064.5(a)(3) and California Office of Historic Preservation Technical Assistance Series #6." March 14, 2006.

that are used to evaluate a resource's eligibility for listing. These seven characteristics include 1) location, 2) design, 3) setting, 4) materials, 5) workmanship, 6) feeling, and 7) association.

California Native American Historical, Cultural, and Sacred Sites Act

The California Native American Historical, Cultural, and Sacred Sites Act applies to both state and private lands. The act requires that upon discovery of human remains, construction or excavation activity must cease and the county coroner be notified.

Public Resources Code Sections 5097 and 5097.98

Section 15064.5 of the CEQA Guidelines specifies procedures to be used in the event of an unexpected discovery of Native American human remains on non-federal land. These procedures are outlined in Public Resources Code Sections 5097 and 5097.98. These codes protect such remains from disturbance, vandalism, and inadvertent destruction, establish procedures to be implemented if Native American skeletal remains are discovered during construction of a project, and establish the Native American Heritage Commission (NAHC) as the authority to resolve disputes regarding disposition of such remains.

Pursuant to Public Resources Code Section 5097.98, in the event of human remains discovery, no further disturbance is allowed until the county coroner has made the necessary findings regarding the origin and disposition of the remains. If the remains are of a Native American, the county coroner must notify the NAHC. The NAHC then notifies those persons most likely to be related to the Native American remains. The code section also stipulates the procedures that the descendants may follow for treating or disposing of the remains and associated grave goods.

4.5.1.2 *Existing Conditions*

Historic Resources

The project site has been developed with the existing office building since 1974. Buildings surrounding the site were constructed in 1968 or later. Prior to construction of the existing building, the site was used for agricultural purposes from around 1899 to 1939. Between 1950 and 1956, six structures (likely agricultural in use) were developed on site.

Archaeological/Prehistoric Resources

Although there are no existing conditions or immediate evidence that would suggest the presence of subsurface cultural resources, the project site is located in a culturally sensitive area due to known prehistoric and historic occupation of Santa Clara and proximity to the nearby creek. The project site is located approximately .85 miles west of the Guadalupe River and .9 miles east of the San Tomas Aquino Creek. Native American settlements are commonly associated with the abundant food supply in the Santa Clara Valley. Aside from the sites already identified within the City of Santa Clara, there may be other undiscovered archaeological sites. In addition, historic occupation of Santa Clara has been well documented, and the City has a strong record reflecting early settlement by Spanish missionaries. The project is located approximately 0.5 miles from the second location of Mission Santa Clara. No archaeological sites have been recorded within or adjacent to the project area. The project area has not been previously studied for its cultural resource potential.

4.5.2 Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
1) Cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5?	☐	☐	☐	☒
2) Cause a substantial adverse change in the significance of an archaeological resource as pursuant to CEQA Guidelines Section 15064.5?	☐	☒	☐	☐
3) Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☒	☐	☐

Impact CUL-1: The project would not cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5. **(No Impact)**

The existing office building was constructed in 1974 and is not classified as a historic resource nor is it eligible to be listed on the CRHR, NRHP, or local register since it is less than 50 years of age. The buildings directly adjacent to the project site and in the immediate project area are not classified as historic by the City of Santa Clara and are not currently eligible for inclusion on the CRHR given they are less than 50 years of age and are of a common or modern architectural style.[16] Development of the project site would not physically damage or materially impair the integrity of any historic building. Implementation of the proposed project would, therefore, have no impact on any designated or eligible historic structures. **(No Impact)**

Impact CUL-2: As mitigated, the project would not cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5. **(Less than Significant Impact with Mitigation Incorporated)**

Although there are no known prehistoric archaeological deposits on or adjacent to the site, there is a moderate to high potential for Native American sites within the project area. Construction on-site could result in the exposure or destruction of undiscovered subsurface prehistoric archaeological resources. If the exposure or destruction of subsurface prehistoric resources were to occur, it would be considered a significant impact.

[16] City of Santa Clara. 2010 -2035 General Plan, Table 8.9-1: Architecturally or Historically Significant Properties. Updated 2014.

Mitigation Measures:

The following project-specific mitigation measures would be implemented during construction to avoid significant impacts to unknown subsurface cultural resources:

MM CUL-1.1: After demolition of the existing building and paved parking lot on the site, a qualified archaeologist shall complete mechanical presence/absence testing for archaeological deposits and cultural materials. In the event any prehistoric site indicators are discovered, additional backhoe testing will be conducted to map the aerial extent and depth below the surface of the deposits. In the event prehistoric or historic archaeological deposits are found during presence/absence testing, the significance of the find will be determined. If deemed significant, a Treatment Plan will be prepared and provided to the Director of Community Development. The key elements of a Treatment Plan shall include the following:

- Identify scope of work and range of subsurface effects (include location map and development plan),
- Describe the environmental setting (past and present) and the historic/prehistoric background of the parcel (potential range of what might be found),
- Develop research questions and goals to be addressed by the investigation (what is significant vs. what is redundant information),
- Detail field strategy used to record, recover, or avoid the finds (photogs, drawings, written records, provenience data maps, soil profiles, excavation techniques, standard archaeological methods) and address research goals.
- Analytical methods (radiocarbon dating, obsidian studies, bone studies, historic artifacts studies [list categories and methods], packaging methods for artifacts, etc.).
- Report structure, including a technical and layman's report and an outline of document contents in one year of completion of development (provide a draft for review before a final report),
- Disposition of the artifacts,
- Appendices: site records, update site records, correspondence, consultation with Native Americans, etc.

MM CUL-1.2: In the event that prehistoric or historic resources that are not discovered during presence/absence testing are encountered during excavation and/or grading of the site, all activity within a 50-foot radius of the find will be stopped, the Director of Community Development will be notified, and the archaeologist will examine the find and make appropriate recommendations

prior to issuance of building permits. If the find is deemed significant, a Treatment Plan will be prepared as outlined in MM CUL-1.1.

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

Impact CUL-3:	As mitigated, the project would not disturb any human remains, including those interred outside of dedicated cemeteries. **(Less than Significant Impact with Mitigation Incorporated)**

Although there are no known human remains on the site, construction on-site could result in the exposure or destruction of undiscovered subsurface prehistoric human remains. If the exposure or destruction of these resources were to occur, it would be considered a significant impact.

Mitigation Measures:

The following project-specific mitigation measures will be implemented during construction to avoid significant impacts to unknown human remains:

MM CUL-2.1: In the event that human remains are discovered during excavation and/or grading of the site, all activity within a 50-foot radius of the find will be stopped. The Santa Clara County Coroner will be notified and shall make a determination as to whether the remains are of Native American origin or whether an investigation into the cause of death is required. If the remains are determined to be Native American, the Coroner will notify the Native American Heritage Commission (NAHC) immediately. Once the NAHC identifies the most likely descendants, the descendants will make recommendations regarding proper burial, which will be implemented in accordance with Section 15064.5(e) of the CEQA Guidelines.

With implementation of these measures, impacts to unknown human remains would be less than significant. **(Less than Significant Impact with Mitigation)**

4.6 ENERGY

4.6.1 Environmental Setting

4.6.1.1 *Regulatory Framework*

Federal

At the federal level, energy standards set by the U.S. Environmental Protection Agency (EPA) apply to numerous consumer products and appliances (e.g., the EnergyStar™ program). The EPA also sets fuel efficiency standards for automobiles and other modes of transportation.

State

Renewable Energy Standards

In 2002, California established its Renewables Portfolio Standard (RPS) Program, with the goal of increasing the percentage of renewable energy in the state's electricity mix to 20 percent of retail sales by 2010. In 2008, Executive Order S-14-08 was signed into law requiring retail sellers of electricity serve 33 percent of their load with renewable energy by 2020. In October 2015, Governor Brown signed Senate Bill 350 (SB 350) to codify California's climate and clean energy goals. A key provision of SB 350 requires retail sellers and publicly owned utilities to procure 50 percent of their electricity from renewable sources by 2030. SB 100, passed in 2018, increased the 2030 renewable source requirement to 60%, and requires 100 percent of electricity in California to be provided by 100 percent renewable and carbon-free sources by 2045.

Silicon Valley Power (SVP) provides electricity service to the project site. In 2017, renewable energy facilities provided approximately 72 percent of SVP's electricity mix.[17]

Building Codes

The Energy Efficiency Standards for Residential and Nonresidential Buildings, as specified in Title 24, Part 6, of the California Code of Regulations (Title 24), was established in 1978 in response to a legislative mandate to reduce California's energy consumption. Title 24 is updated approximately every three years, and the 2019 Title 24 updates went into effect on January 1, 2020.

CALGreen establishes mandatory green building standards for buildings in California. The most recent updates to CALGreen went into effect on January 1, 2020, and covers five categories: planning and design, energy efficiency, water efficiency and conservation, material and resource efficiency, and indoor environmental quality.

[17] Silicon Valley Power. "Renewable Energy FAQ" Accessed October 29, 2019. http://www.siliconvalleypower.com/solar-and-green-power/renewable-energy-faq

Energy Star and Fuel Efficiency

At the federal level, energy standards set by the EPA apply to numerous consumer products and appliances (e.g., the EnergyStar™ program). The EPA also sets fuel efficiency standards for automobiles and other modes of transportation.

Renewables Portfolio Standard Program

In 2002, California established its Renewables Portfolio Standard Program, with the goal of increasing the percentage of renewable energy in the state's electricity mix to 20 percent of retail sales by 2010. In 2008, Executive Order S-14-08 was signed into law, requiring retail sellers of electricity serve 33 percent of their load with renewable energy by 2020. In October 2015, Governor Brown signed SB 350 to codify California's climate and clean energy goals. A key provision of SB 350 requires retail sellers and publicly owned utilities to procure 50 percent of their electricity from renewable sources by 2030. SB 100, passed in 2018, increased the 2030 renewable source requirement to 60%, and requires 100 percent of electricity in California to be provided by 100 percent renewable and carbon-free sources by 2045.

California Building Standards Code

The Energy Efficiency Standards for Residential and Nonresidential Buildings, as specified in Title 24, Part 6 of the California Code of Regulations (Title 24), was established in 1978 in response to a legislative mandate to reduce California's energy consumption. Title 24 is updated approximately every three years, and the 2019 Title 24 updates went into effect on January 1, 2029. Compliance with Title 24 is mandatory at the time new building permits are issued by city and county governments.

California Green Building Standards Code

CALGreen establishes mandatory green building standards for buildings in California. CALGreen was developed to reduce GHG emissions from buildings, promote environmentally responsible and healthier places to live and work, reduce energy and water consumption, and respond to state environmental directives. The most recent update to CALGreen went into effect on January 1, 2020, and covers five categories: planning and design, energy efficiency, water efficiency and conservation, material and resource efficiency, and indoor environmental quality.

Advanced Clean Cars Program

CARB adopted the Advanced Clean Cars program in 2012 in coordination with the EPA and National Highway Traffic Safety Administration. The program combines the control of smog-causing pollutants and GHG emissions into a single coordinated set of requirements for vehicle model years 2015 through 2025. The program promotes development of environmentally superior passenger cars and other vehicles, as well as saving the consumer money through fuel savings.[18]

[18] California Air Resources Board. "The Advanced Clean Cars Program." Accessed April 6, 2018. https://www.arb.ca.gov/msprog/acc/acc.htm.

4.6.1.2 *Existing Conditions*

Total energy usage in California was approximately 7,881 trillion British thermal units (Btu) in the year 2017, the most recent year for which this data was available.[19] Out of the 50 states, California is ranked second in total energy consumption and 48th in energy consumption per capita. The breakdown by sector was approximately 18 percent (1,416 trillion Btu) for residential uses, 19 percent (1,473 trillion Btu) for commercial uses, 23 percent (1,818 trillion Btu) for industrial uses, and 40 percent (3,175 trillion Btu) for transportation.[20] This energy is primarily supplied in the form of natural gas, petroleum, nuclear electric power, and hydroelectric power.

Electricity

Electricity in Santa Clara County in 2018 was consumed primarily by the commercial sector (77 percent), followed by the residential sector consuming 23 percent. In 2018, a total of approximately 16,668 gigawatt hours (GWh) of electricity was consumed in Santa Clara County.[21]

Silicon Valley Power (SVP) is the City of Santa Clara's energy utility and would provide electricity service to the project site. For commercial customers, SVP offers several options for participation in green energy programs, including a carbon-free energy option.[22]

Natural Gas

PG&E provides natural gas services within the City of Santa Clara. In 2018, approximately one percent of California's natural gas supply came from in-state production, while the remaining supply was imported from other western states and Canada.[23] In 2018, residential and commercial customers in California used 34 percent of the state's natural gas, power plants used 35 percent, the industrial sector used 21 percent, and other uses used 10 percent. Transportation accounted for one percent of natural gas use in California. In 2018, Santa Clara County used approximately 3.5 percent of the state's total consumption of natural gas.[24]

Fuel for Motor Vehicles

In 2017, 15 billion gallons of gasoline were sold in California.[25] The average fuel economy for light-duty vehicles (autos, pickups, vans, and sport utility vehicles) in the United States has steadily increased from about 13.1 miles per gallon (mpg) in the mid-1970s to 24.9 mpg in 2018.[26] Federal

[19] United States Energy Information Administration. "State Profile and Energy Estimates, 2017." Accessed October 29, 2019. https://www.eia.gov/state/?sid=CA#tabs-2.
[20] United States Energy Information Administration. "State Profile and Energy Estimates, 2017." Accessed October 29, 2019. https://www.eia.gov/state/?sid=CA#tabs-2.
[21] California Energy Commission. Energy Consumption Data Management System. "Electricity Consumption by County." Accessed October 29, 2019. http://ecdms.energy.ca.gov/elecbycounty.aspx.
[22] Silicon Valley Power. "Did you Know." Accessed October 29, 2019. http://www.siliconvalleypower.com/.
[23] California Gas and Electric Utilities. 2019 *California Gas Report.* Accessed October 29, 2019. https://www.socalgas.com/regulatory/documents/cgr/2019_CGR_Supplement_7-1-19.pdf.
[24] California Energy Commission. "Natural Gas Consumption by County." Accessed October 29, 2019. http://ecdms.energy.ca.gov/gasbycounty.aspx.
[25] California Department of Tax and Fee Administration. "Net Taxable Gasoline Gallons." Accessed October 29, 2019. http://www.cdtfa.ca.gov/taxes-and-fees/MVF_10_Year_Report.pdf.
[26] United States Environmental Protection Agency. "The 2018 EPA Automotive Trends Report: Greenhouse Gas Emissions, Fuel Economy, and Technology since 1975." March 2019.

fuel economy standards have changed substantially since the Energy Independence and Security Act was passed in 2007. That standard, which originally mandated a national fuel economy standard of 35 miles per gallon by the year 2020, was subsequently revised to apply to cars and light trucks model years 2011 through 2020. [27,28]

4.6.1.3 *Existing Energy Use on the Project Site*

The project site is currently developed with a one-story, 23,765 sf industrial building. The main source of energy use associated with the existing development on-site is the electricity and natural gas use of the existing building. Fuel use also results from vehicle trips associated with the existing development.

4.6.2 Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
1) Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐
2) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☒	☐

Impact EN-1: The project would not result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation. **(Less than Significant Impact)**

Energy would be consumed during both the construction and operational phases of the proposed project. Energy requirements throughout the construction phase include energy for the manufacturing and transportation of building materials, preparation of the site, and operation of construction equipment. The operation of the data center building would consume electricity for building equipment power, lighting, air conditioning, and cooling. Data centers are an energy-intensive land use, and electricity will be the primary form of energy used at the data center building proposed by the project. Fuel would also be consumed by vehicles traveling to and from the site and regular testing and maintenance of the backup generators.

[27] United States Department of Energy. *Energy Independence & Security Act of 2007.* Accessed February 8, 2018. http://www.afdc.energy.gov/laws/eisa.
[28] Public Law 110–140—December 19, 2007. *Energy Independence & Security Act of 2007.* Accessed February 8, 2018. http://www.gpo.gov/fdsys/pkg/PLAW-110publ140/pdf/PLAW-110publ140.pdf.

Construction

Construction of the project would require energy for the demolition of existing buildings, manufacture and transportation of building materials, site preparation and grading, and the actual construction of the buildings and infrastructure. As discussed in Section 4.3 Air Quality, the project would implement measures to minimize the idling of construction equipment. Additionally, the project would participate in the City's Construction and Demolition Debris Recycling Program by recycling or diverting at least 50 percent of materials generated for discards by the project in order to reduce the amount of demolition and construction waste going to the landfill. Diversion saves energy by reusing and recycling materials for other uses (instead of landfilling materials and using additional non-renewable resources).

Operation

The projected maximum load for information technology (IT) equipment in the data center would be 10 MW. Additional electricity would be required for mechanical cooling equipment and other building functions. Power Usage Effectiveness (PUE) is a metric used to compare the operating efficiency of data center facilities. PUE is defined as the ratio of total power use of a facility to the power used strictly by the information technology (IT) equipment (e.g. PUE=Total Facility Power/IT Equipment Power). For example, with a PUE of 2.0 a data center would use (2) watts of total power for every (1) watt of power used by the IT equipment. The ideal PUE is one (1) where all power drawn by the facility goes to the IT infrastructure. The annualized PUE of the proposed data center would be 1.2, resulting in the consumption of 89,352 MW-hours (MWh) of electricity per year.[29] For comparison, the current industrial use on the site is estimated to consume roughly 196 MWh of electricity per year.[30] A PUE of 1.2 is considered efficient. Based on industry surveys, the average PUE for data centers is 1.67, although newly constructed data centers typically have PUEs ranging from 1.1 to 1.4.[31]

The diesel-fueled generators would only be operated when necessary for testing and maintenance, and would not be used regularly for electricity generation, resulting in minimal fuel consumption. Additionally, vehicle travel associated with the project would be less than existing uses on the site due to the low employment requirements of data centers, resulting in a reduction in fuel consumption.

Although the project would result in an increase in energy use on the site, the project would be built in accordance with Title 24 and CalGreen and include green building measures to reduce energy consumption. The project would also utilize lighting control to reduce energy usage for new exterior lighting and air economization for building cooling. Water efficient landscaping and ultra-low flow plumbing fixtures in the building would be implemented to limit water consumption. Due to the energy efficiency measures incorporated into the facility, the project would not result in a wasteful,

[29] Illingworth & Rodkin, Inc. *1111 Comstock Street Data Center Air Quality and GHG Emissions Assessment*. November 11, 2019.
[30] Based on CalEEMod default electricity consumption rates for general light industrial land uses applied to the existing 23,765 sf building on the site.
[31] Uptime Institute. Annual Data Center Survey Results - 2019. Available at: https://datacenter.com/wp-content/uploads/2019/06/data-center-survey-2019.pdf

inefficient, or unnecessary consumption of energy, or wasteful use of energy resources. **(Less than Significant Impact)**

Impact EN-2:	The project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. **(Less than Significant Impact)**

The project would be consistent with the regulations described in 4.6.1.1 (including General Plan Policies) by:

- Complying with Title 24 and CalGreen,
- Participating in the City's Construction and Demolition Debris Recycling Program
- Implementing TDM measures to promote walking, bicycling and transit use.
- Incorporating measures such as lighting control, air economization, water conservation measures, and energy conservation measures.

The project, therefore, would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. **(Less than Significant Impact)**

4.7 GEOLOGY AND SOILS

The following analysis is based in part on a Geotechnical Investigation Report for the project prepared by Kleinfelder, Inc in April 2019. A copy of this report is included in Appendix C of this IS.

4.7.1 Environmental Setting

4.7.1.1 *Regulatory Framework*

State

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act was passed following the 1971 San Fernando earthquake. The act regulates development in California near known active faults due to hazards associated with surface fault ruptures. Alquist-Priolo maps are distributed to affected cities, counties, and state agencies for their use in planning and controlling new construction. Areas within an Alquist-Priolo Earthquake Fault Zone require special studies to evaluate the potential for surface rupture to ensure that no structures intended for human occupancy are constructed across an active fault.

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act (SHMA) was passed in 1990 following the 1989 Loma Prieta earthquake. The SHMA directs the California Geological Survey (CGS) to identify and map areas prone to liquefaction, earthquake-induced landslides, and amplified ground shaking. CGS has completed seismic hazard mapping for the portions of California most susceptible to liquefaction, landslides, and ground shaking, including the central San Francisco Bay Area. The SHMA requires that agencies only approve projects in seismic hazard zones following site-specific geotechnical investigations to determine if the seismic hazard is present and identify measures to reduce earthquake-related hazards.

California Building Standards Code

The CBC prescribes standards for constructing safe buildings. The CBC contains provisions for earthquake safety based on factors including occupancy type, soil and rock profile, ground strength, and distance to seismic sources. The CBC requires that a site-specific geotechnical investigation report be prepared for most development projects to evaluate seismic and geologic conditions such as surface fault ruptures, ground shaking, liquefaction, differential settlement, lateral spreading, expansive soils, and slope stability. The CBC is updated every three years.

California Division of Occupational Safety and Health Regulations

Excavation, shoring, and trenching activities during construction are subject to occupational safety standards for stabilization by the California Department of Industrial Relations, Division of Occupational Safety and Health (Cal/OSHA) under Title 8 of the California Code of Regulations and Excavation Rules. These regulations minimize the potential for instability and collapse that could injure construction workers on the site.

Public Resources Code Section 5097.5

Paleontological resources are the fossilized remains of organisms from prehistoric environments found in geologic strata. They range from mammoth and dinosaur bones to impressions of ancient animals and plants, trace remains, and microfossils. These are valued for the information they yield about the history of the earth and its past ecological settings. California Public Resources Code Section 5097.5 specifies that unauthorized removal of a paleontological resource is a misdemeanor. Under the CEQA Guidelines, a project would have a significant impact on paleontological resources if it would disturb or destroy a unique paleontological resource or site or unique geologic feature.

Local

Santa Clara General Plan

General Plan policies applicable to geology and soils include, but are not limited to, the following listed below.

Policies	Description
5.6.3-P5	In the event that archaeological/paleontological resources are discovered, require that work be suspended until the significance of the find and recommended actions are determined by a qualified archaeological/paleontologist.
5.10.5-P5	Regulate development, including remodeling or structural rehabilitation, to ensure adequate mitigation of safety hazards, including flooding, seismic, erosion, liquefaction and subsidence dangers.
5.10.5-P6	Require that new development is designed to meet current safety standards and implement appropriate building code to reduce risks associated with geologic conditions.
5.10.5-P7	Implement all recommendations and design solutions identified in project soils reports to reduce potential adverse effects associated with unstable soils or seismic hazards.

City Code

Title 15 of the Santa Clara City Code includes the City's adopted Building and Construction Code. These regulations are based on the CBC and include requirements for building foundations, walls, and seismic resistant design. Requirements for grading and excavation permits and erosion control are included in Chapter 15.15 (Building Code). Requirements for building safety and earthquake reduction hazard are addressed in Chapter 15.55 (Seismic Hazard Identification).

4.7.1.2 *Existing Conditions*

The project site is located in the Santa Clara Valley, a relatively flat alluvial basin, bounded by the Santa Cruz Mountains to the southwest and west, the Diablo Mountain Range to the east, and the San Francisco Bay to the north.

Soil Conditions

Soil on site includes clay, silt, clayey silt to silty clay, including sands at various depths, and sandy silt to clayey silt to a depth of 120 feet below the ground surface. The site has highly expansive

clayey soils near the ground surface. Undocumented fill was not encountered onsite during investigation.

Because the topography of the project area is relatively flat, with an elevation of approximately 35 feet above sea level, erosion hazard is limited and there is no landslide hazard.

Groundwater

Depth to groundwater in the area is approximately eight feet below ground surface (bgs). Fluctuations in groundwater levels are common due to seasonal fluctuation, underground drainage patterns, regional fluctuations, and other factors.

Seismicity and Seismic Hazards

The project site is located within the San Francisco Bay Area, which is one of the most seismically active areas in the country. There are nine faults located within 35 miles of the site (see Table 4.7-1). Given the site's proximity to these faults, moderate to severe earthquakes can cause strong ground shaking at the site.

The site is not located within a state-designated Alquist-Priolo Earthquake Fault Zone or a Santa Clara County Fault Hazard Zone. No known surface expression of fault traces cross the site; therefore, fault rupture hazard is not a significant geologic hazard at the site.

Table 4.7-1: Approximate Distances to Nearby Faults

Fault Name	**Distance from the Project Site** (miles)
Hayward-Roger's Creek	6.2
Monte Vista-Shannon	7.4
Calaveras	9.1
San Andreas	10.9
Zayante-Vergales	23.9
Greenville Connected	23.9
San Gregorio	24.9
Mount Diablo Thrust	25.8
Monterey Bay-Tularcitos	32.4

Liquification

Liquefaction is the result of seismic activity and is characterized as the transformation of loose water-saturated soils from a solid state to a liquid state after ground shaking. There are many variables that contribute to liquefaction, including the age of the soil, soil type, soil cohesion, soil density, and groundwater level.

The site is within a state-designated Liquefaction Hazard Zone, as well as a Santa Clara County Liquefaction Hazard Zone.[32] Analysis of on-site soils indicate that there is a potential for liquefaction of localized sand layers during a significant seismic event.

Lateral Spreading

Lateral spreading is horizontal/lateral ground movement of relatively flat-lying soil deposits towards a free face such as an excavation, channel, or open body of water; typically lateral spreading is associated with liquefaction of one or more subsurface layers near the bottom of an exposed slope. There are no open faces within a distance considered susceptible to lateral spreading; therefore, the potential for lateral spreading to affect the site is low.

Paleontological Resources

The project site is underlain by Holocene basin deposits.[33] Geologic units of Holocene age are generally not considered sensitive for paleontological resources because biological remains younger than 10,000 years are not usually considered fossils; however, these recent sediments overlie sediments of older Pleistocene sediments with high potential to contain paleontological resources.[34] These older sediments, often found at depths of 10 feet or more below the ground surface, have yielded the fossil remains of plants and extinct terrestrial Pleistocene vertebrates.

4.7.2 Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
1) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
– Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault (refer to Division of Mines and Geology Special Publication 42)?	☐	☐	☒	☐
– Strong seismic ground shaking?	☐	☐	☒	☐
– Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
– Landslides?	☐	☐	☒	☐
2) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐

[32] CA Department of Conservation. *CGS Seismic Hazard Zone and Liquefaction Map. Santa Clara County*. 2012
[33] City of Santa Clara. *Integrated Final EIR for the City of Santa Clara Draft 2010-2035 General Plan.* January 2011. Figure 4.5-1.
[34] City of Santa Clara. *Integrated Final EIR for the City of Santa Clara Draft 2010-2035 General Plan.* January 2011. Page 323.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
3) Be located on a geologic unit or soil that is unstable, or that will become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
4) Be located on expansive soil, as defined in the current California Building Code, creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐
5) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒
6) Directly or indirectly destroy a unique paleontological resource or site or unique geological feature?	☐	☒	☐	☐

Existing Geologic Conditions Affecting the Project – Planning Considerations

The California Supreme Court in a December 2015 opinion (*BIA v. BAAQMD*) confirmed CEQA is concerned with the impacts of a project on the environment, not the effects the existing environment may have on a project; nevertheless, the City has policies that address existing conditions (e.g. geologic hazards) affecting a proposed project, which are addressed below.

The policies of the City of Santa Clara 2035 General Plan have been adopted for the purpose of avoiding or mitigating environmental effects resulting from planned development within the City. Santa Clara General Plan Policy 5.10-P6 requires that new development is designed to meet current safety standards and implement appropriate building codes to reduce risk associated with geologic conditions.

Impact GEO-1: The project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving 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; strong seismic ground shaking; seismic-related ground failure, including liquefaction; or landslides. **(Less than Significant Impact)**

The project site is not located within a fault rupture zone. The project site is located in a seismically active region. Geologic conditions on the site would require the new building be designed and constructed in accordance with standard engineering techniques, current California Building Code requirements, and the site-specific geotechnical report, to avoid or minimize potential damage from seismic shaking and liquefaction on the site.

Standard Permit Condition:

To avoid or minimize potential damage from seismic shaking, the project would be built using standard engineering and seismic safety design techniques. Building redevelopment design and construction at the site shall be completed in conformance with the recommendations of a design-level geotechnical investigation, which will be included in a report to the City. The report shall be reviewed and approved by the City of Santa Clara's Building Division as part of the building permit review and issuance process. The building shall meet the requirements of applicable Building and Fire Codes, including the 2019 California Building Code, as adopted or updated by the City. The project shall be designed to withstand potential geologic hazards identified on the site and the project shall be designed to reduce the risk to life or property to the extent feasible and in compliance with the Building Code.

With implementation of the Standard Permit Condition, the project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving 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; strong seismic ground shaking; seismic-related ground failure, including liquefaction; or landslides. **(Less than Significant Impact)**

Impact GEO-2:	The project would not result in substantial erosion or the loss of topsoil. **(Less than Significant Impact)**

Construction of the project (including demolition and soil excavation activities) would expose soils and could result in wind or water-related erosion and loss of topsoil. Compliance with erosion control measures, as required by the National Pollutant Discharge Elimination System (NPDES) program described in Section 4.10 *Hydrology and Water Quality*, would reduce the potential for substantial erosion or loss of topsoil to a less than significant level. **(Less than Significant Impact)**

Impact GEO-3:	The project would not 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)**

The project site is located in a mapped liquefaction hazard zone, and soils on the site have a high potential for expansion. Due to the flat topography of the project site, future development on-site is not expected to be exposed to slope instability, lateral spreading, or landslide-related hazards.[35] The site, however, includes moderate to very highly expansive soils. Expansive soil conditions could potentially damage the future buildings and improvements on-site without the incorporation of appropriate engineering into the grading and foundation design. As discussed under Impact GEO-1, Standard Permit Conditions would be incorporated.

[35] County of Santa Clara. *Santa Clara County Geologic Hazard Zones Combined Hazard Zones Map*. 2012.

The existing expansive on-site soils conditions discussed above would not be exacerbated by the project such that it would impact (or worsen) off-site conditions. **(Less than Significant Impact)**

Impact GEO-4:	The project would not be located on expansive soil, as defined in the current California Building Code, creating substantial direct or indirect risks to life or property. **(Less than Significant Impact)**

As discussed in Section 4.7.1.2, *Existing Conditions*, soils on-site have high expansion potential. Hazards associated with expansive soils would be reduced and managed with City adopted regulations and policies, in combination with the state building requirements. As a result, development of the proposed project would not expose future occupants of the site or nearby properties to hazards related to expansive soils. **(Less Than Significant Impact)**

Impact GEO-5:	The project would not 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 an urban area of Santa Clara where sewers are available to dispose wastewater from the project site. Therefore, the project site would not need to support septic tanks or alternative wastewater disposal systems. **(No Impact)**

Impact GEO-6:	As mitigated, the project would not directly or indirectly destroy a unique paleontological resource or site or unique geological feature. **(Less than Significant Impact with Mitigation Incorporated)**

Ground disturbing activities of 10 feet in depth or more at the site has the potential to impact undiscovered paleontological resources. While trenching/grading for utilities would excavate to only eight feet below ground surface, augered foundation piles would extend to a depth of 80 feet. Drilling activities associated with the proposed augered foundation piles has the potential to disturb paleontological resources, which would be considered in a significant impact.

Mitigation Measures:

MM GEO-1.1: Drilling activities associated with the proposed augered foundation piles shall be monitored by a qualified paleontologist. In the event paleontological resources are discovered all work shall be halted within 50 feet of the find and a Paleontological Resource Mitigation Plan shall be prepared by a qualified paleontologist to address assessment and recovery of the resource. A final report documenting any found resources, their recovery, and disposition shall be prepared in consultation with the Community Development Director and filed with the City and local repository.

With implementation of these measures, impacts to undiscovered paleontological resources would be less than significant. **(Less than Significant Impact with Mitigation)**

4.8 GREENHOUSE GAS EMISSIONS

4.8.1.1 *Background Information*

Gases that trap heat in the atmosphere, GHGs, regulate the earth's temperature. This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate. In GHG emission inventories, the weight of each gas is multiplied by its global warming potential (GWP) and is measured in units of CO_2 equivalents (CO_2e). The most common GHGs are carbon dioxide (CO_2) and water vapor but there are also several others, most importantly methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). These are released into the earth's atmosphere through a variety of natural processes and human activities. Sources of GHGs are generally as follows:

- CO_2 and N_2O are byproducts of fossil fuel combustion.
- N_2O is associated with agricultural operations such as fertilization of crops.
- CH_4 is commonly created by off-gassing from agricultural practices (e.g., keeping livestock) and landfill operations.
- Chlorofluorocarbons (CFCs) were widely used as refrigerants, propellants, and cleaning solvents, but their production has been stopped by international treaty.
- HFCs are now used as a substitute for CFCs in refrigeration and cooling.
- PFCs and SF_6 emissions are commonly created by industries such as aluminum production and semiconductor manufacturing.

An expanding body of scientific research supports the theory that global climate change is currently causing changes in weather patterns, average sea level, ocean acidification, chemical reaction rates, and precipitation rates, and that it will increasingly do so in the future. The climate and several naturally occurring resources within California are adversely affected by the global warming trend. Increased precipitation and sea level rise will increase coastal flooding, saltwater intrusion, and degradation of wetlands. Mass migration and/or loss of plant and animal species could also occur. Potential effects of global climate change that could adversely affect human health include more extreme heat waves and heat-related stress; an increase in climate-sensitive diseases; more frequent and intense natural disasters such as flooding, hurricanes and drought; and increased levels of air pollution.

4.8.1.2 *Regulatory Framework*

State

Assembly Bill 32 (2006)

Under the California Global Warming Solutions Act, also known as AB 32 (2006), CARB established a statewide GHG emissions cap for 2020, adopted mandatory reporting rules for significant sources of GHGs, and adopted a comprehensive plan, known as the Climate Change Scoping Plan, identifying how emission reductions would be achieved from significant GHG sources.

Senate Bill 32 (2016)

In 2016, SB 32 was signed into law, amending the California Global Warming Solution Act. SB 32, and accompanying Executive Order B-30-15, require CARB to ensure that statewide GHG emissions are reduced to 40 percent below the 1990 level by 2030. CARB updated its Climate Change Scoping Plan in December of 2017 to express the 2030 statewide target in terms of million metric tons of CO_2E ($MMTCO_2e$). Based on the emissions reductions directed by SB 32, the annual 2030 statewide target emissions level for California is 260 $MMTCO_2e$.

Senate Bill 375

SB 375, known as the Sustainable Communities Strategy and Climate Protection Act, was signed into law in September 2008. SB 375 builds upon AB 32 by requiring CARB to develop regional GHG reduction targets for automobile and light truck sectors for 2020 and 2035. The per-capita GHG emissions reduction targets for passenger vehicles in the San Francisco Bay Area include a seven percent reduction by 2020 and a 15 percent reduction by 2035.

Consistent with the requirements of SB 375, the Metropolitan Transportation Commission (MTC) partnered with the Association of Bay Area Governments (ABAG), BAAQMD, and the Bay Conservation and Development Commission to prepare the region's Sustainable Communities Strategy (SCS) as part of the Regional Transportation Plan process. The SCS is referred to as Plan Bay Area 2040. Plan Bay Area 2040 establishes a course for reducing per-capita GHG emissions through the promotion of compact, high-density, mixed-use neighborhoods near transit, particularly within identified Priority Development Areas (PDAs).

Regional and Local

2017 Clean Air Plan

To protect the climate, the 2017 CAP (prepared by BAAQMD) includes control measures designed to reduce emissions of methane and other super-GHGs that are potent climate pollutants in the near-term, and to decrease emissions of carbon dioxide by reducing fossil fuel combustion.

CEQA Air Quality Guidelines

The BAAQMD CEQA Air Quality Guidelines are intended to serve as a guide for those who prepare or evaluate air quality impact analyses for projects and plans in the San Francisco Bay Area. The jurisdictions in the San Francisco Bay Area Air Basin utilize the thresholds and methodology for assessing GHG impacts developed by BAAQMD within the CEQA Air Quality Guidelines. The guidelines include information on legal requirements, BAAQMD rules, methods of analyzing impacts, and recommended mitigation measures.

4.8.1.3 *Existing Conditions*

Unlike emissions of criteria and toxic air pollutants, which have regional and local impacts, emissions of GHGs have a broader, global impact. Global warming is a process whereby GHGs accumulating in the upper atmosphere contribute to an increase in the temperature of the earth and changes in weather patterns.

Other Implementing Laws and Regulations

There are a number laws that have been adopted as a part of the State of California's efforts to reduce GHG emissions and their contribution to climate change. State laws and regulations related to growth, development, planning and municipal operations in Santa Clara include, but are not limited to:

- California Mandatory Commercial Recycling Law (AB 341)
- California Water Conservation in Landscaping Act of 2006 (AB 1881)
- California Water Conservation Act of 2009 (SBX7-7)
- Various Diesel-Fuel Vehicle Idling regulations in Chapter 13 of the California Code of Regulations
- Building Energy Efficiency Standards (Title 24, Part 6)
- California Green Building Code (Title 24, Part 11)
- Appliance Energy Efficiency Standards (Title 20)

Implementation of the policies in the City's General Plan as a part of the City's development permitting and other programs provides for meeting building standards for energy efficiency, recycling, and water conservation, consistent with the laws and regulations designed to reduce GHG emissions.

Local

City of Santa Clara General Plan

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

Climate Action Plan

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

A key reduction measure that is being undertaken by the City of Santa Clara under the Climate Action Plan is in the *Coal-Free and Large Renewables* focus area. The City of Santa Clara operates Silicon Valley Power (SVP), a publicly owned utility that provides electricity for the community of Santa Clara, including the project site. Data centers constitute a large portion of the electricity used

in the City of Santa Clara; about 28 percent on average. Since nearly half (48 percent) of Santa Clara's GHG emissions result from electricity use, removing GHG-intensive sources of electricity generation (such as coal) is a major focus area in the Climate Action Plan for achieving the City's GHG reduction goals.

CEQA clearance for all discretionary development proposals are required to address the consistency of individual projects with reduction measures in the Climate Action Plan and goals and policies in the General Plan designed to reduce GHG emissions. Compliance with appropriate measures in the Climate Action Plan would ensure an individual project's consistency with an adopted GHG reduction plan.

In December 2018, SVP published an updated Strategic Plan that outlines goals and actions for achieving 2030 GHG emission reductions consistent with the legislation described above. All electricity from SVP has been coal-free since January 2018. SVP's 2018 Integrated Resource Plan lays out needed steps to meet the 50 percent Renewable Portfolio Standard set by SB 32. SVP plans to exceed the 50 percent target.[36]

4.8.1.4 *Existing GHG Emission from the Project Site*

The project site is currently developed with a one-story, 23,765 sf industrial building. The main source of GHG emissions associated with the existing uses on-site is the electricity use of the existing building. Additional emissions also result from vehicle trips associated with the building's daily operations.

4.8.2 Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
1) Generate greenhouse gas (GHG) emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
2) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs?	☐	☐	☒	☐

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

[36] Silicon Valley Power. 2018 Integrated Resource Plan. November 12, 2018. Available at: http://www.siliconvalleypower.com/home/showdocument?id=62481.

Per the CEQA Guidelines, a lead agency may analyze and mitigate significant GHG emissions in a plan for the reduction of GHG emissions that has been adopted in a public process following environmental review. The City of Santa Clara adopted its Climate Action Plan (a GHG reduction strategy) in 2013 in conformance with its most recent General Plan Update. The City's projected emissions and the Climate Action Plan are consistent with measures necessary to meet statewide 2020 goals established by AB 32 and addressed in the Climate Change Scoping Plan. For projects that would be operational by the end of 2020, the threshold of significance for whether a development project in the City of Santa Clara would generate GHG emissions that would have a significant impact on the environment therefore would be whether or not the project conforms to the applicable reduction measures in the City's Climate Action Plan. Because the project would not become operational prior to the end of 2020, consistency with the CAP cannot be used to determine significance under CEQA. The project, however, would still be required to be consistent with the requirements of the CAP, and implementation of required Climate Action Plan measures would reduce GHG emissions from the project.

Impact GHG-1:	The project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment. (**Less Than Significant Impact)**

Overview of GHG Emissions

GHG emissions from the proposed project would consist of emissions from vehicle trips to and from the building and emissions related to the generation of electricity used in the data center building. Data centers are an energy-intensive land use, requiring more electricity than other types of development. The primary function of the data center is to house computer servers, which require electricity and cooling 24 hours a day to operate.

Silicon Valley Power Electricity Generation

Electricity for the data center facility is provided by SVP, which is the public electric utility of the City of Santa Clara. Santa Clara currently has ownership interest, or has purchase agreements for 1,079.15 megawatts (MW) of electricity.[37] In 2017, approximately 38 percent of that generation is eligible as renewable (as defined by the California Energy Commission) and an additional 34 percent is otherwise a non-GHG emitting resource (i.e. large-hydroelectric).[38] This capacity far exceeds City of Santa Clara's current peak electricity demand of approximately 526.2 MW. No new generation peak capacity is necessary to meet the capacity requirements of new construction, or redeveloped facilities within the City to meet the near or projected future demand.

The City of Santa Clara follows the State's preferred loading order in procuring new energy resources. First, the current load (customer) is encouraged to participate in energy efficiency programs to reduce their usage, thus freeing up existing resources (and any related emissions) for the new load (electricity demand). In addition, the City of Santa Clara encourages the use of renewable resources and clean distributed generation, and has seen a significant increase in its applications for

[37] Silicon Valley Power, City of Santa Clara. The Silicon Valley Power Resources Map. Accessed: June 21, 2019. Available at: http://www.siliconvalleypower.com/home/showdocument?id=5763.
[38] Silicon Valley Power. "Power Content Label". Accessed: June 21, 2019. Available at: http://siliconvalleypower.com/svp-and-community/about-svp/power-content-label

large and small rooftop photovoltaics (PV). Demand displaced by customer-based renewable projects is also available to meet new load requests.

The City of Santa Clara seeks to meet its Renewable Portfolio Standard (RPS) through the addition of new renewable resources. In order to meet anticipated increases in energy needs (as separate from peak generation capacity requirements) the City of Santa Clara has contracted for additional wind energy including the Big Horn II Wind Project that would provide the City of Santa Clara up to an additional 17.5 MW of GHG-emission-free electricity.

SVP has a lower emission rate than the statewide California power mix because it utilizes a much higher portion of renewable sources. A comparison of SVP's and the statewide power mix is shown in Table 4.8-1.

Table 4.8-1: Comparison of SVP And Statewide Power Mix

Energy Resources	2017 SVP Power Mix	2017 CA Power Mix (For Comparison)
Eligible Renewables (Biomass & Waste, Geothermal, Eligible Hydro, Solar, Wind)	38%	29%
Coal	9%	4%
Large Hydro	34%	15%
Natural Gas	16%	34%
Nuclear	0%	9%
Other	0%	<1%
Unspecified Source of Power (Not Traceable to Specific Sources)	3%	9%
Total	100.0%	100.0%

It is important to note that SVP's carbon intensity factor for electricity generation would continue to change as SVP's power mix continues to reduce the percentage of electricity produced by coal-fired power plants and increase the use of renewable resources. As noted above, electricity from SVP has been coal-free since January 2018, and SVP has committed to increase large renewables power generation as a part of the City's Climate Action Plan.

Proposed Efficiency Measures

Overview: Power Usage Effectiveness During Operation

Power Usage Effectiveness, or PUE, is a metric used to compare the efficiency of facilities that house computer servers. PUE is defined as the ratio of total facility energy use to Information Technology (IT) (i.e., server) power draw (e.g., PUE = Total Facility Source Energy/ IT Source Energy). For example a PUE of two (2), means that the data center or laboratory must draw two (2) watts of electricity for every one (1) watt of power consumed by the IT/server equipment. It is equal to the total energy consumption of a data center (for all fuels) divided by the energy consumption used for the IT equipment. The ideal PUE is one (1) where all power drawn by the facility goes to the IT infrastructure. The average annual PUE for the project would be 1.2, which is considered

efficient. Based on industry surveys, the average PUE for data centers is 1.67, although newly constructed data centers typically have PUEs ranging from 1.1 to 1.4.[39]

Energy and Water Use Efficiency Measures in Building Design

Due to the heat generated by the data center equipment, cooling is one of the main uses of electricity in data center operations. In order to reduce GHG emissions and reduce the use of energy related to building operations, the project proposes to implement the following efficiency measures:

- Evaporative cooling instead of mechanical cooling for IT and electrical rooms.
- Daylight penetration to common areas.
- Reflective roof surface.
- Meet or exceed Title 24 requirements.
- Clean air vehicle parking.
- Low flow plumbing fixtures.
- Landscaping would meet City of Santa Clara requirements for low water use.

Construction-Related Emissions

GHG emissions associated with construction were computed to be 289 MT of CO_2e for the total construction period. These are the emissions from on-site operation of construction equipment, vendor and hauling truck trips, and worker trips. Neither the City of Santa Clara nor BAAQMD have a threshold for construction emissions. These emissions would be temporary in nature and would be less than the indirect emissions associated with operation of the proposed uses. Construction emissions would occur during building construction, trenching and minor paving and landscape installation.

As a Best Management Practice (BMP), the project would participate in the City's Construction and Demolition Debris Recycling Program by recycling or diverting at least 50 percent of materials generated for discards by the project in order to reduce the amount of demolition and construction waste going to the landfill.

Data Center Operational Emissions

SVP's carbon intensity factor for was determined to be 341 pounds of CO2e per MWh in 2019, and projected to be 271 pounds of CO2e per MWh in 2021.[40] SVP's carbon intensity factor for electricity generation will continue to change as SVP's power mix continues to reduce the percentage of electricity produced by coal-fired power plants and increase the use of renewable resources. As noted above, the City and SVP have committed to be coal-free and increased large renewables power generation as a part of the City's CAP.

Project Electricity Usage. Data centers are an energy-intensive land use, requiring more electricity than other types of development. The primary function of the data center is to house computer

[39] Uptime Institute. Annual Data Center Survey Results - 2019. Available at: https://datacenter.com/wp-content/uploads/2019/06/data-center-survey-2019.pdf
[40] Kathleen Hughes, City of Santa Clara. Personal Communication. February 6, 2019.

servers, which require electricity and cooling 24 hours a day to operate. On an annual basis, the data center would consume up to the maximum electrical usage of 89,352 MWh per year. The project's annual GHG emissions related to electricity use would be about 43.5 percent less per year by using SVP's power mix than if the California statewide average power mix was used.

Generator Emissions from Routine Testing

The consumption of diesel fuel to test the backup generators would result in direct CO_2 emissions. On an annual basis, the project's total operational emissions related to emergency backup generator maintenance and testing use would be approximately 522 metric tons of CO_2e per year.

Project Mobile Emission Sources. Using standard trip generation rates for data centers published by the Institute of Transportation Engineers (ITE, Land Use Code 160), the project could generate up to 120 daily vehicle trips. This represents a conservative estimate as it does not account for the elimination of existing vehicle trips associated with the project site.

Project Water Consumption and Waste Generation. Water consumption results in indirect emissions from electricity usage for water conveyance and wastewater treatment. The project would generate a water demand of approximately 812,000 gallons of water per year.

Total GHG emissions generated by the project are summarized in Table 4.8-2.

Table 4.8-2: GHG Emissions

Source	Annual Emissions (Metric Tons of CO_2e)
Energy Use[1]	9,596
Generator Testing/Maintenance	522
Mobile Sources[2]	128
Water Use	1
Waste Generation	76
Total	**10,323**

Notes:
[1] Based on projected 2021 SVP carbon intensity factor of 271 pounds of CO_2e per MWh.
[2] Based on ITE trip rates for Data Center (Land Use Code 160) applied to a 121,170 square foot data center with default CalEEMod mobile emission factors for General Light Industrial land uses.

As shown in Table 4.8-2, the primary source of GHG emissions from the project is electricity use. As described above, electricity to the project would be provided by SVP, a utility that is on track to meet the 2030 GHG emissions reductions target established by SB 32. To reduce GHG emissions and the use of energy related to building operations, the project includes a variety of energy efficiency measures, as described above. The project would comply with all applicable City and state green building measures, including Title 24, Part 6, California Energy Code baseline standard requirements for energy efficiency, based on the 2019 Energy Efficiency Standards requirements, and the 2019 California Green Building Standards Code, commonly referred to as CALGreen (California Code of Regulations, Part 11). Because the project would receive electricity from a utility on track to meet the SB 32 2030 GHG emission reduction target, would result in lower emissions (43.5 percent) than the statewide average for an equivalent facility due to SVP's power mix, would include energy efficiency measures to reduce emissions to the extent feasible, and would be consistent with applicable plans and policies adopted to reduce GHG emissions, the project would

not generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment. **(Less Than Significant Impact)**

Impact GHG-2:	The project would not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs. **(Less Than Significant Impact)**

Santa Clara Climate Action Plan

As described previously, the *City of Santa Clara Climate Action Plan* was adopted in December 2013. The Climate Action Plan, which is part of the City's General Plan, identifies a series of GHG emissions reduction measures to be implemented by development projects that would allow the City to achieve its GHG reduction goals. The measures center around seven focus areas: coal-free and large renewables, energy efficiency, water conservation, waste reduction, off-road equipment, transportation and land use, and urban heat island effect.

The Climate Action Plan includes measures applicable to City government, existing development and new development projects in Santa Clara. The project's conformance with applicable reduction measures for new development in the CAP are discussed below.

Energy Efficiency Measures

Measure 2.3 Data Centers calls for completion of a feasibility study of energy efficient practices for new data center projects with an average rack power rating[41] of 15 kilowatts or more to achieve a power usage effectiveness (PUE) of 1.2 or lower. The average rack power rating of the proposed data center would be eight kW. The PUE of the proposed data center would be 1.2, which meets the goal of Measure 2.3.

Water Conservation Measures

Measure 3.1 Water Conservation calls for a reduction in per capita water use to meet Urban Water Management targets by 2020. Development standards for water conservation would be applied to increase efficiency in indoor and outdoor water use areas. Water conservation measures include the use of:

- recycled or non-potable graywater for landscape irrigation;
- water efficient landscaping with low water usage plant material to minimize irrigation requirements; and
- ultra-low flow toilets and plumbing fixtures in the building.

[41] Average rack power rating is a measure of the power available for use on a rack used to store computer servers. The higher the value of kilowatts, the greater power density per rack and generally more energy use per square foot of building area in a data center.

Waste Reduction Measures

Measure 4.2 Increased Waste Diversion calls for an increase in solid waste diversion rate through recycling efforts, curbside food waste pickup, and construction and demolition waste programs. The project would divert construction and demolition waste during project construction to help the City reach its 80 percent waste diversion rate.

Off-Road Equipment

Measure 5.2 Alternative Construction Fuels requires construction projects to comply with BAAQMD best management practices, including alternative-fueled vehicles and equipment. The project would adopt BAAQMD best management practices, as described in *Section 4.3 Air Quality.*

Transportation and Land Use

Measure 6.1 Transportation Demand Management Program requires new development located in the City's transportation districts to implement a transportation demand program (TDM) to reduce drive-alone trips. The project site is located within Transportation District 1 – North of Caltrain. Based on Table 9: Minimum Vehicle Miles Traveled Reduction Requirements by Transportation District and Land Use Designation of the Climate Action Plan, the project would be required to have a 25 percent vehicle miles traveled (VMT) reduction, with 10 percent coming from TDM measures. The project would be required to comply with General Plan Policy 5.8.5-P1, which requires new development to implement TDM programs that can include site-design measures, including preferred carpool and vanpool parking, enhanced pedestrian access, bicycle storage and recreational facilities.

Applicable General Plan Policies

In addition to the reduction measures in the Climate Action Plan, the City of Santa Clara General Plan has goals and policies to address sustainability (see Appendix 8.13: Sustainability Goals and Policies Matrix in the General Plan) aimed at reducing the City's contribution to GHG emissions. For the proposed project, implementation of policies that increase energy efficiency or reduce energy use would effectively reduce indirect GHG emissions associated with energy generation. The consistency of the proposed project with the Land Use, Air Quality, Energy, and Water Policies of the General Plan is described in Table 4.8-3.

Bay Area 2017 Clean Air Plan

The Bay Area 2017 Clean Air Plan includes performance objectives, consistent with the State's climate protection goals under AB 32, SB 375, and SB 32, designed to reduce emissions of GHG emissions to 1990 levels by 2020 and 40 percent below 1990 levels by 2030. The 2017 Clean Air Plan identifies a range of control measures that make up the Clean Air Plan's control strategy for emissions, including GHGs.

Due to the relatively high electrical demand of the data center uses on the site, energy efficiency measures have been included in the design and operation of the electrical and mechanical systems on the site. This is in keeping with the general purpose of Energy Sector Control Measures in the Clean Air Plan.

Plan One Bay Area/ California Senate Bill 375 –
Redesigning Communities to Reduce Greenhouse Gases

Under the requirements of SB 375, the Metropolitan Planning Organizations (MPO) in partnership with ABAG have developed a Sustainable Community Strategy with the adopted *Plan One Bay Area* to achieve the Bay Area's regional GHG reduction target. Targets for the MTC in the San Francisco Bay Area, originally adopted in September 2010 by CARB, include a seven (7) percent reduction in GHG per capita from passenger vehicles by 2020 compared to emissions in 2005. The adopted target for 2035 is a 15 percent reduction per capita from passenger vehicles when compared to emissions in 2005. The emission reduction targets are for those associated with land use and transportation strategies only.

The project has a low concentration of employment and would not contribute to a substantial increase in passenger vehicle travel within the region.

Table 4.8-3: General Plan Sustainability Policies

Emission Reduction Policies	Project Consistency
Air Quality Policies	
5.10.2-P3 Encourage implementation of technological advances that minimize public health hazards and reduce the generation of air pollutants.	The project proposes to use emergency generators with advanced air pollution controls. The generator testing schedule includes measures to reduce local air quality impacts.
5.10.2-P4 Encourage measures to reduce GHG emissions to reach 30 percent below 1990 levels by 2020.	Water conservation and energy efficiency measures included in the project would reduce GHG emissions associated with the generation of electricity
Energy Policies	
5.10.3-P1 Promote the use of renewable energy resources, conservation and recycling programs.	The project would divert at least 50 percent of construction waste.
5.10.3-P4 Encourage new development to incorporate sustainable building design, site planning and construction, including encouraging solar opportunities.	The project would utilize lighting control to reduce energy usage for new exterior lighting and air economization for building cooling. Water efficient landscaping and ultra-low flow plumbing fixtures in the building would be installed to limit water consumption.
5.10.3-P5 Reduce energy consumption through sustainable construction practices, materials and recycling.	

Table 4.8-3: General Plan Sustainability Policies	
Emission Reduction Policies	**Project Consistency**
5.10.3-P6 Promote sustainable buildings and land planning for all new development, including programs that reduce energy and water consumption in new development.	
5.10.3-P8 Provide incentives for LEED certified, or equivalent development.	
Water Policies	
5.10.4-P7 Require installation of native and low-water consumption plant species with landscaping new development and public spaces to reduce water usage.	The project would use water efficient landscaping with low water usage plant material to minimize irrigation requirements.

Applicable State Climate Change Strategies and Policies

In 2008, the Governor of California issued Executive Order S-13-08 that specifically asked the Natural Resources Agency to identify how State agencies can respond to rising temperatures, changing precipitation patterns, sea level rise, and extreme natural events. The 2009 *California Climate Adaptation Strategy* was developed in response to the executive order. Adaptation to projected sea level rise is addressed in *Section 4.9 Hydrology and Water Quality.*

The CARB-approved *Climate Change Scoping Plan* outlines a comprehensive set of actions intended to reduce overall GHG emissions in California, improve the environment, reduce dependence on oil, diversify California's energy sources, save energy, create new jobs, and enhance public health. Actions associated with energy efficiency standards and renewables portfolio standards are measures that would most greatly influence GHG emissions of the project over time.

The project would be generally consistent with the Climate Change Scoping Plan, as updated, and appropriate GHG Control Measures in the Bay Area 2017 Clean Air Plan (as discussed above). As discussed above, the project would not conflict with plans, policies or regulations adopted for the purpose of reducing the emissions of GHG. Therefore, the project would not conflict with any currently adopted local plans, policies, or regulations pertaining to GHG emissions and would not generate GHG emissions that would have a significant impact on the environment. **(Less than Significant Impact)**

4.9 HAZARDS AND HAZARDOUS MATERIALS

The discussion in this section is based in part upon a Phase I Environmental Site Assessment prepared for the project by Partner Engineering and Science, Inc. in September 2018. A copy of this report is included in Appendix D of this IS.

4.9.1 Environmental Setting

4.9.1.1 *Regulatory Framework*

Overview

The storage, use, generation, transport, and disposal of hazardous materials and waste are highly regulated under federal and state laws. Federal regulations and policies related to development include the Comprehensive Environmental Response, Compensation, and Liability Act, commonly known as Superfund, and the Resource Conservation and Recovery Act. In California, the EPA has granted most enforcement authority over federal hazardous materials regulations to the California Environmental Protection Agency (CalEPA). In turn, local agencies have been granted responsibility for implementation and enforcement of many hazardous materials regulations under the Certified Unified Program Agency (CUPA) program.

Worker health and safety and public safety are key issues when dealing with hazardous materials. Proper handling and disposal of hazardous material is vital if it is disturbed during project construction. Cal/OSHA enforces state worker health and safety regulations related to construction activities. Regulations include exposure limits, requirements for protective clothing, and training requirements to prevent exposure to hazardous materials. Cal/OSHA also enforces occupational health and safety regulations specific to lead and asbestos investigations and abatement.

Federal and State

Federal Aviation Regulations Part 77

Federal Aviation Regulations, Part 77 Objects Affecting Navigable Airspace (FAR Part 77) sets forth standards and review requirements for protecting the airspace for safe aircraft operation, particularly by restricting the height of potential structures and minimizing other potential hazards (such as reflective surfaces, flashing lights, and electronic interference) to aircraft in flight. These regulations require that the Federal Aviation Administration (FAA) be notified of certain proposed construction projects located within an extended zone defined by an imaginary slope radiating outward for several miles from an airport's runways, or which would otherwise stand at least 200 feet in height above the ground.

Government Code Section 65962.5

Section 65962.5 of the Government Code requires CalEPA to develop and update a list of hazardous waste and substances sites, known as the Cortese List. The Cortese List is used by state and local agencies and developers to comply with CEQA requirements. The Cortese List includes hazardous substance release sites identified by the Department of Toxic Substances Control (DTSC), State

Water Resources Control Board (SWRCB), and Santa Clara County. The project site is not on the Cortese List.[42]

California Accidental Release Prevention Program

The California Accidental Release Prevention (CalARP) Program aims to prevent accidental releases of regulated hazardous materials that represent a potential hazard beyond the boundaries of property. Facilities that are required to participate in the CalARP program use or store specified quantities of toxic and flammable substances (hazardous materials) that can have off-site consequences if accidentally released. The City of Santa Clara Fire Department reviews CalARP risk management plans as the Certified Unified Program Agency (CUPA).

Asbestos-Containing Materials

Friable asbestos is any asbestos containing material (ACM) that, when dry, can easily be crumbled or pulverized to a powder by hand, allowing the asbestos particles to become airborne. Common examples of products that have been found to contain friable asbestos include acoustical ceilings, plaster, wallboard, and thermal insulation for water heaters and pipes. Common examples of non-friable ACMs are asphalt roofing shingles, vinyl floor tiles, and transite siding made with cement. The EPA phased out use of friable asbestos products between 1973 and 1978. National Emission Standards for Hazardous Air Pollutants guidelines require that potentially friable ACMs be removed prior to building demolition or remodeling that may disturb the ACMs.

CCR Title 8, Section 1532.1

The United States Consumer Product Safety Commission banned the use of lead-based paint in 1978. Removal of older structures with lead-based paint is subject to requirements outlined by Cal/OSHA Lead in Construction Standard, CCR Title 8, Section 1532.1 during demolition activities. Requirements include employee training, employee air monitoring, and dust control. If lead-based paint is peeling, flaking, or blistered, it is required to be removed prior to demolition.

Regional and Local

Municipal Regional Permit Provision C.12.f

Polychlorinated biphenyls (PCBs) were produced in the United States between 1955 and 1978 and used in hundreds of industrial and commercial applications, including building and structure materials such as plasticizers, paints, sealants, caulk, and wood floor finishes. In 1979, the EPA banned the production and use of PCBs due to their potential harmful health effects and persistence in the environment. PCBs can still be released to the environment today during demolition of buildings that contain legacy caulks, sealants, or other PCB-containing materials.

With the adoption of the San Francisco Bay Region Municipal Regional Stormwater National Pollutant Discharge Elimination System (NPDES) Permit (MRP) by the San Francisco Bay Regional Water Quality Control Board on November 19, 2015, Provision C.12.f requires that permittees develop an assessment protocol methodology for managing materials with PCBs in applicable

[42] CalEPA. "Cortese List Data Resources." Accessed October 22, 2019. https://calepa.ca.gov/sitecleanup/corteselist.

structures planned for demolition to ensure PCBs do not enter municipal storm drain systems.[43] Municipalities throughout the Bay Area are currently modifying demolition permit processes and implementing PCB screening protocols to comply with Provision C.12.f. As of July 1, 2019, buildings constructed between 1955 and 1978 that are proposed for demolition must be screened for the presence of PCBs prior to the issuance of a demolition permit.

Norman Y. Mineta San José International Airport Comprehensive Land Use Plan

The project site is located approximately 0.6 miles northwest of the San José International Airport, and is located within the Airport Influence Area (AIA) defined by the Santa Clara County Airport Land Use Commission's Comprehensive Land Use Plan (CLUP) for the San José International Airport.

Federal Aviation Administration Regulations

Federal Aviation Regulations, Part 77, "Objects Affecting Navigable Airspace" (FAR Part 77) sets forth standards and review requirements for protecting the airspace for safe aircraft operation, particularly by restricting the height of potential structures and minimizing other potential hazards (such as reflective surfaces, flashing lights, and electronic interference) to aircraft in flight. These regulations require that the FAA be notified of certain proposed construction projects located within an extended zone defined by an imaginary slope radiating outward for several miles from an airport's runways.

Santa Clara Emergency Operations Plan

In June 2016, the City of Santa Clara adopted an Emergency Operations Plan (EOP) to address the planned response of the City of Santa Clara to emergency situations associated with natural disasters and technological incidents, as well as chemical, biological, radiological, nuclear and explosive emergencies. The EOP establishes the emergency organization, assign tasks, specifies policies and general procedures, and provides for coordination of planning efforts for emergency events such as earthquake, flooding, dam failure, and hazardous materials responses.

4.9.1.2 *Existing Conditions*

Project Site

The approximately 1.38-acre project site is approximately 35 feet above mean sea level (amsl) with a topographic gradient sloping north. Groundwater in the project area flows in the northeast direction. Based on groundwater monitoring activities, groundwater has been encountered at the site at approximately eight feet below ground surface. Fluctuations in groundwater levels may occur seasonally and over a period of years due to precipitation, temperature and irrigation.

The site is currently developed with a one-story, 23,765 sf industrial building and paved surface parking lot. The property is currently occupied by Qual Tech Circuits, Inc (1101 Comstock Street) and Light Streams (1111 Comstock Street) for industrial use. Qual Tech Circuits, Inc. occupies the east portion of the building and operates as a circuit board manufacturing facility. The unit consists

[43] California Regional Water Quality Control Board. *San Francisco Bay Region Municipal Regional Stormwater NPDES Permit.* November 2015.

of an office area, planting area, oven room, photo processing room, developer/screening room, laminating room, and etching room. Onsite operations include electroplating and anodizing of circuit boards, laser and manual etching, backup diesel generator maintenance, building maintenance, wastewater treatment system operations and photo processing. Light Streams occupies the west side of the building and operates as a ceramic manufacturing facility. The unit consists of an office area, kiln area, and warehouse storage area. Onsite operations include typical office activities, building maintenance activities, ceramic storage, cutting, and kiln-firing activities.

Due to the age of the current facility, there is a potential that asbestos-containing material (ACM) and/or lead-based paint (LBP) are present.

Surrounding Properties

The immediately surrounding properties consist of an industrial building occupied by Digital Reality (1100 Space Park Drive) to the north; Comstock Street and Central Expressway to the south, beyond which is a multi-building industrial complex occupied by Owens Corning (960 Central Expressway); a one-story industrial building occupied by Trescal (1152 Comstock Street) to the east; and a two-story industrial building occupied by Digital Reality (1201 Comstock Street) to the west.

4.9.1.3 *Historic Conditions*

As part of the Phase I ESA, a land use history of the site and surrounding uses was complied.

Project Site

The project site was developed with agricultural land between 1899 and 1939. Between 1950 and 1956 the site was developed with approximately six structures, likely agricultural in use. The site was redeveloped with the current structure in 1974.

On-Site Contamination Sources

A review of environmental databases and records managed by federal, state and local agencies was completed for the project site and surrounding properties. The review was completed as part of the Phase I ESA to identify hazardous materials or chemical concerns on the site and surrounding properties. The project site's listings are summarized in Table 4.9-1.

Table 4.9-1: Project Site Listings on Regulatory Databases

Database Listing	Site Description	Potential Impact
Waste Discharge System (WDS), Resource Conservation and Recovery Act- Large Quantity Generator (RCRA-LQG), California Environmental Reporting System Hazardous Waste (CERS Haz Waste) and California Environmental Reporting System Hazardous	The subject property, identified as Qual Tech, Inc. at 1101 Comstock Street, is listed under the RCRALQG database as manifesting arsenic, chromium, lead, aqueous solution with metals, other inorganic solid waste, spent cyanide plating bath solutions, and wastewater	Based on onsite observations and extended time period that this tenant has operated as a circuit board manufacturing business, this listing is not expected to represent a significant concern at this time.

Table 4.9-1: Project Site Listings on Regulatory Databases		
Database Listing	**Site Description**	**Potential Impact**
Waste (CERS Haz Waste) and California Environmental Reporting System (CERS)	treatment sludge from 2006 to 2015 (CAL EPA I.D # CAR000450022). In addition, the subject property is listed as operating an active waste discharge system. Only minor administrative violations are listed within the CERS and CERS Hazwaste databases.	
RCRA-LQG	The subject property, identified as Quick Turn Circuit Link at 1101 Comstock Street, is listed under the RCRA – LQG database as manifesting unspecified hazardous materials in 2002 (CAL EPA I.D #CAR000945922). Based on onsite observations this facility appears to be no longer active.	Based on the inactive status of the business and lack of documented releases within the local regulatory agency records review, this listing is not expected to represent a significant environmental concern.
Resource Conservation and Recovery Act – Small Quantity Generator (RCRA-SQA), Facilty Index System (FINDS), and Enforcement Compliance History Online (ECHO)	The subject property, identified as Advance Circuits, Inc. at 1111 Comstock Street, is listed under the RCRA – SQG database as manifesting unspecified hazardous materials in 1996 (CAL EPA I.D #CAD098537004). In addition, this site is listed as a historic RCRA – LQG in 1980. No pertinent information on the subject property is available within the FINDS or ECHO databases.	Based on subsequent subsurface investigations conducted on the subject property and facility closure this listing is not expected to represent a significant environmental concern.

Off-Site Contamination Sources

An EDR search performed in the 2018 Phase I Environmental Site Assessment identified neighboring properties with the potential to affect the project site from previous environmental contamination or hazardous material storage. Of the three sites identified, only one is located upgradient of the subject property. The three sites that have the potential to affect the project site include:

- 1201 Comstock Partners (1201 Comstock Street) – listed as utilizing an unspecified number of above ground petroleum tanks. Only minor administrative violations were reported on the CERS Tank, CERS, and CERS Hazmat databases. No unauthorized releases or spills are reported on the EDR, the Regional Water Quality Control Board's GeoTracker website, or

the Department of Toxic Substance Control's EnviroStar website. The property is unlikely to pose an environmental concern to the project site.

- LLC and TATA Communications (1100 Space Park Drive) – listed as manifesting liquids with halogenated organic compounds less than or equal to 1,000 mg/L in 2014 (CAL EPA #: CAD059494310). The site is listed as an emitter of total organic hydrocarbon gases, reactive organic gases, carbon monoxide, oxides of nitrogen, oxides of Sulphur, and particulate matter from 2005 to 2016. The site is listed as utilizing an unspecified number of aboveground storage tanks and underground storage tanks on site. Only minor administrative violations were reported on the CERS Tank, CERS, and CERS Hazmat databases. No unauthorized releases or spills are reported on EDR, the Regional Water Quality Control Board's GeoTracker website, or the Department of Toxic Substance Control's (DTSC) EnviroStor website. Based on the perceived hydraulic gradient (down), regulatory oversight and lack of documented releases, the property is unlikely to pose an environmental concern to the project site.

- Owens Corning (960 Central Expressway) – listed as RCRA-SQG of degreasing sludge, ignitable hazardous waste, barium, cadmium, chromium, lead, mercury, silver, methyl ethyl ketone, spent halogenated solvents, corrosive waste, waste oil and mixed oil, unspecified oil containing waste, aqueous solution with total organic residues less than 10 percent, oxygenated solvents, other organic solids, other inorganic solid waste, and hydrocarbon solvents from 1993 to 2016 (CAL EPA I.D # CAD009452657). The site is listed as an emitter of total organic hydrocarbon gases, reactive organic gases, carbon monoxide emissions, oxides of nitrogen, oxides of Sulphur, and particulate matter from 1987 to 2016. This site is listed as an active industrial waste discharge facility. This site is listed as utilizing a 20,000-gallon AST containing unspecified materials. This site is listed under the historic UST database as utilizing a 4,000-gallon gasoline UST installed in 1980 and a 2,000-gallon UST installed in 1980 and containing unspecified hazardous materials. The site is listed as a "case closed" LUST cleanup site. The site is listed as an "open assessment" SLIC cleanup site. Groundwater sampling was conduced on site until 2012. The most recent groundwater data shows that concentrations of trichloroethene, tetrachloroethene, cis-1,2-Dichloroethen (cis-1,2-DCE), and vinyl chloride still exist onsite and exceed their environmental screening levels. Historical groundwater records reportedly show that the wells still containing concentrations that exceed their respective ESLs have stabilized and are not increasing, and that VOC plume is not migrating off the property. Based on the analytical data, regulatory oversight, and projected contamination plume, the SLIC cleanup site is unlikely to pose an environmental concern to the project site.

4.9.1.4 *Other Hazards*

Airport

The project site is located approximately 0.6 miles northwest of the San José Norman Y. Mineta International Airport. The project site is located within the Airport Influence Area (AIA) defined by the Santa Clara County Airport Land Use Commission's Comprehensive Land Use Plan (CLUP) for the San José International Airport. Development within the AIA can be subject to hazards from aircraft and also pose hazards to aircraft travelling to and from the airport. The AIA is a composite

of areas surrounding the airport that are affected by noise, height and safety considerations. These hazards are addressed in Federal and State regulations as well as in land use regulations and policies in the CLUP. The most recent CLUP for the Airport was adopted in 2011 and updated in 2016.

As described previously, Federal Aviation Regulations, Part 77, "Objects Affecting Navigable Airspace" (referred to as FAR Part 77), requires that the Federal Aviation Administration (FAA) be notified of certain proposed construction projects located within an extended zone defined by an imaginary slope radiating outward for several miles from an airport's runways, or which would otherwise stand at least 200 feet in height above ground. The San José Airport released a contour map which includes height restrictions for new developments that could be a hazard to aircraft safety and would require FAA notification under FAR Part 77. For the project site, any structure exceeding 30 feet in height above grade would require submittal to the FAA for airspace safety review.[44] The proposed building would be approximately 80 feet in height, with parapets extending to a height of 87.5 feet and a metal roof screen extending to a height of 98 feet to shield mechanical equipment. As a result, notification to the FAA is required to determine the potential for the project to create an aviation hazard.

The project site is within Airport Safety Zones Traffic Pattern Zone (TPZ). The TPZ does not limit population density, but does require that at least 10 percent of the gross area be devoted to open space. In addition, sports stadiums and similar uses with very high concentrations of people (greater than 20,000) are prohibited.

The project site is not located in the vicinity of a private airstrip.

Wildfire Hazards

The project site is located in an urbanized area of Santa Clara. According to the California Department of Forestry and Fire Protection (CAL FIRE), the project site is not located within a moderate, high, or very high fire hazard severity zone.[45]

[44] Norman Y. Mineta San José International Airport. "Notice Requirement Criteria for Filing FAA Form 7460-1". September 2013.
[45] CAL FIRE. "Draft Fire Hazard Severity Zones." Accessed October 29, 2019. http://frap.fire.ca.gov/webdata/maps/statewide/fhszl06_1_map.jpg.

4.9.2 Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
1) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
2) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
3) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
4) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, will it create a significant hazard to the public or the environment?	☐	☐	☐	☒
5) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☒	☐
6) Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
7) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☐	☒

Impact HAZ-1: The project would not create a significant hazard to the public or the environment through routine transport, use, or disposal of hazardous materials. **(Less than Significant Impact)**

Fuel for the generators would be stored in two 30,000-gallon underground storage tanks which would feed individual 160-gallon daytanks located adjacent to each generator. The tanks would be double-walled and have leak detection systems. Some oils and lubricants could be stored on-site for maintenance of mechanical equipment in the equipment yards.

Hazardous materials storage at the proposed data center would be regulated under local, state and federal regulations. A Hazardous Materials Business Plan would be completed for the safe storage and use of chemicals.

Conformance with relevant laws and regulations would minimize the likelihood of hazardous material releases from the proposed fuel storage tanks and the use or storage of diesel fuel, oils and lubricants by the project would not create a significant impact on the environment. **(Less Than Significant Impact)**

Impact HAZ-2:	The project would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. **(Less than Significant Impact)**

Project Operation Impacts

As described previously, fuel for the generators would be stored in two 30,000-gallon underground storage tanks which would feed individual 160-gallon daytanks located adjacent to each generator. The tanks would be double-walled and have leak detection systems. Some oils and lubricants could be stored on-site for maintenance of mechanical equipment in the equipment yards.

Hazardous materials storage at the proposed data center would be regulated under local, state and federal regulations. A Hazardous Materials Business Plan would be completed for the safe storage and use of chemicals.

Conformance with relevant laws and regulations would minimize the likelihood of hazardous material releases from the proposed fuel storage tanks and the use or storage of diesel fuel, oils and lubricants by the project would not create a significant impact on the environment. **(Less Than Significant Impact)**

Project Construction Impacts

Asbestos and Lead Based Paint

Due to the age of the existing building on site (pre-1980 construction), asbestos-containing materials (ACMs) and lead-based paint may be present.

Demolition of the existing building on the project site could expose construction workers or residents in the vicinity of the project site to harmful levels of ACMs or lead. The project is required to conform to the following regulatory programs and to implement the following measures to reduce impacts to the presence of ACMs and/or lead-based paint:

- In conformance with State and local laws, a visual inspection/pre-demolition survey, and possible sampling, shall be conducted prior to the demolition of on-site buildings to determine the presence of asbestos-containing materials and/or lead-based paint.
- Prior to demolition activities, all building materials containing lead-based paint shall be removed in accordance with Cal/OSHA Lead in Construction Standard, Title 8, California

Code of Regulations (CCR) 1523.1, including employee training, employee air monitoring, and dust control. Any debris or soil containing lead-based paint or coatings would be disposed of at landfills that meet acceptance criteria for the waste being disposed.

- All potentially friable ACMs shall be removed in accordance with NESGAP guidelines prior to any building demolition or renovation that may disturb the materials. All demolition activities will be undertaken in accordance with Cal/OSHA standards contained in Title 8 of CCR, Section 1529, to protect workers from exposure to asbestos.
- A registered asbestos abatement contractor shall be retained to remove and dispose of ACMs identified in the asbestos survey performed for the site in accordance with the standards stated above.
- Materials containing more than one percent asbestos are also subject to Bay Area Air Quality Management District (BAAQMD) regulations. Removal of materials containing more than one percent asbestos shall be completed in accordance with BAAQMD requirements.

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

Impacts of Off-Site Facilities on the Project

Nearby sites identified on the California Geotracker database, as described in *Section 4.9.1.2* above, have all received a "Case Closure" status or are identified as not posing an environmental concern to the project site.

Impact HAZ-3:	The project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. **(Less than Significant Impact)**

The nearest school to the project site is Granada Islamic School (3003 Scott Boulevard), approximately 0.33 miles northwest of the site. The project site is not within one-quarter mile of an existing or proposed school. The project would not routinely generate hazardous air emissions nor would it handle acutely hazardous materials or hazardous waste and therefore, would not impact schools within the project area. **(Less Than Significant Impact)**

Impact HAZ-4:	The project would not 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, create a significant hazard to the public or the environment. **(No Impact)**

The project is not included on a list of hazardous materials sites pursuant to Government Code Section 65962.5.[46]

[46] CalEPA. *Cortese List Data Resources*. Accessed October 28, 2019. https://calepa.ca.gov/sitecleanup/corteselist.

Impact HAZ-5:	The project would be located within an airport land use plan. However, the project would not result in a safety hazard or excessive noise for people residing or working in the project area. **(Less than Significant Impact)**

The proposed project site is located approximately 0.6 miles northwest of the San José Norman Y. Mineta International Airport. Aircraft noise levels at the project site are discussed in Section 4.13 *Noise and Vibration* of this Initial Study.

As described previously, the project site is located within Airport Safety Zones Traffic Pattern Zone (TPZ). The TPZ does not limit population density, but does require that at least 10 percent of the gross area be devoted to open space. More than 10 percent of the site would be free of buildings and other obstructions. Therefore, the project would comply with TPZ requirements.

As described previously, FAR Part 77 requires that the FAA be notified of certain proposed construction projects located within an extended zone defined by an imaginary slope radiating outward for several miles from an airport's runways, or which would otherwise stand at least 200 feet in height above ground. For the project site, any structure exceeding 30 feet in height above grade would require submittal to the FAA for airspace safety review. The proposed building would be approximately 80 feet in height, with parapets extending to a height of 87.5 feet and a metal roof screen extending to a height of 98 feet to shield mechanical equipment. As a result, notification to the FAA is required to determine the potential for the project to create an aviation hazard. FAA issuance of "determination of no hazard" clearances, and subsequent applicant compliance with any conditions set forth in such FAA determinations, would ensure that the project does not have an adverse impact on airspace safety. The proposed project, therefore, would be compatible with applicable CLUP policies and the Airport Influence Area for building height.

The project site is not located in the vicinity of a private airstrip. **(Less Than Significant Impact)**

Impact HAZ-6:	The project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. **(No Impact)**

In June 2016, the City adopted an Emergency Response Plan, which addresses the planned response of the City of Santa Clara to emergency situations associated with natural disasters, technological incidents, and chemical, biological, radiological, nuclear and explosive emergencies. The project would include construction at a site designated for light industrial uses and would comply with relevant building and fire codes. The proposed project would not, therefore, impair or interfere with the implementation of an adopted emergency response plan or emergency evacuation plan. **(No Impact)**

Impact HAZ-7:	The project would not 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 an urbanized area of Santa Clara. According to the California Department of Forestry and Fire Protection (CAL FIRE), the project site is not located within a moderate, high, or very high fire hazard severity zone.[47] **(No Impact)**

[47] CAL FIRE. "Draft Fire Hazard Severity Zones." Accessed October 29, 2019. http://frap.fire.ca.gov/webdata/maps/statewide/fhszl06_1_map.jpg.

4.10 HYDROLOGY AND WATER QUALITY

4.10.1 Environmental Setting

4.10.1.1 *Regulatory Framework*

Overview

The federal Clean Water Act and California's Porter-Cologne Water Quality Control Act are the primary laws related to water quality in California. Regulations set forth by the EPA and the State Water Resources Control Board (SWRCB) have been developed to fulfill the requirements of this legislation. EPA regulations include the National Pollutant Discharge Elimination System (NPDES) permit program, which controls sources that discharge pollutants into the waters of the United States (e.g., streams, lakes, bays, etc.). These regulations are implemented at the regional level by the Regional Water Quality Control Boards (RWQCBs). The project site is within the jurisdiction of the San Francisco Bay RWQCB.

Federal and State

National Flood Insurance Program

The Federal Emergency Management Agency (FEMA) established the National Flood Insurance Program (NFIP) to reduce impacts of flooding on private and public properties. The program provides subsidized flood insurance to communities that comply with FEMA regulations protecting development in floodplains. As part of the program, FEMA publishes Flood Insurance Rate Maps (FIRMs) that identify Special Flood Hazard Areas (SFHAs). An SFHA is an area that would be inundated by the one-percent annual chance flood, which is also referred to as the base flood or 100-year flood.

Statewide Construction General Permit

The SWRCB has implemented an NPDES General Construction Permit for the State of California (Construction General Permit). For projects disturbing one acre or more of soil, a Notice of Intent (NOI) and Storm Water Pollution Prevention Plan (SWPPP) must be prepared by a qualified professional prior to commencement of construction. The Construction General Permit includes requirements for training, inspections, record keeping, and, for projects of certain risk levels, monitoring. The general purpose of the requirements is to minimize the discharge of pollutants and to protect beneficial uses and receiving waters from the adverse effects of construction-related storm water discharges.

Regional and Local

San Francisco Bay Basin Plan

The San Francisco Bay RWQCB regulates water quality in accordance with the Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan). The Basin Plan lists the beneficial uses that the San Francisco Bay RWQCB has identified for local aquifers, streams, marshes, rivers, and the San Francisco Bay, as well as the water quality objectives and criteria that must be met to protect these uses. The San Francisco Bay RWQCB implements the Basin Plan by issuing and enforcing

waste discharge requirements, including permits for nonpoint sources such as the urban runoff discharged by a City's stormwater drainage system. The Basin Plan also describes watershed management programs and water quality attainment strategies.

Municipal Regional Permit Provision C.3.

The San Francisco Bay RWQCB re-issued the Municipal Regional Stormwater NPDES Permit (MRP) in 2015 to regulate stormwater discharges from municipalities and local agencies (co-permittees) in Alameda, Contra Costa, San Mateo, and Santa Clara Counties, and the cities of Fairfield, Suisun City, and Vallejo.[48] Under Provision C.3 of the MRP, new and redevelopment projects that create or replace 10,000 square feet or more of impervious surface area are required to implement site design, source control, and Low Impact Development (LID)-based stormwater treatment controls to treat post-construction stormwater runoff. LID-based treatment controls are intended to maintain or restore the site's natural hydrologic functions, maximizing opportunities for infiltration and evapotranspiration, and using stormwater as a resource (e.g. rainwater harvesting for non-potable uses). The MRP also requires that stormwater treatment measures are properly installed, operated, and maintained.

In addition to water quality controls, the MRP requires new development and redevelopment projects that create or replace one acre or more of impervious surface to manage development-related increases in peak runoff flow, volume, and duration, where such hydromodification is likely to cause increased erosion, silt pollutant generation, or other impacts to local rivers, streams, and creeks. Projects may be deemed exempt from these requirements if they do not meet the minimized size threshold, drain into tidally influenced areas or directly into the Bay, or drain into hardened channels, or if they are infill projects in subwatersheds or catchment areas that are greater than or equal to 65 percent impervious.

Municipal Regional Permit Provision C.12.f

Provision C.12.f of the MRP requires co-permittee agencies to implement a control program for PCBs that reduces PCB loads by a specified amount during the term of the permit, thereby making substantial progress toward achieving the urban runoff PCBs wasteload allocation in the Basin Plan by March 2030.[49] Programs must include focused implementation of PCB control measures, such as source control, treatment control, and pollution prevention strategies. Municipalities throughout the Bay Area are updating their demolition permit processes to incorporate the management of PCBs in demolition building materials to ensure PCBs are not discharged to storm drains during demolition. As of July 1, 2019, buildings constructed between 1955 and 1978 that are proposed for demolition must be screened for the presence of PCBs prior to the issuance of a demolition permit.

Dam Safety

Dam failure is the uncontrolled release of impounded water behind a dam. Flooding, earthquakes, blockages, landslides, lack of maintenance, improper operation, poor construction, vandalism, and

[48] MRP Number CAS612008
[49] San Francisco Bay Regional Water Quality Control Board. *Municipal Regional Stormwater Permit, Provision C.12.* November 19, 2015.

terrorism can all cause a dam to fail.[50] Because dam failure that results in downstream flooding may affect life and property, dam safety is regulated at both the federal and state level. Dams under the jurisdiction of the California Division of Safety of Dams are identified in California Water Code Sections 6002, 6003, and 6004 and regulations for dams and reservoirs are included in the California Code of Regulations.

As part of its comprehensive dam safety program, the Valley Water routinely monitors and studies the condition of each of its 10 dams. The Valley Water also has its own Emergency Operations Center and a response team that inspects dams after significant earthquakes. These regulatory inspection programs reduce the potential for dam failure.

Santa Clara General Plan

General Plan policies applicable to hydrology and water quality include, but are not limited to, the following listed below.

Policies	Description
5.10.5-P11	Require that new development meet stormwater and water management requirements in conformance with state and regional regulations.
5.10.5-P13	Require that development complies with the Flood Damage Protection Code.
5.10.5-P15	Require new development to minimize paved and impervious surfaces and promote on-site Best Management Practices for infiltration and retention, including grassy swales, pervious pavement, covered retention areas, bioswales, and cisterns, to reduce urban water run-off.
5.10.5-P16	Require new development to implement erosion and sedimentation control measures to maintain an operational drainage system, preserve drainage capacity and protect water quality.
5.10.5-P17	Require that grading and other construction activities comply with the Association of Bay Area Governments' Manual of Standards for Erosion and Sediment Control Measures and with the California Stormwater Quality Association, Stormwater Best Management Practice Handbook for Construction.
5.10.5-P18	Implement the Santa Clara Valley Nonpoint Source Pollution Control Program, Santa Clara Valley Urban Runoff Pollution Prevention Program and the Urban Runoff Management Plan.
5.10.5-P20	Maintain, upgrade and replace storm drains throughout the City to reduce potential flooding.
5.10.5-P21	Require that storm drain infrastructure is adequate to serve all new development and is in place prior to occupancy.

City Code

Chapter 13.20, Storms Drains and Discharges, of City Code is enacted for the protection of health, life, resources and property through prevention and control of unauthorized discharges into watercourses. The primary goal of this chapter is the cleanup of stormwater pollution from urban runoff that flows to creeks and channels, eventually discharging into the San Francisco Bay. The

[50] State of California. "2013 State Hazards Mitigation Plan." Accessed October 23, 2019. http://www.caloes.ca.gov/for-individuals-families/hazard-mitigation-planning/state-hazard-mitigation-plan.

City Code also includes Flood Damage Prevention Code (Chapter 15.45) and requirements for grading and excavation permits and erosion control (Chapter 15.15).

Water Resources Protection Ordinance and District Well Ordinance

The Santa Clara Valley Water District (Valley Water) operates as the flood control agency for Santa Clara County. Their stewardship also includes creek restoration, pollution prevention efforts, and groundwater recharge. Permits for well construction and destruction work, most exploratory boring for groundwater exploration, and projects within Valley Water property or easements are required under Valley Water's Water Resources Protection Ordinance and District Well Ordinance.

4.10.1.2 *Existing Conditions*

Surface Water Quality

The water quality of streams, creeks, ponds, and other surface water bodies can be greatly affected by pollution carried in contaminated surface runoff. Pollutants from unidentified sources, known as non-point source pollutants, are washed from streets, construction sites, parking lots, and other exposed surfaces into storm drains. Urban stormwater runoff often contains contaminants such as oil and grease, plant and animal debris (e.g., leaves, dust, animal feces, etc.), pesticides, litter, and heavy metals. In sufficient concentration, these pollutants have been found to adversely affect the aquatic habitats to which they drain. The nearest waterways to the project site are the Guadalupe River approximately .85 miles to the east and the San Tomas Aquino Creek approximately .9 miles to the west.

Groundwater

Groundwater beneath the project site was encountered at eight feet below ground surface (bgs), and flows to the north.[51] The depth to groundwater can vary due to factors such as variations in rainfall, temperature, runoff, irrigation, and groundwater withdrawal and/or recharge. The regional topographic gradient is generally northeast towards the bay.

Stormwater Drainage

The site is in the Guadalupe River watershed. The City of Santa Clara owns and maintains the municipal storm drainage system in the project vicinity. Stormwater from the site is conveyed to a storm drain in Comstock Street via a 12-inch storm drain lateral to a 30-inch storm drain line along Central Expressway. The lines that serve the project site drain into Guadalupe River, which is located approximately .85 miles east of the site. Guadalupe River flows north, carrying the effluent from the storm drains into San Francisco Bay. Stormwater from urban uses contain metals, pesticides, herbicides, and other contaminants, including oil, grease, asbestos, lead, and animal waste. The runoff eventually empties into Guadalupe River, which is .85 miles from the site, and flows into the San Francisco Bay. Based on data from the SWRCB, Guadalupe River is currently listed on the California 303(d) impaired waters list for mercury.[52]

[51] Kleinfelder, Inc. *Geotechnical Investigation Report. Comstock Data Center. 1111 Comstock Street.* April 25, 2019.
[52] California State Water Boards. *Final 2014 and 2016 Integrated Report (CWA Section 303(d) List/ 305(b) Report.* October 3, 2017.

Flooding

The site is not located within a 100-year flood (one percent annual flood) hazard zone. According to the FEMA flood insurance rate map for the project area, the site is located within Zone X, which is defined as "areas of the 0.2 percent annual chance flood; area of one percent annual chance flood with average depths of less than one foot or with drainage areas less than one square mile; and areas protected by levees from one percent annual chance flood."[53] The existing elevation is approximately 35 feet above mean seal level (msl).

Dam Failure

There are two dams that affect the City of Santa Clara related to potential flooding. These dams are Lexington, located in the Town of Los Gatos, and Anderson, located in the City of Morgan Hill. The project site is within the Anderson Dam failure inundation area under the "inflow design" scenario, which assumes that dam failure occurs during a large storm event with a high pool elevation in the reservoir and high flow conditions downstream of the dam.[54] The project site is within the Lexington Dam failure inundation area under the "fair weather" scenario, which assumes that dam failure occurs during non-storm conditions with a normal full pool elevation in the reservoir and normal flow conditions downstream of the dam.[55]

As part of its comprehensive dam safety program, Valley Water routinely monitors and studies the condition of each of its 10 dams. Valley Water also has its own Emergency Operations Center and a response team that inspects dams after significant earthquakes. These regulatory inspection programs reduce the potential for dam failure.

Sea Level Rise

Global climate change has the potential to cause sea level rise, which can inundate low-lying areas. Based on a US Geological Survey analysis which predicted areas in the San Francisco Bay Area region that are subject to inundation due to future sea level rise (up to 60 inches in year 2100), the project site is not subject to inundation due to sea level rise.[56] The project site has a surface elevation of approximately 35 feet above msl, and would not be affected by this projected increase.

Seiche, Tsunami, and Mudflows

A seiche is the oscillation of water in an enclosed body of water such as a lake or the San Francisco Bay. There are not landlocked bodies of water near the project site that would affect the site in the event of a seiche.

[53] Federal Emergency Management Agency. *Flood Insurance Rate Map*, *Community Panel No. 06085C0227H*. Effective Date: May 18, 2009.
[54] Santa Clara Valley Water District. Anderson Dam Flood Inundation Maps. 2016.
[55] Santa Clara Valley Water District. Lenihan (Lexington) Dam Flood Inundation Maps. 2016.
[56] U.S. Geological Survey. *Potential Inundation due to Rising Sea Levels in the San Francisco Bay Region.* March 2009

A tsunami is a sea wave generated by an earthquake, landslide, or other large displacement of water in the ocean. There are no bodies of water neat the project site that would affect the site in the event of a tsunami.[57]

A mudflow is the rapid movement of a large mass of mud formed from loose soil and water. The project area is flat and there are no mountains in proximity that would affect the site in the event of a mudflow.

4.10.2 Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
1) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	☒	☐
2) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
3) 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:	☐	☐	☒	☐
– result in substantial erosion or siltation on- or off-site;	☐	☐	☒	☐
– substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;	☐	☐	☒	☐
– 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	☐	☐	☒	☐
– impede or redirect flood flows?	☐	☐	☒	☐
4) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☒	☐
5) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

[57] Association of Bay Area Governments. "Tsunami Maps and Information." Accessed: October 24, 2019. http://resilience.abag.ca.gov/tsunamis/.

Impact HYD-1:	The project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality. **(Less than Significant Impact)**

Construction Impacts

Implementation of the project would result in ground disturbance of the site and would temporarily increase pollutant loads due to grading and construction (i.e., removal of pavement and construction of new structures). Demolition, soil excavation, and construction activities would temporarily increase the amount of debris on-site and grading activities would increase the potential for erosion and sedimentation that could be carried by runoff into Guadalupe River and eventually the San Francisco Bay.

The project would disturb more than one acre, and therefore, is required to comply with the General Construction Permit (which includes preparation of a SWPPP) and MRP (including Provision C.12) to reduce pollutants in surface runoff from the site during construction to a less than significant level. In addition, in accordance with the City's grading permit requirements, the project would be required to prepare an erosion control plan. The erosion control plan would include locations and specifications of recommended soil stabilization techniques such as the use of straw wattles, silt fences, construction berms, and storm drain inlet protection. For these reasons, the project would not result in substantial water quality impacts during construction. **(Less than Significant Impact)**

Post-Construction Impacts

The type of development and use on the project site would not substantially change with implementation of the project and, therefore, the project would contribute similar types of stormwater runoff pollutants as the existing use.

New catch basins and storm drain lines would be installed on the site as part of the project and would connect to the existing City of Santa Clara storm drain system. Bioretention areas would be installed in on-site landscape areas as part of the project, which would help to detain stormwater runoff and infiltrate water into the soil. Additional C.3/post-construction measures such as porous asphalt and permeable pavers would be implemented.

Impervious surfaces on the project site would decrease from 89 percent to 53 percent after the construction of the project, as shown in Table 4.10-1.

Table 4.10-1: Pervious and Impervious Surfaces

	Impervious (sf)	Pervious (sf)	Total Area (sf)	Percent Impervious
Existing	53,580	6,484	60,064	89
Proposed	31,727	28,337	60,064	36

Because the project would reduce the amount of impervious surfaces on the site, implementation of the project would not increase the discharge to the storm drain system that serves the project site. **(Less than Significant Impact)**

Impact HYD-2:	The project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin. **(Less than Significant Impact)**

As mentioned previously, groundwater has been encountered at the project site at approximately eight feet below ground surface. The project would not use groundwater, deplete groundwater supply, or interfere with groundwater recharge. Therefore, the impact to groundwater would be less than significant. **(Less than Significant Impact)**

Impact HYD-3:	The project would not 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 result in substantial erosion or siltation on- or off-site; substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site; 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 impede or redirect flood flows. **(Less than Significant Impact)**

The proposed project would not substantially alter the existing drainage pattern of the site or area through the alteration of any waterway. As mentioned under Impact HYD-1, the project would decrease impervious surfaces. As a result, the project would not substantially alter the existing drainage pattern of the site or area. **(Less than Significant Impact)**

Impact HYD-4:	The project would not risk release of pollutants due to project inundation in flood hazard, tsunami, or seiche zones. **(Less than Significant Impact)**

The project site is outside of the 100-year flood hazard zone, and therefore, would not expose people or structures to 100-year flood hazards. As discussed under Section 4.10.1.2 *Existing Conditions*, given there are no bodies of water that would impact the site and project area from a seiche or tsunami, the project site and adjacent properties are not subject to a seiche or tsunami.

The site is located within the Lexington and Anderson dam failure inundation zone. As discussed under Section 4.10.1.1 *Regulatory Setting*, Valley Water routinely monitors and studies the condition of Lexington and Anderson Dam. The regulatory inspection program currently in place reduces the potential for dam failure and inundation. Therefore, the project would not risk release of pollutants due to inundation in flood hazard, tsunami, or seiche zones. **(Less than Significant Impact)**

Impact HYD-5:	The project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. **(Less than Significant Impact)**

As discussed under Impact HYD-1 and HYD-2, the project would be required to comply with the NPDES MRP, and would not impact groundwater recharge. The project would comply with applicable water quality control regulations. For these reasons, the project would not conflict with implementation of a water quality or groundwater management plan. **(Less than Significant Impact)**

4.11 LAND USE AND PLANNING

4.11.1 Environmental Setting

4.11.1.1 *Regulatory Framework*

Regional

Norman Y. Mineta San José International Airport

The project site is located approximately 0.6 miles northwest of the San José International Airport, and is located within the Airport Influence Area (AIA) defined by the Santa Clara County Airport Land Use Commission's Comprehensive Land Use Plan (CLUP) for the San José International Airport. Development within the AIA can be subject to hazards from aircraft and also pose hazards to aircraft travelling to and from the airport. The AIA is a composite of areas surrounding the airport that are affected by noise, height and safety considerations. These hazards are addressed in Federal and State regulations as well as in land use regulations and policies in the CLUP. The most recent CLUP for the Airport was adopted in 2011 and updated in 2016.

The project site is located within Part 77 Surface zone 212, which limits the building height to a maximum of 212 feet above mean seal level.[58]

The CLUP includes land use compatibility policies and standards, which form the basis for evaluating the land use compatibility of individual projects with the Airport and its operations. Standards in the CLUP focus on the three areas of ALUC responsibility: 1) aircraft noise, 2) the safety of persons on the ground and in aircraft, and 3) the control of objects in navigable airspace.

Proposals for amendments to general or specific plans and either building or zoning regulations by local agencies must be submitted to the ALUC for a determination of consistency. In addition, development projects that are higher than 200 feet above ground level are also encouraged to be submitted for review by the ALUC. Recommendations made by the ALUC are advisory to local jurisdictions, not mandatory.

Applicable CLUP land use policies to the project include the following listed below.

Policies	Description
G-5	Where legally allowed, dedication of an avigation easement to the City of San José shall be required to be offered as a condition of approval on all projects located within an Airport Influence Area, other than reconstruction projects.
G-7	All new exterior lighting within the AIA shall be designed so as to create no interference with aircraft operations. Such lighting shall be constructed and located so that only the intended area is illuminated and off-site glare is fully controlled. The lighting shall be arrayed in such a manner that it cannot be mistaken for airport approach or runway lights by pilots.
O-1	All new projects within the AIA that are subject to discretionary review and approval shall be required to dedicate in compliance with state law, an avigation easement to the City of San José.

[58] Santa Clara County Airport Land Use Commission. *Comprehensive Land Use Plan.* Figure 7. Amended November 16, 2016.

Santa Clara Valley Habitat Plan

The Habitat Plan, discussed in *Section 3.4 Biological Resources*, is a conservation program intended to promote the recovery of endangered species and enhance ecological diversity and function, while accommodating planned growth on approximately 500,000 acres of southern Santa Clara County. The project site is outside of the Santa Clara Valley Habitat Plan's study area.

Farmland Mapping and Monitoring Program

The California Resources Agency's Farmland Mapping and Monitoring Program (FMMP) assesses the location, quality, and quantity of agricultural land and conversion of these lands over time. Agricultural land is rated according to soil quality and irrigation status; the best quality land is called Prime Farmland. In CEQA analyses, the FMMP classifications and published County maps are used, in part, to identify whether agricultural resources that could be affected are present on-site or in the project area.

City of Santa Clara

Santa Clara General Plan

Applicable land use General Plan policies include, but are not limited to, the following listed below.

Policies	Description
General	
5.3.1-P9	Require new development provide adequate public services and facilities, infrastructure, and amenities to serve the new employment or residential growth.
Safety	
5.10.5-P29	Continue to refer proposed projects located within the Airport Influence Area to the Airport Land Use Commission.
5.10.5-P30	Review the location and design of development within Airport Land Use Commission jurisdiction for compatibility with the Airport Land Use Compatibility Plan.
5.10.5-P31	Discourage schools, hospitals, sensitive uses and critical infrastructure, such as power plants, electric substations and communications facilities, from locating within specified safety zones for the Airport as designated in the Airport Comprehensive Land Use Plan.
5.10.5-P32	Encourage all new projects within the Airport Influence Area to dedicate an avigation easement.
5.10.5-P33	Limit the height of structures in accordance with the Federal Aviation Administration Federal Aviation Regulations, FAR Part 77 criteria.

General Plan Land Use Designation

The Land Use Diagram of the *2010-2035 General Plan* contains three phases: Phase 1: 2010-2015, Phase II: 2015-2023, and Phase III: 2023-2035. The project site is designated as *Low Intensity Office/R&D* and will retain its designation for all phases.

The *Low Intensity Office/R&D* designation is intended for campus-like office development that includes office and R&D, as well as medical facilities and free-standing data centers, with

manufacturing uses limited to a maximum of 20 percent of the building area. It includes landscaped areas for employee activities and parking that may be surface, structured, or below grade. Accessory or secondary small-scale supporting retail uses that serve local employees and visitors are also permitted. The maximum FAR allowed under this designation is 1.00.

Zoning Designation

The project site is zoned ML - Light Industrial. The ML – Light Industrial zoning designation (Chapter 18.48 of the City Code) is intended for (but not limited to) commercial storage and wholesale distribution warehouses, plants and facilities for the manufacturing, processing, and repair of equipment and merchandise, and retail sales of industrial products, and uses of a similar nature. Retail commercial and service uses, kennels, and lumber yards (and other similar uses) may also be allowed as a conditional use with City approval of a Use Permit. The maximum permitted building height within this zone is 70 feet and the maximum building coverage is 75 percent.

Zoning Ordinance

The City of Santa Clara Zoning Ordinance (Title 18 of the City Code) provides a regulatory framework for development and operation of uses within the City. The intent of the Zoning Ordinance is to encourage development of various kinds of living, working, and commercial activities in specific areas as defined in the General Plan and to accomplish the following purposes:

- To promote the public health, safety, comfort, and general welfare;
- To conserve the values of property throughout the City and to protect the character and stability of residential, commercial, professional and manufacturing areas, and to promote the orderly and beneficial development of such areas;
- To provide adequate light, air, privacy, and convenience of access to property;
- To minimize congestion on the public streets and highways;
- To provide for the elimination of incompatible and nonconforming uses of land, buildings, and structures which are adversely affecting the character and value of desirable development in each district;
- To establish official plan lines and building setback lines;
- To define the powers and duties of the administrative officers and bodies as provided herein.
- To promote efficient urban design arrangement and to secure economy in governmental expenditures; and
- To preserve landmarks which reflect the City's historical, architectural, cultural and aesthetic

4.11.1.2 *Existing Conditions*

The site is currently developed with a one-story, 23,765 sf industrial building and paved surface parking lot. The property is currently occupied by a circuit board manufacturing facility and a ceramic manufacturing facility. The project site is bound by Comstock Street to the south, and light industrial uses to the west, north and east. An aerial photograph with surrounding land uses is shown on Figure 3.1-3.

4.11.2 Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
1) Physically divide an established community?	☐	☐	☐	☒
2) 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?	☐	☐	☒	☐

Impact LU-1: The project would not physically divide an established community. **(No Impact)**

The project site is located in an industrial area surrounded by industrial development. It would not include any physical features that would physically divide the community (e.g., blocking of roadways or sidewalks) and would not interfere with the movement of residents through a neighborhood. For these reasons, construction of the proposed project would not divide an established community. **(No Impact)**

Impact LU-2: The project would not cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. **(Less than Significant Impact)**

Consistency with Applicable Local Plans, Policies, and Regulations

Santa Clara General Plan

The project site is designated as Low-Intensity Office/R&D under the City's General Plan. As described previously, free standing data centers are permitted in this designation. The proposed FAR for the project is 2.02, which exceeds the maximum FAR of 1.0 allowed under the City's General Plan. The City maintains the discretion to allow an increased FAR for qualifying projects where findings can be made that the project is otherwise consistent with the General Plan. As described in this section and throughout the Initial Study, the project is consistent with the policies in the General Plan. Therefore, the proposed project is consistent with the General Plan land use designation on the site.

The project area consists of a mix of uses including industrial, office/R&D, and commercial. The proposed data center would be compatible with the surrounding industrial land uses and would not interfere with the existing operations of adjacent or nearby businesses. Activities and equipment at the site would be separated from the nearest residential area by Bayshore Freeway.

Noise and lighting levels associated with the proposed project would not substantially increase over existing levels and are not anticipated to adversely affect adjacent land uses. The proposed project,

therefore, would not introduce a land use to the site that would create a land use compatibility conflict in the project area.

City of Santa Clara City Code

As stated above, the project site is zoned *ML – Light Industrial* (Chapter 18.48 of the City Code), which accommodates industries operating substantially within an enclosed building. The permissible uses include (but not limited to) commercial storage and wholesale distribution warehouses, plants and facilities for the manufacturing, processing, or repair of equipment and merchandise, and retail sales of industrial products, and uses "of a similar nature". Any uses permitted within the *MP – Planned Industrial* zoning designation are also allowed. The City has routinely approved of data centers as a use consistent with the *ML* zoning designation. Additionally, noise generated by the project would not exceed restrictions in the City's zoning ordinance (see Section 4.13 *Noise*). The proposed project, therefore, would not conflict with the City's General Plan or Zoning Ordinance.

San José International Airport Comprehensive Land Use Plan

The project site is located within the AIA of the San José International Airport and within the 65 CNEL noise contour for aircraft overflights.[59] It is located within the TPZ. Potential conflicts related to the building height or aircraft noise are discussed in Section 4.9 *Hazards and Hazardous Materials* and Section 4.13 *Noise*, respectively. The project would not conflict with the CLUP.

Consistency with Applicable Habitat Conservation Plan

The project site is not located within a habitat conservation plan or natural community conservation plan.

The project, therefore, would not cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. **(Less than Significant Impact)**

[59] Santa Clara County Airport Land Use Commission. *Comprehensive Land Use Plan.* Figure 5. Amended November 16, 2016.

4.12 MINERAL RESOURCES

4.12.1 Environmental Setting

4.12.1.1 *Regulatory Framework*

State

Surface Mining and Reclamation Act

The Surface Mining and Reclamation Act (SMARA) was enacted by the California legislature in 1975 to address the need for a continuing supply of mineral resources, and to prevent or minimize the negative impacts of surface mining to public health, property, and the environment. As mandated under SMARA, the State Geologist has designated mineral land classifications in order to help identify and protect mineral resources in areas within the state subject to urban expansion or other irreversible land uses which would preclude mineral extraction. SMARA also allowed the State Mining and Geology Board (SMGB), after receiving classification information from the State Geologist, to designate lands containing mineral deposits of regional or statewide significance.

4.12.1.2 *Existing Conditions*

The City of Santa Clara is located in an area zoned MRZ-1 for aggregate materials by the State of California. MRZ-1 zones are areas where adequate information indicates that no significant mineral deposits are present or where it is judged that little likelihood exists for their presence. The area is not known to support significant mineral resources of any type. No mineral resources are currently being extracted in the City. The State Office of Mine Reclamation's list of mines (AB 3098 list) regulated under the Surface Mining and Reclamation Act does not include any mines within the City.

4.12.2 Impact Discussion

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

Impact MIN-1:	The project would not result in the loss of availability of a known mineral resource that would be of value to the region and residents of the state. **(No Impact)**

The project would not result in the loss of availability of a known mineral resource, and no mineral excavation sites are present within the general area. The proposed project, therefore, would not result in impacts to mineral resources. **(No Impact)**

Impact MIN-2:	The project would not 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)**

There are no locally important mineral resources identified in the City's General Plan. Therefore, the project would not result in the loss of a locally important mineral resource recovery site. **(No Impact)**

4.13 NOISE

The following analysis is based, in part, on a Noise Assessment prepared by *Illingworth & Rodkin, Inc*. in May 2020. A copy of this report is included in Appendix E of this IS.

4.13.1 Environmental Setting

Noise

Factors that influence sound as it is perceived by the human ear, include the actual level of sound, period of exposure, frequencies involved, and fluctuation in the noise level during exposure. Noise is measured on a decibel scale, which serves as an index of loudness. The zero on the decibel scale is based on the lowest sound level that the healthy, unimpaired human ear can detect. Each 10 decibel increase in sound level is perceived as approximately a doubling of loudness. Because the human ear cannot hear all pitches or frequencies, sound levels are frequently adjusted or weighted to correspond to human hearing. This adjusted unit is known as the A-weighted decibel, or dBA.

Since excessive noise levels can adversely affect human activities and human health, federal, state, and local governmental agencies have set forth criteria or planning goals to minimize or avoid these effects. Noise guidelines are generally expressed using one of several noise averaging methods, including L_{eq}, DNL, or CNEL.[60] These descriptors are used to measure a location's overall noise exposure, given that there are times when noise levels are higher (e.g., when a jet is taking off from an airport or when a leaf blower is operating) and times when noise levels are lower (e.g., during lulls in traffic flows on freeways or in the middle of the night). L_{max} is the maximum A-weighted noise level during a measurement period.

Sensitivity to noise increases during the evening and at night because excessive noise interferes with the ability to sleep. To emphasize quiet-time noise events, the Day/Night Average Sound Level (DNL or L_{dn}) and CNEL were developed to measure the average cumulative noise exposure over a 24-hour period. Both DNL and CNEL include a 10 dB addition to noise levels from 10:00 PM to 7:00 AM to account for human sensitivity to night noise, while CNEL also includes a five dB addition to noise generated between 7:00 PM and 10:00 PM.

Vibration

Ground vibration consists of rapidly fluctuating motions or waves with an average motion of zero. Vibration amplitude can be quantified using Peak Particle Velocity (PPV), which is defined as the maximum instantaneous positive or negative peak of the vibration wave. PPV has been routinely used to measure and assess ground-borne construction vibration. Studies have shown that the threshold of perception for average persons is in the range of 0.008 to 0.012 inches/second (in/sec) PPV.

[60] L_{eq} is a measurement of average energy level intensity of noise over a given period of time. Day-Night Level (DNL) is a 24-hour average of noise levels, with a 10 dB penalty applied to noise occurring between 10:00 PM and 7:00 AM. Community Noise Equivalent Level (CNEL) includes an additional five dB applied to noise occurring between 7:00 PM and 10:00 PM. Where traffic noise predominates, the CNEL and DNL are typically within two dBA of the peak-hour L_{eq}.

4.13.1.1 *Regulatory Framework*

State and Local

California Green Building Standards Code

For commercial uses, CalGreen (Section 5.507.4.1 and 5.507.4.2) requires that wall and roof-ceiling assemblies exposed to the adjacent roadways have a composite STC rating of at least 50 or a composite OITC rating of no less than 40, with exterior windows of a minimum STC of 40 or OITC of 30 when the commercial property falls within the 65 dBA L_{dn} or greater noise contour for a freeway or expressway, railroad, or industrial or stationary noise source. The state requires interior noise levels to be maintained at 50 dBA $L_{eq(1\text{-}hr)}$ or less during hours of operation at a proposed commercial use.

General Plan

The City of Santa Clara General Plan identifies noise and land use compatibility standards for various land uses (General Plan Table 5.10-2). The noise standard is 70 dBA Community Noise Equivalent Level (CNEL) for uses with an industrial land use designation and 55 dBA CNEL for uses with a residential land use designation. The following policies are applicable to the project:

Policies	Description
5.10.6-P1	Review all land use and development proposals for consistency with the General Plan compatability standards and acceptable noise exposure levels defined on Table 5.10-1.
5.10.6-P3	New development should include noise control techniques to reduce noise to acceptable levels, including site layout (setbacks, separation and shielding), building treatments (mechanical ventilation system, sound-rated windows, solid core doors and baffling) and structural measures (earthen berms and sound walls)
5.10.6-P4	Encourage the control of noise at the source through site design, building design, landscaping, hours of operation and other techniques.
5.10.6-P5	Require noise-generating uses near residential neighborhoods to include solid walls and heavy landscaping along common property lines, and to place compressors and mechanical equipment in sound-proof enclosures.
5.10.6-P6	Discourage noise sensitive uses, such as residences, hospitals, schools, libraries and rest homes, from areas with high noise levels, and discourage high noise generating uses from areas adjacent to sensitive uses.
5.10.6-P7	Implement measures to reduce interior noise levels and restrict outdoor activities in areas subject to aircraft noise in order to make Office/research and Development uses compatible with the Norman Y. Mineta International Airport land use restrictions.

City Code

Chapter 9.10 "Regulation of Noise and Vibration," of the City of Santa Clara City Code identifies allowable hours for construction to limit impacts to sensitive uses within 300 feet of a project site. The nearest sensitive receptors to the proposed project site are the Granada Islamic School about 0.5 miles northwest of the site and existing residences along Layfette Street in Santa Clara about 0.6 miles north of the site. The project is, therefore, not subject to the City Code regulations on construction hours.

The City Code also includes standards for maximum noise levels according to zoning designations at nearby properties from noise generated on a subject property, independent of distance. Noise limits at the nearest adjacent property lines to the project site are shown in 4.13-1 below.

Table 4.13-1: Noise Limits at Adjacent Property Lines		
Adjacent Property Line	**Daytime Noise Limit (dBA)**	**Nighttime Noise Limit (DBA)**
North – Light Industrial	70	70
West – Light Industrial	70	70
East – Light Industrial	70	70
South – Heavy Industrial	75	75

The nearest residences are roughly 0.6 miles away; the noise limits at those residences would be 55 dBA during the daytime and 50 dBA at night.

Section 9.10.060(c) states: "If the measured ambient noise level at any given location differs from those levels set forth in SCCC 9.10.040, Schedule A, the allowable noise exposure standard shall be adjusted in five dBA increments in each category as appropriate to encompass or reflect said ambient noise level."

Section 9.10.020 and 9.10.070 state that emergency work, including the operation of emergency generators necessary to provide services during an emergency, are exempt from the criteria. Private utility work to restore services and protect property from damage is also exempt.

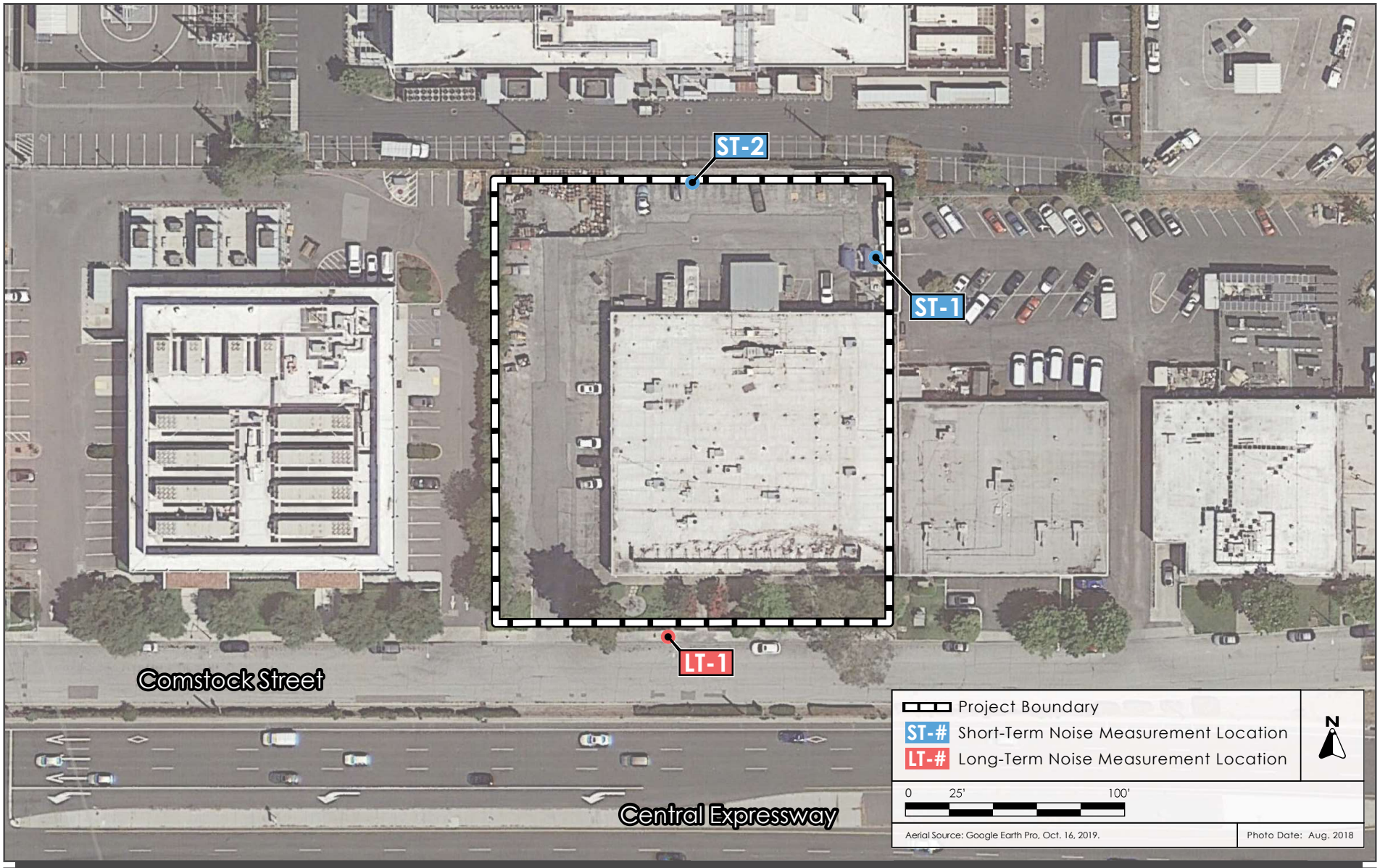
Norman Y. Mineta San José International Comprehensive Land Use Plan

The Santa Clara County Airport Land Use Commission (ALUC) has adopted a Land Use Compatibility table for projects near Norman Y. Mineta San José International Airport (Airport). Under the ALUC's land use compatibility noise policies, industrial uses are compatible in noise environments (from aircraft overflights) that are 70 CNEL or less. The site is located in area between the 65 and 70 CNEL airport noise contours on the Comprehensive Land Use Plan (CLUP) noise map.

4.13.1.2 *Existing Conditions*

The project site is located in a mixed industrial and commercial area. Data center uses are located directly north of the site and on Comstock Street west of the site. To the east is a Trescal instrument calibration facility and an Ultrasolar energy equipment supplier. South of the site and across the Central Expressway is an Owens Corning manufacturing plant. The nearest residences are approximately 0.6 miles to the north along Lafayette Street.

A noise monitoring survey was completed between Tuesday, October 8, 2019 and Thursday, October 10, 2019 to quantify and characterize ambient noise levels at the site and in the surrounding area. The survey included one long-term (48-hour) measurement and two short-term (10-minute) measurements, as shown in Figure 4.13-1. The predominant sources of noise in the project vicinity



NOISE MEASUREMENT LOCATIONS

FIGURE 4.13-1

included traffic on the Central Expressway, flyovers by aircraft associated with Norman Y. Mineta San José International Airport, and mechanical equipment at adjacent sites.

Two attended short-term (10-minute) measurements, ST-1 and ST-2, were made to quantify noise levels produced by mechanical equipment operating at surrounding sites and from traffic along Comstock Street and Central Expressway. During the measurements, a constant hum was observed originating at a chiller adjacent to the existing data center to the north. This hum was recorded as 56 to 57 dBA at location ST-1 and as 60 to 61 dBA at location ST-2. Over the course of the two measurements, five aircraft flyovers were observed, resulting in maximum intermittent noise levels between 63 and 71 dBA L_{max}.

One unattended, long-term 48-hour measurement LT-1 was made to quantify the ambient noise level at the site characterized by traffic along Comstock Street and the Central Expressway, and operations at surrounding uses. Hourly average noise levels varied between 64 and 69 dBA L_{eq} during the day, and between 61 and 66 dBA L_{eq} at night. The average noise level on Wednesday, October 9, 2019 was 71 dBA CNEL. Measurement results are summarized in Table 4.13-1.

Table 4.13-1: Summary of Noise Measurement Data

Location (Date, Start Time)		Measured Noise Levels, dBA					Primary noise source
		L_{10}	L_{50}	L_{90}	L_{eq}	CNEL[1, 2]	
LT-1	Approx. 20 ft north of Comstock Street centerline. (Tuesday, 10/8/2019, 9:40 a.m. – Thursday, 10/10/2019, 1:20 p.m.)	61 - 75	60 - 72	58 - 67	62 - 72	71	Traffic along Central Expressway, occasional aircraft flyovers.
ST-1	Eastern site boundary. (Tuesday, 10/8/2019, 9:50 a.m. – 10:00 a.m.)	58	57	56	57	63	Mechanical equipment from site to north (56 to 57 dBA), occasional aircraft flyovers.
ST-2	Center of northern site boundary. (Tuesday, 10/8/2019, 10:10 a.m. – 10:20 a.m.)	65	61	60	62	68	Mechanical equipment from site to north (60 to 61 dBA), occasional aircraft flyovers.

[1] CNEL Level is for Wednesday, October 9th, 2019.
[2] CNEL Levels for short-term measurements are calculated based on noise levels from 24-hour operation of mechanical equipment.

4.13.2 Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project result in:				
1) 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?	☐	☒	☐	☐
2) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☒	☐	☐
3) 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?	☐	☐	☒	☐

Impact NOI-1: As mitigated, the project would not 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. **(Less than Significant Impact with Mitigation Incorporated)**

Construction

Construction activities would include demolition, site preparation, grading and excavation, trenching, building (exterior), interior/ architectural coating and paving. Auger cast piles are proposed for construction of the building foundation. Hourly average noise levels due to construction activities during busy construction periods outdoors would typically range from about 78 to 89 dBA L_{eq} at a distance of 50 feet. Construction-generated noise levels drop off at a rate of about six dBA per doubling of the distance between the source and receptor. Shielding from intervening structures or buildings would be anticipated to provide 10 to 20 dBA or more of additional noise reduction.

There are no residences located within 300 feet of the site. The closest residences are approximately 0.6 miles to the north and approximately 0.9 miles to the south. Given the large distance and the substantial shielding between residences and the project site, construction noise levels are anticipated to be well below and indistinguishable from ambient levels at the closest residences.

Construction noise levels at commercial or industrial land uses are not regulated in the City Code or General Plan. Adjacent data center properties are not considered noise sensitive. However, the

Trescal instrument calibration facility, located to the east, describes this location on their website[61] as a provider of calibration services for acoustical equipment. The noise sensitivity of the operations of this facility are unknown at this time. Additionally, the existing noise environment is already characterized by continuous noise originating from operation of equipment at surrounding sites. Due to the types of services that are offered at the adjacent Trescal calibration facility, it is possible that business operations may periodically be affected by construction-generated noise. By use of administrative controls, such as notifying Trescal employees of scheduled construction activities and scheduling the highest noise-generating construction activities during hours with the least potential to affect operations at the facility, interior noise levels can be typically kept to a minimum. Following the requirements for coordination with Trescal described in the conditions of approval listed under Impact NOI-3, below, would ensure that the impact of noise levels generated by project construction on business operations are minimized.

Operation

The primary source of noise from operation of the project would be related to mechanical equipment associated with data center operations. Vehicle trips associated with the project would be low, with a maximum of 120 daily trips, which would not result in substantial noise generation.

As a backup power supply, six 3,000 kW diesel-fueled generators and one 500 kW house generator would be located within a generator room on the north side of the building's first floor. Exhaust pipes from the generators would be directed out through the building's northern wall. Generator exhaust pipes would be equipped with particulate filters with estimated noise attenuation between 25 and 30 dBA. The filters are estimated to provide 25 dBA of attenuation. Proposed rooftop mechanical equipment includes eight 1,500 kW air-cooled chillers, four dedicated outdoor air units, and seven remote radiator units. All rooftop equipment would be shielded by a seven-foot, six-inch high parapet walls and an eighteen-foot high metal screen.

Proposed fixed sources of noise at the site were modeled using SoundPLAN, a three-dimensional noise modeling software that considers site geometry, the characteristics of the noise sources, and shielding from structures and barriers. Multiple scenarios for noise exposure due to fixed sources were considered for this project, including noise from operation of heating, ventilation, and air conditioning (HVAC) equipment only, noise from operation of HVAC equipment and testing of one generator under full load, and noise from HVAC equipment and testing of multiple generators simultaneously under no load. These scenarios were developed based on the proposed generator testing schedule of one hour-long test per generator each month, with one month under full load and 11 months under no load. Results of the scenarios modeled are summarized in Table 4.13-2.

[61] https://www.trescal.us/calibration-lab/california/santa-clara/santa-clara-calibration-lab

Table 4.13-2: Noise Levels Resulting from Mechanical Equipment Operations				
Property Line	**Calculated Noise Levels, dBA L_{eq}**			
	HVAC Only	**HVAC and Single Generator Under 10% Load**	**HVAC and Single Generator Under Full Load**	**HVAC and All Generators Under 10% Load**
North	53 – 54	74	80	79 – 80
East	52 – 53	65	71	73
West	51 – 53	70	76 – 77	74

As shown in Table 4.13-2, HVAC equipment operations alone are not anticipated to result in noise levels that would exceed the daytime or nighttime commercial (65 and 60 dBA L_{eq}) or industrial (70 dBA L_{eq}) limits at the surrounding property lines. Noise levels with the testing of one generator under 10 percent load or full load concurrent with operation of HVAC equipment would also be below the City's limits at the Trescal instrument calibration facility (commercial) to the east, the Digital Reality data center (industrial) to the west, and the Owens Corning manufacturing plant (industrial) to the south. Industrial noise limits would be exceeded at the Digital Reality data center (industrial) located to the north; however, the operation of existing mechanical equipment associated with the Digital Reality site currently generate noise levels at property lines that are comparable to what the proposed project has been calculated to emit and there are no noise sensitive areas associated with the property to the north. Therefore, it is not expected that testing of one generator at 10 percent or full load concurrent with operation of HVAC equipment will cause a substantial increase to the existing ambient noise environment at shared property lines to the north. Testing of all generators simultaneously under 10 percent load concurrent with operation of HVAC equipment will result in noise levels similar to those of one generator operating under full load.

Mitigation Measures:

The following project-specific mitigation measures would be implemented during operation to avoid significant noise impacts:

MM NOI-1.1: The proposed seven-foot, six-inch parapet wall will be constructed without any gaps or cracks and have a minimum surface weight of three-pounds per square foot (such as one-inch thick wood, ½-inch laminated glass, masonry block, concrete, or metal one-inch).

MM NOI-1.2: The proposed generator testing schedule shall be followed wherein under 10 percent load, all generators may be tested simultaneously, and under full load, only one at a time may be tested.

With implementation of the mitigation measures identified above, the project would result in a less than significant operational noise impact. **(Less than Significant Impact with Mitigation)**

Impact NOI-2:	The project would not result in generation of excessive groundborne vibration or groundborne noise levels. **(Less than Significant Impact with Mitigation Incorporated)**

The City of Santa Clara does not specify a construction vibration limit. For structural damage, the California Department of Transportation recommends a vibration limit of 0.5 in/sec PPV for modern commercial and industrial structures. The 0.5 in/sec PPV vibration limit is applicable to properties in the vicinity of the project site.

Construction activities would include demolition, site preparation, grading and excavation, trenching, building (exterior), and interior/architectural coating and paving. Auger-cast drilled piles are anticipated for construction of the building foundation. Drilled piles do not have the same potential of generating high ground vibration levels as impact or vibratory-driven piles. Other project construction activities, such as the use of jackhammers, rock drills, and other high-power or vibratory tools, and rolling stock equipment (tracked vehicles, compactors, etc.) may also potentially generate substantial vibration in the immediate vicinity. Erection of the building structure is not anticipated to be a source of substantial vibration with the exception of sporadic events such as dropping of heavy objects, which should be avoided to the extent possible.

The closest structures to the project site are the Trescal instrument calibration facility building located 10 feet east of the site, and data center buildings located approximately 120 to 165 feet to the west and north of the site. The Trescal company describes this location on their website[1] as a provider of calibration services for equipment which may be sensitive to vibration. Specific vibration requirements for operation of the calibration facility are not known at this time.

Table 4.13-3 presents typical vibration levels that could be expected from construction equipment at a reference distance of 25 feet and calculated levels at distances of 10 feet, 12 feet, and 120 feet, representative of the closest commercial and industrial structures to the project site and the minimum distance from site property lines where construction vibration would fall beneath the 0.5 in/sec PPV criteria (12-feet).

Table 4.13-3: Vibration Source Levels for Construction Equipment					
Equipment		**Reference PPV at 25 ft. (in/sec)**	**PPV at 10 ft. (in/sec)[a]**	**PPV at 12 ft. (in/sec)[a]**	**PPV at 120 ft. (in/sec)[a]**
Clam shovel drop		0.202	**0.553**	0.453	0.036
Hydromill (slurry wall)	in soil	0.008	0.022	0.018	0.001
	in rock	0.017	0.047	0.038	0.002
Vibratory Roller		0.210	**0.575**	0.471	0.037
Hoe Ram		0.089	0.244	0.200	0.016
Large bulldozer		0.089	0.244	0.200	0.016
Caisson drilling		0.089	0.244	0.200	0.016
Loaded trucks		0.076	0.208	0.170	0.014
Jackhammer		0.035	0.096	0.078	0.006
Small bulldozer		0.003	0.008	0.007	0.001

[a] These levels calculated assuming normal propagation conditions, using a standard equation of *PPVeqmt-PPVref * (25/D) 1.5*, from FTA, May 2006.
Source: Transit Noise and Vibration Impact Assessment, United States Department of Transportation, Office of Planning and Environment, Federal Transit Administration, September 2018 as modified by Illingworth & Rodkin, Inc., October 2019.

As indicated in Table 4.13-3, construction vibration may exceed 0.5 in/sec PPV when heavy construction is located within 12 feet of structures. Only one structure is located within 12 feet of the site; the Trescal instrument calibration facility building located at 1065 Comstock Street, roughly 10 feet from the property line.

Assuming a maximum vibration level of 0.6 in/sec PPV, the maximum vibration level anticipated at the Trescal structure, there would be an approximate seven percent probability of "threshold damage" (referred to as cosmetic damage elsewhere in this report) resulting from construction activities within 12 feet of the structure. Cosmetic or threshold damage would be manifested in the form of hairline cracking in plaster, the opening of old cracks, the loosening of paint or the dislodging of loose objects. However, minor damage (e.g., hairline cracking in masonry or the loosening of plaster) or major structural damage (e.g., wide cracking or shifting of foundation or bearing walls) to the adjacent structure would not be anticipated to occur assuming a maximum vibration level of 0.6 in/sec PPV. Nevertheless, cosmetic or threshold damage to the adjacent structure would be considered a significant impact should it occur.

Mitigation Measures:

The following project-specific mitigation measures would be implemented during construction to avoid significant vibration impacts:

MM NOI-2.1:

- Place operating equipment on the construction site as far as possible from vibration sensitive receptors.
- Avoid using vibratory rollers and tampers near sensitive areas.
- Avoid dropping heavy objects or materials near shared property lines.

- A construction vibration-monitoring plan shall be implemented to document conditions at the adjacent Trescal building, located at 1065 Comstock Street, prior to, during, and after vibration generating construction activities within 15 feet of the building. All plan tasks shall be performed in accordance with industry accepted standard methods. The construction vibration monitoring plan should be implemented to include the following tasks:

    - Performance of a photo survey, elevation survey, and crack monitoring survey for the Trescal building in the area adjoining the project site. Surveys shall be performed prior to, in regular intervals during, and after completion of vibration generating construction activities within 15 feet of the building, and shall include internal and external crack monitoring in the structure, settlement, and distress, and shall document the condition of the foundation, walls, and other structural elements in the interior and exterior of said structure to the extent that access is provided by the owner of the building.

    - Conduct a post-survey on the structure where monitoring has indicated high levels or complaints of damage. Make appropriate repairs or provide compensation where damage has occurred as a result of construction activities.

    - Designate a person responsible for registering and investigating claims of excessive vibration. The contact information of such person shall be clearly posted on the construction site.

In areas where vibration would not be expected to cause structural damage, vibration levels may still be perceptible. As with any type of construction, this would be anticipated and would not typically be considered significant, given the intermittent and short duration of the phases that have the highest potential of producing vibration (use of jackhammers and other high-power tools). However, due to the types of services that are offered at the adjacent Trescal calibration facility, which include calibration services for equipment which may be sensitive to vibration, day-to-day business operations of this facility may be affected by much lower levels of vibration than those that would be anticipated to cause structural damage. The sensitivity of the operations of this facility are unknown at this time. By use of administrative controls, such as notifying Trescal of scheduled construction activities and scheduling construction activities with the highest potential to produce perceptible vibration during hours with the least potential to affect nearby businesses, perceptible vibration can be typically kept to a minimum. Additional coordination with the Trescal facility may be necessary to ensure that the impact of vibration levels generated by project construction on business operations are minimized. The following conditions of approval would be implemented by the project to reduce vibration impacts to the adjacent Trescal calibration facility.

Conditions of Approval:

- Prior to construction, occupants of the Trescal building at 1065 Comstock Street shall be notified of the construction schedule in writing. This schedule shall indicate when heavy vibration-generating construction will be taking place within 25 feet of the building. The applicant shall communicate with occupants to determine if additional vibration mitigation measures are necessary so as not to interfere with business operations.

- Construction scheduling shall be undertaken with consideration for the Trescal instrument calibration facility business hours and operations. Schedule high vibration generating construction activities that are located nearest the Trescal facility outside of business hours or during periods where vibration sensitive activities are not scheduled to occur. Coordination of construction activity times with Trescal facility occupants may be necessary.

With implementation of mitigation measures and conditions of approval, the project would result in a less than significant vibration impact. **(Less than Significant Impact with Mitigation Incorporated)**

Impact NOI-3:	The project would be located within two miles of a public airport or public use airport. However, the project would not expose people residing or working in the project area to excessive noise levels. **(Less than Significant Impact)**

As described previously, the Santa Clara County ALUC's CLUP sets a generally acceptable noise level compatibility standard of 70 dBA CNEL for industrial land uses. Norman Y. Mineta International Airport is located approximately 3,000 feet east of the project site. Based on the 2027 noise contours shown in the Norman Y. Mineta International Airport Master Plan Update Project Report (2010), the project site has an airport noise exposure of about 65 dBA CNEL. This noise level would be considered compatible with the proposed industrial use. **(Less than Significant Impact)**

4.14 POPULATION AND HOUSING

4.14.1 Environmental Setting

4.14.1.1 *Regulatory Framework*

State

Housing-Element Law

State requirements mandating that housing be included as an element of each jurisdiction's general plan is known as housing-element law. The Regional Housing Need Allocation (RHNA) is the state-mandated process to identify the total number of housing units (by affordability level) that each jurisdiction must accommodate in its housing element. California housing-element law requires cities to: 1) zone adequate lands to accommodate its RHNA; 2) produce an inventory of sites that can accommodate its share of the RHNA; 3) identify governmental and non-governmental constraints to residential development; 4) develop strategies and a work plan to mitigate or eliminate those constraints; and 5) adopt a housing element and update it on a regular basis.[62] The City of Santa Clara Housing Element and related land use policies were last updated in 2014.

Regional and Local

Plan Bay Area 2040

Plan Bay Area 2040 is a long-range transportation, land-use, and housing plan intended to support a growing economy, provide more housing and transportation choices, and reduce transportation-related pollution and GHG emissions in the Bay Area. Plan Bay Area 2040 promotes compact, mixed-use residential and commercial neighborhoods near transit, particularly within identified Priority Development Areas (PDAs).[63]

ABAG allocates regional housing needs to each city and county within the nine-county San Francisco Bay Area, based on statewide goals. ABAG also develops forecasts for population, households, and economic activity in the Bay Area. ABAG, MTC, and local jurisdiction planning staff created the Regional Forecast of Jobs, Population, and Housing, which is an integrated land use and transportation plan through the year 2040 (upon which Plan Bay Area 2040 is based).

4.14.1.2 *Existing Conditions*

According to the California Department of Finance, the City had a population of approximately 129,600 residents in 48,145 households as of January 2018.[64] Of the 129,600 residents, approximately 50 percent are employed residents.[65] There are approximately 137,000 jobs in the City (estimated by ABAG for 2020). In 2035, it is estimated that the City will have approximately

[62] California Department of Housing and Community Development. "Regional Housing Needs Allocation and Housing Elements" Accessed October 18, 2019. http://hcd.ca.gov/community-development/housing-element/index.shtml.
[63] Association of Bay Area Governments and Metropolitan Transportation Commission. "Project Mapper." http://projectmapper.planbayarea.org/.
[64] California Department of Finance. "E-5 City/County Population and Housing Estimates." May 2018. Accessed: October 18, 2019. http://www.dof.ca.gov/Forecasting/Demographics/Estimates/E-5/.
[65] Association of Bay Area Governments. *Plan Bay Area: Projections 2013*. December 2013.

154,825 residents, 54,830 households, 154,300 jobs and 72,080 employed residents.[66]

The jobs/housing relationship is quantified by the jobs/employed resident ratio. When the ratio reaches 1.0, a balance is struck between the supply of local housing and jobs. The jobs/housing resident ratio is determined by dividing the number of local jobs by the number of employed residents that can be housed in local housing.

The City of Santa Clara had an estimated 2.50 jobs for every employed resident in 2010.[67] The General Plan focuses on increased housing and the placement of housing near employment. As a result, the jobs to housing ratio is projected to slightly decrease to 2.48 by 2040[68] Some employees who work within the City are, and still would be, required to seek housing outside the community with full implementation of the General Plan.

The project site is developed with an industrial building. There are no residences on site.

4.14.2 Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
1) 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)?	☐	☐	☒	☐
2) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Impact POP-1: The project would not 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). **(Less than Significant Impact)**

The project would demolish the existing building and associated parking lot on the site to construct a 121,170 sf data center. There would be up to nine employees on the site at any given time. Approval of the project would slightly decrease jobs in the City. The proposed project would not induce substantial population growth in the City or substantially alter the City's job/housing ratio, and would therefore result in a less than significant population and housing impacts. **(Less Than Significant Impact)**

[66] Ibid.
City of Santa Clara. 2010-2035 General Plan. December 2014.
[67] City of Santa Clara 2010-2035 General Plan. December 2014. Appendix 8.12 (Housing Element). Page 8.12-25.
[68] City of Santa Clara 2010-2035 General Plan Final Environmental Impact Report. 2011

Impact POP-2:	The project would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere. **(No Impact)**

The project would demolish the existing industrial building and construct a new industrial building. The project would not displace housing or residents. **(No Impact)**

4.15 PUBLIC SERVICES

4.15.1 Environmental Setting

4.15.1.1 *Regulatory Framework*

State

Government Code Section 66477

The Quimby Act (Government Code Section 66477) was approved by the California legislature to set aside parkland and open space for recreational purposes. It provides provisions for the dedication of parkland and/or payment of fees in lieu of parkland dedication to help mitigate the impacts from new residential developments. This legislation was initiated in 1980's in response to California's increased rate of urbanization and the need to preserve open space and provide parks and recreation facilities for California's growing communities. The Quimby Act authorizes local governments to establish ordinances requiring developers of new residential subdivisions to dedicate parks, pay a fee in lieu of parkland dedication, or perform a combination of the two at the discretion of the City.

Government Code Section 65995 through 65998

California Government Code Section 65996 specifies that an acceptable method of offsetting a project's effect on the adequacy of school facilities is the payment of a school impact fee prior to the issuance of a building permit. Government Code Sections 65995 through 65998 set forth provisions for the payment of school impact fees by new development by "mitigating impacts on school facilities that occur (as a result of the planning, use, or development of real property" (Section 65996[a]). The legislation states that the payment of school impact fees "are hereby deemed to provide full and complete school facilities mitigation" under CEQA (Section 65996[b]).

Developers are required to pay a school impact fee to the school district to offset the increased demands on school facilities caused by the proposed residential development project. The school district is responsible for implementing the specific methods for mitigating school impacts under the Government Code.

Regional and Local

Countywide Trails Master Plan

The Santa Clara County Trails Master Plan Update is a regional trails plan approved by the Santa Clara County Board of Supervisors. It provides a framework for implementing the County's vision of providing a contiguous trail network that connects cities to one another, cities to the county's regional open space resources, County parks to other County parks, and the northern and southern urbanized regions of the County. The plan identifies regional trail routes, sub-regional trail routes, connector trail routes, and historic trails.

Santa Clara General Plan

Applicable public services General Plan policies include, but are not limited to, the following listed below.

Policies	Description
5.9.3-P3	Maintain a City-wide average three-minute response time for 90 percent of police emergency service calls.
5.9.3-P4	Maintain a City-wide average three-minute response time for fire emergency service calls.

4.15.1.2 *Existing Conditions*

Fire Service

The City of Santa Clara Fire Department (SCFD) consists of 10 stations distributed throughout the City to provide fire protection services. The closest fire station to the project site is Station 2 located at 1900 Walsh Ave, approximately one mile southwest of the project site.

The City also participates in the Santa Clara County Fire and Rescue Mutual Aid Response Plan to further ensure that fires and other emergencies are handled efficiently. Fire departments from neighboring and nearby jurisdictions and the Santa Clara County Fire Department are participating members of this plan. Neighboring departments work in conjunction to reduce reflex and response times. When a developing fire overburdens one department, other departments will send the necessary task force to reduce the burden.

Police Service

The City of Santa Clara Police Department (SCPD) headquarters is located at 601 El Camino Real, approximately three miles southeast of the project site. The SCPD has 239 full-time employees (159 sworn officers and 80 civilians) and a varying number of part-time or per diem employees, community volunteers, police reserves, and chaplains.[69]

Parks

The City of Santa Clara Parks and Recreation Department (Department) provides park and recreational services in the City. The Department is responsible for maintaining and programming the various parks and recreational facilities, and works cooperatively with public agencies in coordinating all recreational activities within the City. Overall, as of November 2019, the Department maintains and operates Central Park, a 45.04-acre community park (45.04 acres improved and Central Park North 34.93 acres unimproved, resulting in 79.97 acres), 27 neighborhood parks (121.261 acres improved and 9.389 acres unimproved resulting in 130.65 acres), 13 mini parks (2.59 acres improved and 3.189 acres unimproved resulting in 5.779 acres), public open space (16.13 acres improved and 40.08 acres unimproved resulting in 56.21 acres), recreational facilities (14.86 acres improved, 9.038 acres unimproved and excluding the Santa Clara Golf and Tennis Club/BMX track resulting in 23.898 acres), recreational trails (7.59 acres improved and 0.20 acres unimproved resulting in 7.79 acres), and joint use facilities (47.52 acres improved and 1.068 acres unimproved resulting in 48.588 acres) throughout the City totaling approximately 254.991 improved acres. Community parks are over fifteen acres, neighborhood parks are one to fifteen acres and mini parks are typically less than one acre in size.

[69] City of Santa Clara. "Santa Clara Police Department: About Us." Accessed: November 8, 2019. Available at: http://santaclaraca.gov/government/departments/police-department/about-us.

The closest neighborhood park to the project site is the Everett N. Eddie Souza Park and Community Garden located at the corner of San Tomas Expressway and Monroe Street, approximately 1.9 miles walking distance from the site.

Schools

The project site is located within the Santa Clara Unified School District (SCUSD). Students in the project area attend Montague Elementary School located at 750 Laurie Avenue (approximately two miles north of the site), Cabrillo Middle School located at 2550 Cabrillo Avenue (approximately 2.3 miles southwest of the site), and Adrian Wilcox High School located at 3250 Monroe Street (approximately 2.7 miles west of the site).

Libraries

Library services are provided by the Santa Clara City Library (SCCL). The City of Santa Clara is served by the Central Park Library located at 2635 Homestead Road (approximately 3.8 miles southwest of the site), Mission Library Family Reading Center located at 1098 Lexington Street (approximately three miles southeast of the site), and Northside Branch Library located at 695 Moreland Way (approximately 2.6 miles southwest of the site). These facilities total approximately 104,770 sf and have approximately 457,210 items combined.

4.15.2 Impact Discussion

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

Impact PS-1:	The project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection services. **(Less than Significant Impact)**

The project site is currently served by the Santa Clara Fire Department. The project's redevelopment of the site would not increase fire protection services to the site. The project would be constructed in conformance with current building and fire codes, and the Fire Department would review project plans to ensure appropriate safety features are incorporated to reduce fire hazards. The Fire Department, with Station 2 located one mile southwest of the site, would meet their response time goal to the site. For these reasons, the project would not require new or expanded fire protection facilities (the construction of which could cause significant environmental impacts) in order to maintain acceptable service ratios, response times or other performance objectives for fire protection services. **(Less than Significant Impact)**

Impact PS-2:	The project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for police protection services. **(Less than Significant Impact)**

The project site is currently served by the Santa Clara Police Department. Like with fire protection services, the project's redevelopment of the site would not increase demand for police protection services to the site.

For this reason, the project would not require new or expanded police protection facilities (the construction of which could cause significant environmental impacts) in order to maintain acceptable service ratios, response times or other performance objectives for police protection services. In addition, the Police Department would review final site design, including proposed landscaping, access, and lighting, to ensure that the project provides adequate safety and security measures. **(Less than Significant Impact)**

Impact PS-3:	The project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for schools. **(No Impact)**

The project proposes to redevelop the site with a data center. The project does not propose housing units or other uses that would generate new students and impact school facilities. The project,

therefore, would not require new or expanded school facilities, the construction of which could cause significant environmental impacts. **(No Impact)**

Impact PS-4:	The project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for parks. **(No Impact)**

The proposed project would not generate substantial population growth in the project area or result in the use of public facilities in the City by new residents. Some employees at the project site may visit local parks; however, there would be fewer employees than currently work at the site, and so it is not anticipated that this use would create the need for any new facilities or adversely impact the physical condition of existing facilities. **(No Impact)**

Impact PS-5:	The project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for other public facilities. **(No Impact)**

The proposed project would not generate substantial population growth in the project area or result in the use of public facilities in the City by new residents. Some employees at the project site may visit library facilities; however, there would be fewer employees than currently work at the site, and so it is not anticipated that this use would create the need for any new facilities or adversely impact the physical condition of existing facilities. **(No Impact)**

4.16 RECREATION

4.16.1 Environmental Setting

The City of Santa Clara Parks & Recreation Department (Department) provides parks and recreational services in the City. The Department is responsible for maintaining and programming the various parks and recreation facilities, and works cooperatively with public agencies in coordinating all recreational activities within the City. Overall, as of November 2019, the Department maintains and operates Central Park, a 45.04-acre community park (45.04 acres improved and Central Park North 34.93 acres unimproved, resulting in 79.97 acres), 27 neighborhood parks (121.261 acres improved and 9.389 acres unimproved resulting in 130.65 acres), 13 mini parks (2.59 acres improved and 3.189 acres unimproved resulting in 5.779 acres), public open space (16.13 acres improved and 40.08 acres unimproved resulting in 56.21 acres), recreational facilities (14.86 acres improved, 9.038 acres unimproved and excluding the Santa Clara Golf and Tennis Club/BMX track resulting in 23.898 acres), recreational trails (7.59 acres improved and 0.20 acres unimproved resulting in 7.79 acres), and joint use facilities (47.52 acres improved and 1.068 acres unimproved resulting in 48.588 acres) throughout the City totaling approximately 254.991 improved acres. Community parks are over fifteen acres, neighborhood parks are one to fifteen acres and mini parks are typically less than one acres in size.

The Department of Parks and Recreation also maintains a strong recreational program that supports a wide variety of activities. The Community Recreation Center, is the hub of the City's recreation programs. The area in Central Park west of Saratoga Creek contains group and individual picnic facilities, playgrounds, restroom facilities, an amphitheater, two lighted tennis courts, basketball courts, and the Veterans Memorial. East of the creek is the world famous George F. Haines International Swim Center, Bob Fatjo Sports Center which includes the Tony Sanchez Field as well as a second lighted softball field, the Santa Clara Tennis Center with eight lighted tennis courts and a practice wall, open space, a lake, large group picnic areas, restroom facilities, a lawn bowling green, and an exercise course.

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

4.16.1.1 *Regulatory Framework*

State

Government Code Section 66477

The Quimby Act (Government Code Section 66477) was approved by the California legislature to set aside parkland and open space for recreational purposes. It provides provisions for the dedication of parkland and/or payment of fees in lieu of parkland dedication to help mitigate the impacts from new residential developments. This legislation was initiated in 1980's in response to California's increased rate of urbanization and the need to preserve open space and provide parks and recreation facilities for California's growing communities. The Quimby Act authorizes local governments to

establish ordinances requiring developers of new residential subdivisions to dedicate parks, pay a fee in lieu of parkland dedication, or perform a combination of the two at the discretion of the City.

Local

Santa Clara General Plan

Applicable recreational services General Plan policies, include, but are not limited to, the following listed below.

Policies	Description
Prerequisite	
5.1.1-P20	Prior to 2023, identify the location for new parkland and/or recreational facilities to serve employment centers and pursue funding to develop these facilities by 2035.

4.16.1.2 *Existing Conditions*

The closest neighborhood park to the project site is San Tomas and Monroe Neighborhood Park and Community Garden, approximately 1.9 miles northeast of the project site.

4.16.2 Impact Discussion

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

Impact REC-1: The project would not increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated. **(No Impact)**

The proposed project would not increase employment nor generate new residents. Although employees may use nearby parks and recreational facilities, there would be fewer employees than currently work at the site; thus, this would not have an impact on these facilities such that substantial physical deterioration of the facility would occur or be accelerated. **(No Impact)**

Impact REC-2:	The project would not include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment. **(No Impact)**

The project would include a break room for employees. The project would not require the construction or expansion of recreational facilities and therefore would not have an adverse physical effect on the environment. **(No Impact)**

4.17 TRANSPORTATION

4.17.1 Environmental Setting

4.17.1.1 *Regulatory Framework*

State

Regional Transportation Plan

MTC is the transportation planning, coordinating, and financing agency for the nine-county San Francisco Bay Area, including Santa Clara County. MTC is charged with regularly updating the Regional Transportation Plan, a comprehensive blueprint for the development of mass transit, highway, airport, seaport, railroad, bicycle, and pedestrian facilities in the region. MTC and ABAG adopted Plan Bay Area 2040 in July 2017, which includes a Regional Transportation Plan to guide regional transportation investment for revenues from federal, state, regional and local sources through 2040.

Senate Bill 743

SB 743 establishes criteria for determining the significance of transportation impacts using a vehicle miles traveled (VMT) metric intended to promote the reduction of GHG emissions, the development of multimodal transportation networks, and a diversity of land uses. Specifically, SB 743 requires the replacement of automobile delay—described solely by level of service (LOS) or similar measures of vehicular capacity or traffic congestion—with VMT as the recommended metric for determining the significance of transportation impacts. The Governor's Office of Planning and Research (OPR) approved the CEQA Guidelines implementing SB 743 on December 28, 2018. Local jurisdictions are required to implement a VMT policy by July 1, 2020.

SB 743 did not authorize OPR to set specific VMT impact thresholds, but it did direct OPR to develop guidelines for jurisdictions to utilize. CEQA Guidelines Section 15064.3(b)(1) describes factors that might indicate whether a development project's VMT may be significant. Notably, projects located within 0.50 mile of transit should be considered to have a less than significant transportation impact based on OPR guidance. In adopting its VMT threshold, the City followed the state guidance and exempted "transit supportive projects," which are projects located within .50 miles of a major transit stop, or an existing transit stop along a high-quality transit corridor, where the project FAR is at least 0.75. The City's VMT policy also exempts projects that generate 110 daily trips or less.

Regional and Local

Congestion Management Program

VTA oversees the Congestion Management Program (CMP), which is aimed at reducing regional traffic congestion. The relevant state legislation requires that urbanized counties in California prepare a CMP in order to obtain each county's share of gas tax revenues. State legislation requires that each CMP define traffic LOS standards, transit service standards, a trip reduction and transportation demand management plan, a land use impact analysis program, and a capital improvement element.

VTA has review responsibility for proposed development projects that are expected to affect CMP-designated intersections.

Santa Clara General Plan

General Plan policies applicable to transportation/traffic relevant to the proposed project include the following.

Policies	Description
5.4.1-P11	Locate parking at the side or rear of parcels and active uses along street frontages.
5.8.1-P5	Work with local, regional, State and private agencies, as well as employers and residents, to encourage programs and services that reduce vehicle miles traveled.
5.8.2-P1	Require that new and retrofitted roadways implement "Full-Service Streets" standards, including minimal vehicular travel lane widths, pedestrian amenities, adequate sidewalks, street trees, bicycle facilities, transit facilities, lighting and signage, where feasible.
5.8.3-P8	Require new development to include transit stop amenities, such as pedestrian pathways to stops, benches, traveler information and shelters.
5.8.3-P9	Require new development to incorporate reduced on-site parking and provide enhanced amenities, such as pedestrian links, benches and lighting, in order to encourage transit use and increase access to transit services.
5.8.4-P6	Require new development to connect individual sites with existing and planned bicycle and pedestrian facilities, as well as with on-site and neighborhood amenities/services, to promote alternate modes of transportation.
5.8.4-P8	Require new development and public facilities to provide improvements, such as sidewalks, landscaping and bicycling facilities, to promote pedestrian and bicycle use.
5.8.4-P9	Encourage pedestrian- and bicycle-oriented amenities, such as bicycle racks, benches, signalized mid-block crosswalks, and bus benches or enclosures.
5.8.4-P10	Encourage safe, secure and convenient bicycle parking and end-of-trip, or bicycle "stop" facilities, such as showers or bicycle repair near destinations for all users, including commuters, residents, shoppers, students and other bicycle travelers.
5.8.5-P1	Require new development and City employees to implement TDM programs that can include site-design measures, including preferred carpool and vanpool parking, enhanced pedestrian access, bicycle storage and recreational facilities.
5.8.5-P5	Encourage transportation demand management programs that provide incentives for the use of alternative travel modes to reduce the use of single-occupancy vehicles.
5.8.6-P3	Encourage flexible parking standards that meet business and resident needs as well as avoid an oversupply in order to promote transit ridership, bicycling and walking.
5.8.6-P11	Encourage development to "unbundle" parking spaces from leases and purchases to provide greater choices.

4.17.1.2 *Existing Conditions*

Regional Roadway Access

Regional access to the project site is provided by Highway 101 (US 101) and Central Expressway as described below.

US 101 provides access to the project site via De La Cruz Boulevard and San Tomas Expressway. US 101 is a regional north/south freeway with six mixed-flow lanes and two high occupancy vehicle lanes in the project area. US 101 extends through the entire Bay Area north of San Francisco and south of San José.

Central Expressway is a regional east/west expressway with four lanes. Central Expressway extends from San Antonio Road in Mountain View to De La Cruz Boulevard in Santa Clara.

Local Roadway Access

Local access to the project site is provided via Lafayette Street, Comstock Street and Kenneth Street. These roadways are described below.

Lafayette Street is a north/south four-to-five-lane arterial road in the vicinity of the site. It extends from Alviso in North San Jose to Poplar Street in Santa Clara. North of Reed Street, Lafayette Street operates as a six-lane roadway with two lanes in each direction and a center turn lane. South of Reed Street, Lafayette Street is a four-lane roadway with two lanes in each direction. Lafayette Street is east of the project site and provides access via Comstock Street.

Comstock Street is an east/west two-lane roadway in the vicinity of the project site. It extends from Scott Boulevard to the Union Pacific Railroad (UPRR) tracks.

Kenneth Street is a north/south two-lane roadway in the vicinity of the project site. It extends from Comstock Street to Duane Avenue. Kenneth Street is west of the project site and provides access via Comstock Street.

Existing Transit Service

Bus Service

The nearest bus stop to the project site is the Scott Boulevard and Space Park stop, approximately 0.4 miles west of the project site. Local routes 58, 60, 304 and 827 provide bus service to the Scott Boulevard and Space Park stop. [70]

Caltrain and ACE

The Santa Clara Caltrain station is located approximately three miles southwest of the project site, near Railroad Avenue and El Camino Real. Caltrain commuter rail service between San Francisco to Gilroy and the Altamont Commuter Express (ACE) rail service between Stockton and San Jose both

[70] Santa Clara Valley Transportation Authority. *Bus and Rail Map.* https://www.vta.org/sites/default/files/2019-07/VTA%20Main%20Map%20JUL%202019.pdf Accessed on November 11, 2019.

stop at the Santa Clara Caltrain Station. Caltrain provides service with 15- to 30-minute headways during commute hours. The ACE rail service operates four trains during the morning and afternoon commute periods.

Bicycle and Pedestrian Facilities

Bicycle Facilities

Bicycle facilities comprise paths (Class I), lanes (Class II), and routes (Class III). Bicycle paths are paved trails that are separate from roadways. Bicycle lanes are lanes on roadways designated for bicycle use by striping, pavement legends, and signs. Bicycle routes are roadways designated for bicycle use by signs only. Class II bike lanes are located on Scott Boulevard.[71]

Pedestrian Facilities

Pedestrian access to the site is provided by sidewalks on the site's southern frontage on Comstock Street.

4.17.2 Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
1) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadways, bicycle lanes, and pedestrian facilities?	☐	☐	☒	☐
2) Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?	☐	☐	☒	☐
3) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible land uses (e.g., farm equipment)?	☐	☐	☐	☒
4) Result in inadequate emergency access?	☐	☐	☒	☐

[71] Silicon Valley Bicycle Coalition. *Maps.* https://bikesiliconvalley.org/maps/ Accessed November 12, 2019.

Impact TRN-1:	The project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadways, bicycle lanes, and pedestrian facilities. **(Less than Significant Impact)**

The City of Santa Clara currently adopted its VMT policy in June 2020. The policy states that small projects, which are considered projects that generate 110 daily trips or less, are exempt from VMT analysis. Additionally, the VTA Congestion Management Plan (CMP) guidelines state that a project's traffic impacts should be analyzed during the weekday AM and PM peak periods if it will add more than 100 peak hour trips to the roadway network. Based upon Trip Generation analysis below, the project would not exceed the 100 peak hour trips threshold. As a result, no formal traffic impact analysis to evaluate changes in intersection level of service is required or proposed.

Vehicle Trips

The project would have low employment intensity and would not generate substantial vehicle trips. Trip generation rates for the project were based on the Institute of Transportation Engineers' (ITE) Trip Generation Manual, Tenth Edition's trip generation rates for data centers (land use code 160), which use rates based on actual survey data. The rate assumes 0.99 daily trips per 1,000 sf. Based on ITE rates, the project would generate up to 120 daily vehicle trips, with 13 AM peak hour trips and 11 PM peak hour trips. This represents a conservative estimate, as the project would have nine employees, and therefore is highly unlikely to generate 120 daily trips. Based on ITE trip rates for general light industrial uses (land use code 110), the existing building generates 118 daily trips, 17 AM peak hour trips, and 15 PM peak hour trips. The project would result in a nominal increase of two daily trips, and a decrease of four peak AM trips and four PM peak hour trips. The project, therefore, would not conflict with programs, plans, ordinances or polices addressing the circulation system as it pertains to roadway.

The City's Climate Action Plan includes VMT reduction requirements for projects located within one of four designated transportation districts. The project site is located within Transportation District 1 with a General Plan land use designation of Low Intensity Office/R&D and is therefore required to have a 25 percent VMT reduction, 10 percent coming from a transportation demand management program. The project would be required to implement a TDM program that would include measures such as: preferred carpool and vanpool parking, enhanced pedestrian access, bicycle storage and recreational facilities. With implementation of the TDM, the project would reduce the number of trips generated by approximately 25 percent, the project would further reduce trips generated, resulting in a less than significant impact.

Bicycle and Pedestrian Facilities

The project would retain the existing sidewalk on Comstock Street, and would therefore not conflict with pedestrian circulation in the area.

The project would replace the existing driveway with two new driveways. Modifications to the site along the project frontage would not conflict with bicyclists.

Transit Facilities

VTA, Caltrain and ACE provide transit service within the project vicinity. The nearest bus stop to the project site is the Scott Boulevard and Space Park stop, approximately 0.4 miles west of the project site. Local routes 58, 60, 304 and 827 provide bus service to the Scott Boulevard and Space Park bus stop. There are adequate pedestrian pathways connecting the project site to the bus stop.

Due to the low number of employees and visitors expected at the proposed data center, the project would not adversely impact levels of service at nearby transit facilities. **(Less than Significant Impact)**

Impact TRN-2:	The project would not conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b). **(Less than Significant Impact)**

The CEQA Guidelines Section 15064.3, Subdivision (b)(1) states that land use projects with vehicle miles traveled (VMT) exceeding an applicable threshold of significance may indicate a significant impact. For industrial projects such as the proposed data center, the City's VMT policy states that a project would have a significant impact if the VMT per employee is greater than the existing Countywide VMT per employee. The VTA's VMT Evaluation Tool was used to determine the project's VMT in comparison to the Countywide average. The VMT Evaluation Tool determined that the project's VMT per employee would be 16.03, which is below the Countywide average of 16.64 (refer to Appendix F). Additionally, the City's Climate Action Plan requires the project to achieve a 25 percent VMT reduction, 10 percent coming from a transportation demand management program. As a result, the project's VMT would be even lower than shown in the VMT Evaluation Tool. The project does not exceed applicable thresholds of significance in the City's VMT policy nor in the VTA Congestion Management Plan guidelines. Therefore, the project would not conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b). **(Less Than Significant Impact)**

Impact TRN-3:	The project would not substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment). **(No Impact)**

The project does not substantially increase hazards. The project would not alter the shape of the road, create any sharp curves or dangerous intersections. **(No Impact)**

Impact TRN-4:	The project would not result in inadequate emergency access. **(Less than Significant Impact)**

Emergency access would be provided to the site via the two proposed driveways on Comstock Street. The City of Santa Clara standards require two-way driveways providing access to all properties be a minimum width of 22 feet (20-foot pavement with one-foot clearance on each side). The main driveway would be 26-feet wide and the secondary driveway would be 22-feet wide. The final site design would be required to be consistent with regulatory requirements for fire truck access. **(Less Than Significant Impact)**

4.18 TRIBAL CULTURAL RESOURCES

4.18.1 Environmental Setting

4.18.1.1 *Regulatory Framework*

State

Assembly Bill 52

AB 52, effective July 2015, established a new category of resources for consideration by public agencies called Tribal Cultural Resources (TCRs). AB 52 requires lead agencies to provide notice of projects to tribes that are traditionally and culturally affiliated with the geographic area if they have requested to be notified. Where a project may have a significant impact on a tribal cultural resource, consultation is required until the parties agree to measures to mitigate or avoid a significant effect on a tribal cultural resource or until it is concluded that mutual agreement cannot be reached.

Under AB 52, TCRs are defined as follows:

- Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are also either:
    - Included or determined to be eligible for inclusion in the California Register of Historic Resources, or
    - Included in a local register of historical resources as defined in Public Resources Code Section 5020.1(k).
- A resource determined by the lead agency to be a TCR.

4.18.1.2 *Existing Conditions*

No Native American tribes have contacted the City pursuant to AB52 to be notified about projects within the City for purposes of requesting consultation.

4.18.2 Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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:				
1) 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)?	☐	☐	☐	☒
2) 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.	☐	☐	☐	☒

Impact TCR-1: The project would not cause a substantial adverse change in the significance of a tribal cultural resource that is 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). **(No Impact)**

As discussed in Section 4.18.1.2, no tribes have sent written requests for notification of projects to the City of Santa Clara under AB 52. Based on available data, there are no recorded tribal cultural objects in the project area.[72] Any subsurface artifacts found on-site would be addressed consistent with mitigation measures CUL-1.1, CUL-1.2, and CUL-3.1 in *Section 4.5 Cultural Resources*. Therefore, the proposed project would have no impact on tribal cultural resources. **(No Impact)**

[72] A Sacred Lands Search was completed by the NAHC for a project at 2825 Lafayette Street, roughly 900 feet southeast of the project site. The search found no sacred lands in the project area. The 1111 Comstock Data Center is within the same quadrangle (7.5 Milpitas 1983) as the 2825 Lafayette Street Project, and was covered by this search. Therefore, there are no sacred lands within the project site.

Impact TCR-2:	The project would not cause a substantial adverse change in the significance of a tribal cultural resource that is 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. **(No Impact)**

No Native American tribal resources have been identified at the site. See the response to Impact TCR-1. **(No Impact)**

4.19 UTILITIES AND SERVICE SYSTEMS

4.19.1 Environmental Setting

4.19.1.1 *Regulatory Framework*

State

State Water Code

Pursuant to the State Water Code, water suppliers providing water for municipal purposes to more than 3,000 customers or supplying more than 3,000 acre-feet (approximately 980 million gallons) of water annually must prepare and adopt an urban water management plan (UWMP) and update it every five years. As part of a UWMP, water agencies are required to evaluate and describe their water resource supplies and projected needs over a 20-year planning horizon, water conservation, water service reliability, water recycling, opportunities for water transfers, and contingency plans for drought events. The City of Santa Clara adopted its most recent UWMP in November 2016.

Assembly Bill 939

The California Integrated Waste Management Act of 1989, or AB 939, established the Integrated Waste Management Board, required the implementation of integrated waste management plans, and mandated that local jurisdictions divert at least 50 percent of solid waste generated (from 1990 levels), beginning January 1, 2000, and divert at least 75 percent by 2010. Projects that would have an adverse effect on waste diversion goals are required to include waste diversion mitigation measures.

Assembly Bill 341

AB 341 sets forth the requirements of the statewide mandatory commercial recycling program Businesses that generate four or more cubic yards of garbage per week and multi-family dwellings with five or more units in California are required to recycle. AB 341 sets a statewide goal for 75 percent disposal reduction by the year 2020.

Senate Bill 1383

SB 1383 establishes targets to achieve a 50 percent reduction in the level of the statewide disposal of organic waste from the 2014 level by 2020 and a 75 percent reduction by 2025. The bill grants CalRecycle the regulatory authority required to achieve the organic waste disposal reduction targets and establishes an additional target that at least 20 percent of currently disposed edible food is recovered for human consumption by 2025.

4.19.1.2 *Existing Conditions*

Water Services

Water is provided to the site by the City of Santa Clara Water Utility. The system consists of more than 335 miles of water mains, 26 active wells, and seven storage tanks with approximately 28.8

million gallons of water capacity.[73] Drinking water is provided by an extensive underground aquifer (accessed by the City's wells) and by two wholesale water importers: Valley Water (imported from the Sacramento-San Joaquin Delta) and the San Francisco Hetch-Hetchy System (imported from the Sierra Nevada). The three sources are used interchangeably or are blended together. A water recharge program administered by Valley Water from local reservoirs and imported Sacramento-San Joaquin Delta water enhances the dependability of the underground aquifer.

The existing water use on-site is approximately 956,000 gallons per year.[74]

Recycled Water

Tertiary treated (or 'recycled') water serves as a fourth source of water supply and comprises approximately 16.7 percent of the City's overall water supply (in 2015). Recycled water is supplied from South Bay Recycled Water, which provides advanced tertiary treated water from the San Jose—Santa Clara Regional Wastewater Facility (formerly known as the San Jose/Santa Clara Water Pollution Control Plant). The City of Santa Clara recycles approximately one percent of its water through non-potable uses by businesses, industries, parks, and schools along pipeline routes. The City's recycled water program delivers recycled water throughout the City for landscaping, parks, public services and businesses. The nearest recycled water line is located in Comstock Street, which connects to a larger line in Lafayette Street.[75]

Wastewater

The City of Santa Clara Departments of Public Works and Water and Sewer Utilities are responsible for the wastewater collection system within the City. Wastewater is collected by sewer systems in Santa Clara and is conveyed by pipelines to the Regional Wastewater Facility (RWF) located in San José. The RWF is one of the largest advanced wastewater treatment facilities in California and serves over 1,400,000 people in San José, Santa Clara, Milpitas, Campbell, Cupertino, Los Gatos, Saratoga, and Monte Sereno.[76] The RWF has available capacity to treat up to 167 million gallons per day (mgd). The RWF presently operates at an average dry weather flow of 110 mgd, which is 57 mgd (or 35 percent) under the facility's 167 mgd treatment capacity.[77] Approximately 10 percent of the plant's effluent is recycled for non-potable uses and the remainder flows into San Francisco Bay.

The existing wastewater generation on-site is approximately 860,400 gallons per year.[78] Wastewater from the site currently discharges via a 12-inch lateral to an existing sanitary sewer line that flows along Comstock Street. The flow is conveyed to the San José/Santa Clara Regional Wastewater Facility. Sanitary sewer lines that serve the project site are maintained by the City of Santa Clara Sewer Utility.

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[73] City of Santa Clara. "Water Utility." Accessed: October 30, 2019. http://santaclaraca.gov/government/departments/water-sewer-utilities/water-utility.
[74] Personal Communication. Kolar, John. Integra Mission Critical. September 10, 2019.
[75] City of Santa Clara. *Recycled Water System Map City of Santa Clara, California.* Updated July 2012.
[76] City of San José. "San José-Santa Clara Regional Wastewater Facility." Accessed: October 30, 2019. http://www.sanjoseca.gov/index.aspx?NID=1663.
[77] City of Santa Clara. 2010-2035 General Plan Integrated Final Environmental Impact Report. SCH# 2008092005. January 2011.
[78] This number equates to 90 percent of the estimated water usage in the existing building.

Storm Drainage

The City of Santa Clara owns and maintains the municipal storm drainage system which serves the project site. Stormwater from the site flows to the existing storm drain line in Comstock Street.

Solid Waste

Solid waste collection in the City of Santa Clara is provided by Mission Trail Waste System through a contract with the City. Mission Trail Waste System also has a contract to implement the Clean Green portion of the City's recycling plan by collecting yard waste. All other recycling services are provided through Stevens Creek Disposal and Recycling. The City has an arrangement with the owners of the Newby Island Landfill, located in San José, to provide disposal capacity for the City of Santa Clara through 2024. The City of San José approved expansion of Newby Island Landfill in August 2012 and the landfill could continue to provide disposal capacity to Santa Clara beyond 2024. Prior to 2024, the City would need to amend their contract with Newby Island or contract with another landfill operator which would be subject to environmental review. Newby Island Landfill is currently in the process of seeking authorization from San José to expand the permitted capacity and accept an additional 15.1 million cubic yards and extend its closure date to 2041.[79] If the landfill is not available to accept waste, the City will prepare a contract with another landfill, such as Guadalupe Mines in San José, which is anticipated to close in 2048.

In addition to SB 1383, as discussed in Section 4.19.1.1, the City of Santa Clara has a construction debris diversion ordinance which requires all projects over 5,000 sf to divert a minimum 50 percent of construction and demolition debris from landfills.

The existing office building generates approximately 80.5 tons of solid waste per year.[80]

Natural Gas and Electricity Services

Electric service is provided to the site by Silicon Valley Power and natural gas is provided by Pacific Gas and Electric (PG&E). Electric and natural gas lines serving the site are located underground.

[79] The Mercury News. "San José to Study Odors from Newby Island Landfill Before Considering Any Expansion." Accessed: April 24, 2018. Available at: https://www.mercurynews.com/2016/01/14/san-jose-to-study-odors-from-newby-island-landfill-before-considering-any-expansion/.

[80] California Air Pollution Control Officers Association (CAPCOA). CalEEMod. Appendix D Calculation Detail for CalEEMod. October 2017. Table 10.1 Solid Waste Disposal Rates. Accessed November 8, 2019. Available at: http://www.aqmd.gov/docs/default-source/caleemod/05_appendix-d2016-3-2.pdf?sfvrsn=4.

Local

General Plan

General Plan policies applicable to utilities and service systems include, but are not limited to, the following listed below.

Policies	Description
Prerequisite Policies	
5.1.1-P3	Prior to the implementation of Phase III of the General Plan, undertake a comprehensive assessment of water, sanitary sewer conveyance, wastewater treatment, solid waste disposal, storm drain, natural gas, and energy demand and facilities in order to ensure adequate capacity and funding to implement the necessary improvements to support development in the next phase.
5.1.1-P21	Prior to 2023, identify and secure adequate solid waste disposal facilities to serve development in Phase III.
5.10.1-P6	Require adequate wastewater treatment and sewer conveyance capacity for all new development.
General Land Use	
5.3.1-P9	Require that new development provide adequate public services and facilities, infrastructure, and amenities to serve the new employment or residential growth.
5.3.1-P11	Encourage new developments proposed within a reasonable distance of an existing or proposed recycled water distribution system to utilize recycled water for landscape irrigation, industrial processes, cooling and other appropriate uses to reduce water use consistent with the CAP.
5.3.1-P27	Encourage screening of above-ground utility equipment to minimize visual impacts.
5.3.1-P28	Encourage undergrounding of new utility lines and utility equipment throughout the City.
Safety	
5.10.5-P20	Maintain, upgrade and replace storm drains throughout the City to reduce potential flooding.
5.10.5-P21	Require that storm drain infrastructure is adequate to serve all new development and is in place prior to occupancy.

4.19.2 Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
1) Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
2) Have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐
3) Result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐
4) 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?	☐	☐	☒	☐
5) Be noncompliant with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☒	☐

Impact UTL-1: The project would not require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects. **(Less than Significant Impact)**

Water Facilities

The project would install a new two-inch water line on-site with service connections to the existing water main in Comstock Street. The new and existing water system infrastructure would be adequate to meet the demands of the project.

Sanitary Sewer System/Wastewater Treatment Facilities

Based on the City's General Plan, the RWF has the capacity to treat 167 million gallons of wastewater a day. Based on 2009 data, the City's average dry weather flow is 13.3 mgd while the treatment capacity is 23 mgd. The proposed project would generate approximately 288,000 gallons

per year of wastewater.[81] The proposed project would decrease the amount of wastewater generation on the site, and therefore would not increase the need for wastewater treatment beyond the capacity of the RWF. The RWF has the ability to treat wastewater generated by the proposed project and, as a result, the project would not have a significant impact on the capacity of the RWF.

The proposed project would replace existing sanitary sewer lines on the site with six inch sanitary lines with manhole connections. The new sanitary lines would connect to existing sewer lines on Comstock Street. No capacity improvement would be needed to serve the proposed development.

Storm Drainage System

The project would result in a net decrease of 21,853 sf in impervious surfaces at the site, thereby resulting in a corresponding net decrease in runoff. The project would remove the existing on-site storm drain line and catch basins and install six-inch storm drain lines with manhole connections, catch basins with a surrounding cobble band, and overflow drain replacements. The storm drainage system would connect to the 12-inch storm drain line crossing Comstock Street and drain to the 30-inch storm drain main along Central Expressway. The project, therefore, would not result in a net increase in runoff from the site and the existing and new storm drainage system would be adequate to serve the project.

Electric Power, Natural Gas, and Telecommunications

The project would not utilize natural gas. The project would connect to an existing underground electric line in Comstock Street. An electrical duct bank would be installed on Comstock Street in front of the proposed building that would connect to a new SVP switch on the south side of the proposed building. Utility improvements other than those proposed by the project and analyzed in this Initial Study would not be required.

Impact UTL-2:	The project would not have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years. **(Less than Significant Impact)**

Currently, development on-site uses approximately 956,000 gallons of water annually. It is estimated the project would use approximately 812,000 gallons of water per year.[82] The project, therefore, would result in a net decrease in water demand of 144,000 gallons per year compared to existing conditions.

The City's 2015 Urban Water Management Plan (UWMP) concluded that sufficient water supplies are available to serve forecasted water demands under normal water year (non-drought) conditions and during multiple dry weather (drought) years. The City concluded that with projected supply totals and implementation of conservation measures consistent with its Water Shortage Contingency Plan, the retailer would be able to meet the projected demand during multiple dry water years.

[81] Personal Communication. Kolar, John. Integra Mission Critical.
[82] Personal Communication. Kolar, John. Integra Mission Critical. September 10, 2019.

The City's Water Utility has sufficient water supplies to meet the projected water demand of the City (including water demand from existing uses) and the proposed project during normal, single dry year, and multiple dry year scenarios. **(Less Than Significant Impact)**

Impact UTL-3:	The project would not result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments. **(Less than Significant Impact)**

As described in the discussion under Impact UTL-1, the RWF has the ability to treat wastewater generated by the proposed project and, as a result, the project would not have a significant impact on the capacity of the RWF. **(Less Than Significant Impact)**

Impact UTL-4:	The 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. **(Less than Significant Impact)**

The Newby Island Landfill, located in San José, has an agreement with the City to provide disposal capacity through 2024. The proposed project would generate a total of approximately 10.4 tons of solid waste per year.[83] This is 70.1 tons per year less than the solid waste currently generated on-site.

The proposed project would comply with the City's construction debris diversion ordinance and state waste diversion requirements. If the Newby Island Landfill is not available to accept waste after 2024, the City will prepare a contract with another landfill with capacity, such as Guadalupe Mines in San José, which is not anticipated to close until 2048. Because the project can be served by a landfill with capacity and would result in a decrease in solid waste or recyclable materials, the project's impacts related to solid waste and landfill capacity would be less than significant. **(Less than Significant Impact)**

Impact UTL-5:	The project would not be noncompliant with federal, state, and local management and reduction statutes and regulations related to solid waste. **(Less than Significant Impact)**

The construction and operation of the project would comply with federal, state, and local regulations related to diversion of materials from disposal and appropriate disposal of solid waste. **(Less than Significant Impact)**

[83] The solid waste generation is based on CalEEMod's solid waste generation rate of 1.15 tons per employee per year for light industrial use.

4.20 WILDFIRE

4.20.1 Environmental Setting

The project site is not located in or near state responsibility areas or lands classified as very high fire hazard severity zones.[84]

4.20.2 Impact Discussion

For the purpose of determining the significance of the project's impact on wildfire, if located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:

1) Substantially impair an adopted emergency response plan or emergency evacuation plan?
2) 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?
3) 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?
4) 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?

4.20.2.1 *Project Impacts*

The project site is not located in or near state responsibility areas or lands classified as very high fire hazard severity zones; therefore, the project would not result in wildfire impacts. **(No Impact)**

[84] Sources: 1) State of California Department of Forestry and Fire Protection. *San Mateo County Fire Hazard Severity Zones in SRA.* Adopted November 7, 2007. and 2) State of California Department of Forestry and Fire Protection. *Redwood City Very High Fire Hazard Severity Zones in LRA As Recommended by CAL FIRE.* Adopted November 24, 2008.

4.21 MANDATORY FINDINGS OF SIGNIFICANCE

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
1)	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?	☐	☒	☐	☐
2)	Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	☐	☒	☐	☐
3)	Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

Impact MFS-1:	As mitigated, the project does not 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. **(Less than Significant Impact with Mitigation)**

The project would not result in significant impacts to the environment and, therefore, would not have the potential to substantially degrade the quality of the environment.

The project is located in an urban area and is largely devoid of sensitive biological resources. Measures included in the project would ensure impacts to nesting birds are reduced to less than significant levels. The project would not 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.

There are no known historic, cultural, or tribal resources on or adjacent to the site. The project includes measures to reduce potential impacts to unknown buried resources on the site, should they be encountered, to less than significant levels. The project, therefore, would not eliminate important examples of the major periods of California history or prehistory.

Impact MFS-2:	As mitigated, the project does not have impacts that are individually limited, but cumulatively considerable. **(Less than Significant Impact with Mitigation)**

A number of projects have been recently approved, reasonably foreseeable, or are under development in the City of Santa Clara in the vicinity of the project site. These include the development or redevelopment of residential, industrial, and office uses. While these individual projects may result in significant impacts in particular issue areas, it is assumed that the projects will comply with existing regulations and statutes, and will incorporate measures to reduce potential impacts to a less than significant level, if necessary. For example, all projects are required to incorporate best management practices and comply with local and regional regulations to reduce impacts to water quality to the maximum extent feasible. With the proposed project's adherence to applicable policies in the City's General Plan, project impacts would not contribute to cumulatively considerable impacts. Given the project's location and proposed operation, areas of particular concern for cumulative impacts are energy, air quality, and GHG emissions. These impact areas are discussed in further detail below.

Energy

Energy impacts are cumulative in nature in that they are tied to local and regional energy supplies. Electricity for the proposed project would be provided by Silicon Valley Power (SVP), which is the public electric utility of the City of Santa Clara. Santa Clara currently has ownership interest, or has purchase agreements for 1,268.45 MW of electricity.[85] In 2017, approximately 38 percent of that generation is eligible as renewable (as defined by the California Energy Commission) and an additional 34 percent is otherwise a non-GHG emitting resource (i.e. large-hydroelectric).[86] This capacity far exceeds City of Santa Clara's current peak electricity demand of approximately 526.2 MW. No new peak capacity generation is necessary to meet the capacity requirements of new construction, or redeveloped facilities within the City to meet the near or projected future demand. Additionally, the project would not have a significant adverse effect on local or regional diesel fuel supplies and will not create a significant adverse impact on California's energy resources.

Air Quality

Past, present and future development projects contribute to the region's adverse air quality impacts on a cumulative basis. By its very nature, air pollution is largely a cumulative impact. No single project is sufficient in size to, by itself, result in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air

[85] Silicon Valley Power, City of Santa Clara. *The Silicon Valley Power Resources Map* Available at: http://www.siliconvalleypower.com/home/showdocument?id=5763.
[86] Silicon Valley Power. "Power Content Label". Accessed: June 21, 2019. Available at: http://siliconvalleypower.com/svp-and-community/about-svp/power-content-label

quality impacts. If a project's contribution to the cumulative impact is considerable, then the project's impact on air quality would be considered significant. As described in *Section 4.3 Air Quality*, with the incorporation of measures into the project, the total increase in average daily emissions of criteria pollutants from operation of the project and cumulative air toxics health hazards are estimated to be below the significance thresholds used by BAAQMD and the City of Santa Clara. Therefore, with implementation of measures included in the project, the project would not result in a cumulative air quality impact.

Greenhouse Gas Emissions

Similar to regulated air pollutants, GHG emissions and global climate change also represent cumulative impacts. The project's contribution to global climate change is discussed in *Section 4.7 Greenhouse Gas Emissions* in terms of the project's GHG emissions. With implementation of the efficiency measures included in the project in combination with the power mix utilized by SVP, the project would not conflict with plans, policies or regulation adopted for the purpose of reducing the emissions of GHGs.

Impact MFS-3:	As mitigated, the project does not have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly. **(Less than Significant Impact with Mitigation)**

Consistent with Section 15065(a)(4) of the CEQA Guidelines, a lead agency shall find that a project may have a significant effect on the environment where there is substantial evidence that the project has the potential to cause substantial adverse effects on human beings, either directly or indirectly. Under this standard, a change to the physical environment that might otherwise be minor must be treated as significant if people would be significantly affected. This factor relates to adverse changes to the environment of human beings generally, and not to effects on particular individuals. While changes to the environment that could indirectly affect human beings would be represented by all of the designated CEQA issue areas, those that could directly affect human beings include air quality, hazardous materials and noise. With the implementation measures included in the project and described in the specific sections of this report, the proposed project would not result in substantial adverse effects on human beings, individually or cumulatively.

SECTION 5.0 REFERENCES

The analysis in this Initial Study is based on the professional judgement and expertise of the environmental specialists preparing this document, based upon review of the site, surrounding conditions, site plans, and the following references:

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SECTION 6.0 LEAD AGENCY AND CONSULTANTS

6.1 LEAD AGENCY

City of Santa Clara
Planning Division
Rebecca Bustos, Senior Planner

6.2 CONSULTANTS

David J. Powers & Associates, Inc.
Environmental Consultants and Planners
- Akoni Danielsen, President/Principal Project Manager
- Michael Lisenbee, Senior Project Manager
- Desiree Dei Rossi, Assistant Project Manager
- Zach Dill, Graphic Artist

Holman & Associates, Inc.
- Sunshine Psota, Archaeologist

Illingworth & Rodkin, Inc.
- James Reyff, Principal
- William Popenuck
- Steve J. Deines
- Dana M. Lodico, PE, INCE Bd. Cert

Kleinfelder, Inc.
- Hadi Fattal, E.I.T., Staff Engineer
- Brian O'Neil, P.E., G.E., Principal Geotechnical Engineer
- Andre E. Ashour, P.E., Senior Project Engineer Geotechnical Project Manager

Partner Engineering and Science, Inc.
- Jay Grenfell, Relationship Manager

MITIGATION MONITORING OR REPORTING PROGRAM

1111 Comstock Data Center

File Nos. PLN2019-13941 / CEQ2020-01079

CITY OF SANTA CLARA

October 2020

P R E F A C E

Section 21081 of the California Environmental Quality Act (CEQA) requires a Lead Agency to adopt a Mitigation Monitoring or Reporting Program whenever it approves a project for which measures have been required to mitigate or avoid significant effects on the environment. The purpose of the monitoring or reporting program is to ensure compliance with the mitigation measures during project implementation.

The Initial Study concluded that the implementation of the 1111 Comstock Data Center Project could result in significant effects on the environment and mitigation measures were incorporated into the proposed project or are required as a condition of project approval. This Mitigation Monitoring or Reporting Program addresses those measures in terms of how and when they will be implemented.

This document does *not* discuss those subjects for which the Initial Study concluded that the impacts from implementation of the project would be less than significant.

MITIGATION MONITORING OR REPORTING PROGRAM 1111 COMSTOCK DATA CENTER PROJECT				
Impact	**Mitigation**	**Timeframe for Implementation**	**Responsibility for Implementation**	**Oversight of Implementation**
BIOLOGICAL RESOURCES				
Impact BIO-1: Construction disturbance during nesting bird breeding season could result in incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment.	**MM BIO 1-1:** Construction shall be scheduled to avoid the nesting bird season to the extent feasible. The nesting season for most birds, including most raptors, in the San Francisco Bay Area extends from February 1 through August 31. • If it is not possible to schedule construction activities between September 1 and January 31, then pre-construction surveys for nesting birds shall be completed by a qualified ornithologist to ensure no nest shall be disturbed during project implementation. This survey shall be completed no more than 14 days prior to the initiation of grading, tree removal, or other demolition or construction activities during the early part of the breeding season (February through April) and no more than 30 days prior to the initiation of these activities during the late part of the breeding season (May through August). • During this survey, the ornithologist shall inspect all trees and other possible nesting habitats within and immediately adjacent to the construction area for nests. If an active nest is found sufficiently close to work areas to be disturbed by construction, the ornithologist, in consultation with CDFW, shall determine the extent of a construction-free buffer zone to be established around the nest to ensure that nests of bird species protected by the MBTA or Fish and Game Code shall not be disturbed during project construction. • A final report of nesting birds, including any protection measures, shall be submitted to the Director of Community Development prior to the start of grading or tree removal.	No more than 14 days prior to the initiation of grading, tree removal, or other demolition or construction activities during the early part of the breeding season (February through April) No more than 30 days prior to the initiation of these activities during the late part of the breeding season (May through August). During all phases of construction (if a buffer is established).	Project Applicant	Director of Community Development California Department of Fish and Wildlife

MITIGATION MONITORING OR REPORTING PROGRAM 1111 COMSTOCK DATA CENTER PROJECT				
Impact	**Mitigation**	**Timeframe for Implementation**	**Responsibility for Implementation**	**Oversight of Implementation**
CULTURAL RESOURCES				
Impact CUL–1: Subsurface cultural resources could be uncovered during construction of the proposed project.	**MM CUL-1.1:** After demolition of the existing building and paved parking lot on the site, a qualified archaeologist shall complete mechanical presence/absence testing for archaeological deposits and cultural materials. In the event any prehistoric site indicators are discovered, additional backhoe testing will be conducted to map the aerial extent and depth below the surface of the deposits. In the event prehistoric or historic archaeological deposits are found during presence/absence testing, the significance of the find will be determined. If deemed significant, a Treatment Plan will be prepared and provided to the Director of Community Development. The key elements of a Treatment Plan shall include the following: • Identify scope of work and range of subsurface effects (include location map and development plan), • Describe the environmental setting (past and present) and the historic/prehistoric background of the parcel (potential range of what might be found), • Develop research questions and goals to be addressed by the investigation (what is significant vs. what is redundant information), • Detail field strategy used to record, recover, or avoid the finds (photogs, drawings, written records, provenience data maps, soil profiles, excavation techniques, standard archaeological methods) and address research goals.	After demolition and prior to project construction	Project Applicant	Director of Community Development

MITIGATION MONITORING OR REPORTING PROGRAM 1111 COMSTOCK DATA CENTER PROJECT				
Impact	**Mitigation**	**Timeframe for Implementation**	**Responsibility for Implementation**	**Oversight of Implementation**
	• Analytical methods (radiocarbon dating, obsidian studies, bone studies, historic artifacts studies [list categories and methods], packaging methods for artifacts, etc.). • Report structure, including a technical and layman's report and an outline of document contents in one year of completion of development (provide a draft for review before a final report), • Disposition of the artifacts, • Appendices: site records, update site records, correspondence, consultation with Native Americans, etc. **MM CUL-1.2:** In the event that prehistoric or historic resources that are not discovered during presence/absence testing are encountered during excavation and/or grading of the site, all activity within a 50-foot radius of the find will be stopped, the Director of Community Development will be notified, and the archaeologist will examine the find and make appropriate recommendations prior to issuance of building permits. If the find is deemed significant, a Treatment Plan will be prepared as outlined in MM CUL-1.1.	During all phases of construction	Project Applicant	Director of Community Development

MITIGATION MONITORING OR REPORTING PROGRAM 1111 COMSTOCK DATA CENTER PROJECT				
Impact	**Mitigation**	**Timeframe for Implementation**	**Responsibility for Implementation**	**Oversight of Implementation**
Impact CUL–2: Construction could result in the exposure or destruction of undiscovered subsurface prehistoric human remains.	**MM CUL-2.1:** In the event that human remains are discovered during excavation and/or grading of the site, all activity within a 50-foot radius of the find will be stopped. The Santa Clara County Coroner will be notified and shall make a determination as to whether the remains are of Native American origin or whether an investigation into the cause of death is required. If the remains are determined to be Native American, the Coroner will notify the Native American Heritage Commission (NAHC) immediately. Once the NAHC identifies the most likely descendants, the descendants will make recommendations regarding proper burial, which will be implemented in accordance with Section 15064.5(e) of the CEQA Guidelines.	During construction	Project Applicant	Santa Clara County Coroner Native American Heritage Commission (NAHC)
GEOLOGY AND SOILS				
Impact GEO-1: Ground disturbing activities of 10 feet in depth or more at the site has the potential to impact undiscovered paleontological resources.	**MM GEO-1.1:** Drilling activities associated with the proposed augered foundation piles shall be monitored by a qualified paleontologist. In the event paleontological resources are discovered all work shall be halted within 50 feet of the find and a Paleontological Resource Mitigation Plan shall be prepared by a qualified paleontologist to address assessment and recovery of the resource. A final report documenting any found resources, their recovery, and disposition shall be prepared in consultation with the Community Development Director and filed with the City and local repository.	During construction	Project Applicant	Director of Community Development

MITIGATION MONITORING OR REPORTING PROGRAM 1111 COMSTOCK DATA CENTER PROJECT				
Impact	**Mitigation**	**Timeframe for Implementation**	**Responsibility for Implementation**	**Oversight of Implementation**
NOISE AND VIBRATION				
Impact NOI-1: Testing of all generators simultaneously under 10 percent load concurrent with operation of HVAC equipment or a single generator operating under full load would exceed industrial noise levels to the north.	**MM NOI-1:** The proposed seven-foot, six-inch parapet wall will be constructed without any gaps or cracks and have a minimum surface weight of three-pounds per square foot (such as one-inch thick wood, ½-inch laminated glass, masonry block, concrete, or metal one-inch). **MM NOI-1.2:** The proposed generator testing schedule shall be followed wherein under 10 percent load, all generators may be tested simultaneously, and under full load, only one at a time may be tested.	During all project operations	Project Applicant	Director of Community Development
Impact NOI-2: Construction vibration could result in cosmetic damage to the Trescal instrument calibration facility.	**MM NOI-2.1:** • Place operating equipment on the construction site as far as possible from vibration sensitive receptors. • Avoid using vibratory rollers and tampers near sensitive areas. • Avoid dropping heavy objects or materials near shared property lines.	Prior to and during construction	Project Applicant	Director of Community Development

MITIGATION MONITORING OR REPORTING PROGRAM 1111 COMSTOCK DATA CENTER PROJECT				
Impact	**Mitigation**	**Timeframe for Implementation**	**Responsibility for Implementation**	**Oversight of Implementation**
	• A construction vibration-monitoring plan shall be implemented to document conditions at the adjacent Trescal building, located at 1065 Comstock Street, prior to, during, and after vibration generating construction activities within 15 feet of the building. All plan tasks shall be performed in accordance with industry accepted standard methods. The construction vibration monitoring plan should be implemented to include the following tasks: o Performance of a photo survey, elevation survey, and crack monitoring survey for the Trescal building in the area adjoining the project site. Surveys shall be performed prior to, in regular intervals during, and after completion of vibration generating construction activities within 15 feet of the building, and shall include internal and external crack monitoring in the structure, settlement, and distress, and shall document the condition of the foundation, walls, and other structural elements in the interior and exterior of said structure to the extent that access is provided by the owner of the building. o Conduct a post-survey on the structure where monitoring has indicated high levels or complaints of damage. Make appropriate repairs or provide compensation where damage has occurred as a result of construction activities. o Designate a person responsible for registering and investigating claims of excessive vibration. The contact information of such person shall be clearly posted on the construction site.	See previous page	See previous page	See previous page

SOURCE: City of Santa Clara, *1111 Comstock Data Center Project Initial Study*, September 2020.

COMMENT LETTERS RECEIVED ON THE INITIAL STUDY

Comment Letter From	Date
A. Adams Broadwell Joseph & Cardozo	October 13, 2020
B. Clark & Associates	October 12, 2020

A. Adams Broadwell Joseph & Cardozo (dated October 13, 2020)

Comment A.1: On behalf of Santa Clara Citizens for Sensible Industry ("Santa Clara Citizens"), we submit these comments on the Initial Study/Mitigated Negative Declaration ("IS/MND"), prepared pursuant to the California Environmental Quality Act ("CEQA") by the City of Santa Clara ("City") for the 1111 Comstock Data Center Project ("Project"), proposed by Prime Data Centers ("Applicant"). The Project proposes to demolish an existing 23,765-square-foot industrial building and construct a four-story, 121,170-square-foot data center building on the 1.38-acre project site (APN 224-08-092). The data center building would house computer servers designed to provide 10 megawatts ("MW") of information technology power; backup generators; underground fuel storage containers; and mechanical cooling equipment on the building's roof. The site, zoned as Light Industrial with a General Plan designation of Low Intensity Office/R&D, is located north of Comstock Street, east of Kenneth Street, south of Bayshore Freeway, and west of Lafayette Street within the City of Santa Clara.

The Project seeks from the City the following discretionary approvals: Architectural Review and Demolition Permit. The Architectural Review Process, found at Zoning Ordinance Chapter 18.76 of the Santa Clara City Code, requires that the Director of Community Development or a designee review plans and drawings prior to issuance of a building permit. The review, which takes place at a publicly noticed Development Review Hearing, assesses design, aesthetics, and consistency with zoning standards. Demolition permits require the following: PCB screening assessment, sewer cap permit, air quality permit from the Bay Area Air Quality Management District ("BAAQMD"), and planning clearance. All demolition of structures larger than 1,000 square feet must create and submit a recycling plan.

Based on our review of the IS/MND, we have concluded that it fails to comply with CEQA. The IS/MND fails to accurately describe the existing environmental setting and underestimates and fails to adequately mitigate air quality, public health, and greenhouse gas ("GHG") impacts from the Project.

These comments were prepared with the assistance of James J.J. Clark, Ph.D. of Clark & Associates Environmental Consulting, Inc. Dr. Clark's comments and curricula vitae are attached to this letter as Attachment A. For the reasons discussed herein, and in the attached expert comments, Santa Clara Citizens urges the City to remedy the deficiencies in the IS/MND by preparing a legally adequate environmental impact report ("EIR") pursuant to CEQA.

I. STATEMENT OF INTEREST

Santa Clara Citizens is an unincorporated association of individuals and labor organizations that may be adversely affected by the potential health, safety, public service, and environmental impacts of the Project. The association includes individuals and organizations, including California Unions for Reliable Energy ("CURE") and its local affiliates, and the affiliates' members and their families, who live, work, recreate and raise their families in the City of Santa Clara and Santa Clara County.

Since its founding in 1997, CURE has been committed to building a strong economy and a healthier environment. Its members help solve the State's energy problems by building, maintaining, and operating conventional and renewable energy power plants and transmission facilities. CURE

members have an interest in enforcing environmental laws that encourage sustainable development and ensure a safe working environment for its members. Individual members live, work, recreate, and raise their families in Santa Clara. They would be directly affected by the Project's environmental and health and safety impacts. Its members may also work on the Project itself. They will, therefore, be first in line to be exposed to any hazardous materials, air contaminants or other health and safety hazards that exist onsite.

Santa Clara Citizens supports the development of data centers where properly analyzed and carefully planned to minimize impacts on the environment. Any proposed project should avoid impacts to public health, energy resources, sensitive species and habitats, and should take all feasible steps to ensure significant impacts are mitigated to the maximum extent feasible. Only by maintaining the highest standards can development truly be sustainable.

Santa Clara Citizens and its members are concerned with projects that can result in serious environmental harm without providing countervailing economic benefits such as decent wages and benefits. Environmentally detrimental projects can jeopardize future jobs by making it more difficult and more expensive for industry to expand in the City and the surrounding region, and by making it less desirable for businesses to locate and people to live and recreate in the City, including in the vicinity of the Project. Continued degradation can, and has, caused construction moratoriums and other restrictions on growth that, in turn, reduces future employment opportunities. Santa Clara Citizens' members therefore have a direct interest in enforcing environmental laws that minimize the adverse impacts of projects that would otherwise degrade the environment. CEQA provides a balancing process whereby economic benefits are weighted against significant impacts to the environment. It is for these purposes that we offer these comments.

II. LEGAL BACKGROUND

A. CEQA

CEQA is intended to provide the fullest possible protection to the environment. CEQA requires that a lead agency prepare and certify an EIR for any discretionary project that may have a significant adverse effect on the environment. In order to set an accurate foundation for the analysis, an EIR must include a description of the "existing physical conditions in the affected area." CEQA requires analysis of the "whole of an action," including the "direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment." "Its purpose is to inform the public and its responsible officials of the environmental consequences of their decisions before they are made. Thus, the EIR protects not only the environment but also informed self-government."

In addition, public agencies must adopt feasible mitigation measures that will substantially lessen or avoid a project's potentially significant environmental impacts and describe those mitigation measures in the EIR. A public agency may not rely on mitigation measures of uncertain efficacy or feasibility. "Feasible" means capable of successful accomplishment within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors. Mitigation measures must be enforceable through permit conditions, agreements, or other legally binding instruments.

CEQA prohibits deferring identification of mitigation measures when there is uncertainty about the efficacy of those measures or when the deferral transfers authority for approving the measures to another entity. An agency may only defer identifying mitigation measures when practical considerations prevent formulation of mitigation measures at the usual time in the planning process, the agency commits to formulating mitigation measures in the future, and that commitment can be measured against specific performance criteria the ultimate mitigation measures must satisfy.

B. An EIR is Required

The EIR is the very heart of CEQA. A negative declaration is improper, and an EIR must be prepared, whenever it can be fairly argued on the basis of substantial evidence that the project may have a significant environmental impact. "[S]ignificant effect on the environment" is defined as "a substantial, or potentially substantial, adverse change in the environment." An effect on the environment need not be "momentous" to meet the CEQA test for significance; it is enough that the impacts are "not trivial." Substantial evidence, for purposes of the fair argument standard, includes "fact, a reasonable assumption predicated upon fact, or expert opinion supported by fact."

Whether a fair argument exists is a question of law that the court reviews de novo, with a preference for resolving doubts in favor of environmental review. In reviewing a decision to prepare a negative declaration rather than an EIR, courts "do not defer to the agency's determination."

The fair argument standard creates a "low threshold" for requiring preparation of an EIR and affords no deference to the agency's determination. Where substantial evidence supporting a fair argument of significant impacts is presented, the lead agency must prepare an EIR "even though it may also be presented with other substantial evidence that the project will not have a significant effect." A reviewing court must require an EIR if the record contains any "substantial evidence" suggesting that a project "may have an adverse environmental effect"—even if contrary evidence exists to support the agency's decision.

Where experts have presented conflicting evidence on the extent of the environmental effects of a project, the agency must consider the effects to be significant and prepare an EIR. In short, when "expert opinions clash, an EIR should be done." "It is the function of an EIR, not a negative declaration, to resolve conflicting claims, based on substantial evidence, as to the environmental effects of a project." In the context of reviewing a mitigated negative declaration, "neither the lead agency nor a court may 'weigh' conflicting substantial evidence to determine whether an EIR must be prepared in the first instance." Where such substantial evidence is presented, "evidence to the contrary is not sufficient to support a decision to dispense with preparation of an EIR and adopt a negative declaration, because it could be 'fairly argued' that the project might have a significant environmental impact."

The fair argument test requires the preparation of an EIR whenever "there is substantial evidence that any aspect of the project, either individually or cumulatively, may cause a significant effect on the environment, regardless of whether the overall effect of the project is adverse or beneficial." Such substantial evidence is present here and requires the preparers of this IS/MND to take a closer look at the environmental impacts of the Project in an EIR.

Response A.1: The preceding comment provides an overview of basic CEQA requirements and makes no specific claims requiring a detailed substantive response. As discussed in the detailed responses below, the comment letter does not present substantial evidence supporting a fair argument that the project would result in significant unavoidable environmental impacts. Therefore, an EIR is not required for the project.

Comment A.2: III. THE CITY FAILED TO PROVIDE THE DOCUMENTS REFERENCED IN THE IS/MND FOR THE ENTIRE COMMENT PERIOD

The City violated CEQA and improperly truncated the public comment period when it failed to make all documents referenced or relied on in the IS/MND available for public review during the entire public comment period. As a result, Santa Clara Citizens and other members of the public were unable to complete a meaningful review and analysis of the IS/MND and its supporting evidence. The City delayed providing the coalition access to responsive records, while denying the coalition's request to extend the comment period. We therefore provide these initial comments on the IS/MND and reserve our right to submit supplemental comments at a future date.

CEQA and the CEQA Guidelines require that "all documents referenced" and "all documents incorporated by reference" in a negative declaration shall be "readily accessible to the public during the lead agency's normal working hours" during the entire public comment period. The courts have held that the failure to provide even a few pages of a CEQA document for a portion of the review and comment period invalidates the entire CEQA process, and that such a failure must be remedied by permitting additional public comment. It is also well settled that a CEQA document may not rely on hidden studies or documents that are not provided to the public.

On September 23, 2020, we submitted a request to the City for "immediate access to any and all documents referenced or incorporated by reference in the Initial Study/Mitigated Negative Declaration related to the 1111 Comstock Street Project" (Request No. 20-554). On September 29, 2020, the City asked for clarification as to what records were sought, even though there was no ambiguity in such a basic request. In a follow-up letter to the City on October 1, 2020, we explained that our request included "all documents referenced and referred to throughout the MND and used to support conclusions reached in the MND, including any documents not made available in the Appendices."

On October 5, the City stated that responsive documents would be provided by October 19, 2020—six days after the close of the comment period. The City then provided us with documents referenced in the IS/MND on October 9, four days before the public review and comment period ended. CURE and other members of the public have therefore been denied access to the relevant documents referenced and incorporated by reference in the MND during the entire public comment period in violation of CEQA.

Response A.2: The comment misrepresents the law and the facts. CEQA Guidelines Section 15072(g)(4) previously required that the City notify the public of the following for the review period:

"The address or addresses where copies of the proposed negative declaration or mitigated negative declaration including the revisions developed under Section 15070(b) **and all documents referenced** in the proposed negative declaration or mitigated negative declaration are available for review. This location or locations shall be readily accessible to the public during the lead agency's normal working hours."

But, as revised on December 28, 2018, Guideline 15072(g)(4) reads as follows:

"The address or addresses where copies of the proposed negative declaration or mitigated negative declaration including the revisions developed under Section 15070(b) **and all documents incorporated by reference** in the proposed negative declaration or mitigated negative declaration are available for review. This location or locations shall be readily accessible to the public during the lead agency's normal working hours."

Under the prior regulation, the City had to provide the location of all documents "referenced" in an MND. Under the newer (2018) regulation, the City only has to provide the location of documents "incorporated by reference", not all documents referenced. The assertion that all referenced documents must be made available "during the entire comment period" is no longer an accurate statement of the law.

For the 1111 Comstock Project, the only documents incorporated by reference are the appendices. Initial Study, page iii ("All appendices are incorporated by this reference into this document. No other documents are incorporated by reference."). The initial study, MND, and all of the appendices were available on the City's webpage and at City Hall for the entire comment period. In addition, a website address was listed for most of the documents referenced in the initial study and MND (see Initial Study, pages 146 to 150). The only two documents "referenced" that were not available on the web (two short emails) were emailed to the Commenter. As the City has been in full compliance with CEQA for the entire comment period, no extension of time was warranted.

Comment A.3: IV. THE IS/MND FAILS TO PROVIDE A COMPLETE AND ACCURATE PROJECT DESCRIPTION

CEQA requires that an EIR "set forth a project description that is sufficient to allow an adequate evaluation and review of the environmental impact." Similarly, an IS/MND must present a complete and accurate description of the project under consideration. "The scope of the environmental review conducted for the initial study must include the entire project. [A] correct determination of the nature and scope of the project is a critical step in complying with the mandates of CEQA." A negative declaration is "inappropriate where the agency has failed either to provide an accurate project description or to gather information and undertake an adequate environmental analysis. An accurate and complete project description is necessary for an intelligent evaluation of the potential environmental impacts of the agency's action. Only through an accurate view of the project may affected outsiders and public decision-makers balance the proposal's benefit against its

environmental cost, consider mitigation measures, assess the advantage of terminating the proposal... and weigh other alternatives in the balance."

The IS/MND fails to provide a complete description of several of the Project's components, including details of the demolition of the existing improvements on the site; specifications of the generators and other technology to be employed; and construction processes, schedules and details. Moreover, no description of critical processes that will take place throughout the Project's lifetime—such as de-energizing of generators for maintenance and testing—is offered. In the absence of this crucial information, the public is precluded from meaningful review of the Project's potential impacts.

Response A.3: A thorough project description is included in Section 3.0 of the IS. Regarding the specific project components mentioned in the comment, the project description discusses the demolition of existing improvements on the site, the duration of construction, the number of generators and their power generating capacities, and the generator testing schedule. The project description provides adequate detail to evaluate the impacts of the project. Where additional project details were relied upon for technical analyses (i.e., specific assumptions regarding equipment used during demolition and construction activities, rooftop cooling equipment, etc.), that information is included in the impact discussions in the IS and/or in the appendices to the IS containing technical reports. The comment fails to acknowledge the presence of this information in the IS and does not provide specificity as to how the information provided in the IS does not satisfy the public's need for a complete description of the project.

Comment A.4: V. SUBSTANTIAL EVIDENCE SUPPORTS A FAIR ARGUMENT THAT THE PROJECT MAY RESULT IN SIGNIFICANT IMPACTS

As noted above, under CEQA, a lead agency must prepare an EIR whenever substantial evidence in the whole record before the agency supports a fair argument that a project may have a significant effect on the environment. The fair argument standard creates a "low threshold" favoring environmental review through an EIR, rather than through issuance of a negative declaration. An agency's decision not to require an EIR can be upheld only when there is no credible evidence to the contrary. Substantial evidence can be provided by technical experts or members of the public. "If a lead agency is presented with a fair argument that a project may have a significant effect on the environment, the lead agency shall prepare an EIR even though it may also be presented with other substantial evidence that the project will not have a significant effect."

A. The IS/MND Fails to Adequately Disclose, Analyze and Mitigate the Project's Potentially Significant Air Quality Impacts

The IS/MND concludes that emissions from the Project will not have a significant impact on air quality. Dr. Clark reviewed the IS/MND and provided substantial evidence that the City underestimated the Project's criteria pollutant emissions. Thus, substantial evidence demonstrates that the Project will have significant impacts beyond what is disclosed, analyzed and mitigated in the IS/MND.

1. The City Lacks Substantial Evidence that the Project's Backup Generators Will Run Only 50 Hours Each Year

The Project includes six 3,000-kW and one 500-kW backup diesel generators that the City assumed would run 50 hours per year, which is the Bay Area Air Quality Management District's ("BAAQMD") stationary source rule's maximum allowable run time. The IS/MND notes that emergency situations, including power failures, as well as private utility work to restore services and protect property from damage, are exempt from the limits in BAAQMD's rules and that the City did not calculate or analyze emissions beyond the 50 hours.

The IS/MND also notes that data centers consume more energy than other land uses and require an uninterrupted power supply, thereby admitting that there will be significant emissions of criteria pollutants beyond what is modeled. For example, public safety power shut offs are conducted by Pacific Gas & Electric, which are expected to cause power outages of 24 to 48 hours each. Nearby San Jose Clean Energy estimates that these outages may last several days a year, far beyond the 50 hours modeled in the IS/MND. The IS/MND must be withdrawn, and an EIR must be prepared that considers the emissions associated with running the backup diesel generators beyond 50 hours.

Response A.4: The comment's reference to PG&E and San Jose Clean Energy is misguided, neither would serve the project and therefore are irrelevant. CEQA does not require evaluation of emergency conditions, as that involves substantial speculation. The IS appropriately focused on the reasonably foreseeable operations of the proposed facility, and CEQA does not require lead agencies to attempt to evaluate conditions under future emergency situations, including power outages. As described in project description in the IS, the proposed emergency backup generators would each be tested once per month for up to one hour, or 12 hours per generator per year. Per direction from BAAQMD, only emissions from routine testing and maintenance, not emissions from potential emergency operations, were considered in the analysis. The procedure is in accordance with BAAQMD Regulation 2, Rule 5 and the number of non-emergency operation hours per year is limited to 50 hours per the Airborne Toxic Control Measure for Stationary Toxic Compression Ignition Engines (Section 93115, Title 17 CCR). The District's procedure for permitting emergency generators is to consider operation of the generators for up to 50 hours per year. For purposes of estimating emissions and potential air quality impacts from the engines in the IS, it was assumed that each engine could be operated for 50 hours per year (maximum operation hours allowed by the State's Air Toxic Control Measure and BAAQMD for testing and maintenance). By evaluating emissions of the maximum allowed 50 hours of operation per year instead of the 12 hours per year proposed by the project, the IS overestimates the project's emissions. This represents a conservative maximum impact scenario based on the allowed operation per CARB and BAAQMD permit conditions.

To date, Public Safety Power Shutoff (PSPS) events have not resulted in outages within Silicon Valley Power's (SVP) service area. Based on SVP data, over the last 10 years there were 31 outages on its 60kV system (to which the proposed data center would connect), only four of which resulted in customers being without power. This means that in 27 of these outages the redundant design of the system prevented

customers from being without power, meaning data centers would not have isolated from the grid and would not have relied on their back-up generators. Only two outages from 2009 to 2019 affected data centers in the SVP service territory. One approximately 7.5-hour outage on May 28, 2016, which was the result of two contingencies (a balloon and a breaker failure), affected two data centers. Another 12-minute outage on December 2, 2016 affected four data centers. SVP's root cause analysis of this outage resulted in changes in maintenance procedures to ensure that breakers are reset before power is restored to a portion of the system that was down for maintenance. Outages have been extremely rare, and the consequences or effects on data centers, almost negligible.[1]

Even if an outage were to occur at the project site, the longest recorded outage in the last 10 years lasted roughly 7.5 hours. As described previously, each generator would operate 12 hours per year for routine testing and maintenance. An additional 7.5 hours of operation per generator, such as would occur if the project experienced an outage equivalent to the worst outage in the last 10 years, would still be below the 50 hours of operation analyzed in the IS. For these reasons, evaluation of up to 50 hours of annual operation is a reasonable, conservative approach that tends to overestimate the project's actual operation, and to assume more than 50 hours of annual operation requires speculation. Therefore Dr. Clark's contention that more than 50 hours of annual operation should be the basis for the IS's analysis is not based on any substantial evidence about the actual history of outages within the SVP service area, and does not constitute a fair argument that requires preparation of an EIR. Expert opinion that is not based on facts is not substantial evidence supporting a fair argument. Additionally, CEQA does not require analysis of emergency events, nor worst-case events that may never occur, or very rarely over a project's lifespan. The focus on emissions generated by typical project operations under normal conditions in the IS is, therefore, appropriate for the analysis of air quality impacts.

Comment A.5: B. The IS/MND Fails to Adequately Disclose, Analyze, and Mitigate the Project's Potentially Significant Public Health Impacts

The IS/MND concludes that the Project would not expose sensitive receptors to substantial pollutant concentrations. This conclusion suffers from two errors: 1) the failure of the Air Quality and Greenhouse Gas Emissions Assessment (Appendix A) to include the most sensitive receptors in emissions modeling, and 2) the failure to model emissions beyond 50 hours of operation of the backup generators, noted above.

The IS/MND's Air Quality Assessment erroneously states that the "closest sensitive receptors to the proposed project site are existing residences about 3,315 feet north of the project site …" The Granada Islamic School is much closer— 1,700 feet—to the Project site.

[1] California Energy Commission. Mission College Data Center Initial Study and Proposed Negative Declaration. April 2020. Available at: https://efiling.energy.ca.gov/Lists/DocketLog.aspx?docketnumber=19-SPPE-05

Response A.5: The IS states on pages 30 and 36 that the Granada Islamic School is the closest sensitive receptor to the project site, and so this comment is incorrect. Further, as discussed in prior Response A.4, the IS was not required to evaluate the use of generators beyond 50 hours per year, which is already a conservative overestimation of the generators' expected annual usage. Therefore, the IS did adequately disclose, analyze, and mitigate the project's health risk impacts.

Comment A.6: Potential health impacts from operation of the Project's generators were evaluated using air quality dispersion modeling and applying BAAQMD recommended health impact calculation methods. Though the IS/MND states that "[t]he maximum increased cancer risk at the closest sensitive receptor, Granada Islamic School, would be 0.02 in one million, and the maximum increased cancer risk at the closest residence would be 0.1 in one million," it is unclear where those numbers came from. Nothing in the Assessment indicates whether the evaluations of health impacts were actually performed at the Granada Islamic School or at the residences further away. The Assessment's initial erroneous assumption that the closest sensitive receptors were the residences more than 3,000 feet from the Project site does not appear to have been corrected during calculations of health risks, as Figure 2 in the Assessment does not include the Granada Islamic School in its display of sensitive receptors. As asserted by Dr. Clark, such an oversight would significantly alter the assumptions and conclusions of the IS/MND. The City must re-analyze the Project's impacts in an EIR.

Response A.6: This comment contradicts the prior Comment A.5 by acknowledging the IS correctly identifies the Granada Islamic School is the closest sensitive receptor. BAAQMD recommends calculating health risks for sensitive receptors within 1,000 feet of a proposed project site. As stated in the BAAQMD Guidelines: "For assessing community risks and hazards, a 1,000 foot radius is recommended around the project property boundary. BAAQMD recommends that any proposed project that includes the siting of a new source or receptor assess associated impacts within 1,000 feet..."[2] To be conservative, the Air Quality technical report included as Appendix A to the IS calculated health risks at the nearest residences, even though they are well over 1,000 feet from the site. The results showed health risks well below relevant thresholds. Subsequent to completion of the Air Quality technical analysis, the air quality consultant completed additional calculations of health risks at the Granada Public School even though it is also located over 1,000 feet from the site. Using the same modeling methodology as was used for the residential receptors, the cancer risk for a nine-year school child exposure assuming 12 hours/day for 250 days per year was calculated and determined to be 0.02 per million, which is well below (by a factor of 500 times) the residential risk of 10 cases per million. The conclusion in the IS that the project would not result in significant health risks is valid and supported by substantial evidence.[3] Nothing in the comment or in Dr. Clark's assertions provides substantial evidence that the project's health risk impacts would be 500 times higher

[2] BAAQMD. CEQA Guidelines. May 2017.
[3] James Reyff, Illingworth & Rodkin, Inc. Personal Communication. September 1, 2020.

than forecast in the IS and, therefore, exceed the BAAQMD health risk thresholds used in the IS.

Comment A.7: As required by CEQA, the City must prepare a site-specific baseline health risk assessment ("HRA") that calculates the excess incremental lifetime risk for all of the nearby receptors. As Dr. Clark points out, "[t]he City's emissions estimates for criteria pollutants do not substitute for a health risk analysis of the cancer risk posed by exposure to toxic air contaminants (TACs), in particular diesel particulate matter (DPM), released during Project construction and operation."

Diesel exhaust contains nearly 40 toxic substances, including TACs and may pose a serious public health risk for residents in the vicinity of the facility. It has been linked to a range of serious health problems, including an increase in respiratory disease, lung damage, cancer, and premature death. Dr. Clark asserts that, given the Project's proximity to sensitive receptors and the nature of the TACs emitted, an HRA, prepared in accordance with the Office of Environmental Health and Hazard Assessment and analyzing the Project's potentially significant public health impacts from TACs emitted from the diesel particulate matter, is essential.

Response A.7: An HRA was completed for the project and is included in Appendix A to the IS. The results of the HRA are summarized on pages 36-37 of the IS. The HRA used the 2015 Office of Environmental Health and Hazard Assessment (OEHHA) risk assessment guidelines and California Air Resources Board (CARB) guidance. Additionally, BAAQMD has adopted recommended procedures for applying the newest OEHHA guidelines as part of Regulation 2, Rule 5: New Source Review of Toxic Air Contaminants. Exposure parameters from the OEHHA guidelines and the recent BAAQMD HRA Guidelines were used in HRA. Therefore, the IS has appropriately modeled and disclosed the health risk presented by the project to surrounding sensitive receptors, and the conclusion that the project would not result in significant health impacts is adequately supported by substantial evidence and no substantial evidence is provided in this comment supporting a fair argument the project would have significant health effects according to OEHHA and CARB guidance.

Comment A.8: C. The IS/MND Fails to Adequately Disclose, Analyze and Mitigate the Project's Potentially Significant Greenhouse Gas Impacts

The CEQA Guidelines require a lead agency to compare a project's GHG emissions against a threshold of significance that the agency determines applies to the Project, or to otherwise determine the extent to which the project complies with local regulations and requirements adopted to reduce GHG emissions, provided there is no evidence that GHG emissions would be cumulatively considerable. Here, the City chose to use a qualitative approach when considering GHG emissions. Rather than measure the Project's emissions against a numerical threshold, the IS/MND instead evaluated them based on whether they conflict with a plan, policy, or regulation adopted for the purpose of reducing GHG. Substantial evidence, however, supports a fair argument that the Project's emissions are significant.

1. Substantial Evidence Does Not Support the Conclusion that GHG Emissions Will Not Be Significant

Though BAAQMD provides clear thresholds to which emissions from both stationary and nonstationary sources can be compared, the IS/MND fails to measure any of the Project's emissions against a numerical threshold, and fails, therefore, to demonstrate that Project impacts are less than significant.

The IS/MND indicates that total Project emissions are calculated as 10,323 MTCO2e/year. The BAAQMD CEQA Guidelines, meanwhile, provide the following thresholds of significance for operational-related GHG emissions for land use development projects: "Compliance with a qualified GHG Reduction Strategy; or annual emissions less than 1,100 MTCO2e/yr; or 4.6 MTCO2e/SP/yr (residents + employees)."

Even subtracting from the total emissions the 522 MTCO2e/year attributed to generators (since stationary sources are subject to different thresholds than nonstationary sources), Project emissions are significant. As stated in BAAQMD's CEQA Guidelines, "[i]f annual emissions of operational-related GHGs exceed [threshold] levels, the proposed project would result in a cumulatively considerable contribution of GHG emissions and a cumulatively significant impact to global climate change."

Response A.8: The analysis of GHG impacts in the IS was completed consistent with the requirements of Section 15064.4(a) of the CEQA Guidelines, which gives the lead agency discretion to determine, in the context of a particular project, whether to:
(1) Quantify greenhouse gas emissions resulting from a project; and/or
(2) Rely on a qualitative analysis or performance based standards.

Case law has consistently confirmed that when CEQA provides a lead agency with discretion, a fair argument cannot then be made by arguing the opposite or alternate from what approach or method the lead agency has selected, otherwise the discretion would be meaningless. Therefore, given the City had discretion whether to quantitatively or qualitatively address the project's GHG emissions, and chose the latter, a fair argument cannot now be made on the basis of the failure to apply a quantitative threshold, given that would render moot the City's discretion to not quantify GHG emissions at all. The IS quantified the project's estimated GHG emissions to disclose the overall magnitude of emissions for the public and decision-makers benefit, and yet ultimately relied on a qualitative analysis, as permitted by 15064.4(a)(2), to determine that the project would not result in a significant GHG impact. As discussed in the IS, because i) the project would receive electricity from a utility on track to meet the SB 32 2030 GHG emission reduction target, ii) would result in lower emissions (43.5 percent) than the statewide average for an equivalent facility due to SVP's power mix, iii) would include energy efficiency measures to reduce emissions to the extent feasible, and iv) would be consistent with applicable plans and policies adopted to reduce GHG emissions, the project would not generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.

The comment suggests that the IS should have used the BAAQMD thresholds of 1,100 MTCO2e/yr or 4.6 MTCO2e/SP/yr. These thresholds, however, were established to achieve the State's 2020 GHG reduction goal under AB 32 and are no longer applicable to development projects that would become operational after 2020. BAAQMD recently confirmed that these thresholds should no longer be used to determine CEQA impacts for development projects.[4]Additionally, as explained above, the City has discretion whether to apply a quantitative GHG threshold at all, and in this case, determined a qualitative approach was the most appropriate basis to evaluate the project's GHG emissions.

Comment A.9: 2. Compliance with Plans and Policies Does Not Establish that the Project's GHG Emissions Would Be Less Than Significant

The IS/MND concludes that the Project's GHG emissions would not have a significant impact on the environment because the Project is consistent with the City of Santa Clara Climate Action Plan ("CAP"), as well as other plans, policies, and regulations adopted for the purpose of reducing GHG emissions. Substantial evidence, however, supports a fair argument that the Project's GHG emissions are significant notwithstanding their consistency with local, regional, and state plans.

As stated above, the Project's total operational emissions amount to 10,323 MTCO2e annually- significantly higher than the 1,100 MTCO2e/year threshold established by BAAQMD. The IS/MND fails to describe how this might be abated through the Project's compliance with GHG reduction strategies.

Response A.9: Please refer to Response A.8. The BAAQMD threshold referenced in the comment is no longer relevant or recommended for use by BAAQMD. Further, as noted above in Response A.8, a fair argument cannot be made based on a numeric threshold when CEQA allows a lead agency discretion whether to employ a quantitative threshold or qualitative analysis, and in this case the City elected the latter approach.

Comment A.10: Furthermore, the IS/MND relies on obtaining the status of less-than- significant for the Project's emissions from a plan that is set to expire before the Project is implemented. The City's Climate Action Plan, adopted in 2013, contains projected emissions and measures designed to help the City meet statewide 2020 goals established by AB 32. As acknowledged in the IS/MND, "consistency with the CAP cannot be used to determine significance under CEQA."

Response A.10: Although the IS discusses the project's consistency with the City's Climate Action Plan (CAP), it does not rely on the project's consistency with the CAP to determine the project's GHG impact under CEQA. As stated on page 67 of the IS: "Because the project would not become operational prior to the end of 2020, consistency with the CAP cannot be used to determine significance under CEQA.

[4] California Energy Commission. Mission College Final Decision. August 21, 2020. Available at: https://efiling.energy.ca.gov/Lists/DocketLog.aspx?docketnumber=19-SPPE-05

The project, however, would still be required to be consistent with the requirements of the CAP, and implementation of required Climate Action Plan measures would reduce GHG emissions from the project." As stated in Response A.8, and discussed in detail in the IS, because i) the project would receive electricity from a utility on track to meet the SB 32 2030 GHG emission reduction target, ii) would result in lower emissions (43.5 percent) than the statewide average for an equivalent facility due to SVP's power mix, iii) would include energy efficiency measures to reduce emissions to the extent feasible, and iv) would be consistent with applicable plans and policies adopted to reduce GHG emissions, the project would not generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.

Comment A.11: The IS/MND argues that because electricity—by far the biggest source of the Project's emissions—is provided by Silicon Valley Power, "a utility on track to meet the 2030 GHG emissions reductions target established by SB 32," the Project would generate lower emissions than the statewide average for an equivalent facility. Additionally, because the Project would allegedly comply with several applicable City and state plans, including green building and energy efficiency measures, and policies adopted to reduce GHG emissions, the IS/MND concludes that "the project would not generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment."

The IS/MND fails, however, to establish that the Project's consistency with these plans and programs will ensure that the Project's contribution to global climate change is not significant. Despite compliance with these plans, Dr. Clark reiterates that calculations of the Project's total emissions provided in the IS/MND nevertheless surpass BAAQMD's thresholds, demonstrating that emissions would be significant. The City must prepare an EIR that analyzes and mitigates these significant GHG emissions.

Response A.11: As described in the IS, the project would be consistent with plans and policies adopted to achieve the State's GHG reduction targets. The State's targets were established to ensure the State's GHG emissions would not contribute substantially global climate change. The project's consistency with these plans and policies, therefore, would ensure its contribution to global climate change would not be significant.

As described in Response A.8, the analyses in the IS was completed consistent with the requirements of Section 15064.4 of the CEQA Guidelines, which gives the lead agency discretion to rely on a qualitative analysis to determine a project's GHG impacts. Additionally, the BAAQMD thresholds referenced in the comment are no longer relevant or recommended for use by BAAQMD. A fair argument cannot be made based on a numeric threshold when CEQA allows a lead agency discretion whether to employ a quantitative threshold or qualitative analysis, and in this case the City elected the latter approach.

Comment A.12: V. CONCLUSION

CEQA requires that an EIR be prepared if there is substantial evidence that a project, either individually or cumulatively, may have a significant impact on the environment. As discussed above, there is substantial evidence supporting a fair argument that the Project would result in significant adverse impacts that were not identified or adequately analyzed in the IS/MND.

We urge the City to fulfill its responsibilities under CEQA by withdrawing the IS/MND and preparing a legally adequate EIR to address the potentially significant impacts described in this comment letter. Only by complying with all applicable laws will the City and the public be able to ensure that the Project's environmental impacts are mitigated to less than significant levels.

Response A.12: As discussed in Responses A.1 through A.12, the comment letter does not present substantial evidence supporting a fair argument that the project would result in significant unavoidable environmental impacts. Rather, the various comments rely on speculation or fail to acknowledge the discretion afforded to the City in determining whether to apply a quantitative or qualitative approach to determining the significance of the project's effects. Therefore, an EIR is not required for the project.

B. Clark & Associates (dated October 12, 2020)

Comment B.1: On At the request of Adams Broadwell Joseph & Cardozo (ABJC), Clark and Associates (Clark) has reviewed materials related to the IS/MND for the above referenced project. The IS/MND was prepared by David J. Powers and Associates, Inc. for the City of Santa Clara Community Development Department.

Clark's review of the materials in no way constitutes a validation of the conclusions or materials contained within the project record. If we do not comment on a specific item this does not constitute acceptance of the item.

General Comments:

The City's analysis of the air quality impacts of emissions from the construction and operational phases of the project are unsupported and flawed. The analysis in the IS/MND fails to quantify the total emissions in a meaningful manner in which yearly and daily emissions may be compared to relevant and appropriate standards, fails to address necessary mitigation measures to reduce significant impacts, and makes assertions about the impacts to the surrounding communities without a clear and reproducible methodology. Several mitigation measures outlined in the DEIR are merely aspirational and may not effectively reduce emissions from the project. These flaws are detailed below, making the conclusions in the IS/MND unsupported. The City must update their analysis as an Environmental Impact Report (EIR) to correct the unsupported conclusions presented in the IS/MND.

> **Response B.1:** As discussed in the detailed responses below, the comment letter does not present substantial evidence supporting a fair argument that the project would result in significant unavoidable environmental impacts. Therefore, an EIR is not required for the project.

Comment B.2: Project Description

According to the IS/MND, the approximately 1.38-acre project site, located at 1111 Comstock Street (APN 224-08-092) in Santa Clara, is currently developed with a one-story, 23,765 square foot (sf) industrial building and a paved parking lot. The site is zoned as Light Industrial, and has a General Plan designation of Low Intensity Office/R&D. The project proposes to demolish the existing improvements on the site to construct a four-story, 121,170 sf data center building. The data center building would house computer servers for private clients in a secure and environmentally controlled structure and would be designed to provide 10 megawatts (MW) of information technology (IT) power. Mechanical equipment for building cooling would be located on the roof. Standby backup emergency electrical generators would be installed to provide for an uninterrupted power supply. Six 3,000-KW diesel-fueled engine generators and one 500-kW diesel-fueled engine generator would be located within a generator room on the first floor of the building. Fuel for the generators would be stored in two 30,000-gallon underground storage tanks which would feed individual 160-gallon daytanks located adjacent to each generator.

The data center building would be approximately 80 feet in height, with parapets extending to a height of 87.5 feet. A metal roof screen would extend to a height of 98 feet to shield mechanical equipment. The building would be located in the southern, central portion of the site and set back

approximately 15 feet from the southern property line on Comstock Street, 45 feet from the northern property line, 50 feet from the western property line, and 25 feet from the eastern property line.

Access to the site would be provided by a primary driveway on Comstock Street. The primary driveway would be approximately 26 feet wide and would be located in the southwestern portion of the site in the same location as the existing driveway entrance. A secondary driveway entrance for emergency access would be constructed on Comstock Street in the southeastern portion of the site and would be approximately 22 feet wide. The emergency driveway would wrap around the perimeter of the building and would include a curb and handicap ramp. The project would provide approximately 24 parking spaces, including one accessible space and two clean air/vanpool/EV spaces, located along the western side of the building.

Generator Testing Schedule

The seven emergency backup generators would each be tested once per month for up to one hour. Tests would be conducted with no load for 11 months out of the year, and at with full load one month out of the year.

Existing Project Site

The existing improvements on the site would be demolished to allow for construction of the project. Demolition and construction activities would last approximately 12 months. Excavation for utilities would extend to depths of up to eight feet. Roughly 860 cubic yards of soil would be removed from the site as a result of excavation activities. Augered foundation piles would extend to a depth of 80 1111 Comstock Data Center 7 Initial Study City of Santa Clara September 2020 feet. The site would be graded to direct stormwater flows towards the biotreatment area located along the western boundary of the site.

The project proposes to remove approximately 24 existing trees on-site and plant five replacement trees. New landscaping consisting of trees, shrubs, sedge, perennials, bulbs, annuals and groundcover would be installed in the northeastern, northwestern, and southwestern corners of the site, as well as the southern perimeter of the site, and the western side of the proposed building.

The project proposes to construct a stormwater treatment area between the west side of the building and the parking lot. The existing storm drain line on the site would be removed and a new 12-inch storm drain line would connect the treatment area to the existing storm drain line in Comstock Street. Pedestrian walkways would be composed of permeable pavers. The site would have a total of approximately 28,337 sf of pervious surface, which would be an increase compared to existing condition.

Specific Comments:

1. The IS/MND Fails To Model The Diesel Particulate Matter (DPM) Concentration At the Closest Sensitive Receptor To The Site

According to the IS/MND the project will be a source of air pollutant emissions during construction and operation, with the main source being backup generator testing and maintenance. The diesel-fueled generators emit diesel particulate matter (DPM), which is a known toxic air contaminant

(TAC). The generators are also a source of PM2.5, which is also known to induce adverse health effects.

Based on the assumption that each of the six 3000-kW generators and one 500-kW generator would operate up to 50 hours a year during testing and maintenance, the City calculated that approximately 49 lbs of DPM per year would be emitted. Dispersion modeling in the IS/MND attempts to define the concentration of DPM to which sensitive receptors would be exposed over time.

The IS/MND defines Sensitive Receptors as persons who are most likely to be affected by air pollution: infants, children under 18, the elderly over 65, athletes, and people with cardiovascular and chronic respiratory diseases. Locations that may contain a high concentration of these sensitive population groups include residential areas, hospitals, daycare facilities, elder care facilities, elementary schools, churches and places of assembly, and parks. According to the IS/MND the closest sensitive receptors to the proposed project site are the Granada Islamic School, located about 1,700 feet (approximately 536 meters) northwest of the project site; existing residences about 3,315 feet north of the project site; and additional residences about 4,330 and 4,590 feet south of the project site. The maximum average annual off-site DPM concentrations were used to calculate potential increased cancer risks from the project. Average annual DPM concentrations were used as being representative of long-term (30-year) exposures for calculation of cancer risks.

According to the Proponent, the maximum modeled annual DPM and PM2.5 concentration from operation of the generators at the data center was 0.0001 µg/m3 at several residential receptors north of the project site on Lafayette Street. Concentrations at all other existing residential locations would be lower than the maximum concentration.

Based on the maximum modeled DPM concentrations that assume operation for 50 hours per year per generator, maximum increased cancer risks and non-cancer health impacts were calculated using BAAQMD recommended methods. The maximum increased cancer risk at the closest sensitive receptor, Granada Islamic School, would be 0.02 in one million, and the maximum increased cancer risk at the closest residence would be 0.1 in one million. These conclusions are not supported by the data presented within the report.

A review of Appendix A to the IS/MND, the Air Quality and GHG Emissions Assessment prepared by the Illingworth and Rodkin, Inc., shows that the closest sensitive receptor (Granada Islamic School) and all of the closest worker receptors are not included in the AERMOD model of the emissions from the site. The report within Appendix A is originally dated November 11, 2019 and was updated May 19, 2020. On pages 6 and 15 of the Illingworth and Rodkin report, it states that the closest sensitive receptors to the proposed project site and additional residences are about 4,330 and 4,590 feet south of the project site. DPM and PM2.5 concentrations were calculated at the locations of existing residences in the project area. The report does not indicate if any other receptors are included in the analysis. Figure 2 of Appendix A clearly indicates the nearest sensitive receptors identified by the proponent. What the figure does not identify is the location of the Granada Islamic School.

The figure above clearly indicates the location of the Granada Islamic School, which is much closer than the residences indicated by the yellow crosses on the figures above. This oversight significantly

alters the assumptions and conclusions contained within the IS/MND. The City must re-analyze the project impacts and present them in an EIR for the site.

Response B.2: Please refer to Responses A.5 and A.6, above. The Granada Islamic School was identified as a sensitive receptor in the IS, and the project's impacts to the School were evaluated and determined to be less than significant.

Comment B.3: 2. The IS/MND's Analysis of Risk Fails to Meet Its Obligation to Calculate the Risk from Emissions to the Maximum Exposed Individual (MEI).

According to the BAAQMD CEQA Guidelines, emissions from a new source or emissions affecting a new receptor would be considered significant where ground-level concentrations of carcinogenic TACs from any source result in an increased cancer risk greater than 10.0 in one million, assuming a 70-year lifetime exposure. The Maximum Exposed Individual (MEI) is normally defined as an individual who is present at the point of maximum impact (PMI) as outlined in the Office of Environmental Health and Hazard Assessment's (OEHHA's) Air Toxic Hot Spots Program Risk Assessment Guidelines6 (Toxic Hot Spots). Under Section 4.7.1 of the OEHHA Guidance, the modeling analysis should contain a network of receptor points with sufficient detail (in number and density) to permit the estimation of the maximum concentrations. Locations that must be identified include:

- The maximum estimated off-site impact or point of maximum impact (PMI),
- The maximum exposed individual at an existing residential receptor (MEIR),
- The maximum exposed individual at an existing occupational worker receptor (MEIW).

The modeling performed for the IS/MND fails to identify the PMI and the MEIW. This oversight significantly alters the assumptions and conclusions contained within the IS/MND. The City must re-analyze the project impacts and present them in an EIR for the site.

Response B.3: The comment refers to OEHHA Air Toxic Hot Spots Program Risk Assessment Guidelines for conducting health risk assessments. BAAQMD, like other air districts and CARB, uses these guidelines to develop their procedures for conducting health risk assessments (described under Regulation 2, Rule 5). BAAQMD's CEQA Guidelines identify thresholds for health risk assessments. These thresholds only apply to sensitive receptors. The City, as the lead agency, uses BAAQMD's guidance for CEQA evaluation. In accordance with the BAAQMD CEQA guidelines, the IS evaluated the project's impact at the MEI, which is the nearest residence to the project site.

For the purposes of the CEQA evaluation of the project, the PMI and MEIW referenced in the comment are not required to be identified. During the permitting process of sources such as the project's diesel engines, BAAQMD addresses the various types of receptors that the OEHHA identifies. BAAQMD will not issue a permit to construct or operate these engines if they find that health risks at these receptors are unacceptable.

Comment B.4: 3. The Proposed Emission Controls Assumes that Testing and Maintenance Operations Can Be Performed in Approximately One-Fourth of the Normally Required Time

Emissions from combustion engines for stationary uses, including diesel generators, are generally regulated by the U.S. Environmental Protection Agency (U.S. EPA) and the California Air Resources Board (CARB). Engine emission standards are promulgated in a tiered system that designates maximum pollutant emissions. Unlike Off-Road Diesel-Powered Engines for Mobile Sources (currently utilizing Tier 4 Interim and Final technology which reduce PM2.5 emissions by 90% and more) all new generators have U.S. EPA Tier II rating and need to be outfitted with diesel particulate filters. Diesel-powered generator engines should be fueled using ultra-low sulfur diesel fuel with a maximum sulfur content of 15 parts per million (ppm). According to the City, all generator engines would be equipped with California Air Resources Board (CARB) Level 3 verified diesel particulate filters (DPFs) with a minimum control efficiency of 85 percent removal of particulate matter.

In the absence of stricter emission control devices, the City is proposing to reduce the number of hours of potential operation for testing and maintenance on an annual basis. Rather than assuming testing would occur for up to 50 hours per year for each generator, the City is assuming that the same types of maintenance and testing that needs to be performed to ensure the operations of the generators can be accomplished in 24% of the time generally assumed to be required (12 hours instead of 50 hours). Given the complexity of the equipment, reducing the maintenance and testing period by 76% seems like an illogical and unsustainable mitigation measure. The proponents must evaluate the emissions again considering the required maintenance period and include all of the maintenance for the whole campus in this evaluation.

> **Response B.4:** As described in project description in the IS, the proposed emergency backup generators would each be tested once per month for up to one hour, or 12 hours per generator per year. This is the testing and maintenance schedule proposed by the project applicant. For purposes of estimating emissions and potential air quality impacts from the engines in the IS, it was assumed that each engine could be operated for 50 hours per year (maximum operation hours allowed by the State's Air Toxic Control Measure and BAAQMD for testing and maintenance). By evaluating emissions of the maximum allowed 50 hours of operation per year instead of the 12 hours per year proposed by the project, the IS overestimates the project's emissions. This represents a conservative maximum impact scenario based on the allowed operation per CARB and BAAQMD permit conditions.

Comment B.5: 4. The City Must Prepare A Site-Specific Baseline Health Risk Assessment Using Methods from the Office of Environmental Health and Hazard Assessment to Analyze Diesel Particulate Matter Emissions

The City has failed in its obligation to perform a site-specific health risk assessment (HRA) for the project that calculates the excess incremental lifetime risk for all of the nearby receptors , as required by CEQA. The City's emissions estimates for criteria pollutants do not substitute for a health risk analysis of the cancer risk posed by exposure to toxic air contaminants (TACs), in particular diesel particulate matter (DPM), released during Project construction and operation. Diesel exhaust contains nearly 40 toxic substances, including TACs and may pose a serious public health risk for residents in the vicinity of the facility. TACs are airborne substances that are capable of causing short-term

(acute) and/or long-term (chronic or carcinogenic, i.e., cancer causing) adverse human health effects (i.e., injury or illness). TACs include both organic and inorganic chemical substances. The current California list of TACs includes approximately 200 compounds, including particulate emissions from diesel-fueled engines.

Diesel exhaust has been linked to a range of serious health problems including an increase in respiratory disease, lung damage, cancer, and premature death. Fine DPM is deposited deep in the lungs in the smallest airways and can result in increased respiratory symptoms and disease; decreased lung function, particularly in children and individuals with asthma; alterations in lung tissue and respiratory tract defense mechanisms; and premature death. Exposure to DPM increases the risk of lung cancer. It also causes non-cancer effects including chronic bronchitis, inflammation of lung tissue, thickening of the alveolar walls, immunological allergic reactions, and airway constriction. DPM is a TAC that is recognized by state and federal agencies as causing severe health risk because it contains toxic materials, unlike PM2.5 and PM10.

The IS/MND fails to include a site-specific analysis of the Project's construction or operational health risk posed by DPM emissions. Given the proximity of sensitive receptors to the site and the nature of the TACs emitted, a health risk assessment, prepared in accordance with OEHHA guidance for the baseline, construction, and future years of the project, is essential.

> **Response B.5:** An HRA was completed for the project and is included in Appendix A to the IS. The results of the HRA are summarized on pages 36-37 of the IS. The HRA used the 2015 Office of Environmental Health and Hazard Assessment (OEHHA) risk assessment guidelines and California Air Resources Board (CARB) guidance. Additionally, BAAQMD has adopted recommended procedures for applying the newest OEHHA guidelines as part of Regulation 2, Rule 5: New Source Review of Toxic Air Contaminants. Exposure parameters from the OEHHA guidelines and the recent BAAQMD HRA Guidelines were used in HRA. Therefore, the IS has appropriately modeled and disclosed the health risk presented by the project to surrounding sensitive receptors, and the conclusion that the project would not result in significant health impacts is adequately supported by substantial evidence and no substantial evidence is provided in this comment supporting a fair argument the project would have significant health effects according to OEHHA and CARB guidance.

Comment B.6: 5. The IS/MND's Greenhouse Gas Emissions Analysis Is Unsupportable and Flawed

In its analysis of the Project's greenhouse gas (GHG) emissions the City ignores the 1,100 MT CO2e- per-year threshold contained in BAAQMD's CEQA Air Quality Analysis; the IS/MND indicates, however, that operational emissions from area sources, water, solid waste and energy demand total 10,323 MT CO2e per year— higher than the 10,000 MT CO2e per year threshold for new stationary sources. The cumulative estimate of 10,323 MT CO2e per year makes the project a significant emitter of GHGs based on BAAQMD's guideance. Since the City's Climate Action Plan (CAP) does not have quantitative thresholds for GHG emissions, the BAAQMD's threshold will remain the in effect. The City must revise its analysis and present a correct assessment of total GHG

emissions from the project as significant. The results should be presented in an EIR along with mitigation measures to correct the impacts.

Response B.6: The comment suggests that the IS should have used the BAAQMD threshold of 1,100 MTCO2e/yr. This threshold, however, was established to achieve the State's 2020 GHG reduction goal under AB 32 and are no longer applicable to development projects that would become operational after 2020. BAAQMD recently confirmed that these thresholds should no longer be used to determine CEQA impacts for development projects.[5] The comment also suggests the IS should have compared the project's overall GHG emissions to BAAQMD's 10,000 MTCO2e/yr threshold for stationary sources. This threshold would only be applicable to stationary sources such as the project's diesel generators (which are estimated to emit 522 MTCO2e/yr), not other components of the project that are not defined as stationary sources, such as the project's electricity use.

The analysis of GHG impacts in the IS was completed consistent with the requirements of Section 15064.4(a) of the CEQA Guidelines, which gives the lead agency discretion to determine, in the context of a particular project, whether to:
(1) Quantify greenhouse gas emissions resulting from a project; and/or
(2) Rely on a qualitative analysis or performance based standards. Case law has consistently confirmed that when CEQA provides a lead agency with discretion, a fair argument cannot then be made by arguing the opposite or alternate from what approach or method the lead agency has selected, otherwise the discretion would be meaningless. Therefore, given the City had discretion whether to quantitatively or qualitatively address the project's GHG emissions, and chose the latter, a fair argument cannot now be made on the basis of the failure to apply a quantitative threshold, given that would render moot the City's discretion to not quantify GHG emissions at all.

The IS quantified the project's estimated GHG emissions to disclose the overall magnitude of emissions for the public and decision-makers benefit, and yet ultimately relied on a qualitative analysis, as permitted by 15064.4(a)(2), to determine that the project would not result in a significant GHG impact. As discussed in the IS, because i) the project would receive electricity from a utility on track to meet the SB 32 2030 GHG emission reduction target, ii) would result in lower emissions (43.5 percent) than the statewide average for an equivalent facility due to SVP's power mix, iii) would include energy efficiency measures to reduce emissions to the extent feasible, and iv) would be consistent with applicable plans and policies adopted to reduce GHG emissions, the project would not generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.

[5] California Energy Commission. Mission College Final Decision. August 21, 2020. Available at: https://efiling.energy.ca.gov/Lists/DocketLog.aspx?docketnumber=19-SPPE-05

Comment B.7: Conclusion

The facts identified and referenced in this comment letter lead me to conclude that the Project could result in significant unmitigated impacts if the air quality analysis is not corrected and the conditions of approval are not binding.

> **Response B.7:** As discussed in Responses B.1 through B.6, the comment letter does not present substantial evidence supporting a fair argument that the project would result in significant unavoidable environmental impacts. Therefore, an EIR is not required for the project.

Appendix A: Comment Letters

MITIGATION MONITORING OR REPORTING PROGRAM

1111 Comstock Data Center

File Nos. PLN2019-13941 / CEQ2020-01079

CITY OF SANTA CLARA

October 2020

P R E F A C E

Section 21081 of the California Environmental Quality Act (CEQA) requires a Lead Agency to adopt a Mitigation Monitoring or Reporting Program whenever it approves a project for which measures have been required to mitigate or avoid significant effects on the environment. The purpose of the monitoring or reporting program is to ensure compliance with the mitigation measures during project implementation.

The Initial Study concluded that the implementation of the 1111 Comstock Data Center Project could result in significant effects on the environment and mitigation measures were incorporated into the proposed project or are required as a condition of project approval. This Mitigation Monitoring or Reporting Program addresses those measures in terms of how and when they will be implemented.

This document does *not* discuss those subjects for which the Initial Study concluded that the impacts from implementation of the project would be less than significant.

MITIGATION MONITORING OR REPORTING PROGRAM 1111 COMSTOCK DATA CENTER PROJECT				
Impact	**Mitigation**	**Timeframe for Implementation**	**Responsibility for Implementation**	**Oversight of Implementation**
BIOLOGICAL RESOURCES				
Impact BIO-1: Construction disturbance during nesting bird breeding season could result in incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment.	**MM BIO 1-1:** Construction shall be scheduled to avoid the nesting bird season to the extent feasible. The nesting season for most birds, including most raptors, in the San Francisco Bay Area extends from February 1 through August 31. • If it is not possible to schedule construction activities between September 1 and January 31, then pre-construction surveys for nesting birds shall be completed by a qualified ornithologist to ensure no nest shall be disturbed during project implementation. This survey shall be completed no more than 14 days prior to the initiation of grading, tree removal, or other demolition or construction activities during the early part of the breeding season (February through April) and no more than 30 days prior to the initiation of these activities during the late part of the breeding season (May through August). • During this survey, the ornithologist shall inspect all trees and other possible nesting habitats within and immediately adjacent to the construction area for nests. If an active nest is found sufficiently close to work areas to be disturbed by construction, the ornithologist, in consultation with CDFW, shall determine the extent of a construction-free buffer zone to be established around the nest to ensure that nests of bird species protected by the MBTA or Fish and Game Code shall not be disturbed during project construction. • A final report of nesting birds, including any protection measures, shall be submitted to the Director of Community Development prior to the start of grading or tree removal.	No more than 14 days prior to the initiation of grading, tree removal, or other demolition or construction activities during the early part of the breeding season (February through April) No more than 30 days prior to the initiation of these activities during the late part of the breeding season (May through August). During all phases of construction (if a buffer is established).	Project Applicant	Director of Community Development California Department of Fish and Wildlife

MITIGATION MONITORING OR REPORTING PROGRAM 1111 COMSTOCK DATA CENTER PROJECT				
Impact	**Mitigation**	**Timeframe for Implementation**	**Responsibility for Implementation**	**Oversight of Implementation**
CULTURAL RESOURCES				
Impact CUL–1: Subsurface cultural resources could be uncovered during construction of the proposed project.	**MM CUL-1.1:** After demolition of the existing building and paved parking lot on the site, a qualified archaeologist shall complete mechanical presence/absence testing for archaeological deposits and cultural materials. In the event any prehistoric site indicators are discovered, additional backhoe testing will be conducted to map the aerial extent and depth below the surface of the deposits. In the event prehistoric or historic archaeological deposits are found during presence/absence testing, the significance of the find will be determined. If deemed significant, a Treatment Plan will be prepared and provided to the Director of Community Development. The key elements of a Treatment Plan shall include the following: • Identify scope of work and range of subsurface effects (include location map and development plan), • Describe the environmental setting (past and present) and the historic/prehistoric background of the parcel (potential range of what might be found), • Develop research questions and goals to be addressed by the investigation (what is significant vs. what is redundant information), • Detail field strategy used to record, recover, or avoid the finds (photogs, drawings, written records, provenience data maps, soil profiles, excavation techniques, standard archaeological methods) and address research goals.	After demolition and prior to project construction	Project Applicant	Director of Community Development

MITIGATION MONITORING OR REPORTING PROGRAM 1111 COMSTOCK DATA CENTER PROJECT				
Impact	**Mitigation**	**Timeframe for Implementation**	**Responsibility for Implementation**	**Oversight of Implementation**
	• Analytical methods (radiocarbon dating, obsidian studies, bone studies, historic artifacts studies [list categories and methods], packaging methods for artifacts, etc.). • Report structure, including a technical and layman's report and an outline of document contents in one year of completion of development (provide a draft for review before a final report), • Disposition of the artifacts, • Appendices: site records, update site records, correspondence, consultation with Native Americans, etc. **MM CUL-1.2:** In the event that prehistoric or historic resources that are not discovered during presence/absence testing are encountered during excavation and/or grading of the site, all activity within a 50-foot radius of the find will be stopped, the Director of Community Development will be notified, and the archaeologist will examine the find and make appropriate recommendations prior to issuance of building permits. If the find is deemed significant, a Treatment Plan will be prepared as outlined in MM CUL-1.1.	During all phases of construction	Project Applicant	Director of Community Development

MITIGATION MONITORING OR REPORTING PROGRAM 1111 COMSTOCK DATA CENTER PROJECT				
Impact	**Mitigation**	**Timeframe for Implementation**	**Responsibility for Implementation**	**Oversight of Implementation**
Impact CUL–2: Construction could result in the exposure or destruction of undiscovered subsurface prehistoric human remains.	**MM CUL-2.1:** In the event that human remains are discovered during excavation and/or grading of the site, all activity within a 50-foot radius of the find will be stopped. The Santa Clara County Coroner will be notified and shall make a determination as to whether the remains are of Native American origin or whether an investigation into the cause of death is required. If the remains are determined to be Native American, the Coroner will notify the Native American Heritage Commission (NAHC) immediately. Once the NAHC identifies the most likely descendants, the descendants will make recommendations regarding proper burial, which will be implemented in accordance with Section 15064.5(e) of the CEQA Guidelines.	During construction	Project Applicant	Santa Clara County Coroner Native American Heritage Commission (NAHC)
GEOLOGY AND SOILS				
Impact GEO-1: Ground disturbing activities of 10 feet in depth or more at the site has the potential to impact undiscovered paleontological resources.	**MM GEO-1.1:** Drilling activities associated with the proposed augered foundation piles shall be monitored by a qualified paleontologist. In the event paleontological resources are discovered all work shall be halted within 50 feet of the find and a Paleontological Resource Mitigation Plan shall be prepared by a qualified paleontologist to address assessment and recovery of the resource. A final report documenting any found resources, their recovery, and disposition shall be prepared in consultation with the Community Development Director and filed with the City and local repository.	During construction	Project Applicant	Director of Community Development

MITIGATION MONITORING OR REPORTING PROGRAM 1111 COMSTOCK DATA CENTER PROJECT				
Impact	**Mitigation**	**Timeframe for Implementation**	**Responsibility for Implementation**	**Oversight of Implementation**
NOISE AND VIBRATION				
Impact NOI-1: Testing of all generators simultaneously under 10 percent load concurrent with operation of HVAC equipment or a single generator operating under full load would exceed industrial noise levels to the north.	**MM NOI-1:** The proposed seven-foot, six-inch parapet wall will be constructed without any gaps or cracks and have a minimum surface weight of three-pounds per square foot (such as one-inch thick wood, ½-inch laminated glass, masonry block, concrete, or metal one-inch). **MM NOI-1.2:** The proposed generator testing schedule shall be followed wherein under 10 percent load, all generators may be tested simultaneously, and under full load, only one at a time may be tested.	During all project operations	Project Applicant	Director of Community Development
Impact NOI-2: Construction vibration could result in cosmetic damage to the Trescal instrument calibration facility.	**MM NOI-2.1:** • Place operating equipment on the construction site as far as possible from vibration sensitive receptors. • Avoid using vibratory rollers and tampers near sensitive areas. • Avoid dropping heavy objects or materials near shared property lines.	Prior to and during construction	Project Applicant	Director of Community Development

MITIGATION MONITORING OR REPORTING PROGRAM 1111 COMSTOCK DATA CENTER PROJECT				
Impact	**Mitigation**	**Timeframe for Implementation**	**Responsibility for Implementation**	**Oversight of Implementation**
	• A construction vibration-monitoring plan shall be implemented to document conditions at the adjacent Trescal building, located at 1065 Comstock Street, prior to, during, and after vibration generating construction activities within 15 feet of the building. All plan tasks shall be performed in accordance with industry accepted standard methods. The construction vibration monitoring plan should be implemented to include the following tasks: o Performance of a photo survey, elevation survey, and crack monitoring survey for the Trescal building in the area adjoining the project site. Surveys shall be performed prior to, in regular intervals during, and after completion of vibration generating construction activities within 15 feet of the building, and shall include internal and external crack monitoring in the structure, settlement, and distress, and shall document the condition of the foundation, walls, and other structural elements in the interior and exterior of said structure to the extent that access is provided by the owner of the building. o Conduct a post-survey on the structure where monitoring has indicated high levels or complaints of damage. Make appropriate repairs or provide compensation where damage has occurred as a result of construction activities. o Designate a person responsible for registering and investigating claims of excessive vibration. The contact information of such person shall be clearly posted on the construction site.	See previous page	See previous page	See previous page

SOURCE: City of Santa Clara, *1111 Comstock Data Center Project Initial Study*, September 2020.

COMMENT LETTERS RECEIVED ON THE INITIAL STUDY

Comment Letter From	Date
A. Adams Broadwell Joseph & Cardozo	October 13, 2020
B. Clark & Associates	October 12, 2020

A. Adams Broadwell Joseph & Cardozo (dated October 13, 2020)

Comment A.1: On behalf of Santa Clara Citizens for Sensible Industry ("Santa Clara Citizens"), we submit these comments on the Initial Study/Mitigated Negative Declaration ("IS/MND"), prepared pursuant to the California Environmental Quality Act ("CEQA") by the City of Santa Clara ("City") for the 1111 Comstock Data Center Project ("Project"), proposed by Prime Data Centers ("Applicant"). The Project proposes to demolish an existing 23,765-square-foot industrial building and construct a four-story, 121,170-square-foot data center building on the 1.38-acre project site (APN 224-08-092). The data center building would house computer servers designed to provide 10 megawatts ("MW") of information technology power; backup generators; underground fuel storage containers; and mechanical cooling equipment on the building's roof. The site, zoned as Light Industrial with a General Plan designation of Low Intensity Office/R&D, is located north of Comstock Street, east of Kenneth Street, south of Bayshore Freeway, and west of Lafayette Street within the City of Santa Clara.

The Project seeks from the City the following discretionary approvals: Architectural Review and Demolition Permit. The Architectural Review Process, found at Zoning Ordinance Chapter 18.76 of the Santa Clara City Code, requires that the Director of Community Development or a designee review plans and drawings prior to issuance of a building permit. The review, which takes place at a publicly noticed Development Review Hearing, assesses design, aesthetics, and consistency with zoning standards. Demolition permits require the following: PCB screening assessment, sewer cap permit, air quality permit from the Bay Area Air Quality Management District ("BAAQMD"), and planning clearance. All demolition of structures larger than 1,000 square feet must create and submit a recycling plan.

Based on our review of the IS/MND, we have concluded that it fails to comply with CEQA. The IS/MND fails to accurately describe the existing environmental setting and underestimates and fails to adequately mitigate air quality, public health, and greenhouse gas ("GHG") impacts from the Project.

These comments were prepared with the assistance of James J.J. Clark, Ph.D. of Clark & Associates Environmental Consulting, Inc. Dr. Clark's comments and curricula vitae are attached to this letter as Attachment A. For the reasons discussed herein, and in the attached expert comments, Santa Clara Citizens urges the City to remedy the deficiencies in the IS/MND by preparing a legally adequate environmental impact report ("EIR") pursuant to CEQA.

I. STATEMENT OF INTEREST

Santa Clara Citizens is an unincorporated association of individuals and labor organizations that may be adversely affected by the potential health, safety, public service, and environmental impacts of the Project. The association includes individuals and organizations, including California Unions for Reliable Energy ("CURE") and its local affiliates, and the affiliates' members and their families, who live, work, recreate and raise their families in the City of Santa Clara and Santa Clara County.

Since its founding in 1997, CURE has been committed to building a strong economy and a healthier environment. Its members help solve the State's energy problems by building, maintaining, and operating conventional and renewable energy power plants and transmission facilities. CURE

members have an interest in enforcing environmental laws that encourage sustainable development and ensure a safe working environment for its members. Individual members live, work, recreate, and raise their families in Santa Clara. They would be directly affected by the Project's environmental and health and safety impacts. Its members may also work on the Project itself. They will, therefore, be first in line to be exposed to any hazardous materials, air contaminants or other health and safety hazards that exist onsite.

Santa Clara Citizens supports the development of data centers where properly analyzed and carefully planned to minimize impacts on the environment. Any proposed project should avoid impacts to public health, energy resources, sensitive species and habitats, and should take all feasible steps to ensure significant impacts are mitigated to the maximum extent feasible. Only by maintaining the highest standards can development truly be sustainable.

Santa Clara Citizens and its members are concerned with projects that can result in serious environmental harm without providing countervailing economic benefits such as decent wages and benefits. Environmentally detrimental projects can jeopardize future jobs by making it more difficult and more expensive for industry to expand in the City and the surrounding region, and by making it less desirable for businesses to locate and people to live and recreate in the City, including in the vicinity of the Project. Continued degradation can, and has, caused construction moratoriums and other restrictions on growth that, in turn, reduces future employment opportunities. Santa Clara Citizens' members therefore have a direct interest in enforcing environmental laws that minimize the adverse impacts of projects that would otherwise degrade the environment. CEQA provides a balancing process whereby economic benefits are weighted against significant impacts to the environment. It is for these purposes that we offer these comments.

II. LEGAL BACKGROUND

A. CEQA

CEQA is intended to provide the fullest possible protection to the environment. CEQA requires that a lead agency prepare and certify an EIR for any discretionary project that may have a significant adverse effect on the environment. In order to set an accurate foundation for the analysis, an EIR must include a description of the "existing physical conditions in the affected area." CEQA requires analysis of the "whole of an action," including the "direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment." "Its purpose is to inform the public and its responsible officials of the environmental consequences of their decisions before they are made. Thus, the EIR protects not only the environment but also informed self-government."

In addition, public agencies must adopt feasible mitigation measures that will substantially lessen or avoid a project's potentially significant environmental impacts and describe those mitigation measures in the EIR. A public agency may not rely on mitigation measures of uncertain efficacy or feasibility. "Feasible" means capable of successful accomplishment within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors. Mitigation measures must be enforceable through permit conditions, agreements, or other legally binding instruments.

CEQA prohibits deferring identification of mitigation measures when there is uncertainty about the efficacy of those measures or when the deferral transfers authority for approving the measures to another entity. An agency may only defer identifying mitigation measures when practical considerations prevent formulation of mitigation measures at the usual time in the planning process, the agency commits to formulating mitigation measures in the future, and that commitment can be measured against specific performance criteria the ultimate mitigation measures must satisfy.

B. An EIR is Required

The EIR is the very heart of CEQA. A negative declaration is improper, and an EIR must be prepared, whenever it can be fairly argued on the basis of substantial evidence that the project may have a significant environmental impact. "[S]ignificant effect on the environment" is defined as "a substantial, or potentially substantial, adverse change in the environment." An effect on the environment need not be "momentous" to meet the CEQA test for significance; it is enough that the impacts are "not trivial." Substantial evidence, for purposes of the fair argument standard, includes "fact, a reasonable assumption predicated upon fact, or expert opinion supported by fact."

Whether a fair argument exists is a question of law that the court reviews de novo, with a preference for resolving doubts in favor of environmental review. In reviewing a decision to prepare a negative declaration rather than an EIR, courts "do not defer to the agency's determination."

The fair argument standard creates a "low threshold" for requiring preparation of an EIR and affords no deference to the agency's determination. Where substantial evidence supporting a fair argument of significant impacts is presented, the lead agency must prepare an EIR "even though it may also be presented with other substantial evidence that the project will not have a significant effect." A reviewing court must require an EIR if the record contains any "substantial evidence" suggesting that a project "may have an adverse environmental effect"—even if contrary evidence exists to support the agency's decision.

Where experts have presented conflicting evidence on the extent of the environmental effects of a project, the agency must consider the effects to be significant and prepare an EIR. In short, when "expert opinions clash, an EIR should be done." "It is the function of an EIR, not a negative declaration, to resolve conflicting claims, based on substantial evidence, as to the environmental effects of a project." In the context of reviewing a mitigated negative declaration, "neither the lead agency nor a court may 'weigh' conflicting substantial evidence to determine whether an EIR must be prepared in the first instance." Where such substantial evidence is presented, "evidence to the contrary is not sufficient to support a decision to dispense with preparation of an EIR and adopt a negative declaration, because it could be 'fairly argued' that the project might have a significant environmental impact."

The fair argument test requires the preparation of an EIR whenever "there is substantial evidence that any aspect of the project, either individually or cumulatively, may cause a significant effect on the environment, regardless of whether the overall effect of the project is adverse or beneficial." Such substantial evidence is present here and requires the preparers of this IS/MND to take a closer look at the environmental impacts of the Project in an EIR.

Response A.1: The preceding comment provides an overview of basic CEQA requirements and makes no specific claims requiring a detailed substantive response. As discussed in the detailed responses below, the comment letter does not present substantial evidence supporting a fair argument that the project would result in significant unavoidable environmental impacts. Therefore, an EIR is not required for the project.

Comment A.2: III. THE CITY FAILED TO PROVIDE THE DOCUMENTS REFERENCED IN THE IS/MND FOR THE ENTIRE COMMENT PERIOD

The City violated CEQA and improperly truncated the public comment period when it failed to make all documents referenced or relied on in the IS/MND available for public review during the entire public comment period. As a result, Santa Clara Citizens and other members of the public were unable to complete a meaningful review and analysis of the IS/MND and its supporting evidence. The City delayed providing the coalition access to responsive records, while denying the coalition's request to extend the comment period. We therefore provide these initial comments on the IS/MND and reserve our right to submit supplemental comments at a future date.

CEQA and the CEQA Guidelines require that "all documents referenced" and "all documents incorporated by reference" in a negative declaration shall be "readily accessible to the public during the lead agency's normal working hours" during the entire public comment period. The courts have held that the failure to provide even a few pages of a CEQA document for a portion of the review and comment period invalidates the entire CEQA process, and that such a failure must be remedied by permitting additional public comment. It is also well settled that a CEQA document may not rely on hidden studies or documents that are not provided to the public.

On September 23, 2020, we submitted a request to the City for "immediate access to any and all documents referenced or incorporated by reference in the Initial Study/Mitigated Negative Declaration related to the 1111 Comstock Street Project" (Request No. 20-554). On September 29, 2020, the City asked for clarification as to what records were sought, even though there was no ambiguity in such a basic request. In a follow-up letter to the City on October 1, 2020, we explained that our request included "all documents referenced and referred to throughout the MND and used to support conclusions reached in the MND, including any documents not made available in the Appendices."

On October 5, the City stated that responsive documents would be provided by October 19, 2020—six days after the close of the comment period. The City then provided us with documents referenced in the IS/MND on October 9, four days before the public review and comment period ended. CURE and other members of the public have therefore been denied access to the relevant documents referenced and incorporated by reference in the MND during the entire public comment period in violation of CEQA.

Response A.2: The comment misrepresents the law and the facts. CEQA Guidelines Section 15072(g)(4) previously required that the City notify the public of the following for the review period:

"The address or addresses where copies of the proposed negative declaration or mitigated negative declaration including the revisions developed under Section 15070(b) **and all documents referenced** in the proposed negative declaration or mitigated negative declaration are available for review. This location or locations shall be readily accessible to the public during the lead agency's normal working hours."

But, as revised on December 28, 2018, Guideline 15072(g)(4) reads as follows:

"The address or addresses where copies of the proposed negative declaration or mitigated negative declaration including the revisions developed under Section 15070(b) **and all documents incorporated by reference** in the proposed negative declaration or mitigated negative declaration are available for review. This location or locations shall be readily accessible to the public during the lead agency's normal working hours."

Under the prior regulation, the City had to provide the location of all documents "referenced" in an MND. Under the newer (2018) regulation, the City only has to provide the location of documents "incorporated by reference", not all documents referenced. The assertion that all referenced documents must be made available "during the entire comment period" is no longer an accurate statement of the law.

For the 1111 Comstock Project, the only documents incorporated by reference are the appendices. Initial Study, page iii ("All appendices are incorporated by this reference into this document. No other documents are incorporated by reference."). The initial study, MND, and all of the appendices were available on the City's webpage and at City Hall for the entire comment period. In addition, a website address was listed for most of the documents referenced in the initial study and MND (see Initial Study, pages 146 to 150). The only two documents "referenced" that were not available on the web (two short emails) were emailed to the Commenter. As the City has been in full compliance with CEQA for the entire comment period, no extension of time was warranted.

Comment A.3: IV. THE IS/MND FAILS TO PROVIDE A COMPLETE AND ACCURATE PROJECT DESCRIPTION

CEQA requires that an EIR "set forth a project description that is sufficient to allow an adequate evaluation and review of the environmental impact." Similarly, an IS/MND must present a complete and accurate description of the project under consideration. "The scope of the environmental review conducted for the initial study must include the entire project. [A] correct determination of the nature and scope of the project is a critical step in complying with the mandates of CEQA." A negative declaration is "inappropriate where the agency has failed either to provide an accurate project description or to gather information and undertake an adequate environmental analysis. An accurate and complete project description is necessary for an intelligent evaluation of the potential environmental impacts of the agency's action. Only through an accurate view of the project may affected outsiders and public decision-makers balance the proposal's benefit against its

environmental cost, consider mitigation measures, assess the advantage of terminating the proposal... and weigh other alternatives in the balance."

The IS/MND fails to provide a complete description of several of the Project's components, including details of the demolition of the existing improvements on the site; specifications of the generators and other technology to be employed; and construction processes, schedules and details. Moreover, no description of critical processes that will take place throughout the Project's lifetime—such as de-energizing of generators for maintenance and testing—is offered. In the absence of this crucial information, the public is precluded from meaningful review of the Project's potential impacts.

> **Response A.3:** A thorough project description is included in Section 3.0 of the IS. Regarding the specific project components mentioned in the comment, the project description discusses the demolition of existing improvements on the site, the duration of construction, the number of generators and their power generating capacities, and the generator testing schedule. The project description provides adequate detail to evaluate the impacts of the project. Where additional project details were relied upon for technical analyses (i.e., specific assumptions regarding equipment used during demolition and construction activities, rooftop cooling equipment, etc.), that information is included in the impact discussions in the IS and/or in the appendices to the IS containing technical reports. The comment fails to acknowledge the presence of this information in the IS and does not provide specificity as to how the information provided in the IS does not satisfy the public's need for a complete description of the project.

Comment A.4: V. SUBSTANTIAL EVIDENCE SUPPORTS A FAIR ARGUMENT THAT THE PROJECT MAY RESULT IN SIGNIFICANT IMPACTS

As noted above, under CEQA, a lead agency must prepare an EIR whenever substantial evidence in the whole record before the agency supports a fair argument that a project may have a significant effect on the environment. The fair argument standard creates a "low threshold" favoring environmental review through an EIR, rather than through issuance of a negative declaration. An agency's decision not to require an EIR can be upheld only when there is no credible evidence to the contrary. Substantial evidence can be provided by technical experts or members of the public. "If a lead agency is presented with a fair argument that a project may have a significant effect on the environment, the lead agency shall prepare an EIR even though it may also be presented with other substantial evidence that the project will not have a significant effect."

A. The IS/MND Fails to Adequately Disclose, Analyze and Mitigate the Project's Potentially Significant Air Quality Impacts

The IS/MND concludes that emissions from the Project will not have a significant impact on air quality. Dr. Clark reviewed the IS/MND and provided substantial evidence that the City underestimated the Project's criteria pollutant emissions. Thus, substantial evidence demonstrates that the Project will have significant impacts beyond what is disclosed, analyzed and mitigated in the IS/MND.

1. The City Lacks Substantial Evidence that the Project's Backup Generators Will Run Only 50 Hours Each Year

The Project includes six 3,000-kW and one 500-kW backup diesel generators that the City assumed would run 50 hours per year, which is the Bay Area Air Quality Management District's ("BAAQMD") stationary source rule's maximum allowable run time. The IS/MND notes that emergency situations, including power failures, as well as private utility work to restore services and protect property from damage, are exempt from the limits in BAAQMD's rules and that the City did not calculate or analyze emissions beyond the 50 hours.

The IS/MND also notes that data centers consume more energy than other land uses and require an uninterrupted power supply, thereby admitting that there will be significant emissions of criteria pollutants beyond what is modeled. For example, public safety power shut offs are conducted by Pacific Gas & Electric, which are expected to cause power outages of 24 to 48 hours each. Nearby San Jose Clean Energy estimates that these outages may last several days a year, far beyond the 50 hours modeled in the IS/MND. The IS/MND must be withdrawn, and an EIR must be prepared that considers the emissions associated with running the backup diesel generators beyond 50 hours.

Response A.4: The comment's reference to PG&E and San Jose Clean Energy is misguided, neither would serve the project and therefore are irrelevant. CEQA does not require evaluation of emergency conditions, as that involves substantial speculation. The IS appropriately focused on the reasonably foreseeable operations of the proposed facility, and CEQA does not require lead agencies to attempt to evaluate conditions under future emergency situations, including power outages. As described in project description in the IS, the proposed emergency backup generators would each be tested once per month for up to one hour, or 12 hours per generator per year. Per direction from BAAQMD, only emissions from routine testing and maintenance, not emissions from potential emergency operations, were considered in the analysis. The procedure is in accordance with BAAQMD Regulation 2, Rule 5 and the number of non-emergency operation hours per year is limited to 50 hours per the Airborne Toxic Control Measure for Stationary Toxic Compression Ignition Engines (Section 93115, Title 17 CCR). The District's procedure for permitting emergency generators is to consider operation of the generators for up to 50 hours per year. For purposes of estimating emissions and potential air quality impacts from the engines in the IS, it was assumed that each engine could be operated for 50 hours per year (maximum operation hours allowed by the State's Air Toxic Control Measure and BAAQMD for testing and maintenance). By evaluating emissions of the maximum allowed 50 hours of operation per year instead of the 12 hours per year proposed by the project, the IS overestimates the project's emissions. This represents a conservative maximum impact scenario based on the allowed operation per CARB and BAAQMD permit conditions.

To date, Public Safety Power Shutoff (PSPS) events have not resulted in outages within Silicon Valley Power's (SVP) service area. Based on SVP data, over the last 10 years there were 31 outages on its 60kV system (to which the proposed data center would connect), only four of which resulted in customers being without power. This means that in 27 of these outages the redundant design of the system prevented

customers from being without power, meaning data centers would not have isolated from the grid and would not have relied on their back-up generators. Only two outages from 2009 to 2019 affected data centers in the SVP service territory. One approximately 7.5-hour outage on May 28, 2016, which was the result of two contingencies (a balloon and a breaker failure), affected two data centers. Another 12-minute outage on December 2, 2016 affected four data centers. SVP's root cause analysis of this outage resulted in changes in maintenance procedures to ensure that breakers are reset before power is restored to a portion of the system that was down for maintenance. Outages have been extremely rare, and the consequences or effects on data centers, almost negligible.[1]

Even if an outage were to occur at the project site, the longest recorded outage in the last 10 years lasted roughly 7.5 hours. As described previously, each generator would operate 12 hours per year for routine testing and maintenance. An additional 7.5 hours of operation per generator, such as would occur if the project experienced an outage equivalent to the worst outage in the last 10 years, would still be below the 50 hours of operation analyzed in the IS. For these reasons, evaluation of up to 50 hours of annual operation is a reasonable, conservative approach that tends to overestimate the project's actual operation, and to assume more than 50 hours of annual operation requires speculation. Therefore Dr. Clark's contention that more than 50 hours of annual operation should be the basis for the IS's analysis is not based on any substantial evidence about the actual history of outages within the SVP service area, and does not constitute a fair argument that requires preparation of an EIR. Expert opinion that is not based on facts is not substantial evidence supporting a fair argument. Additionally, CEQA does not require analysis of emergency events, nor worst-case events that may never occur, or very rarely over a project's lifespan. The focus on emissions generated by typical project operations under normal conditions in the IS is, therefore, appropriate for the analysis of air quality impacts.

Comment A.5: B. The IS/MND Fails to Adequately Disclose, Analyze, and Mitigate the Project's Potentially Significant Public Health Impacts

The IS/MND concludes that the Project would not expose sensitive receptors to substantial pollutant concentrations. This conclusion suffers from two errors: 1) the failure of the Air Quality and Greenhouse Gas Emissions Assessment (Appendix A) to include the most sensitive receptors in emissions modeling, and 2) the failure to model emissions beyond 50 hours of operation of the backup generators, noted above.

The IS/MND's Air Quality Assessment erroneously states that the "closest sensitive receptors to the proposed project site are existing residences about 3,315 feet north of the project site …" The Granada Islamic School is much closer— 1,700 feet—to the Project site.

[1] California Energy Commission. Mission College Data Center Initial Study and Proposed Negative Declaration. April 2020. Available at: https://efiling.energy.ca.gov/Lists/DocketLog.aspx?docketnumber=19-SPPE-05

Response A.5: The IS states on pages 30 and 36 that the Granada Islamic School is the closest sensitive receptor to the project site, and so this comment is incorrect. Further, as discussed in prior Response A.4, the IS was not required to evaluate the use of generators beyond 50 hours per year, which is already a conservative overestimation of the generators' expected annual usage. Therefore, the IS did adequately disclose, analyze, and mitigate the project's health risk impacts.

Comment A.6: Potential health impacts from operation of the Project's generators were evaluated using air quality dispersion modeling and applying BAAQMD recommended health impact calculation methods. Though the IS/MND states that "[t]he maximum increased cancer risk at the closest sensitive receptor, Granada Islamic School, would be 0.02 in one million, and the maximum increased cancer risk at the closest residence would be 0.1 in one million," it is unclear where those numbers came from. Nothing in the Assessment indicates whether the evaluations of health impacts were actually performed at the Granada Islamic School or at the residences further away. The Assessment's initial erroneous assumption that the closest sensitive receptors were the residences more than 3,000 feet from the Project site does not appear to have been corrected during calculations of health risks, as Figure 2 in the Assessment does not include the Granada Islamic School in its display of sensitive receptors. As asserted by Dr. Clark, such an oversight would significantly alter the assumptions and conclusions of the IS/MND. The City must re-analyze the Project's impacts in an EIR.

Response A.6: This comment contradicts the prior Comment A.5 by acknowledging the IS correctly identifies the Granada Islamic School is the closest sensitive receptor. BAAQMD recommends calculating health risks for sensitive receptors within 1,000 feet of a proposed project site. As stated in the BAAQMD Guidelines: "For assessing community risks and hazards, a 1,000 foot radius is recommended around the project property boundary. BAAQMD recommends that any proposed project that includes the siting of a new source or receptor assess associated impacts within 1,000 feet..."[2] To be conservative, the Air Quality technical report included as Appendix A to the IS calculated health risks at the nearest residences, even though they are well over 1,000 feet from the site. The results showed health risks well below relevant thresholds. Subsequent to completion of the Air Quality technical analysis, the air quality consultant completed additional calculations of health risks at the Granada Public School even though it is also located over 1,000 feet from the site. Using the same modeling methodology as was used for the residential receptors, the cancer risk for a nine-year school child exposure assuming 12 hours/day for 250 days per year was calculated and determined to be 0.02 per million, which is well below (by a factor of 500 times) the residential risk of 10 cases per million. The conclusion in the IS that the project would not result in significant health risks is valid and supported by substantial evidence.[3] Nothing in the comment or in Dr. Clark's assertions provides substantial evidence that the project's health risk impacts would be 500 times higher

[2] BAAQMD. CEQA Guidelines. May 2017.
[3] James Reyff, Illingworth & Rodkin, Inc. Personal Communication. September 1, 2020.

than forecast in the IS and, therefore, exceed the BAAQMD health risk thresholds used in the IS.

Comment A.7: As required by CEQA, the City must prepare a site-specific baseline health risk assessment ("HRA") that calculates the excess incremental lifetime risk for all of the nearby receptors. As Dr. Clark points out, "[t]he City's emissions estimates for criteria pollutants do not substitute for a health risk analysis of the cancer risk posed by exposure to toxic air contaminants (TACs), in particular diesel particulate matter (DPM), released during Project construction and operation."

Diesel exhaust contains nearly 40 toxic substances, including TACs and may pose a serious public health risk for residents in the vicinity of the facility. It has been linked to a range of serious health problems, including an increase in respiratory disease, lung damage, cancer, and premature death. Dr. Clark asserts that, given the Project's proximity to sensitive receptors and the nature of the TACs emitted, an HRA, prepared in accordance with the Office of Environmental Health and Hazard Assessment and analyzing the Project's potentially significant public health impacts from TACs emitted from the diesel particulate matter, is essential.

Response A.7: An HRA was completed for the project and is included in Appendix A to the IS. The results of the HRA are summarized on pages 36-37 of the IS. The HRA used the 2015 Office of Environmental Health and Hazard Assessment (OEHHA) risk assessment guidelines and California Air Resources Board (CARB) guidance. Additionally, BAAQMD has adopted recommended procedures for applying the newest OEHHA guidelines as part of Regulation 2, Rule 5: New Source Review of Toxic Air Contaminants. Exposure parameters from the OEHHA guidelines and the recent BAAQMD HRA Guidelines were used in HRA. Therefore, the IS has appropriately modeled and disclosed the health risk presented by the project to surrounding sensitive receptors, and the conclusion that the project would not result in significant health impacts is adequately supported by substantial evidence and no substantial evidence is provided in this comment supporting a fair argument the project would have significant health effects according to OEHHA and CARB guidance.

Comment A.8: C. The IS/MND Fails to Adequately Disclose, Analyze and Mitigate the Project's Potentially Significant Greenhouse Gas Impacts

The CEQA Guidelines require a lead agency to compare a project's GHG emissions against a threshold of significance that the agency determines applies to the Project, or to otherwise determine the extent to which the project complies with local regulations and requirements adopted to reduce GHG emissions, provided there is no evidence that GHG emissions would be cumulatively considerable. Here, the City chose to use a qualitative approach when considering GHG emissions. Rather than measure the Project's emissions against a numerical threshold, the IS/MND instead evaluated them based on whether they conflict with a plan, policy, or regulation adopted for the purpose of reducing GHG. Substantial evidence, however, supports a fair argument that the Project's emissions are significant.

1. Substantial Evidence Does Not Support the Conclusion that GHG Emissions Will Not Be Significant

Though BAAQMD provides clear thresholds to which emissions from both stationary and nonstationary sources can be compared, the IS/MND fails to measure any of the Project's emissions against a numerical threshold, and fails, therefore, to demonstrate that Project impacts are less than significant.

The IS/MND indicates that total Project emissions are calculated as 10,323 MTCO2e/year. The BAAQMD CEQA Guidelines, meanwhile, provide the following thresholds of significance for operational-related GHG emissions for land use development projects: "Compliance with a qualified GHG Reduction Strategy; or annual emissions less than 1,100 MTCO2e/yr; or 4.6 MTCO2e/SP/yr (residents + employees)."

Even subtracting from the total emissions the 522 MTCO2e/year attributed to generators (since stationary sources are subject to different thresholds than nonstationary sources), Project emissions are significant. As stated in BAAQMD's CEQA Guidelines, "[i]f annual emissions of operational-related GHGs exceed [threshold] levels, the proposed project would result in a cumulatively considerable contribution of GHG emissions and a cumulatively significant impact to global climate change."

Response A.8: The analysis of GHG impacts in the IS was completed consistent with the requirements of Section 15064.4(a) of the CEQA Guidelines, which gives the lead agency discretion to determine, in the context of a particular project, whether to:
(1) Quantify greenhouse gas emissions resulting from a project; and/or
(2) Rely on a qualitative analysis or performance based standards.

Case law has consistently confirmed that when CEQA provides a lead agency with discretion, a fair argument cannot then be made by arguing the opposite or alternate from what approach or method the lead agency has selected, otherwise the discretion would be meaningless. Therefore, given the City had discretion whether to quantitatively or qualitatively address the project's GHG emissions, and chose the latter, a fair argument cannot now be made on the basis of the failure to apply a quantitative threshold, given that would render moot the City's discretion to not quantify GHG emissions at all. The IS quantified the project's estimated GHG emissions to disclose the overall magnitude of emissions for the public and decision-makers benefit, and yet ultimately relied on a qualitative analysis, as permitted by 15064.4(a)(2), to determine that the project would not result in a significant GHG impact. As discussed in the IS, because i) the project would receive electricity from a utility on track to meet the SB 32 2030 GHG emission reduction target, ii) would result in lower emissions (43.5 percent) than the statewide average for an equivalent facility due to SVP's power mix, iii) would include energy efficiency measures to reduce emissions to the extent feasible, and iv) would be consistent with applicable plans and policies adopted to reduce GHG emissions, the project would not generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.

The comment suggests that the IS should have used the BAAQMD thresholds of 1,100 MTCO2e/yr or 4.6 MTCO2e/SP/yr. These thresholds, however, were established to achieve the State's 2020 GHG reduction goal under AB 32 and are no longer applicable to development projects that would become operational after 2020. BAAQMD recently confirmed that these thresholds should no longer be used to determine CEQA impacts for development projects.[4]Additionally, as explained above, the City has discretion whether to apply a quantitative GHG threshold at all, and in this case, determined a qualitative approach was the most appropriate basis to evaluate the project's GHG emissions.

Comment A.9: 2. Compliance with Plans and Policies Does Not Establish that the Project's GHG Emissions Would Be Less Than Significant

The IS/MND concludes that the Project's GHG emissions would not have a significant impact on the environment because the Project is consistent with the City of Santa Clara Climate Action Plan ("CAP"), as well as other plans, policies, and regulations adopted for the purpose of reducing GHG emissions. Substantial evidence, however, supports a fair argument that the Project's GHG emissions are significant notwithstanding their consistency with local, regional, and state plans.

As stated above, the Project's total operational emissions amount to 10,323 MTCO2e annually- significantly higher than the 1,100 MTCO2e/year threshold established by BAAQMD. The IS/MND fails to describe how this might be abated through the Project's compliance with GHG reduction strategies.

Response A.9: Please refer to Response A.8. The BAAQMD threshold referenced in the comment is no longer relevant or recommended for use by BAAQMD. Further, as noted above in Response A.8, a fair argument cannot be made based on a numeric threshold when CEQA allows a lead agency discretion whether to employ a quantitative threshold or qualitative analysis, and in this case the City elected the latter approach.

Comment A.10: Furthermore, the IS/MND relies on obtaining the status of less-than- significant for the Project's emissions from a plan that is set to expire before the Project is implemented. The City's Climate Action Plan, adopted in 2013, contains projected emissions and measures designed to help the City meet statewide 2020 goals established by AB 32. As acknowledged in the IS/MND, "consistency with the CAP cannot be used to determine significance under CEQA."

Response A.10: Although the IS discusses the project's consistency with the City's Climate Action Plan (CAP), it does not rely on the project's consistency with the CAP to determine the project's GHG impact under CEQA. As stated on page 67 of the IS: "Because the project would not become operational prior to the end of 2020, consistency with the CAP cannot be used to determine significance under CEQA.

[4] California Energy Commission. Mission College Final Decision. August 21, 2020. Available at: https://efiling.energy.ca.gov/Lists/DocketLog.aspx?docketnumber=19-SPPE-05

The project, however, would still be required to be consistent with the requirements of the CAP, and implementation of required Climate Action Plan measures would reduce GHG emissions from the project." As stated in Response A.8, and discussed in detail in the IS, because i) the project would receive electricity from a utility on track to meet the SB 32 2030 GHG emission reduction target, ii) would result in lower emissions (43.5 percent) than the statewide average for an equivalent facility due to SVP's power mix, iii) would include energy efficiency measures to reduce emissions to the extent feasible, and iv) would be consistent with applicable plans and policies adopted to reduce GHG emissions, the project would not generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.

Comment A.11: The IS/MND argues that because electricity—by far the biggest source of the Project's emissions—is provided by Silicon Valley Power, "a utility on track to meet the 2030 GHG emissions reductions target established by SB 32," the Project would generate lower emissions than the statewide average for an equivalent facility. Additionally, because the Project would allegedly comply with several applicable City and state plans, including green building and energy efficiency measures, and policies adopted to reduce GHG emissions, the IS/MND concludes that "the project would not generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment."

The IS/MND fails, however, to establish that the Project's consistency with these plans and programs will ensure that the Project's contribution to global climate change is not significant. Despite compliance with these plans, Dr. Clark reiterates that calculations of the Project's total emissions provided in the IS/MND nevertheless surpass BAAQMD's thresholds, demonstrating that emissions would be significant. The City must prepare an EIR that analyzes and mitigates these significant GHG emissions.

Response A.11: As described in the IS, the project would be consistent with plans and policies adopted to achieve the State's GHG reduction targets. The State's targets were established to ensure the State's GHG emissions would not contribute substantially global climate change. The project's consistency with these plans and policies, therefore, would ensure its contribution to global climate change would not be significant.

As described in Response A.8, the analyses in the IS was completed consistent with the requirements of Section 15064.4 of the CEQA Guidelines, which gives the lead agency discretion to rely on a qualitative analysis to determine a project's GHG impacts. Additionally, the BAAQMD thresholds referenced in the comment are no longer relevant or recommended for use by BAAQMD. A fair argument cannot be made based on a numeric threshold when CEQA allows a lead agency discretion whether to employ a quantitative threshold or qualitative analysis, and in this case the City elected the latter approach.

Comment A.12: V. CONCLUSION

CEQA requires that an EIR be prepared if there is substantial evidence that a project, either individually or cumulatively, may have a significant impact on the environment. As discussed above, there is substantial evidence supporting a fair argument that the Project would result in significant adverse impacts that were not identified or adequately analyzed in the IS/MND.

We urge the City to fulfill its responsibilities under CEQA by withdrawing the IS/MND and preparing a legally adequate EIR to address the potentially significant impacts described in this comment letter. Only by complying with all applicable laws will the City and the public be able to ensure that the Project's environmental impacts are mitigated to less than significant levels.

Response A.12: As discussed in Responses A.1 through A.12, the comment letter does not present substantial evidence supporting a fair argument that the project would result in significant unavoidable environmental impacts. Rather, the various comments rely on speculation or fail to acknowledge the discretion afforded to the City in determining whether to apply a quantitative or qualitative approach to determining the significance of the project's effects. Therefore, an EIR is not required for the project.

B. Clark & Associates (dated October 12, 2020)

Comment B.1: On At the request of Adams Broadwell Joseph & Cardozo (ABJC), Clark and Associates (Clark) has reviewed materials related to the IS/MND for the above referenced project. The IS/MND was prepared by David J. Powers and Associates, Inc. for the City of Santa Clara Community Development Department.

Clark's review of the materials in no way constitutes a validation of the conclusions or materials contained within the project record. If we do not comment on a specific item this does not constitute acceptance of the item.

General Comments:

The City's analysis of the air quality impacts of emissions from the construction and operational phases of the project are unsupported and flawed. The analysis in the IS/MND fails to quantify the total emissions in a meaningful manner in which yearly and daily emissions may be compared to relevant and appropriate standards, fails to address necessary mitigation measures to reduce significant impacts, and makes assertions about the impacts to the surrounding communities without a clear and reproducible methodology. Several mitigation measures outlined in the DEIR are merely aspirational and may not effectively reduce emissions from the project. These flaws are detailed below, making the conclusions in the IS/MND unsupported. The City must update their analysis as an Environmental Impact Report (EIR) to correct the unsupported conclusions presented in the IS/MND.

> **Response B.1:** As discussed in the detailed responses below, the comment letter does not present substantial evidence supporting a fair argument that the project would result in significant unavoidable environmental impacts. Therefore, an EIR is not required for the project.

Comment B.2: Project Description

According to the IS/MND, the approximately 1.38-acre project site, located at 1111 Comstock Street (APN 224-08-092) in Santa Clara, is currently developed with a one-story, 23,765 square foot (sf) industrial building and a paved parking lot. The site is zoned as Light Industrial, and has a General Plan designation of Low Intensity Office/R&D. The project proposes to demolish the existing improvements on the site to construct a four-story, 121,170 sf data center building. The data center building would house computer servers for private clients in a secure and environmentally controlled structure and would be designed to provide 10 megawatts (MW) of information technology (IT) power. Mechanical equipment for building cooling would be located on the roof. Standby backup emergency electrical generators would be installed to provide for an uninterrupted power supply. Six 3,000-KW diesel-fueled engine generators and one 500-kW diesel-fueled engine generator would be located within a generator room on the first floor of the building. Fuel for the generators would be stored in two 30,000-gallon underground storage tanks which would feed individual 160-gallon daytanks located adjacent to each generator.

The data center building would be approximately 80 feet in height, with parapets extending to a height of 87.5 feet. A metal roof screen would extend to a height of 98 feet to shield mechanical equipment. The building would be located in the southern, central portion of the site and set back

approximately 15 feet from the southern property line on Comstock Street, 45 feet from the northern property line, 50 feet from the western property line, and 25 feet from the eastern property line.

Access to the site would be provided by a primary driveway on Comstock Street. The primary driveway would be approximately 26 feet wide and would be located in the southwestern portion of the site in the same location as the existing driveway entrance. A secondary driveway entrance for emergency access would be constructed on Comstock Street in the southeastern portion of the site and would be approximately 22 feet wide. The emergency driveway would wrap around the perimeter of the building and would include a curb and handicap ramp. The project would provide approximately 24 parking spaces, including one accessible space and two clean air/vanpool/EV spaces, located along the western side of the building.

Generator Testing Schedule

The seven emergency backup generators would each be tested once per month for up to one hour. Tests would be conducted with no load for 11 months out of the year, and at with full load one month out of the year.

Existing Project Site

The existing improvements on the site would be demolished to allow for construction of the project. Demolition and construction activities would last approximately 12 months. Excavation for utilities would extend to depths of up to eight feet. Roughly 860 cubic yards of soil would be removed from the site as a result of excavation activities. Augered foundation piles would extend to a depth of 80 1111 Comstock Data Center 7 Initial Study City of Santa Clara September 2020 feet. The site would be graded to direct stormwater flows towards the biotreatment area located along the western boundary of the site.

The project proposes to remove approximately 24 existing trees on-site and plant five replacement trees. New landscaping consisting of trees, shrubs, sedge, perennials, bulbs, annuals and groundcover would be installed in the northeastern, northwestern, and southwestern corners of the site, as well as the southern perimeter of the site, and the western side of the proposed building.

The project proposes to construct a stormwater treatment area between the west side of the building and the parking lot. The existing storm drain line on the site would be removed and a new 12-inch storm drain line would connect the treatment area to the existing storm drain line in Comstock Street. Pedestrian walkways would be composed of permeable pavers. The site would have a total of approximately 28,337 sf of pervious surface, which would be an increase compared to existing condition.

Specific Comments:

1. The IS/MND Fails To Model The Diesel Particulate Matter (DPM) Concentration At the Closest Sensitive Receptor To The Site

According to the IS/MND the project will be a source of air pollutant emissions during construction and operation, with the main source being backup generator testing and maintenance. The diesel-fueled generators emit diesel particulate matter (DPM), which is a known toxic air contaminant

(TAC). The generators are also a source of PM2.5, which is also known to induce adverse health effects.

Based on the assumption that each of the six 3000-kW generators and one 500-kW generator would operate up to 50 hours a year during testing and maintenance, the City calculated that approximately 49 lbs of DPM per year would be emitted. Dispersion modeling in the IS/MND attempts to define the concentration of DPM to which sensitive receptors would be exposed over time.

The IS/MND defines Sensitive Receptors as persons who are most likely to be affected by air pollution: infants, children under 18, the elderly over 65, athletes, and people with cardiovascular and chronic respiratory diseases. Locations that may contain a high concentration of these sensitive population groups include residential areas, hospitals, daycare facilities, elder care facilities, elementary schools, churches and places of assembly, and parks. According to the IS/MND the closest sensitive receptors to the proposed project site are the Granada Islamic School, located about 1,700 feet (approximately 536 meters) northwest of the project site; existing residences about 3,315 feet north of the project site; and additional residences about 4,330 and 4,590 feet south of the project site. The maximum average annual off-site DPM concentrations were used to calculate potential increased cancer risks from the project. Average annual DPM concentrations were used as being representative of long-term (30-year) exposures for calculation of cancer risks.

According to the Proponent, the maximum modeled annual DPM and PM2.5 concentration from operation of the generators at the data center was 0.0001 µg/m3 at several residential receptors north of the project site on Lafayette Street. Concentrations at all other existing residential locations would be lower than the maximum concentration.

Based on the maximum modeled DPM concentrations that assume operation for 50 hours per year per generator, maximum increased cancer risks and non-cancer health impacts were calculated using BAAQMD recommended methods. The maximum increased cancer risk at the closest sensitive receptor, Granada Islamic School, would be 0.02 in one million, and the maximum increased cancer risk at the closest residence would be 0.1 in one million. These conclusions are not supported by the data presented within the report.

A review of Appendix A to the IS/MND, the Air Quality and GHG Emissions Assessment prepared by the Illingworth and Rodkin, Inc., shows that the closest sensitive receptor (Granada Islamic School) and all of the closest worker receptors are not included in the AERMOD model of the emissions from the site. The report within Appendix A is originally dated November 11, 2019 and was updated May 19, 2020. On pages 6 and 15 of the Illingworth and Rodkin report, it states that the closest sensitive receptors to the proposed project site and additional residences are about 4,330 and 4,590 feet south of the project site. DPM and PM2.5 concentrations were calculated at the locations of existing residences in the project area. The report does not indicate if any other receptors are included in the analysis. Figure 2 of Appendix A clearly indicates the nearest sensitive receptors identified by the proponent. What the figure does not identify is the location of the Granada Islamic School.

The figure above clearly indicates the location of the Granada Islamic School, which is much closer than the residences indicated by the yellow crosses on the figures above. This oversight significantly

alters the assumptions and conclusions contained within the IS/MND. The City must re-analyze the project impacts and present them in an EIR for the site.

Response B.2: Please refer to Responses A.5 and A.6, above. The Granada Islamic School was identified as a sensitive receptor in the IS, and the project's impacts to the School were evaluated and determined to be less than significant.

Comment B.3: 2. The IS/MND's Analysis of Risk Fails to Meet Its Obligation to Calculate the Risk from Emissions to the Maximum Exposed Individual (MEI).

According to the BAAQMD CEQA Guidelines, emissions from a new source or emissions affecting a new receptor would be considered significant where ground-level concentrations of carcinogenic TACs from any source result in an increased cancer risk greater than 10.0 in one million, assuming a 70-year lifetime exposure. The Maximum Exposed Individual (MEI) is normally defined as an individual who is present at the point of maximum impact (PMI) as outlined in the Office of Environmental Health and Hazard Assessment's (OEHHA's) Air Toxic Hot Spots Program Risk Assessment Guidelines6 (Toxic Hot Spots). Under Section 4.7.1 of the OEHHA Guidance, the modeling analysis should contain a network of receptor points with sufficient detail (in number and density) to permit the estimation of the maximum concentrations. Locations that must be identified include:

- The maximum estimated off-site impact or point of maximum impact (PMI),
- The maximum exposed individual at an existing residential receptor (MEIR),
- The maximum exposed individual at an existing occupational worker receptor (MEIW).

The modeling performed for the IS/MND fails to identify the PMI and the MEIW. This oversight significantly alters the assumptions and conclusions contained within the IS/MND. The City must re-analyze the project impacts and present them in an EIR for the site.

Response B.3: The comment refers to OEHHA Air Toxic Hot Spots Program Risk Assessment Guidelines for conducting health risk assessments. BAAQMD, like other air districts and CARB, uses these guidelines to develop their procedures for conducting health risk assessments (described under Regulation 2, Rule 5). BAAQMD's CEQA Guidelines identify thresholds for health risk assessments. These thresholds only apply to sensitive receptors. The City, as the lead agency, uses BAAQMD's guidance for CEQA evaluation. In accordance with the BAAQMD CEQA guidelines, the IS evaluated the project's impact at the MEI, which is the nearest residence to the project site.

For the purposes of the CEQA evaluation of the project, the PMI and MEIW referenced in the comment are not required to be identified. During the permitting process of sources such as the project's diesel engines, BAAQMD addresses the various types of receptors that the OEHHA identifies. BAAQMD will not issue a permit to construct or operate these engines if they find that health risks at these receptors are unacceptable.

Comment B.4: 3. The Proposed Emission Controls Assumes that Testing and Maintenance Operations Can Be Performed in Approximately One-Fourth of the Normally Required Time

Emissions from combustion engines for stationary uses, including diesel generators, are generally regulated by the U.S. Environmental Protection Agency (U.S. EPA) and the California Air Resources Board (CARB). Engine emission standards are promulgated in a tiered system that designates maximum pollutant emissions. Unlike Off-Road Diesel-Powered Engines for Mobile Sources (currently utilizing Tier 4 Interim and Final technology which reduce PM2.5 emissions by 90% and more) all new generators have U.S. EPA Tier II rating and need to be outfitted with diesel particulate filters. Diesel-powered generator engines should be fueled using ultra-low sulfur diesel fuel with a maximum sulfur content of 15 parts per million (ppm). According to the City, all generator engines would be equipped with California Air Resources Board (CARB) Level 3 verified diesel particulate filters (DPFs) with a minimum control efficiency of 85 percent removal of particulate matter.

In the absence of stricter emission control devices, the City is proposing to reduce the number of hours of potential operation for testing and maintenance on an annual basis. Rather than assuming testing would occur for up to 50 hours per year for each generator, the City is assuming that the same types of maintenance and testing that needs to be performed to ensure the operations of the generators can be accomplished in 24% of the time generally assumed to be required (12 hours instead of 50 hours). Given the complexity of the equipment, reducing the maintenance and testing period by 76% seems like an illogical and unsustainable mitigation measure. The proponents must evaluate the emissions again considering the required maintenance period and include all of the maintenance for the whole campus in this evaluation.

> **Response B.4:** As described in project description in the IS, the proposed emergency backup generators would each be tested once per month for up to one hour, or 12 hours per generator per year. This is the testing and maintenance schedule proposed by the project applicant. For purposes of estimating emissions and potential air quality impacts from the engines in the IS, it was assumed that each engine could be operated for 50 hours per year (maximum operation hours allowed by the State's Air Toxic Control Measure and BAAQMD for testing and maintenance). By evaluating emissions of the maximum allowed 50 hours of operation per year instead of the 12 hours per year proposed by the project, the IS overestimates the project's emissions. This represents a conservative maximum impact scenario based on the allowed operation per CARB and BAAQMD permit conditions.

Comment B.5: 4. The City Must Prepare A Site-Specific Baseline Health Risk Assessment Using Methods from the Office of Environmental Health and Hazard Assessment to Analyze Diesel Particulate Matter Emissions

The City has failed in its obligation to perform a site-specific health risk assessment (HRA) for the project that calculates the excess incremental lifetime risk for all of the nearby receptors , as required by CEQA. The City's emissions estimates for criteria pollutants do not substitute for a health risk analysis of the cancer risk posed by exposure to toxic air contaminants (TACs), in particular diesel particulate matter (DPM), released during Project construction and operation. Diesel exhaust contains nearly 40 toxic substances, including TACs and may pose a serious public health risk for residents in the vicinity of the facility. TACs are airborne substances that are capable of causing short-term

(acute) and/or long-term (chronic or carcinogenic, i.e., cancer causing) adverse human health effects (i.e., injury or illness). TACs include both organic and inorganic chemical substances. The current California list of TACs includes approximately 200 compounds, including particulate emissions from diesel-fueled engines.

Diesel exhaust has been linked to a range of serious health problems including an increase in respiratory disease, lung damage, cancer, and premature death. Fine DPM is deposited deep in the lungs in the smallest airways and can result in increased respiratory symptoms and disease; decreased lung function, particularly in children and individuals with asthma; alterations in lung tissue and respiratory tract defense mechanisms; and premature death. Exposure to DPM increases the risk of lung cancer. It also causes non-cancer effects including chronic bronchitis, inflammation of lung tissue, thickening of the alveolar walls, immunological allergic reactions, and airway constriction. DPM is a TAC that is recognized by state and federal agencies as causing severe health risk because it contains toxic materials, unlike PM2.5 and PM10.

The IS/MND fails to include a site-specific analysis of the Project's construction or operational health risk posed by DPM emissions. Given the proximity of sensitive receptors to the site and the nature of the TACs emitted, a health risk assessment, prepared in accordance with OEHHA guidance for the baseline, construction, and future years of the project, is essential.

> **Response B.5:** An HRA was completed for the project and is included in Appendix A to the IS. The results of the HRA are summarized on pages 36-37 of the IS. The HRA used the 2015 Office of Environmental Health and Hazard Assessment (OEHHA) risk assessment guidelines and California Air Resources Board (CARB) guidance. Additionally, BAAQMD has adopted recommended procedures for applying the newest OEHHA guidelines as part of Regulation 2, Rule 5: New Source Review of Toxic Air Contaminants. Exposure parameters from the OEHHA guidelines and the recent BAAQMD HRA Guidelines were used in HRA. Therefore, the IS has appropriately modeled and disclosed the health risk presented by the project to surrounding sensitive receptors, and the conclusion that the project would not result in significant health impacts is adequately supported by substantial evidence and no substantial evidence is provided in this comment supporting a fair argument the project would have significant health effects according to OEHHA and CARB guidance.

Comment B.6: 5. The IS/MND's Greenhouse Gas Emissions Analysis Is Unsupportable and Flawed

In its analysis of the Project's greenhouse gas (GHG) emissions the City ignores the 1,100 MT CO2e- per-year threshold contained in BAAQMD's CEQA Air Quality Analysis; the IS/MND indicates, however, that operational emissions from area sources, water, solid waste and energy demand total 10,323 MT CO2e per year— higher than the 10,000 MT CO2e per year threshold for new stationary sources. The cumulative estimate of 10,323 MT CO2e per year makes the project a significant emitter of GHGs based on BAAQMD's guideance. Since the City's Climate Action Plan (CAP) does not have quantitative thresholds for GHG emissions, the BAAQMD's threshold will remain the in effect. The City must revise its analysis and present a correct assessment of total GHG

emissions from the project as significant. The results should be presented in an EIR along with mitigation measures to correct the impacts.

Response B.6: The comment suggests that the IS should have used the BAAQMD threshold of 1,100 MTCO2e/yr. This threshold, however, was established to achieve the State's 2020 GHG reduction goal under AB 32 and are no longer applicable to development projects that would become operational after 2020. BAAQMD recently confirmed that these thresholds should no longer be used to determine CEQA impacts for development projects.[5] The comment also suggests the IS should have compared the project's overall GHG emissions to BAAQMD's 10,000 MTCO2e/yr threshold for stationary sources. This threshold would only be applicable to stationary sources such as the project's diesel generators (which are estimated to emit 522 MTCO2e/yr), not other components of the project that are not defined as stationary sources, such as the project's electricity use.

The analysis of GHG impacts in the IS was completed consistent with the requirements of Section 15064.4(a) of the CEQA Guidelines, which gives the lead agency discretion to determine, in the context of a particular project, whether to:
(1) Quantify greenhouse gas emissions resulting from a project; and/or
(2) Rely on a qualitative analysis or performance based standards. Case law has consistently confirmed that when CEQA provides a lead agency with discretion, a fair argument cannot then be made by arguing the opposite or alternate from what approach or method the lead agency has selected, otherwise the discretion would be meaningless. Therefore, given the City had discretion whether to quantitatively or qualitatively address the project's GHG emissions, and chose the latter, a fair argument cannot now be made on the basis of the failure to apply a quantitative threshold, given that would render moot the City's discretion to not quantify GHG emissions at all.

The IS quantified the project's estimated GHG emissions to disclose the overall magnitude of emissions for the public and decision-makers benefit, and yet ultimately relied on a qualitative analysis, as permitted by 15064.4(a)(2), to determine that the project would not result in a significant GHG impact. As discussed in the IS, because i) the project would receive electricity from a utility on track to meet the SB 32 2030 GHG emission reduction target, ii) would result in lower emissions (43.5 percent) than the statewide average for an equivalent facility due to SVP's power mix, iii) would include energy efficiency measures to reduce emissions to the extent feasible, and iv) would be consistent with applicable plans and policies adopted to reduce GHG emissions, the project would not generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.

[5] California Energy Commission. Mission College Final Decision. August 21, 2020. Available at: https://efiling.energy.ca.gov/Lists/DocketLog.aspx?docketnumber=19-SPPE-05

Comment B.7: Conclusion

The facts identified and referenced in this comment letter lead me to conclude that the Project could result in significant unmitigated impacts if the air quality analysis is not corrected and the conditions of approval are not binding.

Response B.7: As discussed in Responses B.1 through B.6, the comment letter does not present substantial evidence supporting a fair argument that the project would result in significant unavoidable environmental impacts. Therefore, an EIR is not required for the project.

Appendix A: Comment Letters