DRAFT MITIGATED NEGATIVE DECLARATION

THERMAL ENERGY SYSTEM AND

CHILLER COOLING TOWER PROJECTS

Mt. San Antonio Community College District
Walnut, California

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Planning . Environmental . Policy
10 Aspen Creek Lane
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1.0 INTRODUCTION

Mt. San Antonio Community College District ("District") proposes to make improvements to its Central Plant Facilities with the addition of a Thermal Energy System ("TES") and Chiller Cooling Plant ("CCT") ("Proposed Project" or "Projects").

The Proposed Project is subject to an environmental review pursuant to the California Environmental Quality Act ("CEQA"), California Public Resources Code sections 21000 *et seq*. This Mitigated Negative Declaration ("MND") has been prepared in conformance with *CEQA* and evaluates the potential environmental impacts of the Proposed Project. The District is the Lead Agency responsible for the preparation of environmental documentation for the Proposed Project and will also carry out the Proposed Project.

1.1 CEQA ENVIRONMENTAL PROCESS

The environmental compliance process is governed by CEQA and the CEQA Guidelines, codified at Title 14 California Code of Regulations section 15000 *et seq*. CEQA applies to government agencies at all levels, including community college districts. The District, as the lead agency for the Proposed Project, is therefore required to analyze the potential environmental impacts associated with the Proposed Project.

The District has determined that an initial study is required to determine whether the Proposed Project would result in significant environmental effects. An initial study is a preliminary environmental analysis to determine whether an environmental impact report ("EIR"), a negative declaration ("ND"), or a MND is required for a project. (CEQA Guidelines, section 15063.)

A ND is a written statement by the Lead Agency (i.e. District) describing the reasons that a proposed project, that is not exempt from CEQA, will not have a significant effect on the environment and therefore does not require preparation of an EIR. (CEQA Guidelines, section 15371.) A ND is appropriate when the initial study demonstrates that there is no substantial evidence that the project may have a significant impact on the environment. (CEQA Guidelines, section 15070 – 15075.) All procedures for notices, content, public review and consideration for adoption of an MND are included in these sections of the CEQA Guidelines. The two required notices are the Notice of Intent to Adopt a Negative Declaration and the Notice of Determination.

When an initial study identifies the potential significant and unavoidable environmental impacts, the Lead Agency must prepare an EIR. (CEQA Guidelines, section 15064.) However, if all significant impacts can be mitigated to a less-than-significant level, the Lead Agency can prepare a MND that incorporates mitigation measures into the project. (CEQA Guidelines, section 15070.)

In order to ensure that mitigation measures identified in a MND are implemented, a public agency must adopt a program for monitoring or reporting on the revisions which it has required in the project and the measures it has imposed to mitigate or avoid significant environmental effects. (CEQA Guidelines, section 15097.) A MND is subject to a public review period that shall not be less than 20 days. (CEQA Guidelines, section 15105.) A Notice of Intent to Adopt a Negative Declaration must be provided to the public, responsible agencies, trustee agencies, and the county clerk of the county in which the Proposed Project is located. (CEQA Guidelines, section 15072.) A Notice of Determination must be filed with the county clerk of the county in which the Proposed Project is located. (CEQA Guidelines, section 15075.)

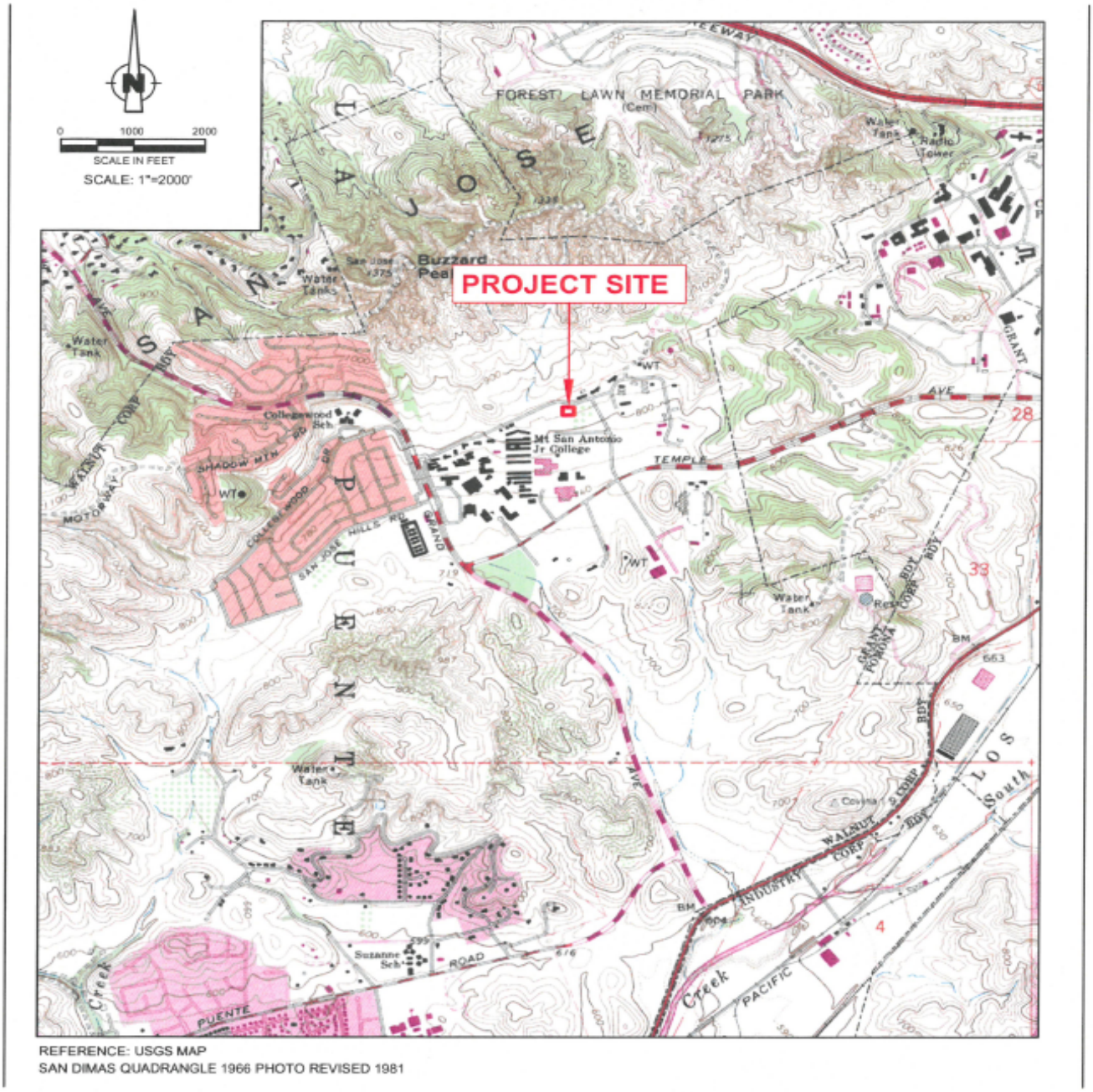
Based on the findings in this initial study, the District has determined that a MND is the appropriate level of environmental documentation for the Proposed Project. The mitigation measures in this MND would reduce or eliminate the potentially significant environmental impacts described herein and are structured in accordance with the criteria in Section 15370 of the CEQA Guidelines.

1.2 IMPACT TERMINOLOGY

The following terminology is used to describe the level of significance of impacts:

- A finding of ***no impact*** is appropriate if the analysis concludes that the proposed project would not affect the particular topic area in any way.
- An impact is considered ***less than significant*** if the analysis concludes that it would cause no substantial adverse change to the environment and requires no mitigation.
- An impact is considered ***less than significant with mitigation incorporated*** if the analysis concludes that it would cause no substantial adverse change to the environment with the inclusion of environmental commitments or other enforceable mitigation measures.
- An impact is considered ***potentially significant*** if the analysis concludes that it could have a substantial adverse effect on the environment. If any impact is identified as potentially significant, an EIR would need to be prepared.

This report provides environmental information to local, state, county and regional agencies and citizens having an interest in the project. These agencies include the South Coast Air Quality Management District, and the cities of Walnut, West Covina and Pomona.



SITE LOCATION MAP

PROPOSED TES UNDERGROUND STORAGE TANK
IN PARKING LOT H
MT. SAN ANTONIO COLLEGE
WALNUT, CALIFORNIA

Project No.
15-31-116-02

Drawing No.
1

Converse Consultants

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Exhibit 1: Regional Location

Exhibit 2: 2015 Campus Aerial Photo

Exhibit 3: TES and CCT Project Locations

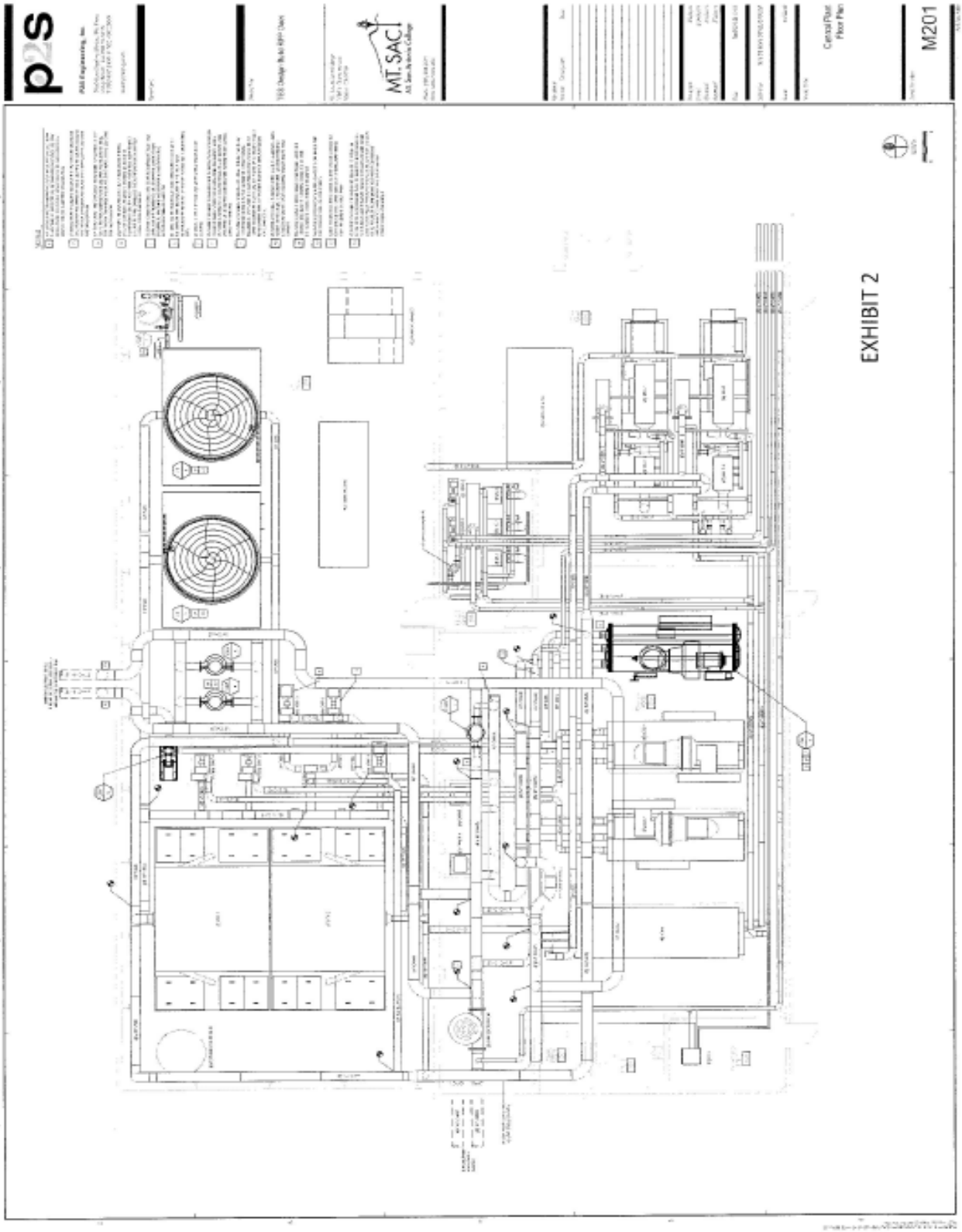

Exhibit 4: Central Plant Site Plan

2.0 PROJECT DESCRIPTION

2.1 LOCATION AND SETTING

The Proposed Project is located within the Mt. San Antonio College campus ("Campus") in the City of Walnut. The 420-acre Campus is located south of Interstate 10, north of Interstate 60 and northwest of State Route 57 in the City of Walnut. The Campus is located north and south of Temple Avenue and primarily east of Grand Avenue. The Campus area north of Temple Avenue is designated Schools in the City of Walnut General Plan and is zoned Residential Planned Developed 61,700 – 0.6 DU.

Exhibit 1: *Regional Location*, and Exhibit 2: *2015 Campus Aerial Photo*, shows the Proposed Project site in its regional and local contexts. As shown in Exhibit 2: *2015 Campus Aerial Photo*, the surrounding area is urban and predominantly single-family residential, with the exception of commercial uses west of Grand Avenue and north of Temple Avenue.

As shown in Exhibit 5: *Campus Zoning*, the Campus is divided into five zones: Primary Educational Zone, Agricultural Zone, Athletics Zone, Wildlife Sanctuary and Solar & Retail.

The Proposed Project is located north of Temple Avenue and east of North Grand Avenue in the Primary Educational Zone. The area surrounding the Primary Educational Zone is urban. The CCT Project is located at the Central Plant location in the middle of the Primary Educational Zone and the TES Project is located in the Primary Educational Zone within a surface parking lot (Lot H) south of Edinger Way. Residential land uses are located north of the TES Project and north of Edinger Way. The location of the TES and CCT Projects are illustrated in the following: Exhibit 1: *Regional Location*; (2) Exhibit 2: *2015 Campus Aerial Photo*; (Exhibit 3: *Thermal Energy System ("TES") Site, and Chiller Cooling Plant ("CCT") Project Locations*, and Exhibit 4: *Central Plant Site Plan*.

There is no rare or endangered plant or animal species in the area because the area is developed and urban.

The Mt. San Antonio College 2012 Facilities Master Plan Final EIR (SCH 2002041161) described the environmental setting of the Campus. Being the Campus area is urban, little change has occurred since 2012 in the environmental setting for the Proposed Project.

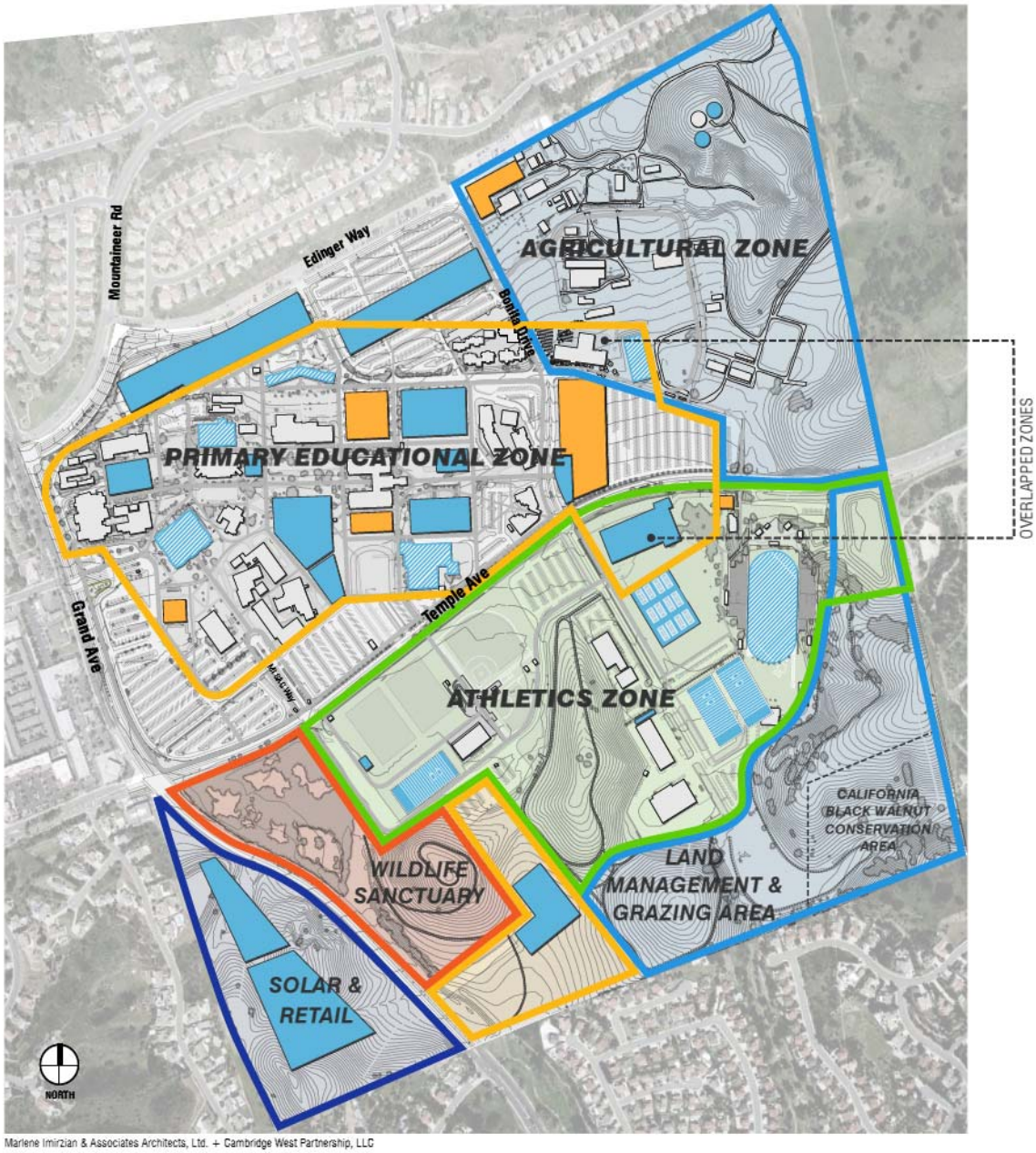

Exhibit 5: Campus Zoning

2.2 PROJECT HISTORY

The Campus currently has a Central Plant that provides heating and cooling to the Campus by pumping hot and cold water to Campus buildings through an underground loop system. The Central Plant has been established on the Campus with its current equipment since 2005. The existing Central Plant has one 500-ton absorption chiller, two 750-ton chillers, five pumps, two cooling towers and a primary variable chilled water system. Mt. San Antonio College has reached a point in the operation of the Central Plant where expansion of the chilled water is required to service the total square footage of the Campus through 2025 and to maintain redundancy in the chilled water system. The estimated peak load capacity of the existing system at full build out in 2025 is 2.041 peak block tonnage. On September 15, 2014 cooling demand increased to 2,311 tons at 3 pm when the outside air temperature was 102 degrees Fahrenheit (Mt. SAC TES Tank and Central Plant Chillers, Draft Report, P2S Engineering, Inc., March 23, 2015). Therefore, the Central Plant needs additional peak capacity to serve the Campus facilities during hot summer days. The addition of more chillers or coolers alone is not sufficient, since the increased demand for electricity results in higher electrical costs for the Campus.

The District obtained a proposal for professional civil, structural, mechanical, electrical, and plumbing engineering design services for the Central Plant expansion and associated piping to the Thermal Energy Storage project and the Athletics Complex East project from P2S Engineering, Inc. on March 23, 2015. The Board of Trustees approved this proposal for services on April 15, 2015.

2.3 PROJECT CHARACTERISTICS

The Central Plant provides heating and cooling to the major Campus buildings through an underground loop system. There are two cooling towers and five associated condenser water pumps located at the Central Plant. The Central Plant is located south of the tennis courts on the main Campus. One pump is a backup pump and two pumps are dedicated to the electrical chillers. Two additional pumps are dedicated to the absorber chiller and motor generators.

The Proposed Project will modify the existing Central Plant system to add an underground chilled water thermal energy storage tank of approximately 2.2-million gallon capacity and to increase the Central Plant's cooling capacity and to shift peak electrical demand. The TES is filled only one time. Once filled, it should not require more additional water than a closed loop chilled water system.

The Proposed Project has two inter- or co-dependent systems, the TES and the CCT. The new 820-ton chiller (9 feet, 9 inches in height) and a new 1,700 gpm cooling tower (19 feet high) will provide additional capacity for cool water within the system for air conditioning of Campus buildings. The TES provides substantial energy savings by allowing the electric needs for a new 820-ton electric chiller to be during off-peak electrical demand. During peak electrical demand, cool water may be pumped into the system for the air conditioning of Campus buildings. The two existing 750-ton Trane centrifugal chillers will also be reprogrammed to provide 640-tons of cooling with 770 gpm at 39 degrees Fahrenheit. A third 500-ton Trane chiller is also located at the Central Plant. The Central Plant area is surrounded by a 21-foot high concrete block wall.

Therefore, the Proposed Project shall provide additional cooling capacity (i.e. an increase from 2,000-tons to 2,100-tons, with 20,000-ton-hours stored capacity). The electrical consumption will increase with the Central Plant's increased capacity, but cost savings will be realized through peak demand shift. The availability of cool water from the TES reduces the peak electric demand and resultant cost for cooling capacity.

The estimated electrical cost savings are projected to be $323,000 per year. However, the project preliminary cost of $10.0 million has grown with the addition of the Athletic Complex East piping costs. The payback period for the TES/CCT Project is approximately twelve years. However, if the Project includes projected piping costs for future projects such as the Athletics Complex East and Physical Education Complex, the payback period will increase (P2S Engineering, July 2015).

The CCT will be located at the Central Plant, which is located south of the Business and Computer Technology (B) site and north of the Career & Technical Education Building (E) in the 2012 Facilities Master Plan ("FMP").

The TES tank site is located in Lot H south of Edinger Way and east of La Puente Drive. The TES tank consists of a cast-in-place reinforced concrete floor, a strand wrapped, cast-in-place vertical pre-stressed concrete wall, and a cast-in-place column supported, two-way flat slab roof. The tank's specifications are in accord with the American Water Works Association (AWWA) D111-Type 1, pre-stressed concrete tank designed for H-20 loading (20-ton vehicle) on top of the tank (i.e. the surface parking lot upon Project buildout). An access hatch to the tank is provided and is located within a small raised island in the parking lot**.** Approximately 1,500 cubic yards of concrete are needed for the TES and approximately 13,500 cy of earth will be exported to Lot M.

The storage system employs the principle of thermal stratification for storing warm and cold water in a single storage chamber. The total estimated area for both projects is 1.5 acres, with 0.3 acres included for trenching from the TES site to the CCT. The graded area for TES only is approximately 0.6 acres.

The total construction period for the Proposed Project, is estimated to be ten months (October 2015 – July 2016). The District has restricted truck hauling to streets other than Edinger Way and will avoid peak hours to minimize conflicts with Campus traffic.

2.4 PROJECT ALTERNATIVES

The 2.2 million gallon TES tank is a gravity system, with the tank required to be at a higher elevation than the serving system. The tank site needed to be located on Campus in a location that could easily accommodate the tank dimensions, be accessible by construction equipment, be located near the existing cooling loop system, have acceptable soil and geology characteristics, and not disrupt current Campus activities.

Potential alternative locations that were considered included project sites in Lot H and Lot A. Other Campus lots were not considered that did not meet the required elevation. Lot A was rejected because of the future Parking Structure development and the increased distance from the Central Plant. The proposed site was preferable because of construction access, the availability of adjacent parking, the soils/geology conditions onsite, and the line extension to the existing cooling loop lines. Therefore, Lot H is the preferable feasible location for the TES tank location. All of the alternative locations are not feasible.

3.0 ENVIRONMENTAL EVALUATION

The environmental evaluation for the Proposed Project is addressed in the following sections, using the CEQA Environmental Checklist. The Environmental Setting is described briefly while the potential environmental impacts are described in Section 3.2. If required, recommended mitigation measures for potential environmental project impacts are included.

3.1 CEQA CHECKLIST

1. Project Title:	Thermal Energy Storage Tank Design-Build Project (TES) and Chiller and Cooling Tower (CCT) Project
2. Lead Agency Name and Address:	Mt. San Antonio Community College District, 1100 N. Grand Avenue, Walnut, California 91789
3. Contact Person and Phone Number:	Mikaela Klein, Facilities Planning & Management, (909) 274-5720
4. Project Location:	City of Walnut, County of Los Angeles
5. Project Sponsor's Name and Address:	Mt. San Antonio Community College District, 1100 N. Grand Avenue, Walnut, California 91789.
6. General Plan Designation:	Schools (City of Walnut)

7. Zoning: Primary Educational Zone (Mt. SAC)
Per Government Code 53091(e) and 53096, the District is exempt from local zoning controls

Residential Plan Development 61,700 (0.6 du) with a
Civic Center Overlay Zone (City of Walnut)

8. Description of the Project: (Describe the whole action involved, including but not limited to later phases of the project, and any secondary, support, or off-site features necessary for its implementation. (Attach additional sheets if necessary)

Please refer to Section 2.0: Project Description

9. Surrounding Land Uses and Setting: (Briefly describe the project's surroundings)

The CCT is proposed at the existing Central Plant facility, which is located south of the Business & Computer Technology Center (B) site and north of the Career & Technical Education Building (E) in the Facility Master Plan 2012 ("FMP"). The TES will be located south of Edinger Way in Lot H (i.e. surface parking). La Puente Drive is the western boundary of the TES within Lot H.

The CCT is surrounded by Campus buildings and the TES is surrounded by Lot H south of Edinger Way. However, off-site residential uses are located north of Edinger Way. The grading for the TES will be approximately 160 feet from the off-site residences and the residences are elevated approximately 30 feet above Edinger Way. The rear yards of the residential units, with backyard fences, face Edinger Way.

10. Other public agencies whose approval is required (e.g. permits, financing approval, or participation agreement).

None

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
1. **AESTHETICS.** Would the project:				
a) Have a substantial adverse effect on a scenic vista?				X
There are no designated scenic vistas in the Project areas. While some residents will regard Buzzard Peak as a local scenic view, the Project has no impact on views of the peak. The Projects will restore any landscaping removed during construction that is part of the Campus Landscape Plan.				
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				X
The Projects do not damage scenic resources. The sites are internal to the Campus and not adjacent to a highway.				
c) Substantially degrade the existing visual character or quality of the site and its surroundings?				X
The Projects are part of the Central Plant facility (CCT) and the CCT is surrounded by an existing 21-foot wall. There is no impact on the existing visual character or quality of the CCT site because all equipment is located within the boundary wall. At buildout, the TES will be almost entirely below the surface parking lot (Lot H). Only a small island in the parking lot will provide tank access.				
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?				X
The Proposed Project will not create a new source of substantial light and glare. Only minimal existing security lighting occurs at the CCT site and existing parking lot lighting at the TES site. No additional lighting is included in the Proposed Project.				
2. **AGRICULTURE AND FOREST RESOURCES**: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and the forest carbon measurement methodology provided in the Forest Protocols adopted by the California Air Resources Board. Would the project?				
a) Convert Prime Farmland, Unique Farmland or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency to non-agricultural use?				X
The Projects are located within the Campus Primary Educational Zone and not the Agricultural Zone (Exhibit 5).				
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				X
The Proposed Project is located in an area zoned Residential Plan Development. The Proposed Project is also located in the Campus Primary Educational Zone. The Projects are not located in the Campus Agricultural Zone (Exhibit 5). There are no agricultural uses on or proximate to the affected properties, nor are the properties covered by any Williamson Act contract. No impact would occur, and no mitigation is necessary.				
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220 (g), timberland (as defined in Public Resources Code Section 4526) or timberland zoned Timberland Production (as defined in Government Code Section 511040 (g)??				X
The Proposed Project does not conflict with the FMP Zoning District of Primary Educational Zone. The Proposed Project provides a necessary service (heating and cooling) to Campus buildings. The City of Walnut has a Schools General Plan designation and a zoning designation of Residential Plan Development 61,700 (0.6 du) with a Civic Center Overlay Zone for the Proposed Project sites. The Proposed Project sites are exempt from City Zoning pursuant to California Government Code 53091(e) for water and energy facilities and pursuant to Code 53096 for support facilities related to the storage and transmission of water or electrical energy. See Item 10b for further explanation. The uses immediately surrounding the site are urban and residential. There is no forest land or timberland existing or designated for the site. Therefore, implementation of the Proposed Project would not conflict with any existing forest land and timberland zoning. No impact would occur, and no mitigation measures are required.				
d) Result in loss of forest land or conversion of forest land to non-forest use?				X
The Proposed Project sites are not forest land.				
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?				X
The Proposed Project areas are not farmlands or forest lands or used for agriculture.				

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact

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

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

Grading of 0.6 acres for the Projects and implementation of the Projects will have no impact on the SCAQMD plans because of the small acreage. No traffic is associated with the Projects, other than temporary construction traffic.

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation.			X	

The Projects do not violate SCAQMD construction and operational thresholds of significance [The Thermal Energy Storage Tank – Air Quality Construction Analysis (Report #15-104), Greve & Associates, LLC, September 9, 2015]. The report's conclusions are summarized below and the full report is included in the Appendices.

Table 1: TES Peak Construction Air Quality Particulate Emissions

Activity	Pollutant Emissions (lbs./day) ROG	NOx	CO	SOx	PM10	PM2.5
Demolition	1.9	15.7	14.0	0.0	4.7	1.5
Excavation of Tank Hole	2.8	25.0	23.6	0.0	1.6	1.4
Trenching	0.7	5.9	4.5	0.0	0.5	0.5
Tank Construction	0.9	6.6	5.7	0.0	0.7	0.5
Backfilling	0.4	3.3	2.6	0.0	0.3	0.2
Paving	1.3	10.7	8.5	0.0	0.9	0.7
SCQAMD Thresholds	*75*	*100*	*550*	*150*	*150*	*55*
Exceed Threshold?	No	No	No	No	No	No

The construction-related air quality particulate emissions due to the Projects do not exceed SCAQMD Construction Thresholds of Significance. Therefore, the TES Project has a Less than Significant Impact on local air quality. Table 2 evaluated the TES Project in relationship to the SCAQMD Localized Significance Thresholds (LST) requirements. This is a special analysis that estimated air quality emissions on residential areas nearest the Project.

Table 2: TES On-Site Air Quality Particulate Emissions By Construction Activity

Activity	Daily Emissions (lbs./day) NOx	CO	PM10	PM2.5
Demolition	15.0	10.9	4.5	1.5
Excavation of Tank Hole	22.6	13.3	1.5	1.3
Trenching	5.9	4.3	0.5	0.4
Tank Construction	5.3	3.9	0.4	0.4
Backfilling	3.3	2.4	0.3	0.2
Paving	10.6	7.3	0.7	0.6
LST Thresholds	*128*	*911*	*14*	*4*
Exceed Threshold?	No	No	No	No

Source: Greve & Associates, LLC, September 9, 2015

The construction-related air quality particulate emissions due to the TES Project do not exceed SCAQMD Localized Significance Thresholds (LST) methodology. Therefore, the TES Project has a Less than Significant Impact on local air quality. There are no substantial construction air quality emissions from CCT Project construction.

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?				X
The Projects do not exceed SCAQMD construction and operational thresholds of significance, which include cumulatively considerable air quality impacts. (Greve & Associates, *Ibid*). The existing regional air quality conditions were evaluated in Section 3.2: Air Quality of the 2012 Final EIR and the regional conditions, in SRA 10, the ambient air quality standards and the number of days state or federal standards are exceeded are similar to those anticipated for 2015. As shown in Table 3.2.1 in the 2012 Final EIR, the ozone standards and fine particulates are the two emissions of concern for the region.				
d) Expose sensitive receptors to substantial pollutant concentrations?			X	
The Projects do not violate SCAQMD construction and operational thresholds of significance (Greve & Associates, *Ibid*).				
e) Create objectionable odors affecting a substantial number of people?			X	
The Projects do not produce objectionable odors. The operational aspects of the TES Project involve storage and movement of hot and cold water in an entirely closed system, and the use of electricity or natural gas. The operational aspect of the CCT Project is similar to any chiller or cooler operation for multiple building sites and similar to the existing chillers and cooling towers at the Central Plant.				
4. **BIOLOGICAL RESOURCES**. Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U. S. Fish and Wildlife Service?				X
The Proposed Project areas are urban and fully developed and are not inhabited by candidate, sensitive or special status plants and animals.				
b) Have a substantially adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U. S. Wildlife Service?				X
There are no riparian areas associated with the Project sites.				
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				X
There are no wetlands associated with the Proposed Project sites.				
d) Interfere substantially with the movement of any resident or migratory fish or wildlife species or with established native resident migratory wildlife corridors, or impede the use of native wildlife nursery sites?				X
No trees are being removed during construction of the Projects. Therefore, no migratory birds will be impacted during the nesting season (i.e. surveys of trees for active nesting sites are required from March-May if trees are being removed).				
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				X
There are no biological resources, including trees within the Projects' construction or operations areas.				
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, other approved local, regional, or state habitat conservation plan?				X
There are no HCP or NCCP Plans in the Proposed Project areas.				
5. **CULTURAL RESOURCES**. Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?				X
The Projects would not alter, modify, renovate, demolish, or replace any buildings or historical resources. The TES is beneath the parking surface, except for its hatch, and the new cooling tower and chiller are additions to the Central Plant.				
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?			X	

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
The following Mitigation Measure would mitigate potential significant paleontological impacts when grading or excavation occurs. Since the Project sites were previously graded, no finds are probable. 6b. During construction grading, excavation, and site preparation activities, the Contractor shall monitor all construction activities. In the event a paleontological find or a potential paleontological find is discovered, construction activities shall cease and the Contractor shall inform the Project Manager. A qualified paleontologist shall be contacted to analyze the find and recommend further appropriate measures to reduce further impacts on paleontological resources. Facilities Planning & Management shall monitor compliance.				
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?			X	
See Item 5b, which addresses potential paleontological finds when grading and excavation occurs.				
d) Disturb any human remains, including those interred outside of formal cemeteries?				X
See Item 5b, which addresses potential paleontological finds when grading and excavation occurs. There are no known cemeteries on or near Campus and the Proposed Project areas have been graded and/or excavated previously.				
e) Cause a substantial adverse change in the significance of a tribal cultural resource (TCR) such as a site, feature, place, cultural landscape, sacred place or object with cultural value to a California Native American tribe,: that is either on, or eligible for inclusion in, the California Historic Register or a local historic register, or is a resource that the Lead Agency, at its discretion and supported by substantial evidence, determines should be treated as a Tribal Cultural Resource? (PRC 21074 (a) (1-2))				X
No TCRs are located within the Proposed Project sites.				
6. **GEOLOGY AND SOILS**. Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving:				
(i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.				X
The Proposed Project sites are not located within a currently designated State of California Earthquake Fault Zone (formerly Alquist-Priolo Special Studies Zones) for surface rupture. No surface faults are known to project through or towards the site (Geotechnical Study Report: Proposed TES Underground Storage Tank in Parking Lot H, Converse Consultants, May 29, 2015, p. iii). This report is available for public review at the Facilities Planning & Management Department. The geotechnical report indicates the TES Project may be constructed with standard engineering practices without creating new impacts or increasing the severity of the impacts compared to those identified in the 2012 Final EIR. All construction will comply with the 2013 California Building Code (CBC) to assure seismic safety.				
(ii) Strong seismic ground shaking?			X	
Table 1: Summary of Regional Faults projects potential seismic ground shaking on the Proposed Project sites (Converse, Ibid., p. 7). Project construction will comply with the 2013 California Building Code (CBC) to assure seismic safety.				
(iii) Seismic-related ground failure, including liquefaction?				X
The soils at the Proposed Project sites are not susceptible to liquefaction (Converse, *Ibid*. p. iii).				
(iv) Landslides?				X
The TES Project site ranges in elevation from 847 – 836 feet msl and is not subject to landslides. The CCT Project site has no major elevation difference.				
(b) Result in substantial soil erosion or the loss of topsoil?				X
The TES Project site is a surface asphalt parking lot. There is no loss of topsoil or substantial soil erosion of the 1.5 acre Project areas. The CCT Project site is paved and bordered by a wall.				
(c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?				X
The soils at the Proposed Project sites are not susceptible to liquefaction (Converse, *Ibid*. p. iii).				
(d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?				X
The soils at the Proposed Project sites have a "Very Low" expansive potential and mitigation is not anticipated (Converse, *Ibid*.)				

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?				X
No septic tanks or alternative waste water disposals are proposed. The Proposed Project sites are serviced by public sewers.				
7. **GREENHOUSE GAS EMISSIONS**. Would the project?				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant effect on the environment?				X
Since no SCAQMD thresholds are exceeded for operation, the Projects have no significant GHG emissions. The SCAQMD has not officially adopted significance thresholds for greenhouse gas emissions. However, their draft recommendations use a 3,500 MT CO_2EQ/yr threshold for residential projects, a 1,400 MT CO_2EQ/yr (metric ton of equivalent carbon dioxide per year) threshold for commercial projects, and a 3,000 MT CO_2 EQ/yr for mixed-use projects. This project does not fall into any of these categories. However, the Projects GHG emissions are far below the 3,000 MT CO_2 EQ/yr threshold of significance. Construction emissions are amortized over the life of the project, defined by SCAQMD as 30 years, and are added to the annual operational greenhouse emissions. The greenhouse gas emissions for the TES and CCT Projects are very small when amortized over a 30-year period. The Projects are also designed to reduce energy consumption and thereby reduce greenhouse gas emissions. Therefore, the project will not have a significant impact on area or regional greenhouse gas emissions.				
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?				X
The Projects do not conflict with any GHG plan or regulation. GHG thresholds for projects are 3,500 metric tons CO^2Eq/year and the Projects generate minimal GHG emissions.				
8. **HAZARDS AND HAZARDOUS MATERIALS.** Would the project?				
a) Create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials?				X
No hazardous materials are being transported to or from the Proposed Project sites.				
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment?				X
No hazardous materials are associated with the Projects.				
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				
No hazardous materials are used onsite or transported to or from the Proposed Project sites.				
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result would it create a significant hazard to the public or the environment?				X
The Project sites are not located in Section 65962.5 databases.				
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?				X
The Proposed Project sites are not within two miles of an airport.				
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?				X
The Proposed Project sites are not within the vicinity of a private airstrip.				
g) Impair implementation of, or physically interfere with an adopted emergency response plan or emergency evacuation plan?				X
The Projects will not interfere with emergency plans since they do not alter the circulation system or generate traffic after buildout.				
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?				X
There are no wildland areas near the Proposed Project sites.				

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
9. **HYDROLOGY AND WATER QUALITY**. Would the project:				
a) Violate any water quality standards or waste discharge requirements?				X
No water quality standards will be violated because all surface parking lots on Campus comply with the Water Quality Management Plan.				
b) Substantially degrade groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?				X
All water is obtained from the Three Valleys Municipal Water District. The District has ample supplies to meet the incremental increases in demand due to the Projects. In the long-term, the Projects may reduce demand since the TES stores hot and cold water for later usage within a "closed" system. The TES is filled only one time. Once filled, it should not require more additional water than a closed loop chilled water system.				
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?				X
Only minor grade elevation changes are necessary for the Projects. The existing drainage pattern is not altered. No streams are located near the Projects.				
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate of surface runoff in a manner which would result in flooding on- or off site?				X
No streams are located near the Projects.				
e) Create or contribute runoff which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?				X
The TES Project site is already a surface parking lot and the CCT Project site is within the existing Central Plant facility. No major change in storm water is associated with the Projects because the TES will be installed underneath an existing impervious paved surface parking lot and the CCT will be installed at the existing Central Plant. The change-out water is disposed in the storm drains; it is not contaminated in any manner. Once operational, the TES will not discharge to the sewer. The CCT will discharge to the sewer similar to the existing cooling towers.				
f) Otherwise substantially degrade water quality?				X
Upon buildout, the elevations for the TES Project will be the same as existing elevations. The Project sites are part of the Campus Master Plan Drainage Study and have no impact on Campus area drainage or water quality. The TES and CCT Project sites are currently impervious surfaces and no increase in impervious surface occurs at Proposed Project buildout. Both Projects will comply with a Water Quality Management Plan.				
g) Place housing within a 100-year floodplain, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				X
The Projects do not propose new housing.				
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?				X
The Proposed Project areas are not within a flood hazard area.				
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?				X
The Projects are not exposed to flooding from a dam.				
j) Inundation by seiche, tsunami, or mudflow?				
The Proposed Project sites are not near oceans or subject to landslides and mud flows.				
10. **LAND USE AND PLANNING**. Would the project:				
a) Physically divide an established community?				X
The Projects do not divide a community because they are completely within the existing Campus.				
b) Conflict with an applicable land use plan, policy or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?			X	

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact

The Proposed Project areas are within the FMP Zoning District of Primary Educational Zone. The City of Walnut has retained the zone of Residential Plan Development 61,700 (0.6 du) with a Civic Center Overlay Zone. As stated previously, the Proposed Project sites are exempt from City Zoning pursuant to California Government Code 53091(e) for water and energy facilities and exempt under Code 53096 for support facilities related to the storage and transmission of water or electrical energy.

Specifically, California Government Code 53091(e): Water and electrical energy facilities states: "Zoning ordinances of a county or city shall not apply to the location or construction of facilities for the production, generation, storage, treatment, or transmission of water, or for the production or generation of electrical energy, facilities that are subject to Section 12808.5 of the Public Utilities Code, or electrical substations in an electrical transmission system that receives electricity at less than 100,000 volts. Zoning ordinances of a county or city shall apply to the location or construction of facilities for the storage or transmission of electrical energy by a local agency, if the zoning ordinances make provision for those facilities."

c) Conflict with any applicable habitat conservation plan or natural communities' conservation plan?				X

There are no HCP or NCCP plans in the Proposed Project areas.

11. **MINERAL RESOURCES.** Would the project:

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

There are no known mineral resources on the Proposed Project sites.

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

No plans designate the Proposed Project areas as a mineral resource recovery site.

12. **NOISE.** Would the project result in:

a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?				X

The District is not subject to the City's Noise Ordinance or noise standards. Per California Government Code 53091(e): Water and electrical energy facilities: "Zoning ordinances of a county or city shall not apply to the location or construction of facilities for the production, generation, storage, treatment, or transmission of water, or for the production or generation of electrical energy, facilities that are subject to Section 12808.5 of the Public Utilities Code, or electrical substations in an electrical transmission system that receives electricity at less than 100,000 volts. Zoning ordinances of a county or city shall apply to the location or construction of facilities for the storage or transmission of electrical energy by a local agency, if the zoning ordinances make provision for those facilities."

The Projects will not have a significant noise impact upon buildout. Only sporadic maintenance is needed for the Proposed Project and no heavy equipment that generates noise is required. Therefore, the Projects have no noise impact after buildout. For informational purposes only, The City's Noise Ordinance (Article II Regulations, Section 16B-3(a)) exempts construction noise from the noise level limits between the hours of 7:00 a.m. and 8:00 p.m. on weekdays. Construction is not allowed on holidays, Saturdays, and Sundays without special approvals or exceptions. If construction occurs outside the permitted hours, then the construction activities would be subject to the limits in Section 16B-5 or the District would need to obtain an exemption from the City. In Table 3, the average noise estimates are for areas 205 feet (i.e. middle of the construction site) from the construction area, and the maximum noise estimate is for areas 160 feet from the construction area. The distances are to the residential land use, not the building face.

Table 3: Construction Noise Levels

	Demolition	Tank Excavation	Tank Pour	Backfill	Paving
Maximum Levels at Residence (Lmax dBA)	93	93	93	93	93
Average Noise at Residence (dBA Leq)	86	87	85	83	87

Source: Greve & Associates, LLC, September 9, 2015.

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact

The maximum noise levels (Lmax) at the nearest residential land use may reach up to 93 dBA. (This is at the southern residential edge north of Edinger Way, not the residential building face). These noise levels will be considered loud by the residents when they occur. Maximum noise levels will occur when the activities are at their highest, and could be considerably less when quieter equipment is being used and when few pieces of equipment are operating. Average noise levels (Leq) range from 83 to 86 dBA. Again these levels might be reached when construction activity levels are highest for that phase. To reduce these noise impacts to less than significant, construction needs to be limited to Monday through Saturday from 7 a.m. to 7 p.m. [The Thermal Energy Storage Tank – Construction Noise Analysis (Report #15-104A), Greve & Associates, LLC, September 9, 2015].

The CCT Project, which will be done in conjunction with the TES Project, has little potential to create noise impacts. The CCT Project will add one new cooling tower with a 1,700 gallon per minute (gpm) flow rate, and an additional Chiller. The construction will include mounting the units and connecting piping and electrical connections. The Chiller will be located inside the Central Plant building with other chillers and equipment and will not have any significant potential to have a noise impact on the residential community to the north. The Cooling Tower will be located outside in the equipment yard with at least one other larger cooling tower.

The Central Plant equipment yard has a large 21 foot high sound wall. The new Cooling Tower will be approximately 1,240 feet from the nearest residential property line. The specifications for the Cooling Tower show that its operational noise levels will not exceed 80 dBA at 5 feet. This translates to a noise level of less than 45 dBA at the nearest residential property line north of Edinger Way. The noise level will be below the standard required in the Walnut Noise Ordinance and less than ambient conditions.

Therefore, there will be no impact on the residential areas north of Edinger Way.

b) Exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels?			X	

No substantial ground borne vibration or ground borne noise would be associated with construction and operation of the Projects beyond the immediate confines of the construction area (Exhibit 3). No pile driving occurs onsite during construction. Any vibration due to construction activities onsite is limited to conventional construction equipment used for excavation, earth export and concrete import. This activity is limited in duration and results in no safety or structural damage offsite. Construction activities onsite will be completed as quickly as feasible. Therefore, any ground borne vibrations are anticipated to be less than significant. [The Thermal Energy Storage Tank – Construction Noise Analysis (Report #15-104A), Greve & Associates, LLC, September 9, 2015].

c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?				X

The CCT Project will have similar noise generation as the existing coolers and cooling towers. The Central Plant is surrounded by a 21-foot high wall, which contains the noise within the plant area. There is no substantial increase in ambient noise for the CCT Project. All residential areas are more than 1,000 feet from the CCT Project site and provide an adequate buffer from the CCT Project site construction noise. The ambient noise increases for the TES Project are discussed in Item d.

d) A substantially temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?		X		

Upon buildout, the ambient noise level near the TES Project will not increase due to the project. Periodic use of maintenance vehicles onsite will be the only noise source. All construction noise impacts are temporary in nature.

The TES Project will have a substantial increase in ambient noise levels in the project vicinity above ambient noise levels during some phases of construction (i.e. grading) depending on distance from sensitive receptors, the type of construction equipment being used, and the noise volume generated by that equipment at full power. The increase from ambient noise levels is more pronounced outside of peak periods when background traffic noise is less. Therefore, the most effective means of reducing temporary noise impacts during construction is to minimize the time construction occurs (i.e. complete it quickly to limit the noise duration or limit the hours of construction). The following mitigation measure (included as MM 5a in the 2012 Mitigation Monitoring Program for the certified 2012 Final EIR (SCH 2002041161) is feasible and effective in reducing Project construction noise from significant to Less than Significant with Mitigation Incorporated.

5a. All construction and general maintenance activities, except in emergencies or special circumstances, shall be limited to the hours of 7 am to 7 pm Monday-Saturday. Staging areas for construction shall be located away from existing offsite residences. All construction equipment shall use properly operating mufflers. These requirements shall be included in construction contracts and implemented. Facilities Planning & Management shall monitor compliance.

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
No earth or concrete hauling is permitting on Edinger Way. The restriction for truck hauling on Edinger Way is a feasible and effective means for reducing the noise exposure of off-site residences located north of Edinger Way. The higher elevation of the residential lots above Edinger Way (approximately 30 feet or more) also reduces the noise exposure from construction activities onsite from TES Project construction equipment noise.				
e) For a project located within an airport land use plan, or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				X
The Proposed Project sites are not within an airport land use plan, nor two miles from an airport.				
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?				X
The Proposed Project sites are not within the vicinity of a private airstrip.				
13. **POPULATION AND HOUSING.** Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				X
The Projects do not induce population growth. Temporary minor increases in employment on Campus may occur for the Projects.				
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				X
The Projects do not include housing or displace housing.				
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				X
The Projects do not include displacement of people.				
14. **PUBLIC SERVICES**. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, need for new or physically altered government 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:				
a) Fire protection?				X
Existing fire services can protect the Projects without new facilities				
b) Police protection?				X
Mt. San Antonio College Department of Police/Public Safety (DPS) is responsible for the Projects. The County of Los Angeles Sheriff Department also serves the Campus.				
c) Schools?				X
The Projects have no impact on schools because they are not located near any other schools.				
d) Parks?				X
The Projects have no impact on parks because they are completely within the existing Campus and not adjacent to any parks.				
e) Other public facilities?				X
The Projects have no impact on other public facilities (e.g. libraries, community center, etc.) because the Projects are not housing projects. Students have ample access to libraries and recreation on Campus.				
15. **RECREATION.**				
a) Would the project increase the use of existing neighborhood or regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				X
The Projects have no residents and no impacts on parks or recreational facilities because the Projects are merely support utilities for the Campus and are completely contained within the existing campus and not adjacent to any parks or recreational facilities.				
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				X
The Projects do not include recreational facilities.				

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
16. **TRANSPORTATION/TRAFFIC.** Would the project:				
a) Conflict with an applicable plan, ordinance or policy establishing a measure of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?				X
Minimal sporadic and low maintenance vehicle trips will occur for the Projects upon buildout. Construction traffic will occur during non-peak hours. All construction traffic impacts are Less than Significant. Both Proposed Project sites may be accessed without using Edinger Way. Earth or concrete haul trucks will be restricted from using Edinger Way to access the TES Project site. The Projects include 13,500 cy of export to Lot M and 1,500 cy of import of concrete. The Projects will not conflict with a plan, ordinance or policy related to the circulation system. Construction activities for the Projects will displace approximately 500 parking spaces during construction. Based on the 2014-2015 Student Headcount estimate of 356,280 and the parking demand methodology used in Table 10 of the 2008 Iteris Traffic Study, the current total Campus parking demand is 7,117 spaces. Approximately 8,586 parking spaces are available on campus, and Lot M will provide 900 of the total. Since the current supply with construction of the Projects exceeds the parking demand for the Fall Semester, there is no Proposed Project impact on Campus parking. Current traffic counts were taken along Edinger Way during the Summer Intersession. Existing trip volumes are very low. But these volumes will increase with increased student enrollment during the Fall Term. Existing and projected trip volumes' on Edinger Way were evaluated in Section 3.2 of the 2008 Final EIR and current volumes during the Fall Term will be similar or less than that projected in 2008, based on the comparison of student headcount data. The Projects have no impact on area intersections.				
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?				X
Minimal sporadic and low maintenance vehicle trips will occur for the Projects upon buildout. Construction traffic will be in non-peak hours. The Projects have no impact on CMP intersections because of the low construction volumes and no Proposed Project traffic after buildout.				
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?				X
The Projects do not impact air traffic patterns.				
d) Substantially increase hazards to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)?				X
The Projects have no design feature that increase hazards.				
e) Result in inadequate emergency access?				X
The Projects would not result in inadequate emergency access because the sites they would occupy are not part of any emergency access corridor.				
f) Conflict with adopted policies, plans, or programs regarding public transit, bikeways, or pedestrian facilities, or otherwise substantially decrease the performance or safety of such facilities?				X
The Projects would have no impacts on the facilities cited and would not decrease the performance or safety of such facilities since the sites they would occupy are not part of any public transit, bikeway, or pedestrian facilities.				
17. **UTILITIES AND SERVICE SYSTEMS**. Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?				X
The Projects would not generate wastewater. The TES Project is a closed loop system and the water is not changed.				
b) Require or result in construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				X
No new or expanded water or wastewater treatment facilities are required for these Projects.				
c) Require or result in the construction of new storm water drainage facilities or				X

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
expansion of existing facilities, the construction of which could cause significant environmental effects?				
No new storm drains are required for these Projects.				
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?				X
The Three Valleys Municipal Water District has ample water supplies for the Projects.				
e) Result in a determination by the wastewater treatment provider which services or may serve the project determined that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?				X
The Projects would produce minimal wastewater and the County Sanitation Districts of Los Angeles (CSDLA) have ample capacity to serve the Projects (See Item 17 a).				
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?				X
The Projects have no solid waste stream upon buildout. No construction debris will be disposed of in area landfills. The surface asphalt from the Projects' sites will be reused on campus.				
g) Comply with federal, state, and local statutes and regulations related to solid waste?				X
The Projects will comply with all applicable statutes and regulations for solid waste.				
18. **MANDATORY FINDINGS OF SIGNIFICANCE.**				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?				X
The Projects have no impact on any of the issues listed in Item 18a.				
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of the past projects, the effects of other current projects, and the effects of probable future projects)?			X	
The Projects would not have cumulatively considerable impacts. The cumulative impacts for the 2012 FMP were adequately evaluated in the Final EIR. No new projects near Campus and the Proposed Project sites have been identified. While Proposed Project construction traffic may use the Grand Avenue/Temple Avenue intersection (i.e. where the FMP has an unavoidable adverse impact) the Projects' incremental contribution to that adverse impact is minimal. Proposed Project trip volumes are too small in proportion to the total trips on any intersection leg to cause an impact. (A cumulative unavoidable impact of the FMP at the Grand Avenue/Temple Avenue intersection was first identified in Table 1 of the 2008 Master Plan Update Final EIR).				
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?		X		
All construction noise impacts are less than significant with mitigation incorporated (Mitigation Measure 5a). The Projects have minimal impacts upon buildout [The Thermal Energy Storage Tank – Air Quality and Construction Noise Analyses (Reports #15-104 & #15-104A), Greve & Associates, LLC, September 9, 2015].				
Note: Authority cited: Sections 21083, 21083.05, Public Resources Code. Reference: Section 65088.4, Gov. Code: Sections 21080, 21083.05, 21095,Public Resources Code; Eureka Citizens for Responsible Government v. City of Eureka (2007) 147 Cal.App.4th 357; Protect the Historic Amador Waterways v. Amador Water Agency (2004) 116 Cal.App.4th at 1109; San Franciscans' Upholding the Downtown Plan v. City and County of San Francisco (2002) 102 Cal.App.4th 656.				

3.2 CONCLUSIONS

A. Finding that the Mitigated TES and CCT Projects Do Not Have a Significant Impact on the Environment

Based on written evidence provided herein and an independent review by Facilities Planning & Management staff of the evaluation of the TES and CCT Projects potential environmental impacts, I, Mikaela Klein, Senior Facilities Planner, hereby concur that the mitigated Projects will not have a potential significant environment impact. Therefore, I request the Campus Master Plan Coordinating Team (CMPCT) recommend to the Board of Trustees that they adopt a Mitigated Negative Declaration and a Monitoring Reporting Program for the Mitigation Measures included in this report for the Thermal Energy System (TES) and Chilling and Cooling Tower (CCT) Projects.

All documents and other materials that constitute the record of proceedings upon which the decision is based that the Projects will not have a significant impact on the environment are available for public review at Mt. San Antonio College, Facilities Planning & Management (Building 46), 1100 North Grand Avenue, Walnut, California 91789.

B. Environmental Factors Potentially Affected by the Projects:

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

	Aesthetics		Hazards & Hazardous Materials		Recreation
	Agricultural and Forest Resources		Hydrology/Water Quality		Transportation/Traffic
	Air Quality		Land Use/Planning		Utilities/Service Systems
	Biological Resources		Mineral Resources		Mandatory Findings of Significance
	Cultural Resources		Noise		
	Geology/Soils		Population/Housing	X	None
	Greenhouse Gas Emissions		Public Services		

C. TES/CCT Project Mitigation Measures and Conditions of Approval

The mitigation measures below are a select list applicable to the TES/CCT Projects that were adopted within the 2012 Mitigation Monitoring Program for the 2012 Facilities Master Plan. Please note that the numerical index conforms to the 2012 Final EIR Mitigation Monitoring Program.

The Projects contribution to regional emissions is not significant. However, since the region is in non-attainment for ozone, all projects, even if their contribution to particulate emissions is less than cumulatively considerable are encouraged to implement measures, either as mitigation measures or as Conditions of Approval, to reduce regional particulate emissions.

Since the TES Project does result in significant increases in ambient noise levels during construction, Mitigation Measure 5a (Noise) is required as a mitigation measure for the Project.

5a. All construction and general maintenance activities, except in emergencies or special circumstances, shall be limited to the hours of 7 am to 7 pm Monday-Saturday. Staging areas for construction shall be located away from existing offsite residences. All construction equipment shall use properly operating mufflers. These requirements shall be included in construction contracts and implemented. Facilities Planning & Management shall monitor compliance.

The remaining measures listed below are required of all projects on Campus for which they are applicable. They may be adopted as Conditions of Approval.

Aesthetics

12a. All new construction contracts shall implement those provisions of the *Landscape Plan* applicable to their projects. Facilities Planning & Management shall monitor compliance.

Air Quality

3a. All contractors shall comply with all feasible Best Available Control Measures (BACM) included in Rule 403 included in Table 1: Best Available Control Measures Applicable to All Construction Activity Sources. In addition, the project shall comply with at least one of the following Track-Out Control Options: (a) Install a pad consisting of washed gravel (minimum-size: one inch) maintained in a clean condition to a depth of at least six inches and extending at least 20 feet wide and 50 feet long, (b) Pave the surface extending at least 100 feet and a width of at least 20 feet wide, (c) Utilize a wheel shaker/wheel spreading device consisting of raised dividers (rails, pipe, or grates) at least 24 feet long and 10 feet wide to remove bulk material from tires and vehicle under carriages before vehicles exit the site, (d) Install and utilize a wheel washing system to remove bulk material from tires and vehicle undercarriages before vehicles exit the site, (e) Any other control measures approved by the Executive Officer and the U.S. EPA as equivalent to the methods specified items (a) through (d) above. Individual BACM in Table 1 that are not applicable to the project or infeasible, based on additional new project information, may be omitted only if Planning Facilities Planning & Management specifies in a

written agreement with the applicant that specific BACM measures may be omitted. Any clarifications, additions, selections of alternative measures, or specificity required to implement the required BACM for the project shall be included in the written agreement. The written agreement shall be completed prior to issuance of a demolition and/or grading permit for a project. The Planning Facilities Planning & Management shall include the written agreement within the Mitigation Monitoring Program for the project and Facilities Planning & Management shall ensure compliance.

3b. Project construction contracts shall prohibit vehicle and engine idling in excess of five (5) minutes and ensure that all off-road equipment is compliant with the CARB's in-use off-road diesel vehicle regulations and SCAQMD Rule 1186 and 1186.1 certified street sweepers or roadway washing trucks, and all internal combustion engines/construction equipment operating on the project site shall meet EPA-Certified Tier 2 emissions standards, or higher according to the adopted project start date requirements. A copy of each unit's certified tier specification, BACT documentation and CARB or SCAQMD operating permit shall be provided to the construction manager at the time of mobilization of each applicable unit of equipment. Facilities Planning & Management shall ensure compliance.

3c. During construction, contractors shall minimize offsite air quality impacts by implementing the following measures: (a) encourage car pooling for construction workers, (b) limit lane closures to off-peak travel periods, (c) park construction vehicles off traveled roadways, (d) encourage receipt of materials during non-peak traffic hours and (e) sandbag construction sites for erosion control. These requirements shall be included in construction contracts and implemented. Facilities Planning & Management shall monitor compliance.

3d. Truck deliveries and pickups shall be scheduled during off-peak hours whenever possible to alleviate traffic congestion and air quality emissions during peak hours. Facilities Planning & Management shall monitor compliance.

3f. During project construction, all off-road diesel-powered construction equipment greater than 50 hp shall meet the EPA-Certified Tier 4 emission standards where available. All construction equipment shall be outfitted with BACT devices certified by California's Air Resources Board (CARB). Any emission control devices used by a contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations. A copy of each unit's certified tier specification, BACT documentation and CARB or SCAQQMD operating permit shall be provided by contractors before commencement of equipment use on Campus. Facilities Planning & Management shall ensure compliance.

3g. Construction contracts shall specify that all diesel construction equipment used onsite shall use ultra-low sulfur diesel fuel. Facilities Planning & Management shall ensure compliance.

3h. During grading and construction, fugitive dust from construction operations shall be reduced by watering at least twice daily using reclaimed water or chemical soil binder, where feasible, or water whenever substantial dust generation is evident. Grading sites of more than ten gross acres shall be watered at least three times daily. The project shall comply with Rule 403: Fugitive Dust (South Coast Air Quality Management District). Project contractors shall suspend grading operations, apply soil binders, and water the grading site when wind speeds

(as instantaneous gusts) exceed 25 miles per hour. Traffic speeds on all unpaved graded surfaces shall not exceed 15 miles per hour. All grading operations shall be suspended during first and second stage smog alerts. All project contracts shall require project contractors to keep construction equipment engines tuned to ensure that air quality impacts generated by construction activities are minimized. Upon request, contractors shall submit equipment tuning logs to Facilities Planning & Management. Facilities Planning & Management shall ensure compliance.

Land Use and Planning

1a. All future land uses on Campus, building locations and square footage (ASF) shall be substantially consistent with the 2012 Facility Master Plan. Facilities Planning & Management shall ensure compliance.

1c. The following Master Plan elements shall be revised to conform to the 2012 Facility Master Plan: (1) Land Use Plan, (2) Conservation Plan, (3) Circulation/Parking Plan. Facilities Planning & Management shall ensure compliance.

Noise

5a. All construction and general maintenance activities, except in emergencies or special circumstances, shall be limited to the hours of 7 am to 7 pm Monday-Saturday. Staging areas for construction shall be located away from existing offsite residences. All construction equipment shall use properly operating mufflers. These requirements shall be included in construction contracts and implemented. Facilities Planning & Management shall monitor compliance.

Geology/Soils

6a. All recommendations in the final geotechnical report(s) for projects included in the 2012 Facility Master Plan shall be included in construction contracts and implemented. Facilities Planning & Management shall monitor compliance.

6b. During construction grading and site preparation activities, the Contractor shall monitor all construction activities. In the event a paleontological find or a potential paleontological find is discovered, construction activities shall cease and the Contractor shall inform the Project Manager. A qualified paleontologist shall be contacted to analyze the find and recommend further appropriate measures to reduce further impacts on paleontological resources. Facilities Planning & Management shall monitor compliance.

Hydrology and Water Quality

7a. The *Master Campus Drainage Plan* shall be updated prior to commencement of grading for the Fire Training Academy and Athletics Education Building projects. The plan shall comply with the *State of California National Pollutant Discharge Elimination System (NPDES) Construction Activities Storm Water Discharge Permit (Construction Permit*) regulations. When construction activities on Campus constitute acreage at or above the threshold acreage, the College shall prepare a *Storm Water Pollution Prevention Plan (SWPPP)* and a *Monitoring Program* for the 2012 Facility Master Plan. The *Master Campus Drainage Plan* shall meet any requirements of the County of Los Angeles Department of Public Works and the City of Walnut. All recommendations of the approved final drainage plan(s) shall be included in construction contracts and implemented. Facilities Planning & Management shall monitor compliance.

7b. All drainage improvements shall be consistent with the *Master Campus Drainage Plan*. All recommendations of the approved final drainage plan(s) shall be included in construction contracts and implemented. Facilities Planning & Management shall monitor compliance.

7c. Prior to excavation onsite for which the preliminary soils/geology report indicated groundwater may be encountered; any required permit for de-watering shall be obtained from the California Regional Water Quality Control Board, Los Angeles Region. If effluent concentrations exceed permit requirements, a carbon treatment system or equivalent system to remove pollutants shall be utilized prior to discharge. Facilities Planning & Management shall monitor compliance.

Traffic

2a. Contractors shall submit traffic handling plans and other construction documents to Facilities Planning & Management prior to commencement of demolition or grading. The plans and documents shall comply with the *Work Area Traffic Control Handbook (WATCH)*. Facilities Planning & Management shall monitor compliance.

2b. Demolition and construction contracts shall include plans for temporary sidewalk closure, pedestrian safety on adjacent sidewalks, vehicle and pedestrian safety along the project perimeter, and along construction equipment haul routes on Campus. These plans shall be reviewed by the Public Safety Department and approved by Facilities Planning & Management. Facilities Planning & Management shall monitor compliance.

2c. Prior to issuance of a grading permit Facilities Planning & Management shall consult with the City of Walnut on a Truck Route Plan for truck hauling activities with more than fifty (50) trucks per day. Hauling of earth materials shall only occur between 9:00 am and 2:00 pm Monday through Friday and between 8:00 am to 5:00 pm on Saturdays to avoid peak hour traffic. Light duty trucks with a weight of no more than 8,500 pounds are exempted from this restriction. Facilities Planning & Management shall ensure compliance.

2e. Each project site shall be adequately barricaded with temporary fencing to secure construction equipment, minimize trespassing, vandalism, short-cut attractions, and reduce hazards during demolition and construction. Facilities Planning & Management shall monitor compliance.

Utilities and Service Systems

15b. The College shall obtain permit(s) and water commitments required by the Three Valleys Municipal Water District for water service for all projects. These requirements shall be included in construction contracts. TVMWD has requested advance notification whenever demand may increase by more than 50 percent so future planning may be completed. Facilities Planning & Management shall monitor compliance.

D. Determination (To be completed by the Lead Agency)

On the basis of this initial evaluation:

I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.	No
I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent (i.e. District). A MITIGATED NEGATIVE DECLARATION will be prepared.	Yes
I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.	No
I find that the proposed project MAY have a "potential significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measutr3es based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.	No
I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.	No

9/10/2015

Signature Date

MIKAELA KLEIN MT. SAN ANTONIO COLLEGE

Printed Name For

4.0 BIBLIOGRAPHY

All documents listed in the Bibliography are available for public review by contacting Mikaela Klein, Facilities Planning & Management at (909) 274-5720 or at mikaela.klein@mtsac.edu.

Mt. San Antonio College 2012 Facility Master Plan: Draft Subsequent EIR to Final Program EIR (SCH 2002041161), Sid Lindmark, AICP, September 2013.

Mt. San Antonio College 2008 Facility Master Plan Update: Draft Subsequent EIR (SCH 2002041161), Sid Lindmark, AICP, May 2008.

2012 Facility Master Plan Update Mitigation Monitoring Program, Mt. San Antonio College District, December 19, 2013

TES Design Build RFP Documents (90% Design Development), P2S Engineering Inc., not dated

Mt. SAC TES Tank and Central Plant Chillers, Draft Report, P2S Engineering, Inc., March 23, 2015

The Thermal Energy Storage Tank – Air Quality Construction Analysis (Report #15-104), Greve & Associates, LLC, September 9, 2015.

The Thermal Energy Storage Tank – Noise Construction Analysis (Report #15-104A), Greve & Associates, LLC, September 9, 2015.

Geotechnical Study Report: Proposed TES Underground Storage Tank in Parking Lot H, Converse Consultants, May 29, 2015

Edinger Way Traffic Counts during Summer Intersession, Counts Unlimited, July 23, 2015

5.0 APPENDICES

A. Air Quality Report
B. Noise Report
C. Other Correspondence

Memorandum

Date: September 9, 2015

To: Ms. Mikaela Klein, Mt. San Antonio College

From: Fred Greve, Greve & Associates, LLC

Subject: Thermal Energy Storage Tank & Central Plant Chiller– Air Quality Construction Analysis (Report #15-104)

The analysis presented below examines the potential air quality impacts of the construction phase of the Thermal Energy Storage (TES) and the Central Plant Chiller (CCT). The TES project will construct a chilled water tank below grade. The concrete tank will be piped into the campus central plant, which will require digging a trench for the new pipes. The TES tank will be located south of Edinger Way in Lot H which is currently used for surface parking (refer to Exhibit 1).

It should be noted that the projects will need to comply with the air quality measures contained in the Mitigation Monitoring Program (MMP) for the 2012 Facilities Master Plan SEIR. Measures 3a through 3j of the MMP identify a spectrum of air quality mitigation with Measures 3a, 3b, 3c, 3f, 3g, 3h, and 3i are aimed specifically at reducing quality emissions.

THRESHOLDS OF SIGNIFICANCE

In their "1993 CEQA Air Quality Handbook", the South Coast Air Quality Management District (SCAQMD) established significance thresholds to assess the impact of project related air pollutant emissions. Table 2 presents the significance thresholds for construction. There are separate thresholds for short-term construction and long-term operational emissions. A project with daily emission rates below these thresholds is considered to have a less than significant effect on regional air quality. It should be noted the thresholds recommended by the SCAQMD are very low and subject to controversy. It is up to the individual lead agencies to determine if the SCAQMD thresholds are appropriate for their projects.

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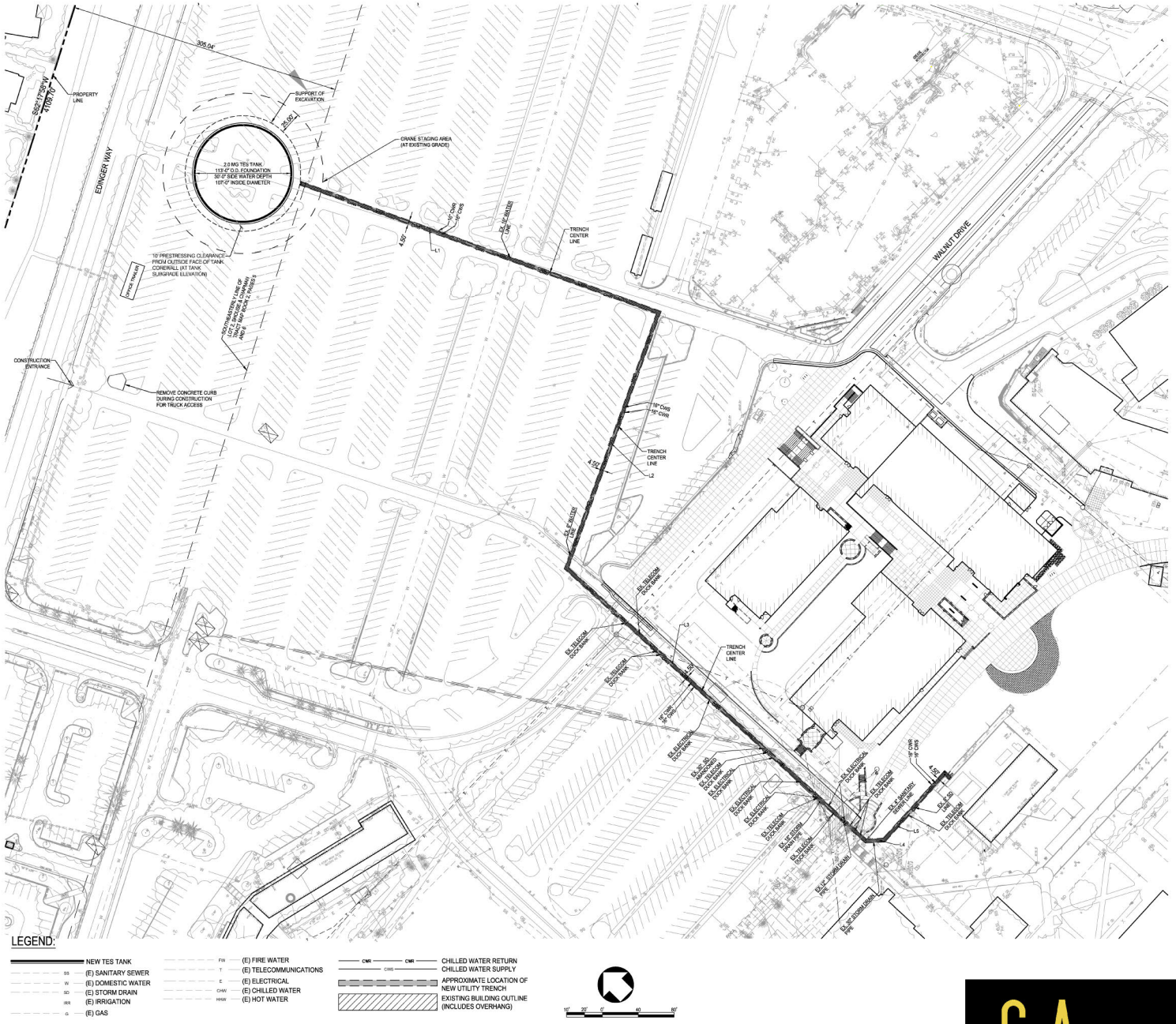
VOICE: 949•466•2967 EMAIL: fred@greveandassociates.com

Exhibit 1 - Site Plan



G&A

Table 1 Regional Pollutant Emission Thresholds of Significance

	Pollutant Emissions (lbs./day)					
	CO	VOC	NOx	PM10	PM2.5	SOx
Construction	*550*	*75*	*100*	*150*	*55*	*150*

SCAQMD staff also developed a localized significance threshold (LST) methodology that can be used to determine whether or not a project may generate significant adverse localized air quality impacts. LSTs represent the maximum emissions from a project that will not cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard, and are developed based on the ambient concentrations of that pollutant for each source receptor area (SRA). The LST methodology is described in the "Final Localized Significance Threshold Methodology" updated in 2009 by the SCAQMD and is available at the SCAQMD website (http://aqmd.gov/ceqa/handbook/LST/LST.html).

The LST mass rate look-up tables provided by the SCAQMD allow one to determine if the daily emissions for proposed construction or operational activities could result in significant local air impacts. If the calculated on-site emissions for the proposed construction or operational activities are below the LST emission levels found on the LST mass rate look-up tables, then the proposed construction or operation activity is not significant for air quality.

The project is located in SRA 10. The nearest existing land uses are the residences approximately 160 feet from the edge of the project site. Table 2 summarizes the LSTs for construction.

Table 2 Localized Significance Thresholds at the Nearest Receptors

	Localized Significance Threshold (lbs./day)			
Description	NOx	CO	PM_{10}	$PM_{2.5}$
Construction Activities	128	911	14	4

POTENTIAL FOR CONSTRUCTION IMPACTS

Air pollutants are emitted by construction equipment and fugitive dust is generated during earth moving operations. Air impacts can contribute significantly to the regional air pollution levels, and this type of impact is referred to as a regional air impact. The project is located in Source Receptor Area 19. Air contaminants can also affect sensitive receptors very close to the project, and this is referred to as a local impact. Both regional and local impacts are assessed for the construction the TES project.

Regional Air Impacts

Construction Emission Calculation Methodology

Emissions during the phases of construction were calculated using the California Emissions Estimator Model (CalEEMod). CalEEMod is a computer program developed by the SCAQMD in conjunction with the California Air Resources Board (CARB). The model calculates emissions for construction and

operation of various projects. The latest version of the model was used (i.e., version CalEEMod.2013.2.2)

Construction Activities

The project site totals approximately 0.6 acres. The tank site is approximately 0.3 acres and the trench for the supply return piping is also about 0.3 acres. The construction of the project is projected to take a little less than 1 year with an estimated start date of October 2015 and a completion date of July 2016.

The following are the likely phases of construction; demolition, excavation of hole for the tank, trenching, tank construction, backfilling, and re-paving. The appropriate number of acres, duration of each construction phase, key construction equipment, and other key elements of the project were input into the CalEEMod to generate the estimate of emissions. The overlap between construction phases will be minimal. Each construction phase is discussed below. A draft construction schedule is presented in the Appendix. CalEEMod printouts are included in the Appendix.

Demolition. Demolition will be the first phase of construction and will take about 6 workdays. Light standards will be removed as necessary and asphalt will be removed over the tank and trench areas. Likely heavy equipment will include a concrete saw, excavator, a loader and a backhoe. An estimated 986 tons of demolition material will be moved to an area on campus.

Excavation. Excavation of the tank hole will take about 24 days of work. An excavator, grader, loader, and backhoe may operate during this time. Approximately 13,500 cubic yards of dirt will be moved to Lot M on-campus. Export of dirt will require about 750 haul truck trips.

Trenching. Trenching will take about 5 workdays, and employ a concrete saw and a backhoe.

Tank Construction. The tank construction will be the longest phase lasting approximately 119 workdays. It will require about 150 truck trips to the site to bring in the concrete. A concrete pump will be used for the pour.

Backfilling. The area around the tank and the trench will be backfilled with dirt. This phase will last about 19 workdays.

Paving. Finally, the tank and trench areas will be re-paved and light standards reinstalled taking about 15 workdays. Mortar mixers, pavers, rollers, and loaders may be used.

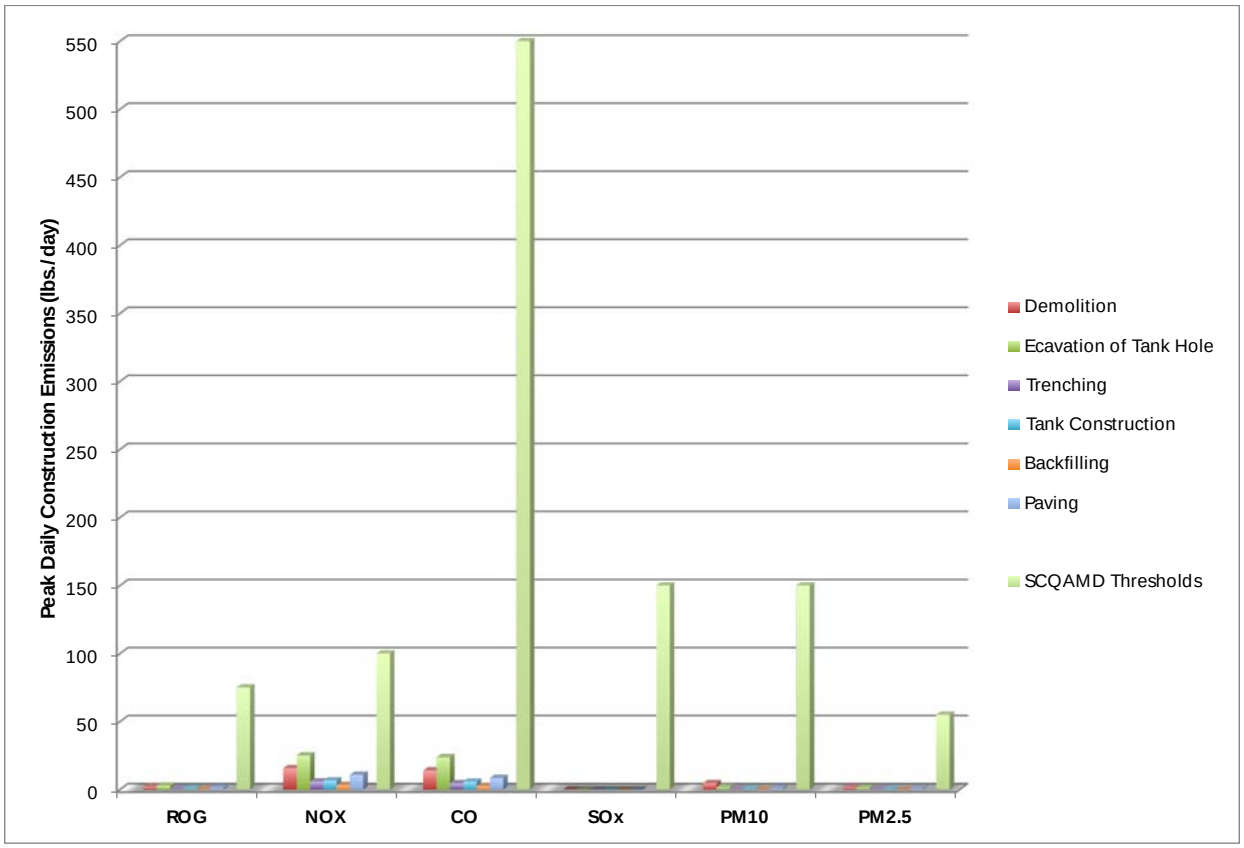
Construction Emissions

Table 3 presents the results of the total emissions calculations for the construction activities discussed above. The highest daily construction emissions for each phase are presented below and represent a worst-case scenario. No mitigation is included in the emission projections presented below. The projected emissions are compared to the Significance Thresholds described above. CalEEMod printouts are included in the Appendix.

Table 3 Peak Construction Emissions

	Pollutant Emissions (lbs./day)					
Activity	**ROG**	**NOx**	**CO**	**SOx**	**PM10**	**PM2.5**
Demolition	1.9	15.7	14.0	0.0	4.7	1.5
Excavation of Tank Hole	2.8	25.0	23.6	0.0	1.6	1.4
Trenching	0.7	5.9	4.5	0.0	0.5	0.5
Tank Construction	0.9	6.6	5.7	0.0	0.7	0.5
Backfilling	0.4	3.3	2.6	0.0	0.3	0.2
Paving	1.3	10.7	8.5	0.0	0.9	0.7
SCQAMD Thresholds	*75*	*100*	*550*	*150*	*150*	*55*
Exceed Threshold?	***No***	***No***	***No***	***No***	***No***	***No***

The projected construction emissions are below the significance thresholds established by the SCAQMD. In all cases, the peak daily emissions are well below the thresholds. The exhibit below shows the emission projections for each phase and compares them to the SCAQMD thresholds. The exhibit graphically depicts how small the emissions will be in comparison to the threshold levels.



Local Air Impacts

The on-site emissions for the LST analysis were calculated utilizing CalEEMod. The emissions presented in Table 4 are those that would be emitted from activity within the project site. The total on-site construction emissions are compared to the Localized Significance Thresholds (LSTs) described above.

Table 4 On-Site Emissions By Construction Activity

	Daily Emissions (lbs./day)			
Activity	**NOx**	**CO**	**PM10**	**PM2.5**
Demolition	15.0	10.9	4.5	1.5
Excavation of Tank Hole	22.6	13.3	1.5	1.3
Trenching	5.9	4.3	0.5	0.4
Tank Construction	5.3	3.9	0.4	0.4
Backfilling	3.3	2.4	0.3	0.2
Paving	10.6	7.3	0.7	0.6
LST Thresholds	*128*	*911*	*14*	*4*
Exceed Threshold?	***No***	***No***	***No***	***No***

None of the emissions will exceed the LST significance thresholds. This is due to the relatively small size of the project and the large distance between the project site and sensitive receptor locations. No significant local air impacts will occur due to construction activities.

Diesel Particulate Matter Emissions During Construction

In 1998, the California Air Resources Board (ARB) identified particulate matter from diesel-fueled engines (Diesel Particulate Matter or DPM) as a Toxic Air Contaminant (TAC). It is assumed that the majority of the heavy construction equipment utilized during construction would be diesel-fueled and emit DPM.

Impacts from toxic substances are related to cumulative exposure and are assessed over a 70-year period. Cancer risk is expressed as the maximum number of new cases of cancer projected to occur in a population of one million people due to exposure to the cancer-causing substance over a 70-year lifetime (California Environmental Protection Agency, Office of Environmental Health Hazard Assessment, Guide to Health Risk Assessment). Use of heavy diesel generating equipment will be used intermittently over a nine-month period. Because of the relatively short duration of construction compared to a 70-year lifespan, diesel emissions resulting from the construction of the project will not result in a significant impact.

CENTRAL PLANT CHLLER (CCT) PROJECT

The Central Plant Chiller project, which will be done in conjunction with the TES project, will have little potential for air quality impacts. The CCT project will add one new cooling tower with a 1,700 gallon per minute (gpm) flowrate, and an additional chiller. The construction will include mounting the units and connecting piping and electrical connections. Emissions will be very minimal. Therefore, there will be no significant air quality impact.

GREENHOUSE GAS

The SCAQMD has not officially adopted significance thresholds for greenhouse gas emissions. However, their draft recommendations use a 3,500 MT CO_2EQ/yr threshold for residential projects, a 1,400 MT CO_2EQ/yr (metric ton of equivalent carbon dioxide per year) threshold for commercial projects, and a 3,000 MT CO_2 EQ/yr for mixed-use projects. This project does not fall into any of these categories. Construction emissions are amortized over the life of the project, defined by SCAQMD as 30 years, and are added to the annual operation emissions. The greenhouse gas emissions for construction are very small when amortized over a 30 year period. Additionally, the operation of the projects is designed to reduce energy consumption and as a consequence reduce greenhouse gas emissions. Therefore, the projects will not have a significant impact on greenhouse gas emissions.

CONCLUSION

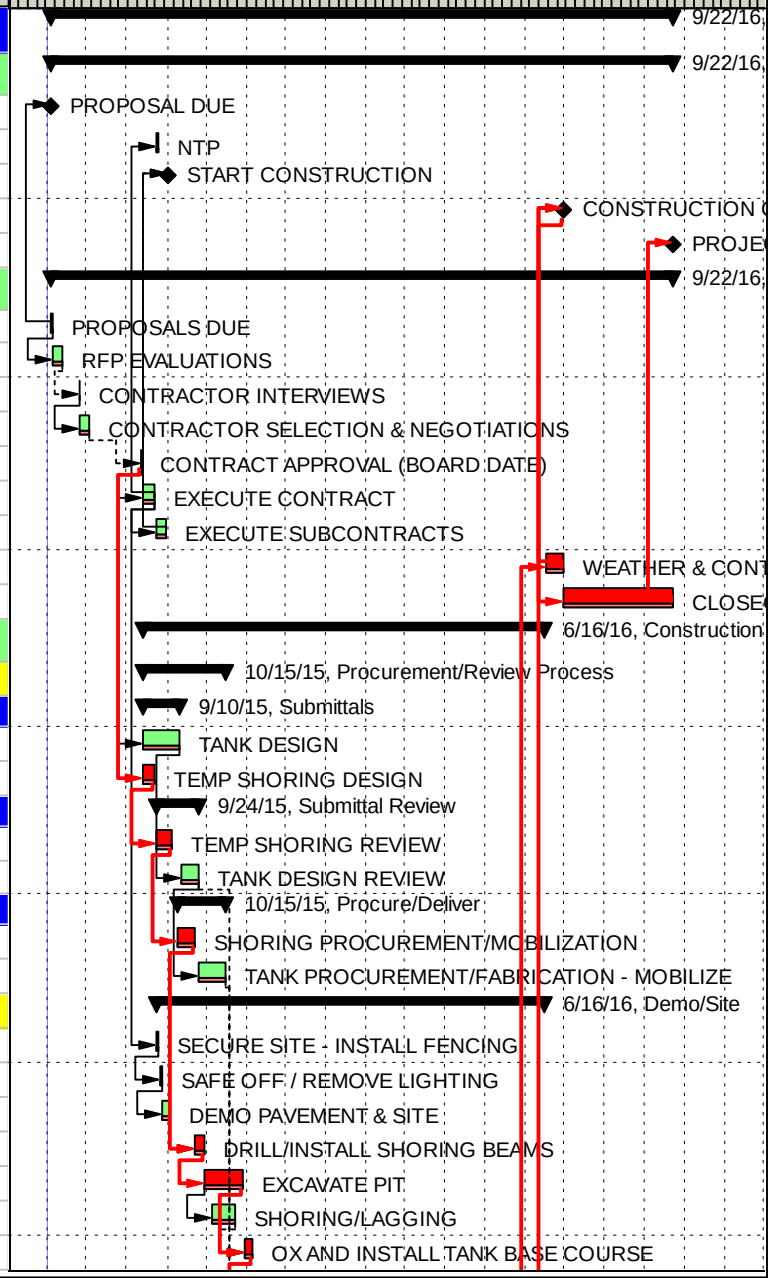
Potential air quality impacts during construction were assessed for the TES and CCT projects. Both local and regional air impacts were considered. No significant air quality impacts are forecasted during construction of the TES and CCT projects.

Appendix

Draft TES Construction Schedule

CalEEMod Output

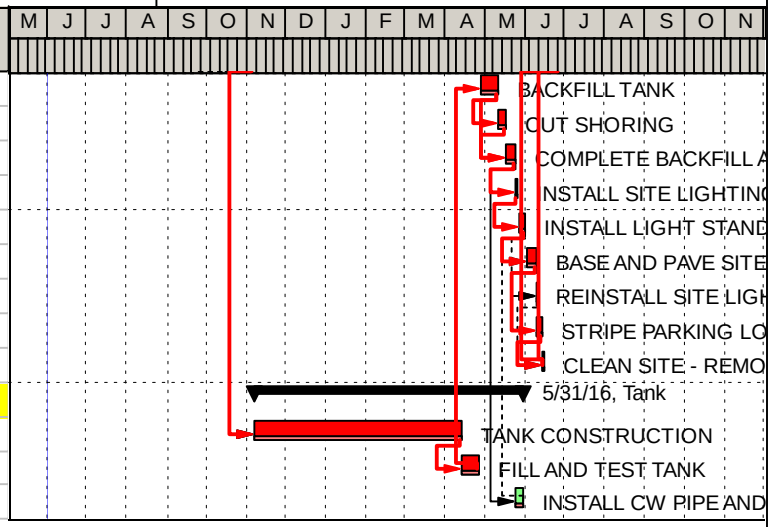
Activity ID	Activity Name	Original Duration	Start	Finish
Mt SAC TES Tank Proposal		335	6/4/15	9/22/16
Milestones		335	6/4/15	9/22/16
A1070	PROPOSAL DUE	0	6/4/15	
A1110	NTP	1	8/24/15	8/24/15
A1060	START CONSTRUCTION	0	9/1/15	
A1080	CONSTRUCTION COMPLETE	0		6/30/16
A1100	PROJECT COMPLETE	0		9/22/16
Contracts & Administrative		335	6/4/15	9/22/16
A1000	PROPOSALS DUE	1	6/4/15*	6/4/15
A1010	RFP EVALUATIONS	6	6/5/15	6/12/15
A1020	CONTRACTOR INTERVIEWS	1	6/25/15*	6/25/15
A1030	CONTRACTOR SELECTION & NEGOTIA	5	6/26/15	7/2/15
A1040	CONTRACT APPROVAL (BOARD DATE)	1	8/12/15*	8/12/15
A1050	EXECUTE CONTRACT	7	8/13/15	8/21/15
A1120	EXECUTE SUBCONTRACTS	6	8/24/15	8/31/15
A1130	WEATHER & CONTINGENCY	10	6/17/16	6/30/16
A1090	CLOSEOUT AND FINAL APPROVALS	60	7/1/16	9/22/16
Construction		216	8/13/15	6/16/16
Procurement/Review Process		45	8/13/15	10/15/15
Submittals		20	8/13/15	9/10/15
P1000	TANK DESIGN	20	8/13/15	9/10/15
P1010	TEMP SHORING DESIGN	7	8/13/15	8/21/15
Submittal Review		23	8/24/15	9/24/15
P2010	TEMP SHORING REVIEW	10	8/24/15	9/4/15
P2000	TANK DESIGN REVIEW	10	9/11/15	9/24/15
Procure/Deliver		28	9/8/15	10/15/15
P3010	SHORING PROCUREMENT/MOBILIZATIC	10	9/8/15	9/21/15
P3000	TANK PROCUREMENT/FABRICATION - M	15	9/25/15	10/15/15
Demo/Site		209	8/24/15	6/16/16
S1000	SECURE SITE - INSTALL FENCING	2	8/24/15	8/25/15
S1010	SAFE OFF / REMOVE LIGHTING	2	8/26/15	8/27/15
S1020	DEMO PAVEMENT & SITE	4	8/28/15	9/2/15
S1030	DRILL/INSTALL SHORING BEAMS	6	9/22/15	9/29/15
S1040	EXCAVATE PIT	22	9/30/15	10/29/15
S1050	SHORING/LAGGING	15	10/5/15	10/23/15
S1060	OX AND INSTALL TANK BASE COURSE	5	10/30/15	11/5/15



Remaining Level of Effort | Primary Ba...
Project Baseline Bar | Secondary ...

Tilden-Coil Constructors

Activity ID	Activity Name	Original Duration	Start	Finish
S2010	BACKFILL TANK	10	4/28/16	5/11/16
S2000	CUT SHORING	4	5/12/16	5/17/16
S2020	COMPLETE BACKFILL AND GRADE SITE	5	5/18/16	5/24/16
S2030	INSTALL SITE LIGHTING CONDUIT	2	5/25/16	5/26/16
S2060	INSTALL LIGHT STANDARDS	4	5/27/16	6/1/16
S2040	BASE AND PAVE SITE	6	6/2/16	6/9/16
S2050	REINSTALL SITE LIGHTS	1	6/10/16	6/10/16
S2070	STRIPE PARKING LOT	3	6/10/16	6/14/16
S2080	CLEAN SITE - REMOVE FENCE	2	6/15/16	6/16/16
Tank		144	11/6/15	5/31/16
T1000	TANK CONSTRUCTION	110	11/6/15	4/13/16
T1010	FILL AND TEST TANK	10	4/14/16	4/27/16
T1020	INSTALL CW PIPE AND VAULT	5	5/25/16	5/31/16



Remaining Level of Effort
Primary Ba...
Project Baseline Bar
Secondary ...

Tilden-Coil Constructors

Thermal Energy Storage Tank - Construction Only

South Coast AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	0.61	Acre	0.61	26,571.60	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	9			**Operational Year**	2016
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Per construction schedule.

Off-road Equipment - Best estimate per Tilden-Coil

Off-road Equipment - Best estimate per Tilden-Coil

Off-road Equipment - Best estimate per Tilden-Coil

Off-road Equipment - Best estimate per Tilden-Coil

Off-road Equipment - Best estimate per Tilden-Coil

Off-road Equipment - Best estimate per Tilden-Coil

Trips and VMT - Haul trips to Lot M for dirt export, 750 one-way trips, 1.1 one-way mileage to Lot M.
Concrete hauling of 150 one-way trips during "building construction."

Demolition -

Grading - Based on project description -- size of tank area.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	100.00	119.00
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tblConstructionPhase	NumDays	2.00	19.00
tblConstructionPhase	NumDays	5.00	15.00
tblConstructionPhase	NumDays	1.00	24.00
tblConstructionPhase	PhaseEndDate	5/10/2016	5/24/2016
tblConstructionPhase	PhaseEndDate	6/14/2016	6/16/2016
tblConstructionPhase	PhaseEndDate	10/6/2015	10/23/2015
tblConstructionPhase	PhaseEndDate	10/30/2015	10/29/2015
tblConstructionPhase	PhaseStartDate	4/14/2016	4/28/2016
tblConstructionPhase	PhaseStartDate	5/25/2016	5/27/2016
tblConstructionPhase	PhaseStartDate	9/3/2015	9/22/2015
tblConstructionPhase	PhaseStartDate	10/24/2015	10/23/2015
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tblOffRoadEquipment	PhaseName		Paving
tblOffRoadEquipment	PhaseName		Backfill around tank and trench

tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Excavate hole for tank includes exporting dirt
tblOffRoadEquipment	PhaseName		Backfill around tank and trench
tblOffRoadEquipment	PhaseName		Concrete Pour
tblOffRoadEquipment	PhaseName		Backfill around tank and trench
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	4.00	0.00
tblOffRoadEquipment	UsageHours	6.00	0.00
tblOffRoadEquipment	UsageHours	1.00	0.00
tblOffRoadEquipment	UsageHours	1.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblProjectCharacteristics	OperationalYear	2014	2016
tblTripsAndVMT	HaulingTripLength	20.00	1.10
tblTripsAndVMT	HaulingTripLength	20.00	1.10
tblTripsAndVMT	HaulingTripNumber	1,688.00	1,500.00
tblTripsAndVMT	HaulingTripNumber	0.00	300.00
tblTripsAndVMT	WorkerTripNumber	10.00	8.00
tblTripsAndVMT	WorkerTripNumber	10.00	8.00
tblTripsAndVMT	WorkerTripNumber	5.00	3.00
tblTripsAndVMT	WorkerTripNumber	18.00	20.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	3.5348	30.9675	28.1611	0.0291	3.6218	1.8765	4.6599	0.5605	1.7418	1.8033						
2016	1.3121	10.7429	8.4914	0.0138	0.2236	0.6625	0.8860	0.0593	0.6130	0.6723						
Total	**4.8469**	**41.7104**	**36.6525**	**0.0429**	**3.8454**	**2.5390**	**5.5459**	**0.6198**	**2.3549**	**2.4756**						

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	3.5348	30.9675	28.1611	0.0291	3.6218	1.8765	4.6599	0.5605	1.7418	1.8033						
2016	1.3121	10.7429	8.4914	0.0138	0.2236	0.6625	0.8860	0.0593	0.6130	0.6723						
Total	**4.8469**	**41.7104**	**36.6525**	**0.0429**	**3.8454**	**2.5390**	**5.5459**	**0.6198**	**2.3549**	**2.4756**						

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	8/26/2015	9/2/2015	5	6	Remove asphalt, etc.

2	Excavate hole for tank includes exporting dirt	Site Preparation	9/22/2015	10/23/2015	5	24	Excavate hole for tank
3	Trenching	Trenching	10/23/2015	10/29/2015	5	5	Trenching
4	Concrete Pour	Building Construction	10/30/2015	4/13/2016	5	119	Concrete pour for tank
5	Backfill around tank and trench	Grading	4/28/2016	5/24/2016	5	19	
6	Paving	Paving	5/27/2016	6/16/2016	5	15	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	1	8.00	162	0.38
Demolition	Rubber Tired Dozers	0	0.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Excavate hole for tank includes exporting dirt	Excavators	1	8.00	162	0.38
Excavate hole for tank includes exporting dirt	Graders	1	8.00	174	0.41
Excavate hole for tank includes exporting dirt	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Trenching	Concrete/Industrial Saws	1	4.00	81	0.73
Trenching	Rubber Tired Dozers	0	0.00	255	0.40
Trenching	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Concrete Pour	Cranes	0	0.00	226	0.29
Concrete Pour	Forklifts	0	0.00	89	0.20
Concrete Pour	Pumps	1	8.00	84	0.74
Concrete Pour	Tractors/Loaders/Backhoes	0	0.00	97	0.37
Backfill around tank and trench	Cement and Mortar Mixers	0	0.00	9	0.56
Backfill around tank and trench	Concrete/Industrial Saws	0	0.00	81	0.73
Backfill around tank and trench	Pavers	0	0.00	125	0.42

Backfill around tank and trench	Rollers	0	0.00	80	0.38
Backfill around tank and trench	Rubber Tired Dozers	0	0.00	255	0.40
Backfill around tank and trench	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Paving	Air Compressors	0	0.00	78	0.48
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	125	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	8.00	0.00	97.00	14.70	6.90	1.10	LD_Mix	HDT_Mix	HHDT
Excavate hole for tank includes exporting dirt	4	8.00	0.00	1,500.00	14.70	6.90	1.10	LD_Mix	HDT_Mix	HHDT
Trenching	2	3.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Concrete Pour	1	11.00	4.00	300.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Backfill around tank and trench	1	3.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.5166	0.0000	3.5166	0.5324	0.0000	0.5324						
Off-Road	1.6694	15.0074	10.8810	0.0162		1.0310	1.0310		0.9796	0.9796						

Total	**1.6694**	**15.0074**	**10.8810**	**0.0162**	**3.5166**	**1.0310**	**4.5476**	**0.5324**	**0.9796**	**1.5120**						

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1467	0.6134	2.5434	9.4000e-004	0.0158	6.2900e-003	0.0221	4.3600e-003	5.7700e-003	0.0101						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0379	0.0509	0.5309	1.0600e-003	0.0894	7.9000e-004	0.0902	0.0237	7.2000e-004	0.0244						
Total	**0.1845**	**0.6642**	**3.0743**	**2.0000e-003**	**0.1052**	**7.0800e-003**	**0.1123**	**0.0281**	**6.4900e-003**	**0.0346**						

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.5166	0.0000	3.5166	0.5324	0.0000	0.5324						
Off-Road	1.6694	15.0074	10.8810	0.0162		1.0310	1.0310		0.9796	0.9796						
Total	**1.6694**	**15.0074**	**10.8810**	**0.0162**	**3.5166**	**1.0310**	**4.5476**	**0.5324**	**0.9796**	**1.5120**						

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1467	0.6134	2.5434	9.4000e-004	0.0158	6.2900e-003	0.0221	4.3600e-003	5.7700e-003	0.0101						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0379	0.0509	0.5309	1.0600e-003	0.0894	7.9000e-004	0.0902	0.0237	7.2000e-004	0.0244						
Total	**0.1845**	**0.6642**	**3.0743**	**2.0000e-003**	**0.1052**	**7.0800e-003**	**0.1123**	**0.0281**	**6.4900e-003**	**0.0346**						

3.3 Excavate hole for tank includes exporting dirt - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0857	0.0000	0.0857	0.0120	0.0000	0.0120						
Off-Road	2.1992	22.5969	13.2711	0.0178		1.3885	1.3885		1.2774	1.2774						
Total	**2.1992**	**22.5969**	**13.2711**	**0.0178**	**0.0857**	**1.3885**	**1.4742**	**0.0120**	**1.2774**	**1.2894**						

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Hauling	0.5670	2.3713	9.8328	3.6400e-003	0.0611	0.0243	0.0854	0.0169	0.0223	0.0392						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0379	0.0509	0.5309	1.0600e-003	0.0894	7.9000e-004	0.0902	0.0237	7.2000e-004	0.0244						
Total	**0.6049**	**2.4222**	**10.3637**	**4.7000e-003**	**0.1505**	**0.0251**	**0.1757**	**0.0406**	**0.0230**	**0.0636**						

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0857	0.0000	0.0857	0.0120	0.0000	0.0120						
Off-Road	2.1992	22.5969	13.2711	0.0178		1.3885	1.3885		1.2774	1.2774						
Total	**2.1992**	**22.5969**	**13.2711**	**0.0178**	**0.0857**	**1.3885**	**1.4742**	**0.0120**	**1.2774**	**1.2894**						

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.5670	2.3713	9.8328	3.6400e-003	0.0611	0.0243	0.0854	0.0169	0.0223	0.0392						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0379	0.0509	0.5309	1.0600e-003	0.0894	7.9000e-004	0.0902	0.0237	7.2000e-004	0.0244						
Total	**0.6049**	**2.4222**	**10.3637**	**4.7000e-003**	**0.1505**	**0.0251**	**0.1757**	**0.0406**	**0.0230**	**0.0636**						

3.4 Trenching - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7165	5.9293	4.3273	6.2500e-003		0.4626	0.4626		0.4411	0.4411						
Total	**0.7165**	**5.9293**	**4.3273**	**6.2500e-003**		**0.4626**	**0.4626**		**0.4411**	**0.4411**						

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0142	0.0191	0.1991	4.0000e-004	0.0335	3.0000e-004	0.0338	8.8900e-003	2.7000e-004	9.1600e-003						
Total	**0.0142**	**0.0191**	**0.1991**	**4.0000e-004**	**0.0335**	**3.0000e-004**	**0.0338**	**8.8900e-003**	**2.7000e-004**	**9.1600e-003**						

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	lb/day										lb/day					
Off-Road	0.7165	5.9293	4.3273	6.2500e-003		0.4626	0.4626		0.4411	0.4411						
Total	**0.7165**	**5.9293**	**4.3273**	**6.2500e-003**		**0.4626**	**0.4626**		**0.4411**	**0.4411**						

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0142	0.0191	0.1991	4.0000e-004	0.0335	3.0000e-004	0.0338	8.8900e-003	2.7000e-004	9.1600e-003						
Total	**0.0142**	**0.0191**	**0.1991**	**4.0000e-004**	**0.0335**	**3.0000e-004**	**0.0338**	**8.8900e-003**	**2.7000e-004**	**9.1600e-003**						

3.5 Concrete Pour - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7444	5.3084	3.8963	6.5800e-003		0.3991	0.3991		0.3991	0.3991						
Total	**0.7444**	**5.3084**	**3.8963**	**6.5800e-003**		**0.3991**	**0.3991**		**0.3991**	**0.3991**						

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0517	0.8125	0.5996	1.8600e-003	0.0987	0.0137	0.1124	0.0255	0.0126	0.0381						
Vendor	0.0414	0.4013	0.5135	8.6000e-004	0.0250	6.9200e-003	0.0319	7.1200e-003	6.3700e-003	0.0135						
Worker	0.0521	0.0699	0.7300	1.4600e-003	0.1230	1.0800e-003	0.1240	0.0326	9.9000e-004	0.0336						
Total	**0.1452**	**1.2838**	**1.8430**	**4.1800e-003**	**0.2467**	**0.0217**	**0.2684**	**0.0652**	**0.0200**	**0.0852**						

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7444	5.3084	3.8963	6.5800e-003		0.3991	0.3991		0.3991	0.3991						
Total	**0.7444**	**5.3084**	**3.8963**	**6.5800e-003**		**0.3991**	**0.3991**		**0.3991**	**0.3991**						

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0517	0.8125	0.5996	1.8600e-003	0.0987	0.0137	0.1124	0.0255	0.0126	0.0381						
Vendor	0.0414	0.4013	0.5135	8.6000e-004	0.0250	6.9200e-003	0.0319	7.1200e-003	6.3700e-003	0.0135						
Worker	0.0521	0.0699	0.7300	1.4600e-003	0.1230	1.0800e-003	0.1240	0.0326	9.9000e-004	0.0336						
Total	**0.1452**	**1.2838**	**1.8430**	**4.1800e-003**	**0.2467**	**0.0217**	**0.2684**	**0.0652**	**0.0200**	**0.0852**						

3.5 Concrete Pour - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6688	4.9093	3.8623	6.5800e-003		0.3563	0.3563		0.3563	0.3563						
Total	**0.6688**	**4.9093**	**3.8623**	**6.5800e-003**		**0.3563**	**0.3563**		**0.3563**	**0.3563**						

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0456	0.7161	0.5603	1.8600e-003	0.0642	0.0110	0.0752	0.0170	0.0101	0.0271						
Vendor	0.0365	0.3542	0.4782	8.6000e-004	0.0250	5.7500e-003	0.0308	7.1200e-003	5.2800e-003	0.0124						

Worker	0.0469	0.0631	0.6588	1.4600e-003	0.1230	1.0300e-003	0.1240	0.0326	9.4000e-004	0.0336						
Total	**0.1290**	**1.1334**	**1.6974**	**4.1800e-003**	**0.2121**	**0.0178**	**0.2299**	**0.0567**	**0.0163**	**0.0731**						

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6688	4.9093	3.8623	6.5800e-003		0.3563	0.3563		0.3563	0.3563						
Total	**0.6688**	**4.9093**	**3.8623**	**6.5800e-003**		**0.3563**	**0.3563**		**0.3563**	**0.3563**						

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0456	0.7161	0.5603	1.8600e-003	0.0642	0.0110	0.0752	0.0170	0.0101	0.0271						
Vendor	0.0365	0.3542	0.4782	8.6000e-004	0.0250	5.7500e-003	0.0308	7.1200e-003	5.2800e-003	0.0124						
Worker	0.0469	0.0631	0.6588	1.4600e-003	0.1230	1.0300e-003	0.1240	0.0326	9.4000e-004	0.0336						
Total	**0.1290**	**1.1334**	**1.6974**	**4.1800e-003**	**0.2121**	**0.0178**	**0.2299**	**0.0567**	**0.0163**	**0.0731**						

3.6 Backfill around tank and trench - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Off-Road	0.3406	3.2551	2.4126	3.1100e-003		0.2506	0.2506		0.2306	0.2306						
Total	**0.3406**	**3.2551**	**2.4126**	**3.1100e-003**	**0.0000**	**0.2506**	**0.2506**	**0.0000**	**0.2306**	**0.2306**						

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0128	0.0172	0.1797	4.0000e-004	0.0335	2.8000e-004	0.0338	8.8900e-003	2.6000e-004	9.1500e-003						
Total	**0.0128**	**0.0172**	**0.1797**	**4.0000e-004**	**0.0335**	**2.8000e-004**	**0.0338**	**8.8900e-003**	**2.6000e-004**	**9.1500e-003**						

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Off-Road	0.3406	3.2551	2.4126	3.1100e-003		0.2506	0.2506		0.2306	0.2306						
Total	**0.3406**	**3.2551**	**2.4126**	**3.1100e-003**	**0.0000**	**0.2506**	**0.2506**	**0.0000**	**0.2306**	**0.2306**						

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0128	0.0172	0.1797	4.0000e-004	0.0335	2.8000e-004	0.0338	8.8900e-003	2.6000e-004	9.1500e-003						
Total	**0.0128**	**0.0172**	**0.1797**	**4.0000e-004**	**0.0335**	**2.8000e-004**	**0.0338**	**8.8900e-003**	**2.6000e-004**	**9.1500e-003**						

3.7 Paving - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1203	10.6282	7.2935	0.0111		0.6606	0.6606		0.6113	0.6113						
Paving	0.1066					0.0000	0.0000		0.0000	0.0000						
Total	**1.2268**	**10.6282**	**7.2935**	**0.0111**		**0.6606**	**0.6606**		**0.6113**	**0.6113**						

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0853	0.1147	1.1978	2.6500e-003	0.2236	1.8700e-003	0.2254	0.0593	1.7200e-003	0.0610						
Total	**0.0853**	**0.1147**	**1.1978**	**2.6500e-003**	**0.2236**	**1.8700e-003**	**0.2254**	**0.0593**	**1.7200e-003**	**0.0610**						

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1203	10.6282	7.2935	0.0111		0.6606	0.6606		0.6113	0.6113						
Paving	0.1066					0.0000	0.0000		0.0000	0.0000						
Total	**1.2268**	**10.6282**	**7.2935**	**0.0111**		**0.6606**	**0.6606**		**0.6113**	**0.6113**						

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0853	0.1147	1.1978	2.6500e-003	0.2236	1.8700e-003	0.2254	0.0593	1.7200e-003	0.0610						
Total	**0.0853**	**0.1147**	**1.1978**	**2.6500e-003**	**0.2236**	**1.8700e-003**	**0.2254**	**0.0593**	**1.7200e-003**	**0.0610**						

Operational Information removed since it is not relevant to this study.

Memorandum

Date: September 9, 2015

To: Ms. Mikaela Klein, Mt. San Antonio College

From: Fred Greve, Greve & Associates, LLC

Subject: Thermal Energy System (TES) and Chiller Cooling Tower (CCT) Projects – Noise Construction Analysis (Report #15-104A)

The analysis presented below examines the potential noise impacts of the construction phase of the Thermal Energy Storage (TES) project. The project will construct a chilled water tank below grade. The concrete tank will be piped into the campus central plant, which will require digging a trench for the new pipes. The TES tank will be located south of Edinger Way in Lot H which is currently used for surface parking (refer to Exhibit 1).

CITY NOISE STANDARDS

The Walnut Noise Ordinance (Chapter 16B of the Municipal Code) establishes exterior and interior noise standards that protect residential, commercial, and industrial areas. Section 16B-5, quoted on page 3, presents the City's Noise Ordinance Standards.

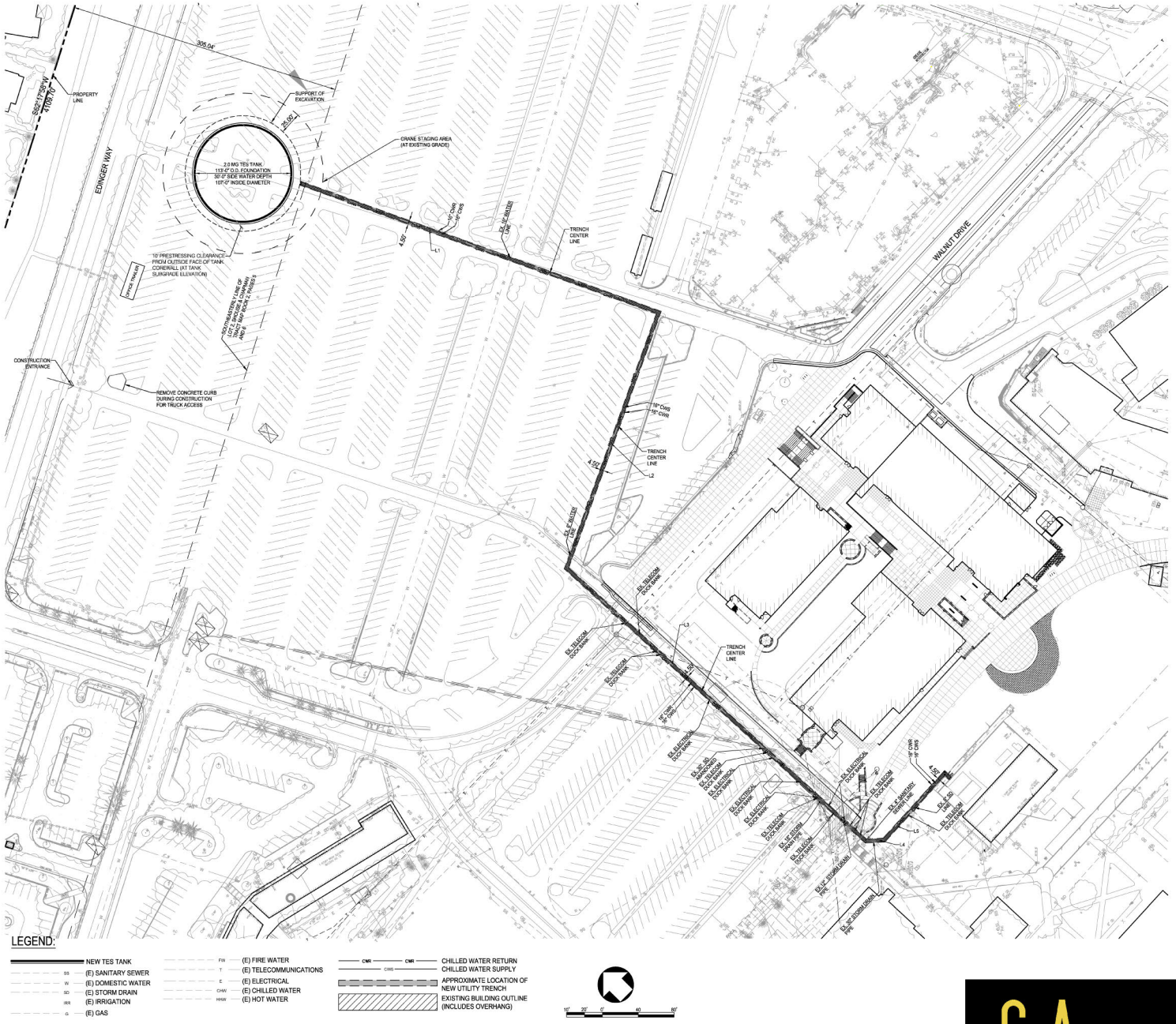
DISTRICT NOISE STANDARDS

The Mt. San Antonio College District is exempt from City zoning and the City's Noise Ordinance pursuant to California Government Code 53096 for facilities related to the storage and transmission of water or electrical energy. The District complies with Department of the State Architect (DSA) and California Educational Code interior noise requirements for classroom facilities. The District adopted the following mitigation measure to reduce noise exposure from construction:

5a. All construction and general maintenance activities, except in emergencies or special circumstances, shall be limited to the hours of 7 am to 7 pm Monday-Saturday. Staging areas for construction shall be located away from existing off-site residences. All construction equipment shall use properly operating mufflers. These requirements shall be included in construction contracts and implemented. Facilities Planning & Management shall monitor compliance.

638 CAMINO DE LOS MARES, SUITE H130-153, SAN CLEMENTE, CA 92673
VOICE: 949•466•2967 EMAIL: fred@greveandassociates.com

Exhibit 1 - Site Plan



G&A

Section 16B-5
Citations for violations of the City's Noise Ordinance are hereby authorized when:

(a) Exterior noise levels shall apply to all receptor properties as follows, unless otherwise noted:

Receptor Land Use	Time of Day	Noise Level
Residential	11 p.m. to 7 a.m.	45 dB
	7 a.m. to 11 p.m.	50 dB
Commercial	11 p.m. to 7 a.m.	45 dB
	7 a.m. to 11 p.m.	50 dB
Industrial	Anytime	70 dB

(b) If the measurement location is on a boundary property between two different zones, exterior noise level utilized in subsection (a) of this section to determine the exterior standard shall be the daytime exterior noise level of the subject receptor property.

The noise scale associated with the noise level limits presented in Section 16B-5 of the City's Noise Ordinance is not indicated. If one assumes that the levels specified in the Noise Ordinance were the levels that could not be exceeded at any time, the Ordinance would be overly restrictive and almost any commercial use adjacent to a residential use would likely violate the Noise Ordinance limits on a regular basis. It is likely that the City's Noise Ordinance limits are intended to duplicate the County of Los Angeles Noise Ordinance limits. The County's Noise Ordinance base limits are the same as specified in the City's Noise Ordinance. In the County's Ordinance, the base noise level limits are noise levels that cannot be exceeded for 30 minutes in one hour.

The City's Noise Ordinance (Article II Regulations, Section 16B-3(a)) exempts construction noise from the noise level limits between the hours of 7:00 a.m. and 8:00 p.m. on weekdays. Construction is not allowed on holidays, Saturdays, and Sundays without special approvals or exceptions. If construction occurs outside the permitted hours, then the construction activities would be subject to the limits in Section 16B-5.

MEASURED NOISE LEVELS

Noise levels were measured as part of the "Supplemental Noise Assessment for Mount San Antonio College 2008 Master Plan Update," (by Mestre Greve Associates, April 22, 2008). Measurements were made in the rear yard of the home at 21034 Granite Wells Road, which is located directly across Edinger Way from the project site. The average noise level (Leq) was 51 dBA, and the maximum noise level (Lmax) was 65 dBA. Typical noise levels were caused by traffic on Edinger Way and activity in the adjacent college parking lot. The maximum noise level was caused by a commercial jet.

THRESHOLDS OF SIGNIFICANCE

The District has not adopted thresholds of significance for construction or operational noise. The District evaluates potential noise impacts consistent with Section XII NOISE of the CEQA Guidelines. However, Section XII does not include any specific thresholds of significance for noise. There are standard practices used by analysts in noise studies for traffic-related noise impacts on off-site areas with sensitive receptors. Usually a 3.0 dBA increase related to a project is regarded as significant.

POTENTIAL FOR CONSTRUCTION NOISE IMPACTS

Construction Activities

The TES project site totals approximately 0.6 acres. The tank site is approximately 0.3 acres and the trench for the supply return piping is also about 0.3 acres. The construction of the project is projected to take a little less than 1 year with an estimated start date of October 2015 and a completion date of July 2016. The following are the likely phases of construction; demolition, excavation of hole for the tank, trenching, tank construction, backfilling, and re-paving. The overlap between construction phases will be minimal. Each construction phase is discussed below.

Demolition. Demolition will be the first phase of construction and will take about 6 workdays. Light standards will be removed as necessary and asphalt will be removed over the tank and trench areas. Likely heavy equipment will include a concrete saw, excavator, a loader and a backhoe. An estimated 986 tons of demolition material will be moved to an area on campus.

Excavation. Excavation of the tank hole will take about 24 days of work. An excavator, grader, loader, and backhoe may operate during this time. Approximately 13,500 cubic yards of dirt will be moved to Lot M on-campus. Export of dirt will require about 750 haul truck trips. The District is restricting haul trucks from using Edinger Way for the project. Therefore, no haul trucks will travel on Edinger Way.

Trenching. Trenching will take about 5 workdays, and employ a concrete saw and a backhoe. Trenching will be located much further from existing residents on the opposite side of the demolition.

Tank Construction. The tank construction will be the longest phase lasting approximately 119 workdays. It will require about 150 truck trips to the site to bring in the concrete. A concrete pump will be used for the pour.

Backfilling. The area around the tank and the trench will be backfilled with dirt. This phase will last about 19 workdays.

Paving. Finally the tank and trench areas will be re-paved and light standards reinstalled taking about 15 workdays. Mortar mixers, pavers, rollers, and loaders may be used.

Construction Noise Levels

Noise levels at the residential area closest to the TES construction site were projected. Both maximum sound levels (Lmax) and average (Leq) noise levels were projected. Examples of construction noise are presented in Exhibit 2. The noise levels shown in Exhibit 2 are generally considered to be higher than typically experienced in real-life situations. Therefore, when these levels are used for noise projections they are considered to be worst-case projections. Noise levels presented in Exhibit 2 were used for the noise projections in this analysis. The type of equipment for each phase has been discussed above, and an asterisk also identifies the equipment to be used in Exhibit 2.

Table 1 presents the noise levels at the nearest residential area for all construction phases except trenching. Trenching will occur far from the residences and is a minor noise concern. A distance of 135 feet from the closest edge of construction to the nearest residence property line was used for the projection of maximum noise levels (Lmax). A distance of 186 feet, which puts the source noise closer to the center of the TES site, was used for the average noise levels. No mitigation is included in the noise projections. A noise worksheet is included in the Appendix.

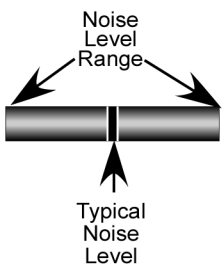
Table 1 Construction Noise Levels

	Demolition	Tank Excavation	Tank Pour	Backfill	Paving
Maximum Levels at Residence (Lmax dBA)	93	93	93	93	93
Average Noise at Residence (dBA Leq)	86	87	85	83	87

The maximum noise levels (Lmax) at the nearest residences may reach up to 93 dBA. These noise levels will be considered loud by the residents when they occur. Maximum noise levels will occur when the activities are at their highest, and could be considerably less when quieter equipment is being used and when few pieces of equipment are operating. Average noise levels (Leq) range from 83 to 87 dBA. Again these levels might be reached when construction activity levels are highest for that phase. All construction, except in emergencies or special circumstances, shall be limited to the hours of 7 a.m. and 8 p.m. Monday to Saturday. Construction during these hours, pursuant to California Government Codes 53091(e) and 53096, does not result in a significant noise impact.

Exhibit 2 - Construction Noise Levels

LEGEND



Sources: "Handbook of Noise Control,"
by Cyril Harris, 1979
"Transit Noise and Vibration Impact Assessment"
by Federal Transit Administration, 1995

✳ - **Equipment Likely Used During Construction**

G&A

TRAFFIC NOISE ON EDINGER WAY

Recently, 24-hour traffic counts were conducted on Edinger Way by Counts Unlimited, Inc. (July 23, 2015). The counts indicated an average daily trip (ADT) of 1,254 vehicles. Using this value and the day, evening, and night traffic splits counted for the roadway, the existing noise level along this roadway was determined. The noise level is projected in terms of the Community Noise Equivalent Level (CNEL). The CNEL scale represents a time weighted 24-hour average noise level based on the A-weighted decibel. Time weighted refers to the fact that noise that occurs during certain sensitive time periods is penalized for occurring at these times. The evening time period (7 p.m. to 10 p.m.) penalizes noises by 5 dBA, while nighttime (10 p.m. to 7 a.m.) noises are penalized by 10 dBA. These time periods and penalties were selected to reflect people's increased sensitivity to noise during these time periods.

The 55 CNEL noise contour lies 37 feet from the centerline of the roadway. Higher contour values (e.g., 60 and 65 CNEL) lie within the road right of way. At 100 feet from the roadway centerline, the noise level is about 48.6 CNEL. Edinger Way as it travels along the campus is a very low traffic volume roadway with corresponding low noise levels.

Since the July counts were completed during the Summer Intersession, roadway volumes were very low. The 2008 Final EIR included projections of traffic-related noise along Edinger Way during January 2008. The projected noise contour was estimated as 60 dBA (Mt. San Antonio College 2008 Master Plan Update, Section 3.4, p. 83).

CENTRAL PLANT CHLLER (CCT) PROJECT

The Central Plant Chiller project, which will be done in conjunction with the TES project, will have little potential for noise impact. The CCT project will add one new cooling tower with a 1,700 gallon per minute (gpm) flowrate, and an additional chiller. The construction will include mounting the units and connecting piping and electrical connections. The chiller will be located inside the Central Plant building with other chillers and equipment and will not have any significant potential to have a noise impact on the residential community to the north. The cooling tower will be located outside in the equipment yard with at least one other larger cooling tower. The equipment yard has a large sound wall around it that is 21 feet high. The new cooling tower will be approximately 1,240 feet from the nearest residential property line. The specifications for the cooling tower show that it will not exceed 80 dBA at 5 feet. This translates to a noise level of less than 45 dBA at the nearest residential property line. The noise level will be less than required by the Walnut Noise Ordinance and less than ambient conditions. The installation of the new equipment will not cause ground borne vibration and noise for adjacent campus buildings. Therefore, there will be no impact of CCT construction or operation on the residents.

CONCLUSION

Potential noise impacts during construction were assessed for the TES project. No noise impacts are forecasted during construction of the TES project. Similarly, there will be no noise impacts due to construction or operation of the CCT project.

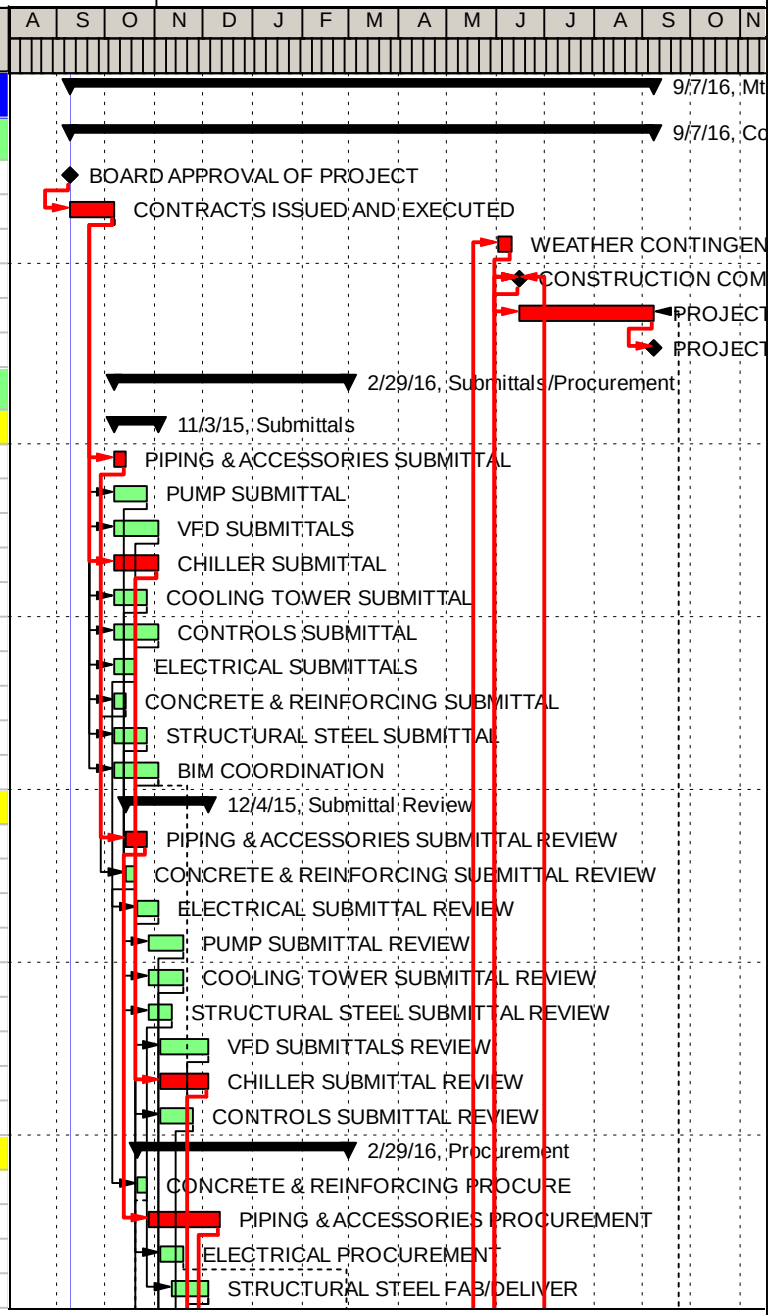
Appendix

Draft TES Construction Schedule

Construction Noise

Traffic Noise

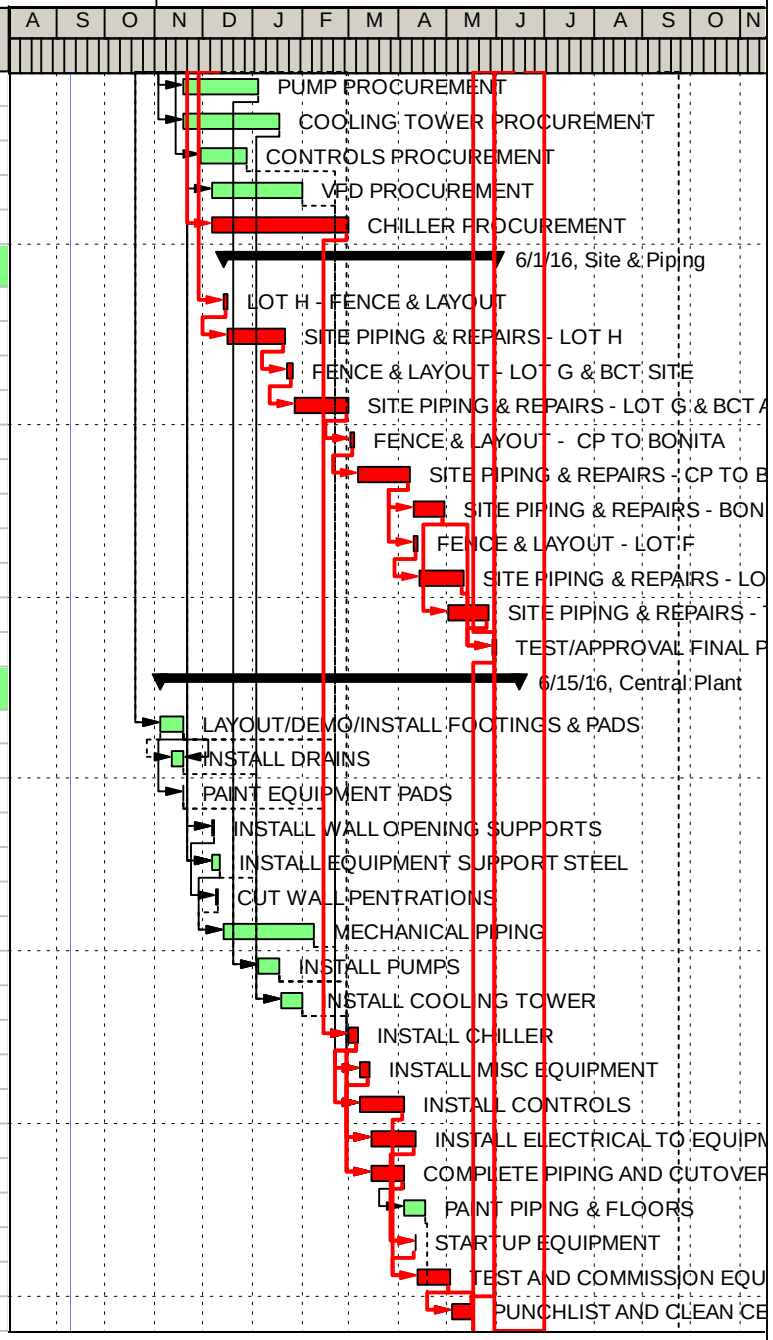
Activity ID	Activity Name	Original Duration	Start	Finish
MtSAC Central Plant Upgrade		257	9/9/15	9/7/16
Contracts & Milestones		257	9/9/15	9/7/16
A1000	BOARD APPROVAL OF PROJECT	0	9/9/15*	
A1010	CONTRACTS ISSUED AND EXECUTED	20	9/9/15	10/6/15
A1020	WEATHER CONTINGENCY	7	6/2/16	6/10/16
A1030	CONSTRUCTION COMPLETE	0		6/15/16
A1040	PROJECT CLOSEOUT AND FINAL RECO	60	6/16/16	9/7/16
A1050	PROJECT COMPLETE	0		9/7/16
Submittals/Procurement		100	10/7/15	2/29/16
Submittals		20	10/7/15	11/3/15
P1-232113	PIPING & ACCESSORIES SUBMITTAL	5	10/7/15	10/13/15
P1-232123	PUMP SUBMITTAL	15	10/7/15	10/27/15
P1-232923	VFD SUBMITTALS	20	10/7/15	11/3/15
P1-236416	CHILLER SUBMITTAL	20	10/7/15	11/3/15
P1-236500	COOLING TOWER SUBMITTAL	15	10/7/15	10/27/15
P1-230900	CONTROLS SUBMITTAL	20	10/7/15	11/3/15
P1-260500	ELECTRICAL SUBMITTALS	10	10/7/15	10/20/15
P1-033000	CONCRETE & REINFORCING SUBMITTAL	5	10/7/15	10/13/15
P1-051000	STRUCTURAL STEEL SUBMITTAL	15	10/7/15	10/27/15
P1-010000	BIM COORDINATION	20	10/7/15	11/3/15
Submittal Review		35	10/14/15	12/4/15
P2-232113	PIPING & ACCESSORIES SUBMITTAL RE	10	10/14/15	10/27/15
P2-033000	CONCRETE & REINFORCING SUBMITTA	5	10/14/15	10/20/15
P2-260500	ELECTRICAL SUBMITTAL REVIEW	10	10/21/15	11/3/15
P2-232123	PUMP SUBMITTAL REVIEW	15	10/28/15	11/18/15
P2-236500	COOLING TOWER SUBMITTAL REVIEW	15	10/28/15	11/18/15
P2-051000	STRUCTURAL STEEL SUBMITTAL REVIE	10	10/28/15	11/11/15
P2-232923	VFD SUBMITTALS REVIEW	20	11/4/15	12/4/15
P2-236416	CHILLER SUBMITTAL REVIEW	20	11/4/15	12/4/15
P2-230900	CONTROLS SUBMITTAL REVIEW	15	11/4/15	11/25/15
Procurement		90	10/21/15	2/29/16
P3-033000	CONCRETE & REINFORCING PROCURE	5	10/21/15	10/27/15
P3-232113	PIPING & ACCESSORIES PROCUREMEN	30	10/28/15	12/11/15
P3-260500	ELECTRICAL PROCUREMENT	10	11/4/15	11/18/15
P3-051000	STRUCTURAL STEEL FAB/DELIVER	15	11/12/15	12/4/15



Actual Work | Critical Remaining ... | Remaining Work | Milestone

Tilden-Coil Constructors

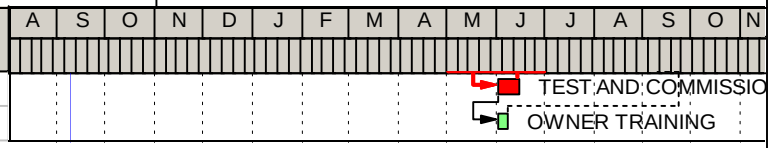
Activity ID	Activity Name	Original Duration	Start	Finish
P3-232123	PUMP PROCUREMENT	30	11/19/15	1/4/16
P3-236500	COOLING TOWER PROCUREMENT	40	11/19/15	1/18/16
P3-230900	CONTROLS PROCUREMENT	20	11/30/15	12/28/15
P3-232923	VFD PROCUREMENT	40	12/7/15	2/1/16
P3-236416	CHILLER PROCUREMENT	60	12/7/15	2/29/16
Site & Piping		122	12/14/15	6/1/16
S-01000	LOT H - FENCE & LAYOUT	3	12/14/15	12/16/15
S-01010	SITE PIPING & REPAIRS - LOT H	25	12/17/15	1/21/16
S-01020	FENCE & LAYOUT - LOT G & BCT SITE	3	1/22/16	1/26/16
S-01030	SITE PIPING & REPAIRS - LOT G & BCT A	25	1/27/16	3/1/16
S-01040	FENCE & LAYOUT - CP TO BONITA	3	3/2/16	3/4/16
S-01050	SITE PIPING & REPAIRS - CP TO BONITA	25	3/7/16	4/8/16
S-01060	SITE PIPING & REPAIRS - BONITA CROS	15	4/11/16	4/29/16
S-01080	FENCE & LAYOUT - LOT F	3	4/11/16	4/13/16
S-01090	SITE PIPING & REPAIRS - LOT F	20	4/14/16	5/11/16
S-01070	SITE PIPING & REPAIRS - TEMPLE CROS	20	5/2/16	5/27/16
A-1030	TEST/APPROVAL FINAL PIPING	3	5/30/16	6/1/16
Central Plant		157	11/4/15	6/15/16
C-01000	LAYOUT/DEMO/INSTALL FOOTINGS & P/	10	11/4/15	11/18/15
C-01040	INSTALL DRAINS	5	11/12/15	11/18/15
C-01130	PAINT EQUIPMENT PADS	1	11/19/15	11/19/15
C-01010	INSTALL WALL OPENING SUPPORTS	2	12/7/15	12/8/15
C-01030	INSTALL EQUIPMENT SUPPORT STEEL	5	12/7/15	12/11/15
C-01020	CUT WALL PENTRATIONS	2	12/9/15	12/10/15
C-01050	MECHANICAL PIPING	40	12/14/15	2/8/16
C-01070	INSTALL PUMPS	10	1/5/16	1/18/16
C-01060	INSTALL COOLING TOWER	10	1/19/16	2/1/16
C-01080	INSTALL CHILLER	5	3/1/16	3/7/16
C-01090	INSTALL MISC EQUIPMENT	5	3/8/16	3/14/16
C-01110	INSTALL CONTROLS	20	3/8/16	4/4/16
C-01100	INSTALL ELECTRICAL TO EQUIPMENT	20	3/15/16	4/11/16
C-01140	COMPLETE PIPING AND CUTOVERS	15	3/15/16	4/4/16
C-01120	PAINT PIPING & FLOORS	10	4/5/16	4/18/16
C-01150	STARTUP EQUIPMENT	1	4/12/16	4/12/16
C-01160	TEST AND COMMISSION EQUIPMENT	15	4/13/16	5/3/16
C-01180	PUNCHLIST AND CLEAN CENTRAL PLAN	10	5/4/16	5/17/16



Actual Work | Remaining Work | Critical Remaining ... | Milestone

Tilden-Coil Constructors

Activity ID	Activity Name	Original Duration	Start	Finish
C-01170	TEST AND COMMISSION CENTRAL PLAN	10	6/2/16	6/15/16
C-01190	OWNER TRAINING	5	6/2/16	6/8/16



Actual Work
Remaining Work
Critical Remaining ...
Milestone

Tilden-Coil Constructors

TES - Construction Noise

	Peak Noise @ 50 ft.	Demolition	Tank Excavation	Tank Pour	Backfill	Paving
Front Loader/Excavator	97	2	2			1
Backhoe	93	1	1		1	
Grader	96		1			
Paver	92					1
Truck	97	1	1	1	1	1
Concrete Mixer	90			1		
Concrete Pump	85			1		
Saw	96	1				
Distance (ft.)		160	160	160	160	160
Peak @ 50 ft. (dBA)		97	97	97	97	97
Peak @ Receptor (dBA)		**92**	**92**	**92**	**92**	**92**

	Average Noise @ 50 ft.	Demolition	Tank Excavation	Tank Pour	Backfill	Paving
Front Loader/Excavator	85	2	2	0	0	1
Backhoe	80	1	1	0	1	0
Grader	85	0	1	0	0	0
Paver	89	0	0	0	0	1
Truck	88	1	1	1	1	1
Concrete Mixer	85	0	0	1	0	0
Concrete Pump	82	0	0	1	0	0
Saw	76	1	0	0	0	0
Distance (ft.)		205	205	205	205	205
Avg. @ 50 ft. (dBA)		91	92	90	89	92
Avg. @ Receptor (dBA)		**85**	**86**	**84**	**83**	**86**

CNEL PREDICTION WORKSHEET - CALVENO

Roadway Name:	*Edinger Way*
Vehicles per day	*1,254*
Speed (mph)	*35*
Grade Adj. (dB)	*0*
Vehicle Noise Red (dB)	*0*

MT (%)	*1.84%*
HT(%)	*0.74%*
Day	*91%*
Evening	*6%*
Night	*3%*

	Day	Eve	Night	Equiv.
Auto	88.18%	6.29%	2.95%	137.6%
MT	1.67%	0.12%	0.06%	2.6%
HT	0.67%	0.05%	0.02%	1.0%

This is the CNEL at 15 m.

	Soft CNEL(15m)	Hard CNEL(15m)
Auto	51.7	52.9
Medium Trk.	44.2	45.4
Heavy Truck	45.4	46.6
Total	53.2	54.4

To get other noise levels, Put in other distances (ft).

Dist.	Soft	Hard
100	48.6	51.3
250	42.6	47.3
500	38.1	44.3
1000	33.6	41.3

To get other distances, Put in other noise levels.

CNEL	Soft	Hard
57	27	27
60	17	14
65	8	4
70	4	1

September 8, 2015

Ms. Mikaela Klein
Senior Facilities Planner
Mt. San Antonio College
1100 North Grand Avenue
Walnut, CA 91789-1399

Dear Ms. Klein:

Three Valleys Municipal Water District (District) provides treated water to Mt. San Antonio College and its other member agencies. The District will be able to provide water supplies for this project as required by California water Code Sections 10910-10915 and Sections 79560-79565. The projected annual water demand (i.e. two million gallons) associated with the proposed 2.0 million gallon underground chilled water thermal energy storage tank that is part of the proposed Thermal Energy Storage System project at Mt. San Antonio College was included as part of the District's most recently adopted 2010 Urban Water Management Plan.

If you have any questions or would like to discuss this in further detail, please contact Mario Garcia (909) 621-5568 at Three Valleys Municipal Water District.

Sincerely,

Ben Peralta FOR Mario Garcia
Mario Garcia
Assistant General Manager, Engineering & Operations

1021 E. Miramar Avenue • Claremont, California 91711-2052
Telephone (909) 621-5568 • Fax (909) 625-5470 • http://www.threevalleys.com

MT. SAC
Mt. San Antonio College

Facilities Planning & Management
1100 North Grand Avenue • Walnut, CA 91789
909-274-4850 • www.mtsac.edu

NOTICE OF AVAILABILITY OF A MITIGATED NEGATIVE DECLARATION

09/10/15: mk

To All Interested Parties:

The Mt. San Antonio Community College District has prepared the Thermal Energy System (TES) and Chiller Cooling Tower (CCT) Mitigated Negative Declaration to address the potential environmental impacts of the Projects. The Projects are located in the Primary Educational Zone north of Temple Avenue and east of Grand Avenue within the campus interior at 1100 North Grand Avenue, Walnut, California.

The Central Plant provides heating and cooling to the campus by pumping hot and cold water to campus buildings through an underground loop system. The Project will add an underground chilled water thermal energy storage tank (2.0 million gallon capacity) beneath Parking Lot H. The surface of Lot H will be restored. An 820-ton chiller, a 500-ton chiller and a new 1,700 gallons per minute (gpm) cooling tower will provide additional cool water capacity. The system allows the District to save electricity by using the chiller and cooling equipment when electrical rates are lower.

The graded area for the TES Project is approximately 0.6 acres. Approximately 13,500 cubic yards of earth will be exported to Lot M from the TES Project site and 1,500 cubic yards of concrete will be imported to build the TES tank. The total construction period for the Project, with a five-day workweek (Monday to Friday), is estimated as 10 months (September 2015 – June 2016). The District is prohibiting construction truck hauling along Edinger Way, and will avoid construction hauling during peak hours.

Document Available for Review:

The District has prepared a Draft Mitigated Negative Declaration describing the project and its potential environmental effects. Based on this document, it has been determined that the proposed project will not have a significant effect on the environment with implementation of the required Conditions of Approval.

The environmental document may be reviewed at the following locations:

Walnut Public Library
Reference Desk
21155 La Puente Avenue
Walnut, California 91789

Mt. San Antonio College Library
Building 6, Library, 2nd floor, Reference Desk
1100 North Grand Avenue
Walnut, California 91789

ORIGINAL FILED

SEP 11 2015

LOS ANGELES, COUNTY CLERK

The document is also posted on the District's website http://www.mtsac.edu/about/construction/.

For information on purchasing a copy of the document, please contact Ashley Gallegos (agallegos40@mtsac.edu) at (909) 274-4243 during regular office hours.

Time for Review

The Draft Mitigated Negative Declaration will undergo a 21-day public review period from September 10, 2015 to October 2, 2015. Comments must be received in writing by 5:00 pm on Friday, October 2, 2015 at the following address:

Mikaela Klein, Senior Facilities Planner
Mt. San Antonio Community College District
Facilities Planning & Management
1100 North Grand Avenue
Walnut, California 91789

Facsimile Phone: (909) 468-3931
Phone: (909) 274-5720
E-Mail: mikaela.klein@mtsac.edu (please mail originals)

Notice of Intent to Adopt a Mitigated Negative Declaration - Public Hearing

The Final Mitigated Negative Declaration will be considered for adoption by the Board of Trustees at its regular meeting on Wednesday, October 21, 2015 at 6:30 pm at the following location:

Board Room
Founder's Hall (Building 10)
Mt. San Antonio College
1100 North Grand Avenue
Walnut, California 91789

Visitor parking is available in Pay Lot B off of North Grand Avenue at San Jose Hills Road.

If you challenge the action taken on this project in court, you may be limited to raising only those issues you or someone else raises at the public hearing or in written correspondence delivered to the District prior to the public hearing.

Los Angeles County Registrar / Recorder
12400 Imperial Highway, Norwalk, CA
(800)201-8999

Business Filings

NORWALK

Cashier: J. SPRAGGINS

20150911125001 6

Friday, September 11, 2015 11:19 AM

Item(s)	Fee	Qty	Total
NoA - County Fee 2015235605		1	$75.00
Total			**$75.00**

Total Documents: 1

Customer payment(s):

Check $75.00

Check List:
#446 $75.00