



Franchise Tax Board Sacramento and San Francisco Buildings (084)

9645 Butterfield Way, Rancho Cordova, CA 95827

Facility Condition Assessment

June 2015

Prepared for the State of California Department of General Services



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EXECUTIVE SUMMARY

BACKGROUND

This Facility Condition Assessment (FCA), prepared by EMG Corporation (EMG) in collaboration with the Department of General Services (DGS) Real Estate Services Division (RESA) and the consulting team of Hellmuth, Obata & Kassabaum, Inc. (HOK), is a component of a comprehensive long-range strategic asset management plan for DGS's portfolio of general-purpose office buildings. The goal is to determine the best course of action to address DGS's general-purpose office buildings' infrastructure deficiencies and space needs with a focus on controlling long-term costs.

The DGS portfolio comprises nearly 17 million gross square feet (GSF) of state-owned office facilities statewide, contained within 54 general-purpose state-owned office building sites. The FCA inventories and evaluates each of the DGS general purpose office buildings to benchmark current condition and establish a replacement value. This FCA assesses the infrastructure conditions for the Franchise Tax Board Sacramento and San Francisco Buildings (084).

The assessment methodology identifies infrastructure systems and components requiring immediate repair or replacement based on their useful life expectancy. In addition, the FCA projects the capital funding needs over a ten-year lifecycle horizon period of 2015 to 2024. The assessments evaluate envelope, structure, plumbing, heating, air conditioning, energy and lighting controls, electrical, data/communications, elevators, fire protection and suppression, security, and utility capacity and systems. The replacement value is determined by multiplying the existing building square footage (SF) by the cost per SF to construct a new, similar building on a similar site.

OBJECTIVE

The objective of the FCA is to identify the capital reserves for infrastructure lifecycle repair/replacement needs over the ten-year lifecycle. The FCA projections will become the basis for the Facility Condition Index (FCI). The FCI is the ratio of immediate repair costs or capital reserve needs to the current replacement value of the existing building. The FCI is a key performance indicator that is used to objectively quantify and evaluate the current condition of a building and can be used to compare the relative condition of the subject building with other buildings within the same portfolio and as a trending matrix for infrastructure "health" over time.

The Franchise Tax Board Sacramento and San Francisco Buildings (084) FCI ratio will be incorporated as a comparative factor in the overall DGS portfolio analysis, enabling DGS to accurately rank and prioritize building repair/replacement needs in the long-range strategic plan.

SCOPE OF ASSESSMENT

The EMG evaluation team, comprised of engineers and architects, visited the Franchise Tax Board Sacramento and San Francisco Buildings (084) on January 20-23, 2015. The evaluation team reviewed available engineering studies and construction documents to familiarize themselves with the physical conditions. The evaluation team conducted a walk-through of the building to observe building systems and components, identify physical deficiencies, and formulate recommendations to remedy any deficiencies.

SURVEY FINDINGS

One of the major goals of the FCA is to calculate the FCI, which gives an indication of a building’s overall condition. Two FCI ratios are calculated and presented – Current Year and Ten-Year. The Current Year FCI is the ratio of Immediate Repair Costs to the building’s Current Replacement Value. Similarly, the Ten-Year FCI is the ratio of anticipated Capital Reserve Needs over the next ten years to the Current Replacement Value.

The values are based on a scale from 0-100 percent. A lower FCI ratio indicates that the building’s infrastructure is in “Good” condition. Based on industry standards, a “Good” condition building will have an FCI ratio at or below five percent. A “Fair” condition building will have an FCI ratio between five and ten percent. A “Poor” condition building will have an FCI ratio between 10 and 65 percent. A building with an FCI ratio exceeding 65 percent is considered “Very Poor” and is a candidate for replacement or divestment.

The table below represents summary-level findings for the FCA. The deficiencies identified in this assessment can be combined with potential new construction requirements to develop an overall strategy that can serve as the basis for a portfolio-wide capital improvement funding strategy. Key findings from the assessment include:

Key Finding	Metric
Current Replacement Value	\$358,405,411
Immediate Repair Costs (12 months)	\$832,413
1-5 Year Capital Needs	\$7,693,947
6-10 Year Capital Needs	\$11,519,549
Total 10-Year Capital Reserve Needs	\$20,045,908

$$FCI = \frac{\text{Immediate Repair Costs or Ten-Year Capital Reserve Needs}}{\text{Current Replacement Value of Building}}$$

Current Year FCI

$$\text{Current FCI} = \frac{\$832,413}{\$358,405,411}$$

Ten-Year FCI

$$\text{Ten-Year FCI} = \frac{\$20,045,908}{\$358,405,411}$$

Current Year FCI	Ten-Year FCI
0.23 % = <i>Good / Fair / Poor Condition</i>	5.59 % = <i>Good / Fair / Poor Condition</i>

The major issues contributing to the Immediate Repair Costs and the Current Year FCI ratio are summarized below:

- Existing fire risers do not have pressure relief valves. When the fire pump operates, pressure is increased within the risers. They have to be manually adjusted every day. Installation of pressure relief valves for each riser is recommended.
- For the Sacramento and San Francisco building portions of the FTB building complex, there are issues with the lighting management computer server. Scheduling is a problem and fixtures do not operate appropriately. Installation of an upgraded version of software is recommended.
- Recent issues have arisen due to enabling and disabling fire alarms. A reset is required occasionally to reboot the fire alarm system. It is a network issue and needs to be resolved for life safety and to remediate false alarms.

Further detail on the specific costs that make up the Immediate Repair Costs can be found in the cost tables in the appendices.

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INTRODUCTION

BUILDING BACKGROUND

The Franchise Tax Board Complex (084) was constructed in three separate phases. The complex consists of seven buildings totaling approximately 1,835,546 SF on approximately 51 acres. The complex is located in the suburban “50 Corridor” area near Folsom Boulevard at 9645 Butterfield Way, Sacramento. The site is adjacent to US Highway 50 and a light rail stop on the Regional Transit Gold Line. Residential neighborhoods extend north from Folsom Boulevard. Low-rise office and retail are located between Folsom Boulevard and US Highway 50.

Five of the buildings comprise integrally connected office space and are supported by a central plant and a warehouse facility. The complex provides space primarily for the California State Franchise Tax Board, who administers the tax code and collects and distributes state tax revenues. The complex supports the functions of the Franchise Tax Board and includes spaces for data centers, auditors, legal department, and administrative and support personnel. As such, the complex requires a high level of security and infrastructure reliability. The complex houses a tenant population of approximately 7,500 staff during peak tax season and approximately 5,000 during non-peak season. The site includes nearly 4,000 surface parking spaces.

The Franchise Tax Board Sacramento and San Francisco Buildings were designed by Hellmuth, Obata and Kassabaum. Construction was completed in 2005. The Sacramento Building is 479,657 GSF with a net usable area of 432,092 SF. The ratio of net usable to gross building area is 90 percent. The occupant capacity is 2,062. The San Francisco Building is 354,976 GSF with a net usable area of 321,967 SF. The ratio of net usable to gross building area is 90.7 percent. The occupant capacity is 1,947. This phase of the Franchise Tax Board Complex also includes three support structures. The Town Center at 49,425 GSF, the Central Plant at 12,218 GSF, and the Warehouse at 45,475 GSF. The total area for the 5 buildings is 941,854 GSF.

BUILDING DESCRIPTION

The foundation in all of the buildings is a reinforced cast-in-place concrete, slab-on-grade. The building structural systems are generally steel superstructures with concrete topped metal floor decks. The roof structures are flat with built-up roofing. The warehouse building structural system is steel columns supporting a panelized wood roof structure with laminated beams.

The exterior walls are finished with brick veneer and anodized metal panels at the Sacramento, San Francisco, and Town Center portions of the main building. The warehouse and Town Center have concrete masonry unit walls. The warehouse and central plant have corrugated metal panel walls.

The interior walls are painted drywall. The floor finishes consist of ceramic tiles, commercial carpet tiles, and vinyl composition tiles. The interior ceilings are finished with acoustic ceiling tiles. The warehouse and central plant lack interior finishes, except for small office and break areas.

The facility is served by two hydraulic and ten traction passenger elevators.

Domestic hot water is provided by central heaters and solar panels for the Sacramento and San Francisco buildings. The water is distributed to the building via inline recirculation pumps. Domestic hot water is provided to each restroom and kitchen area by small electric water heaters located in the kitchen closets adjacent to the areas. The Town Center and warehouse have their own central gas water heaters for domestic hot water supply.

Heating and cooling are provided by a central plant at this facility. Heating is provided by fire-tube boilers, which heat the water and use primary/secondary piping for distribution to the buildings. The cooling is provided by centrifugal water cooled chillers, which supply the air handling units.

Life safety systems include a wet sprinkler system, except for the computer/data room in the Sacramento building, which has a dry pipe system. There are smoke detectors, alarms, extinguishers, dry standpipes in the buildings, and fire hydrants on the site.

The landscaping consists of trees, shrubs, and lawn areas. Landscaped areas are irrigated by an in-ground overhead spray sprinkler system.

The sidewalks throughout the property are constructed of cast-in-place concrete.

Project Statistics

Item	Description
Project Name	Sacramento, San Francisco, Town Center, Warehouse, and Central Plant buildings
Building ID	084
Property Type	Administration
Year Built	2005
Number of Stories	4
Occupied	Yes
Land Area (acres)	50.18
Gross Square Feet (GSF)	941,854

FACILITY CONDITION ASSESSMENT

The goal of the FCA is to gather the data necessary to understand the existing building's condition, identify strategies to meet the building's lifecycle needs, and create the foundation for a long-range strategic plan.

COMPONENTS OF THE FCA

Current conditions analysis

The current condition analysis identifies the existing building's immediate requirements, including deferred maintenance, recommended discretionary improvements, and code non-compliance issues.

Anticipated building reserve analysis

The anticipated building reserve analysis projects the ongoing degradation of the building's components and costs associated with the reserve or replacement of these components as they reach the end of their useful lives.

Funding needs analysis

The funding needs analysis results in a summary report of deferred maintenance and systems reserve funding needs.

CALCULATION OF FUNDING NEEDS

Calculating probable funding needs involves identifying and quantifying the building's infrastructure systems or components that require immediate or future action over their lifecycle horizon. Funding needs are segregated into two categories, Immediate Repair Costs and Capital Reserve Needs. A Replacement Value is calculated and a Remaining Useful Life Estimate is determined as well as Opinions of Probable Cost in order to establish the FCI. The terms are defined as follows:

Immediate Repair Costs

Immediate Repair Costs are Opinions of Probable Cost that require immediate action as a result of: (1) material existing or potentially unsafe conditions, (2) material building or fire code violations, or (3) conditions that, if left un-remedied, have the potential to result in, or contribute to, critical element or system failure within **one year** that will likely result in a significant escalation of its remedial cost. Immediate Repair Costs are items which require action within year one.

Capital Reserve Needs

Capital Reserve Needs are recurring probable expenditures, which are not considered operation or maintenance expenses, that should be budgeted annually. In general, Capital Reserve Needs are reasonably predictable both in terms of frequency and cost. However, Capital Reserve Needs may also include components or systems that have an indeterminable life but nonetheless have a potential liability for failure within a ten-year period. The Capital Reserve Needs presented in the FCA represent average industry costs as of 2015, without inflation. The Ten-Year Expenditure Forecast table in Appendix G includes inflation by assuming a five percent annual inflation rate on Total Capital Needs by year.

Current Replacement Value

Current Replacement Value is determined by multiplying the existing building's SF by the Cost per SF to construct a new, similar building on a similar site. Current Replacement Value is not an appraised or market value for the purposes of a property sale. To estimate the cost per SF, EMG referenced Marshall & Swift's *Marshall Valuation Service*. This building cost data index is an industry standard, adjusted annually, and relied upon by the insurance industry, as well as other agencies and organizations. Cost per SF is calculated by adjusting Marshall & Swift's unit cost for a Government Office Building to account for factors related to building systems, class of construction, and location to reflect the estimated cost of construction at the subject building site.

Remaining Useful Life

Remaining Useful Life (RUL) estimate is based upon site observations, research, and judgment, along with reference to Expected Useful Life (EUL) tables from various industry sources. A sample copy of the EUL table is included in the appendices. EMG estimates when a system or component will likely need replacement based on a visual review of the current condition and the RUL estimate. Exposure to the elements, quality of installation, extent of use, and quality and amount of preventive maintenance exercised are factors that impact the effective age of a system or component. As a result, a system or component might have an effective age that is greater or less than its actual chronological age. The RUL of a system or component equals the EUL less its effective age.

Opinions of Probable Cost

Opinions of Probable Cost are estimates for individual repair or replacement and are a key consideration of this engagement. These estimates may be based on invoice or bid documents provided by the owner or building manager, cost estimates developed by construction resources (such as R.S. Means), or EMG's experience with similar properties, city cost indexes, and projections of economic conditions. Where quantities cannot be derived from building plans, lump sum costs or allowances are utilized.

Opinions of Probable Cost should only be construed as preliminary, order-of-magnitude budgets. Actual costs will likely vary from EMG's estimates depending on type and design of suggested remedy, quality of materials and installation, manufacturer and type of equipment or system selected, field conditions, whether a physical deficiency is repaired or replaced in whole, phasing of the work (if applicable), quality of contractor, market conditions, and whether competitive pricing is solicited. ASTM E2018-08¹ recognizes that certain Opinions of Probable Cost cannot be developed within the scope of an FCA without further study. Instances where a visual inspection is not possible and further study is recommended, EMG provides a cost estimate of the additional study in the FCA.

Facility Condition Index

The FCI gives an indication of a building's overall state of condition. The values are based on a 0-100 percent scale. The Current Year FCI is the ratio of Immediate Repair Costs to Current Replacement Value. The Ten-Year FCI is the ratio of Capital Reserve Needs (2015 – 2024) to Current Replacement Value. The Ten-Year FCI is calculated using uninflated 2015 dollars because the year of project implementation is likely unknown or subject to change. Since both the repair/replacement costs and Current Replacement Value will increase at the same inflation rate, the impacts of inflation do not significantly affect the FCI ratio.

SCOPE OF ASSESSMENT

The evaluation team conducted a walk-through survey of Franchise Tax Board Sacramento and San Francisco Buildings (084) on January 20-23, 2015. The survey included analysis and observation of the building's interior and exterior, including the roofs. The evaluation team interviewed the building maintenance staff to inquire about the subject property's previous repairs and replacements and their costs, level of preventive maintenance exercised, pending repairs and improvements, and frequency of repairs and replacements. Opinions were developed based on the site evaluation, interviews with relevant maintenance providers and facilities managers, and previous experience with comparable properties. The evaluation team questioned those knowledgeable of the subject property's physical condition and operation (or knowledgeable of similar systems) to gain comparative information to use in evaluation of the subject property. In addition, the building staff provided documents and information to the evaluation team that were relevant to the subject property's physical improvements, extent, and type of use and assisted the team in identifying potential discrepancies between reported information and observed conditions.

¹ ASTM 2018-08 is the national guideline for preparing a Facility Condition Assessment published by the American Society for the Testing of Materials.

The evaluation team made a visual assessment for compliance with the American with Disabilities Act (ADA) Accessibility Guidelines and the California Title 24 disabled access requirements. Items determined to be out of compliance are included in the repair/replacement costs. The assessments did not include detailed measurements to determine compliance under the regulations.

The data collected in the FCA are the basis of the projected ten-year Capital Reserve Needs. The goals of the FCA are:

- Benchmark current building condition with recommended corrections for deficiencies to establish the Immediate Repair Costs.
- Estimate life expectancy of various building systems and components to establish the Capital Reserve Needs for infrastructure lifecycle repair/replacement for the ten-year assessment period from 2015 to 2024.
- Provide estimates for corrections for Immediate Repairs Costs and projections for Capital Reserve Needs for lifecycle component replacement within the ten-year projection timeframe.
- Serve as a guide for future replacement, repairs, and improvements and assist DGS in prioritizing its capital budget and expenditures across its real estate portfolio.

PRIORITY RANKING

The recorded existing conditions, identified problems and deficiencies, documented corrective action, and quantities of recommended repairs and/or replacements are documented during the assessment process. Data are collected and entered directly into the assessment and capital planning database using tablet computers. Based on the discussions with the client and industry standards, a Priority Ranking is calculated for each cost observation. The Priority Ranking calculation is a function of four key categories.

PRIORITY RANKING CATEGORIES

Building Mission Ranking

A building can be ranked on a scale of one to ten based on conversations with the client regarding the importance of each building to the overall mission of the building. The properties reviewed during this assessment are all general-purpose office buildings and for the purposes of this study are all ranked the same for Building Mission.

Remaining Useful Life Ranking

The EUL projection of the component is calibrated against the RUL as estimated by the field assessor. This ratio is then utilized as a factor in the priority ranking. An RUL of zero years is given the highest priority and always results in ranking the component as Priority 1.

Asset Component Category

Each material or system (asset) evaluated is assigned a unique Unifomat code. The Unifomat designation is then associated with a ranking based on the overall importance to the operation of the building. An asset that is related to the building envelope, e.g. roof, window, or exterior siding, is assigned a higher ranking than a component such as a flooring, carpeting, or other finish material.

Functional Asset Categories

The cost associated with each asset or component evaluated is assigned to a category to include: Code Compliance, Facility Operations, Environmental Factors, Facility Functionality, and Integrity of the Facility. The Asset Categories are given a ranking based on their relative importance. For example, Code Compliance is ranked higher than Maintenance.

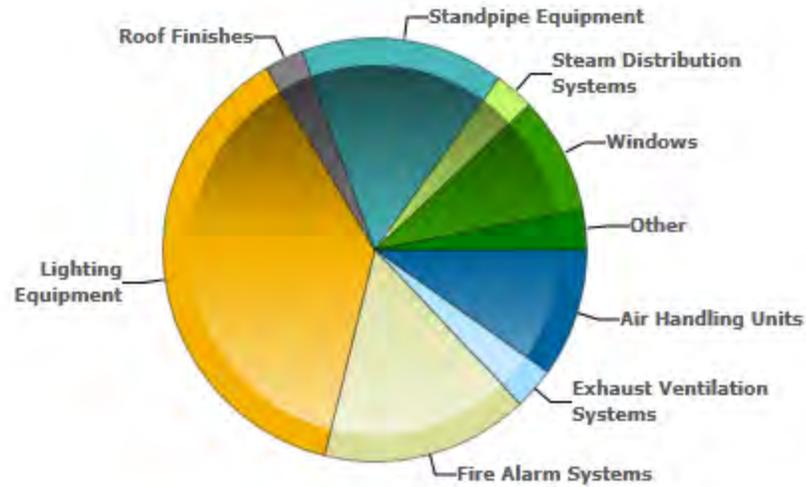
PRIORITY RATIO

The four categories above are assigned a numerical value and the values are multiplied together for each cost observation. The resulting number is then assigned a priority by the capital planning software with the lower range assigned Priority 1 and the higher range of numbers assigned among Priority 2, Priority 3, and Priority 4. Priority 5 is reserved for code issues that were permitted by the code at the time of construction but would be required only if a major renovation or code compliance project were to be undertaken.

The physical condition of building systems and related components are typically defined as being in one of four conditions: Good, Fair, Poor, or Very Poor, or a combination thereof. For the purposes of this report, the following definitions are used:

Condition	Definition
Good	In new or well-maintained condition, with no visual evidence of wear, soiling, or other deficiencies.
Fair	Subjected to wear and soiling but is still in a serviceable and functioning condition.
Poor	Subjected to hard or long-term wear. Nearing the end of its useful or serviceable life.
Very Poor	Subjected to hard or long-term wear. Has reached the end of its useful or serviceable life. Renewal is now necessary.

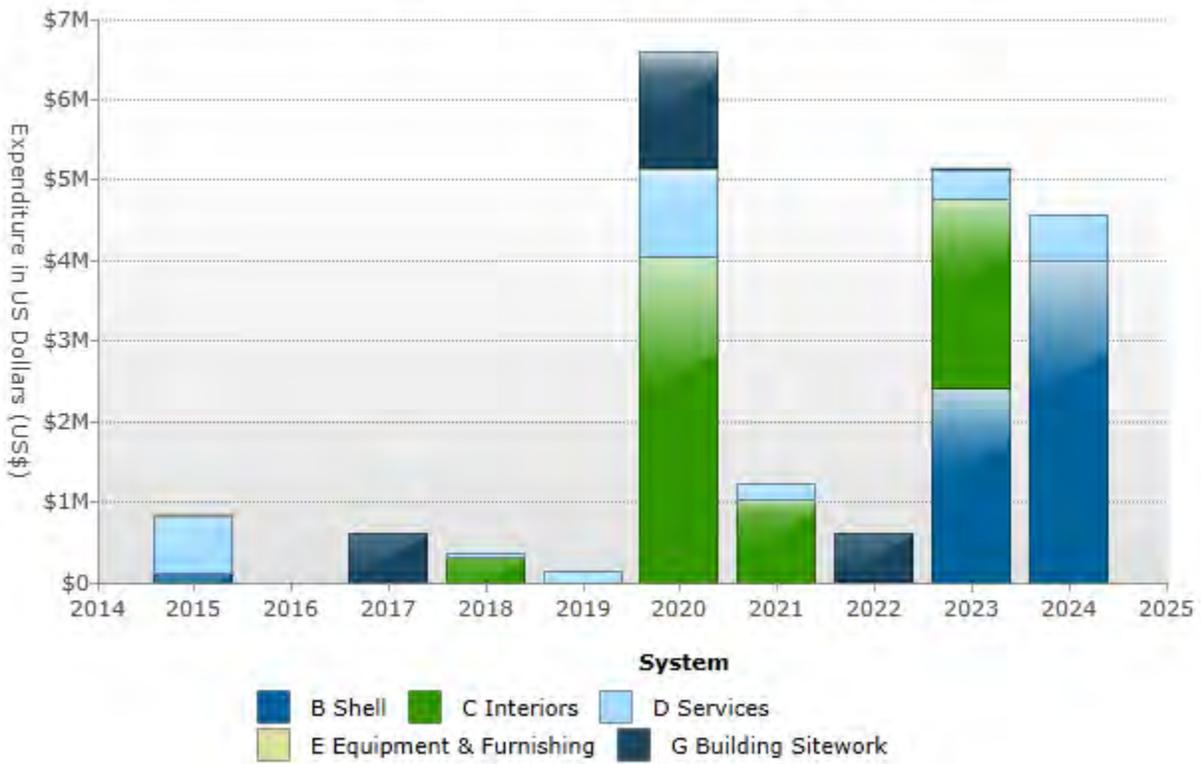
Distribution of Immediate Needs by Building System



Level	Building System	Estimated Cost
B2021	Windows	\$74,515
B3011	Roof Finishes	\$24,800
C3021	Floor Toppings	\$7,814
C3023	Hardeners and Sealers	\$9,244
D2011	Water Closets	\$400
D2013	Lavatories	\$1,316
D3023	Auxiliary Equipment	\$3,000
D3041	Air Handling Units	\$81,667
D3042	Exhaust Ventilation Systems	\$26,411
D3043	Steam Distribution Systems	\$25,296
D4023	Standpipe Equipment	\$129,493
D5022	Lighting Equipment	\$313,113
D5037	Fire Alarm Systems	\$131,858
E1016	Laundry & Dry Cleaning Equipment	\$3,486

Level	Building System	Estimated Cost
	Total	\$832,413

Total Capital Needs By System and Year



Year	Building System							Total
	A Sub-Structure	B Shell	C Interiors	D Services	E Equip. & Furnishings	F Spec. Const. & Demolition	G Bldg. Site Work	
2015	\$0	\$99,315	\$17,058	\$712,554	\$3,486	\$0	\$0	\$832,413
2017	\$0	\$0	\$0	\$0	\$0	\$0	\$610,466	\$610,466
2018	\$0	\$0	\$309,138	\$58,963	\$0	\$0	\$0	\$368,101
2019	\$0	\$0	\$0	\$127,488	\$0	\$0	\$0	\$127,488
2020	\$0	\$0	\$4,037,697	\$1,099,204	\$22,134	\$0	\$1,428,857	\$6,587,892
2021	\$0	\$0	\$1,033,168	\$179,570	\$0	\$0	\$0	\$1,212,738
2022	\$0	\$0	\$0	\$1,681	\$0	\$0	\$610,466	\$612,147
2023	\$0	\$2,399,426	\$2,356,759	\$364,920	\$0	\$0	\$7,273	\$5,128,378
2024	\$0	\$4,002,146	\$0	\$564,140	\$0	\$0	\$0	\$4,566,286
Total	\$0	\$6,500,887	\$7,753,820	\$3,108,519	\$25,620	\$0	\$2,657,061	\$20,045,908

CURRENT REPLACEMENT VALUE

The Current Replacement Value has been determined as \$358,405,411 for the Franchise Tax Board Sacramento and San Francisco Buildings Building (084). The Current Replacement Value is the existing building SF multiplied by the Cost per SF to construct a new, similar building. As noted previously, the basis of the Cost per SF amount is the Marshall & Swift Cost Valuation system. A copy of the cost calculation is included in Appendix H of this report.

Building Area	Cost/SF	Current Replacement Value
941,854 GSF	\$381	\$358,405,411

FACILITY CONDITION INDEX

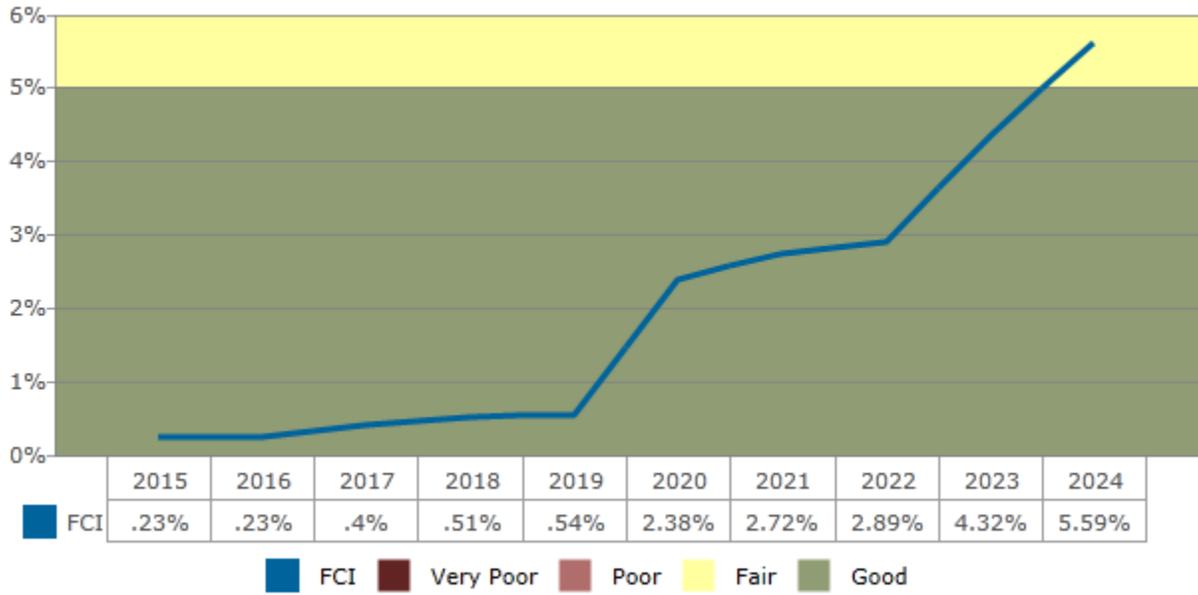
The FCI¹ is an indication of a building’s current and future overall condition. According to industry standards an FCI ratio of 65 percent, or the “rule of two-thirds,” is the threshold for identifying potential candidates for replacement or divestment.² Once the FCI ratio reaches 65 percent, or roughly two-thirds of the Current Replacement Value of the estimated cost to replace a building, it may not be prudent to continue to fund repairs. In cases where aggressive facilities planning is expected to be necessary, this threshold may be adjusted to address more pressing needs.

Condition	Definition	Value
Good	In new or well-maintained condition, with no visual evidence of wear, soiling or other deficiencies.	0% to 5%
Fair	Subjected to wear and soiling but is still in a serviceable and functioning condition.	Greater than 5% to 10%
Poor	Subjected to hard or long-term wear. Nearing the end of its useful or serviceable life.	Greater than 10% to 65%
Very Poor	Subjected to hard or long-term wear. Has reached the end of its useful or serviceable life. Renewal is now necessary.	Greater than 65%

The chart below indicates the cumulative effects of the FCI ratio over the ten-year study period assuming the required funds are NOT provided to address the identified repairs and replacements for each year.

² Sean C. Rush (1991). *Managing the Facilities Portfolio: a Practical Approach to Institutional Facility Renewal and Deferred Maintenance*. National Association of College and University Business Officers. pp. 26–66. ISBN 978-0-915164-59-2.

Cumulative Effects of FCI over the Study Period



APPENDICES

APPENDIX A: ACCESSIBILITY ISSUES

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APPENDIX B: GENERAL ASSESSMENT INFORMATION

A Substructure Systems

A10 FOUNDATIONS

Item	Description
A1013 Perimeter Drainage & Insulation	A1010 Concrete Foundations
Condition	Good
Qty / UOM	834533 /
RUL (years)	65
Location	All Buildings

OBSERVATIONS/COMMENTS:

No further action is required.

B Shell Systems

B10 SUPERSTRUCTURE

Item	Description
B1031 Steel Frame Structure	B1031 Structural Steel Columns and Beams Frame
Condition	Good
Qty / UOM	834533 / SF
RUL (years)	60
Location	All Buildings

OBSERVATIONS/COMMENTS:

No further action is required.

B20 EXTERIOR ENCLOSURE

Item	Description
B2011 Exterior Wall Construction	B2011 Concrete Block Masonry-warehouse
Condition	Good
Qty / UOM	9680 / SF
RUL (years)	30
Location	Warehouse

OBSERVATIONS/COMMENTS:

No further action is required.

Item	Description
B2011 Exterior Wall Construction	B2011 Metal panel Exterior Walls
Condition	Good
Qty / UOM	3250 / SF
RUL (years)	20
Location	San Francisco Sacramento and Towne Center buildings
Exterior Wall Construction	Prefinished Metal Siding
Parapets	Yes
Balcony Walls and Handrails	Metal

OBSERVATIONS/COMMENTS:

No further action is required.

Item	Description
B2011 Exterior Wall Construction	B2010 Siding, Corrugated Metal Panel
Condition	Good
Qty / UOM	4200 / SF
RUL (years)	20
Location	Warehouse

OBSERVATIONS/COMMENTS:

No further action is required.

Item	Description
B2011 Exterior Wall Construction	B2011 Brick Veneer Exterior Walls
Condition	Fair - Good
Qty / UOM	1.04817e+006 / SF
RUL (years)	30
Location	San Francisco Sacramento and Towne Center buildings

OBSERVATIONS/COMMENTS:

No further action is required.

Item	Description
B2014 Exterior Sun Control Devices	B2014 Canvas Awning TC
Condition	Poor - Fair
Qty / UOM	900 / SF
RUL (years)	10
Location	TC exteriors

OBSERVATIONS/COMMENTS:

Awning at child care play yard is badly torn.

Item	Description
B2021 Windows	B2021 Exterior Windows
Condition	Fair - Good
Qty / UOM	19700 / sf
RUL (years)	15
Location	SC exteriors
Window Type	Fixed
Windows Material	Aluminum

Item	Description
Windows Glazing	Double Glazed
Window Operation	Fixed

OBSERVATIONS/COMMENTS:

Sporadic window leaks were reported, but not observed. A small number of gaskets had a gap at the edge, and some gaskets were slightly loose. Caulking at frame perimeters and loose gaskets should be repaired, including curtain walls and stand-alone windows.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
B2021	B2021 Caulking at frame perimeters and loose gaskets should be repaired.	19,700.0 - LF	1.0	IN - Beyond Rated Life	Priority 1	2015	18,715

Item	Description
B2021 Windows	B2020 Exterior Windows SF
Condition	Fair
Qty / UOM	15000 / Sf
RUL (years)	15
Location	SF Exteriors
Window Type	Fixed
Windows Material	Aluminum
Windows Glazing	Double Glazed

OBSERVATIONS/COMMENTS:

Sporadic window leaks were reported but not observed. A small number of gaskets had a gap at the edge, and some gaskets were slightly loose. Caulking at frame perimeters and loose gaskets should be repaired, including curtain walls and stand-alone windows.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
B2021	B2021 Caulking and loose gaskets repair,	15,000.0 - LF	3.7	OP - Maintenance	Priority 2	2015	55,800

COST SUMMARY:

Type	Year	Total Expenditures
B20 Exterior Enclosure	2015	\$74,515

B30 ROOFING

Item	Description
B3011 Roof Finishes	B3011 Metal Roofing
Condition	Fair
Qty / UOM	200 / LF
RUL (years)	0
Location	San Francisco Sacramento and Towne Center buildings
Flashings and Trim	Metal
Roof Drainage	Drains Over The Eaves

OBSERVATIONS/COMMENTS:

Water has been infiltrating both the Sacramento and San Francisco buildings at the southwest corner where the brick exterior meets the lower low-slope roofing. A previous fix at the flashing was ineffective. Further forensic investigation is required. An allowance for repairs is recommended.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
B3011	Repair B3011 Metal Roofing	200.0 - LF	124.0	IN - Reliability	Priority 1	2015	24,800

Item	Description
B3011 Roof Finishes	B3011 Built-Up Roofing SF
Condition	Fair - Good
Qty / UOM	1289 / SQ
RUL (years)	8
Location	SF roof
Flashings and Trim	Metal

OBSERVATIONS/COMMENTS:

The roofing is coated with GAF topcoat. This product helps seal out rainwater and reflects heat, but may trap air and/or vapor. This is a possible cause of the blistering observed throughout. There are isolated very minor leaks as observed from the third level at ceiling finishes, and reported by the maintenance staff. However, as the blisters pop, it is likely that water can become trapped and accelerate the age of the underlying built up roof.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
B3011	Replace B3011 Built-Up Roofing SF	1,289.0 - SQ	1861.5	IN - Beyond Rated Life	Priority 4	2023	2,399,426

Item	Description
B3011 Roof Finishes	B3011 Built-Up Roofing TC
Condition	Fair - Good
Qty / UOM	900 / SQ
RUL (years)	9
Location	Towne center roof

OBSERVATIONS/COMMENTS:

The roofing has a topcoat product that helps seal out rainwater and reflects heat, but may trap air and/or vapor. The blistering is not as severe as observed at the Sacramento and San Francisco buildings. There are isolated minor leaks from the ceiling finishes.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
B3011	Replace B3011 Built-Up Roofing TC	900.0 - SQ	1861.5	IN - Beyond Rated Life	Priority 4	2024	1,675,317

Item	Description
B3011 Roof Finishes	B3011 Built-Up Roofing- Central Plant
Condition	Good
Qty / UOM	2200 / SQ
RUL (years)	10
Location	Central Plant

OBSERVATIONS/COMMENTS:

Based on RUL, roofing replacement is anticipated during the assessment period.

Item	Description
B3011 Roof Finishes	B3011 Built-Up Roofing Sacramento
Condition	Fair - Good
Qty / UOM	1250 / SQ
RUL (years)	9
Location	SC Roof
Insulation	None
Flashings and Trim	Metal

OBSERVATIONS/COMMENTS:

The roofing is coated with a GAF Topcoat. This product helps seal out rainwater and reflects heat, but may trap air and/or vapor. This is the possible cause of the blistering observed throughout. There are isolated very minor leaks as observed from the fourth level at ceiling finishes, and reported by the maintenance staff. However, as the blisters pop, it is likely that water can become trapped and accelerate the age of the underlying built up roof.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
B3011	Replace B3011 Built-Up Roofing Sacramento	1,250.0 - SQ	1861.5	IN - Beyond Rated Life	Priority 4	2024	2,326,829

Item	Description
B3011 Roof Finishes	B3011 Built-Up Roofing Warehouse
Condition	Good
Qty / UOM	4600 / SQ
RUL (years)	10
Location	Towne center roof

OBSERVATIONS/COMMENTS:

Based on RUL, roofing replacement is anticipated during the assessment period.

Item	Description
B3021 Glazed Roof Openings	B3021 Glass Skylight
Condition	Good
Qty / UOM	50 / SF
RUL (years)	20
Location	San Francisco Sacramento and Towne Center buildings
Roof Opening Operation	Fixed

OBSERVATIONS/COMMENTS:

No further action is required.

Item	Description
B3023 Gravity Roof Ventilators	B3023 Boiler room supply vent
Condition	Good
Qty / UOM	2 / EA
RUL (years)	15
Location	TC Roof

OBSERVATIONS/COMMENTS:

There are two gravity supply vents for boiler room domestic water heaters. They do not have any moving parts. They were in good working condition.

COST SUMMARY:

Type	Year	Total Expenditures
B30 Roofing	2015	\$24,800
B30 Roofing	2023	\$2,399,426
B30 Roofing	2024	\$4,002,146

C Interiors Systems

C10 INTERIOR CONSTRUCTION

Item	Description
C1017 Interior Windows & Storefronts	C1017 Interior Windows & Storefronts
Condition	Good
Qty / UOM	1240 / SF
RUL (years)	20
Location	San Francisco Sacramento and Towne Center buildings

OBSERVATIONS/COMMENTS:

No further action is required.

Item	Description
C1021 Interior Doors	C1021 Interior Doors
Condition	Good
Qty / UOM	112 / EA
RUL (years)	20
Location	All Buildings

OBSERVATIONS/COMMENTS:

No further action is required.

C30 INTERIOR FINISHES

Item	Description
C3012 Wall Finishes to Interior Walls	C3012 Paint Interior Walls, Drywall
Condition	Good
Qty / UOM	190000 / SF
RUL (years)	6
Location	All Buildings

OBSERVATIONS/COMMENTS:

Based on RUL, the interior walls will require re-painting during the assessment period.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
C3012	C3012 Repaint interior	190,000.0 - SF	2.1	IN - Appearance	Priority 4	2021	405,232

Item	Description
C3021 Floor Toppings	C3021 Paint Interior Concrete Floors
Condition	Fair
Qty / UOM	3850 / SF
RUL (years)	0
Location	TC Interiors
Floor Toppings	Traffic Coating
Traffic Membranes	Painted Smooth Finish

OBSERVATIONS/COMMENTS:

Based on RUL, repainting of the concrete floor in the auditorium is anticipated during the term.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
C3021	Replace C3021 Paint Interior Concrete Floors	3,850.0 - SF	2.0	IN - Appearance	Priority 2	2015	7,814

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
C3021	Replace C3021 Paint Interior Concrete Floors	3,850.0 - SF	2.0	IN - Appearance	Priority 2	2023	7,814

Item	Description
C3023 Hardeners and Sealers	C3023 Floor Paint - Non Slip
Condition	Good
Qty / UOM	1280 / SF
RUL (years)	0
Location	TC Interiors

OBSERVATIONS/COMMENTS:

No further action is required.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
C3023	Replace C3023 Floor Paint - Non Slip	1,280.0 - SF	7.2	IN - Appearance	Priority 2	2015	9,244
C3023	Replace C3023 Floor Paint - Non Slip	1,280.0 - SF	7.2	IN - Appearance	Priority 2	2020	9,244

Item	Description
C3024 Flooring	C3024 Flooring ceramic tile
Condition	Good
Qty / UOM	2850 / SF
RUL (years)	20
Location	San Francisco Sacramento and Towne Center buildings

OBSERVATIONS/COMMENTS:

No further action is required.

Item	Description
C3024 Flooring	C3024 Vinyl Tile Warehouse
Condition	Fair
Qty / UOM	75 / SY
RUL (years)	8
Location	Warehouse

OBSERVATIONS/COMMENTS:

Based on RUL, vinyl tile replacement is anticipated during the assessment period.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
C3024	Replace C3024 Vinyl Tile Warehouse	75.0 - SY	125.8	IN - Beyond Rated Life	Priority 4	2023	9,434

Item	Description
C3024 Flooring	C3024 Vinyl Tile SF
Condition	Fair - Good
Qty / UOM	8100 / SY
RUL (years)	8
Location	Warehouse

OBSERVATIONS/COMMENTS:

Based on RUL, vinyl tile replacement is anticipated during the assessment period.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
C3024	Replace C3024 Vinyl Tile SF	8,100.0 - SY	125.8	IN - Appearance	Priority 4	2023	1,018,820

Item	Description
C3024 Flooring	C3024 Vinyl Tile SC
Condition	Fair - Good
Qty / UOM	10500 / SY
RUL (years)	8
Location	Warehouse

OBSERVATIONS/COMMENTS:

Based on RUL, vinyl tile replacement is anticipated during the assessment period.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
C3024	Replace C3024 Vinyl Tile SC	10,500.0 - SY	125.8	IN - Appearance	Priority 4	2023	1,320,692

Item	Description
C3025 Carpeting	C3025 Carpeting- Standard TC
Condition	Good
Qty / UOM	6500 / SY
RUL (years)	6
Location	TC Interiors

OBSERVATIONS/COMMENTS:

Based on RUL, carpet tile replacement is anticipated during the assessment period.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
C3025	Replace C3025 Carpeting- Standard TC	6,500.0 - SY	96.6	IN - Appearance	Priority 4	2021	627,936

Item	Description
C3025 Carpeting	C3025 Carpeting -Standard SC
Condition	Good
Qty / UOM	41700 / SY
RUL (years)	5
Location	SC interiors

OBSERVATIONS/COMMENTS:

Based on the RUL, carpet tile replacement is anticipated during the assessment period.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
C3025	Replace C3025 Carpeting -Standard SC	41,700.0 - SY	96.6	IN - Appearance	Priority 4	2020	4,028,454

Item	Description
C3025 Carpeting	C3025 Carpeting SF
Condition	Fair - Good
Qty / UOM	3200 / SY
RUL (years)	3
Location	SF interiors

OBSERVATIONS/COMMENTS:

Based on RUL, carpet replacement is anticipated during the assessment period.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
C3025	Replace	3,200.0 - SY	96.6	IN - Appearance	Priority 3	2018	309,138

Item	Description
C3032 Suspended Ceilings	C3032 Acoustical Ceiling Tile
Condition	Good
Qty / UOM	35 / CSF
RUL (years)	10
Location	San Francisco Sacramento and Towne Center buildings

OBSERVATIONS/COMMENTS:

Worn or damaged acoustic ceiling tile replacement is anticipated.

COST SUMMARY:

Type	Year	Total Expenditures
C30 Interior Finishes	2015	\$17,058
C30 Interior Finishes	2018	\$309,138
C30 Interior Finishes	2020	\$4,037,697
C30 Interior Finishes	2021	\$1,033,168
C30 Interior Finishes	2023	\$2,356,759

D Services Systems

D10 CONVEYING SYSTEMS

Item	Description
D1011 Passenger Elevators	D1011 Hydraulic Service Elevator 4500 lbs
Condition	Fair
Qty / UOM	1 / EA
RUL (years)	15
Location	SC Throughout Building

OBSERVATIONS/COMMENTS:

The elevator is original to the building. It is 4500 lb. capacity hydraulic service elevator with a 75-hp motor that travels 150 FPM. It originates on the first floor. Elevators were missing Braille markings on the exterior. Reference the consultant's full report in the Appendices.

Item	Description
D1011 Passenger Elevators	D1011 Hydraulic Service Elevator 4500 lbs
Condition	Fair
Qty / UOM	1 / EA
RUL (years)	12
Location	SF Throughout Building

OBSERVATIONS/COMMENTS:

The elevator is original to the building. It is hydraulic service elevator with 75-hp motor. There is one service elevator in SF building. It originates on the first floor. Elevators were missing Braille markings on the outside switch. Reference the consultant's full report in the Appendices.

Item	Description
D1011 Passenger Elevators	D1011 Traction Elevators 3500 lbs
Condition	Fair
Qty / UOM	4 / EACH
RUL (years)	12
Location	SF Throughout Building

OBSERVATIONS/COMMENTS:

All of the elevators are original to the building. There are four passenger elevators, two on each end of the building, each with 3500 lb. capacity and 20-hp traction motors. All elevators originate on the first floor. Elevators were missing Braille markings on the outside switch. Reference the consultant's full report in the Appendices.

Item	Description
D1011 Passenger Elevators	D1011 Traction Elevators 3500 lbs
Condition	Fair
Qty / UOM	6 / EACH
RUL (years)	15
Location	SC Throughout Building

OBSERVATIONS/COMMENTS:

All of the elevators are original to the building. There are six passenger elevators at 3500 lb. capacity each, operating at 200 FPM. There were three on each end of the building. All elevators originate on the first floor. Elevators were missing Braille markings on the exterior. Reference the consultant's full report in the Appendices.

D20 PLUMBING

Item	Description
D2011 Water Closets	D2011 Water Closet - Central Plant
Condition	Poor - Fair
Qty / UOM	1 / EA
RUL (years)	15
Location	Central Plant

OBSERVATIONS/COMMENTS:

The water closet is original to the building and has had heavy use. Replacement is recommended.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D2011	Upgrade urinals to automatic flush valves	1.0 - ea	400.0	FN - Modernization	Priority 2	2015	400

Item	Description
D2011 Water Closets	D2011 Water Closet, 1.6 GPF Unit
Condition	Fair
Qty / UOM	126 / EA
RUL (years)	25
Location	All Facilities
Low Flow Toilet	Yes
System Grade	Commercial Grade

OBSERVATIONS/COMMENTS:

In the San Francisco and Sacramento buildings, the water closets are functional and have been fitted with automatic flush valves.

Item	Description
D2011 Water Closets	D2011 Water Closet, 1.6 GPF Unit
Condition	Good
Qty / UOM	21 / EA
RUL (years)	25
Location	TC Restrooms
Low Flow Toilet	Yes
System Grade	Commercial Grade

OBSERVATIONS/COMMENTS:

The water closets are functional and have been fitted with automatic flush valves.

Item	Description
D2011 Water Closets	D2011 Water Closet, 1.6 GPF Unit
Condition	Fair
Qty / UOM	1 / EA
RUL (years)	0

Item	Description
Location	WH Throughout Building
Low Flow Toilet	Yes
System Grade	Commercial Grade

OBSERVATIONS/COMMENTS:

The toilets are functional but do not have automatic flush valves. Automatic flush valves are recommended.

Item	Description
D2012 Urinals	D2012 Urinal
Condition	Good
Qty / UOM	42 / EA
RUL (years)	25
Location	All Facilities
Low Flow Toilet	Yes
System Grade	Commercial Grade

OBSERVATIONS/COMMENTS:

The urinals are functional and have been fitted with automatic flush valves.

Item	Description
D2012 Urinals	D2012 Urinal
Condition	Good
Qty / UOM	6 / EA
RUL (years)	25
Location	TC Restrooms
Low Flow Toilet	Yes
System Grade	Commercial Grade

OBSERVATIONS/COMMENTS:

The urinals are functional and have been fitted with automatic flush valves.

Item	Description
D2013 Lavatories	D2012 Lavatories
Condition	Good
Qty / UOM	18 / EA
RUL (years)	15
Location	TC Restrooms

OBSERVATIONS/COMMENTS:

The lavatory sinks are functional and have been fitted with automatic flush valves. There were no ADA issues. Long term lifecycle replacements are anticipated.

Item	Description
D2013 Lavatories	D2012 Lavatories
Condition	Good
Qty / UOM	84 / EA
RUL (years)	15
Location	All Facilities

OBSERVATIONS/COMMENTS:

The lavatories are functional and have been fitted with automatic flush valves. There were no ADA issues.

Item	Description
D2013 Lavatories	D2012 lavatory sink
Condition	Good
Qty / UOM	1 / EA
RUL (years)	0
Location	WH Throughout Building

OBSERVATIONS/COMMENTS:

The lavatory sinks are functional and do not have automatic flush valves. There were no ADA issues. Automatic flush valves are recommended.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D2013	Replace D2012 lavatory sink	1.0 - EA	1315.5	FN - Modernization	Priority 1	2015	1,316

Item	Description
D2014 Sinks	D2012 Kitchen Sink
Condition	Good
Qty / UOM	2 / EA
RUL (years)	5
Location	All Facilities

OBSERVATIONS/COMMENTS:

The kitchen and lactation room sinks are functional and have been fitted with automatic flush valves. There were no ADA issues.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D2014	Replace D2012 Kitchen Sink	2.0 - EA	2946.4	IN - Beyond Rated Life	Priority 3	2020	5,893

Item	Description
D2014 Sinks	D2011 Sink - Central Plant
Condition	Good
Qty / UOM	1 / EA
RUL (years)	9
Location	Central Plant

OBSERVATIONS/COMMENTS:

The water faucets are functional and have been fitted with automatic flush valves.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D2014	Replace D2011 Sink - Central Plant	1.0 - EA	2946.4	IN - Beyond Rated Life	Priority 4	2024	2,946

Item	Description
D2017 Showers	D2017 Shower Stall and Faucet
Condition	Good
Qty / UOM	8 / EA
RUL (years)	10
Location	All Facilities

OBSERVATIONS/COMMENTS:

Shower stalls are located in the first floor restrooms for both Sacramento and San Francisco buildings. They did not have any ADA issues.

Item	Description
D2017 Showers	D2017 Stall Shower and Faucet
Condition	Good
Qty / UOM	1 / EA
RUL (years)	8
Location	WH Throughout Building

OBSERVATIONS/COMMENTS:

The roll-in shower located in the restroom is in good condition and is ADA compliant.

Item	Description
D2018 Drinking Fountains and Coolers	D2018 Drinking Fountain - Central Plant
Condition	Good
Qty / UOM	1 / EA
RUL (years)	5
Location	Central Plant

OBSERVATIONS/COMMENTS:

A drinking fountain is adjacent to the restroom. It was in good condition.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D2018	Replace D2018 Drinking Fountain - Central Plant	1.0 - EA	2876.6	IN - Beyond Rated Life	Priority 3	2020	2,877

Item	Description
D2018 Drinking Fountains and Coolers	D2018 Drinking Fountain
Condition	Good
Qty / UOM	28 / EA
RUL (years)	5
Location	All Facilities

OBSERVATIONS/COMMENTS:

Automatic drinking fountains are located adjacent to restrooms. They were in good condition.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D2018	Replace D2018 Drinking Fountain	28.0 - EA	2876.6	IN - Beyond Rated Life	Priority 3	2020	80,545

Item	Description
D2018 Drinking Fountains and Coolers	D2018 Drinking Fountain
Condition	Good
Qty / UOM	4 / EA
RUL (years)	5
Location	TC Throughout Building

OBSERVATIONS/COMMENTS:

Drinking fountains were located adjacent to restrooms. They were in good condition.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D2018	Replace D2018 Drinking Fountain	4.0 - EA	2876.6	IN - Beyond Rated Life	Priority 3	2020	11,506

Item	Description
D2018 Drinking Fountains and Coolers	D2018 Drinking Fountain
Condition	Good
Qty / UOM	1 / EA
RUL (years)	5
Location	WH Throughout Building

OBSERVATIONS/COMMENTS:

Drinking fountains are adjacent to restroom areas. They were in good condition.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D2018	Replace D2018 Drinking Fountain	1.0 - EA	2876.6	IN - Beyond Rated Life	Priority 3	2020	2,877

Item	Description
D2022 Hot Water Service	D2022 Gas DHW Heater 125 Gal
Condition	Good
Qty / UOM	2 / EA
RUL (years)	6
Location	SC Roof

OBSERVATIONS/COMMENTS:

There are two 125 gallon 400 MBH gas water heaters located on the roofs of mechanical rooms. They provide additional hot water for the kitchen and restrooms. The water heaters were functioning adequately.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D2022	Replace D2022 Gas DHW Heater 125 Gal	2.0 - EA	40491.4	IN - Beyond Rated Life	Priority 3	2021	80,983

Item	Description
D2022 Hot Water Service	D2022 DHW Heater - Gas 150 Gal
Condition	Good
Qty / UOM	1 / EA
RUL (years)	5
Location	TC Mechanical Rooms

OBSERVATIONS/COMMENTS:

There is one 150 gallon, 270 MBH gas water heater located in the mechanical room. It provides hot water for the kitchen and restrooms. The water heater was functioning adequately and only life cycle replacement is recommended.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D2022	Replace D2022 DHW Heater - Gas 150 Gal	1.0 - EA	34161.0	IN - Beyond Rated Life	Priority 3	2020	34,161

Item	Description
D2022 Hot Water Service	D2022 DHW Heater - Gas 250 Gal
Condition	Good
Qty / UOM	2 / EA
RUL (years)	5
Location	TC Mechanical Rooms

OBSERVATIONS/COMMENTS:

There are two 250 gallon, 1000 MBH gas water heaters located in the mechanical room. They provide hot water for the kitchen and restrooms. The water heaters were functioning adequately and only life cycle replacements are recommended.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D2022	Replace D2022 DHW Heater - Gas 250 Gal	2.0 - EA	115274.2	IN - Beyond Rated Life	Priority 3	2020	230,548

Item	Description
D2022 Hot Water Service	D2022 Gas DHW Heater 125 Gal
Condition	Good
Qty / UOM	2 / GALS
RUL (years)	6
Location	SF Roof

OBSERVATIONS/COMMENTS:

There are two 125 gallon, 400 MBH gas water heaters located in the roof of mechanical rooms. They provide additional hot water for the kitchen and restrooms. The water heaters were functioning adequately.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D2022	Replace D2022 Gas DHW Heater 125 Gal	2.0 - GALS	25700.4	IN - Beyond Rated Life	Priority 3	2021	51,401

Item	Description
D2022 Hot Water Service	D2022 DHW Heater - Electric 7 Gal
Condition	Good
Qty / UOM	98 / GALS
RUL (years)	10
Location	SF Throughout Building

OBSERVATIONS/COMMENTS:

Multiple wall-mounted electric water heaters in the kitchen room closets provide hot water for kitchens. Only a few kitchens had instantaneous water heaters, which were being phased out. The new heaters were functioning adequately.

Item	Description
D2023 Domestic Water Supply Equipment	D2023 Solar collectors for DHW heating
Condition	Fair - Good
Qty / UOM	32 / EA
RUL (years)	10
Location	SC Roof

OBSERVATIONS/COMMENTS:

Solar panels are located on the roof of the building. They provide preheated domestic hot water to the building. Any additional heat required is provided by the gas water heater, The size of the panels are 4 feet by 15 feet each. They are maintained by the in-house staff and inspected regularly.

Item	Description
D2023 Domestic Water Supply Equipment	D2023 Solar collectors for DHW heating
Condition	Fair - Good
Qty / UOM	32 / EA
RUL (years)	10
Location	SF Roof

OBSERVATIONS/COMMENTS:

Solar panels for DHW pre-heating are located on the roof the building. they provide preheated domestic hot water to the building. Any additional heat required is provided by the gas water heater, The panels are each 4 feet by 15 feet. They are maintained by in-house staff and inspected regularly.

Item	Description
D2023 Domestic Water Supply Equipment	D2022 DHW Indirect Storage tank 400 Gal
Condition	Good
Qty / UOM	2 / EA
RUL (years)	20
Location	SC Janitor Room 4th Floor

OBSERVATIONS/COMMENTS:

There were two indirect water heaters located in the janitor room closets. They provide hot water for restrooms, kitchen and showers. The heaters were functioning adequately.

Item	Description
D2023 Domestic Water Supply Equipment	D2023 DHW Indirect Storage tank 400 Gal
Condition	Good
Qty / UOM	2 / EA
RUL (years)	20
Location	SF Janitor Room 3rd Floor

OBSERVATIONS/COMMENTS:

There were two instant water heaters located in the janitor room closets. They provide hot water for restrooms, kitchen, and showers. The heaters were functioning adequately.

Item	Description
D2023 Domestic Water Supply Equipment	D2022 DHW Condensing Heater - Gas 119 Gal
Condition	Fair - Good
Qty / UOM	1 / EA
RUL (years)	3

Item	Description
Location	WH Mechanical Room

OBSERVATIONS/COMMENTS:

There is a 119 gallon, 200 MBH gas water heater in the mechanical room of the WH building. It provides additional hot water for the shower and restrooms. The water heater was functioning adequately.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D2023	Replace D2022 DHW Condensing Heater - Gas 119 Gal	1.0 - EA	24286.3	IN - Beyond Rated Life	Priority 3	2018	24,286

Item	Description
D2023 Domestic Water Supply Equipment	D2023 Domestic cold water pumps (20hp) - Central Plant
Condition	Good
Qty / UOM	3 / EA
RUL (years)	10
Location	Central Plant

OBSERVATIONS/COMMENTS:

Distribution pumps supply domestic cold water to the buildings. They have connected VFDs and control the flow based on EMS system. The pumps were working adequately and only lifecycle replacement is recommended.

Item	Description
D2023 Domestic Water Supply Equipment	D2023 DHW Distribution Pump 1/8 HP
Condition	Good
Qty / UOM	5 / EA
RUL (years)	5
Location	SC Roof

OBSERVATIONS/COMMENTS:

The inline recirculation pumps feed the domestic hot water supply and are replaced on as-needed basis. Based on their age, replacement costs are anticipated.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D2023	Replace D2023 DHW Distribution Pump 1/8 HP	5.0 - EA	2980.1	IN - Beyond Rated Life	Priority 3	2020	14,901

Item	Description
D2023 Domestic Water Supply Equipment	D2023 DHW Distribution Pump 1/8 HP
Condition	Good
Qty / UOM	6 / EA
RUL (years)	5
Location	SF Roof

OBSERVATIONS/COMMENTS:

The inline recirculation pumps for the domestic hot water supply are original to the building, replaced on as-needed basis. Based on their RUL, replacements are anticipated.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D2023	Replace D2023 DHW Distribution Pump 1/8 HP	6.0 - EA	2980.1	IN - Beyond Rated Life	Priority 3	2020	17,881

Item	Description
D2094 Pool Piping and Equipment	D2094 Cooling Tower Sand filter - Central Plant
Condition	Good
Qty / UOM	1 / EA
RUL (years)	10
Location	Central Plant

OBSERVATIONS/COMMENTS:

The sand filters located adjacent to the cooling towers in the central plant clean and remove the sand from the cooling tower coils. They were functioning adequately and only lifecycle replacement is recommended.

COST SUMMARY:

Type	Year	Total Expenditures
D20 Plumbing	2015	\$1,716
D20 Plumbing	2018	\$24,286
D20 Plumbing	2020	\$401,188
D20 Plumbing	2021	\$132,384
D20 Plumbing	2024	\$2,946

D30 HVAC

Energy Supply	
Item	Description
Fuel Oil Type	N/A
Fuel Gas Type	Natural Gas
Solid Fuel Type	N/A
District Heat Type	N/A
District Cooling Type	N/A
Solar Thermal	N/A
Fuel Tank Type	N/A
Fuel Tank Size (gallons)	N/A
Fuel Tank Location	N/A
Gas Meter Location	behind town center and near San Diego bldg
Electrical Meter Location	in central plant
Water Meter Location	near butterfield way roundabout

Item	Description
D3021 Boilers	D3021 Hydronic Gas Boilers (10,206 MBH) - Central Plant
Condition	Good
Qty / UOM	3 / EA
RUL (years)	20
Location	Central Plant

OBSERVATIONS/COMMENTS:

Three hydronic fire tube heating boilers, each with 10,206 MBH, supply the heating to all the buildings. The equipment runs continuously based on the call for heat from EMS. All equipment was functioning adequately and handled the load of the buildings.

Item	Description
D3022.1 Circulating Pumps	D3022.1 CWS Delivery Pumps 2 HP
Condition	Good
Qty / UOM	2 / EA

Item	Description
RUL (years)	5
Location	TC Mechanical Rooms

OBSERVATIONS/COMMENTS:

Chiller distribution pumps supply chilled water to all the Town Center air handlers. They have connected VFDs and control the flow based on EMS. The pumps were working adequately.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D3022	Replace D3022.1 CWS Delivery Pumps 2 HP	2.0 - EA	12202.8	IN - Beyond Rated Life	Priority 3	2020	24,406

Item	Description
D3022.1 Circulating Pumps	D3022.1 Heating Water Circulation Pumps 40 HP - Central Plant
Condition	Good
Qty / UOM	3 / EA
RUL (years)	9
Location	Central Plant

OBSERVATIONS/COMMENTS:

Distribution pumps for the boiler supply hot water to all the buildings' air handlers. They are connected to VFDs and control the flow based on EMS. The pumps were working adequately. Based on their estimated RUL replacement is anticipated during the term.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D3022	Replace D3022.1 Heating Water Circulation Pumps 40 HP - Central Plant	3.0 - EA	44806.2	IN - Beyond Rated Life	Priority 4	2024	134,418

Item	Description
D3022.1 Circulating Pumps	D3022.1 Chiller Distribution Pump 15 hp - Central Plant
Condition	Good
Qty / UOM	1 / EA
RUL (years)	5
Location	Central Plant

OBSERVATIONS/COMMENTS:

Chiller distribution pumps supply chilled water to the buildings' air handlers. They are connected to variable frequency drives (VFDs), and control the flow based on energy management system (EMS). The pumps were working adequately.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D3022	Replace D3022.1 Chiller Distribution Pump 15 hp - Central Plant	1.0 - EA	30900.8	IN - Beyond Rated Life	Priority 3	2020	30,901

Item	Description
D3022.1 Circulating Pumps	D3022.1 Chiller Distribution Pumps 20-30 HP - Central Plant
Condition	Good
Qty / UOM	2 / EA
RUL (years)	5
Location	Central Plant

OBSERVATIONS/COMMENTS:

Chiller distribution pumps supply chilled water to all the buildings' air handlers. They are connected to VFDs and control the flow based on EMS. The pumps were working adequately.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D3022	Replace D3022.1 Chiller Distribution Pumps 20-30 HP - Central Plant	2.0 - EA	26054.9	IN - Beyond Rated Life	Priority 3	2020	52,110

Item	Description
D3022.1 Circulating Pumps	D3022.1.1 Condenser Pumps 75 hp - Central Plant
Condition	Good
Qty / UOM	3 / EA
RUL (years)	9
Location	Central Plant

OBSERVATIONS/COMMENTS:

The 75-hp condenser pumps for the chillers remove heat from the chilled water loop, via condenser side cooling towers. The pumps were working adequately. Based on their estimated RUL replacement is anticipated during the term.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D3022	Replace D3022.1.1 Condenser Pumps 75 hp - Central Plant	3.0 - EA	64163.0	IN - Beyond Rated Life	Priority 4	2024	192,489

Item	Description
D3022.1 Circulating Pumps	D3022.1 Chiller Distribution Pumps 100 hp - Central Plant
Condition	Good
Qty / UOM	1 / EA
RUL (years)	10
Location	Central Plant

OBSERVATIONS/COMMENTS:

Distribution pumps for the chiller supply chilled water to all the buildings' air handlers. They are connected to VFDs and control the flow based on EMS. The pumps were working adequately.

Item	Description
D3022.1 Circulating Pumps	D3022.1.1 Condenser Pump 125 hp - Central Plant
Condition	Good
Qty / UOM	1 / EA
RUL (years)	9
Location	Central Plant

OBSERVATIONS/COMMENTS:

The 125-hp chiller condenser pump removes heat form the chilled water loop via the condenser side cooling towers. The pump was working adequately.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D3022	Replace D3022.1.1 Condenser Pump 125 hp - Central Plant	1.0 - EA	64163.0	IN - Beyond Rated Life	Priority 4	2024	64,163

Item	Description
D3022.1 Circulating Pumps	D3022.1 Chiller Distribution Pumps 75 hp - Central Plant
Condition	Good
Qty / UOM	2 / EA
RUL (years)	9
Location	Central Plant

OBSERVATIONS/COMMENTS:

Chiller distribution pumps supply chilled water to all the buildings' air handlers. They are connected to VFDs and control the flow based on EMS. The pumps were working adequately. Based on their estimated RUL replacement is anticipated during the term.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D3022	Replace D3022.1 Chiller Distribution Pumps 75 hp - Central Plant	2.0 - EA	47218.4	IN - Beyond Rated Life	Priority 4	2024	94,437

Item	Description
D3022.1 Circulating Pumps	D3022.1 HWS Distribution Pump 3 HP
Condition	Good
Qty / UOM	4 / EA
RUL (years)	5
Location	SC Pump Rooms

OBSERVATIONS/COMMENTS:

The pump appears to be original to the building. The need for replacement is anticipated.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D3022	Replace D3022.1 HWS Distribution Pump 3 HP	4.0 - EA	17558.0	IN - Beyond Rated Life	Priority 3	2020	70,232

Item	Description
D3022.1 Circulating Pumps	D3022.1 HWS Distribution Pump 3 HP
Condition	Good
Qty / UOM	4 / EA
RUL (years)	5
Location	TC Mechanical Rooms

OBSERVATIONS/COMMENTS:

Boiler distribution pumps supply hot water to all the Town Center air handlers. They have connected VFDs and control the flow based on EMS. The pumps were working adequately. Based on their estimated RUL replacement is anticipated during the term.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D3022	Replace D3022.1 HWS Distribution Pump 3 HP	4.0 - EA	17558.0	IN - Beyond Rated Life	Priority 3	2020	70,232

Item	Description
D3022.1 Circulating Pumps	D3022.1 HWS Distribution Pump 3 HP
Condition	Good
Qty / UOM	4 / EA
RUL (years)	5
Location	SF Pump Rooms

OBSERVATIONS/COMMENTS:

Distribution pumps supply hot water to SF building air handlers. They all have connected VFDs and control the flow based on EMS. The pumps were working adequately. Based on their estimated RUL replacement is anticipated during the term.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D3022	Replace D3022.1 HWS Distribution Pump 3 HP	4.0 - EA	17558.0	IN - Beyond Rated Life	Priority 3	2020	70,232

Item	Description
D3022.1 Circulating Pumps	D3022.1 Chiller Distribution Pump 40 hp - Central Plant
Condition	Good
Qty / UOM	1 / EA
RUL (years)	9
Location	Central Plant

OBSERVATIONS/COMMENTS:

Chiller distribution pumps supply chilled water to all the buildings' air handlers. They are connected to VFDs and control the flow based on EMS. The pumps were working adequately.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D3022	Replace D3022.1 Chiller Distribution Pump 40 hp - Central Plant	1.0 - EA	44806.8	IN - Beyond Rated Life	Priority 4	2024	44,807

Item	Description
D3022.1 Circulating Pumps	D3022.1 CWS Delivery Pumps 10 HP
Condition	Good
Qty / UOM	2 / EA
RUL (years)	10
Location	TC Mechanical Rooms

OBSERVATIONS/COMMENTS:

Chiller distribution pumps supply chilled water to all the Town Center air handlers. They have connected VFDs and control the flow based on EMS. The pumps were working adequately. Based on their estimated RUL replacement is anticipated during the term.

Item	Description
D3022.1 Circulating Pumps	D3022.1 CWS Delivery Pumps 10 HP
Condition	Good
Qty / UOM	2 / EA
RUL (years)	10
Location	SC Pump Rooms

OBSERVATIONS/COMMENTS:

Chiller distribution pumps supply chilled water to all of the Sacramento air handlers. They all are connected to VFDs and control the flow based on EMS system. The pumps were working adequately.

Item	Description
D3022.1 Circulating Pumps	D3022.1 CWS Delivery Pumps 15 HP
Condition	Good
Qty / UOM	2 / EA
RUL (years)	10
Location	SC Pump Rooms

OBSERVATIONS/COMMENTS:

Chiller distribution pumps supply chilled water to all the Sacramento air handlers. They all are connected to VFDs and control the flow based on EMS. The pumps were working adequately.

Item	Description
D3022.1 Circulating Pumps	D3022.1 CWS Delivery Pumps 10 HP
Condition	Good
Qty / UOM	4 / EA
RUL (years)	10
Location	SF Pump Rooms

OBSERVATIONS/COMMENTS:

Distribution pumps for the chiller supply chilled water to all the SF air handlers. They have connected VFDs and control the flow based on EMS. The pumps were working adequately. Based on their estimated RUL replacement is anticipated during the term.

Item	Description
D3023 Auxiliary Equipment	D3023 Heat Exchanger water to water - Central Plant
Condition	Fair - Good
Qty / UOM	1 / EA
RUL (years)	15
Location	Central Plant

OBSERVATIONS/COMMENTS:

The water-to-water heat exchanger for the Sacramento and San Francisco domestic hot water and HVAC systems was functioning adequately. No further action is required.

Item	Description
D3023 Auxiliary Equipment	D3023 Expansion Tank (1000 Gal) - Central Plant
Condition	Poor
Qty / UOM	5 / EA
RUL (years)	0
Location	Central Plant

OBSERVATIONS/COMMENTS:

Multiple expansion tanks in the central plant are used for the heating closed loop system to protect it from excessive pressure. One of the tanks was not functioning adequately and needs to be repaired.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D3023	Repair expansion tank	1.0 - ea	3000.0	OP - Maintenance	Priority 2	2015	3,000

Item	Description
D3031.1 Chillers	D3031.1 Water cooled chiller 500 ton - Central Plant
Condition	Good
Qty / UOM	2 / EA
RUL (years)	13
Location	Central Plant

OBSERVATIONS/COMMENTS:

Two 500-ton water cooled chillers supply chilled water to the San Diego and LA buildings. No further action is required.

Item	Description
D3031.1 Chillers	D3031.1 Water cooled chiller 1500 ton - Central Plant
Condition	Good
Qty / UOM	1 / EA
RUL (years)	15
Location	Central Plant

OBSERVATIONS/COMMENTS:

A 1500 ton water cooled chiller supplies chilled water to the Sacramento building. Equipment was currently being repaired by the maintenance department.

Item	Description
D3031.1 Chillers	D3031.1 Water cooled chiller 1000 tons - Central Plant
Condition	Good
Qty / UOM	1 / EA
RUL (years)	15
Location	Central Plant

OBSERVATIONS/COMMENTS:

A 1000-ton water cooled chiller at the central plant supplies chilled water to the San Francisco building. Equipment was working adequately.

Item	Description
D3031.2 Cooling Towers	D3031.2 Cooling Towers - Central Plant
Condition	Good
Qty / UOM	5 / EA
RUL (years)	12
Location	Central Plant

OBSERVATIONS/COMMENTS:

A total of five cooling towers supplying the water cooled chillers are located on the rear exterior of the central plant. They have 60-hp fan motors integrated with VFDs. All equipment was working adequately.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D3031	Fan motors 60 hp	5.0 - EA	19600.0	IN - Beyond Rated Life	Priority 3	2019	98,000

Item	Description
D3032 Direct Expansion Systems	D3032 Air Cooled Condenser Refrigeration Rack
Condition	Good
Qty / UOM	1 / EA
RUL (years)	5
Location	TC Roof

OBSERVATIONS/COMMENTS:

The air-cooled refrigeration units supply the kitchen freezers and refrigerators. Replacement is anticipated during the term.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D3032	Replace D3032 Air Cooled Condenser Refrigeration Rack	1.0 - EA	8132.7	IN - Beyond Rated Life	Priority 3	2020	8,133

Item	Description
D3032 Direct Expansion Systems	D3032 Condenser 1 ton
Condition	Good
Qty / UOM	2 / EA
RUL (years)	5
Location	TC Roof

OBSERVATIONS/COMMENTS:

Two condenser units supply the kitchen. Based on their estimated RUL replacement is anticipated during the term.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D3032	Replace D3032 Condenser 1 ton	2.0 - EA	5365.3	IN - Beyond Rated Life	Priority 3	2020	10,731

Item	Description
D3041.1 Air Handling Units	D3041.1 AHU 14,000 to 15000 CFM
Condition	Good
Qty / UOM	2 / EA
RUL (years)	5
Location	TC Roof

OBSERVATIONS/COMMENTS:

Multiple air handlers supply the fan coil and VAV boxes located in the building with desired air temperature, based on the call for heating or cooling from the zonal temperature sensors. All AHUs are equipped with a two-pipe system for hot or chilled water circulation. Dampers on the air handlers are digital and are controlled by EMS. There are VFDs for all supply and return AHU motors, also controlled by EMS. The equipment was working adequately and replacement is recommended for the motors only.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D3041	Motor replacement	4.0 - ea	1994.0	OP - Energy	Priority 1	2015	7,976

Item	Description
D3041.1 Air Handling Units	D3041.1 AHU 8,000 to 12,000 CFM
Condition	Good
Qty / UOM	3 / EA
RUL (years)	30
Location	TC Roof

OBSERVATIONS/COMMENTS:

Multiple air handlers supply the fan coil and VAV boxes in the building with desired air temperature, based on the call for heating or cooling from the zonal temperature sensors. All AHUs are equipped with a two-pipe system for hot or chilled water circulation. Dampers on the air handlers are digital and are controlled by EMS. There are VFDs for all supply and return AHU motors, also controlled by EMS. The equipment was working adequately and only replacements for the motors are recommended.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D3041	Motor replacement	6.0 - EA	1652.0	IN - Beyond Rated Life	Priority 3	2020	9,912

Item	Description
D3041.1 Air Handling Units	D3041.1 AHU Supply 35000-50000 CFM
Condition	Fair
Qty / UOM	8 / EA
RUL (years)	5
Location	SF Roof

OBSERVATIONS/COMMENTS:

Multiple air handlers supply the induction boxes with desired air temperature, based on the call for heating or cooling from the zonal temperature sensors. All AHUs are equipped with a two-pipe system for hot or chilled water circulation. Dampers on the air handlers are digital and are controlled by EMS. There are VFDs for all supply AHU motors, also controlled by EMS. There are additional filter chambers with standard MERV air filters and potassium permanganate filters for filtering harmful dust and gaseous contaminants out of the airstream. The equipment was working adequately and only life cycle replacement for the motors is recommended.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D3041	New Motor	8.0 - ea	8871.0	OP - Energy	Priority 1	2015	70,968

Item	Description
D3041.1 Air Handling Units	D3041.1 AHU Return 70000-100000 CFM
Condition	Fair
Qty / UOM	4 / EA
RUL (years)	30
Location	SF Roof

OBSERVATIONS/COMMENTS:

Return air handlers are connected to multiple return ducts within the building. They work in tandem with the supply fans. The equipment was working adequately. Replacement is recommended for the motors only.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D3041	New Motor	4.0 - EA	7211.0	IN - Beyond Rated Life	Priority 3	2020	28,844

Item	Description
D3041.1 Air Handling Units	D3041.1 AHU Supply 42500- 62500 CFM
Condition	Good
Qty / UOM	8 / EA
RUL (years)	30
Location	SC Roof

OBSERVATIONS/COMMENTS:

Multiple air handlers supply the induction boxes located in building with desired air temperature, based on the call for heating or cooling from the zonal temperature sensors. All AHUs are equipped with two-pipe water distribution. Dampers on the air handlers are digital and are controlled by EMS). There are VFDs for all supply AHU motors, also controlled by EMS. There are additional filter chambers with standard MERV air filters and potassium permanganate filters. The equipment was working adequately. Only life cycle replacement of the motors is recommended.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D3041	Motor replacement	8.0 - EA	13062.0	OP - Energy	Priority 3	2020	104,496

Item	Description
D3041.1 Air Handling Units	D3041.1 AHU Return 85000- 135000 CFM
Condition	Fair
Qty / UOM	4 / EA
RUL (years)	30
Location	SC Roof

OBSERVATIONS/COMMENTS:

Return air handlers are connected to the multiple return ducts within the building. They work in tandem with the supply fans. Based on their estimated RUL, motor replacements are anticipated.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D3041	New motor replacement	4.0 - EA	10409.0	IN - Beyond Rated Life	Priority 3	2020	41,636

Item	Description
D3041.1 Air Handling Units	D3041.1 AHU 23480 CFM
Condition	Good
Qty / UOM	1 / EA
RUL (years)	5
Location	TC Roof

OBSERVATIONS/COMMENTS:

The air handler supplies VAV boxes and fan coils with desired air temperature, based on the call for heating or cooling from the zonal temperature sensors. All AHUs are equipped with a two-pipe system for hot or chilled water circulation. Dampers on the air handlers are all digital and are controlled by EMS. There are VFDs for all supply AHU motors, also controlled by EMS. The equipment is working adequately. Replacement is recommended only for the motors.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D3041	Motor replacement	1.0 - ea	2723.0	OP - Energy	Priority 1	2015	2,723

Item	Description
D3041.2 Terminal Units VAV	D3041 Induction Boxes
Condition	Fair
Qty / UOM	770 / EA
RUL (years)	10
Location	All Facilities

OBSERVATIONS/COMMENTS:

The San Francisco and Sacramento buildings are heated and cooled by VAV induction boxes supplied with conditioned air from the central system air handlers. They supply the multiple diffusers located in office spaces. The range is from 400 to 1600 CFM. The equipment was working adequately, with only minor maintenance repairs performed on as-needed basis.

Item	Description
D3041.2 Terminal Units VAV	D3041 VAV Boxes
Condition	Fair
Qty / UOM	52 / EA
RUL (years)	20
Location	TC Throughout Building

OBSERVATIONS/COMMENTS:

The facility is heated and cooled by VAVs supplied with conditioned air from the central system air handlers. They supply the multiple diffusers located in office spaces. The CFM range is from 200 to 2700 CFM. The equipment was working adequately, with minor maintenance repairs performed on as-needed basis.

Item	Description
D3042 Exhaust Ventilation Systems	D3042 Kitchen Exhaust Fan 13100 cfm
Condition	Good
Qty / UOM	1 / EA
RUL (years)	10
Location	TC Roof

OBSERVATIONS/COMMENTS:

Exhaust fans on the roof connected to the HVAC duct system exhaust air out of the kitchen to keep the building in balance with the supply air. The majority of the fans are belt driven. Belts and motors are replaced by the maintenance staff on as-needed basis. Replacement with direct drive fans is recommended.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D3042	Motor replacement	1.0 - ea	2025.0	OP - Energy	Priority 1	2015	2,025

Item	Description
D3042 Exhaust Ventilation Systems	D3042 Exhaust Fan 14580 CFM
Condition	Fair
Qty / UOM	1 / EA
RUL (years)	7
Location	SC Roof

OBSERVATIONS/COMMENTS:

Exhaust fans on the roof are connected to the reprographics room to keep the building in balance with the supply air. The fans are belt driven. Belts and motors are replaced by the maintenance staff on as-needed basis. Exhaust fan motor replacement is recommended.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D3042	Motor replacement	1.0 - ea	2025.0	OP - Energy	Priority 1	2015	2,025

Item	Description
D3042 Exhaust Ventilation Systems	D3042 Kitchen Exhaust Fan 7000 CFM
Condition	Good
Qty / UOM	1 / EA
RUL (years)	5
Location	TC Roof

OBSERVATIONS/COMMENTS:

The exhaust fan on the roof is connected to the HVAC duct system and exhausts air from the cafeteria, keeping the building in balance with the supply air. The fan is belt driven. Belts and motors are replaced by the maintenance staff on as-needed basis. Replacement with a direct drive fan or motor is recommended.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D3042	New motor	1.0 - ea	1264.0	OP - Energy	Priority 1	2015	1,264

Item	Description
D3042 Exhaust Ventilation Systems	D3042 Exhaust Fan 5000 CFM
Condition	Fair
Qty / UOM	2 / EA
RUL (years)	7
Location	SF Roof

OBSERVATIONS/COMMENTS:

Exhaust fans on the roof, connected to the HVAC duct system, exhaust air out of the building restroom to keep the building in balance with the supply air. The majority of the fans are belt driven. Belts and motors are replaced by the maintenance staff on as-needed basis. Exhaust fan motor replacement is recommended.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D3042	New Motor	3.0 - ea	831.0	OP - Energy	Priority 1	2015	2,493

Item	Description
D3042 Exhaust Ventilation Systems	D3042 Exhaust Fan 8000 CFM
Condition	Fair
Qty / UOM	2 / EA
RUL (years)	5
Location	SC Roof

OBSERVATIONS/COMMENTS:

Exhaust fans on the roof connected to the HVAC duct system exhaust air out of the building, keeping the building in balance with the supply air. The majority of the fans are belt driven. Belts and motors are replaced by the maintenance staff on as-needed basis. Motor replacement is recommended.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D3042	New Motor	2.0 - ea	938.0	OP - Energy	Priority 1	2015	1,876

Item	Description
D3042 Exhaust Ventilation Systems	D3042 Unit Exhaust Fan (1/4 hp) on roof of Central Plant
Condition	Poor - Fair
Qty / UOM	1 / EA
RUL (years)	9
Location	Central Plant

OBSERVATIONS/COMMENTS:

Exhaust fans located on the roof, connected to the HVAC duct system, exhaust air out of the building. They keep the building in balance with the supply air. The majority of the fans are belt driven. Belts and motors are replaced by the maintenance staff on as-needed basis. Replacement with direct drive fans is recommended.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D3042	Replace D3042 Unit Exhaust Fan (1/4 hp) on roof of Central Plant	1.0 - EA	1391.3	IN - Beyond Rated Life	Priority 4	2024	1,391

Item	Description
D3042 Exhaust Ventilation Systems	D3042 Exhaust Fan 4200 CFM
Condition	Fair
Qty / UOM	1 / EA
RUL (years)	7
Location	SF Cafeteria

OBSERVATIONS/COMMENTS:

Exhaust fans on the roof connected to the HVAC duct system exhaust air out of the building for cafeteria, keeping the building in balance with the supply air. The majority of the fans are belt driven. Belts and motors are replaced by the maintenance staff on as-needed basis. Exhaust fan motor replacement is recommended.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D3042	New Motor	1.0 - ea	831.0	OP - Energy	Priority 1	2015	831

Item	Description
D3042 Exhaust Ventilation Systems	D3042 Exhaust Fan 3000 CFM
Condition	Fair
Qty / UOM	1 / EA
RUL (years)	7
Location	SF Throughout Building

OBSERVATIONS/COMMENTS:

Exhaust fans on the roof connected to the HVAC duct system, exhaust air out of the building for C-D connector, to keep the building in balance with the supply air. The majority of the fans are belt driven. Belts and motors are replaced by the maintenance staff on as-needed basis. Exhaust fan motor replacement is recommended.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D3042	New Motor	1.0 - ea	831.0	OP - Energy	Priority 1	2015	831

Item	Description
D3042 Exhaust Ventilation Systems	D3042 Exhaust Fan 3600 CFM
Condition	Good
Qty / UOM	2 / EA
RUL (years)	10
Location	TC Loading Dock

OBSERVATIONS/COMMENTS:

Exhaust fans on the side of the building connected to the HVAC duct system exhaust air out of the loading dock area, to keep the building in balance with the supply air. The majority of the fans are belt driven. Belts and motors are replaced by the maintenance staff on as-needed basis. Exhaust fan motor replacement is recommended.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D3042	Motor replacement	2.0 - ea	831.0	OP - Energy	Priority 1	2015	1,662

Item	Description
D3042 Exhaust Ventilation Systems	D3042 Kitchen Exhaust Fan 1500 CFM
Condition	Good
Qty / UOM	2 / EA
RUL (years)	5
Location	TC Roof

OBSERVATIONS/COMMENTS:

Exhaust fans on the roof are connected to the HVAC duct system and exhaust air out of the cafeteria kitchen to keep the building in balance with the supply air. The majority of the fans are belt driven. Replacement of the belts and motors are done by the maintenance staff on as needed basis. Replacement with direct drive fans is recommended.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D3042	Motor replacement	2.0 - ea	831.0	OP - Energy	Priority 1	2015	1,662

Item	Description
D3042 Exhaust Ventilation Systems	D3042 Exhaust Fan <3150 CFM
Condition	Fair
Qty / UOM	4 / EA
RUL (years)	5
Location	SC Roof

OBSERVATIONS/COMMENTS:

Exhaust fans on the roof, connected to the HVAC duct system, exhaust air out of the building for UPS room, A-B connector room, bulk storage room, and plate room, keeping the building in balance with the supply air. The majority of the fans are belt driven. Belts and motors are replaced by the maintenance staff on as-needed basis.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D3042	New motors	4.0 - ea	858.0	OP - Energy	Priority 1	2015	3,432
Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D3042	Replace D3042 Exhaust Fan <3150 CFM	4.0 - EA	3450.4	OP - Energy	Priority 3	2020	13,801

Item	Description
D3042 Exhaust Ventilation Systems	D3042 Exhaust Fan up to 2000 CFM
Condition	Good
Qty / UOM	2 / EA
RUL (years)	5
Location	WH Roof

OBSERVATIONS/COMMENTS:

Exhaust fans on the roof, connected to the HVAC duct system, exhaust air out of the building to keep the building in balance with the supply air. The majority of the fans are belt driven. Belts and motors are replaced by the maintenance staff on as-needed basis. Replacement with direct drive fans or motors is recommended.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D3042	New Motor	2.0 - ea	831.0	OP - Energy	Priority 1	2015	1,662

Item	Description
D3042 Exhaust Ventilation Systems	D3042 Exhaust Fan 2280 CFM
Condition	Good
Qty / UOM	2 / EA
RUL (years)	5
Location	TC Roof

OBSERVATIONS/COMMENTS:

Exhaust fans on the roof, connected to the HVAC duct system, exhaust air out of the building for the mechanical room, restrooms, and kitchens to keep the building in balance with the supply air. The majority of the fans are belt driven. Belts and motors are replaced by the maintenance staff on as-needed basis. Exhaust fan motor replacement is recommended.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D3042	Motor replacement	2.0 - ea	831.0	OP - Energy	Priority 1	2015	1,662

Item	Description
D3042 Exhaust Ventilation Systems	D3042 Exhaust Fan 2680 CFM
Condition	Fair
Qty / UOM	1 / EA
RUL (years)	7
Location	SC Cafeteria

OBSERVATIONS/COMMENTS:

Exhaust fans on the roof, connected to the HVAC duct system, exhaust air out of the cafeteria to keep the building in balance with the supply air. The fan is belt driven. Belts and motors are replaced by the maintenance staff on as-needed basis. Motor replacement is recommended.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D3042	Motor replacement	1.0 - ea	831.0	OP - Energy	Priority 1	2015	831

Item	Description
D3042 Exhaust Ventilation Systems	D3042 Exhaust Fan 200 CFM
Condition	Fair
Qty / UOM	1 / EA
RUL (years)	5
Location	SF Throughout Building

OBSERVATIONS/COMMENTS:

Exhaust fans on the roof, connected to the HVAC duct system, exhaust air out of the building for the ground floor restroom, keeping the building in balance with the supply air. The fans are belt driven. Belts and motors are replaced by the maintenance staff on as needed basis. Exhaust fan motor replacement is recommended.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D3042	New Motor	1.0 - ea	831.0	OP - Energy	Priority 1	2015	831

Item	Description
D3042 Exhaust Ventilation Systems	D3042 Exhaust Fan 600- 900 CFM
Condition	Good
Qty / UOM	4 / EA
RUL (years)	5
Location	TC Roof

OBSERVATIONS/COMMENTS:

Exhaust fans on the roof, connected to the HVAC duct system, exhaust air out of the building mechanical rooms, restrooms and kitchens, keeping the building in balance with the supply air. The majority of the fans are belt driven. Belts and motors are replaced by the maintenance staff on as-needed basis. Exhaust fan motor replacement is recommended.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D3042	Motor replacement	4.0 - ea	831.0	OP - Energy	Priority 1	2015	3,324

Item	Description
D3043 Steam Distribution Systems	D3023 Heat Exchanger Condenser side
Condition	Poor - Fair
Qty / UOM	2 / EA
RUL (years)	0
Location	SC Roof

OBSERVATIONS/COMMENTS:

The heat exchanger for the condenser water loop is used to preheat the domestic hot water. The temperature of water coming in from the condenser rarely goes above 80 degrees Fahrenheit according to the maintenance staff. The heat transfer to the DHW requires a temperature of 120 degrees Fahrenheit. The current system is not sufficient. Further investigation is required.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D3043	Replace D3023 Heat Exchanger Condenser side	2.0 - EA	6324.0	OP - Energy	Priority 1	2015	12,648

Item	Description
D3043 Steam Distribution Systems	D3043 Heat Exchanger Solar side
Condition	Fair - Good
Qty / UOM	2 / EA
RUL (years)	10
Location	SF Roof

OBSERVATIONS/COMMENTS:

A plate and frame water-to-water heat exchanger supplies the Sacramento and San Francisco buildings' domestic hot water heat exchanger and solar panels. It was functioning adequately.

Item	Description
D3043 Steam Distribution Systems	D3043 Heat Exchanger Solar side
Condition	Fair - Good
Qty / UOM	2 / EA
RUL (years)	10
Location	SC Roof

OBSERVATIONS/COMMENTS:

Plate and frame water-to-water heat exchanger for the Sacramento and San Francisco buildings' domestic hot water heat exchanger and solar panels was functioning adequately.

Item	Description
D3043 Steam Distribution Systems	D3043 Heat Exchanger Condenser side
Condition	Poor - Fair
Qty / UOM	2 / EA
RUL (years)	0
Location	SF Roof

OBSERVATIONS/COMMENTS:

The heat exchanger for the condenser water loop from the central plant chillers to the DHW loop is used to preheat the domestic hot water. According to the maintenance staff, the temperature of water coming in from

the condenser rarely goes above 80 degrees Fahrenheit. Therefore, the heat transfer to the domestic hot water piping, which requires a temperature of 120 degrees Fahrenheit, is not sufficient. Further investigation is required.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D3043	Replace D3043 Heat Exchanger Condenser side	2.0 - EA	6324.0	IN - Beyond Rated Life	Priority 1	2015	12,648

Item	Description
D3044 Hot Water Distribution	D3023 Expansion Tank 60 Gal
Condition	Good
Qty / UOM	2 / EA
RUL (years)	20
Location	SC Roof

OBSERVATIONS/COMMENTS:

Expansion tanks for the domestic hot water closed loop system protect it from excessive pressure. All tanks were in good condition and working adequately.

Item	Description
D3044 Hot Water Distribution	D3023 Expansion Tank 60 Gal
Condition	Good
Qty / UOM	2 / EA
RUL (years)	20
Location	SF Roof

OBSERVATIONS/COMMENTS:

Expansion tanks for the domestic hot water system closed loop protect it from excessive pressure. All tanks were in good condition and working adequately.

Item	Description
D3044 Hot Water Distribution	D3044 Water Source Unit Heater with Fan - Central Plant
Condition	Good
Qty / UOM	2 / EA
RUL (years)	20
Location	Central Plant

OBSERVATIONS/COMMENTS:

Water source unit heaters provide heating to the Central Plant. Based on the observations and maintenance staff, they are working adequately.

Item	Description
D3044 Hot Water Distribution	D3023 Expansion Tank 12.5 Gal
Condition	Good
Qty / UOM	2 / EA
RUL (years)	15
Location	SC Roof

OBSERVATIONS/COMMENTS:

Small expansion tanks in the mechanical room protect the domestic hot water closed loop system from excessive pressure. All tanks were in good condition and were working adequately.

Item	Description
D3044 Hot Water Distribution	D3023 Expansion Tank 12.5 Gal
Condition	Good
Qty / UOM	2 / EA
RUL (years)	15
Location	SF Roof

OBSERVATIONS/COMMENTS:

Expansion tanks for the domestic hot water closed loop system in mechanical room were in good condition and working adequately

Item	Description
D3051 Terminal Self-Contained Units	D3051 Fan Coil with Cooling and Heating 4.5-14 tons cooling
Condition	Good
Qty / UOM	5 / EA
RUL (years)	10
Location	TC Connecting Bridge

OBSERVATIONS/COMMENTS:

Fan coil units provide conditioned air to all walkways. They are ceiling-mounted above acoustic ceiling tiles. According to the maintenance staff, they are working adequately and repaired on as-needed basis. They supply conditioned air to multiple diffusers.

Item	Description
D3051 Terminal Self-Contained Units	D3051 Fan coil unit 1.5 - 16 tons cooling
Condition	Good
Qty / UOM	34 / EA
RUL (years)	10
Location	SC Throughout Building

OBSERVATIONS/COMMENTS:

Fan coil units provide conditioned air to all telecom, cafe and electrical rooms. All rooms are maintained at 76 degrees Fahrenheit. They are ceiling-mounted, hidden behind acoustic ceiling tiles. According to the maintenance staff, they are working adequately and repaired on as-needed basis. They supply conditioned air to multiple diffusers.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D3051	Replace fan coil motors as needed	10.0 - EA	872.0	IN - Beyond Rated Life	Priority 3	2020	8,720

Item	Description
D3051 Terminal Self-Contained Units	D3051 Fan Coil with 6 tons cooling
Condition	Good
Qty / UOM	2 / EA
RUL (years)	5
Location	SF Roof

OBSERVATIONS/COMMENTS:

Fan coil units provide conditioned air to elevator rooms. All rooms are maintained at 76 degrees Fahrenheit. The units are located in the mechanical penthouse on the roof. According to the maintenance staff, they are working adequately. Based on their estimated RUL replacment of the motors is anticipated.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D3051	New Motor	2.0 - ea	938.0	OP - Energy	Priority 3	2020	1,876

Item	Description
D3051 Terminal Self-Contained Units	D3051 Fan coil unit 3-20 ton cooling
Condition	Good
Qty / UOM	23 / EA
RUL (years)	10
Location	SF Throughout Building

OBSERVATIONS/COMMENTS:

Fan coil units provide conditioned air to all telecom, cafe, and electrical rooms. They supply conditioned air to multiple diffusers. All rooms are maintained at 76 degrees Fahrenheit. The units are ceiling-mounted, hidden behind acoustic ceiling tiles. According to the maintenance staff, they are working adequately. Based on their EUL, replacement of some fan motors is anticipated.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D3051	Replace fan coil motors as needed	5.0 - EA	867.0	IN - Beyond Rated Life	Priority 3	2020	4,335

Item	Description
D3051 Terminal Self-Contained Units	D3051 Fan Coil with 8 tons cooling
Condition	Good
Qty / UOM	2 / EA
RUL (years)	10
Location	SC Roof

OBSERVATIONS/COMMENTS:

Fan coil units provide conditioned air to elevator rooms. All rooms are maintained at 76 degrees Fahrenheit. They are located in mechanical penthouse on the roof. According to the maintenance staff, they are working adequately and repaired on as-needed basis.

Item	Description
D3051 Terminal Self-Contained Units	D3051 Fan Coil 1-2 tons cooling
Condition	Good
Qty / UOM	7 / EA
RUL (years)	10
Location	TC Throughout Building

OBSERVATIONS/COMMENTS:

Fan coil units provide conditioned air to all telecommunication, cafe, and electrical rooms. All rooms are maintained at 76 degrees Fahrenheit. The units are ceiling-mounted, hidden behind acoustic ceiling tiles. According to the maintenance staff, they are working adequately and are repaired on as-needed basis. They supply conditioned air to multiple diffusers.

Item	Description
D3052 Package Units	D3052 Packaged Units, Gas Heat, 28 Ton Cooling
Condition	Good
Qty / UOM	2 / EA
RUL (years)	8
Location	WH Roof

OBSERVATIONS/COMMENTS:

Packaged rooftop units provide additional cooling or heating to the warehouse areas. According to maintenance staff, they were working adequately. Only life cycle replacement costs are included. The refrigerant is R-22, which is slowly being phased out.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D3052	Replace D3052 Packaged Units, Gas Heat, 28 Ton Cooling	2.0 - EA	98376.1	IN - Beyond Rated Life	Priority 4	2023	196,752

Item	Description
D3052 Package Units	D3052 Packaged Units, Gas Heat, 7.5-Ton Cooling
Condition	Good
Qty / UOM	1 / EA
RUL (years)	3
Location	WH Roof

OBSERVATIONS/COMMENTS:

Packaged rooftop units provide additional cooling or heating to the warehouse areas. According to maintenance staff, they were working adequately and only life cycle replacement costs are included. The refrigerant is R-22, which is slowly being phased out.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D3052	Replace D3052 Packaged Units, Gas Heat, 7.5-Ton Cooling	1.0 - EA	31764.2	IN - Beyond Rated Life	Priority 2	2018	31,764

Item	Description
D3052 Package Units	D3052 Computer Room A/C Units, 20 tons
Condition	Good
Qty / UOM	12 / EA
RUL (years)	10
Location	SC Computer and Data Room

OBSERVATIONS/COMMENTS:

Liebert chilled water units are installed and provide cooling for the computer/data rooms. The chilled water is provided by the central plant. All units had VFDs for the motors. They are original to the building.

Item	Description
D3052 Package Units	D3052 Computer Room A/C Units, 10 Ton
Condition	Good
Qty / UOM	2 / EA
RUL (years)	10
Location	SC Computer and Data Room

OBSERVATIONS/COMMENTS:

Liebert chilled water units provide cooling for the computer/data rooms. The chilled water for the units is provided by the central plant. They are original to the building.

Item	Description
D3053 Split-Systems	D3052 Split system Libert 1.5 ton cooling only
Condition	Fair
Qty / UOM	1 / EA
RUL (years)	8
Location	WH Roof

OBSERVATIONS/COMMENTS:

A split system unit provides additional cooling or heating to the warehouse office areas. According to the maintenance staff, it was working adequately. Replacement costs are anticipated. The refrigerant is R22, which is slowly being phased out.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D3053	Replace D3052 Split system Libert 1.5 ton cooling only	1.0 - EA	5594.9	IN - Beyond Rated Life	Priority 4	2023	5,595

Item	Description
D3068 Building Automation Systems	D3068 DDC Controls
Condition	Fair - Good
Qty / UOM	941845 / SF
RUL (years)	10
Location	All Facilities

OBSERVATIONS/COMMENTS:

All of the Phase III buildings' HVAC equipment operates on a direct digital control (DDC) system tied into EMS. Based on the current condition of the system, upgrade of DDC controls is recommended.

COST SUMMARY:

Type	Year	Total Expenditures
D30 HVAC	2015	\$136,374
D30 HVAC	2018	\$31,764
D30 HVAC	2019	\$98,000
D30 HVAC	2020	\$550,595
D30 HVAC	2023	\$202,347
D30 HVAC	2024	\$531,705

D40 FIRE PROTECTION SYSTEMS

Fire and Life Safety System	
Item	Description
Fire Alarm System Components Present	
Smoke detectors	Yes
Pull stations	Yes
Audible alarms	Yes
Strobe lights	Yes
Central fire alarm panel	Yes
Annunciator panel	Yes
Smoke Detectors Power Supply	Hardwired Electric with Battery Backup
Carbon Monoxide Detectors	Yes
Heat Detector	N/A
Central Fire Alarm Panel Location	Security Desk
Annunciator Panel Location	N/A
Fire Extinguishers	Yes
Fire Extinguisher Inspection Date	April 23, 2014
Distance to Nearest Fire Hydrant (ft)	N/A
Illuminated Exit Signs	Yes
Kitchen Suppression Systems	Yes
Halon Gas Systems	N/A
Smoke Evacuation Systems	N/A
Fire-rated Stairwells	Yes
Fire-rated Stairwell Finish	N/A
Stairwell Discharge	N/A
Stairwell Pressurized	N/A
Fire-Rated Doors Observed	Yes
Location of Fire-Rated Doors	N/A
Fire Alarm Service Company	N/A
Date of Last Fire Alarm Service	N/A
Are the individual office unit fire alarm systems monitored?	N/A
Are the common area fire alarm systems monitored?	N/A
Types of Common Areas Monitored	N/A
Fire Alarm Monitoring Company	N/A

Item	Description
D4011 Sprinkler Water Supply	D4011 Wet-Pipe Sprinkler System
Condition	Good
Qty / UOM	941845 / SF
RUL (years)	15
Location	All Facilities

OBSERVATIONS/COMMENTS:

A wet pipe sprinkler system, original to the building, is located throughout the facility office spaces, except the computer data room located in the Sacramento building. Based on information from the maintenance staff, they are inspected regularly. No further action is required.

Item	Description
D4011 Sprinkler Water Supply	D4013 Dry Sprinkler System
Condition	Good
Qty / UOM	13489 / SF
RUL (years)	30
Location	SC Computer and Data Room

OBSERVATIONS/COMMENTS:

Pre-action deluge system for the computer/data room was installed in 2005.

Item	Description
D4012 Sprinkler Pumping Equipment	D4012 Fire pump (250 hp) - Central Plant
Condition	Good
Qty / UOM	1 / EA
RUL (years)	15
Location	Central Plant

OBSERVATIONS/COMMENTS:

One 250-hp fire pump supplies water to all buildings in event of a fire emergency. The fire pump has a constant discharge of water for staying primed and lubed for quick startup, according to the maintenance staff.

Item	Description
D4012 Sprinkler Pumping Equipment	D4012 Fire pump (105 hp)
Condition	Good
Qty / UOM	1 / EA
RUL (years)	13
Location	WH Exterior

OBSERVATIONS/COMMENTS:

One 105-hp diesel-powered fire pump supplies sprinkler water to the warehouse in case of a fire emergency. There is an additional 1.5-hp jockey pump to help maintain sufficient pipe pressure within the building. The fire pump has a constant discharge of water for the purpose of staying primed and lubed for quick startup, according to the maintenance staff.

Item	Description
D4023 Standpipe Equipment	D4023 Riser pressure relief valves
Condition	Poor
Qty / UOM	10 / EA
RUL (years)	0
Location	All Facilities

OBSERVATIONS/COMMENTS:

Existing fire/hose risers do not have pressure relief valves. When the jockey fire pump in the central plant and warehouse operates to maintain a continuous pressure of 150 psi within the system, pressure is increased within the risers. They have to be manually adjusted by bleeding the pressure down to 150 psi every day. Installation of pressure relief valves for each riser is recommended to maintain a more reasonable pressure. Costs for relief valve installation are included in the near term.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D4023	Replace D4023 Riser pressure relief valves	10.0 - EA	12949.3	CC - Life Safety	Priority 1	2015	129,493

Item	Description
D4031 Fire Extinguishers	D4031 Fire Extinguishers 5 Lb, Install
Condition	Good
Qty / UOM	98 / EA
RUL (years)	4
Location	All Facilities

OBSERVATIONS/COMMENTS:

Fire extinguishers were present in multiple locations throughout the building in addition to strobe lights. They were last inspected on April 2014.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D4031	Replace D4031 Fire Extinguishers 5 Lb, Install	98.0 - EA	300.9	IN - Beyond Rated Life	Priority 3	2019	29,488
D4031	Replace D4031 Fire Extinguishers 5 Lb, Install	98.0 - EA	300.9	IN - Beyond Rated Life	Priority 3	2024	29,488

COST SUMMARY:

Type	Year	Total Expenditures
D40 Fire Protection Systems	2015	\$129,493
D40 Fire Protection Systems	2019	\$29,488
D40 Fire Protection Systems	2024	\$29,488

D50 ELECTRICAL SYSTEMS

Item	Description
D5011 High Tension Service & Dist.	D5011 Main Dry Transformer 500kVA
Condition	Good
Qty / UOM	1 / EA
RUL (years)	30
Location	TC Exterior

OBSERVATIONS/COMMENTS:

The main transformer for the building is located on the south exterior of the building. The electrical service is reportedly adequate for the facility's needs and the transformer is in working condition.

Item	Description
D5011 High Tension Service & Dist.	D5011 Main Dry Transformer 500kVA
Condition	Good
Qty / UOM	1 / EA
RUL (years)	28
Location	WH Exterior

OBSERVATIONS/COMMENTS:

The main transformer for the Phase III buildings is located on the east exterior of the warehouse. The electrical service is reportedly adequate for the facility's needs and the transformer is in working condition.

Item	Description
D5011 High Tension Service & Dist.	D5011 Main Dry Transformer 2000KVA
Condition	Good
Qty / UOM	1 / EA
RUL (years)	30
Location	SC Exterior

OBSERVATIONS/COMMENTS:

The main transformers are located outside on the south side of the building. The electrical service is reportedly adequate for the facility's needs, and the transformer is in working condition.

Item	Description
D5011 High Tension Service & Dist.	D5011 Main Dry Transformer 1500-2000KVA
Condition	Good
Qty / UOM	2 / EA
RUL (years)	30
Location	SF Exterior

OBSERVATIONS/COMMENTS:

The main transformers for the building is located on the exterior west side of the building. The electrical service is reportedly adequate for the facility's needs and the transformer is in working condition.

Item	Description
D5011 High Tension Service & Dist.	D5011 Main Dry Transformer - Central Plant
Condition	Good
Qty / UOM	1 / EA
RUL (years)	20
Location	Central Plant

OBSERVATIONS/COMMENTS:

The main transformer was installed in 1984 and is original to the building. It supplies all buildings. The electrical service is reportedly adequate for the facility's needs and the transformer is in working condition.

Item	Description
D5012 Low Tension Service & Dist.	D5012 Dry Transformer 112 kVA
Condition	Good
Qty / UOM	1 / EA
RUL (years)	30
Location	TC Electrical Rooms

OBSERVATIONS/COMMENTS:

The secondary transformers in the electrical room are original. The electrical service is reportedly adequate for the facility's needs and the panels are in working condition.

Item	Description
D5012 Low Tension Service & Dist.	D5012 Switchgear Mainframe, 1600 Amps
Condition	Fair - Good
Qty / UOM	5 / EA
RUL (years)	30
Location	SC Electrical Rooms

OBSERVATIONS/COMMENTS:

The main switchgear is original to the building. The electrical service is reportedly adequate for the facility's needs. No further action is recommended.

Item	Description
D5012 Low Tension Service & Dist.	D5012 Switchgear Mainframe, 1200 Amps
Condition	Fair - Good
Qty / UOM	1 / EA
RUL (years)	18
Location	TC Electrical Rooms

OBSERVATIONS/COMMENTS:

The main switchgear is original equipment. The electrical service is reportedly adequate for the facility's needs. No further action is recommended.

Item	Description
D5012 Low Tension Service & Dist.	D5012 Breaker Panel <250 Amps
Condition	Fair - Good
Qty / UOM	6 / EA
RUL (years)	6
Location	WH Electrical Room

OBSERVATIONS/COMMENTS:

The breaker panels in all electrical rooms are original to the building 2003 General Electric equipment. The electrical service is reportedly adequate for the facility's needs and the panels are in a working, and functional condition. Due to the age of the components, however, long-term lifecycle replacement is anticipated.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D5012	Replace D5012 Breaker Panel <250 Amps	6.0 - EA	7864.3	IN - Beyond Rated Life	Priority 4	2021	47,186

Item	Description
D5012 Low Tension Service & Dist.	D5012 Breaker Panel <250 Amps
Condition	Good
Qty / UOM	16 / EA
RUL (years)	30
Location	TC Electrical Rooms

OBSERVATIONS/COMMENTS:

No further action is required.

Item	Description
D5012 Low Tension Service & Dist.	D5012 SwitchGear Mainframe, 3000 Amps
Condition	Fair - Good
Qty / UOM	1 / EA
RUL (years)	30
Location	SF Electrical Rooms

OBSERVATIONS/COMMENTS:

The main switchgear is original to the building. The electrical service is reportedly adequate for the facility's needs. No further action is recommended.

Item	Description
D5012 Low Tension Service & Dist.	D5012 Switchgear Mainframe, 1600 Amps
Condition	Fair - Good
Qty / UOM	5 / EA
RUL (years)	30
Location	SF Electrical Rooms

OBSERVATIONS/COMMENTS:

The main switchgear is original equipment. The electrical service is reportedly adequate for the facility's needs. No further action is recommended.

Item	Description
D5012 Low Tension Service & Dist.	D5012 SwitchGear Mainframe, 3000 Amps
Condition	Fair - Good
Qty / UOM	2 / EA
RUL (years)	30
Location	SC Electrical Rooms

OBSERVATIONS/COMMENTS:

The main switchgear is original to the building. The electrical service is reportedly adequate for the facility's needs. No further action is recommended.

Item	Description
D5012 Low Tension Service & Dist.	D5012 SwitchGear Mainframe, 2000 Amps
Condition	Fair - Good
Qty / UOM	1 / EA
RUL (years)	30
Location	SF Electrical Rooms

OBSERVATIONS/COMMENTS:

The main switchgear is original to the building. The electrical service is reportedly adequate for the facility's needs and the switchgear is in working condition.

Item	Description
D5012 Low Tension Service & Dist.	D5012 Switchgear 3000 Amps - Central Plant
Condition	Good
Qty / UOM	1 / EA
RUL (years)	29
Location	Central Plant

OBSERVATIONS/COMMENTS:

The main switchgear was installed in 1984. The electrical service is reportedly adequate for the facilities' needs and the switchgear is in working condition.

Item	Description
D5012 Low Tension Service & Dist.	D5012 Switchgear Mainframe, 600 Amps
Condition	Fair - Good
Qty / UOM	1 / EA
RUL (years)	30
Location	WH Electrical Room

OBSERVATIONS/COMMENTS:

The main switchgear is General Electric equipment, original to the building. The electrical service is reportedly adequate for the facility's needs. No further action is recommended.

Item	Description
D5012 Low Tension Service & Dist.	D5012 Breaker Panel 750 Amps
Condition	Good
Qty / UOM	1 / EA
RUL (years)	30
Location	TC Electrical Rooms

OBSERVATIONS/COMMENTS:

No further action is required.

Item	Description
D5012 Low Tension Service & Dist.	D5012 Dry Transformer 225 KVA
Condition	Good
Qty / UOM	1 / EA
RUL (years)	30
Location	TC Electrical Rooms

OBSERVATIONS/COMMENTS:

The secondary transformer in the electrical room was installed in 2005. The electrical service is reportedly adequate for the facility's needs and the panels are in working condition.

Item	Description
D5012 Low Tension Service & Dist.	D5012 Dry Transformer 75 kVA
Condition	Good
Qty / UOM	2 / EA
RUL (years)	20
Location	WH Electrical Room

OBSERVATIONS/COMMENTS:

The transformer is operating properly.

Item	Description
D5012 Low Tension Service & Dist.	D5012 Dry Transformer 150 kVA
Condition	Good
Qty / UOM	18 / EA
RUL (years)	20
Location	SF Electrical Rooms

OBSERVATIONS/COMMENTS:

The secondary transformers in all electrical rooms are original. The electrical service is reportedly adequate for the facility's needs and the panels are in working condition.

Item	Description
D5012 Low Tension Service & Dist.	D5012 Dry Transformer 150 kVA
Condition	Good
Qty / UOM	24 / EA
RUL (years)	20
Location	SC Electrical Rooms

OBSERVATIONS/COMMENTS:

The secondary transformers in all electrical rooms are original. The electrical service is reportedly adequate for the facility's needs and the panels are in working condition.

Item	Description
D5012 Low Tension Service & Dist.	D5012 Breaker Panel 400 Amps
Condition	Good
Qty / UOM	1 / EA
RUL (years)	30
Location	TC Electrical Rooms

OBSERVATIONS/COMMENTS:

No further action is required.

Item	Description
D5012 Low Tension Service & Dist.	D5012 Breaker Panel 400 Amps
Condition	Good
Qty / UOM	77 / EA
RUL (years)	30
Location	SC Electrical Rooms

OBSERVATIONS/COMMENTS:

No further action is required.

Item	Description
D5012 Low Tension Service & Dist.	D5012 Breaker Panel 400 Amps
Condition	Good
Qty / UOM	78 / EA
RUL (years)	30
Location	SF Electrical Rooms

OBSERVATIONS/COMMENTS:

No further action is required.

Item	Description
D5021 Branch Wiring Devices	D5022 Interior HID fixtures 400 W

Item	Description
Condition	Good
Qty / UOM	42 / EA
RUL (years)	8
Location	Throughout Warehouse Building

OBSERVATIONS/COMMENTS:

The interior lighting is original equipment, and based on its estimated RUL, replacement is anticipated.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D5021	Replace D5022 Interior HID fixtures 400 W	42.0 - EA	3870.8	IN - Beyond Rated Life	Priority 4	2023	162,573

Item	Description
D5021 Branch Wiring Devices	D5021 Motion Sensor Lighting Control
Condition	Fair
Qty / UOM	10 / EA
RUL (years)	11
Location	All Facilities

OBSERVATIONS/COMMENTS:

Motion sensors for light fixtures are located inside most rooms and telecom spaces. The majority were operating adequately.

Item	Description
D5022 Lighting Equipment	D5021 Lighting Motion Sensors
Condition	Poor - Fair
Qty / UOM	884500 / SF
RUL (years)	0
Location	All Facilities

OBSERVATIONS/COMMENTS:

Currently, the EMS is working adequately in the Town Center. For the Sacramento and San Francisco building, however, there are issues with the computer server. Scheduling is a problem and fixtures do not operate adequately. An upgraded version of the software needs to be installed.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D5022	Replace D5021 Lighting Motion Sensors	884,500.0 - SF	0.4	FN - Modernization	Priority 1	2015	313,113

Item	Description
D5022 Lighting Equipment	D5022 T8 fixtures
Condition	Good
Qty / UOM	11 / EA
RUL (years)	3
Location	WH Exterior

OBSERVATIONS/COMMENTS:

The loading dock has T8 type fluorescent lighting fixtures, all original to the building. Lower wattage fixtures having higher output are recommended.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D5022	Replace D5022 T8 fixtures	11.0 - EA	264.8	OP - Energy	Priority 3	2018	2,913

Item	Description
D5022 Lighting Equipment	D5022 150W Pole lamps
Condition	Good
Qty / UOM	60 / EA
RUL (years)	5
Location	SF Exterior

OBSERVATIONS/COMMENTS:

All the pole fixtures around the property are induction type. All were installed on 2005. Based on the age and energy efficiency, lower wattage fixtures with higher lumen output are recommended.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D5022	Replace D5022 150W Pole lamps	60.0 - EA	890.7	OP - Energy	Priority 3	2020	53,440

Item	Description
D5022 Lighting Equipment	D5022 150W Pole lamps
Condition	Good
Qty / UOM	28 / EA
RUL (years)	5
Location	SC Exterior

OBSERVATIONS/COMMENTS:

The parking pole fixtures around the property are induction fixtures, all installed in 2005. Based on their estimated RUL, replacement is anticipated.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D5022	Replace D5022 150W Pole lamps	28.0 - EA	890.7	IN - Beyond Rated Life	Priority 3	2020	24,939

Item	Description
D5022 Lighting Equipment	D5022 150W Pole lamps
Condition	Good
Qty / UOM	22 / EA
RUL (years)	5
Location	TC Exterior

OBSERVATIONS/COMMENTS:

The pole fixtures around the property are induction fixtures, installed in 2005. Based on their estimated RUL, replacement is anticipated.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D5022	Replace D5022 150W Pole lamps	22.0 - EA	890.7	IN - Beyond Rated Life	Priority 3	2020	19,595

Item	Description
D5022 Lighting Equipment	D5022 Wall packs 50 W HPS
Condition	Good
Qty / UOM	16 / EA
RUL (years)	10
Location	WH Exterior

OBSERVATIONS/COMMENTS:

All the light fixtures around the exterior of the facility are high pressure sodium. All were upgraded during the lighting retrofit in 2005. Lower wattage fixtures with a higher lumen output are recommended.

Item	Description
D5022 Lighting Equipment	D5022 Canopy and Wall packs 70 W HPS
Condition	Good
Qty / UOM	33 / EA
RUL (years)	5
Location	TC Exterior

OBSERVATIONS/COMMENTS:

The fixtures around the exterior of the facility are high pressure sodium. All of these fixtures were upgraded during the lighting retrofit in 2005. Lower wattage fixtures with higher lumen output are recommended.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D5022	Replace D5022 Canopy and Wall packs 70 W HPS	33.0 - EA	1206.0	OP - Energy	Priority 3	2020	39,799

Item	Description
D5022 Lighting Equipment	D5022 Wall packs 70W HPS - Central Plant
Condition	Good
Qty / UOM	8 / EA
RUL (years)	5
Location	Central Plant

OBSERVATIONS/COMMENTS:

The light fixtures around the exterior of the central plant are high pressure sodium. All were upgraded during the lighting retrofit in 2005. Based on the estimated RUL, replacement is anticipated.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D5022	Replace D5022 Wall packs 70W HPS - Central Plant	8.0 - EA	1206.0	IN - Beyond Rated Life	Priority 3	2020	9,648

Item	Description
D5037 Fire Alarm Systems	D5037 Fire Alarm Panel
Condition	Poor - Fair
Qty / UOM	8 / EA
RUL (years)	0
Location	All Facilities

OBSERVATIONS/COMMENTS:

Nodes connected to the fire alarm system are located throughout the Phase III buildings. Recent issues have arisen due to enabling and disabling fire alarms. A hard reset is required occasionally to reboot the fire alarm system at the various nodes. It is a network issue and needs to be resolved for life safety, and to remediate false alarms.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D5037	Replace D5037 Fire Alarm Panel	8.0 - EA	16482.2	CC - Life Safety	Priority 1	2015	131,858

Item	Description
D5037 Fire Alarm Systems	D5037 Central Panel and fire pump control - Central Plant
Condition	Good
Qty / UOM	1 / EA
RUL (years)	10
Location	Central Plant

OBSERVATIONS/COMMENTS:

The central panel that controls the operation of the fire pump is installed in the central plant. According to the maintenance staff, there are no issues.

Item	Description
D5092 Emergency Light & Power Systems	D5092 Diesel Generator 1250 kW
Condition	Good
Qty / UOM	1 / EA
RUL (years)	28
Location	SF Exterior

OBSERVATIONS/COMMENTS:

The SF generator is located on the west side of the SF building and serves the SF building and the Town Center. It was installed in 2002 and provides power to the emergency and essential life safety equipment during power outages. Based on the maintenance staff, it is tested every two weeks and load tested annually. It has an 800 gallon storage tank underneath.

Item	Description
D5092 Emergency Light & Power Systems	D5092 Diesel Generator 1000 kW
Condition	Good
Qty / UOM	1 / EA
RUL (years)	28
Location	SC Exterior

OBSERVATIONS/COMMENTS:

The Sacramento Building generator is located on the east side of the building and serves only that building. It was installed in 2003 and provides power to emergency and essential life safety equipment, in case of a power outage. Based on information from the maintenance staff, it is load tested every year. It has an 800 gallon storage tank underneath the generator.

Item	Description
D5092 Emergency Light & Power Systems	D5092 Diesel Generator 1560 kVa - Central Plant
Condition	Good
Qty / UOM	1 / EA
RUL (years)	20
Location	Central Plant
Generator Fuel	Diesel
Power Rating kVA	1560

OBSERVATIONS/COMMENTS:

The central plant generator serves the central plant equipment only. Based on information from the maintenance staff, it is tested every two weeks and load-tested annually.

Item	Description
D5092 Emergency Light & Power Systems	D5092 UPS System Batteries - Central Plant
Condition	Good
Qty / UOM	1 / EA
RUL (years)	7
Location	Central Plant

OBSERVATIONS/COMMENTS:

The UPS battery backup system serves EMS in the central plant with backup power. According to maintenance staff, it is working adequately. Based on the estimated RUL, replacement is anticipated during the term.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D5092	Replace D5092 UPS System Batteries - Central Plant	1.0 - EA	1681.4	IN - Beyond Rated Life	Priority 4	2022	1,681

Item	Description
D5092 Emergency Light & Power Systems	D5092 Emergency Transfer Switch
Condition	Fair
Qty / UOM	2 / EA
RUL (years)	30
Location	All Facilities

OBSERVATIONS/COMMENTS:

The transfer switches associated with the emergency generator are reported to be functioning adequately. The transfer switches are original equipment, and replacements are recommended when the generator is replaced.

COST SUMMARY:

Type	Year	Total Expenditures
D50 Electrical Systems	2015	\$444,971
D50 Electrical Systems	2018	\$2,913
D50 Electrical Systems	2020	\$147,420
D50 Electrical Systems	2021	\$47,186
D50 Electrical Systems	2022	\$1,681
D50 Electrical Systems	2023	\$162,573

E Equipment & Furnishing Systems

E10 EQUIPMENT

Item	Description
E1016 Laundry & Dry Cleaning Equipment	E1016 Ducting for Dryers
Condition	Poor
Qty / UOM	3 / EA
RUL (years)	0
Location	Town Center

OBSERVATIONS/COMMENTS:

The dryer vent is not vented to the exterior, but to a small holding baffle indoors. The space was originally not designed with a dryer vent outlet to the exterior. A proper dryer duct is recommended to vent to the exterior.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
E1016	Replace E1016 Ducting for Dryers	3.0 - EA	1162.2	EN - Air/ Water Quality	Priority 2	2015	3,486

Item	Description
E1019 Other Commercial Equipment	E1019 Crane 2200 lbs
Condition	Fair - Good
Qty / UOM	1 / EA
RUL (years)	28
Location	WH Roof

OBSERVATIONS/COMMENTS:

Crane located on the roof is for hoisting equipment onto the roof. According to the maintenance staff, It is functioning adequately. No further action is required

Item	Description
E1019 Other Commercial Equipment	E1019 Air Compressor 1.5 hp motor - Central Plant
Condition	Good
Qty / UOM	1 / EA
RUL (years)	10
Location	Central Plant

OBSERVATIONS/COMMENTS:

According to the maintenance staff, the air compressor for the pneumatic controls is in the central plant and controls all the pneumatic systems in the plant.

Item	Description
E1027 Laboratory Equipment	E1027 Reprographics Fume Hood - Standard
Condition	Good
Qty / UOM	8 / LF
RUL (years)	10
Location	SC Throughout Building

OBSERVATIONS/COMMENTS:

An exhaust fume hood services the reprographics room, exhausting approximately 6500 CFM.

Item	Description
E1092 Solid Waste Handling Equipment	E1092 Trash Compactor 28 hp
Condition	Good
Qty / UOM	1 / EA
RUL (years)	5
Location	SF Exterior

OBSERVATIONS/COMMENTS:

The trash compactor is in working condition and is located in the docking area of SF building. Based on RUL, replacement is anticipated during the term.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
E1092	Replace E1092 Trash Compactor 28 hp	1.0 - EA	22134.0	IN - Beyond Rated Life	Priority 4	2020	22,134

Item	Description
E1092 Solid Waste Handling Equipment	E1092 Trash Compactor 7.5 hp
Condition	Good
Qty / UOM	1 / EA
RUL (years)	5
Location	SC Exterior

OBSERVATIONS/COMMENTS:

The trash compactor motor for the Sacramento building is located in the loading dock area. There were no compactors on site.

COST SUMMARY:

Type	Year	Total Expenditures
E10 Equipment	2015	\$3,486
E10 Equipment	2020	\$22,134

G Building Sitework Systems

G20 SITE IMPROVEMENTS

Site Information	
Item	Description
Main Ingress and Egress	Butterfield Way
Access from	N
Additional Entrances	N/A
Access from	N/A
Parking Count: Open lot	N/A
Parking Count: Sheltered by carports	N/A
Parking Count: Private garages	N/A
Parking Count: Subterranean garage	N/A
Parking Count: Freestanding parking structure	N/A
Number of ADA Compliant Spaces	N/A
Number of ADA Compliant Spaces for Vans	N/A
Method of obtaining parking count	Site plan
Property Identification Sign-Primary	Monument Sign
Property Identification Sign- Secondary	N/A
Illuminated Identification Signage	No
Building Identification Sign	Yes
Illuminated Sign	No
Location of Property ID Sign	Main entrance drive
Trees Present	Yes
Shrubs Present	Yes
Grasses Present	Yes
Flower beds Present	Yes
Decorative Rocks Present	No
Lava Rocks Present	No
Ponds Present	No
Fountains Present	No
Topography	Flat

Item	Description
G2012 Paving & Surfacing	G2012 Asphalt Seal Coat
Condition	Fair - Good
Qty / UOM	794050 / SF
RUL (years)	2
Location	Sitework

OBSERVATIONS/COMMENTS:

The asphalt pavement will require periodic crack-filling and seal coating. Paving area is based on ratio of Phase 3 building area to total building area of campus (multiplied by total site paved areas)

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
G2012	G2012 Reseal and stripe	794,050.0 - SF	0.8	IN - Beyond Rated Life	Priority 3	2017	610,466
G2012	G2012 Reseal and stripe	794,050.0 - SF	0.8	IN - Beyond Rated Life	Priority 3	2022	610,466

Item	Description
G2053 Top Soil and Planting Beds	G2053 New Shrubs
Condition	Good
Qty / UOM	150 / EA
RUL (years)	10
Location	Sitework

OBSERVATIONS/COMMENTS:

Due to drought conditions, most shrubs and lawn areas were dying due to reduced irrigation water. Replace dead shrubs with xeriscape (drought tolerant) shrubs.

Item	Description
G2057 Irrigation Systems	G2057 Irrigation system upgrade -exterior
Condition	Fair - Good
Qty / UOM	214693 / SF
RUL (years)	5
Location	All Facilities

OBSERVATIONS/COMMENTS:

The landscaping and irrigation controls (Rain Master DX-2) operating the zonal landscaping areas are scheduled to be upgraded in the near future with a Hunter control system managed by a central control. According to the maintenance staff, this will occur during 2015.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
G2057	Replace G2057 Irrigation system upgrade -exterior	214,693.0 - SF	6.3	FN - Modernization	Priority 4	2020	1,357,719

COST SUMMARY:

Type	Year	Total Expenditures
G20 Site Improvements	2017	\$610,466
G20 Site Improvements	2020	\$1,357,719
G20 Site Improvements	2022	\$610,466

G30 SITE CIVIL/MECHANICAL UTILITIES

Item	Description
G3063 Fuel Storage Tanks	G3063 Diesel Tank,280 Gallon - WH
Condition	Good
Qty / UOM	1 / EA
RUL (years)	8
Location	WH Exterior

OBSERVATIONS/COMMENTS:

This diesel tank is for the fire pump is working adequately. Based on its estimated RUL, replacement is anticipated during the term.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
G3063	Replace G3063 Diesel Tank,280 Gallon - WH	1.0 - EA	7272.6	IN - Beyond Rated Life	Priority 4	2023	7,273

COST SUMMARY:

Type	Year	Total Expenditures
G30 Site Civil/Mechanical Utilities	2023	\$7,273

G40 SITE ELECTRICAL UTILITIES

Item	Description
G4021 Fixtures & Transformers	G4021 Bollards 70W
Condition	Good
Qty / UOM	13 / EA
RUL (years)	5
Location	SF Exterior

OBSERVATIONS/COMMENTS:

The bollard light fixtures around the property are induction type. All are original to the building. Based on the estimated RUL, replacement is anticipated.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
G4021	Replace G4021 Bollards 70W	13.0 - EA	1636.3	IN - Beyond Rated Life	Priority 3	2020	21,272

Item	Description
G4021 Fixtures & Transformers	G4021 Bollards 70W
Condition	Good
Qty / UOM	11 / EA
RUL (years)	5
Location	SC Exterior

OBSERVATIONS/COMMENTS:

All the bollard fixtures around the property are induction fixtures original to the building. Based on their estimated RUL, replacement is anticipated.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
G4021	Replace G4021 Bollards 70W	11.0 - EA	1719.5	IN - Beyond Rated Life	Priority 3	2020	18,915

Item	Description
G4021 Fixtures & Transformers	G4021 Bollards 70W MH
Condition	Good
Qty / UOM	18 / EA
RUL (years)	5
Location	TC Exterior

OBSERVATIONS/COMMENTS:

Bollard style light fixtures are located throughout the property exterior, all original to the building. Based on the estimated RUL, replacement is anticipated.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
G4021	Replace G4021 Bollards 70W MH	18.0 - EA	1719.5	IN - Beyond Rated Life	Priority 3	2020	30,952

Item	Description
G4022 Poles	G4021 Pole Lamps 400 W
Condition	Good
Qty / UOM	47 / EA
RUL (years)	10
Location	SF Exterior

OBSERVATIONS/COMMENTS:

The parking light fixtures around the property, installed in 2005, are high pressure sodium. Lower wattage fixtures with higher lumen output are recommended.

Item	Description
G4022 Poles	G4021 Pole Lamps 400 W
Condition	Good
Qty / UOM	70 / EA
RUL (years)	10
Location	SC Exterior

OBSERVATIONS/COMMENTS:

All the fixtures around the exterior of Sacramento building parking areas are high-pressure sodium, all upgraded during the lighting retrofit in 2005. Lower wattage fixtures with higher lumen output are recommended.

COST SUMMARY:

Type	Year	Total Expenditures
G40 Site Electrical Utilities	2020	\$71,139

The weather at the time of the assessment was:

Item	Description
Approximate Outdoor Temperature (degrees F)	60
Weather Conditions	Rainy
Snow Covering Ground	No
Wind Conditions	Little to no wind

The documentation provided at the time of the assessment is as:

Item	Description
Site Plan Reviewed	Yes
Floor Plan Reviewed	Yes
Construction Drawings Reviewed	Yes
Termite Inspection Report Reviewed	
Boiler Certificates Reviewed	No
Document Year Built Information Obtained From	Blueprints

APPENDIX C: CERTIFICATION

EMG has completed a FCA of the subject property listed on the cover page. The FCA was performed at the Client's request using methods and procedures consistent with good commercial and customary practice conforming with ASTM E2018-08, Standard Guide for Property Condition Assessments: Baseline Property Condition Assessment Process. Within this Property Condition Report (PCR), EMG's reference to the Client follows the ASTM guide's definition of User, that is, the party that retains EMG for the preparation of a baseline FCA of the subject property.

This report is exclusively for the use and benefit of the Client identified on the first page of this report. The purpose for which this report shall be used shall be limited to the use as stated in the contract between the client and EMG.

The opinions EMG expresses in this report were formed utilizing the degree of skill and care ordinarily exercised by any prudent architect or engineer in the same community under similar circumstances. EMG assumes no responsibility or liability for the accuracy of information contained within this report that has been obtained from the Client or the Client's representatives, from other interested parties, or from the public domain. The conclusions presented represent EMG's professional judgment based on information obtained during the course of this assignment. EMG's evaluations, analyses, and opinions are not representations regarding the building design, structural soundness, or actual value of the property. Factual information regarding operations, conditions, and test data provided by the Client or the Client's representative has been assumed to be correct and complete. The conclusions presented within this report are based on the data provided, observations made, and conditions that existed specifically on the date of the assessment. EMG certifies that EMG has no undisclosed interest in the subject property, that EMG's relationship with the Client is at arms-length, and that EMG's employment and compensation are not contingent upon the findings or estimated costs to remedy any noted deficiencies due to deferred maintenance and/or any noted component or system replacements.

EMG's FCA cannot wholly eliminate the uncertainty regarding the presence of physical deficiencies and/or the performance of a subject property's building systems. Preparation of a FCA in accordance with ASTM E2018-08 is intended to reduce, but not eliminate, the uncertainty regarding the potential for component or system failure and to reduce the potential that such component or system failure may not be initially observed. This FCA was prepared recognizing the inherent subjective nature of EMG's opinions as to such issues as workmanship, quality of original installation, and estimating the remaining useful life of any given component or system. It should be understood that EMG's suggested remedy may be determined under time constraints or may be formed without the aid of engineering calculations, testing, exploratory probing, the removal of materials, or design. Furthermore, there may be other alternate or more appropriate schemes or methods to remedy the noted physical deficiencies. EMG's opinions are generally formed without detailed knowledge from individuals familiar with the performance of noted components or systems.

Any questions regarding this report should be directed to the Program Manager.

Prepared By: , Field Observer

Reviewed By: 
, Program Manager

APPENDIX D: PHOTOS



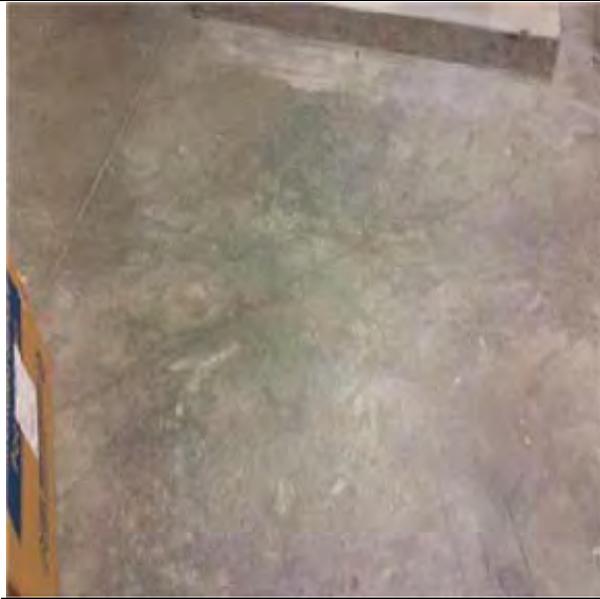
:- Glass wall



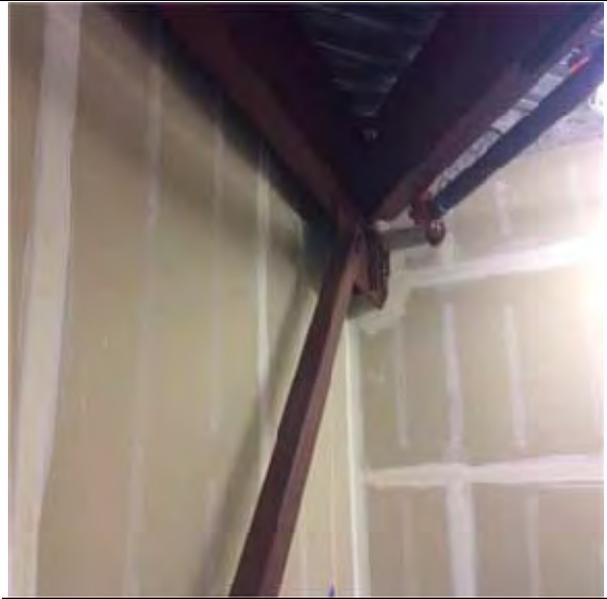
:- Masonry and steel wall sections



:- Steel wall section



A1010 Concrete Foundations



B1031 Structural Steel Columns and Beams Frame



B2010 Siding, Corrugated Metal Panel



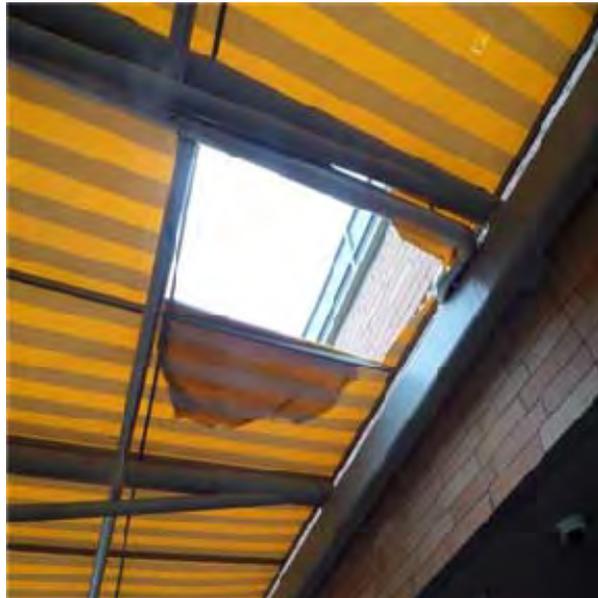
B2011 Brick Veneer Exterior Walls



B2011 Concrete Block Masonry-warehouse



B2011 Metal panel Exterior Walls



B2014 Canvas Awning TC



B2021 Exterior Windows



B2020 Exterior Windows SF



B3011 Built-Up Roofing TC



B3011 Built-Up Roofing- Central Plant



B3011 Metal Roofing



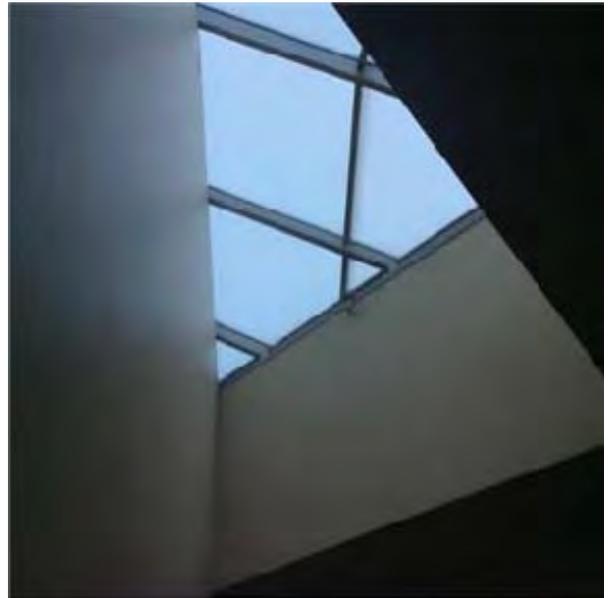
B3011 Built-Up Roofing Sacramento



B3011 Built-Up Roofing Warehouse



B3011 Built-Up Roofing SF



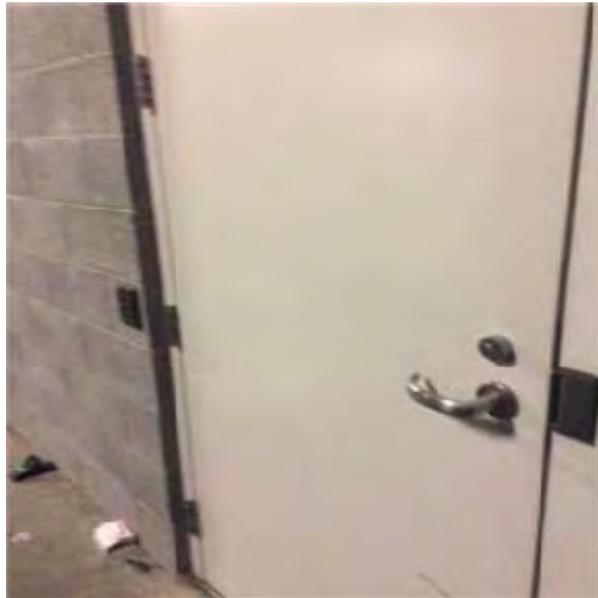
B3021 Glass Skylight



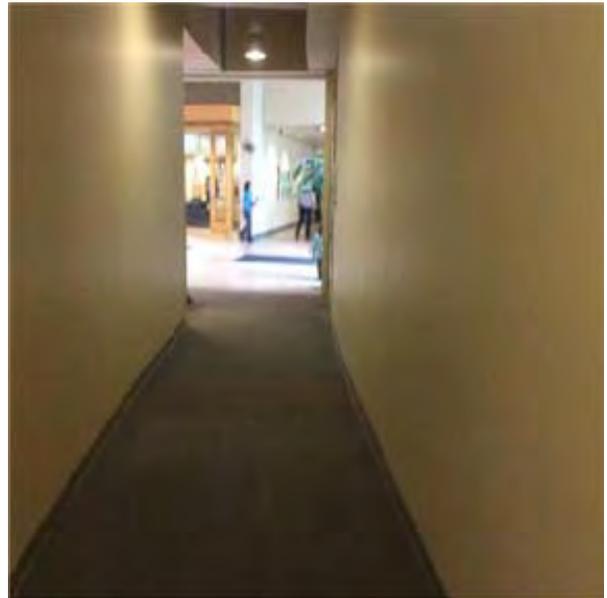
B3023 Boiler room supply vent



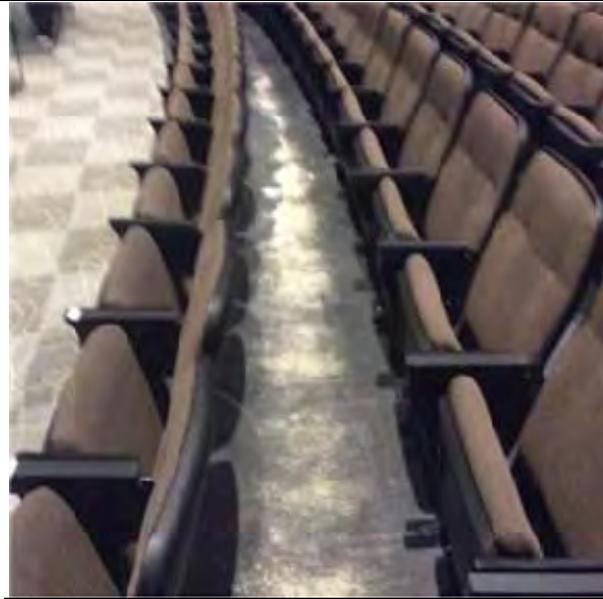
C1017 Interior Windows & Storefronts



C1021 Interior Doors



C3012 Paint Interior Walls, Drywall



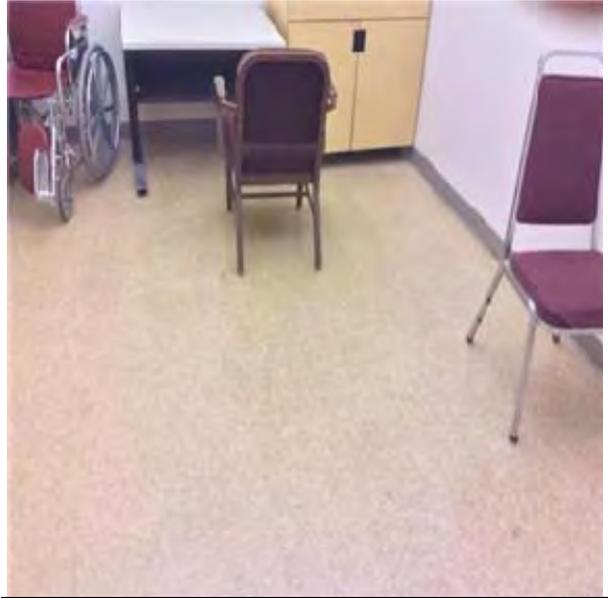
C3021 Paint Interior Concrete Floors



C3023 Floor Paint - Non Slip



C3024 Vinyl Tile SC



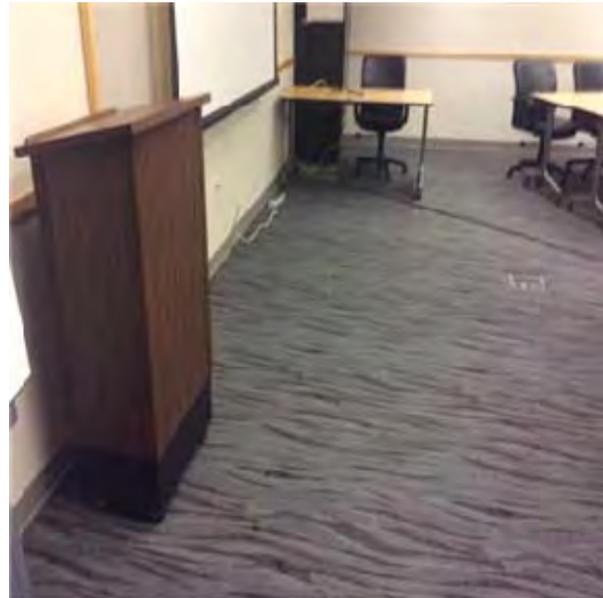
C3024 Vinyl Tile SF



C3024 Flooring ceramic tile



C3024 Vinyl Tile Warehouse



C3025 Carpeting- Standard TC



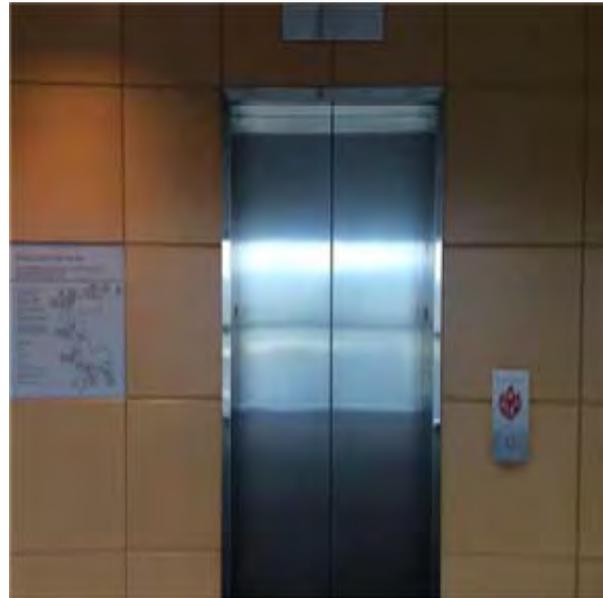
C3025 Carpeting -Standard SC



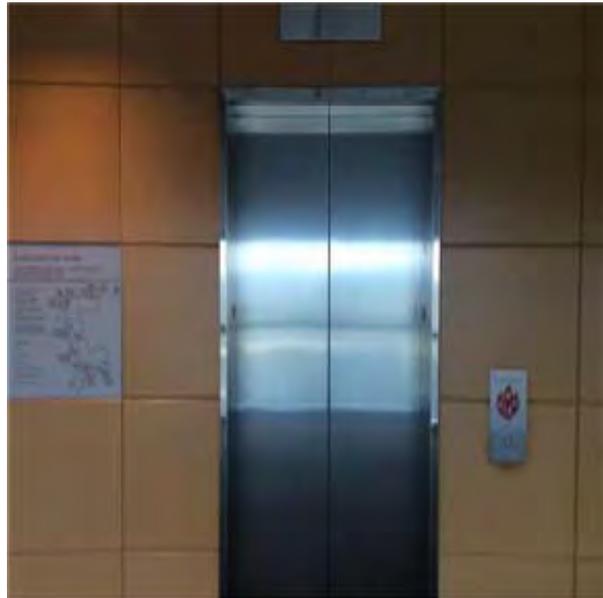
C3025 Carpeting SF



C3032 Acoustical Ceiling Tile



D1011 Traction Elevators 3500 lbs



D1011 Traction Elevators 3500 lbs



D1011 Hydraulic Service Elevator 4500 lbs



D1011 Hydraulic Service Elevator 4500 lbs



D2011 Water Closet - Central Plant



D2011 Water Closet, 1.6 GPF Unit



D2011 Water Closet, 1.6 GPF Unit



D2011 Water Closet, 1.6 GPF Unit



D2012 Urinal



D2012 Urinal



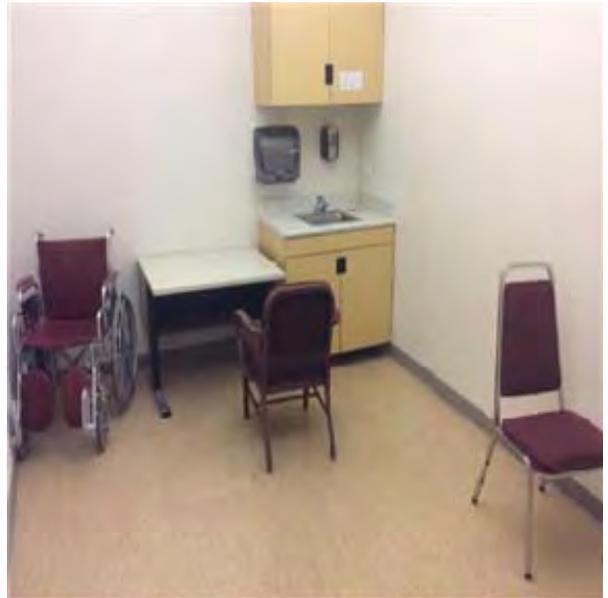
D2012 lavatory sink



D2012 Lavatories



D2012 Lavatories



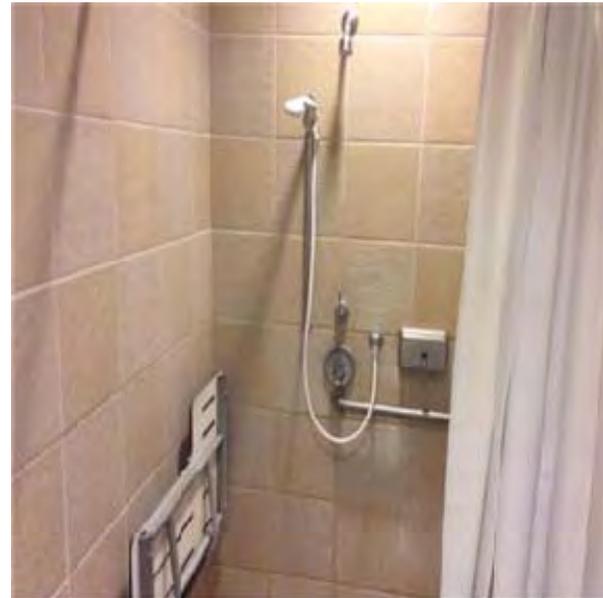
D2012 Kitchen Sink



D2011 Sink - Central Plant



D2017 Stall Shower and Faucet



D2017 Shower Stall and Faucet



D2018 Drinking Fountain - Central Plant



D2018 Drinking Fountain



D2018 Drinking Fountain



D2022 Gas DHW Heater 125 Gal



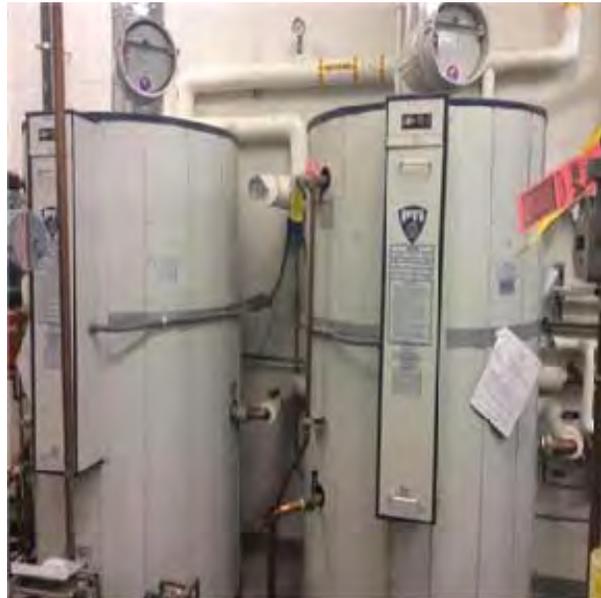
D2022 DHW Heater - Gas 150 Gal



D2022 DHW Heater - Electric 7 Gal



D2022 Gas DHW Heater 125 Gal



D2022 DHW Heater - Gas 250 Gal



D2023 DHW Indirect Storage tank 400 Gal



D2022 DHW Condensing Heater - Gas 119 Gal



D2022 DHW Indirect Storage tank 400 Gal



D2023 Solar collectors for DHW heating



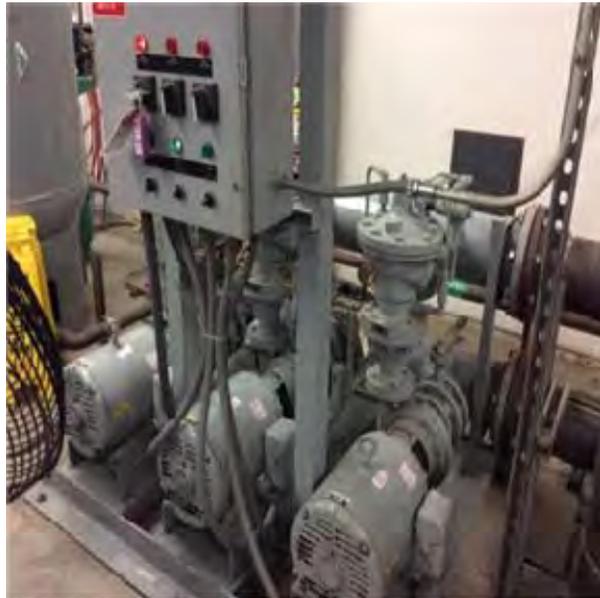
D2023 Solar collectors for DHW heating



D2023 DHW Distribution Pump 1/8 HP



D2023 DHW Distribution Pump 1/8 HP



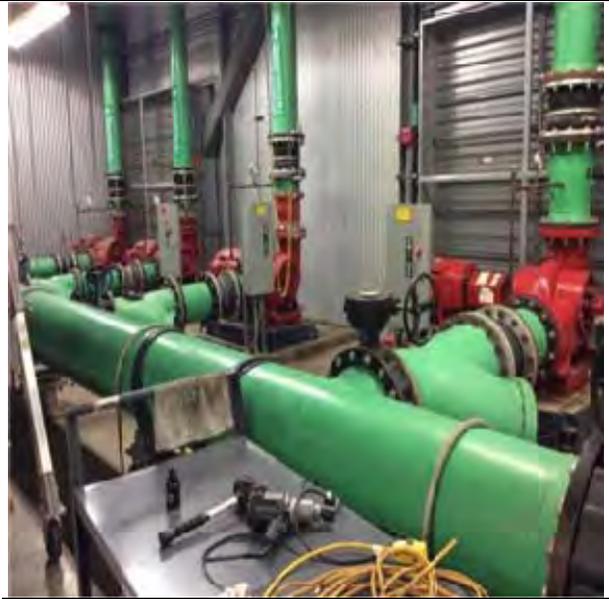
D2023 Domestic cold water pumps (20hp) - Central Plant



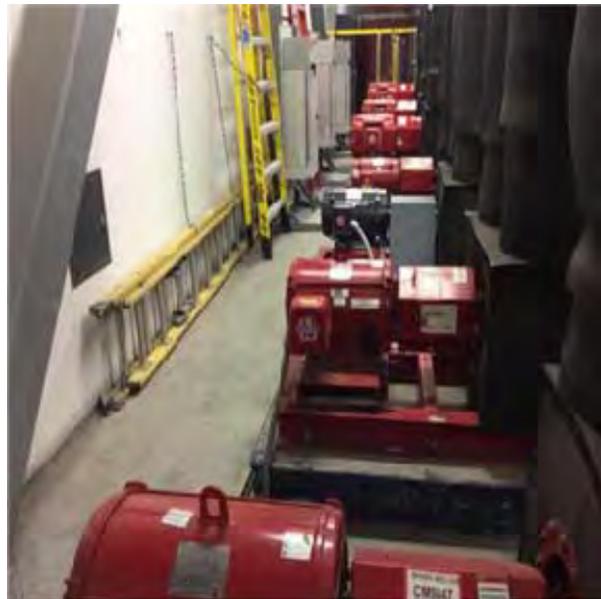
D2094 Cooling Tower Sand filter - Central Plant



D3021 Hydronic Gas Boilers (10,206 MBH) - Central Plant



D3022.1.1 Condenser Pumps 75 hp - Central Plant



D3022.1 Chiller Distribution Pump 15 hp - Central Plant



D3022.1 CWS Delivery Pumps 10 HP



D3022.1 CWS Delivery Pumps 10 HP



D3022.1 CWS Delivery Pumps 10 HP



D3022.1.1 Condenser Pump 125 hp - Central Plant



D3022.1 Chiller Distribution Pumps 75 hp - Central Plant



D3022.1 Chiller Distribution Pumps 20-30 HP - Central Plant



D3022.1 Heating Water Circulation Pumps 40 HP - Central Plant



D3022.1 HWS Distribution Pump 3 HP



D3022.1 CWS Delivery Pumps 2 HP



D3022.1 HWS Distribution Pump 3 HP



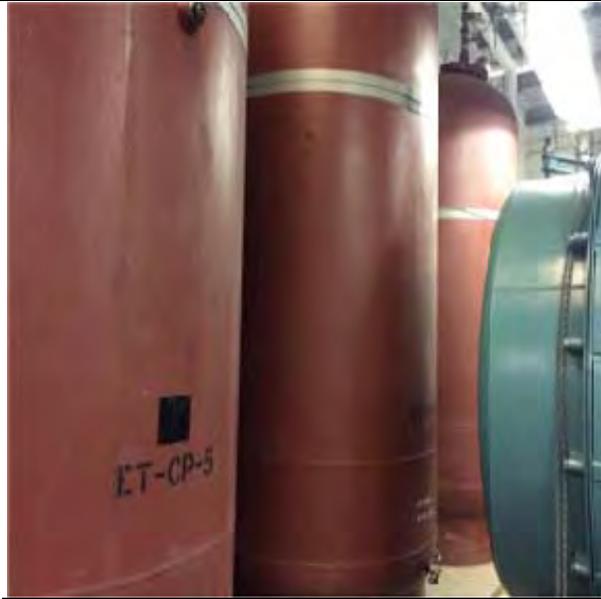
D3022.1 Chiller Distribution Pump 40 hp - Central Plant



D3022.1 HWS Distribution Pump 3 HP



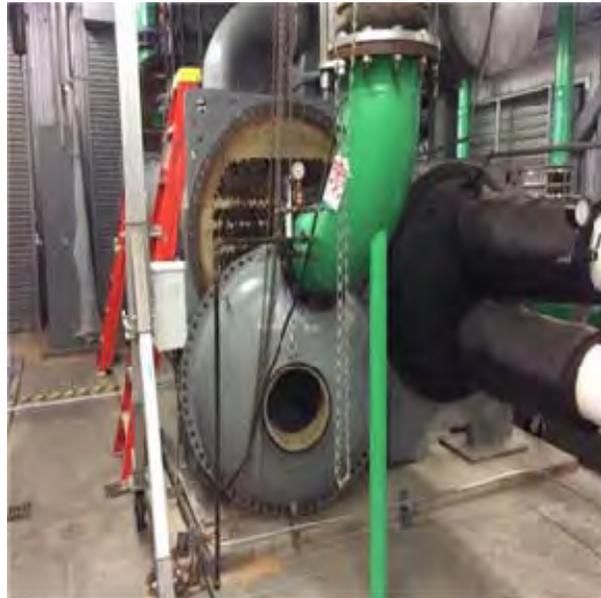
D3022.1 CWS Delivery Pumps 15 HP



D3023 Expansion Tank (1000 Gal) - Central Plant



D3023 Heat Exchanger water to water - Central Plant



D3031.1 Water cooled chiller 1500 ton - Central Plant



D3031.1 Water cooled chiller 1000 tons - Central Plant



D3031.1 Water cooled chiller 500 ton - Central Plant



D3031.2 Cooling Towers - Central Plant



D3032 Air Cooled Condenser Refrigeration Rack



D3032 Condenser 1 ton



D3041.1 AHU Return 70000-100000 CFM



D3041.1 AHU 23480 CFM



D3041.1 AHU Supply 42500- 62500 CFM



D3041.1 AHU 8,000 to 12,000 CFM



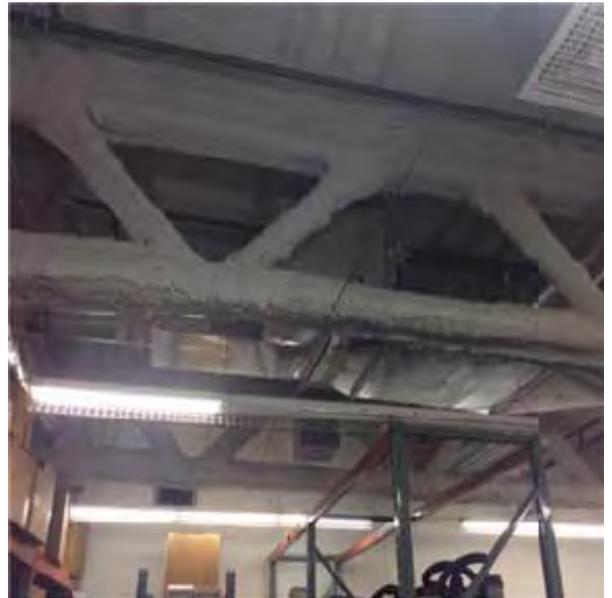
D3041.1 AHU Return 85000- 135000 CFM



D3041.1 AHU Supply 35000-50000 CFM



D3041.1 AHU 14,000 to 15000 CFM



D3041 Induction Boxes



D3041 VAV Boxes



D3042 Exhaust Fan <3150 CFM



D3042 Exhaust Fan 5000 CFM



D3042 Kitchen Exhaust Fan 7000 CFM



D3042 Unit Exhaust Fan (1/4 hp) on roof of Central Plant



D3042 Exhaust Fan 600- 900 CFM



D3042 Exhaust Fan 14580 CFM



D3042 Exhaust Fan 8000 CFM



D3042 Exhaust Fan up to 2000 CFM



D3042 Kitchen Exhaust Fan 13100 cfm



D3042 Exhaust Fan 3600 CFM



D3042 Exhaust Fan 2280 CFM



D3042 Kitchen Exhaust Fan 1500 CFM



D3023 Heat Exchanger Condenser side



D3043 Heat Exchanger Solar side



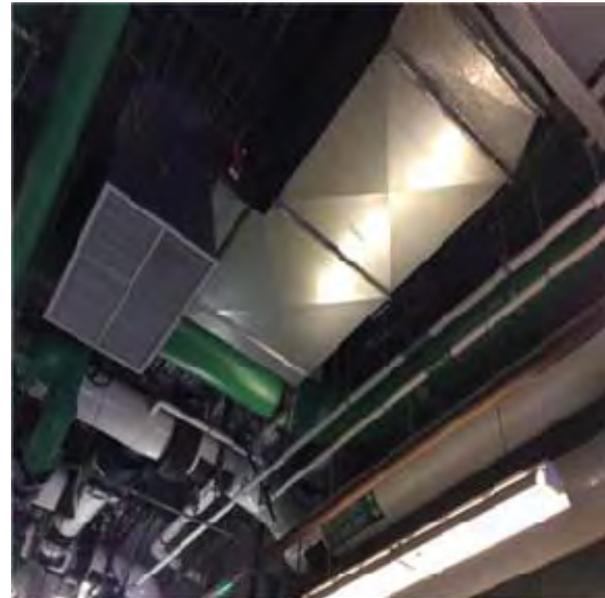
D3043 Heat Exchanger Solar side



D3043 Heat Exchanger Condenser side



D3023 Expansion Tank 12.5 Gal



D3044 Water Source Unit Heater with Fan - Central Plant



D3023 Expansion Tank 12.5 Gal



D3023 Expansion Tank 60 Gal



D3023 Expansion Tank 60 Gal



D3051 Fan Coil 1-2 tons cooling



D3051 Fan coil unit 3-20 ton cooling



D3051 Fan coil unit 1.5 - 16 tons cooling



D3051 Fan Coil with Cooling and Heating 4.5-14 tons cooling



D3051 Fan Coil with 6 tons cooling



D3051 Fan Coil with 6 tons cooling



D3051 Fan Coil with 8 tons cooling



D3052 Packaged Units, Gas Heat, 7.5-Ton Cooling



D3052 Packaged Units, Gas Heat, 28 Ton Cooling



D3052 Split system Libert 1.5 ton cooling only



D4011 Wet-Pipe Sprinkler System



D4012 Fire pump (250 hp) - Central Plant



D4012 Fire pump (105 hp)



D4023 Riser pressure relief valves



D4031 Fire Extinguishers 5 Lb, Install



D5011 Main Dry Transformer 2000KVA



D5011 Main Dry Transformer 1500-2000KVA



D5011 Main Dry Transformer - Central Plant



D5011 Main Dry Transformer 500kVA



D5011 Main Dry Transformer 500kVA



D5012 Switchgear Mainframe, 600 Amps



D5012 Breaker Panel 400 Amps



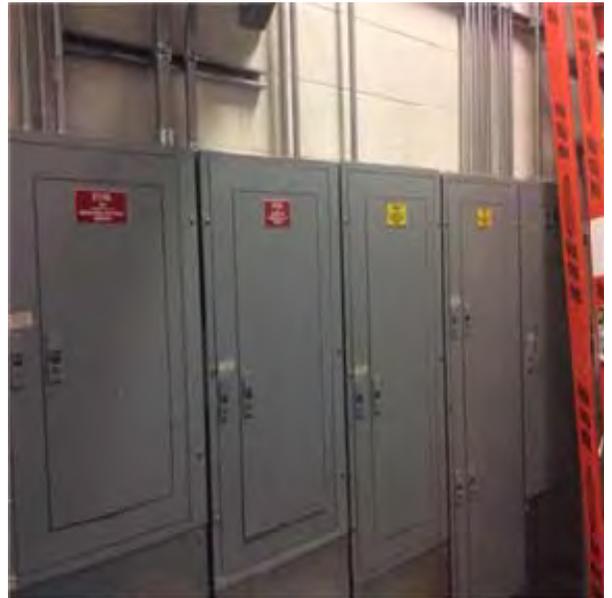
D5012 SwitchGear Mainframe, 3000 Amps



D5012 Breaker Panel 400 Amps



D5012 Switchgear Mainframe, 1600 Amps



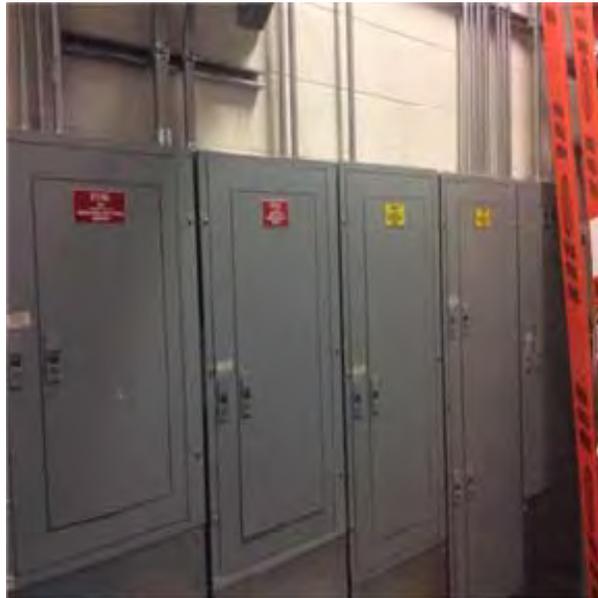
D5012 Breaker Panel 750 Amps



D5012 Dry Transformer 225 KVA



D5012 Breaker Panel 400 Amps



D5012 Breaker Panel <250 Amps



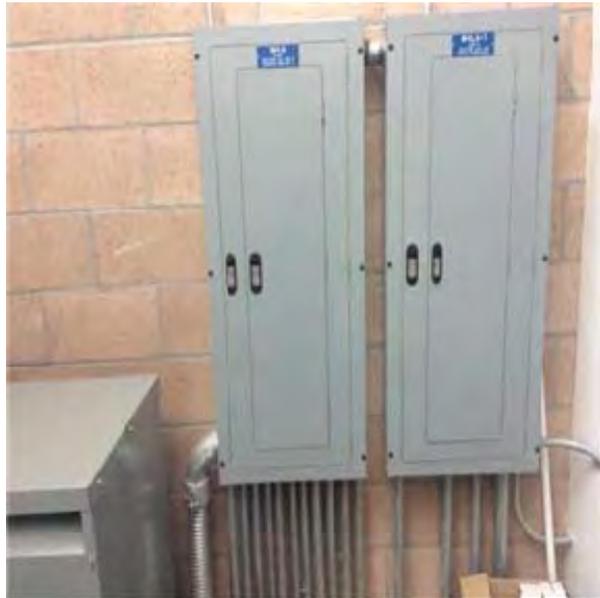
D5012 Dry Transformer 150 kVA



D5012 Switchgear Mainframe, 1200 Amps



D5012 Dry Transformer 150 kVA



D5012 Breaker Panel <250 Amps



D5012 Dry Transformer 75 kVA



D5012 Dry Transformer 112 kVA



D5012 SwitchGear Mainframe, 3000 Amps



D5012 SwitchGear Mainframe, 2000 Amps



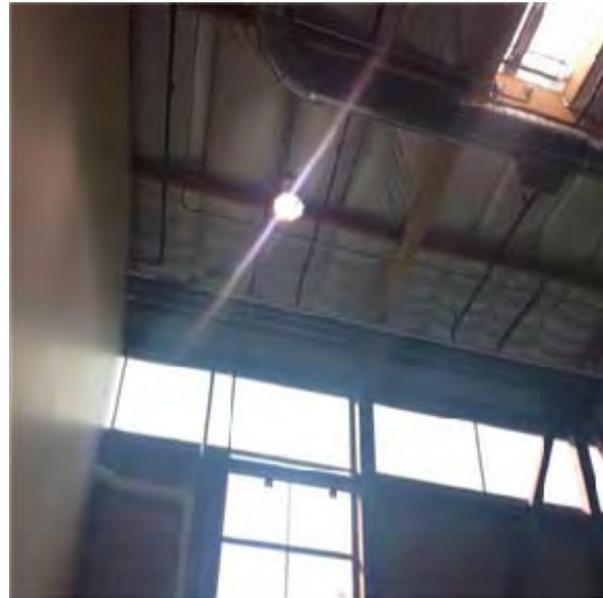
D5012 Switchgear Mainframe, 1600 Amps



D5012 Switchgear 3000 Amps - Central Plant



D5021 Motion Sensor Lighting Control



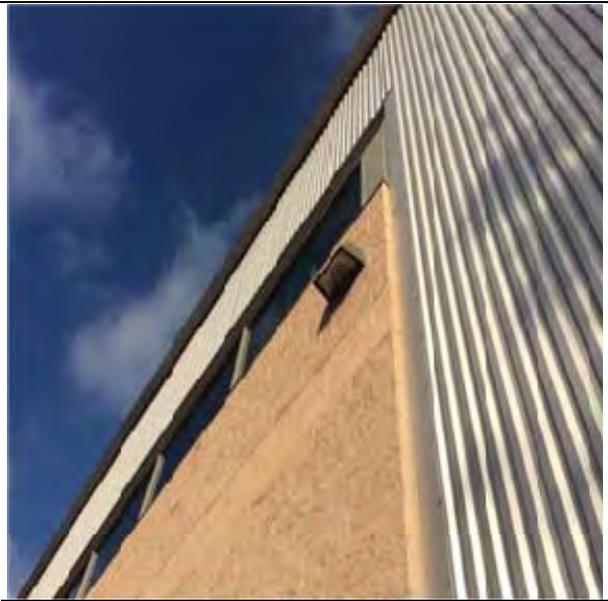
D5022 Interior HID fixtures 400 W



D5022 150W Pole lamps



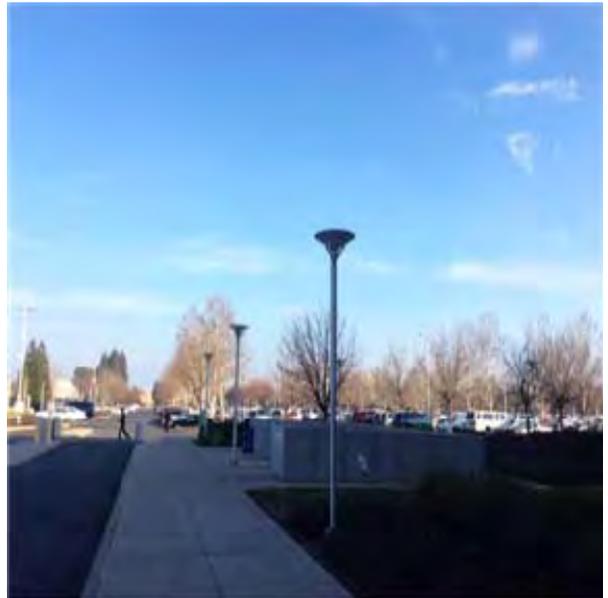
D5022 T8 fixtures



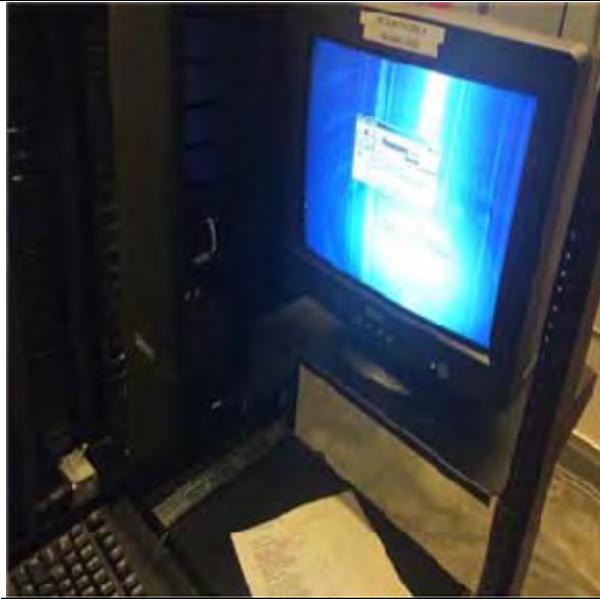
D5022 Wall packs 50 W HPS



D5022 Canopy and Wall packs 70 W HPS



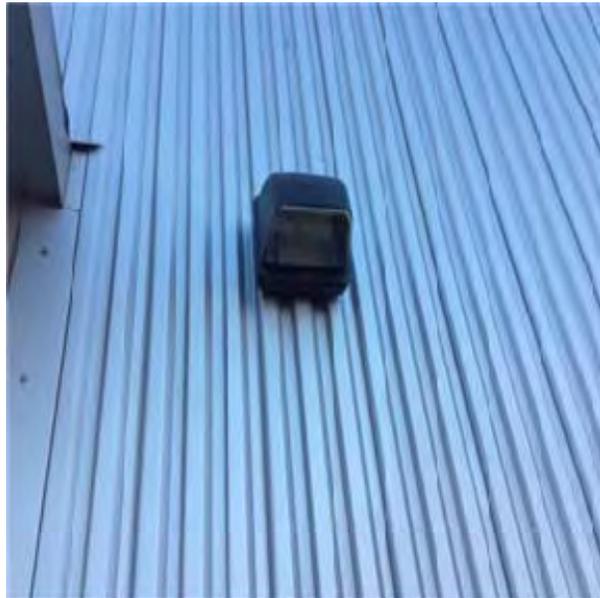
D5022 150W Pole lamps



D5021 Lighting Motion Sensors



D5022 150W Pole lamps



D5022 Wall packs 70W HPS - Central Plant



D5037 Central Panel and fire pump control - Central Plant



D5037 Fire Alarm Panel



D5092 Diesel Generator 1000 kW



D5092 UPS System Batteries - Central Plant



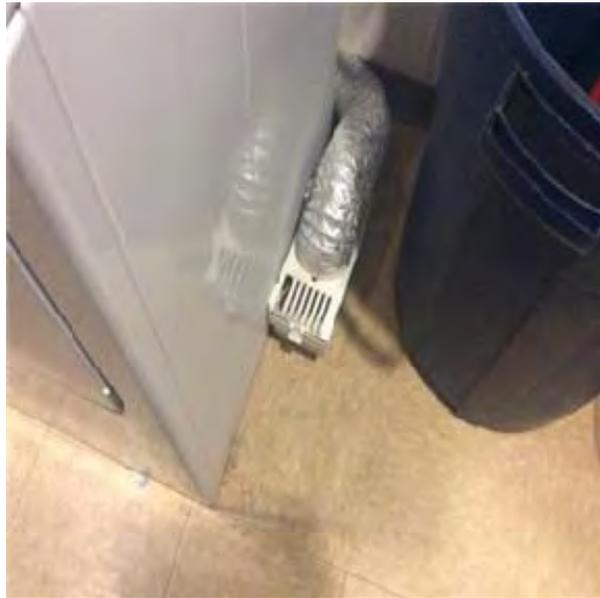
D5092 Diesel Generator 1560 kVa - Central Plant



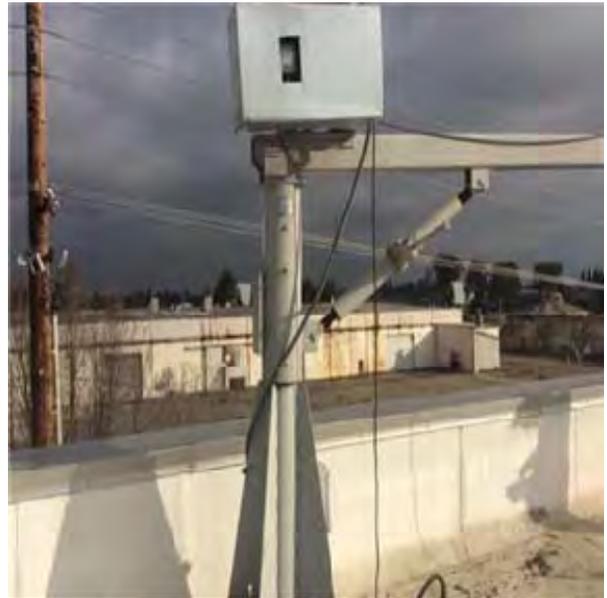
D5092 Diesel Generator 1250 kW



D5092 Emergency Transfer Switch



E1016 Ducting for Dryers



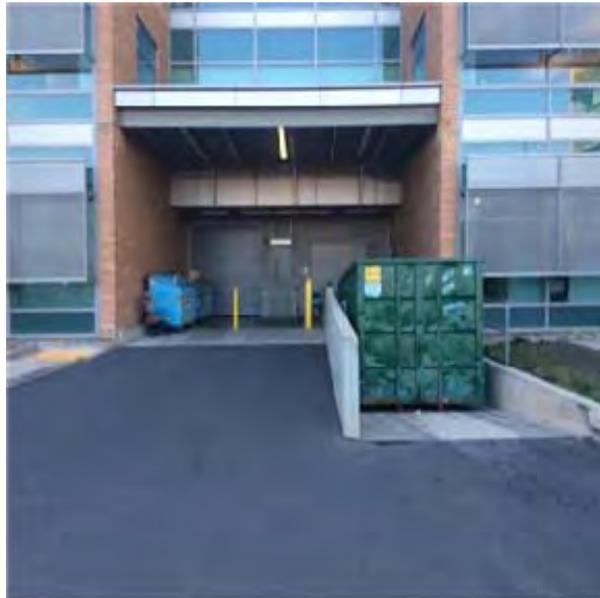
E1019 Crane 2200 lbs



E1019 Air Compressor 1.5 hp motor - Central Plant



E1092 Trash Compactor 28 hp



E1092 Trash Compactor 7.5 hp



G2012 Asphalt Seal Coat



G2053 New Shrubs



G2057 Irrigation system upgrade -exterior



G3063 Diesel Tank,280 Gallon - WH



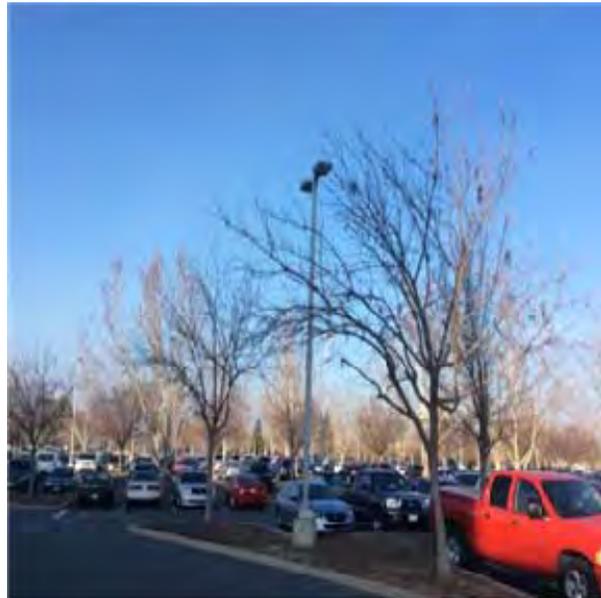
G4021 Bollards 70W



G4021 Bollards 70W



G4021 Bollards 70W MH



G4021 Pole Lamps 400 W



G4021 Pole Lamps 400 W

APPENDIX E: TERMINOLOGY AND ABBREVIATIONS

TERMINOLOGY and ABBREVIATIONS	
Actual Knowledge	Information or observations known first hand by EMG.
ADA	The Americans with Disabilities Act
AHU	Air Handling Unit
Ancillary Structures	Structures that are not the primary improvements of the Property but which may have been constructed to provide support uses.
ASTM	American Society for Testing and Materials
Baseline	A minimum scope level of observation, inquiry, research, documentation review, and cost estimating for conducting a Property Condition Assessment as normally conducted by EMG.
BOMA	Building Owners & Managers Association
Building	Referring to the primary building or buildings on the Property, which are within the scope of the FCA.
Building Codes	A compilation of rules adopted by the municipal, county and/or state governments having jurisdiction over the Property that govern the property's design &/or construction of buildings.
Building Department Records	Information concerning the Property's compliance with applicable Building, Fire and Zoning Codes that is readily available for use by EMG within the time frame required for production of the Property Condition Assessment.
Building Systems	Interacting or interdependent components that comprise a building such as structural, roofing, side wall, plumbing, HVAC, water, sanitary sewer and electrical systems.
BUR	Built Up Roof
CBC	California Building Code
Component	A piece of equipment or element in its entirety that is part of a system.
CFM	Cubic Feet per Minute, usually referring to air flow in a heating or cooling system.
Dangerous or Adverse Conditions	Situations which may pose a threat or possible injury to the Project Manager, or those situations which may require the use of special protective clothing, safety equipment, access equipment, or any precautionary measures.
Deferred Maintenance	Deficiencies that result from postponed maintenance, or repairs that have been put off until a later time and that require repair or replacement to an acceptable condition relative to the age of the system or property.
DHW	Domestic Hot Water
DDC	Direct Digital Controls, for HVAC systems
Dismantle	To take apart; disassemble; tear down any component, device or piece of equipment that is bolted, screwed, secured, or fastened by other means.
DWV	Drainage Waste Ventilation
EPDM	Ethylene propylene diene terpolymer, a single ply roofing material, usually black
EIFS	Exterior Insulation and Finish System
EMS	Energy Management System
Engineering	Analysis or design work requiring extensive formal education, preparation and experience in the use of mathematics, chemistry, physics, and the engineering sciences as provided by a Professional Engineer licensed to practice engineering by any state of the 50 states.
Expected Useful Life (EUL)	The average amount of time in years that a system or component is estimated to function when installed new.

TERMINOLOGY and ABBREVIATIONS	
FEMA	Federal Emergency Management Agency
Fire Department Records	Information generated or acquired by the Fire Department having jurisdiction over the Property, and that is readily available to EMG within the time frame required for production of the FCA.
FIRM	Flood Insurance Rate Maps
FM	Factory Mutual
FRT	Fire Retardant Treated
Guide	A series of options or instructions that do not recommend a specific course of action.
HP	Horse Power, a unit of measure for pumps and motors.
HVAC	Heating, Ventilating & Air Conditioning
IAQ	Indoor Air Quality
Immediate Repairs	Physical deficiencies that require immediate action as a result of: (i) existing or potentially material unsafe conditions, (ii) significant negative conditions impacting tenancy/marketability, (iii) material building code violations, or (iv) poor or deteriorated condition of critical element or system, or (v) a condition that if left "as is", with an extensive delay in addressing same, has the potential to result in or contribute to critical element or system failure within one (1) year.
Interviews	Interrogatory with those knowledgeable about the Property.
kVA	Kilo Volt Amps, a measurement used for electrical devices where Amps is the plural of Amperage, a measure of electrical force.
kW	One thousand Watts, a measure of electrical output.
Material	Having significant importance or great consequence to the asset's intended use or physical condition.
MEP	Mechanical, Electrical, and Plumbing
NFPA	National Fire Protection Association
Observations	The results of the Project Manager's Walk-through Survey.
Observe	The act of conducting a visual, unaided survey of items, systems or conditions that are readily accessible and easily visible on a given day as a result of the Project Manager's walk-through.
Obvious	That which is plain or evident; a condition that is readily accessible and can be easily seen by the Project Manager as a result of his Walk-through without the removal of materials, moving of chattel, or the aid of any instrument, device, or equipment.
Owner	The entity holding the deed to the Property that is the subject of the FCA.
Physical Deficiency	<p>Patent, conspicuous defects, or significant deferred maintenance of the Property's material systems, components, or equipment as observed during the Project Manager's Walk-through Survey.</p> <p>Material systems, components, or equipment that are approaching, have realized, or have exceeded their typical Expected Useful Life (EUL); or, that have exceeded their useful life result of abuse, excessive wear and tear, exposure to the elements, or lack of proper or adequate maintenance.</p> <p>This definition specifically excludes deficiencies that may be remedied with routine maintenance, miscellaneous repairs, normal operating maintenance, and conditions that do not present a material deficiency to the Property.</p>
PVC	Poly Vinyl Chloride

TERMINOLOGY and ABBREVIATIONS	
Practically Reviewable	Information that is practically reviewable means that the information is provided by the source in a manner and form that, upon examination, yields information relevant to the property without the need for extraordinary analysis of irrelevant data.
Practice	A definitive procedure for performing one or more specific operations or functions that does not produce a test result.
Primary Improvements	The site and building improvements that are of fundamental importance with respect to the Property.
Project Manager	The individual Professional Engineer, Contractor, or Registered Architect having a general, well rounded knowledge of all pertinent site and building systems and components that conducts the on site visit and walk-through observation.
Property	The site and building improvements, which are specifically within the scope of the FCA to be prepared in accordance with the agreement between the Client and EMG.
Readily Accessible	Those areas of the Property that are promptly made available for observation by the Project Manager without the removal of materials or chattel, or the aid of any instrument, device, or equipment at the time of the Walk-through Survey.
Reasonably Ascertainable	Information that is publicly available, provided to EMG's offices from either its source or an information research/retrieval concern, practically reviewable, and available at a nominal cost for either retrieval, reproduction or forwarding.
Recreational Facilities	Spas, saunas, steam baths, swimming pools, tennis courts, playground equipment, and other exercise, entertainment, or athletic facilities.
Remaining Useful Life (RUL)	<p>The consultant's professional opinion of the number of years before a system or component will require replacement or reconditioning. The estimate is based upon observation, available maintenance records, and accepted EUL's for similar items or systems.</p> <p>Inclement weather, exposure to the elements, demand on the system, quality of installation, extent of use, and the degree and quality of preventive maintenance exercised are all factors that could impact the RUL of a system or component. As a result, a system or component may have an effective age greater or less than its actual age. The RUL may be greater or less than its Expected Useful Life (EUL) less actual age.</p>
Replacement Costs	Costs to replace the system or component "in kind" based on Invoices or Bid Documents provided by the current owner or the client, construction costs developed by construction resources such as <i>Means</i> and <i>Dodge</i> , EMG's experience with past costs for similar properties, or the current owner's historical incurred costs.
RTU	Rooftop Unit
Shut-Down	Equipment or systems that are not operating at the time of the Project Manager's Walk-through Survey. Equipment or systems may be considered shutdown if it is not in operation as a result of seasonal temperatures.
Significant	Important, material, and/or serious.
Site Visit	The visit to the property by EMG's Project Manager including walk-through visual observations of the Property, interviews of available project personnel and tenants (if appropriate), review of available documents and interviews of available municipal personnel at municipal offices, all in accordance with the agreement for the Property Condition Assessment.

TERMINOLOGY and ABBREVIATIONS	
Specialty Consultants	Practitioners in the fields of engineering, architecture; or, building system mechanics, specialized service personnel or other specialized individuals that have experience in the maintenance and repair of a particular building component, equipment, or system that have acquired detailed, specialized knowledge in the design, assessment, operation, repair, or installation of the particular component, equipment, or system.
Structural Component	A component of the building, which supports non-variable forces or weights (dead loads) and variable forces or weights (live loads).
Suggested Remedy	A preliminary opinion as to a course of action to remedy or repair a physical deficiency. There may be alternate methods that may be more commensurate with the Client's requirements. Further investigation might make other schemes more appropriate or the suggested remedy unworkable. The suggested remedy may be to conduct further research or testing, or to employ Specialty Consultants to gain a better understanding of the cause, extent of a deficiency (whether observed or highly probable), and the appropriate remedy.
Survey	Observations as the result of a walk-through scan or reconnaissance to obtain information by EMG of the Property's readily accessible and easily visible components or systems.
System	A combination of interacting or interdependent components assembled to carry out one or more functions.
Technically Exhaustive	The use of measurements, instruments, testing, calculations, exploratory probing or discover, and/or other means to discover and/or troubleshoot Physical Deficiencies, develop scientific or Engineering findings, conclusions, and recommendations.
Term	Reserve Term: The number of years that Capital Reserves are projected for as specified in the Expenditure Forecast.
TPO	Thermoplastic polyolefin, a white single ply roofing material, usually white
Timely Access	Entry provided to the Project Manager at the time of his site visit.
UST	Underground Storage Tank
Walk-through Survey	The Project Manager's site visit of the Property consisting of his visual reconnaissance and scan of readily accessible and easily visible components and systems. This definition connotes that such a survey should not be considered in depth, and is to be conducted without the aid of special protective clothing, exploratory probing, removal of materials, testing, or the use of special equipment such as ladders, scaffolding, binoculars, moisture meters, air flow meters, or metering/testing equipment or devices of any kind. It is literally the Project Manager's walk of the Property and observations.

APPENDIX F: BUILDING FACT SHEET

FRANCHISE TAX BOARD BUILDING COMPLEX FACT SHEET

9645 Butterfield Way

Sacramento

Sacramento County

Category 3 - Low Priority - Special Repairs and Maintenance

BUILDING INFORMATION

- Age: 30 years (completed Phase I in 1984) 21 years (completed Phase II in 1993), and 9 years (completed Phase III in 2005)
- Size:* Seven 1-4 story buildings, including a central plant and warehouse
1,835,576 GSF combined
51.18 acre complex parcel
3,953 surface parking spaces
Capacity - 4,137 occupants
- Financial: State Public Works Board
Lease-Revenue Bonds; 2003 Series D, and 2005 Series A, mature June 2028 and June 2030
Original Bond \$252,840,000 - Balance as of 6/30/13 \$203,880,000
IRR Rate - \$1.92/month per SF, FY 2013-14 (DGS Price Book)
\$1.88/month per SF, FY 2014-15 (Proposed DGS Price Book)
- LEED Status: See each individual building
- Tenants:
 - Phase I - Los Angeles Bldg - LEED-EB Silver
Occupied by Franchise Tax Board, with child care facility and cafeteria
514,616 GSF 437,536 NSF 437,536 Assigned SF
 - Phase II - San Diego Bldg - LEED-EB Gold
Occupied by the Franchise Tax Board and Department of Managed Health Care (36,679 SF)
419,002 GSF 371,880 NSF 371,880 Assigned SF
 - Phase III - Sacramento Bldg - LEED-EB Gold
Occupied solely by the Franchise Tax Board
479,657 GSF 432,092 NSF 432,092 Assigned SF
 - Phase III - San Francisco Bldg - LEED-EB Gold
Occupied solely by the Franchise Tax Board
354,976 GSF 321,967 NSF 321,967 Assigned SF



Real Property #: 9627
BPM #: 084

SPI Structure #: 2361

SPI Structure #: 5777

SPI Structure #: 5772

SPI Structure #: 5773

COMPLETED STUDIES AND SIGNIFICANT FINDINGS

A. 2009 American Disability Act Accessibility Compliance Survey

The current building codes utilized for this survey are more restrictive than prior codes. As a result, these buildings have accessibility deficiencies. Three of the buildings require minor alterations to achieve compliance, two of the buildings need an accessible path of travel to be compliant.

B. 2010 Marx/Okubo Property Condition Assessment (For Sale-Leaseback)

This report did not identify any significant items requiring immediate attention. For the years 1 - 3 for the report, items pertaining to repairing and sealing parking surfaces, the replacement of the roofs on the Los Angeles and San Diego buildings, and ADA accessibility compliance were noted at an estimated total cost of \$2.8 million.

C Ongoing - Franchise Tax Board Master Plan Update

The Master Plan Update is studying the development of a Phase IV to include a 4-story office building of 350,000 SF, plus development of a structured parking garage. This study due to be completed in 2014.

ADDITIONAL BUILDING ISSUES

No known building issues.

RECENTLY COMPLETED PROJECTS

Cost

TBD

* Source: Statewide Property Inventory

ACTIVE PROJECTS

Cost

TBD

PLANNED SPECIAL REPAIRS BY FISCAL YEAR

Estimated Cost

TBD

DGS STRATEGY: Continue to operate/maintain the buildings through the special repair/maintenance process; no capital outlay work is required at this location at this time.

APPENDIX G: COST TABLES

10 YEAR EXPENDITURE FORECAST



Franchise Tax Board Sacramento and San Francisco Buildings

9646 Butterfield Way
Rancho Cordova

Useful Life

Estimated Useful Life
Remaining Useful Life

Plan Type

OP: Operations	CC: Code Compliance
EN: Environmental	FN: Functionality
IN: Integrity	

Legend

Deferred
Scheduled

Element #	Component Description	Asset	Location	Action	EUL (Yrs)	RUL (Yrs)	Qty.	Unit of Meas.	Unit Cost	Plan Type	Priority	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	Total - Deferred	Total - Scheduled		
												Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9				
D3041.I	Air Handler 13,000 to 15,000 CFM	D3041.I AHU 14,000 to 15000 CFM	TC Roof	Motor replacement	15	0	4.00	ea	\$1,994.00	OP - Energy	Priority 1	\$7,976	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
D3041.I	Central Station Adu 63000 CFM	D3041.I AHU Supply 42500- 62500 CFM	SC Roof	Motor replacement	15	5	8.00	EA	\$13,062.00	OP - Energy	Priority 3	\$0	\$0	\$0	\$0	\$0	\$104,496	\$0	\$0	\$0	\$0	\$0	\$0	\$104,496	
D3042	Exhaust Fan 2000 CFM	D3042 Exhaust Fan 3600 CFM	TC Loading Dock	Motor replacement	15	0	2.00	ea	\$831.00	OP - Energy	Priority 1	\$1,662	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,662	\$0	
D3042	Exhaust Fan, Centrifugal, Belt-Drive, Aluminum Housing, 2050 Through 3500 CFM	D3042 Exhaust Fan 4200 CFM	SF Cafeteria	New Motor	15	0	1.00	ea	\$831.00	OP - Energy	Priority 1	\$831	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$831	\$0	
D3042	Unit Exhaust Fan	D3042 Unit Exhaust Fan (1/4 hp) on roof of Central Plant	Central Plant	Replace D3042 Unit Exhaust Fan (1/4 hp) on roof of Central Plant	20	9	1.00	EA	\$1,391.28	IN - Beyond Rated Life	Priority 4	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,391	\$0	\$1,391	
D3042	Exhaust Fan 8500 CFM	D3042 Exhaust Fan 8000 CFM	SC Roof	New Motor	15	0	2.00	ea	\$938.00	OP - Energy	Priority 1	\$1,876	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,876	\$0	
D3042	Exhaust Fan 800 CFM	D3042 Exhaust Fan 600- 900 CFM	TC Roof	Motor replacement	15	0	4.00	ea	\$831.00	OP - Energy	Priority 1	\$3,324	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,324	\$0	
D3042	Exhaust Fan, Sidewall 11,250 CFM	D3042 Exhaust Fan 14580 CFM	SC Roof	Motor replacement	15	0	1.00	ea	\$2,025.00	OP - Energy	Priority 1	\$2,025	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,025	\$0	
D3042	Exhaust Fan 2000 CFM	D3042 Exhaust Fan 2280 CFM	TC Roof	Motor replacement	15	0	2.00	ea	\$831.00	OP - Energy	Priority 1	\$1,662	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,662	\$0	
D3042	Exhaust Fan 2000 CFM	D3042 Exhaust Fan <3150 CFM	SC Roof	New motors	15	0	4.00	ea	\$858.00	OP - Energy	Priority 1	\$3,432	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,432	\$0	
D3042	Exhaust Fan 2000 CFM	D3042 Exhaust Fan <3150 CFM	SC Roof	Replace D3042 Exhaust Fan <3150 CFM	20	5	4.00	EA	\$3,450.37	OP - Energy	Priority 3	\$0	\$0	\$0	\$0	\$0	\$13,801	\$0	\$0	\$0	\$0	\$0	\$0	\$13,801	
D3042	Exhaust Fan 2000 CFM	D3042 Kitchen Exhaust Fan 1500 CFM	TC Roof	Motor replacement	15	0	2.00	ea	\$831.00	OP - Energy	Priority 1	\$1,662	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,662	\$0	
D3042	Exhaust Fan 8500 CFM	D3042 Exhaust Fan 5000 CFM	SF Roof	New Motor	15	0	3.00	ea	\$831.00	OP - Energy	Priority 1	\$2,493	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,493	\$0	
D3042	Exhaust Fan 8500 CFM	D3042 Kitchen Exhaust Fan 7000 CFM	TC Roof	New motor	15	0	1.00	ea	\$1,264.00	OP - Energy	Priority 1	\$1,264	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,264	\$0	
D3042	Exhaust Fan 2000 CFM	D3042 Exhaust Fan 2680 CFM	SC Cafeteria	Motor replacement	15	0	1.00	ea	\$831.00	OP - Energy	Priority 1	\$831	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$831	\$0	
D3042	Exhaust Fan 2000 CFM	D3042 Exhaust Fan up to 2000 CFM	WH Roof	New Motor	15	0	2.00	ea	\$831.00	OP - Energy	Priority 1	\$1,662	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,662	\$0	
D3042	Exhaust Fan, Sidewall 11,250 CFM	D3042 Kitchen Exhaust Fan 13100 cfm	TC Roof	Motor replacement	15	0	1.00	ea	\$2,025.00	OP - Energy	Priority 1	\$2,025	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,025	\$0	
D3042	Exhaust Fan 375 CFM	D3042 Exhaust Fan 200 CFM	SF Throughout Building	New Motor	15	0	1.00	ea	\$831.00	OP - Energy	Priority 1	\$831	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$831	\$0	
D3042	Exhaust Fan, Centrifugal, Belt-Drive, Aluminum Housing, 2050 Through 3500 CFM	D3042 Exhaust Fan 3000 CFM	SF Throughout Building	New Motor	15	0	1.00	ea	\$831.00	OP - Energy	Priority 1	\$831	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$831	\$0	
D3043	Heat Exchanger, Alfa Laval	D3023 Heat Exchanger Condenser side	SC Roof	Replace D3023 Heat Exchanger Condenser side	20	0	2.00	EA	\$6,324.00	OP - Energy	Priority 1	\$12,648	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$12,648	\$0	
D3043	Heat Exchanger, Alfa Laval	D3043 Heat Exchanger Condenser side	SF Roof	Replace D3043 Heat Exchanger Condenser side	20	0	2.00	EA	\$6,324.00	IN - Beyond Rated Life	Priority 1	\$12,648	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$12,648	\$0	
D3051	Fan Coil with Cooling and Heat 10 Ton	D3051 Fan Coil with 6 tons cooling	SF Roof	New Motor	15	5	2.00	ea	\$938.00	OP - Energy	Priority 3	\$0	\$0	\$0	\$0	\$0	\$1,876	\$0	\$0	\$0	\$0	\$0	\$1,876	\$0	
D3051	Fan Coil with Cooling and Heat 10 Ton	D3051 Fan coil unit 1.5 - 16 tons cooling	SC Throughout Building	Replace fan coil motors as needed	15	5	10.00	EA	\$872.00	IN - Beyond Rated Life	Priority 3	\$0	\$0	\$0	\$0	\$0	\$8,720	\$0	\$0	\$0	\$0	\$0	\$8,720	\$0	
D3051	Fan Coil with Cooling and Heat 10 Ton	D3051 Fan coil unit 3-20 ton cooling	SF Throughout Building	Replace fan coil motors as needed	15	5	5.00	EA	\$867.00	IN - Beyond Rated Life	Priority 3	\$0	\$0	\$0	\$0	\$0	\$4,335	\$0	\$0	\$0	\$0	\$0	\$4,335	\$0	
D3052	Package Units, Gas Heat, 30 Ton Cooling	D3052 Packaged Units, Gas Heat, 28 Ton Cooling	WH Roof	Replace D3052 Packaged Units, Gas Heat, 28 Ton Cooling	20	8	2.00	EA	\$98,376.14	IN - Beyond Rated Life	Priority 4	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$196,752	\$0	\$0	\$196,752	\$0	
D3052	Package Units, Gas Heat, 7.5-Ton Cooling	D3052 Packaged Units, Gas Heat, 7.5-Ton Cooling	WH Roof	Replace D3052 Packaged Units, Gas Heat, 7.5-Ton Cooling	15	3	1.00	EA	\$31,764.19	IN - Beyond Rated Life	Priority 2	\$0	\$0	\$0	\$31,764	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$31,764	\$0
D3053	Packaged Outdoor - Cooling Only	D3052 Split system Libert 1.5 ton cooling only	WH Roof	Replace D3052 Split system Libert 1.5 ton cooling only	20	8	1.00	EA	\$5,594.88	IN - Beyond Rated Life	Priority 4	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$5,595	\$0	\$0	\$5,595	\$0
D40	FIRE PROTECTION SYSTEMS																								
D4023	Wet Standpipe Riser	D4023 Riser pressure relief valves	All Facilities	Replace D4023 Riser pressure relief valves	35	0	10.00	EA	\$12,949.32	CC - Life Safety	Priority 1	\$129,493	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$129,493	\$0	
D4031	Fire Extinguishers 5 Lb, Install	D4031 Fire Extinguishers 5 Lb, Install	All Facilities	Replace D4031 Fire Extinguishers 5 Lb, Install	5	4	98.00	EA	\$300.90	IN - Beyond Rated Life	Priority 3	\$0	\$0	\$0	\$0	\$29,488	\$0	\$0	\$0	\$0	\$0	\$29,488	\$0	\$58,976	
D50	ELECTRICAL SYSTEMS																								
D5012	Breaker Panel 225 Amps, 30 Circuits	D5012 Breaker Panel <250 Amps	WH Electrical Room	Replace D5012 Breaker Panel <250 Amps	40	6	6.00	EA	\$7,864.32	IN - Beyond Rated Life	Priority 4	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$47,186	\$0	\$0	\$0	\$47,186	\$0	
D5021	Metal Halide Light , 500W	D5022 Interior HID fixtures 400 W	Throughout Warehouse Building	Replace D5022 Interior HID fixtures 400 W	20	8	42.00	EA	\$3,870.78	IN - Beyond Rated Life	Priority 4	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$162,573	\$0	\$0	\$162,573	\$0	
D5022	150-Watt Exterior Lamps, with 65-Watt Induction Lamps	D5022 150W Pole lamps	TC Exterior	Replace D5022 150W Pole lamps	15	5	22.00	EA	\$890.66	IN - Beyond Rated Life	Priority 3	\$0	\$0	\$0	\$0	\$0	\$19,595	\$0	\$0	\$0	\$0	\$0	\$19,595	\$0	
D5022	Wall Pack 70 Watt High Pressure Sodium	D5022 Canopy and Wall packs 70 W HPS	TC Exterior	Replace D5022 Canopy and Wall packs 70 W HPS	15	5	33.00	EA	\$1,206.03	OP - Energy	Priority 3	\$0	\$0	\$0	\$0	\$0	\$39,799	\$0	\$0	\$0	\$0	\$0	\$39,799	\$0	
D5022	T12 Lamps, with T8 Lamps and Add Instant Start Electronic Ballasts	D5022 T8 fixtures	WH Exterior	Replace D5022 T8 fixtures	15	3	11.00	EA	\$264.79	OP - Energy	Priority 3	\$0	\$0	\$0	\$2,913	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,913	\$0	
D5022	Wall Pack 70 Watt High Pressure Sodium	D5022 Wall packs 70W HPS - Central Plant	Central Plant	Replace D5022 Wall packs 70W HPS - Central Plant	15	5	8.00	EA	\$1,206.03	IN - Beyond Rated Life	Priority 3	\$0	\$0	\$0	\$0	\$0	\$9,648	\$0	\$0	\$0	\$0	\$0	\$9,648	\$0	
D5022	150-Watt Exterior Lamps, with 65-Watt Induction Lamps	D5022 150W Pole lamps	SC Exterior	Replace D5022 150W Pole lamps	15	5	28.00	EA	\$890.66	IN - Beyond Rated Life	Priority 3	\$0	\$0	\$0	\$0	\$0	\$24,939	\$0	\$0	\$0	\$0	\$0	\$24,939	\$0	
D5022	D5022 Lighting Equipment	D5021 Lighting Motion Sensors	All Facilities	Replace D5021 Lighting Motion Sensors	20	0	884,500.00	SF	\$0.35	FN - Modernization	Priority 1	\$313,113	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$313,113	\$0	
D5022	150-Watt Exterior Lamps, with 65-Watt Induction Lamps	D5022 150W Pole lamps	SF Exterior	Replace D5022 150W Pole lamps	15	5	60.00	EA	\$890.66	OP - Energy	Priority 3	\$0	\$0	\$0	\$0	\$0	\$53,440	\$0	\$0	\$0	\$0	\$0	\$53,440	\$0	
D5037	Fire Alarm Panel	D5037 Fire Alarm Panel	All Facilities	Replace D5037 Fire Alarm Panel	15	0	8.00	EA	\$16,482.24	CC - Life Safety	Priority 1	\$131,858	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$131,858	\$0	
D5092	Ups System Batteries	D5092 UPS System Batteries - Central Plant	Central Plant	Replace D5092 UPS System Batteries - Central Plant	15	7	1.00	EA	\$1,681.43	IN - Beyond Rated Life	Priority 4	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,681	\$0	\$0	\$0	\$1,681	\$0	
Services Subtotal												\$712,554	\$0	\$0	\$58,963	\$127,488	\$1,099,204	\$179,570	\$1,681	\$364,920	\$564,140	\$712,554	\$2,395,966		

E. EQUIPMENT & FURNISHING																								
E10 EQUIPMENT																								
E1016	Ducting for Dryers	E1016 Ducting for Dryers	Town Center	Replace E1016 Ducting for Dryers	30	0	3.00	EA	\$1,162.15	EN - Air/ Water Quality	Priority 2	\$3,486	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,486	\$0
E1092	Trash Compactor	E1092 Trash Compactor 28 hp	SF Exterior	Replace E1092 Trash Compactor 28 hp	15	5	1.00	EA	\$22,134.00	IN - Beyond Rated Life	Priority 4	\$0	\$0	\$0	\$0	\$0	\$22,134	\$0	\$0	\$0	\$0	\$0	\$22,134	\$0
Equipment & Furnishing Subtotal												\$3,486	\$0	\$0	\$0	\$0	\$0	\$22,134	\$0	\$0	\$0	\$0	\$3,486	\$22,134

F. SPECIAL CONSTRUCTION AND DEMOLITION																								
Special Construction And Demolition Subtotal																								
												\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

G. BUILDING SITEWORK																								
G20 SITE IMPROVEMENTS																								
G2012	Asphalt- Seal Coat- Roadways	G2012 Asphalt Seal Coat	Stework	G2012 Reseal and stripe	5	2	794,050.00	SF	\$0.77	IN - Beyond Rated Life	Priority 3	\$0	\$0	\$610,466	\$0	\$0	\$0	\$0	\$610,466	\$0	\$0	\$0	\$1,220,931	\$0
G2057	Irrigation System, Install New, Large Areas	G2057 Irrigation system upgrade -exterior	All Facilities	Replace G2057 Irrigation system upgrade -exterior	15	5	214,693.00	SF	\$6.32	FN - Modernization	Priority 4	\$0	\$0	\$0	\$0	\$1,357,719	\$0	\$0	\$0	\$0	\$0	\$0	\$1,357,719	\$0
G30 SITE CIVIL/MECHANICAL UTILITIES																								

10 YEAR EXPENDITURE FORECAST

Franchise Tax Board Sacramento and San Francisco Buildings
 9646 Butterfield Way
 Rancho Cordova

Useful Life ¹	Estimated Useful Life	Plan Type ²	OP: Operations	CC: Code Compliance	Legend
	Remaining Useful Life		EN: Environmental	FN: Functionality	
			IN: Integrity		Deferred
					Scheduled

Element #	Component Description	Asset	Location	Action	EUL (Yrs)	RUL (Yrs)	Qty.	Unit of Meas.	Unit Cost	Plan Type	Priority ²	2015 Year 0	2016 Year 1	2017 Year 2	2018 Year 3	2019 Year 4	2020 Year 5	2021 Year 6	2022 Year 7	2023 Year 8	2024 Year 9	Total - Deferred	Total - Scheduled
												\$832,413	\$0	\$610,466	\$368,101	\$127,488	\$6,587,892	\$1,212,738	\$612,147	\$5,128,378	\$4,566,286	\$832,413	\$19,213,496
												\$832,413	\$0	\$673,038	\$426,123	\$154,963	\$8,408,005	\$1,625,185	\$861,352	\$7,576,950	\$7,083,808	Total *	\$20,045,908

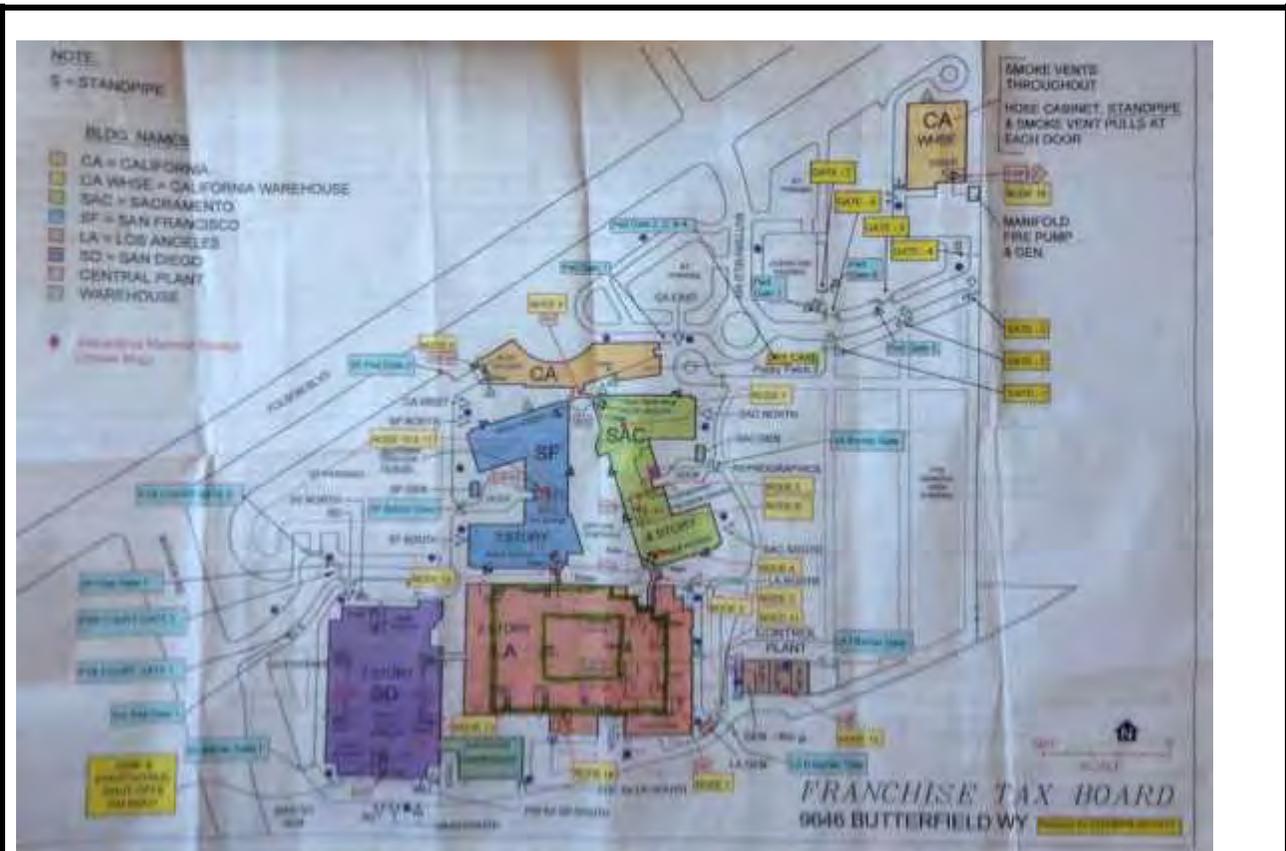
* - Present Value Currency

Footnotes

- 1 Detailed descriptions for Useful Life and Plan Type can be found in the Appendices of the Facility Condition
- 2 Detailed Descriptions of the Priorities can be found in the Appendices of the Facility Condition Assessment

Current Repl.Value \$358,405,411

APPENDIX H: SUPPORTING DOCUMENTATION



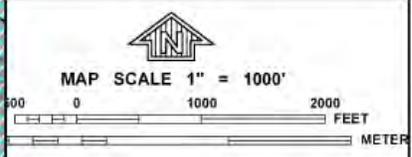
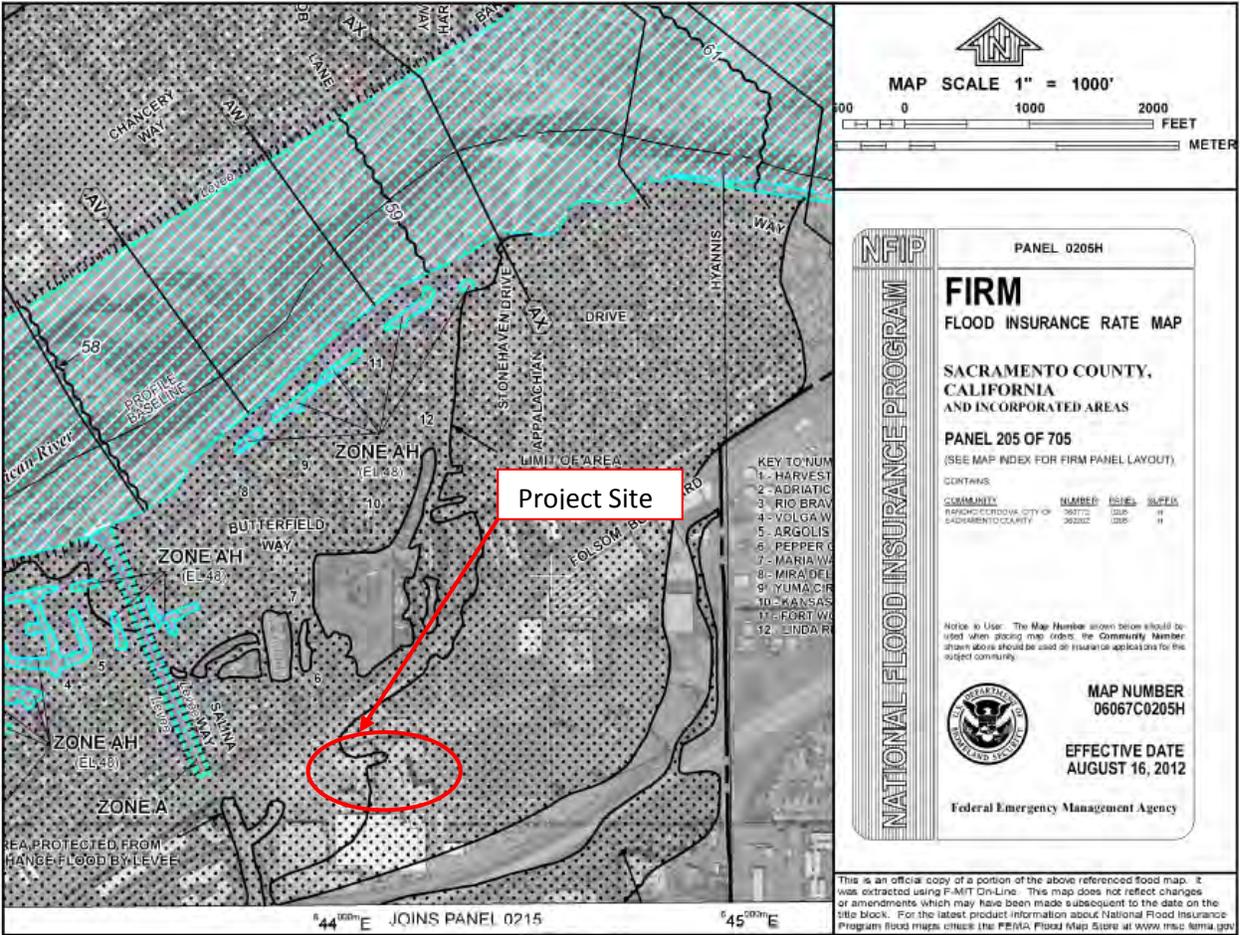
Source:
The north arrow indicator is an approximation of 0° North.

Project Number:
111328.14R – 025.305
Project Name:
Franchise Tax Board Sacramento and San Francisco Buildings



On-Site Date:
January 20-23, 2015

Flood Map



NFIP PANEL 0205H

FIRM
FLOOD INSURANCE RATE MAP

SACRAMENTO COUNTY,
CALIFORNIA
AND INCORPORATED AREAS

PANEL 205 OF 705
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	DATE	SUFFIX
RANCHO CERRITOS CITY OF SACRAMENTO COUNTY	38772	08/16	H
	38282	08/16	H

Note to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.

MAP NUMBER
06067C0205H

EFFECTIVE DATE
AUGUST 16, 2012

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-M/T On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps, check the FEMA Flood Map Store at www.msc.fema.gov



SOURCE:
FEMA

Project Number:
111326.14R-025.305



Not drawn to scale. The north arrow indicator is an approximation of 0° North.

Project Name:
FTB Sacramento and San Francisco

On-Site Date:
January 20, 2015

Expected Useful Life (EUL) Table	
SITE SYSTEM ITEMS	
ROADWAYS/ PARKING/ WALKWAYS	
Asphalt pavement	25
Asphalt seal coat	5
Concrete pavement	50
Curbing, asphalt	25
Curbing, concrete	50
Parking, stall striping	5
Parking, gravel surfaced	15
Security gate- rolling gate	10
Security gate- lift arm	10
Sidewalk, asphalt	25
Sidewalk, brick paver	30
Sidewalk, concrete	50
STORM SEWER, DRAINAGE AND EROSION CONTROL	
Catch basins, inlets, culverts	50
Earthwork, grading and erosion control	50
Storm drain lines	40
LANDSCAPING, TOPOGRAPHY AND FENCING	
Fencing, chain-link (4' height)	40
Fencing, dumpster enclosure (wood)	12
Fencing, Tennis Court (10' height)-Chain link	40
Fencing, wood privacy (6' height)	15
Fencing, wrought iron (4-6' height and decorative)	50
Fencing, concrete masonry unit (CMU)	30
Irrigation System	30
Retaining walls, 80 lb block type	50
Retaining walls, concrete masonry unit (CMU) with brick face	40
Fencing, PVC (6' height)	25
Retaining walls, timber (railroad tie)	25
SITE SYSTEM ITEMS	
GENERAL SITE IMPROVEMENTS	
Lighting (pole mounted)	25
Mail kiosk	10
Pool deck	15
Pool/ spa plaster liner	8
Signage, monument	20
Signage, roadway/ parking	10
Tennis court / basketball court surface (paint markings)	5

GENERAL SITE IMPROVEMENTS	
Tennis court Surface (acrylic emulsion)	10
Tot-lot (playground equipment)	10
SITE SANITARY AND WATER	
Domestic Hot Water (DHW) - supply / return	30
Lift station	50
Sanitary lines	50
Sanitary treatment	40
Water main	40
Water supply lines	50
Water tower	50
SITE MECHANICAL / ELECTRICAL	
Compactors	15
Dumpsters	10
Electrical distribution center	40
Electric main	40
Emergency Generator	25
Gas lines	40
Gas main	40
Heating supply/ return	40
Power distribution	40
Transformer	30
BUILDING ARCHITECTURAL ITEMS	
Wood Decks	20
Storage Sheds	30
Carports	40
Garages	50
Basement Stairs	50
Building mounted exterior lighting	10
Building mounted High Intensity Discharge (HID) lighting	10
Bulkhead	10
Canopy, concrete	50
Canopy, wood / metal	40
Ceilings, open or exterior	30
Chimney	40
Common area doors, interior (solid wood/ metal clad)	30
Common area floors, ceramic / quarry tile, terrazzo	50+
Common area floors, wood (strip or parquet)	30
Common area floors, resilient tile or sheet	15
Common area floors, carpet	8
Common area floors, concrete	50+

BUILDING ARCHITECTURAL ITEMS	
Common area railing	20
Common area ceiling, concrete	50+
Common area ceiling, acoustic tile (drop ceiling),	15
Common area countertop and sink	20
Common area dishwasher	15
Common area disposal	5
Common area kitchen cabinets, wood	15
Common area wall coverings	15
Caps, copings (aluminum/ terra-cotta) - Parapet	25
Exterior common door, aluminum and glass	30
Exterior common door, solid core wood or metal clad	25
Exterior stairs, wood	15
Exterior stairs, metal pan- concrete filled	30
Exterior stairs, concrete	50
Exterior unit door, solid wood/ metal clad	25
EXTERIOR CLADDING	
Aluminum Siding	40
Brick or block	40
Brownstone or stone veneer	40
Exterior Insulation Finishing Systems (EIFS)	20
Glass block	40
Granite block	40
Metal/ glass curtain wall	30
Precast concrete panel (tilt-up)	40
Vinyl siding	25
Wood shingle/ clapboard/ plywood, stucco, composite wood	20
Cement-board siding (Hardi-plank)/ non integral color	45
Fire Escapes	40
Foundations	50+
Roof hatch	30
Roof skylight	30
Insulation, wall	50+
Interior lighting	15
Interior railings	20
Mail facility, interior	20
Parapet wall,	50+
Penthouse	50
Railing, roof	25

INTERIORS	
Public bathroom accessories	7
Public bathroom fixtures	15
Refrigerator, common area	10
BUILDING ARCHTECTURAL ITEMS	
ROOF COVERINGS	
Built-up roof - Ethylene Propylene Diene Monomer (EPDM) / Thermoplastic Polyolefin (TPO)	20
Asphalt shingle (3-tab)	20
Wood shingles (cedar shake)	25
Slate, clay, concrete tile	40
Metal	40
Roof drainage exterior (gutter/ downspout)	10
Roof drainage interior (drain covers)	30
Roof structure	50+
Slab	50+
Service door	25
Soffits (wood/ stucco)	20
Soffits (aluminum or vinyl)	25
Stair structures	50+
Storm/ screen doors	7
Storm/ screen windows	10
Waterproofing (foundations)	50+
Windows (frames and glazing), vinyl or aluminum	30
Wood floor frame	50+
BOILER ROOM EQUIPMENT	
Blowdown and Water Treatment	25
Boiler Room Pipe Insulation	Included in boiler
Boiler Room Piping	Included in boiler
Boiler Room Valves	15
Boiler Temperature Controls	Included in boiler
Oil-fired, sectional	22
Gas/ dual fuel, sectional	25
Oil/ gas/ dual fired, low MBH	30
BOILERS	
Oil/ gas/ dual fired, high MBH	40
Gas fired atmospheric	25
Electric	20

BUILDING HEATING WATER TEMPERATURE CONTROLS	
Common area	15
Buzzer/Intercom, central panel	20
Central Unit Exhaust, roof mounted	15
Chilled Water Distribution	50+
Chilling Plant	15
Cooling Tower	25
Combustion Air, Duct with fixed louvers	30
Combustion Air, Motor louver and duct	25
CONDENSATE, FEEDWATER, WATER	
Feedwater only (hydronic)	10
Cooling Tower	25
DHW Circulating Pumps	by size
Tank only, dedicated fuel	10
Exchanger in storage tank	15
Exchanger in boiler	15
External tankless	15
Instantaneous (tankless type)	10
Domestic Hot Water Storage Tanks, Small (up to 150 gallons)	15
Domestic Hot Water Storage Tanks, Large (over 150 gallons)	15
Domestic Cold Water Pumps	15
ELECTRICAL & ELEVATOR	
Electrical Switchgear	50+
Electrical Wiring	30
Elevator, Controller, dispatcher	15
Elevator, Cab	15
Elevator, Machinery	30
Elevator, Shaft-way Doors	20
Elevator, Shaft-way Hoist rails, cables, traveling	25
Elevator, Shaft-way Hydraulic piston and leveling	25
EMERGENCY ALARM AND FIRE PROTECTION	
Call station	10
Emergency Generator	25
Emergency Lights	8
Evaporative Cooler	15
Fire Extinguisher	10
Fire Pumps	20
Fire Suppression	50+
Flue Exhaust	w/boiler
Free Standing Chimney	50+
Fuel Oil Storage	25

EMERGENCY ALARM AND FIRE PROTECTION	
Fuel Transfer System	25
Gas Distribution	50+
Heat Sensors	15
Heat Exchanger	35
Heating Risers and Distribution	50+
MECHANICAL – ELECTRIC – PLUMBING ITEMS	
Heating Water Circulating Pumps	by size
Heating Water Controller	15
Hot and Cold Water Distribution	50
HVAC	
Pad/ roof condenser	20
A/C window unit or through wall	10
Fan coil unit, electric	20
Fan coil unit, hydronic	30
Furnace (electric heat with A/C)	20
Furnace (electric heat with A/C)	20
Furnace (gas heat with A/C)	20
Packaged terminal air conditioner (PTAC)	15
Packaged HVAC (roof top units)	20
Heat pump condensing component	20
Heater, electric baseboard	25
Heater, wall mounted electric or gas	20
Hydronic heat/ electric A/C	20
Line Dryers	15
Master TV System	10
Motorized Valves	12
Outdoor Temperature Sensor	10
Pneumatic lines and Controls	30
POWER VENTILATOR	
Purchased Steam Supply Station	50+
Sanitary Waste and Vent System	50+
Sewage Ejectors	50
Smoke and Fire Detection System, central panel	15
Solar Hot Water	20
SUMP PUMP	
Commercial Sump Pump	15
Water Softening and Filtration	15
Water Tower	50+

PLAN TYPE DEFINITION

Within the report text a Plan Type is assigned to the various cost categories. The following is a brief description of the Plan Types that may be used in the report.

Code Compliance (CC)

- **Accessibility:** Conditions that are not in conformance with the American Disabilities Act Accessibility Guidelines
- **Building Code:** Conditions that are not in conformance with the Building codes
- **Life Safety:** Conditions that are not in conformance with the NFPA 101 Life Safety Code

Operations (OP)

- **Energy:** Conditions that adversely affect energy use or will decrease water or energy usage
- **Maintenance:** Components or systems that can usually be accomplished by the current maintenance staff
- **Security:** Conditions that compromise the protection of the asset or its occupants

Environmental (EN)

- **Air/ Water Quality:** Conditions that affect air or water quality
- **Asbestos:** Reported or suspected asbestos-containing material(ACM)
- **Lead:** Reported lead based paint
- **PCB:** Reported PCB containing equipment

Functionality (FN)

- **Mission:** Components which do not meet the mission of the organization
- **Modernization:** Conditions that need to be upgraded in appearance or function
- **Plant Adaptation:** Components or systems that must change to fit a new or adapted use
- **Obsolescence:** Components or systems that are or are becoming obsolete
- **Capacity:** Components or system which cannot meet demand load

Integrity (IN)

- **Appearance:** Problems with the material or system appearance that are not functional in nature
- **Reliability:** Components or systems which cannot be depended on to function as designed
- **Beyond Rated Life:** A component or system that has exceeded its rated life

Estimate of Structures Cost Using Marshall Cost Systems

Franchise Tax Board Sacramento and San Francisco Buildings (084)

Site Calculation

Estimate of Unusual Land Improvements Cost (Estimators Data Cost Base):

Description	Cost	Estimated \$/ SF	Unusual Land Total
			\$0
Total			\$0

Estimate of Unusual Land Improvements Cost (Estimators Cost Data Base):

Estimate of Structure Cost :

Building Type	Cost per SF	Number of SF	Building Type Total
Main buildings	\$316.29	884,161	\$279,655,425
Central Plant	\$194.13	12,218	\$2,371,932
Warehouse	\$103.29	45,475	\$4,696,995
	\$0.00	0	\$0
	\$0.00	0	\$0
Total		941,854	\$286,724,352

Estimate of Adjustments for Fees:

Description	% increase	
Soft Costs	25.00%	
	0.00%	
	0.00%	
Total Fees/ Interest included in Marshall System		25.00%

Total Structure Estimate:

Description	Unit	Fee Adjust	Adjusted Totals
Main buildings	\$279,655,425	25.00%	\$349,569,282
Central Plant	\$2,371,932	25.00%	\$2,964,915
Warehouse	\$4,696,995	25.00%	\$5,871,244
	\$0	25.00%	\$0
	\$0	25.00%	\$0
Cost Per SF	\$380.53	Total Estimate	\$358,405,441

ADA Checklist

Date Completed: January 20, 2015

Property Name: FTB Sacramento and San Francisco

EMG Project Number: 111326.14R-025.305

EMG Abbreviated Accessibility Checklist					
Building History		Yes	No	Unk	Comments
1	Has an ADA survey previously been completed for this property?	X			
2	Have any ADA improvements been made to the property?		Xx		
3	Does a Transition Plan / Barrier Removal Plan exist for the property?			X	
4	Has building ownership or management received any ADA related complaints that have not been resolved?		X		
5	Is any litigation pending related to ADA issues?		X		
Parking		Yes	No	NA	Comments
1	Are there sufficient accessible parking spaces with respect to the total number of reported spaces?	X			
2	Are there sufficient van-accessible parking spaces available?	X			
3	Are accessible spaces marked with the International Symbol of Accessibility? Are there signs reading "Van Accessible" at van spaces?	X			
4	Is there at least one accessible route provided within the boundary of the site from public transportation stops, accessible parking spaces, passenger loading zones, if provided, and public streets and sidewalks?	X			
5	Do curbs on the accessible route have depressed, ramped curb cuts at drives, paths, and drop-offs?	X			
6	If required does signage exist directing you to accessible parking and an accessible building entrance?	X			
Ramps		Yes	No	NA	Comments
1 *	Do all ramps along accessible path of travel appear to meet slope requirements? (1:12 or less)	X			

EMG Abbreviated Accessibility Checklist					
2	Are ramps that appear longer than 6 ft complete with railings on both sides?	X			
3	Does the width between railings appear at least 36 inches?	X			
4	Is there a level landing for approximately every 30 ft horizontal length of ramp, at the top and at the bottom of ramps and switchbacks?			X	
Entrances/Exits		Yes	No	NA	Comments
1	Do all required accessible entrance doorways appear at least 32 inches wide and not a revolving door?	X			
2	If the main entrance is inaccessible, are there alternate accessible entrances?	X			
3	Is the door hardware easy to operate (lever/push type hardware, no twisting required and not higher than approximately 48 inches above the floor)?	X			
Paths of Travel		Yes	No	NA	Comments
1	Are all paths of travel free of obstruction and wide enough for a wheelchair (appear at least 36 inches wide)?	X			
2	Are wheelchair-accessible facilities (toilet rooms, exits, etc.) identified with signage?	X			
3	Is there a path of travel that does not require the use of stairs?	X			
Elevators		Yes	No	NA	Comments
1	Do the call buttons have visual and audible signals to indicate when a call is registered and answered when car arrives?	X			
2	Are there visual and audible signals inside cars indicating floor change?	X			
3	Are there standard raised and Braille marking on both jambs of each hoist way entrance as well as all cab/call buttons?	X			
4	Do elevator doors have a reopening device that will stop and reopen a car door if an object or a person obstructs the door?	X			

EMG Abbreviated Accessibility Checklist					
5	Are elevator controls low enough to be reached from a wheelchair (appears to be between 15 and 48 inches)?	X			
6	If a two-way emergency communication system is provided within the elevator cab, is it usable without voice communication?	X			
Toilet Rooms		Yes	No	NA	Comments
1	Are common area public restrooms located on an accessible route?	X			
2	Are pull handles push/pull or lever type?	X			
Toilet Rooms		Yes	No	NA	Comments
3	Are there audible and visual fire alarm devices in the toilet rooms?	X			
4	Are toilet room access doors wheelchair-accessible (appear to be at least 32 inches wide)?	X			
5	Are public restrooms large enough to accommodate a wheelchair turnaround (appear to have 60" turning diameter)?	X			
6	In unisex toilet rooms, are there safety alarms with pull cords?			X	
7	Are toilet stall doors wheelchair accessible (appear to be at least 32" wide)?	X			
8	Are grab bars provided in toilet stalls?	X			
9	Are sinks provided with clearance for a wheelchair to roll under (appear to have 29" clearance)?	X			
10	Are sink handles operable with one hand without grasping, pinching or twisting?	X			
11	Are exposed pipes under sink sufficiently insulated against contact?	X			

EMG Abbreviated Accessibility Checklist					
Guest Rooms		Yes	No	NA	Comments
1	How many total accessible sleeping rooms does the property management report to have? Provide specific number in comment field. Are there sufficient reported accessible sleeping rooms with respect to the total number of reported guestrooms? See attached hot sheet.			X	
2	How many of the accessible sleeping rooms per property management have roll-in showers? Provide specific number in comment field. Are there sufficient reported accessible rooms with roll-in showers with respect to the total number of reported accessible guestrooms? See attached hot sheet.			X	
Guest Rooms		Yes	No	NA	Comments
3	How many assistive listening kits and/or rooms with communication features are available per property management? Provide specific number in comment field. Are there sufficient reported assistive listening devices with respect to the total number of rooms? See attached hot sheet.			X	
Pools		Yes	No	NA	Comments
1	Are public access pools provided? If the answer is no, please disregard this section.			x	
2	How many accessible access points are provided to each pool/spa? Provide number in comment field. Is at least one fixed lift or sloped entry to the pool provided?			x	
Play Area		Yes	No	NA	Comments
1	Has the play area been reviewed for accessibility? All public playgrounds are subject to ADAAG standards.			X	
Exercise Equipment		Yes	No	NA	Comments
1	Does there appear to be adequate clear floor space around the machines/equipment (30" by 48" minimum)?			X	

**Based on visual observation only. The slope was not confirmed through measurements.*

APPENDIX I: PRE-SURVEY QUESTIONNAIRE

Property Condition Assessment: Pre-Survey Questionnaire

This questionnaire should be completed by someone knowledgeable about the subject property. The completed form should be presented to EMG's Field Observer on the day of the site visit. If the form is not completed, EMG's Project Manager will require additional time during the on-site visit with such a knowledgeable person in order to complete the questionnaire. During the site visit, EMG's Field Observer may ask for details associated with selected questions. This questionnaire will be utilized as an exhibit in EMG's final Property Condition Report.

Name of person completing questionnaire: Rob Fannin

Building name: Franchise Tax Board Sacramento and San Francisco Buildings (084)

What is your association with this property? OBMIII

What is the length of your association with this property? 6 years

Phone number: 916-845-7553

Please provide information about inspections relating to the following items

Inspections	Date Last Inspected	List Name & Contact for Maintenance Contractor, if any.
1. Elevators	3-2014	Thysenn Krupp
2. HVAC, Mechanical, Electric, Plumbing	2-2015	staff
3. Life-Safety/Fire	11-2014	Siemens
4. Roofs	2-2015	staff

5. List any major capital improvements within the last three years.

6. Are there any other major capital expenditures planned in the near term?

7. What is the age of the roof(s)?

10 years

8. What building systems (HVAC, roof, interior/exterior finishes, paving etc.) are the responsibilities of contractors to repair or replace?

Fire Life Safety, Elevators

Mark the column corresponding to the appropriate response. Please provide additional details in the Comments column, or backup documentation for any Yes responses. Note: N/A indicates "Not Applicable", Unk indicates "Unknown"

Question	Y	N	N/A	Unk	Comments
9. Are there any unresolved building, or fire code issues?	x				Current vendor will not pass our risers
10. Are there any "down" or unusable units?		x			
11. Are there any problems with erosion, storm-water drainage or areas of paving that do not drain?		x			

Question	Y	N	N/A	Unk	Comments
12. Is the property served by a private water well?		x			
13. Is the property served by a private septic system or other waste treatment systems?		x			
14. Are there any problems with foundations or structures?		x			
15. Is there any water infiltration in basements or crawl spaces?				x	
16. Are there any wall, or window leaks?	x				Forensic Architect has been requested for repairs.
17. Are there any roof leaks?		x			
18. Is the roofing covered by a warranty or bond?	x				
19. Are there any poorly insulated areas?		x			
20. Is Fire Retardant Treated (FRT) plywood used?		x			
21. Is exterior insulation and finish system (EIFS) or a synthetic stucco finish used?		x			
22. Are there any problems with the utilities, such as inadequate capacities?		x			
23. Are there any problems with the landscape irrigation systems?		x			
24. Has a termite/wood boring insect inspection been performed within the last year?		x			
25. Do any of the HVAC systems use R-11, 12, or 22 refrigerants?		x			
26. Has any part of the property ever contained visible suspect mold growth?	x				
27. Is there a mold Operations and Maintenance Plan?				x	
28. Have there been indoor air quality or mold related complaints from tenants?	x				

Question	Y	N	N/A	Unk	Comments
29. Is polybutylene piping used?				x	
30. Are there any plumbing leaks or water pressure problems?		x			
31. Are there any leaks or pressure problems with natural gas service?		x			
32. Does any part of the electrical system use aluminum wiring?		x			
33. Are there transformers inside the building?	x				
34. Do any Commercial units have less than 200-Amp service?	x				
35. Are there any recalled fire sprinkler heads (Star, GEM, Central, Omega)?		x			
36. Is there any pending litigation concerning the property?				x	
37. Has the State previously completed an ADA or 'Title 24 review?	x				
38. Have any ADA or Title 24 improvements been made to the property?	x				
39. Does a Barrier Removal Plan exist for the property?		x			
40. Has the Barrier Removal Plan been approved by a credentialed third party?		x			
41. Have there been any ADA or Title 24 related complaints?	x				
42. Have there been any complaints about the elevators or wait times?		x			
43. Are there any problems with exterior lighting?		x			
44. Are there any other significant issues/hazards with the property?		x			
45. Are there any unresolved construction defects at the property?	x				Forensic Arcitect has been requested for leaking wall & roof transitions

APPENDIX J: ELEVATOR REPORT



Franchise Tax Board
9646 Butterfield
Sacramento, CA

Due Diligence
Elevator Report

February 28, 2015

Prepared for:

Ms. Karla Rodriquez
EMG Corporation
Hunt Valley, MD 21212

Prepared by:

Mr. Bob Nicholson
President
Architectural Elevator Consulting, LLC
1326 5th Ave., Suite 630
Seattle, WA 98101



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Section I: Executive Summary

A. Introduction

During February 2015 Bob Nicholson of Architectural Elevator Consulting, LLC (AEC) reviewed an elevator assessment report provided by the State for the Franchise Tax Board at 9646 Butterfield Road, Sacramento, CA. There are four (4) buildings with a total of twenty-two (22) elevators. There are ten (10) geared traction elevators and twelve (12) hydraulic elevators. The purpose of the survey was to review the major components, to identify upgrades needed over the next ten years and check for compliance with various codes.

All the elevators in Phase I and II were manufactured and installed by Dover Elevator. The newer elevators in Phase III were manufactured and installed by ThyssenKrupp Elevator Company. Phase I was built in 1985 and has two original elevators, Cars 1 and 2. A new elevator, Car 3 was added in 2007. The elevators in Phase II were installed in 1993. The elevators in Phase III were all installed in 2004. All the elevators have high quality Dover or ThyssenKrupp components that are known to be reliable and have a long life cycle.

All of the traction elevators in the San Francisco and Sacramento buildings were installed under Group III in California, which requires five-year full load tests. None of the governors had test tags, which indicates that the tests are overdue. These tests should be scheduled as soon as possible.

B. Elevator Layout

Most of the elevators in Phase I and Phase II are two stop hydraulic elevators with single elevators located throughout the buildings. The taller buildings in Phase III traction elevators for passenger use and one hydraulic elevator per building for service. The larger Sacramento Building has two sets of three traction passenger elevators and one single hydraulic elevator for service. The smaller San Francisco Building has two sets of duplex traction passenger elevators and one hydraulic service elevator. The number, speed and size of the elevators appear to be adequate to provide satisfactory service for the building.

Elevator Summary – LA Building – Phase I				
Elevator Designation	Elevator Speed	Floors Served	Capacity	Door Type
Car 1	120 FPM	1-2	2,500 lbs.	Side
Car 2	85 FPM	1-2	4,000 lbs.	Side
Car 3	150 FPM	1-2	3,500 lbs.	Side

Elevator Summary - San Diego Building – Phase II				
Elevator Designation	Elevator Speed	Floors Served	Capacity	Door Type
Car 1	120 FPM	1-2	5,000 lbs.	Vertical
Cars 2, 4	125 FPM	1-2	5,000 lbs.	Side
Cars 3, 5, 6	125 FPM	1-2	4,000 lbs.	Side
Car 7	125 FPM	1-2	5,000 lbs.	Center

Elevator Summary - Sacramento Building – Phase III				
Elevator Designation	Elevator Speed	Floors Served	Capacity	Door Type
Car 1, 2, 3	200 FPM	G, 2-4	3,500 lbs.	Center
Car 4	150 FPM	G, 2-4,R	4,500 lbs.	Side
Cars 5, 6, 7	200 FPM	G, 2-4	3,500 lbs.	Center

Elevator Summary - San Francisco Building – Phase III				
Elevator Designation	Elevator Speed	Floors Served	Capacity	Door Type
Car 8, 9	200 FPM	G, 2-3	3,500 lbs.	Center
Car 10	150 FPM	G, 2-3,R	4,500 lbs.	Side
Cars 11, 12	200 FPM	G, 2-4	3,500 lbs.	Center

C. Condition/Components

Most the major components of the elevators are assumed to be in good condition. The older equipment is Phase I should be modernized in the next 1 to 3 years and the 2nd oldest equipment in Phase II should be modernized in 4 to 6 years. All of the equipment in Phase III is newer and just approaching its ½ life cycle.

D. Maintenance/Performance

The elevators are currently being maintained by ThyssenKrupp Elevator. According to the State report the level of maintenance was noted to be good with room for improvement. The five year tests on all traction elevators in Phase III are overdue. These should be scheduled as soon as possible.

E. Code Review:

There are several codes affecting existing elevators in the State of California. While we did not survey the elevators we have made assumptions on the following codes: Americans with Disabilities Act (ADA)/California T24, and compliance with the National Elevator Code for Existing Elevators, A17.3.

1. **Americans with Disability Act (ADA)/California T24:** In 1990 the federal government enacted ADA to make public spaces more accessible to disabled persons. California has a few specific accessibility requirements in addition to ADA. All of the elevators in Phase II and Phase III were required to meet ADA when installed. Thus they most likely fully comply with ADA. Elevators 1 and 2 in Phase I were installed prior to ADA and may have a few minor features that do not comply. We recommend all ADA deficiencies be addressed in the modernization of Cars 1 and 2 in Phase I.
2. **Retro Active Codes for Existing Elevators:** This code requires all elevators, no matter age or installation date, to meet a minimum level of safety. A17.3 is not adopted in California, thus not required by the State, but highly recommended. The elevators in Phase III were required to meet this code when installed new, thus it is assumed these are

in full compliance. It is assumed that the elevators in Phase I and II have most of these items but may be missing important safety features such as door restrictors and 21” car aprons. Further review is recommended to determine if these elevators have door restrictors and 21” car aprons. If these are not present we recommend they be added as soon as possible.

3. **Seismic:** The newer elevators in Phase III were required to have seismic features for the both the traction and hydraulic elevators, so it is assumed these are present. The older hydraulic elevators in Phase I and Phase II may not have seismic rupture valves. These should be added when modernized if not present now.

F. Recommendation:

We recommend all the elevators in Phase III have the five year full load test performed as soon as possible. The State of California exempts older elevators from being tested, but these were installed under Group III and are required to have annual and five year full load tests. The older two older elevators in Phase I, Cars 1 and 2, should be modernized in the next 1 to 3 years and the elevators in Phase II should be modernized in 4 to 6 years. Electric door edges should be added to the five passenger cars in Phase II that do not already have them.

Vertical Transportation

Franchise Tax Board 9646 Butterfield

Item No.	Recommendation	Rating	Quantity	Unit	Unit Cost	Immediate Code Items	Immediate - Repair	Years 1-3	Years 4-6	Years 7-10	Totals
1	Modernize elevators 1 and 2 in LA Building.	4	2	EA	\$120,000.00			\$240,000			\$240,000
2	Modernize elevators 1-7 in San Diego Building	4	7	EA	\$115,000.00				\$805,000		\$805,000
3	Install new electric door edges on the five elevators at San Diego building that do not already have them.	3	5	EA	\$3,500.00			\$17,500			\$17,500
4	Perform overdue five year tests on the traction cars in Phase III (Sacramento & San Francisco)	1	10	EA	\$3,000.00	\$30,000					\$30,000
5				EA							\$0
6				EA							\$0
7				EA							\$0
8				EA							\$0
9				EA							\$0
10				EA							\$0
11											
12											
	Subtotal					\$30,000	\$0	\$257,500	\$805,000	\$0	\$1,092,500
		1	\$30,000	Code and Safety							
		2	\$0	Deferred Maintenance & Repair							
		3	\$17,500	Capital Expenditure							
		4	\$1,045,000	Modernization / Improvements							
		5	\$1,092,500	Total							

Rating:
 1 - Code and Safety
 2 - Repair and Maintenance
 3 - Capital Expenditure
 4 - Modernization / Improvements
 5 - Total



Prepared by

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