



## Franchise Tax Board Los Angeles Building (084)

9645 Butterfield Way, Rancho Cordova, CA 95827

### Facility Condition Assessment

June 2015

*Prepared for the State of California Department of General Services*





# TABLE OF CONTENTS

<b>EXECUTIVE SUMMARY.....</b>	<b>2</b>
BACKGROUND .....	2
OBJECTIVE .....	2
SCOPE OF ASSESSMENT .....	3
SURVEY FINDINGS.....	3
<b>INTRODUCTION .....</b>	<b>6</b>
BUILDING BACKGROUND.....	6
BUILDING DESCRIPTION.....	6
FACILITY CONDITION ASSESSMENT.....	8
SCOPE OF ASSESSMENT .....	10
PRIORITY RANKING .....	11
CURRENT REPLACEMENT VALUE.....	15
FACILITY CONDITION INDEX.....	16
<b>APPENDICES .....</b>	<b>18</b>
APPENDIX A: ACCESSIBILITY ISSUES.....	18
APPENDIX B: GENERAL ASSESSMENT INFORMATION.....	20
APPENDIX C: CERTIFICATION.....	62
APPENDIX D: PHOTOS.....	64
APPENDIX E: TERMINOLOGY AND ABBREVIATIONS.....	92
APPENDIX F: BUILDING FACT SHEET.....	98
APPENDIX G: COST TABLES.....	102
APPENDIX H: SUPPORTING DOCUMENTATION .....	106
APPENDIX I: PRE-SURVEY QUESTIONNAIRE.....	116
APPENDIX J: ELEVATOR REPORT.....	119

**THIS PAGE INTENTIONALLY BLANK**

## 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 Los Angeles Building (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 Los Angeles Building (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 Los Angeles Building (084) on January 6, 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	\$187,784,422
Immediate Repair Costs (12 months)	\$11,231,434
1-5 Year Capital Needs	\$3,496,995
6-10 Year Capital Needs	\$7,387,065
Total 10-Year Capital Reserve Needs	\$22,115,493

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

**Current Year FCI**

$$\text{Current FCI} = \frac{\$11,231,434}{\$187,784,422}$$

**Ten-Year FCI**

$$\text{Ten-Year FCI} = \frac{\$22,115,493}{\$187,784,422}$$

Current Year FCI	Ten-Year FCI
5.98 % = <i>Fair Condition</i>	11.78 % = <i>Poor Condition</i>

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

- The roof has a history of leaks throughout the building. Built-up roof replacement is recommended.
- There is a mixture of new and old carpet in the building. Replacement of the older carpet is recommended.
- The cooling units for the computer/data rooms are original to the building. Replacement is recommended.
- The building is using a mixture of original pneumatic and newer digital controls as part of the energy management system. Pneumatic systems are prone to leakage issues, and are antiquated. Replacement with digital controls is recommended.

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

THIS PAGE INTENTIONALLY BLANK

## INTRODUCTION

### BUILDING BACKGROUND

The Franchise Tax Board Complex (084) was constructed in three separate phases. The complex consists of seven buildings totaling approximately 1,835,576 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 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 Los Angeles Building was designed by Vitiello and Nilyo Architects of Sacramento. The oldest building in the complex, the Los Angeles Building, was completed in 1984. The building contains office space, a child care facility, and a cafeteria.

The Franchise Tax Board Complex - Phase I Building is 514,616 GSF with a net usable area of 437,536 SF. The ratio of net usable to gross building area is 85 percent. The occupant capacity is 1,937.

### BUILDING DESCRIPTION

The building foundation consists of reinforced concrete slab-on-grade. The building structural system is constructed with a steel superstructure and concrete topped metal floor decks. The roof structure is flat with a built-up membrane.

The exterior walls are finished with stucco.

The interior walls are painted drywall. The floor finishes include commercial carpet tiles, vinyl composition tiles, and ceramic tiles in the restrooms. The interior ceiling is finished with acoustic ceiling tiles.

The facility is served by three hydraulic passenger elevators.

Domestic hot water is supplied to each of the restrooms and kitchen areas by a variety of small electric water heaters. There are larger electric and gas water heaters for the cafeteria and some restrooms equipped with showers.

Heating is provided by boilers in the on-site central plant. The hot water is then supplied to the air handling units through distribution pumps with variable fan drives. Cooling is provided by centrifugal water cooled chillers in the central plant that supply the air handling units.

Life safety systems include fire sprinklers, hydrants, smoke detectors, alarms, extinguishers, and dry standpipes.

The landscaping consists of trees, shrubs, and lawn areas. Landscaped areas are irrigated by an in-ground overhead spray sprinkler system. The parking areas are paved with asphalt. Based on information provided by the site staff, parking is provided for 4,355 cars. All of the parking stalls are located in open lots.

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

**Project Statistics**

Item	Description
Project Name	Franchise Tax Board Los Angeles Building
Building ID	084
Property Type	Administration
Year Built	1984
Number of Stories	2
Occupied	Yes
Land Area (acres)	51.18
Gross Square Feet (GSF)	514,616

## 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 E2018-08<sup>1</sup> 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 Los Angeles Building (084) on January 6, 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.

---

<sup>1</sup> 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.

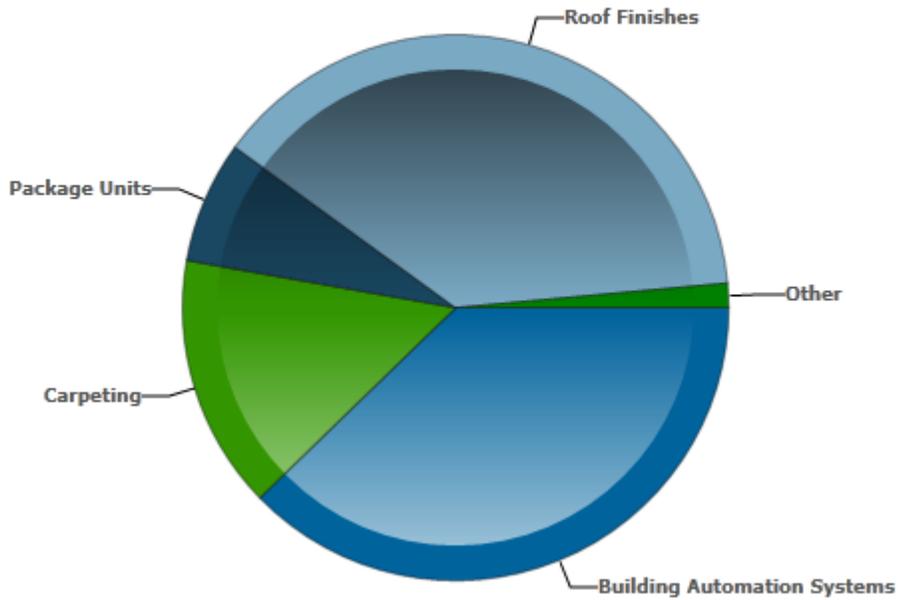
### PRIORITY RATIO

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:

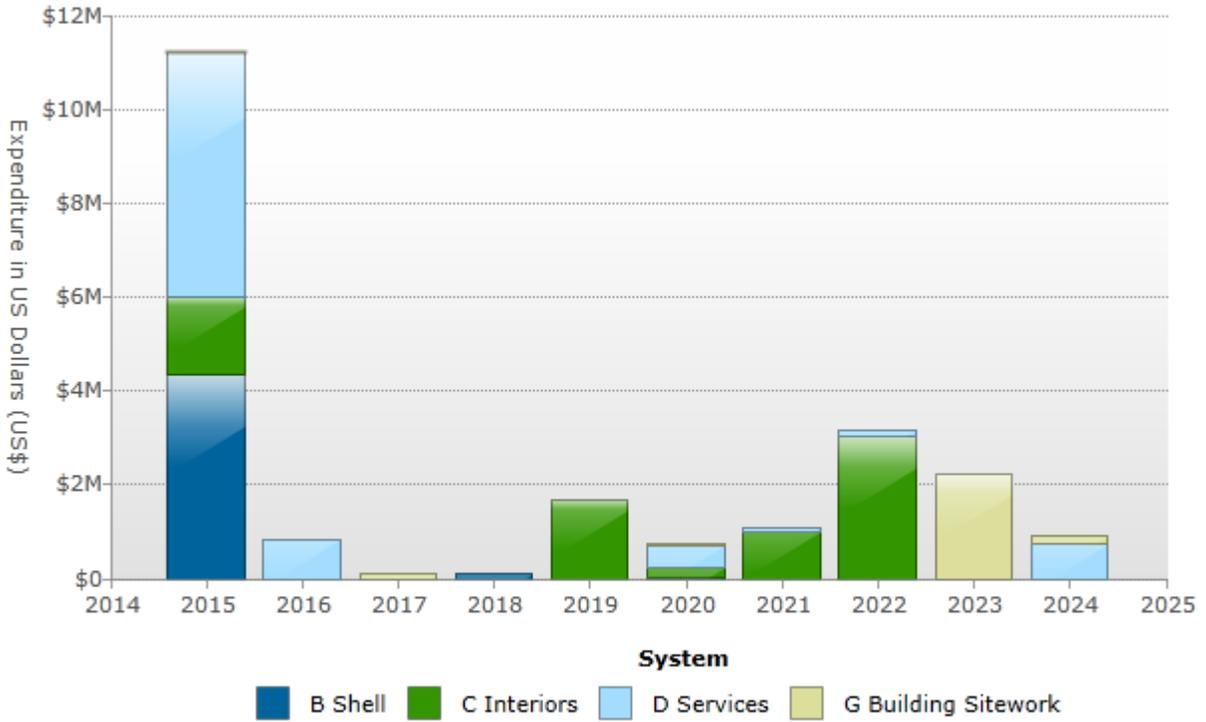
Condition	Definition
Good	In new or well-maintained condition, with no visual evidence of wear, soiling, or other deficiencies.
Fair	Subjected to wear and soiling but is still in a serviceable and functioning condition.
Poor	Subjected to hard or long-term wear. Nearing the end of its useful or serviceable 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
B3011	Roof Finishes	\$4,327,902
C3025	Carpeting	\$1,690,598
D1011	Passenger Elevators	\$6,297
D2034	Sanitary Waste Equipment	\$4,378
D3042	Exhaust Ventilation Systems	\$144,509
D3052	Package Units	\$814,025
D3068	Building Automation Systems	\$4,237,142
G2041	Fences & Gates	\$6,583
	<b>Total</b>	<b>\$11,231,434</b>

### 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	\$4,327,902	\$1,690,598	\$5,206,351	\$0	\$0	\$6,583	\$11,231,434
2016	\$0	\$0	\$0	\$819,000	\$0	\$0	\$0	\$819,000
2017	\$0	\$0	\$0	\$0	\$0	\$0	\$122,483	\$122,483
2018	\$0	\$105,648	\$0	\$0	\$0	\$0	\$0	\$105,648
2019	\$0	\$0	\$1,690,598	\$0	\$0	\$0	\$0	\$1,690,598
2020	\$0	\$14,322	\$202,616	\$490,742	\$0	\$0	\$51,586	\$759,266
2021	\$0	\$0	\$1,006,242	\$54,714	\$0	\$0	\$0	\$1,060,955
2022	\$0	\$0	\$3,041,994	\$136,178	\$0	\$0	\$0	\$3,178,172
2023	\$0	\$0	\$0	\$0	\$0	\$0	\$2,224,283	\$2,224,283
2024	\$0	\$0	\$0	\$725,532	\$0	\$0	\$198,122	\$923,654
<b>Total</b>	<b>\$0</b>	<b>\$4,447,872</b>	<b>\$7,632,048</b>	<b>\$7,432,517</b>	<b>\$0</b>	<b>\$0</b>	<b>\$2,603,057</b>	<b>\$22,115,493</b>

**CURRENT REPLACEMENT VALUE**

The Current Replacement Value has been determined as \$187,784,422 for the Franchise Tax Board Los Angeles Building 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
514,616 GSF	\$365	\$187,784,422

## FACILITY CONDITION INDEX

The FCI<sup>1</sup> 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.<sup>2</sup> 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.

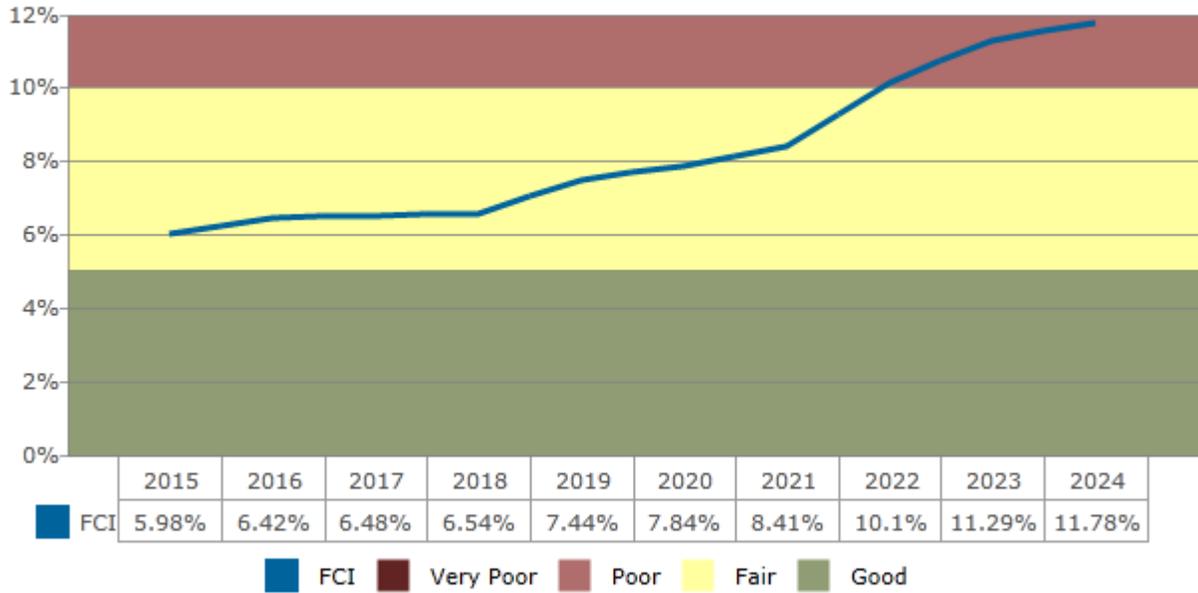
Condition	Definition	Value
Good	In new or well-maintained condition, with no visual evidence of wear, soiling or other deficiencies.	0% to 5%
Fair	Subjected to wear and soiling but is still in a serviceable and functioning condition.	Greater than 5% to 10%
Poor	Subjected to hard or long-term wear. Nearing 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.

---

<sup>2</sup> 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

**Recommendations:**

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D1011	Install Braille marking signs on elevators.	3.0 - EA	182.0	CC - Accessibility	Priority 1	2015	546

**Cost Summary:**

Year	Total Expenditures
2015	\$546



**APPENDIX B: GENERAL ASSESSMENT INFORMATION**

**A Substructure Systems**

**A10 FOUNDATIONS**

Item	Description
<b>A1031 Standard Slab on Grade</b>	A1030 Standard Concrete Slab
<b>Condition</b>	Good
<b>Qty / UOM</b>	232500 / SF
<b>RUL (years)</b>	19
<b>Location</b>	Throughout facility

OBSERVATIONS/COMMENTS:

The concrete slabs on grade were observed to be in good condition.

**B Shell Systems**

**B10 SUPERSTRUCTURE**

Item	Description
<b>B1031 Steel Frame Structure</b>	B1031 Structural Steel Columns and Beams Frame
<b>Condition</b>	Good
<b>Qty / UOM</b>	514616 / SF
<b>RUL (years)</b>	39
<b>Location</b>	Throughout facility

OBSERVATIONS/COMMENTS:

Open web truss joists are utilized in some areas.

**B20 EXTERIOR ENCLOSURE**

Item	Description
B2011 Exterior Wall Construction	B2011 Paint Exterior Walls
Condition	Fair - Good
Qty / UOM	30000 / SF
RUL (years)	3
Location	Building exterior
Exterior Wall Construction	Stucco
Parapets	Yes
Exterior Soffits	Concealed

OBSERVATIONS/COMMENTS:

Based on its estimated RUL and condition, exterior painting will be required.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
B2011	B2011 Paint	30,000.0 - SF	3.5	IN - Appearance	Priority 3	2018	105,648

Item	Description
<b>B2021 Windows</b>	B2021 Window Sealant
<b>Condition</b>	Fair
<b>Qty / UOM</b>	7500 / LF
<b>RUL (years)</b>	5
<b>Location</b>	Throughout exterior
<b>Window Type</b>	Fixed
<b>Windows Material</b>	Aluminum
<b>Windows Glazing</b>	Single Glazed
<b>Window Operation</b>	Fixed

OBSERVATIONS/COMMENTS:

Isolated gasket replacement and caulking will be required at various locations throughout the exterior.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
B2021	Repair B2021 Aluminum Windows	7,500.0 - LF	1.9	IN - Beyond Rated Life	Priority 3	2020	14,322

Item	Description
<b>B2031 Glazed Doors &amp; Entrances</b>	B2031 Glazed Entrance Doors
<b>Condition</b>	Good
<b>Qty / UOM</b>	2 / EA
<b>RUL (years)</b>	17
<b>Location</b>	Building exterior

OBSERVATIONS/COMMENTS:

The storefront type aluminum entrance doors were recently replaced and in good condition.

COST SUMMARY:

Type	Year	Total Expenditures
B20 Exterior Enclosure	2018	\$105,648
B20 Exterior Enclosure	2020	\$14,322

**B30 ROOFING**

Item	Description
B3011 Roof Finishes	B3011 Built-Up Roofing
Condition	Poor - Fair
Qty / UOM	2325 / SQ
RUL (years)	0
Location	Roof
Traffic Toppings and Pavings	reflective coating added before POCs involvement with building
Insulation	Batt
Flashings and Trim	Metal
Roof Eaves and Soffits	No
Roof Drainage	Internal Building Piping
Roof Warranty	No

OBSERVATIONS/COMMENTS:

The roof has a history of leaks throughout the building. Replacement is recommended.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
B3011	Replace B3011 Built-Up Roofing	2,325.0 - SQ	1861.5	IN - Beyond Rated Life	Priority 1	2015	4,327,902

COST SUMMARY:

Type	Year	Total Expenditures
B30 Roofing	2015	\$4,327,902

## C Interiors Systems

### C10 INTERIOR CONSTRUCTION

Item	Description
C1021 Interior Doors	C1021 Interior Doors
Condition	Good
Qty / UOM	10 / EA
RUL (years)	7
Location	Throughout facility

OBSERVATIONS/COMMENTS:

Based on their estimated RUL, the corridor fire doors will require replacement.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
C1021	Replace C1021 Interior Doors	10.0 - EA	3809.4	IN - Beyond Rated Life	Priority 4	2022	38,094

COST SUMMARY:

Type	Year	Total Expenditures
C10 Interior Construction	2022	\$38,094

**C30 INTERIOR FINISHES**

Item	Description
<b>C3012 Wall Finishes to Interior Walls</b>	C3012 Paint Interior Walls, Drywall
Condition	Fair
Qty / UOM	95000 / SF
RUL (years)	5
Location	Throughout facility

OBSERVATIONS/COMMENTS:

Painted drywall walls are located throughout the building. Routine painting and minor prep work are anticipated.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
C3012	minor crack repairs and reseal	95,000.0 - SF	2.1	IN - Appearance	Priority 4	2020	202,616

Item	Description
<b>C3024 Flooring</b>	C3024 Vinyl Tile
Condition	Fair - Good
Qty / UOM	8000 / SY
RUL (years)	6
Location	Throughout facility

OBSERVATIONS/COMMENTS:

Tiles in lower pedestrian traffic areas are in good condition, but will need to be replaced in higher traffic areas.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
C3024	Replace C3024 Vinyl Tile	8,000.0 - SY	125.8	IN - Appearance	Priority 4	2021	1,006,242

Item	Description
<b>C3025 Carpeting</b>	C3025 Carpet Tiles - Older
<b>Condition</b>	Fair
<b>Qty / UOM</b>	17500 / SY
<b>RUL (years)</b>	0
<b>Location</b>	Offices/ conference rooms

OBSERVATIONS/COMMENTS:

Carpet tiles are located throughout the building. Based on the RUL and observed conditions, replacement of the older carpet tiles is recommended.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
C3025	Replace C3025 Carpet Tiles - Older	17,500.0 - SY	96.6	IN - Appearance	Priority 2	2015	1,690,598

Item	Description
<b>C3025 Carpeting</b>	C3025 Carpet Tiles - Newer
<b>Condition</b>	Fair
<b>Qty / UOM</b>	17500 / SY
<b>RUL (years)</b>	4
<b>Location</b>	Offices/ Conference rooms

OBSERVATIONS/COMMENTS:

Carpet tiles are located throughout the building. Based on the RUL and observed conditions, replacement of the older carpet tiles is recommended.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
C3025	Replace C3025 Carpet Tiles - Newer	17,500.0 - SY	96.6	IN - Appearance	Priority 3	2019	1,690,598

Item	Description
<b>C3032 Suspended Ceilings</b>	C3032 Acoustical Ceiling Tile
<b>Condition</b>	Good
<b>Qty / UOM</b>	2500 / CSF
<b>RUL (years)</b>	7
<b>Location</b>	Throughout facility

OBSERVATIONS/COMMENTS:

Acoustic ceiling tiles are located throughout the building. Replacement is anticipated, based on their RUL.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
C3032	Replace C3032 Acoustical Ceiling Tile	2,500.0 - CSF	1201.6	IN - Beyond Rated Life	Priority 4	2022	3,003,900

COST SUMMARY:

Type	Year	Total Expenditures
C30 Interior Finishes	2015	\$1,690,598
C30 Interior Finishes	2019	\$1,690,598
C30 Interior Finishes	2020	\$202,616
C30 Interior Finishes	2021	\$1,006,242
C30 Interior Finishes	2022	\$3,003,900

## D Services Systems

### D10 CONVEYING SYSTEMS

Item	Description
D1011 Passenger Elevators	D1011 Hydraulic Elevator 2500- 4000 lbs
Condition	Fair
Qty / UOM	3 / EA
RUL (years)	1
Location	Throughout Facility

**OBSERVATIONS/COMMENTS:**

All of the elevators are original to the building. There are three elevators ranging from 2500 to 4000 lbs. capacity. Elevators were missing Braille markings on the outside switch. See elevator consultant report. Full modernization is recommended in years one and two. Immediate repairs are also required.

**COST RECOMMENDATIONS:**

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D1011	Clean elevator pit on elevator 1.	1.0 - EA	455.0	OP - Maintenance	Priority 2	2015	455
D1011	Investigate noise from front door operator in elevator 2.	1.0 - EA	182.0	OP - Maintenance	Priority 2	2015	182
D1011	Car position indicators are not working in elevator 1 and 2 and need to be repaired	2.0 - EA	1365.0	OP - Maintenance	Priority 2	2015	2,730
D1011	Remove cans and rags from top of car on elevator 1.	1.0 - EA	109.2	OP - Maintenance	Priority 2	2015	109
D1011	Clean oil from pit rails.	1.0 - LS	455.0	OP - Maintenance	Priority 2	2015	455
D1011	Monitor leaks from muffler in elevator 1.	1.0 - EA	182.0	OP - Maintenance	Priority 2	2015	182
D1011	Clean guide rails under car on elevator 1.	1.0 - LS	455.0	OP - Maintenance	Priority 2	2015	455

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D1011	Install Braille marking signs on elevators.	3.0 - EA	182.0	CC - Accessibility	Priority 1	2015	546
D1011	Clean and service squeaky door equipment on elevator 2.	1.0 - LS	273.0	OP - Maintenance	Priority 2	2015	273
D1011	Clean oil from packing and monitor for re-packing.	1.0 - LS	910.0	OP - Maintenance	Priority 2	2015	910
D1011	Replace D1011 Hydraulic Elevator 2500- 4000 lbs	3.0 - EA	273000.0	FN - Modernization	Priority 2	2016	819,000

**COST SUMMARY:**

Type	Year	Total Expenditures
D10 Conveying Systems	2015	\$6,297
D10 Conveying Systems	2016	\$819,000

**D20 PLUMBING**

Item	Description
D2011 Water Closets	D2011 Water Closet, 1.6 GPF Unit
Condition	Fair
Qty / UOM	119 / EA
RUL (years)	20
Location	Throughout Facility
Low Flow Toilet	Yes
System Grade	Commercial Grade

OBSERVATIONS/COMMENTS:

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

Item	Description
D2012 Urinals	D2012 Urinal
Condition	Fair
Qty / UOM	55 / EA
RUL (years)	20
Location	Throughout Facility
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 lavatory sink
Condition	Fair
Qty / UOM	90 / EA
RUL (years)	15
Location	Throughout Facility

OBSERVATIONS/COMMENTS:

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

Item	Description
<b>D2018 Drinking Fountains and Coolers</b>	D2018 Drinking Fountain
<b>Condition</b>	Good
<b>Qty / UOM</b>	17 / EA
<b>RUL (years)</b>	7
<b>Location</b>	Throughout Facility

OBSERVATIONS/COMMENTS:

The drinking fountains were located adjacent to the restrooms. Replacement is anticipated later in the term.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D2018	Replace D2018 Drinking Fountain	17.0 - EA	2876.6	IN - Beyond Rated Life	Priority 4	2022	48,902

Item	Description
<b>D2022 Hot Water Service</b>	D2022 DHW Heater - Gas 120 Gal
<b>Condition</b>	Good
<b>Qty / UOM</b>	1 / EA
<b>RUL (years)</b>	6
<b>Location</b>	Janitor closet

OBSERVATIONS/COMMENTS:

There was one 120-gallon gas water heater located in the janitor's closet near the cafeteria. It provides hot water for the commercial kitchen. 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 (\$)
D2022	Replace D2022 DHW Heater - Gas 120 Gal	1.0 - EA	25700.4	IN - Beyond Rated Life	Priority 3	2021	25,700

Item	Description
D2022 Hot Water Service	D2022 DHW Commercial Water Heater - Electric 65 gallon
Condition	Good
Qty / UOM	2 / EA
RUL (years)	6
Location	Janitor closets

OBSERVATIONS/COMMENTS:

There were two commercial 65 gallon water heaters located in janitors' closets. 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 (\$)
D2022	Replace D2022 DHW Commercial Water Heater - Electric 65 gallon	2.0 - EA	8177.4	IN - Beyond Rated Life	Priority 3	2021	16,355

Item	Description
D2034 Sanitary Waste Equipment	D2034 Grease Interceptor
Condition	Poor
Qty / UOM	1 / EA
RUL (years)	0
Location	Cafeteria

OBSERVATIONS/COMMENTS:

Currently the cafeteria does not have a grease trap in the kitchen. Installation of a grease trap system is recommended for proper flow of wastewater disposal system and to prevent blockages.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D2034	Install D2034 Grease Interceptor	1.0 - EA	4377.8	EN - Air/ Water Quality	Priority 1	2015	4,378

**COST SUMMARY:**

<b>Type</b>	<b>Year</b>	<b>Total Expenditures</b>
D20 Plumbing	2015	\$4,378
D20 Plumbing	2021	\$42,055
D20 Plumbing	2022	\$48,902

**D30 HVAC**

<b>Energy Supply</b>	
<b>Item</b>	<b>Description</b>
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	West of San Diego Building
Electrical Meter Location	Central Plant
Water Meter Location	N/A

<b>Item</b>	<b>Description</b>
<b>D3022.1 Circulating Pumps</b>	D3022.1 CWS Circulation Pump 60 HP
Condition	Good
Qty / UOM	2 / EA
RUL (years)	10
Location	Storage Area

**OBSERVATIONS/COMMENTS:**

Distribution pumps for the chiller supplies chilled water to all the air handlers. They all have connected VFD drives and control the flow based on energy management system (EMS). The pumps were performing adequately.

<b>Item</b>	<b>Description</b>
<b>D3022.1 Circulating Pumps</b>	D3022.1 HWS Circulation Pump 60 HP
Condition	Good
Qty / UOM	2 / EA
RUL (years)	10

Item	Description
Location	Storage Area

OBSERVATIONS/COMMENTS:

Distribution pumps for the hot water system supplies heated water to the building's air handlers. They all have connected VFDs and control the flow based on EMS. The pumps were working adequately.

Item	Description
D3041.1 Air Handling Units	D3041.1 Fan Coil Unit 3-10 Ton
Condition	Good
Qty / UOM	7 / EA
RUL (years)	20
Location	Throughout Facility

OBSERVATIONS/COMMENTS:

Ceiling-mounted fan coil units were located in various rooms, including receiving areas, storage areas, telephone room, etc. They include HWS and CWS loop in a two-pipe system. They provide conditioned air to non-office related spaces directly, without going through VAV boxes. All equipment was working adequately, and only life cycle replacement is recommended.

Item	Description
D3041.1 Air Handling Units	D3041.1 Air Handler 2000 CFM
Condition	Fair
Qty / UOM	1 / EA
RUL (years)	10
Location	Mechanical Rooms

OBSERVATIONS/COMMENTS:

Multiple air handlers supply the variable air volume (VAV) boxes located in office areas with desired air temperature, based on the call for heating or cooling from the zonal temperature sensors. All AHUs are equipped with two-pipe HWS or CWS loop for heating or cooling. Dampers on the air handlers are pneumatic, controlled by EMS. There are VFDs for all supply and return AHU motors, also controlled by EMS. The equipment was working adequately.

Item	Description
<b>D3041.1 Air Handling Units</b>	D3041.1 Air Handlers 17,000-30,000 CFM
<b>Condition</b>	Fair
<b>Qty / UOM</b>	17 / EA
<b>RUL (years)</b>	10
<b>Location</b>	Mechanical Rooms

OBSERVATIONS/COMMENTS:

Multiple air handlers supply the VAV boxes located in office areas with desired air temperature, based on the call for heating or cooling from the zonal temperature sensors. All AHUs are equipped with two-pipe HWS or CWS loop for heating or cooling. Dampers on the air handlers are pneumatic, controlled by EMS. There are VFDs for all supply and return AHU motors, also controlled by EMS. The equipment was working adequately.

Item	Description
<b>D3041.2 Terminal Units VAV</b>	D3041 VAV Boxes
<b>Condition</b>	Good
<b>Qty / UOM</b>	84 / EA
<b>RUL (years)</b>	10
<b>Location</b>	Throughout Facility

OBSERVATIONS/COMMENTS:

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

Item	Description
<b>D3042 Exhaust Ventilation Systems</b>	D3042 Exhaust Fans Curved - 2 HP
<b>Condition</b>	Poor - Fair
<b>Qty / UOM</b>	32 / EA
<b>RUL (years)</b>	0
<b>Location</b>	Rooftop - LA

OBSERVATIONS/COMMENTS:

Exhaust fans on the roof are connected to the HVAC duct system, and keep the building balanced 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 Exhaust Fans Curved - 2 HP	32.0 - EA	2060.9	OP - Energy	Priority 1	2015	65,948

Item	Description
<b>D3042 Exhaust Ventilation Systems</b>	D3042 Exhaust Fans Curved - 4 HP
<b>Condition</b>	Poor - Fair
<b>Qty / UOM</b>	14 / EA
<b>RUL (years)</b>	0
<b>Location</b>	Rooftop - LA

**OBSERVATIONS/COMMENTS:**

Exhaust fans on the roof are connected to the HVAC duct system, and keep the building balanced 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 Exhaust Fans Curved - 4 HP	14.0 - EA	2326.2	OP - Energy	Priority 1	2015	32,567

Item	Description
D3042 Exhaust Ventilation Systems	D3042 Exhaust Fan 1550- 2950 CFM
Condition	Poor - Fair
Qty / UOM	2 / EA
RUL (years)	0
Location	Rooftop - LA

OBSERVATIONS/COMMENTS:

Exhaust fans on the roof are connected to the HVAC duct system, and keep the building balanced 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 Exhaust Fan 1550- 2950 CFM	2.0 - EA	3450.4	OP - Energy	Priority 1	2015	6,901

Item	Description
D3042 Exhaust Ventilation Systems	D3042 Exhaust Fan 100 CFM
Condition	Poor - Fair
Qty / UOM	2 / EA
RUL (years)	0
Location	Rooftop - LA

OBSERVATIONS/COMMENTS:

Exhaust fans on the roof are connected to the HVAC duct system, and keep the building balanced 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 Exhaust Fan 100 CFM	2.0 - EA	1772.0	OP - Energy	Priority 1	2015	3,544

Item	Description
D3042 Exhaust Ventilation Systems	D3042 Exhaust Fan 1300 CFM
Condition	Poor - Fair
Qty / UOM	4 / EA
RUL (years)	0
Location	Rooftop - LA

OBSERVATIONS/COMMENTS:

Exhaust fans on the roof are connected to the HVAC duct system, and keep the building balanced 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 Exhaust Fan 1300 CFM	4.0 - EA	2734.5	OP - Energy	Priority 1	2015	10,938

Item	Description
D3042 Exhaust Ventilation Systems	D3042 Exhaust Fan 800 - 1050 CFM
Condition	Poor - Fair
Qty / UOM	9 / EA
RUL (years)	0
Location	Rooftop - LA

OBSERVATIONS/COMMENTS:

Exhaust fans on the roof are connected to the HVAC duct system, and keep the building balanced 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 Exhaust Fan 800 - 1050 CFM	9.0 - EA	2734.5	OP - Energy	Priority 1	2015	24,610

Item	Description
D3052 Package Units	D3052 Packaged Rooftop Unit 4 Ton
Condition	Fair - Good
Qty / UOM	1 / EA
RUL (years)	7
Location	Rooftop - LA

OBSERVATIONS/COMMENTS:

Packaged rooftop units provide additional cooling to the children's teaching and play area. 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 (\$)
D3052	Replace D3052 Packaged Rooftop Unit 4 Ton	1.0 - EA	17780.6	IN - Beyond Rated Life	Priority 4	2022	17,781

Item	Description
D3052 Package Units	D3052 Packaged Units, Gas Heat, 25 Ton Cooling
Condition	Good
Qty / UOM	1 / EA
RUL (years)	12
Location	Rooftop - LA

OBSERVATIONS/COMMENTS:

Packaged rooftop units provide additional cooling to the cafeteria and service areas. According to maintenance staff, they were working adequately.

Item	Description
D3052 Package Units	D3052 Packaged Rooftop Unit 2 Ton
Condition	Good
Qty / UOM	1 / EA
RUL (years)	6
Location	Rooftop - LA

OBSERVATIONS/COMMENTS:

Packaged rooftop units provide additional cooling to the office and conference areas. According to maintenance staff, they were working adequately.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D3052	Replace D3052 Packaged Rooftop Unit 2 Ton	1.0 - EA	12658.4	IN - Beyond Rated Life	Priority 3	2021	12,658

Item	Description
D3052 Package Units	D3052 Makeup air unit, Outdoor 6000 CFM,
Condition	Good
Qty / UOM	1 / EA
RUL (years)	7
Location	Rooftop - LA

OBSERVATIONS/COMMENTS:

Additional cooling for the cafeteria is provided by this evaporative type cooling unit. Based on observed conditions and the estimated RUL, replacement is anticipated later in the term.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D3052	Replace D3052 Makeup air unit, Outdoor 6000 CFM,	1.0 - EA	69495.2	IN - Beyond Rated Life	Priority 4	2022	69,495

Item	Description
D3052 Package Units	D3052 AC (Liebert) 15-30 Ton
Condition	Poor
Qty / UOM	15 / EA
RUL (years)	0
Location	Computer 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, and should be replaced with higher efficiency units.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D3052	Replace D3052 AC (Liebert) 15-30 Ton	15.0 - EA	52362.7	IN - Beyond Rated Life	Priority 1	2015	785,441

Item	Description
D3052 Package Units	D3052 Packaged Rooftop Unit 7.5 Ton
Condition	Fair
Qty / UOM	1 / EA
RUL (years)	0
Location	Rooftop - LA

OBSERVATIONS/COMMENTS:

Packaged rooftop units provide additional cooling to the office and conference areas. Replacement is recommended.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D3052	Replace D3052 Packaged Rooftop Unit 7.5 Ton	1.0 - EA	28584.5	IN - Beyond Rated Life	Priority 1	2015	28,584

Item	Description
D3052 Package Units	D3052 Split System Unit, 1.5 Ton, Condenser
Condition	Good
Qty / UOM	24 / EA
RUL (years)	5
Location	Rooftop - LA

OBSERVATIONS/COMMENTS:

Split system units provide additional cooling to the areas that are prone to overheating from the electrical equipment, especially the secondary transformers. According to maintenance staff, they were working adequately, and only lifecycle replacements are recommended.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D3052	Replace D3052 Split System Unit, 1.5 Ton, Condenser	24.0 - EA	18972.0	IN - Beyond Rated Life	Priority 3	2020	455,328

Item	Description
D3068 Building Automation Systems	D3068 Direct Digital Controls (DDC)
Condition	Fair
Qty / UOM	514616 / SF
RUL (years)	0
Location	Throughout Facility

OBSERVATIONS/COMMENTS:

The building is using pneumatic and digital control system tied into EMS. There are dampers on AHUs, and VAV boxes being controlled by the pneumatic air compressor system. Pneumatic systems are prone to leakage issues. Maintenance is required to keep all systems in the building up to date. Configuring variable speed controls to work with existing pneumatic system is a major concern. The control system is antiquated, a full removal of the pneumatic system and conversion to a web-based electronic DDC platform is highly recommended.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D3068	Replace D3068 Direct Digital Controls (DDC)	514,616.0 - SF	8.2	FN - Modernization	Priority 1	2015	4,237,142

COST SUMMARY:

Type	Year	Total Expenditures
D30 HVAC	2015	\$5,195,676
D30 HVAC	2020	\$455,328
D30 HVAC	2021	\$12,658
D30 HVAC	2022	\$87,276

**D40 FIRE PROTECTION SYSTEMS**

<b>Fire and Life Safety System</b>	
<b>Item</b>	<b>Description</b>
<b>Fire Alarm System Components Present</b>	
Smoke detectors	Yes
Pull stations	Yes
Audible alarms	Yes
Strobe lights	N/A
Central fire alarm panel	Yes
Annunciator panel	Yes
Smoke Detectors Power Supply	N/A
Carbon Monoxide Detectors	Yes
Heat Detector	N/A
Central Fire Alarm Panel Location	N/A
Annunciator Panel Location	N/A
Fire Extinguishers	Yes
Fire Extinguisher Inspection Date	April 13, 2014
Distance to Nearest Fire Hydrant (ft)	N/A
Illuminated Exit Signs	Yes
Kitchen Suppression Systems	N/A
Halon Gas Systems	No
Smoke Evacuation Systems	N/A
Fire-rated Stairwells	Yes
Fire-rated Stairwell Finish	Drywall
Stairwell Discharge	N/A
Stairwell Pressurized	N/A
Fire-Rated Doors Observed	N/A
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
<b>D4011 Sprinkler Water Supply</b>	D4011 Wet-Pipe Sprinkler System
<b>Condition</b>	Fair - Good
<b>Qty / UOM</b>	514616 / SF
<b>RUL (years)</b>	10
<b>Location</b>	Throughout Facility

OBSERVATIONS/COMMENTS:

A wet pipe sprinkler system is located throughout the facility office spaces. No further action is required.

Item	Description
<b>D4011 Sprinkler Water Supply</b>	D4013 Dry Sprinkler System
<b>Condition</b>	Good
<b>Qty / UOM</b>	15000 / SF
<b>RUL (years)</b>	30
<b>Location</b>	Computer Room

OBSERVATIONS/COMMENTS:

A pre-action deluge system for the computer/data room was upgraded in 2010.

**D50 ELECTRICAL SYSTEMS**

Item	Description
D5012 Low Tension Service & Dist.	D5012 Dry Transformer 112 kVA
Condition	Good
Qty / UOM	12 / EA
RUL (years)	11
Location	Electrical Rooms

OBSERVATIONS/COMMENTS:

The secondary transformers in all electrical rooms are original to 1984. The electrical service is reportedly adequate for the facility's needs, and the transformers are in working condition.

Item	Description
D5012 Low Tension Service & Dist.	D5012 Breaker Panel 225 Amps, 30 Circuits
Condition	Fair - Good
Qty / UOM	65 / EA
RUL (years)	9
Location	Electrical Rooms

OBSERVATIONS/COMMENTS:

The 100 to 400 amp breaker panels in all electrical rooms are original to 1984. The electrical service is reportedly adequate for the facility's needs, and the panels are in working condition. The panels are aging and based on their estimated RUL, replacement toward the end of the term is anticipated.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D5012	Replace D5012 Breaker Panel 225 Amps, 30 Circuits	65.0 - EA	7864.3	IN - Beyond Rated Life	Priority 4	2024	511,181

Item	Description
D5012 Low Tension Service & Dist.	D5010 Switchgear Mainframe, 4000 Amps
Condition	Fair - Good
Qty / UOM	1 / EA
RUL (years)	9
Location	Main Electrical Room

OBSERVATIONS/COMMENTS:

The main switchgear is original 1984. The electrical service is reportedly adequate for the facility's needs, and the switchgear is in working condition. The switchgear is aging and based on its estimated RUL, replacement toward the end of the term is anticipated.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D5012	Replace D5010 Switchgear Mainframe, 4000 Amps	1.0 - EA	50551.2	IN - Beyond Rated Life	Priority 4	2024	50,551

Item	Description
D5012 Low Tension Service & Dist.	D5012 Switchgear Mainframe, 2000 Amps
Condition	Fair - Good
Qty / UOM	1 / EA
RUL (years)	9
Location	Main Electrical Room

OBSERVATIONS/COMMENTS:

The main switchgear is original to 1984. The electrical service is reportedly adequate for the facility's needs, and the switchgear is in working condition. The switchgear is aging and based on its estimated RUL, replacement toward the end of the term is anticipated.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D5012	Replace D5012 Switchgear Mainframe, 2000 Amps	1.0 - EA	32284.8	IN - Beyond Rated Life	Priority 4	2024	32,285

Item	Description
D5012 Low Tension Service & Dist.	D5012 Dry Transformer 45 kVA
Condition	Good
Qty / UOM	5 / EA
RUL (years)	11
Location	Electrical Rooms

OBSERVATIONS/COMMENTS:

The secondary transformers in all electrical rooms are original to 1984. The electrical service is reportedly adequate for the facility's needs, and the transformers are in working condition.

Item	Description
D5012 Low Tension Service & Dist.	D5012 Switchgear Mainframe, 400 Amps
Condition	Fair - Good
Qty / UOM	1 / EA
RUL (years)	9
Location	Main Electrical Room

OBSERVATIONS/COMMENTS:

The switchgear is original 1984 Industrial Electric equipment. The electrical service is reportedly adequate for the facility's needs, and the switchgear is in working condition. The switchgear is aging and based on its estimated RUL, replacement toward the end of the term is anticipated.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D5012	Replace D5012 Switchgear Mainframe, 400 Amps	1.0 - EA	9116.1	IN - Beyond Rated Life	Priority 4	2024	9,116

Item	Description
D5012 Low Tension Service & Dist.	D5012 Dry Transformer 75 kVA
Condition	Good
Qty / UOM	8 / EA
RUL (years)	11
Location	Electrical Rooms

OBSERVATIONS/COMMENTS:

The secondary transformers in all electrical rooms are original to 1984. The electrical service is reportedly adequate for the facility's needs, and the transformers are in working condition.

Item	Description
D5012 Low Tension Service & Dist.	D5012 Electrical Distribution Panel, 1200-1600 Amp
Condition	Good
Qty / UOM	4 / EA
RUL (years)	9
Location	Main Electrical Room

OBSERVATIONS/COMMENTS:

The electrical panels in all electrical rooms are original to 1984. The electrical service is reportedly adequate for the facility's needs, and the panels are in working condition. The panels are aging and based on their estimated RUL, replacement toward the end of the term is anticipated.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D5012	Replace D5012 Electrical Distribution Panel, 1200-1600 Amp	4.0 - EA	26479.2	IN - Beyond Rated Life	Priority 4	2024	105,917

Item	Description
D5022 Lighting Equipment	D5022 Canopies and Wall packs 150W HPS
Condition	Good
Qty / UOM	27 / EA
RUL (years)	5
Location	Building Exterior

OBSERVATIONS/COMMENTS:

All the light fixtures under the loading dock canopies, soffits, and wall packs around the exterior of the facility are high pressure sodium. All of the light fixtures were upgraded during the lighting retrofit in 2005. Based on the age and energy efficiency, lower wattage fixtures with higher lumens are recommended.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D5022	Replace D5022 Canopies and Wall packs 150W HPS	27.0 - EA	1311.6	IN - Beyond Rated Life	Priority 3	2020	35,414

Item	Description
D5037 Fire Alarm Systems	D5037 Fire Alarm Panel
Condition	Good
Qty / UOM	1 / EA
RUL (years)	9
Location	Storage Area

OBSERVATIONS/COMMENTS:

The main fire alarm panel is located in the central plant, with additional fire alarm panels in various locations of different buildings. This fire alarm panel is located in the storage area. According to maintenance staff, the fire panels are working adequately but are aging and based on their estimated RUL replacement toward the end of the term is anticipated.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
D5037	Replace D5037 Fire Alarm Panel	1.0 - EA	16482.2	CC - Life Safety	Priority 4	2024	16,482

Item	Description
D5092 Emergency Light & Power Systems	D5092 Diesel Generator 1500 kW
Condition	Good
Qty / UOM	1 / EA
RUL (years)	12
Location	Building Exterior

OBSERVATIONS/COMMENTS:

The generator is located on the east side of the building and serves only the LA building. It was installed in 2002, and provides the emergency and essential life safety equipment necessary during a power outage. According to the maintenance staff, it is serviced, tested every two weeks, and load tested annually.

COST SUMMARY:

Type	Year	Total Expenditures
D50 Electrical Systems	2020	\$35,414
D50 Electrical Systems	2024	\$725,532

## E Equipment & Furnishing Systems

### E10 EQUIPMENT

Item	Description
E1019 Other Commercial Equipment	E1019 Air Compressor 1.5 hp - LA
Condition	Good
Qty / UOM	1 / EA
RUL (years)	19
Location	Storage Area

OBSERVATIONS/COMMENTS:

According to maintenance staff, the air compressor for the pneumatic controls in LA building is new, and opens and closes the dampers of all AHUs and VAV boxes.

**E20 FURNISHINGS**

<b>Common Area Fixtures Furnishings and Equipment (FF&amp;E)</b>	
<b>Item</b>	<b>Description</b>
Dining Room Chairs Present	N/A
Desks Present	N/A
Tables Present	N/A
Entertainment Center Present	N/A
Sofa Present	N/A
Living Room Chairs Present	N/A
Exercise Equipment Present	N/A
Fixed Artwork Present	N/A
Fixed Casework Present	N/A
Blinds and Other Window Treatments Present	N/A

<b>Item</b>	<b>Description</b>
E2012 Fixed Casework	E2012 Kitchen Cabinets
Condition	Good
Qty / UOM	16 / LF
RUL (years)	12
Location	Kitchen Areas

OBSERVATIONS/COMMENTS:  
 No further action is required.

## G Building Sitework Systems

### G20 SITE IMPROVEMENTS

Site Information	
Item	Description
Main Ingress and Egress	Butterfield Way
Access from	NE
Additional Entrances	None
Access from	N/A
Parking Count: Open lot	4355
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	Point of contact
Property Identification Sign-Primary	N/A
Property Identification Sign- Secondary	Structure mounted
Illuminated Identification Signage	No
Building Identification Sign	Yes
Illuminated Sign	No
Location of Property ID Sign	Front elevation of building
Trees Present	Yes
Shrubs Present	Yes
Grasses Present	Yes
Flower beds Present	No
Decorative Rocks Present	No
Lava Rocks Present	No
Ponds Present	No
Fountains Present	No
Topography	Flat

Item	Description
G2013 Curbs Gutters & Drains	G2013 Concrete Paving, Curbs, and Gutters
Condition	Good
Qty / UOM	1 / EA
RUL (years)	15
Location	Parking areas and driveways

OBSERVATIONS/COMMENTS:

No further action is required.

Item	Description
G2022 Paving & Surfacing	G2022 Asphalt Parking and Driveways
Condition	Fair - Good
Qty / UOM	395105 / SF
RUL (years)	8
Location	Parking areas and driveways

OBSERVATIONS/COMMENTS:

Asphalt paving has cracks from 1/4 inch to 1/2 inch wide in various locations throughout the parking lot. No significant alligating or potholes were observed. Parking is shared with the other buildings. The asphalt area is proportionate to square footages of the office buildings (excluding central plant and warehouse areas). Based on its RUL, pavement replacement will be required.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
G2022	Seal coat and restripe asphalt parking lot	395,105.0 - SF	0.3	OP - Maintenance	Priority 3	2017	122,483
G2022	Overlay G2022 Driveway Asphalt Paving	395,105.0 - SF	5.6	IN - Beyond Rated Life	Priority 4	2023	2,224,283

Item	Description
G2041 Fences & Gates	G2041 Concrete fence
Condition	Fair
Qty / UOM	240 / SF Face
RUL (years)	0
Location	Adjacent to the buildings
Fence Location	South Property Border

OBSERVATIONS/COMMENTS:

The concrete fence with steel columns is bowing, due to either impact damage or normal settlement. One location along south perimeter should be replaced.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
G2041	Replace G2041 Concrete fence	240.0 - SF Face	27.4	IN - Appearance	Priority 2	2015	6,583

Item	Description
<b>G2049 Miscellaneous Structures</b>	G2049 Site Improvements-access control gates
<b>Condition</b>	Good
<b>Qty / UOM</b>	1 / EA
<b>RUL (years)</b>	22
<b>Location</b>	Entrance

OBSERVATIONS/COMMENTS:

The motorized swing gate for parking access is in good condition.

Item	Description
<b>G2055 Planting</b>	G2055 Planting
<b>Condition</b>	Good
<b>Qty / UOM</b>	550 /
<b>RUL (years)</b>	22
<b>Location</b>	Parking areas and driveways

OBSERVATIONS/COMMENTS:

The landscaping and planting areas around the building are in good condition.

COST SUMMARY:

Type	Year	Total Expenditures
G20 Site Improvements	2015	\$6,583
G20 Site Improvements	2017	\$122,483
G20 Site Improvements	2023	\$2,224,283

**G40 SITE ELECTRICAL UTILITIES**

Item	Description
<b>G4021 Fixtures &amp; Transformers</b>	G4021 Bollards 70W MH
<b>Condition</b>	Good
<b>Qty / UOM</b>	30 / EA
<b>RUL (years)</b>	5
<b>Location</b>	Building Exterior

OBSERVATIONS/COMMENTS:

There are concrete base bollard-style light fixtures around the exterior of LA building . All of these fixtures were upgraded during the lighting retrofit in 2005. Based on the age and energy efficiency, lower wattage fixtures with higher lumens are recommended.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
G4021	Replace G4021 Bollards 70W MH	30.0 - EA	1719.5	OP - Energy	Priority 4	2020	51,586

Item	Description
<b>G4022 Poles</b>	G4021 Pole Lamps 400 W
<b>Condition</b>	Good
<b>Qty / UOM</b>	56 / EA
<b>RUL (years)</b>	9
<b>Location</b>	Building Exterior

OBSERVATIONS/COMMENTS:

The lights around the parking areas of the LA building are pole-mounted high-pressure sodium fixtures. All of these fixtures were upgraded during the lighting retrofit in 2005.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost (\$)	Plan Type	Priority	Year	Expenditures (\$)
G4022	Replace G4021 Pole Lamps 400 W	56.0 - EA	3537.9	OP - Energy	Priority 4	2024	198,122

**COST SUMMARY:**

Type	Year	Total Expenditures
G40 Site Electrical Utilities	2020	\$51,586
G40 Site Electrical Utilities	2024	\$198,122

The weather at the time of the assessment was:

Item	Description
Approximate Outdoor Temperature (degrees F)	60
Weather Conditions	Clear
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	No
Boiler Certificates Reviewed	
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:** Timothy Harder, Field Observer

**Reviewed By:**   
Matt Anderson, Program Manager

## **APPENDIX D: PHOTOS**



:- Front elevation





A1030 Standard Concrete Slab



B1031 Structural Steel Columns and Beams Frame



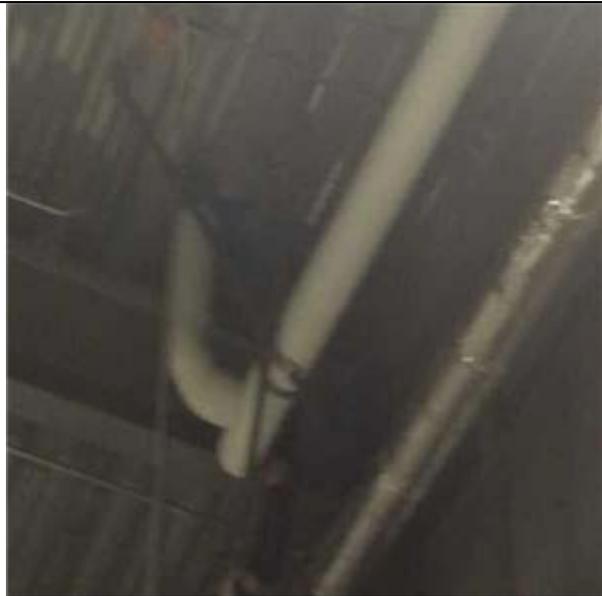
B1031 Structural Steel Columns and Beams Frame



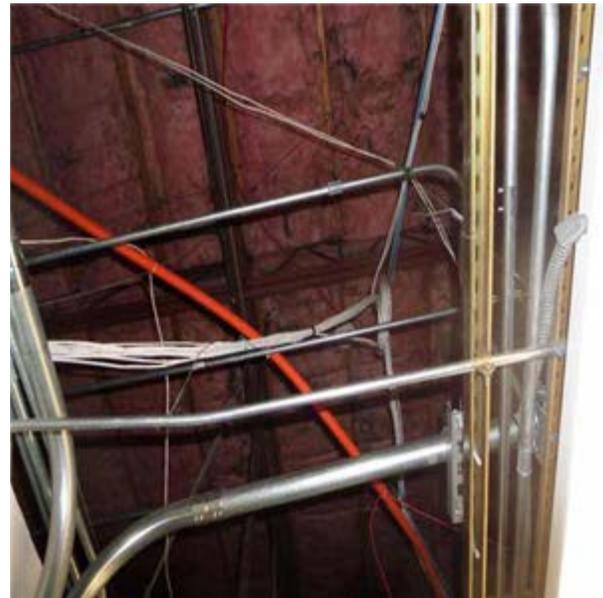
B1031 Structural Steel Columns and Beams Frame :-  
central plant



B1031 Structural Steel Columns and Beams Frame



B1031 Structural Steel Columns and Beams Frame



B1031 Structural Steel Columns and Beams Frame



B2011 Paint Exterior Walls



B2011 Paint Exterior Walls



B2011 Paint Exterior Walls



B2021 Window Sealant



B2021 Window Sealant



B2031 Glazed Entrance Doors



B2031 Glazed Entrance Doors



B3011 Built-Up Roofing



B3011 Built-Up Roofing



B3011 Built-Up Roofing



B3011 Built-Up Roofing



B3011 Built-Up Roofing



B3011 Built-Up Roofing



B3011 Built-Up Roofing



B3011 Built-Up Roofing



B3011 Built-Up Roofing



B3011 Built-Up Roofing



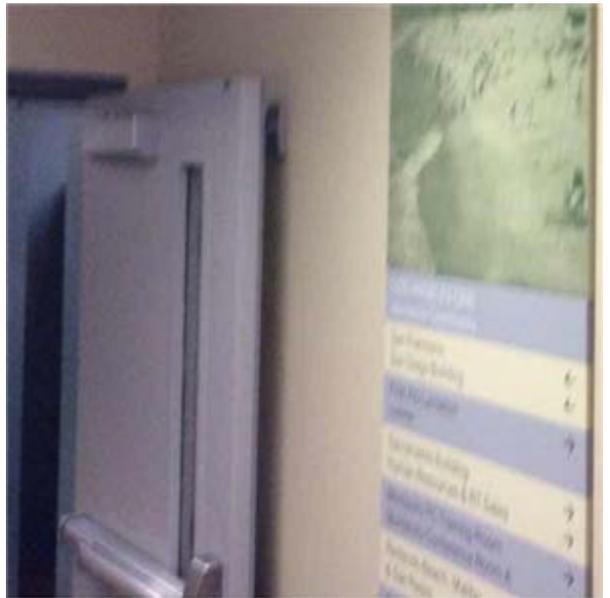
B3011 Built-Up Roofing



B3011 Built-Up Roofing



B3011 Built-Up Roofing



C1021 Interior Doors



C3024 Vinyl Tile :- central plant



C3024 Vinyl Tile



C3025 Carpet Tiles - Older



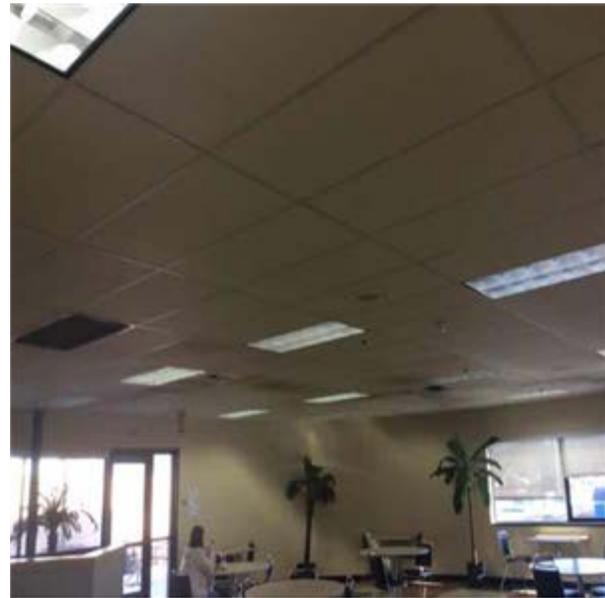
C3025 Carpet Tiles - Older



C3025 Carpet Tiles - Newer



C3025 Carpet Tiles - Newer



C3032 Acoustical Ceiling Tile



D1011 Hydraulic Elevator 2500- 4000 lbs



D1011 Hydraulic Elevator 2500- 4000 lbs



D2011 Water Closet, 1.6 GPF Unit



D2011 Water Closet, 1.6 GPF Unit



D2012 Urinal



D2012 lavatory sink



D2018 Drinking Fountain



D2022 DHW Commercial Water Heater - Electric 65 gallon



D2022 DHW Commercial Water Heater - Electric 65 gallon



D2022 DHW Heater - Gas 120 Gal



D3022.1 HWS Circulation Pump 60 HP



D3041.1 Air Handlers 17,000-30,000 CFM



D3041.1 Air Handlers 17,000-30,000 CFM



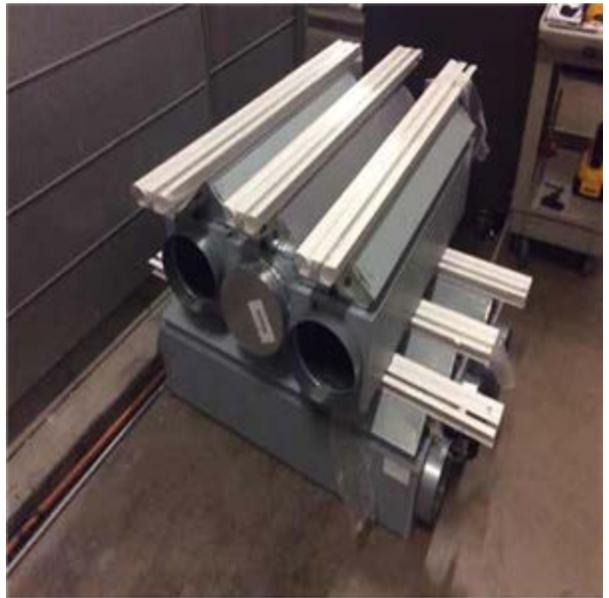
D3041.1 Air Handlers 17,000-30,000 CFM



D3041.1 Air Handlers 17,000-30,000 CFM



D3041.1 Air Handler 2000 CFM



D3041 VAV Boxes



D3042 Exhaust Fans Curved - 2 HP



D3042 Exhaust Fans Curved - 4 HP



D3042 Exhaust Fans Curved - 4 HP



D3042 Exhaust Fan 1300 CFM



D3042 Exhaust Fan 100 CFM



D3042 Exhaust Fan 800 - 1050 CFM



D3042 Exhaust Fan 1550- 2950 CFM



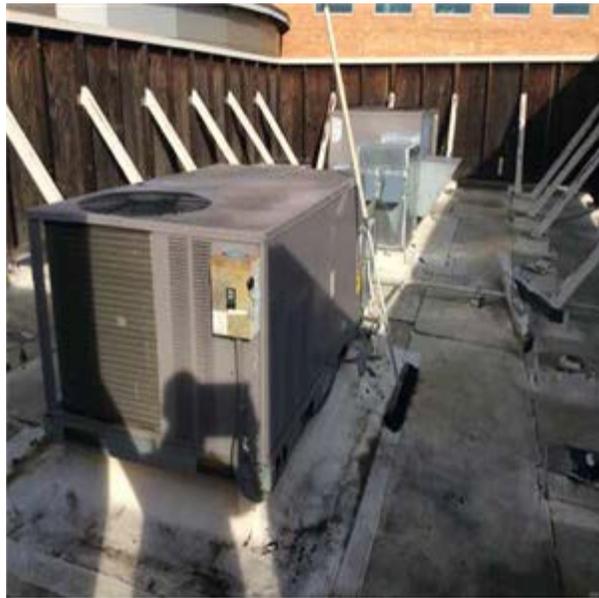
D3052 Makeup air unit, Outdoor 6000 CFM,



D3052 Packaged Rooftop Unit 4 Ton



D3052 Packaged Units, Gas Heat, 25 Ton Cooling



D3052 Packaged Rooftop Unit 2 Ton



D3052 Split System Unit, 1.5 Ton, Condenser



D3052 Split System Unit, 1.5 Ton, Condenser



D3052 Packaged Rooftop Unit 7.5 Ton



D3068 Direct Digital Controls (DDC)



D4011 Wet-Pipe Sprinkler System



D5012 Dry Transformer 45 kVA



D5012 Dry Transformer 112 kVA



D5012 Breaker Panel 225 Amps, 30 Circuits



D5012 Breaker Panel 225 Amps, 30 Circuits



D5012 Dry Transformer 75 kVA



D5012 Switchgear Mainframe, 2000 Amps



D5012 Electrical Distribution Panel, 1200-1600 Amp



D5012 Switchgear Mainframe, 400 Amps



D5010 Switchgear Mainframe, 4000 Amps



D5022 Canopies and Wall packs 150W HPS



D5022 Canopies and Wall packs 150W HPS



D5022 Canopies and Wall packs 150W HPS



D5037 Fire Alarm Panel



D5037 Fire Alarm Panel



D5092 Diesel Generator 1500 kW



E1019 Air Compressor 1.5 hp - LA



E2012 Kitchen Cabinets



E2012 Kitchen Cabinets



G2013 Concrete Paving, Curbs, and Gutters



G2022 Asphalt Parking and Driveways



G2022 Asphalt Parking and Driveways



G2022 Asphalt Parking and Driveways



G2022 Asphalt Parking and Driveways



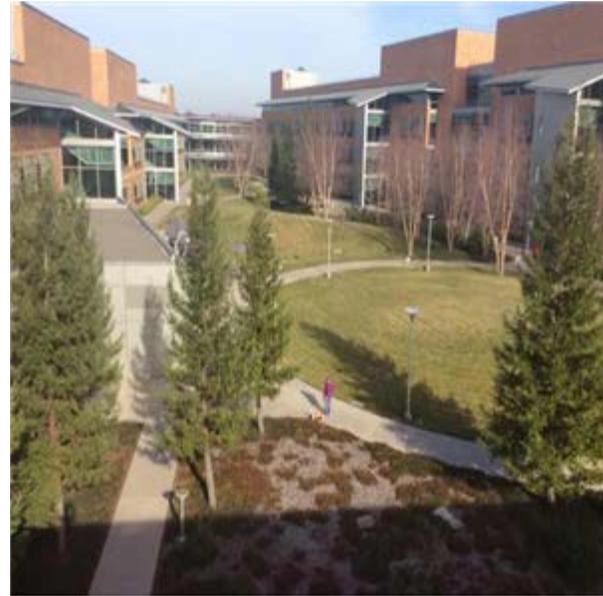
G2022 Asphalt Parking and Driveways



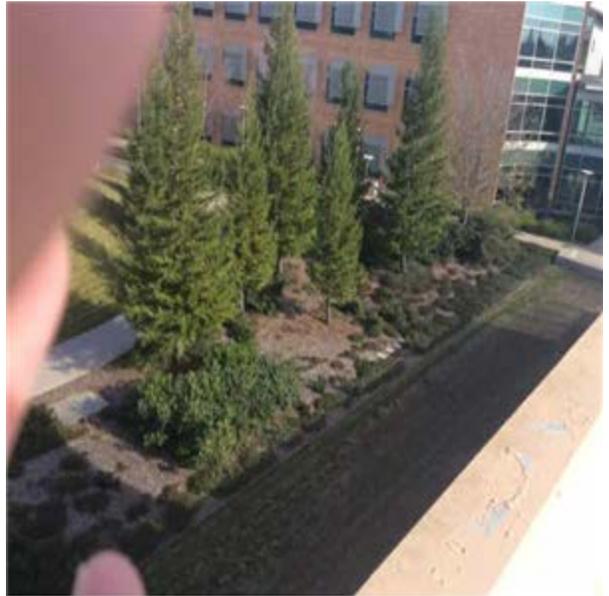
G2041 Concrete fence



G2049 Site Improvements-access control gates



G2055 Planting



G2055 Planting



G4021 Bollards 70W MH



G4021 Pole Lamps 400 W



## **APPENDIX E:      TERMINOLOGY AND ABBREVIATIONS**

<b>TERMINOLOGY and ABBREVIATIONS</b>	
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.

<b>TERMINOLOGY and ABBREVIATIONS</b>	
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	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. 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. 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.
PVC	Poly Vinyl Chloride

<b>TERMINOLOGY and ABBREVIATIONS</b>	
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.

<b>TERMINOLOGY and ABBREVIATIONS</b>	
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 Los Angeles Building  
9645 Butterfield Way  
Rancho Cordova, California

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												
<b>A. SUBSTRUCTURE</b>																																	
Substructure Subtotal												\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>B. SHELL</b>																																	
<b>B20 EXTERIOR ENCLOSURE</b>																																	
B2011	Stucco and Lath	B2011 Paint Exterior Walls	Building exterior	B2011 Paint	10	3	30,000.00	SF	\$3.52	IN - Appearance	Priority 3	\$0	\$0	\$0	\$105,648	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$105,648									
B2021	Caulking Frame Perimeter	B2021 Window Sealant	Throughout exterior	Repair B2021 Aluminum Windows	15	5	7,500.00	LF	\$1.91	IN - Beyond Rated Life	Priority 3	\$0	\$0	\$0	\$0	\$0	\$14,322	\$0	\$0	\$0	\$0	\$0	\$14,322										
<b>B30 ROOFING</b>																																	
B3011	Built-Up Roofing, Total Roof	B3011 Built-Up Roofing	Roof	Replace B3011 Built-Up Roofing	20	0	2,325.00	SQ	\$1,861.46	IN - Beyond Rated Life	Priority 1	\$4,327,902	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$4,327,902										
Shell Subtotal												\$4,327,902	\$0	\$0	\$105,648	\$0	\$14,322	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$4,327,902	\$119,970
<b>C. INTERIORS</b>																																	
<b>C10 INTERIOR CONSTRUCTION</b>																																	
C1021	Fire Door, Wood, Flush, 60 Minute, Incl. Demo, with Hardware	C1021 Interior Doors	Throughout facility	Replace C1021 Interior Doors	25	7	10.00	EA	\$3,809.40	IN - Beyond Rated Life	Priority 4	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$38,094	\$0	\$0	\$0	\$38,094									
<b>C30 INTERIOR FINISHES</b>																																	
C3012	Paint Interior Walls, Drywall	C3012 Paint Interior Walls, Drywall	Throughout facility	minor crack repairs and reseal	10	5	95,000.00	SF	\$2.13	IN - Appearance	Priority 4	\$0	\$0	\$0	\$0	\$0	\$202,616	\$0	\$0	\$0	\$0	\$0	\$202,616										
C3024	Vinyl Tile	C3024 Vinyl Tile	Throughout facility	Replace C3024 Vinyl Tile	18	6	8,000.00	SY	\$125.78	IN - Appearance	Priority 4	\$0	\$0	\$0	\$0	\$0	\$0	\$1,006,242	\$0	\$0	\$0	\$0	\$1,006,242										
C3025	Carpet Tiles - Standard	C3025 Carpet Tiles - Newer	Offices/ Conference rooms	Replace C3025 Carpet Tiles - Newer	10	4	17,500.00	SY	\$96.61	IN - Appearance	Priority 3	\$0	\$0	\$0	\$0	\$1,690,598	\$0	\$0	\$0	\$0	\$0	\$0	\$1,690,598										
C3025	Carpet Tiles - Standard	C3025 Carpet Tiles - Older	Offices/ conference rooms	Replace C3025 Carpet Tiles - Older	10	0	17,500.00	SY	\$96.61	IN - Appearance	Priority 2	\$1,690,598	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,690,598										
C3032	Acoustical Tile With Exposed Grid System	C3032 Acoustical Ceiling Tile	Throughout facility	Replace C3032 Acoustical Ceiling Tile	20	7	2,500.00	CSF	\$1,201.56	IN - Beyond Rated Life	Priority 4	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,003,900	\$0	\$0	\$0	\$3,003,900										
Interiors Subtotal												\$1,690,598	\$0	\$0	\$0	\$1,690,598	\$202,616	\$1,006,242	\$3,041,994	\$0	\$0	\$0	\$1,690,598	\$5,941,450									
<b>D. SERVICES</b>																																	
<b>D10 CONVEYING SYSTEMS</b>																																	
D1011	Freight Elevator, Hydraulic Equipment, 4,000 Lb	D1011 Hydraulic Elevator 2500- 4000 lbs	Throughout Facility	Car position indicators are not working in elevator 1 and 2 and need to be repaired	15	0	2.00	EA	\$1,365.00	OP - Maintenance	Priority 2	\$2,730	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,730	\$0									
	Freight Elevator, Hydraulic Equipment, 4,000 Lb	D1011 Hydraulic Elevator 2500- 4000 lbs	Throughout Facility	Clean and service squeaky door equipment on elevator 2.	15	0	1.00	LS	\$273.00	OP - Maintenance	Priority 2	\$273	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$273	\$0									
	Freight Elevator, Hydraulic Equipment, 4,000 Lb	D1011 Hydraulic Elevator 2500- 4000 lbs	Throughout Facility	Clean elevator pit on elevator 1.	15	0	1.00	EA	\$455.00	OP - Maintenance	Priority 2	\$455	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$455	\$0									
	Freight Elevator, Hydraulic Equipment, 4,000 Lb	D1011 Hydraulic Elevator 2500- 4000 lbs	Throughout Facility	Clean guide rails under car on elevator 1.	15	0	1.00	LS	\$455.00	OP - Maintenance	Priority 2	\$455	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$455	\$0									
	Freight Elevator, Hydraulic Equipment, 4,000 Lb	D1011 Hydraulic Elevator 2500- 4000 lbs	Throughout Facility	Clean oil from packing and monitor for re-packing.	15	0	1.00	LS	\$910.00	OP - Maintenance	Priority 2	\$910	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$910	\$0									
	Freight Elevator, Hydraulic Equipment, 4,000 Lb	D1011 Hydraulic Elevator 2500- 4000 lbs	Throughout Facility	Clean oil from pit rails.	15	0	1.00	LS	\$455.00	OP - Maintenance	Priority 2	\$455	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$455	\$0									
	Freight Elevator, Hydraulic Equipment, 4,000 Lb	D1011 Hydraulic Elevator 2500- 4000 lbs	Throughout Facility	Install Braille marking signs on elevators.	15	0	3.00	EA	\$182.00	CC - Accessibility	Priority 1	\$546	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$546	\$0									
	Freight Elevator, Hydraulic Equipment, 4,000 Lb	D1011 Hydraulic Elevator 2500- 4000 lbs	Throughout Facility	Investigate noise from front door operator in elevator 2.	15	0	1.00	EA	\$182.00	OP - Maintenance	Priority 2	\$182	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$182	\$0									
	Freight Elevator, Hydraulic Equipment, 4,000 Lb	D1011 Hydraulic Elevator 2500- 4000 lbs	Throughout Facility	Monitor leaks from muffler in elevator 1.	15	0	1.00	EA	\$182.00	OP - Maintenance	Priority 2	\$182	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$182	\$0									
	Freight Elevator, Hydraulic Equipment, 4,000 Lb	D1011 Hydraulic Elevator 2500- 4000 lbs	Throughout Facility	Remove cans and rags from top of car on elevator 1.	15	0	1.00	EA	\$109.20	OP - Maintenance	Priority 2	\$109	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$109	\$0									
Freight Elevator, Hydraulic Equipment, 4,000 Lb	D1011 Hydraulic Elevator 2500- 4000 lbs	Throughout Facility	Replace D1011 Hydraulic Elevator 2500- 4000 lbs	30	1	3.00	EA	\$273,000.00	FN - Modernization	Priority 2	\$0	\$819,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$819,000	\$0									
<b>D20 PLUMBING</b>																																	
D2018	Drinking Fountain	D2018 Drinking Fountain	Throughout Facility	Replace D2018 Drinking Fountain	10	7	17.00	EA	\$2,876.60	IN - Beyond Rated Life	Priority 4	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$48,902	\$0	\$0	\$0	\$48,902										
D2022	Domestic Hot Water Heater - Electric	D2022 DHW Commercial Water Heater - Electric 65 gallon	Janitor closets	Replace D2022 DHW Commercial Water Heater - Electric 65 gallon	15	6	2.00	EA	\$8,177.40	IN - Beyond Rated Life	Priority 3	\$0	\$0	\$0	\$0	\$0	\$0	\$16,355	\$0	\$0	\$0	\$0	\$16,355										
D2022	Domestic Hot Water Heater - Gas	D2022 DHW Heater - Gas 120 Gal	Janitor closet	Replace D2022 DHW Heater - Gas 120 Gal	15	6	1.00	EA	\$25,700.40	IN - Beyond Rated Life	Priority 3	\$0	\$0	\$0	\$0	\$0	\$0	\$25,700	\$0	\$0	\$0	\$0	\$25,700										
D2034	Grease Interceptor, Cast Iron, 7 Gpm, 14 Lb Fat Capacity	D2034 Grease Interceptor	Cafeteria	Install D2034 Grease Interceptor	25	0	1.00	EA	\$4,377.80	EN - Air/ Water Quality	Priority 1	\$4,378	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$4,378	\$0									
<b>D30 HVAC</b>																																	
D3042	Exhaust Fan 800 CFM	D3042 Exhaust Fan 1300 CFM	Rooftop - LA	Replace D3042 Exhaust Fan 1300 CFM	20	0	4.00	EA	\$2,734.50	OP - Energy	Priority 1	\$10,938	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$10,938	\$0									
D3042	Exhaust Fan 800 CFM	D3042 Exhaust Fan 800 - 1050 CFM	Rooftop - LA	Replace D3042 Exhaust Fan 800 - 1050 CFM	20	0	9.00	EA	\$2,734.50	OP - Energy	Priority 1	\$24,610	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$24,610	\$0									
D3042	Exhaust Fan 375 CFM	D3042 Exhaust Fan 100 CFM	Rooftop - LA	Replace D3042 Exhaust Fan 100 CFM	20	0	2.00	EA	\$1,771.98	OP - Energy	Priority 1	\$3,544	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,544	\$0									
D3042	Exhaust Fan 2000 CFM	D3042 Exhaust Fans Curved - 4 HP	Rooftop - LA	Replace D3042 Exhaust Fans Curved - 4 HP	20	0	14.00	EA	\$2,326.24	OP - Energy	Priority 1	\$32,567	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$32,567	\$0									
D3042	Exhaust Fan 2000 CFM	D3042 Exhaust Fans Curved - 2 HP	Rooftop - LA	Replace D3042 Exhaust Fans Curved - 2 HP	20	0	32.00	EA	\$2,060.88	OP - Energy	Priority 1	\$65,948	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$65,948	\$0									
D3042	Exhaust Fan 2000 CFM	D3042 Exhaust Fan 1550- 2950 CFM	Rooftop - LA	Replace D3042 Exhaust Fan 1550- 2950 CFM	20	0	2.00	EA	\$3,450.37	OP - Energy	Priority 1	\$6,901	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$6,901	\$0									
D3052	Air Conditioner, Dx Package (Liebert) 20-Ton	D3052 AC (Liebert) 15-30 Ton	Computer Room	Replace D3052 AC (Liebert) 15-30 Ton	20	0	15.00	EA	\$52,362.72	IN - Beyond Rated Life	Priority 1	\$785,441	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$785,441	\$0									
D3052	Single Zone Rooftop Unit 7.5-Ton	D3052 Packaged Rooftop Unit 7.5 Ton	Rooftop - LA	Replace D3052 Packaged Rooftop Unit 7.5 Ton	15	0	1.00	EA	\$28,584.48	IN - Beyond Rated Life	Priority 1	\$28,584	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$28,584	\$0									
D3052	Single Zone Package Unit, 2-Ton	D3052 Packaged Rooftop Unit 2 Ton	Rooftop - LA	Replace D3052 Packaged Rooftop Unit 2 Ton	15	6	1.00	EA	\$12,658.44	IN - Beyond Rated Life	Priority 3	\$0	\$0	\$0	\$0	\$0	\$0	\$12,658	\$0	\$0	\$0	\$0	\$12,658	\$0									
D3052	Single Zone Rooftop Unit 4-Ton	D3052 Packaged Rooftop Unit 4 Ton	Rooftop - LA	Replace D3052 Packaged Rooftop Unit 4 Ton	15	7	1.00	EA	\$17,780.56	IN - Beyond Rated Life	Priority 4	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$17,781	\$0	\$0	\$0	\$17,781	\$0									
D3052	Makeup Air Unit, Gas-Fired, Outdoor, 6000 CFM, Up to 800 MBH	D3052 Makeup air unit, Outdoor 6000 CFM,	Rooftop - LA	Replace D3052 Makeup air unit, Outdoor 6000 CFM,	15	7	1.00	EA	\$69,495.20	IN - Beyond Rated Life	Priority 4	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$69,495	\$0	\$0	\$0	\$69,495	\$0									
D3052	Split System Unit, 3-Ton, Condenser and Fan Coil	D3052 Split System Unit, 1.5 Ton, Condenser	Rooftop - LA	Replace D3052 Split System Unit, 1.5 Ton, Condenser	15	5	24.00	EA	\$18,972.00	IN - Beyond Rated Life	Priority 3	\$0	\$0	\$0	\$0	\$0	\$455,328	\$0	\$0	\$0	\$0	\$0	\$455,328	\$0									
D3068	Direct Digital Controls (DDC) Extensive	D3068 Direct Digital Controls (DDC)	Throughout Facility	Replace D3068 Direct Digital Controls (DDC)	20	0	514,616.00	SF	\$8.23	FN - Modernization	Priority 1	\$4,237,142	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$4,237,142	\$0									
<b>D50 ELECTRICAL SYSTEMS</b>																																	
D5012	Switchgear, Mainframe, 1600 Amps	D5010 Switchgear Mainframe, 4000 Amps	Main Electrical Room	Replace D5010 Switchgear Mainframe, 4000 Amps	40	9	1.00	EA	\$50,551.20	IN - Beyond Rated Life	Priority 4	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$50,551	\$0	\$50,551									
D5012	Breaker Panel 225 Amps, 30 Circuits	D5012 Breaker Panel 225 Amps, 30 Circuits	Electrical Rooms	Replace D5012 Breaker Panel 225 Amps, 30 Circuits	40	9	65.00	EA	\$7,864.32	IN - Beyond Rated Life	Priority 4	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$511,181	\$0	\$511,181								
D5012	Switchgear, Mainframe, 1600 Amps	D5012 Switchgear Mainframe, 2000 Amps	Main Electrical Room	Replace D5012 Switchgear Mainframe, 2000 Amps	40	9	1.00	EA	\$32,284.80	IN - Beyond Rated Life	Priority 4	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$32,285	\$0	\$32,285								
D5012	Switchgear, Mainframe < 600 Amps	D5012 Switchgear Mainframe, 400 Amps	Main Electrical Room	Replace D5012 Switchgear Mainframe, 400 Amps	40	9	1.00	EA	\$9,116.07	IN - Beyond Rated Life	Priority 4	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$9,116	\$0	\$9,116								
D5012	Electrical Distribution Panel, 1200 Amp	D5012 Electrical Distribution Panel, 1200-1600 Amp	Main Electrical Room	Replace D5012 Electrical Distribution Panel, 1200-1600 Amp	40	9	4.00	EA	\$26,479.20	IN - Beyond Rated Life	Priority 4	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$105,917	\$0	\$105,917								
D5022	Wall Pack 150 Watt High Pressure Sodium	D5022 Canopies and Wall packs 150W HPS	Building Exterior	Replace D5022 Canopies and Wall packs 150W HPS	15	5	27.00	EA	\$1,311.64	IN - Beyond Rated Life	Priority 3	\$0	\$0	\$0	\$0	\$0	\$35,414	\$0	\$0	\$0	\$0	\$0	\$35,414	\$0									
D5037	Fire Alarm Panel	D5037 Fire Alarm Panel	Storage Area	Replace D5037 Fire Alarm Panel	15	9																											

Element #	Component Description	Asset	Location	Action	EUL (Yrs)	RUL (Yrs)	Qty.	Unit of Meas.	Unit Cost	Plan Type	Priority <sup>2</sup>	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		

E. EQUIPMENT & FURNISHING																																	
Equipment & Furnishing Subtotal												\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

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

G. BUILDING SITEWORK																							
<b>G20 SITE IMPROVEMENTS</b>																							
G2022	Driveway Asphalt Paving	G2022 Asphalt Parking and Driveways	Parking areas and driveways	Overlay G2022 Driveway Asphalt Paving	25	8	395,105.00	SF	\$5.63	IN - Beyond Rated Life	Priority 4	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,224,283	\$0	\$0	\$2,224,283
	Driveway Asphalt Paving	G2022 Asphalt Parking and Driveways	Parking areas and driveways	Seal coat and restripe asphalt parking lot	0	2	395,105.00	SF	\$0.31	OP - Maintenance	Priority 3	\$0	\$0	\$122,483	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$122,483
G2041	Masonry Wall	G2041 Concrete fence	Adjacent to the buildings	Replace G2041 Concrete fence	20	0	240.00	SF Face	\$27.43	IN - Appearance	Priority 2	\$6,583	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$6,583	\$0
<b>G40 SITE ELECTRICAL UTILITIES</b>																							
G4021	Landscape Ground Mounted Uplight Fixture Only	G4021 Bollards 70W MH	Building Exterior	Replace G4021 Bollards 70W MH	15	5	30.00	EA	\$1,719.53	OP - Energy	Priority 4	\$0	\$0	\$0	\$0	\$0	\$51,586	\$0	\$0	\$0	\$0	\$0	\$51,586
G4022	Pole-Mounted Light 400 W HPS Fixture Only	G4021 Pole Lamps 400 W	Building Exterior	Replace G4021 Pole Lamps 400 W	20	9	56.00	EA	\$3,537.89	OP - Energy	Priority 4	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$198,122	\$0	\$198,122
<b>Building Sitework Subtotal</b>												<b>\$6,583</b>	<b>\$0</b>	<b>\$122,483</b>	<b>\$0</b>	<b>\$0</b>	<b>\$51,586</b>	<b>\$0</b>	<b>\$0</b>	<b>\$2,224,283</b>	<b>\$198,122</b>	<b>\$6,583</b>	<b>\$2,596,474</b>

Z. GENERAL																																		
General Subtotal												\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Expenditure Totals per Year	\$11,221,434	\$819,000	\$122,483	\$105,648	\$1,490,598	\$759,266	\$1,066,955	\$3,178,172	\$2,224,283	\$923,654	\$11,221,434	\$16,884,059
Total Cost (Inflated @ 5% per Yr.)	\$11,221,434	\$859,950	\$135,037	\$122,301	\$2,054,932	\$969,038	\$1,421,781	\$4,472,007	\$3,286,279	\$1,432,891	Total *	\$22,115,492

\* - Present Value Currency

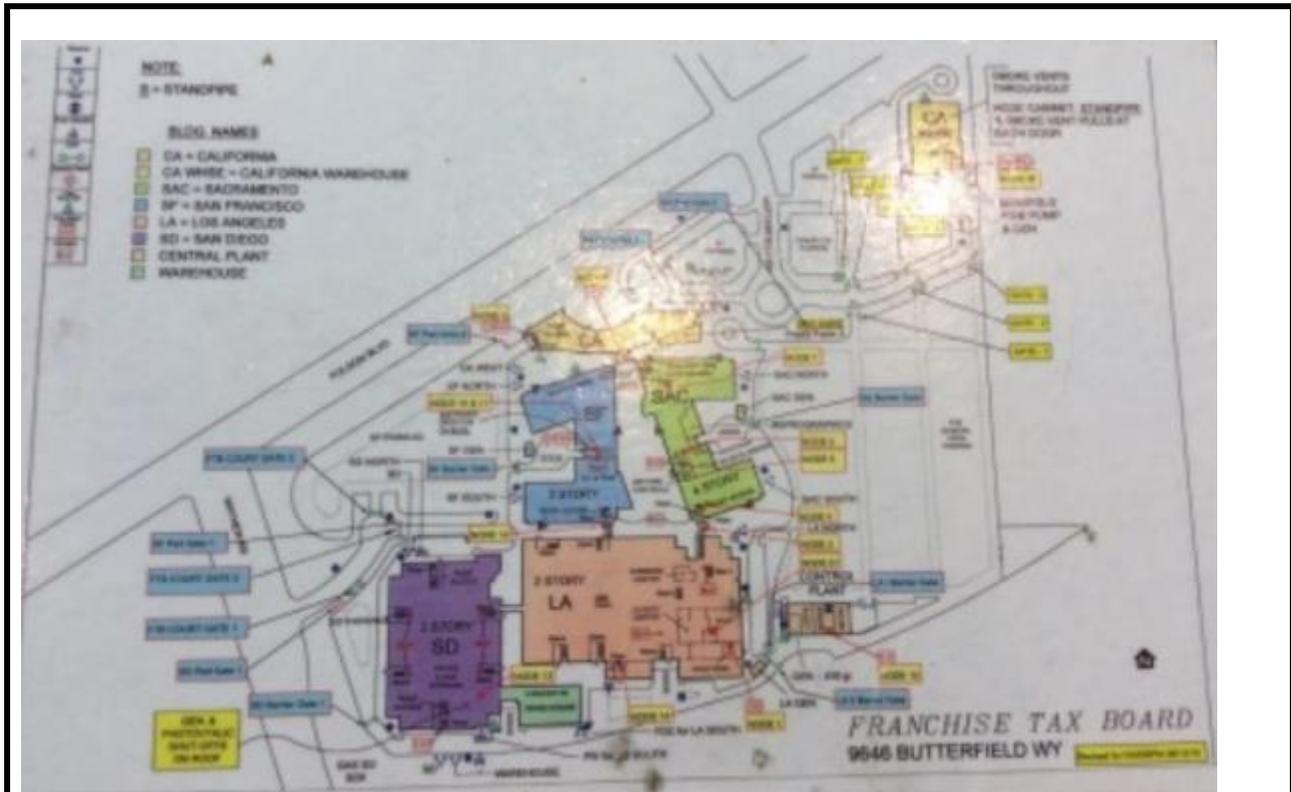
**Footnotes**

- 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 \$187,784,422

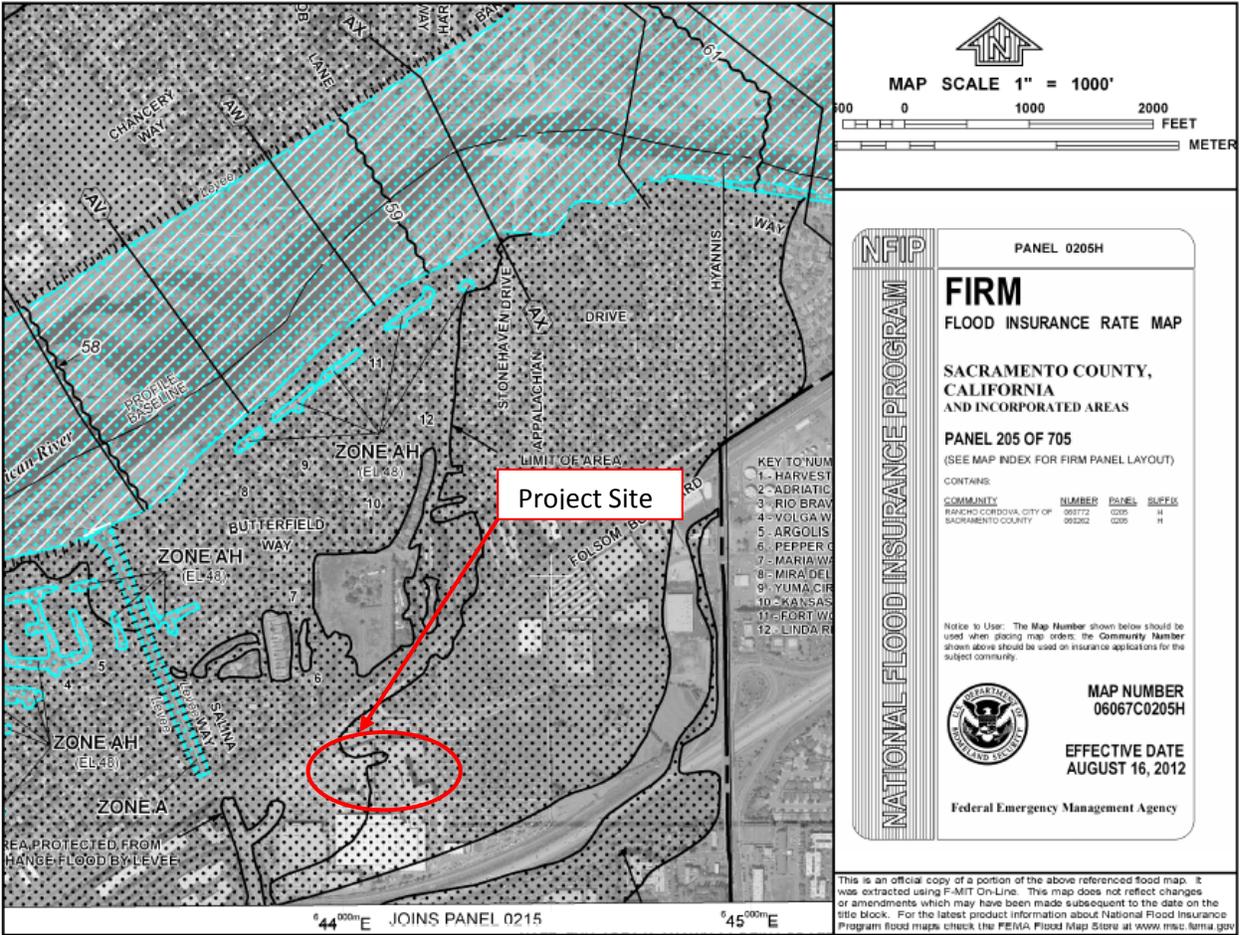


**APPENDIX H: SUPPORTING DOCUMENTATION**



	<p><b>Source:</b></p> <p>The north arrow indicator is an approximation of 0° North.</p>	<p><b>Project Number:</b></p> <p>111326.14R-017.305</p> <p><b>Project Name:</b></p> <p>Franchise Tax Board Los Angeles Building</p>
		<p><b>On-Site Date:</b></p> <p>January 6, 2015</p>

# Flood Map



**Source:**

FEMA

**Project Number:**

111326.14R-017.305



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

**Project Name:**

FTB Los Angeles Building

**On-Site Date:**

January 5, 2015

**Estimate of Structures Cost Using Marshall Cost Systems**

**Franchise Tax Board Los Angeles Building (084)**

**Site Calculation**

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

Description	Cost	Estimated \$/ SF	Unusual Land Total
			\$0
<b>Total</b>			<b>\$0</b>

**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 building	\$291.92	514,616	\$150,227,537
	\$0.00	0	\$0
	\$0.00	0	\$0
	\$0.00	0	\$0
	\$0.00	0	\$0
<b>Total</b>		<b>514,616</b>	<b>\$150,227,537</b>

**Estimate of Adjustments for Fees:**

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

**Total Structure Estimate:**

Description	Unit	Fee Adjust	Adjusted Totals
main building	\$150,227,537	25.00%	\$187,784,422
	\$0	25.00%	\$0
	\$0	25.00%	\$0
	\$0	25.00%	\$0
	\$0	25.00%	\$0
<b>Cost Per SF</b>	<b>\$364.90</b>	<b>Total Estimate</b>	<b>\$187,784,422</b>

<b>Expected Useful Life (EUL) Table</b>	
<b>SITE SYSTEM ITEMS</b>	
<b>ROADWAYS/ PARKING/ WALKWAYS</b>	
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
<b>STORM SEWER, DRAINAGE AND EROSION CONTROL</b>	
Catch basins, inlets, culverts	50
Earthwork, grading and erosion control	50
Storm drain lines	40
<b>LANDSCAPING, TOPOGRAPHY AND FENCING</b>	
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
<b>SITE SYSTEM ITEMS</b>	
<b>GENERAL SITE IMPROVEMENTS</b>	
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

<b>GENERAL SITE IMPROVEMENTS</b>	
Tennis court Surface (acrylic emulsion)	10
Tot-lot (playground equipment)	10
<b>SITE SANITARY AND WATER</b>	
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
<b>SITE MECHANICAL / ELECTRICAL</b>	
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
<b>BUILDING ARCHITECTURAL ITEMS</b>	
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+

<b>BUILDING ARCHITECTURAL ITEMS</b>	
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
<b>EXTERIOR CLADDING</b>	
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

<b>INTERIORS</b>	
Public bathroom accessories	7
Public bathroom fixtures	15
Refrigerator, common area	10
<b>BUILDING ARCHITECTURAL ITEMS</b>	
<b>ROOF COVERINGS</b>	
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+
<b>BOILER ROOM EQUIPMENT</b>	
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
<b>BOILERS</b>	
Oil/ gas/ dual fired, high MBH	40
Gas fired atmospheric	25
Electric	20

<b>BUILDING HEATING WATER TEMPERATURE CONTROLS</b>	
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
<b>CONDENSATE, FEEDWATER, WATER</b>	
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
<b>ELECTRICAL &amp; ELEVATOR</b>	
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
<b>EMERGENCY ALARM AND FIRE PROTECTION</b>	
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

<b>EMERGENCY ALARM AND FIRE PROTECTION</b>	
Fuel Transfer System	25
Gas Distribution	50+
Heat Sensors	15
Heat Exchanger	35
Heating Risers and Distribution	50+
<b>MECHANICAL – ELECTRIC – PLUMBING ITEMS</b>	
Heating Water Circulating Pumps	by size
Heating Water Controller	15
Hot and Cold Water Distribution	50
<b>HVAC</b>	
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
<b>POWER VENTILATOR</b>	
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
<b>SUMP PUMP</b>	
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

## **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 Los Angeles Building (084)

What is your association with this property? OBM

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	Thyssen Krup
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.

none

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

Switchgear testing

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

20

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?	<b>x</b>				Current contractor will not pass our risers
10. Are there any "down" or unusable units?		<b>x</b>			
11. Are there any problems with erosion, storm-water drainage or areas of paving that do not drain?	<b>x</b>				slurry & reseat is identified in our repair plan

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

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

## **APPENDIX J: ELEVATOR REPORT**



## **Elevator Assessment**

**Building 084 – Franchise Tax Board  
9646 Butterfield  
Sacramento, CA**

### **Table of Contents**

<a href="#"><u>Appendix A – Equipment Summary</u></a>	Page 2
<a href="#"><u>Appendix B – Repair Items</u></a>	Page 3
<a href="#"><u>Appendix C – Maintenance Corrections</u></a>	Page 4
<a href="#"><u>Appendix D – Owner’s Maintenance Items</u></a>	Page 5
<a href="#"><u>Appendix E – Modernization Recommendations</u></a>	Page 6

## Appendix A – Elevator Equipment Summary – Sacramento Building

The following chart provides an “at a glance” summary of all of the elevator equipment at the subject property.

Bank/Elevator Description	Elevator Number	Speed	Capacity	Floors Served	Date of Original Install	Date of Last Mod	Next Mod Due	Elevator Type	Machine / Power Unit Manuf.	Motor Control	Control Manuf.	Door Size/ Style	Door Equip. Manuf.
Elevators 1-3 (Group – State ID#140081, 140082, 140083)	1	200 fpm	3,500 pounds	G, 2-4	2004	N/A	12-15 years	Overhead Geared Traction	Thyssen Krupp	VVVF	Thyssen Krupp	42”x 96” Center Opening	Thyssen Krupp
	2	200 fpm	3,500 pounds	G, 2-4	2004	N/A	12-15 years	Overhead Geared Traction	Thyssen Krupp	VVVF	Thyssen Krupp	42”x 96” Center Opening	Thyssen Krupp
	3	200 fpm	3,500 pounds	G, 2-4	2004	N/A	12-15 years	Overhead Geared Traction	Thyssen Krupp	VVVF	Thyssen Krupp	42”x 96” Center Opening	Thyssen Krupp
Elevator 4 (Simplex – State ID# 140084)	4	150 fpm	4,500 pounds	G, 2-4, R	2004	N/A	12-15 years	Inground Hydraulic	Thyssen Krupp	Solid State	Thyssen Krupp	48”x 96” Side Opening	Thyssen Krupp
Elevators 5-7 (Group – State ID#136974, 135975, 136976)	5	200 fpm	3,500 pounds	G, 2-4	2004	N/A	12-15 years	Overhead Geared Traction	Thyssen Krupp	VVVF	Thyssen Krupp	42”x 96” Center Opening	Thyssen Krupp
	6	200 fpm	3,500 pounds	G, 2-4	2004	N/A	12-15 years	Overhead Geared Traction	Thyssen Krupp	VVVF	Thyssen Krupp	42”x 96” Center Opening	Thyssen Krupp
	7	200 fpm	3,500 pounds	G, 2-4	2004	N/A	12-15 years	Overhead Geared Traction	Thyssen Krupp	VVVF	Thyssen Krupp	42”x 96” Center Opening	Thyssen Krupp

Elevator Number	State Inspection Date	State Inspection Status	5-Year Test Date	5-Year Test Status	Annual Test Date	Annual Test Status	Fire Service Testing Logs	Machine Room Maintenance Logs	Overall Level of Maintenance	Modernization Priority
1	1/17/14	Just Expired	No Tag	Unknown	6/2014	Current	Current	Logs only – no charts	Average	Low
2	1/17/14	Just Expired	No Tag	Unknown	6/2014	Current	Current	Logs only – no charts	Average	Low
3	1/17/14	Just Expired	No Tag	Unknown	6/2014	Current	Current	Logs only – no charts	Average	Low
4	1/3/14	Just Expired	Not Required	Not Required	6/2014	Current	Current	Logs only – no charts	Average	Low
5	1/27/14	Just Expired	No Tag	Unknown	6/2014	Current	Current	Logs only – no charts	Average	Low
6	1/27/14	Just Expired	No Tag	Unknown	6/2014	Current	Current	Logs only – no charts	Average	Low
7	1/27/14	Just Expired	No Tag	Unknown	6/2014	Current	Current	Logs only – no charts	Average	Low

## Appendix A – Elevator Equipment Summary – San Francisco Building

The following chart provides an “at a glance” summary of all of the elevator equipment at the subject property.

Bank/Elevator Description	Elevator Number	Speed	Capacity	Floors Served	Date of Original Install	Date of Last Mod	Next Mod Due	Elevator Type	Machine / Power Unit Manuf.	Motor Control	Control Manuf.	Door Size/ Style	Door Equip. Manuf.
Elevators 8-9 (Duplex – State ID#140092, 140093)	8	200 fpm	3,500 pounds	G, 2-3	2004	N/A	12-15 years	Overhead Geared Traction	Thyssen Krupp	VVVF	Thyssen Krupp	42”x 96” Center Opening	Thyssen Krupp
	9	200 fpm	3,500 pounds	G, 2-4	2004	N/A	12-15 years	Overhead Geared Traction	Thyssen Krupp	VVVF	Thyssen Krupp	42”x 96” Center Opening	Thyssen Krupp
Elevator 10 (Simplex – State ID# 140284)	10	150 fpm	4,500 pounds	G, 2-3, R	2004	N/A	12-15 years	Inground Hydraulic	Thyssen Krupp	Solid State	Thyssen Krupp	48”x 96” Side Opening	Thyssen Krupp
Elevators 11-12 (Duplex – State ID#140204, 140205)	11	200 fpm	3,500 pounds	G, 2-3	2004	N/A	12-15 years	Overhead Geared Traction	Thyssen Krupp	VVVF	Thyssen Krupp	42”x 96” Center Opening	Thyssen Krupp
	12	200 fpm	3,500 pounds	G, 2-4	2004	N/A	12-15 years	Overhead Geared Traction	Thyssen Krupp	VVVF	Thyssen Krupp	42”x 96” Center Opening	Thyssen Krupp

Elevator Number	State Inspection Date	State Inspection Status	5-Year Test Date	5-Year Test Status	Annual Test Date	Annual Test Status	Fire Service Testing Logs	Machine Room Maintenance Logs	Overall Level of Maintenance	Modernization Priority
8	1/21/14	Just Expired	No Tag	Unknown	6/2014	Current	Current	Logs only – no charts	Average	Low
9	1/17/14	Just Expired	No Tag	Unknown	6/2014	Current	Current	Logs only – no charts	Average	Low
10	12/16/13	Just Expired	Not Required	Not Required	6/2014	Current	Current	Logs only – no charts	Average	Low
11	1/17/14	Just Expired	No Tag	Unknown	6/2014	Current	Current	Logs only – no charts	Average	Low
12	1/17/14	Just Expired	No Tag	Unknown	6/2014	Current	Current	Logs only – no charts	Average	Low

## Appendix A – Elevator Equipment Summary – Los Angeles Building

The following chart provides an “at a glance” summary of all of the elevator equipment at the subject property.

Bank/Elevator Description	Elevator Number	Speed	Capacity	Floors Served	Date of Original Install	Date of Last Mod	Next Mod Due	Elevator Type	Power Unit Manuf.	Motor Control	Control Manuf.	Door Size/ Style	Door Equip. Manuf.
Elevator 1 – (Simplex – State ID# 80160)	1	120 fpm	2,500 pounds	1-2	1985	N/A	2-3 years	Above Ground Hydraulic	Dover	EM Starter	Dover	42”x 84” Side Opening	Dover
Elevator 2 – (Simplex – State ID# 80159)	2	85 fpm	4,000 pounds	1, 2F, 2R	1985	N/A	2-3 years	Inground Hydraulic	Dover	EM Starter	Dover	48”x 84” Side Opening	Dover
Elevator 3 – (Simplex – State ID# 146159)	3	150 fpm	3,500 pounds	1-2	2007	N/A	15-18 years	Inground Hydraulic	Thyssen Krupp	Solid State Starter	Thyssen Krupp	42”x 84” Side Opening	Thyssen Krupp

Elevator Number	State Inspection Date	State Inspection Status	5-Year Test Date	5-Year Test Status	Annual Test Date	Annual Test Status	Fire Service Testing Logs	Machine Room Maintenance Logs	Overall Level of Maintenance	Modernization Priority
1	12/16/13	Just Expired	2/1/11	Current	Not Required	Not Required	N/A	Current	Average	High
2	12/16/13	Just Expired	2/1/11	Current	Not Required	Not Required	N/A	Current	Average	High
3	12/16/13	Just Expired	Not Required	Not Required	1/2015	Current	Current	Current	Average	High

## Appendix A – Elevator Equipment Summary – San Diego Building

The following chart provides an “at a glance” summary of all of the elevator equipment at the subject property.

Bank/Elevator Description	Elevator Number	Speed	Capacity	Floors Served	Date of Original Install	Date of Last Mod	Next Mod Due	Elevator Type	Power Unit Manuf.	Motor Control	Control Manuf.	Door Size/ Style	Door Equip. Manuf.
Elevator 1 (Simplex – State ID#104533)	1	125 fpm	5,000 pounds	1F, 1R, 2F, 2R	1993	N/A	3-5 years	Inground Hydraulic	Dover	EM Starter	Dover	8' x 8' Vertical Bi-Parting	Peele
Elevator 2 (Simplex – State ID#104534)	2	125 fpm	5,000 pounds	1, 2, 2R	1993	N/A	3-5 years	Inground Hydraulic	Dover	EM Starter	Dover	48" x 84" Side Opening	Dover
Elevator 3 (Simplex – State ID#104535)	3	125 fpm	4,000 pounds	1, 2,	1993	N/A	3-5 years	Inground Hydraulic	Dover	EM Starter	Dover	48" x 84" Side Opening	Dover
Elevator 4 (Simplex – State ID#104536)	4	125 fpm	5,000 pounds	1, 2	1993	N/A	3-5 years	Inground Hydraulic	Dover	EM Starter	Dover	48" x 84" Side Opening	Dover
Elevator 5 (Simplex – State ID#104537)	5	125 fpm	4,000 pounds	1, 2,	1993	N/A	3-5 years	Inground Hydraulic	Dover	EM Starter	Dover	48" x 84" Side Opening	Dover
Elevator 6 (Simplex – State ID#104538)	6	125 fpm	4,000 pounds	1, 2,	1993	N/A	3-5 years	Inground Hydraulic	Dover	EM Starter	Dover	48" x 84" Side Opening	Dover
Elevator 7 (Simplex – State ID#104539)	7	125 fpm	5,000 pounds	1, 2	1993	N/A	3-5 years	Inground Hydraulic	Dover	EM Starter	Dover	48" x 84" Center Opening	Dover

Elevator Number	State Inspection Date	State Inspection Status	5-Year Test Date	5-Year Test Status	Annual Test Date	Annual Test Status	Fire Service Testing Logs	Machine Room Maintenance Logs	Overall Level of Maintenance	Modernization Priority
1	1/3/14	Just Expired	2/22/13	Current	Not Required	Not Required	N/A	None	Above Average For Age	Medium-High
2	1/3/14	Just Expired	2/1/11	Current	Not Required	Not Required	Current	Current	"	Medium-High
3	12/16/13	Just Expired	2/1/11	Current	Not Required	Not Required	Current	Current	"	Medium-High
4	1/3/14	Just Expired	2/1/11	Current	Not Required	Not Required	Current	Current	"	Medium-High
5	12/16/13	Just Expired	1/31/11	Current	Not Required	Not Required	Current	Current	"	Medium-High
6	1/3/14	Just Expired	1/31/11	Current	Not Required	Not Required	Current	Current	"	Medium-High
7	9/7/13	Expired	1/31/11	Current	Not Required	Not Required	Current	Current	"	Medium-High

## Appendix B – Repair Items

The following chart details items that must be scheduled for repair prior to the end of the current maintenance contract. Contractor shall provide a schedule to Owner and Consultant within two weeks of receipt of this report.

<b>Building 084 – Franchise Tax Board</b>				
<b>Current Items</b>			<b>These Columns For Use by Contractor and in Future ECA Visits</b>	
<b>Item #</b>	<b>Item Description</b>	<b>Units Affected</b>	<b>Item Complete</b>	<b>Comments</b>
1	No 5-year test tags on governors – perform tests and properly tag equipment	Sac & SF: 1-3, 5-7, 8-9, 11-12		
2	Clean oil from under tank and seal leaks	LA: 2, 3		

## Appendix C – Maintenance Corrections

The following chart details minor maintenance items (cleaning, lubrication, adjustments, etc.) which should be addressed to the greatest extent possible prior to the building walkthroughs for the elevator maintenance bid process, projected to take place the last two weeks of March, 2015.

<b>Building 084 – Franchise Tax Board – Sacramento and San Francisco Bldgs.</b>			<b>These Columns For Use by Contractor and in Future ECA Visits</b>	
<b>Current Items</b>			<b>Item Complete</b>	<b>Comments</b>
<b>Item #</b>	<b>Item Description</b>	<b>Units Affected</b>		
1	Clean oil from hoist machines and monitor leaks	2, 3, 4, 6		
2	Clean rope filings from machine room floor	7		
3	Adjust ride quality – vertical oscillation	2, 5-7		
4	Investigate and eliminate squealing noises from hoistway	6		
5	Clean fuzz from hoist ropes	1-3, 5-7, 8-9		
6	Check and service hall door equipment – noisy – creaks at some floors – for example, car 3, floor 3	1, 3, 11, 12		
7	Figure out a better storage arrangement for machine room – cart is in way of door and parts are piled all around	4		
8	Perform minor cleaning under tank	4		
9	Clean top of car	4, 11, 12		
10	Wipe dust from machine room equipment	8-9, 11-12		
11	Clean hall door equipment	8, 9, 11, 12		
12	Clean pits	8, 9, 10, 11, 12		
13	Door operator making strange noise – investigate and correct	8		
14	Remove paper from inside controller	10		
15	Clean oil from under tank	10		
16	Replace hall lantern lens – floor R	10		

## Appendix C – Maintenance Corrections

The following chart details minor maintenance items (cleaning, lubrication, adjustments, etc.) which should be addressed to the greatest extent possible prior to the building walkthroughs for the elevator maintenance bid process, projected to take place the last two weeks of March, 2015.

<b>Building 084 – Franchise Tax Board – Los Angeles Building</b>				
<b>Current Items</b>			<b>These Columns For Use by Contractor and in Future ECA Visits</b>	
<b>Item #</b>	<b>Item Description</b>	<b>Units Affected</b>	<b>Item Complete</b>	<b>Comments</b>
1	Monitor leaks from muffler	1		
2	Clean oil from pit under rails	1, 3		
3	Remove cans and rags from top of car	1		
4	Clean pit	1		
5	Clean guide rails under car	1		
6	Car position indicator not working - repair	1, 2		
7	Investigate noise from front door operator	2		
8	Clean and service squeaky door equipment	2		
9	Clean oil from packing and monitor for re-pack	2		

## Appendix C – Maintenance Corrections

The following chart details minor maintenance items (cleaning, lubrication, adjustments, etc.) which should be addressed to the greatest extent possible prior to the building walkthroughs for the elevator maintenance bid process, projected to take place the last two weeks of March, 2015.

<b>Building 084 – Franchise Tax Board – San Diego Building</b>				
<b>Current Items</b>			<b>These Columns For Use by Contractor and in Future ECA Visits</b>	
<b>Item #</b>	<b>Item Description</b>	<b>Units Affected</b>	<b>Item Complete</b>	<b>Comments</b>
1	Organize machine room – two carts in room and parts all over	1		
2	Clean door chains	1		
3	Replace phone box latch	1		
4	Clean pit	2, 4, 6		
5	Clean oil from jack head and monitor packing	2-5, 7		
6	Remove manuals from controllers	2-7		
7	Replace release rollers – both floors	4, 6, 7		
8	Clean car door equipment	6		
9	Explain/remove white coil of wire from top of controller	4		

## Appendix D – Owner’s Maintenance Items

The following items are not part of your elevator contract, and thus are typically corrected by building engineering or another non-elevator sub-contractor. ECA is happy to discuss any of these items at any time. Please feel free to call or e-mail Matt Ensley or Sean Colgan with any questions you may have.

Sean Colgan: 916-337-3572 – [sean.colgan@elevatorconsultingassociates.com](mailto:sean.colgan@elevatorconsultingassociates.com)

Matt Ensley: 213-247-8992 – [matt.ensley@elevatorconsultingassociates.com](mailto:matt.ensley@elevatorconsultingassociates.com)

<b>Building 084 – Franchise Tax Board</b>				
<b>Current Items</b>			<b>These Columns For Use by University and in Future ECA Visits</b>	
<b>Item #</b>	<b>Item Description</b>	<b>Units Affected</b>	<b>Item Complete</b>	<b>Comments</b>
1	The annual inspection certificates in the elevators have expired. If new certificates have been received, post in elevators as soon as possible.	All		
2	Properly label machine room door – “Elevator Equipment Room – Authorized Personnel Only”	Sac: 1-3, 5-7; SF: 11-12		
3	Elevator machine room door has to be pulled/shoved closed to get it to latch. Make door close more freely so that it self-closes and self-locks.	Sac: 4, 5-7; SF: 10		
4	Monitor cab floor tiles - cracking	Sac: 4		
5	Relamp machine room lights	8-9, 11-12		
6	Relamp cab light	SF: 12		
7	Make machine room door self-close	LA: 1		
8	Consider changing elevator labeling convention so that they are labeled 1-22 instead of 1-12, 1-3, 1-7. This would make it easier for building and elevator personnel to be sure they are speaking about the correct elevator at all times.	All		

## Appendix E – Modernization Recommendation

It is commonly held in the industry that elevator equipment should be modernized every 20-25 years. While this is a valid generalization, the actual time for modernization can vary greatly from property to property, depending on the type of equipment installed, its age, the level of usage, etc. The elevators in the San Francisco and Sacramento buildings were installed in 2004/2005, and therefore are only 10 years old. Elevator 3 in the Los Angeles building was installed in 2007 and is only 8 years old. The Sac/SF Elevators should have 12-15 years' useful life remaining and LA#3 should have 15-18 years, assuming an ongoing program of proper maintenance. As such, we are not recommending any modernization budgets for these 13 elevators at this time.

Elevators 1-2 in the Los Angeles Building were installed in 1985, and are thus 30 years old. These elevators are past due for modernization. They do seem to get some use, especially elevator 1, so it would be in the building's best interest to modernize the elevators to keep them running properly for the tenants. We recommend budgeting for modernization of these elevators in the next 1-2 years.

The San Diego Building elevators were installed in 1993. These elevators are 22 years old. However, the equipment is still relatively serviceable, so we would recommend budgeting modernization of these elevators in 3-5 years. The building itself doesn't seem to be heavily populated at the moment, although we understand there may be more people moving in. So the 3-5 year timeframe should be about right to begin modernizing these elevators. With that said, there is a lot of redundancy to these elevators as they are spread evenly around the building. So failures should be easily masked with the other elevators. As such, if there are competing priorities for modernization dollars, these elevators could potentially be pushed back to around 7 years if needed.

The following table shows the scope of the modernization based on our current observations. As all noted elevators (the two in the Los Angeles Building and the seven in the San Diego Building) are hydraulic, the scope of work would be similar as noted below. Note that the scope may change slightly by the time the elevators are modernized based on the condition of the equipment at that time, changes in code or ADA, etc.

<b>Elevator Modernization Plan</b>	
<b>Item</b>	<b>Action</b>
<b>Elevator Control</b>	New Solid State
<b>Solid State Starter</b>	New
<b>Dispatching</b>	Simplex
<b>Battery Lowering Operation</b>	New
<b>Power Unit</b>	New
<b>Car Button Station</b>	New
<b>Car Position Indicator</b>	New
<b>In-Car Communication (ADA Phone)</b>	New
<b>Car/Hall Lanterns</b>	New
<b>Hall Button Stations</b>	New
<b>Alarm Bells</b>	New
<b>Hoistway Limits</b>	New

<b>Wiring</b>	New
<b>Car Guides</b>	Refurbish
<b>Guide Rails</b>	Retain
<b>Door Operation</b>	New Closed Loop (New freight operators for SD#1)
<b>Car and Hall Door Equipment</b>	New/Refurbish as needed
<b>Door Restrictor</b>	New
<b>Door Detector Edge</b>	New (unless previously upgraded)
<b>Pit Switch</b>	New
<b>Pit Springs/Buffers</b>	Retain
<b>Piston and Casing</b>	Retain
<b>Compliance with then-current elevator code</b>	Included
<b>Compliance with ADA</b>	Included
<b>Cab Interiors</b>	Optional

We would recommend the following budgets for modernization of these elevators:

Years 1-2:

LA1: \$90,000

LA2: \$110,000

Years 3-5:

SD1: \$110,000

SD2-7: \$100,000 each

The total recommended budget for the elevator portion of this modernization without cab interiors is \$200,000 in years 1-2, and \$710,000 in years 3-5. If you choose to refurbish the cab interiors (floors, side and back walls and ceiling), we would recommend a budget of \$20,000 per elevator. This budget assumes fairly standard finishes for the cab interiors. If you feel that you may want custom or “better than average” cabs, you may wish to add a contingency of 20% to this budget.

Please note that the given budget is in 2015 dollars. For each year after 2015 that the modernization is budgeted, we recommend adding 5-7% to our budget numbers. This is to account both for increases in union labor and also for continued recovery in the elevator modernization market, which has been on the upswing for the past few years.

Not included in the above is work by other trades. When an elevator modernization occurs, it often precipitates the requirement for work in other related areas, either due to code changes since installation, different requirements for the new control systems, desired changes in look of the systems,

etc. The most common required work is electrical work (new or modified disconnects in the machine room, increase in lighting, etc.), fire and life safety work (addition of smoke detectors in elevator areas, addition or removal of sprinklers, etc.), general contracting (modifications for access to machine areas, cutting and patching for new fixtures, etc.) and potentially other areas. It is difficult for ECA to provide accurate budgets at this time, as our expertise is in the area of elevators and not necessarily in these other areas. However, we can estimate in this case that the required work by other trades will be roughly \$25,000 for the two Los Angeles Elevators and \$50,000 for the San Diego Elevators. We think this is a fairly conservative estimate and, combined with our other budgets should provide you a placeholder to allocate the proper funds (we don't want this work to be a surprise for you down the road).

Finally, as the State typically employs an elevator consultant for assistance with elevator modernization projects, we would recommend adding \$20,000 to the budget for that purpose for the Los Angeles Elevators, and \$40,000 for the San Diego Elevators.

The total budget for the recommended modernization project is \$245,000 in years 1-2 for the two Los Angeles Elevators, and \$800,000 in years 3-5 for the San Diego Elevators. This includes the elevator contractor's portion of the work, work by other trades, and elevator consulting. It does not include cab interior refurbishment, which would add \$20,000 per elevator to the total project cost.

As a final note, of the six passenger elevators in the San Diego Building, only one has an electronic detector edge. The other five have their original manual safety edges. We do recommend replacing the safety edges with detector edges, as has already been done for elevator 2. The budget cost for this would be \$3,500 per elevator, or \$17,500 for the five elevators. This could be done at any time to improve the overall riding experience in these elevators. Further, the detector edges could be retained during the modernization, removing a similar amount from the modernization budgets. Assuming the modernization of these elevators will not occur for at least 3-5 years, we would recommend replacing the safety edges with detector edges as soon as possible.

We would be happy to discuss this modernization recommendation or any other aspect of this report at any time. Please contact Sean Colgan at 916-337-3572, or by email at [sean.colgan@elevatorconsultingassociates.com](mailto:sean.colgan@elevatorconsultingassociates.com).



## Prepared by

EMG  
222 Schilling Circle, Suite 275  
Hunt Valley, Maryland 21031  
800.733.0660  
410.785.6220 (fax)  
[www.emgcorp.com](http://www.emgcorp.com)

## EMG Contact

Matthew Anderson  
Program Manager  
800.799.0660

## EMG Project No.

111326.14R.017.305



Your partner in real estate lifecycle planning and management.  
800.733.0660 | [emgcorp.com](http://emgcorp.com)

