Blue Anchor Building (091)

1400 10th Street, Sacramento, CA 95814

Facility Condition Assessment

June 2015

Prepared for the State of California Department of General Services

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EXECUTIVE SUMMARY

BACKGROUND

This Facility Condition Assessment (FCA), prepared by EMG Corporation (EMG) in collaboration with the Department of General Services (DGS) Real Estate Services Division (RESD) 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 Blue Anchor Building (091).

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 Blue Anchor Building (091) 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 Blue Anchor Building (091) on January 8, 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	$9,747,820
Immediate Repair Costs (12 months)	$1,030,467
1-5 Year Capital Needs	$783,859
6-10 Year Capital Needs	$121,066
Total 10-Year Capital Reserve Needs	$1,935,392

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

Current Year FCI

$$\text{Current FCI} = \frac{\$1{,}030{,}467}{\$9{,}747{,}820}$$

Ten-Year FCI

$$\text{Ten-Year FCI} = \frac{\$1{,}935{,}392}{\$9{,}747{,}820}$$

Current Year FCI	Ten-Year FCI
10.57 %= *Poor Condition*	**19.85 %= *Poor Condition***

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

- The historic wood windows are in need of repairs and refurbishing. Some of the original wood windows were replaced with aluminum windows, which should be removed and replaced with historically accurate wood windows.
- The roof membrane is old, and the joint between the flat roof and the sloped tile roof is deteriorating. Roof replacement is recommended.
- Interior replacement of carpet in the hallways and offices is recommended.
- The return air to the heating and cooling system flows through the corridors instead of individual ducts. Ducts should be added to improve the indoor air quality.

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

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INTRODUCTION

BUILDING BACKGROUND

The Blue Anchor Building (091) was designed by Starks and Flanders Architects of Sacramento and is located at 1400 Tenth Street. The building was constructed by the California Fruit Exchange as its headquarters for its produce distribution business and was first occupied in 1932. The property was acquired by the State of California and converted to office space in 1966.

The Blue Anchor Building (091) was listed on the National Register of Historic Places in 1983. The two-story building is L-shaped in plan; the facades are symmetrical and organized in the Spanish Colonial Revival style. The most prominent feature is the two-story circular tower on the corner of N and Tenth Streets. The main entrance, on Tenth Street, has the original "blue anchor" ensign mosaic logo (of the California Fruit Exchange), for which the building is named. The building currently houses staff for the Office of the Governor.

The interior is organized around a small central lobby and central corridor on each of the two floors and converted basement level. The building consists of executive suites of primarily private offices. The exterior retains its original 1930s appearance. Any renovations to the property are subject to the Secretary of the Interior Standards and Guidelines for the Rehabilitation of Historic Buildings as administrated by the State Historic Preservation Office.

The gross building area is 24,794 SF with a net usable area of 17,001 SF. The ratio of net usable to gross building area is 68.5 percent. The occupant capacity is 90. The building does not have on-site parking.

BUILDING DESCRIPTION

The building foundation consists of a reinforced concrete spread footing. The building structural system is conventional masonry bearing walls, wood-framed. The roof structure is sloped at the perimeter with a flat roof in the center of the building. The sloped roof areas are clay tile roofing, and the flat areas are built-up roofing.

The exterior walls are finished with stucco and painted wood trim. There is decorative plaster at the entries and on the round tower on the corner. There are wooden double-hung windows with aluminum storm windows on the interior to preserve the historical character and reduce air infiltration.

The building interior has painted drywall walls. The floor finishes consist of commercial carpet tiles, vinyl composition tiles, and ceramic tile in the restrooms. The ceilings are finished with a mixture of painted gypsum wall board and acoustic tiles.

The facility is served by one hydraulic passenger elevator.

Domestic hot water is provided to the restrooms and breakroom areas by a single 40 gallon water heater located in the basement boiler room.

The heating system for the building consists of hot water supplied from steam boilers located in the basement. The DGS Central Utility Plant provides chilled water to the building. The heated and chilled water circulate to air handler units throughout the upper floors of the building. The basement is conditioned by through-wall window type air conditioning units. While the building main electrical switch appears to be a recent improvement, much of the original branch wiring and distribution appears to be significantly older.

The fire suppression system is modern and includes sprinklers on the basement floor with notification systems, and smoke detection on all floors.

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

There is no onsite parking. The sidewalks throughout the property are constructed of cast-in-place concrete.

Project Statistics

Item	Description
Project Name	Blue Anchor Building
Building ID	091
Property Type	Administration
Year Built	1932
Number of Stories	3
Occupied	Yes
Land Area (acres)	0.23
Gross Square Feet (GSF)	24,794

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[1] 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 Blue Anchor Building (091) on January 8, 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.

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.

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

The 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 Uniformat code. The Uniformat 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 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.

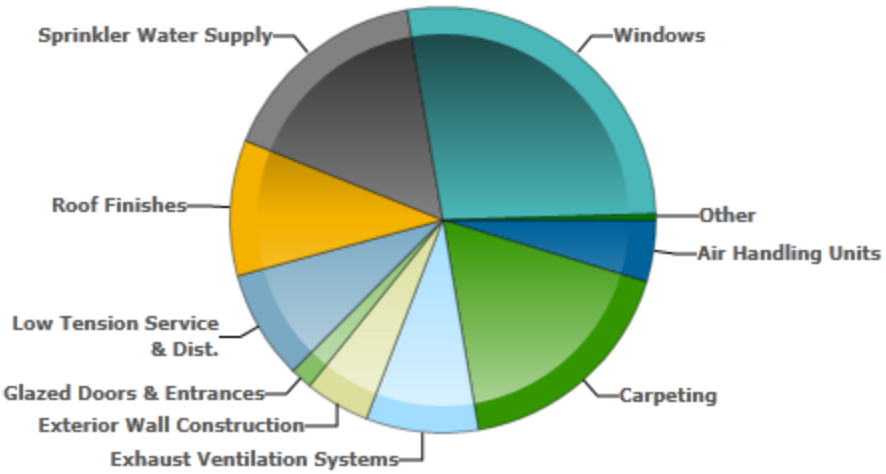
PRIORITY RATIO

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.

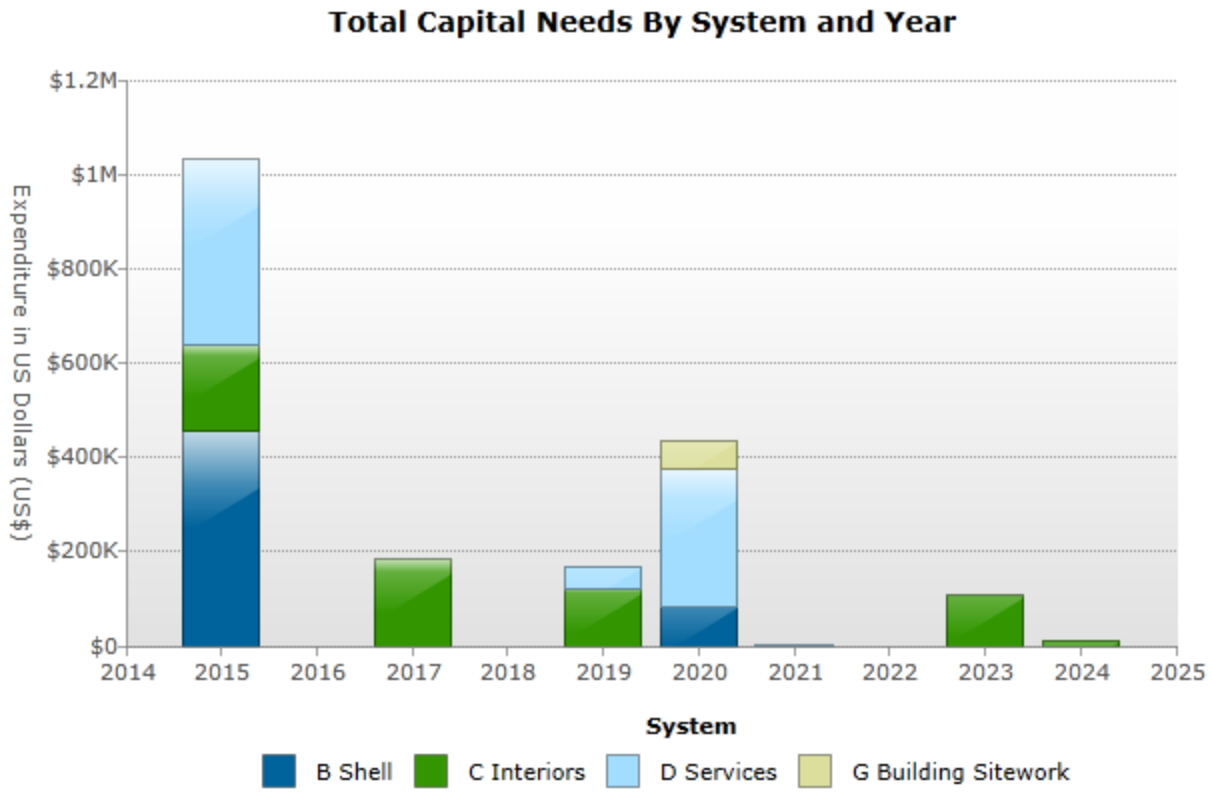
The physical condition of building systems and related components are typically defined as being in one of four conditions: Good, Fair, Poor, or Very Poor, or a combination thereof. For the purposes of this report, the following definitions are used:

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
B2011	Exterior Wall Construction	$50,780
B2021	Windows	$280,736
B2031	Glazed Doors & Entrances	$17,342
B3011	Roof Finishes	$106,280
C3025	Carpeting	$181,619
D1011	Passenger Elevators	$3,993
D3041	Air Handling Units	$48,454
D3042	Exhaust Ventilation Systems	$87,852
D4011	Sprinkler Water Supply	$167,201
D4031	Fire Extinguishers	$625
D5012	Low Tension Service & Dist.	$85,585
	Total	**$1,030,467**



	Building System							
Year	A Sub-Structure	B Shell	C Interiors	D Services	E Equip. & Furnishings	F Spec. Const. & Demolition	G Bldg. Site Work	Total
2015	$0	$455,138	$181,619	$393,710	$0	$0	$0	**$1,030,467**
2017	$0	$0	$183,202	$0	$0	$0	$0	**$183,202**
2019	$0	$0	$120,156	$45,737	$0	$0	$0	**$165,893**
2020	$0	$83,635	$0	$291,431	$0	$0	$59,699	**$434,764**
2021	$0	$0	$0	$1,805	$0	$0	$0	**$1,805**
2023	$0	$0	$107,232	$0	$0	$0	$0	**$107,232**
2024	$0	$0	$12,028	$0	$0	$0	$0	**$12,028**
Total	**$0**	**$538,773**	**$604,237**	**$732,683**	**$0**	**$0**	**$59,699**	**$1,935,392**

CURRENT REPLACEMENT VALUE

The Current Replacement Value has been determined as $9,747,820 for the Blue Anchor Building Building (091). 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
24,794 GSF	$393	$9,747,820

FACILITY CONDITION INDEX

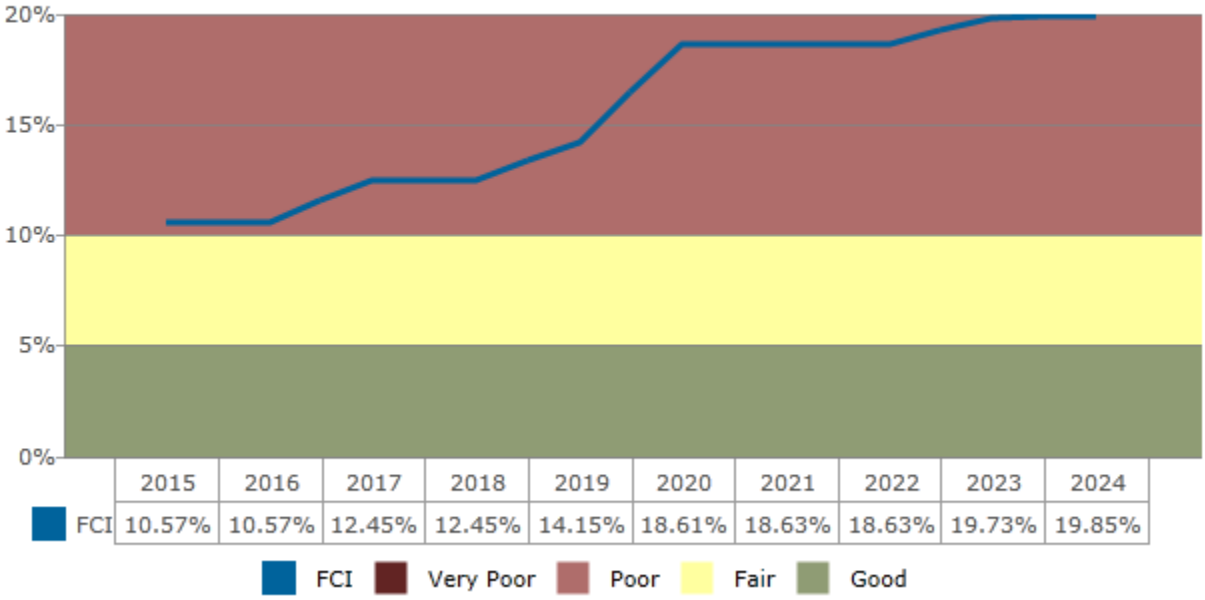
The FCI[1] is an indication of a building's current and future overall condition. According to industry standards an FCI ratio of 65 percent, or the "rule of two-thirds," is the threshold for identifying potential candidates for replacement or divestment.[2] Once the FCI ratio reaches 65 percent, or roughly two-thirds of the Current Replacement Value of the estimated cost to replace a building, it may not be prudent to continue to fund repairs. In cases where aggressive facilities planning is expected to be necessary, this threshold may be adjusted to address more pressing needs.

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

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

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.

Cumulative Effects of FCI over the Study Period



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APPENDICES

APPENDIX A: ACCESSIBILITY ISSUES

Item	Description
B2031 Glazed Doors & Entrances	B2031 Glazed Entrance Doors
Condition	Fair
Qty / UOM	2 / EA
RUL (years)	0
Location	Front Entry
Door Hardware	Lever
Door Operation	Manual
Glass Type	Standard Glass
Door Frame	Wood Framed
Door Use	Entrance

RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
B2031	Replace B2031 Glazed Entrance Doors	2.0 - EA	4335.5	CC - Accessibility	Priority 1	2015	8,671

COST SUMMARY:

Year	Total Expenditures
2015	$8,671

APPENDIX B: GENERAL ASSESSMENT INFORMATION

A Substructure Systems

A10 FOUNDATIONS

Item	Description
A1011 Wall Foundations	A1011 Wall Foundations
Condition	Fair - Good
Qty / UOM	12397 / SF
RUL (years)	16
Location	Exterior perimeter
Foundation Type	Reinforced Concrete Spread Footing
Perimeter Drainage	Yes
Insulation	No

OBSERVATIONS/COMMENTS:

No action needed.

A20 BASEMENT CONSTRUCTION

Item	Description
A2021 Basement Wall Construction	A2021 Basement Wall Construction
Condition	Fair - Good
Qty / UOM	4320 /
RUL (years)	16
Location	Basement

OBSERVATIONS/COMMENTS:

No current action is required.

B Shell Systems

B10 SUPERSTRUCTURE

Item	Description
B1022 Pitched Roof Construction	B1022 Pitched Roof Construction
Condition	Good
Qty / UOM	120 / SQ
RUL (years)	16
Location	Mansard roof
Roofing Type	Pitched
Parapet Wall Edge Flashing	Concrete
Attic	No
Roof Access	Roof Hatch

OBSERVATIONS/COMMENTS:

No action required.

B20 EXTERIOR ENCLOSURE

Item	Description
B2011 Exterior Wall Construction	B2011 Paint Exterior Walls
Condition	Fair
Qty / UOM	8461 / SF
RUL (years)	0
Location	Throughout Facility
Exterior Wall Construction	Solid Masonry
Parapets	Yes
Exterior Soffits	Concealed
Lintels and Sills	Concrete

OBSERVATIONS/COMMENTS:

Periodic exterior wall cleaning and painting will be required.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
B2011	B2011 Prepare and Paint Exterior Walls	8,461.0 - SF	6.0	IN - Appearance	Priority 1	2015	50,780

Item	Description
B2011 Exterior Wall Construction	B2011 Concrete Block Masonry
Condition	Fair - Good
Qty / UOM	16000 / SF
RUL (years)	20
Location	Throughout Facility
Exterior Wall Construction	Solid Masonry
Parapets	Yes
Balcony Walls and Handrails	Concrete
Exterior Soffits	Concealed
Lintels and Sills	Concrete

OBSERVATIONS/COMMENTS:

No action required.

Item	Description
B2021 Windows	B2021 Aluminum Windows
Condition	Fair
Qty / UOM	80 / EA
RUL (years)	0
Location	Exterior walls at rear
Window Type	Fixed
Windows Material	Aluminum
Windows Glazing	Single Glazed
Window Operation	Fixed

OBSERVATIONS/COMMENTS:

Previously installed aluminum windows that are not in keeping with the character of the building are recommended for replacement.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
B2021	Replace B2021 Aluminum Windows	80.0 - EA	3509.2	FN - Modernization	Priority 1	2015	280,736

Item	Description
B2021 Windows	B2021 Wood Windows
Condition	Fair
Qty / UOM	125 / EA
RUL (years)	5
Location	Exterior walls
Window Type	Double Hung
Windows Material	Wood
Windows Glazing	Single Glazed
Window Operation	Manual

OBSERVATIONS/COMMENTS:

The wood windows are historic and must be managed in place. Requires regular maintenance including replacement of weights, painting, and repair of glazing will be required.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
B2021	B2021 Repair and Paint Wood Windows	125.0 - EA	669.1	OP - Maintenance	Priority 3	2020	83,635

Item	Description
B2031 Glazed Doors & Entrances	B2031 Glazed Doors & Entrances
Condition	Poor - Fair
Qty / UOM	2 / EA
RUL (years)	0
Location	Exterior courtyard

OBSERVATIONS/COMMENTS:

The courtyard doors are exhibiting wear and should be replaced.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
B2031	Replace B2031 Glazed Doors & Entrances	2.0 - EA	4335.5	IN - Beyond Rated Life	Priority 1	2015	8,671

Item	Description
B2031 Glazed Doors & Entrances	B2031 Glazed Entrance Doors
Condition	Fair
Qty / UOM	2 / EA
RUL (years)	0
Location	Front Entry
Door Hardware	Lever
Door Operation	Manual
Glass Type	Standard Glass
Door Frame	Wood Framed
Door Use	Entrance

OBSERVATIONS/COMMENTS:

Entrance doors are non-compliant with ADA and should be replaced

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
B2031	Replace B2031 Glazed Entrance Doors	2.0 - EA	4335.5	CC - Accessibility	Priority 1	2015	8,671

COST SUMMARY:

Type	Year	Total Expenditures
B20 Exterior Enclosure	2015	$348,858
B20 Exterior Enclosure	2020	$83,635

B30 ROOFING

Item	Description
B3011 Roof Finishes	B3011 Clay tile roofing
Condition	Fair
Qty / UOM	60 / SQ
RUL (years)	25
Location	Mansard roof

OBSERVATIONS/COMMENTS:

The clay-tile roofing connection to the built-up roofing should be reviewed at the time the built-up roofing is replaced.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
B3011	B3011 Repair clay tile roof mortar & cracked tiles	60.0 - SQ	65.0	OP - Maintenance	Priority 2	2015	3,900

Item	Description
B3011 Roof Finishes	B3011 Built-Up Roofing
Condition	Poor - Fair
Qty / UOM	55 / SQ
RUL (years)	0
Location	Flat roof
Insulation	None
Flashings and Trim	Concrete
Roof Eaves and Soffits	Yes
Roof Drainage	Metal Gutter And Down Spouts
Roof Warranty	Unknown

OBSERVATIONS/COMMENTS:

The roof has exceeded its EUL and requires replacement.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
B3011	B3011 Replace Built-Up Roofing	55.0 - SQ	1861.5	IN - Beyond Rated Life	Priority 1	2015	102,380

COST SUMMARY:

Type	Year	Total Expenditures
B30 Roofing	2015	$106,280

C Interiors Systems

C10 Interior Construction

Item	Description
C1014 Site Built Toilet Partitions	C1032 Site Built Toilet Partitions
Condition	Fair - Good
Qty / UOM	10 / EA
RUL (years)	9
Location	Restrooms

OBSERVATIONS/COMMENTS:

Based on estimated RUL, toilet partition replacement is recommended.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
C1014	Replace C1014 Site Built Toilet Partitions	10.0 - EA	1202.8	IN - Beyond Rated Life	Priority 4	2024	12,028

Item	Description
C1021 Interior Doors	C1021 Interior Doors
Condition	Fair - Good
Qty / UOM	78 /
RUL (years)	16
Location	Throughout Facility

OBSERVATIONS/COMMENTS:

The interior wood doors, jambs, casing, and hardware will require routine maintenance.

Item	Description
C1032 Fabricated Compartments & Cubicles	C1014 Fabricated Compartments & Cubicles
Condition	Good
Qty / UOM	40 / EA
RUL (years)	15
Location	Throughout Facility

OBSERVATIONS/COMMENTS:

There are a number of attached cubicles throughout the building. Only routine maintenance is anticipated.

COST SUMMARY:

Type	Year	Total Expenditures
C10 Interior Construction	2024	$12,028

C20 STAIRS

Item	Description
C2011 Regular Stairs	C2011 Regular Stairs
Condition	Good
Qty / UOM	240 / SF
RUL (years)	11
Location	Stairwells
Stairs Frame	Steel
Stair Riser	Closed
Stair Treads	Steel
Stair Railings	Wood
Stair Soffit Finishes	Plaster
Stair Handrail Finishes	Natural Finish

OBSERVATIONS/COMMENTS:

Routine maintenance will be required.

C30 INTERIOR FINISHES

Item	Description
C3012 Wall Finishes to Interior Walls	C3012 Paint Interior Walls, Drywall
Condition	Fair
Qty / UOM	80000 / SF
RUL (years)	2
Location	Throughout Facility

OBSERVATIONS/COMMENTS:

Periodic painting of interior walls will be required.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
C3012	Replace C3012 Paint Interior Walls, Drywall	80,000.0 - SF	2.1	IN - Appearance	Priority 3	2017	170,624

Item	Description
C3024 Flooring	C3020 Floor Finishes
Condition	Good
Qty / UOM	388 / SF
RUL (years)	11
Location	Restrooms

OBSERVATIONS/COMMENTS:

The ceramic tile flooring will require routine maintenance.

Item	Description
C3024 Flooring	C3024 Vinyl Tile
Condition	Fair
Qty / UOM	100 / SY
RUL (years)	2
Location	Service areas

OBSERVATIONS/COMMENTS:

Based on the RUL, vinyl tile replacement is anticipated.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
C3024	Replace C3024 Vinyl Tile	100.0 - SY	125.8	IN - Appearance	Priority 3	2017	12,578

Item	Description
C3025 Carpeting	C3025 Carpet Tiles - Standard
Condition	Fair
Qty / UOM	770 / SY
RUL (years)	0
Location	Throughout

OBSERVATIONS/COMMENTS:

Based on condition and estimated Remaining Useful Life, carpet tile replacement is recommended.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
C3025	Replace C3025 Carpet Tiles - Standard	770.0 - SY	96.6	IN - Appearance	Priority 2	2015	74,386

Item	Description
C3025 Carpeting	C3025 Carpeting
Condition	Fair
Qty / UOM	1110 / SY
RUL (years)	0
Location	Throughout Facility

OBSERVATIONS/COMMENTS:

The carpeting throughout the building is faded, curled, and separating from its adhesive. Replacement is recommended.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
C3025	Replace C3025 Carpeting	1,110.0 - SY	96.6	IN - Appearance	Priority 2	2015	107,232
C3025	Replace C3025 Carpeting	1,110.0 - SY	96.6	IN - Appearance	Priority 2	2023	107,232

Item	Description
C3032 Suspended Ceilings	C3032 Acoustical Ceiling Tile
Condition	Fair
Qty / UOM	100 / CSF
RUL (years)	4
Location	Ceilings

OBSERVATIONS/COMMENTS:

Based on the estimated RUL, acoustic ceiling tile replacement is anticipated. The remaining ceiling is painted or textured drywall.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
C3032	Replace C3032 Acoustical Ceiling Tiles	100.0 - CSF	1201.6	IN - Appearance	Priority 3	2019	120,156

COST SUMMARY:

Type	Year	Total Expenditures
C30 Interior Finishes	2015	$181,619
C30 Interior Finishes	2017	$183,202
C30 Interior Finishes	2019	$120,156
C30 Interior Finishes	2023	$107,232

D Services Systems

D10 CONVEYING SYSTEMS

Item	Description
D1011 Passenger Elevators	D1011 Hydraulic Elevators, 2,500 LB
Condition	Good
Qty / UOM	1 / EA
RUL (years)	15
Location	Lobby

OBSERVATIONS/COMMENTS:

This is a relatively new hydraulic elevator. Evidence of a five year load test was not provided and should be completed. There is a minor code issue for keyed stop switch.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
D1011	D1011 5-year load test	1.0 - EA	3630.0	CC - Building Code	Priority 1	2015	3,630
D1011	D1011 Convert stop switch in the car to keyed type.	1.0 - EA	363.0	CC - Building Code	Priority 1	2015	363

COST SUMMARY:

Type	Year	Total Expenditures
D10 Conveying Systems	2015	$3,993

D20 PLUMBING

Item	Description
D2011 Water Closets	D2011 Commercial Grade Water Closet, 1.6 GPF Unit
Condition	Fair
Qty / UOM	8 / EA
RUL (years)	25
Location	Restrooms
Low Flow Toilet	Yes
System Grade	Commercial Grade

OBSERVATIONS/COMMENTS:

The toilets are functional and have been fit with automatic flush valves. No action required.

Item	Description
D2012 Urinals	D2012 Urinal
Condition	Fair
Qty / UOM	3 / EA
RUL (years)	25
Location	Restrooms
Low Flow Toilet	Yes
System Grade	Commercial Grade

OBSERVATIONS/COMMENTS:

The urinals are functional and have been fitted with automatic flush valves. No action required.

Item	Description
D2013 Lavatories	D2013 Wall Mounted Lavatory
Condition	Fair
Qty / UOM	8 / EA
RUL (years)	25
Location	Restrooms

OBSERVATIONS/COMMENTS:

Lavatories are functional and require only routine maintenance.

Item	Description
D2013 Lavatories	D2013 Counter Top Sink and Faucet
Condition	Fair
Qty / UOM	1 / EA
RUL (years)	10
Location	Second Floor Break Room

OBSERVATIONS/COMMENTS:

Second floor break room contains small galley kitchenette in support of adjacent conference room.

Item	Description
D2017 Showers	D2017 Stall Shower and Faucet
Condition	Good
Qty / UOM	2 / EA
RUL (years)	15
Location	Basement Restrooms

OBSERVATIONS/COMMENTS:

Single stall showers are located in men's and women's restrooms on basement floor.

Item	Description
D2018 Drinking Fountains and Coolers	D2018 Drinking Fountain
Condition	Fair
Qty / UOM	6 / EA
RUL (years)	5
Location	Throughout Facility

OBSERVATIONS/COMMENTS:

Drinking fountains are on each floor and appear to be functional. Replacement is anticipated within the term.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
D2018	Replace D2018 Drinking Fountain	6.0 - EA	2876.6	IN - Beyond Rated Life	Priority 3	2020	17,260

Item	Description
D2022 Hot Water Service	D2022 Domestic Hot Water Heater 40 Gallon
Condition	Fair
Qty / UOM	1 / EA
RUL (years)	6
Location	Boiler Room

OBSERVATIONS/COMMENTS:

A single domestic hot water heater located in the basement boiler room provides domestic hot water to the building restrooms. Replacement within the term is anticipated.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
D2022	Replace D2022 Domestic Hot Water Heater 40 Gallon	1.0 - EA	1805.4	IN - Beyond Rated Life	Priority 3	2021	1,805

COST SUMMARY:

Type	Year	Total Expenditures
D20 Plumbing	2020	$17,260
D20 Plumbing	2021	$1,805

D30 HVAC

Energy Supply	
Item	**Description**
Fuel Oil Type	N/A
Fuel Gas Type	N/A
Solid Fuel Type	N/A
District Heat Type	N/A
District Cooling Type	District Chilled Water
Solar Thermal	N/A
Fuel Tank Type	N/A
Fuel Tank Size (gallons)	N/A
Fuel Tank Location	N/A
Gas Meter Location	N/A
Electrical Meter Location	Basement
Water Meter Location	Street Vault

Item	Description
D3021 Boilers	D3020 Steam Boiler, Gas 600 MBH
Condition	Good
Qty / UOM	2 / EA
RUL (years)	30
Location	Boiler Room

OBSERVATIONS/COMMENTS:

The main HVAC heating boilers are reportedly functioning well and performing adequately.

Item	Description
D3022.1 Circulating Pumps	D3022 Water Circulation Pump 5 HP
Condition	Fair
Qty / UOM	1 / EA
RUL (years)	5
Location	Basement Level

OBSERVATIONS/COMMENTS:

The chilled water booster pump is located on the basement level at the location of the chilled water feed from the central plant. The pump is functioning adequately. Replacement is anticipated within the term.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
D3022	Replace D3022 Water Circulation Pump 5 HP	1.0 - EA	19837.2	IN - Beyond Rated Life	Priority 3	2020	19,837

Item	Description
D3023 Auxiliary Equipment	D3023 Condensate Return System
Condition	Fair
Qty / UOM	1 / EA
RUL (years)	5
Location	Boiler Room

OBSERVATIONS/COMMENTS:

The condensate return system is located in the boiler room on the basement floor. Based on estimated RUL, replacement is recommended.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
D3023	Replace D3023 Condensate Return System	1.0 - EA	17336.2	IN - Beyond Rated Life	Priority 3	2020	17,336

Item	Description
D3041.1 Air Handling Units	D3041 Interior AHU 10,000 CFM
Condition	Poor
Qty / UOM	3 / EA
RUL (years)	0
Location	Utility Areas/Closets

OBSERVATIONS/COMMENTS:

The facility is heated and cooled by three interior air handling units (AHUs). Two on ground floor and one on second floor. The AHUs are provided with steam from the basement boilers and chilled water from the central system. Return air travels directly from conditioned spaces via the hallways through grills to the air handler rooms, which creates problem with odors from toilet rooms. There are frequent complaints related to odors and air distribution.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
D3041	Replace D3041 Interior AHU 10,000 CFM	3.0 - EA	16151.5	OP - Maintenance	Priority 1	2015	48,454

Item	Description
D3042 Exhaust Ventilation Systems	D3042 Return Air Distribution System
Condition	Poor - Fair
Qty / UOM	16400 / SF
RUL (years)	0
Location	Corridors

OBSERVATIONS/COMMENTS:

Return air travels directly from conditioned spaces via the hallways through grills to the air handler rooms, which creates problems with odors from toilet rooms. There are frequent complaints related to odors and air distribution. Installation of a ducted return air system to the air handlers is recommended.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
D3042	Replace D3042 Return Air Distribution System	16,400.0 - SF	5.4	FN - Modernization	Priority 1	2015	87,852

Item	Description
D3042 Exhaust Ventilation Systems	D3042 Exhaust Fan 2,000 CFM
Condition	Fair
Qty / UOM	2 / EA
RUL (years)	5
Location	Utility Areas/Closets

OBSERVATIONS/COMMENTS:

Exhaust fans are located in fan rooms on each of ground and second floors. The units are approaching the end of their recommended serviceable life and will require replacement.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
D3042	Replace D3042 Exhaust Fan 2,000 CFM	2.0 - EA	3450.4	IN - Beyond Rated Life	Priority 3	2020	6,901

Item	Description
D3052.1 Self-Contained Air Conditioners	D3052 Window Air-Conditioner 12,000 BTUh
Condition	Fair
Qty / UOM	11 / EA
RUL (years)	5
Location	Throughout Facility

OBSERVATIONS/COMMENTS:

There are eleven Frederick window air conditioning units; including seven along the Tenth street east wall, three on the N Street north wall, and one in the courtyard. These should be replaced at the same time as the AHU replacements.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
D3052	Replace D3052 Window Air-Conditioner 12,000 BTUh	11.0 - EA	1927.5	IN - Beyond Rated Life	Priority 3	2020	21,203

COST SUMMARY:

Type	Year	Total Expenditures
D30 HVAC	2015	$136,306
D30 HVAC	2020	$65,277

D40 Fire Protection Systems

Fire and Life Safety System	
Item	**Description**
Fire Alarm System Components Present	
Smoke detectors	Yes
Pull stations	Yes
Audible alarms	Yes
Strobe lights	Yes
Central fire alarm panel	No
Annunciator panel	Yes
Smoke Detectors Power Supply	Hardwired Electric
Carbon Monoxide Detectors	Yes
Heat Detector	Yes
Central Fire Alarm Panel Location	N/A
Annunciator Panel Location	Basement
Fire Extinguishers	Yes
Fire Extinguisher Inspection Date	November 13, 2013
Distance to Nearest Fire Hydrant (ft)	120
Illuminated Exit Signs	Yes
Kitchen Suppression Systems	No
Halon Gas Systems	No
Smoke Evacuation Systems	No
Fire-rated Stairwells	Yes
Fire-rated Stairwell Finish	Drywall
Stairwell Discharge	Exterior of the building at Grade
Stairwell Pressurized	No
Fire-Rated Doors Observed	Yes
Location of Fire-Rated Doors	Office entrances
Fire Alarm Service Company	N/A
Date of Last Fire Alarm Service	January 22, 2015
Are the individual office unit fire alarm systems monitored?	No
Are the common area fire alarm systems monitored?	No
Types of Common Areas Monitored	N/A
Fire Alarm Monitoring Company	N/A

Item	Description
D4011 Sprinkler Water Supply	D4011 Sprinkler Heads
Condition	Fair
Qty / UOM	6200 / SF
RUL (years)	12
Location	Basement Level

OBSERVATIONS/COMMENTS:

Sprinkler heads are found throughout the basement level of the facility. They appear well maintained, inspected, and functional.

Item	Description
D4011 Sprinkler Water Supply	D4011 Fire Sprinkler System
Condition	Fair
Qty / UOM	16400 / SF
RUL (years)	0
Location	Basement Level
Fire Sprinkler Type	Wet Sprinkler
Fire Sprinkler Pipe Material	Steel
Recalled Sprinkler Heads (Omega or Central brands)	No
Sprinkler Standpipes	No
Backflow Preventer	No

OBSERVATIONS/COMMENTS:

The upper two floors lack fire suppression overhead sprinkler systems. Installation of a fire sprinkler system in the upper floors is recommended. The basement fire suppression system appears well maintained and functional.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
D4011	Install D4011 Fire Sprinkler System	16,400.0 - SF	10.2	CC - Life Safety	Priority 1	2015	167,201

Item	Description
D4031 Fire Extinguishers	D4031 Fire Extinguishers
Condition	Poor - Fair
Qty / UOM	5 / EA
RUL (years)	0
Location	Throughout building

OBSERVATIONS/COMMENTS:

The fire extinguisher tags are expired. Replacement is recommended.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
D4031	Replace D4031 Fire Extinguishers	5.0 - EA	125.0	CC - Life Safety	Priority 1	2015	625

COST SUMMARY:

Type	Year	Total Expenditures
D40 Fire Protection Systems	2015	$167,826

D50 ELECTRICAL SYSTEMS

Item	Description
D5012 Low Tension Service & Dist.	D5012 Breaker Panel 225 Amps, 30 Circuits
Condition	Poor
Qty / UOM	6 / EA
RUL (years)	0
Location	Utility Areas/Closets

OBSERVATIONS/COMMENTS:

Electrical panels are of multiple brands and ages. There are reported isolated power outages in the building. It is recommended all panels be replaced.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
D5012	Replace D5012 Breaker Panel 225 Amps, 30 Circuits	6.0 - EA	7864.3	FN - Modernization	Priority 1	2015	47,186

Item	Description
D5012 Low Tension Service & Dist.	D5010 Switchgear, Mainframe, 1600 Amps
Condition	Good
Qty / UOM	1 / EA
RUL (years)	35
Location	Main Electrical Room

OBSERVATIONS/COMMENTS:

The main switchgear is General Electric equipment and appears to have been replaced in recent years. The electrical service is reportedly adequate for the facility's needs and the switchgear is in working condition.

Item	Description
D5012 Low Tension Service & Dist.	D5012 Secondary Dry Transformer 75 kVA
Condition	Poor
Qty / UOM	2 / EA
RUL (years)	0
Location	Utility Areas/Closets

OBSERVATIONS/COMMENTS:

Step-down transformers are aging and should be replaced when breaker panels are replaced in the building.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
D5012	Replace D5012 Secondary Dry Transformer 75 kVA	2.0 - EA	19199.4	FN - Modernization	Priority 1	2015	38,399

Item	Description
D5022 Lighting Equipment	D5022 Lighting Fixtures
Condition	Fair
Qty / UOM	114 / EA
RUL (years)	4
Location	Office areas and corridors

OBSERVATIONS/COMMENTS:

Replacement of the light fixtures will be required when the acoustical ceiling tile system is replaced.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
D5022	Replace D5022 Lighting Fixtures	114.0 - EA	401.2	FN - Modernization	Priority 3	2019	45,737

Item	Description
D5037 Fire Alarm Systems	D5037 Fire Alarm System
Condition	Fair
Qty / UOM	24794 / SF
RUL (years)	10
Location	Throughout Facility

OBSERVATIONS/COMMENTS:

The fire alarm system appears adequate and comprehensive, with strobes and an adequate number of modern devices placed throughout the spaces.

Item	Description
D5038 Security and Detection Systems	D5038 Security System - Full Spec
Condition	Fair
Qty / UOM	24794 / SF
RUL (years)	5
Location	Throughout Facility

OBSERVATIONS/COMMENTS:

The security system includes secured building entry doors and cameras at access points to building. Replacement is anticipated within the term.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
D5038	Replace D5038 Security System - Full Spec	24,794.0 - SF	8.4	OP - Security	Priority 3	2020	208,894

COST SUMMARY:

Type	Year	Total Expenditures
D50 Electrical Systems	2015	$85,585
D50 Electrical Systems	2019	$45,737
D50 Electrical Systems	2020	$208,894

G Building Sitework Systems

G20 Site Improvements

Site Information	
Item	**Description**
Main Ingress and Egress	10th Street
Access from	NE
Additional Entrances	N/A
Access from	SE
Parking Count: Open lot	2
Parking Count: Sheltered by carports	0
Parking Count: Private garages	0
Parking Count: Subterranean garage	0
Parking Count: Freestanding parking structure	0
Number of ADA Compliant Spaces	0
Number of ADA Compliant Spaces for Vans	0
Method of obtaining parking count	Point of contact and physical count
Property Identification Sign-Primary	Structure mounted
Property Identification Sign- Secondary	N/A
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	No
Flower beds Present	Yes
Decorative Rocks Present	Yes
Lava Rocks Present	No
Ponds Present	No
Fountains Present	Yes
Topography	Flat

Item	Description
G2053 Top Soil and Planting Beds	G2053 Top Soil and Planting Beds
Condition	Good
Qty / UOM	400 / EA
RUL (years)	5
Location	Exterior walkways

OBSERVATIONS/COMMENTS:

Based on observations, the landscaping will require replacement during the term.

COST RECOMMENDATIONS:

Type	Component Description	Qty / UOM	Unit Cost ($)	Plan Type	Priority	Year	Expenditures ($)
G2053	Replace G2053 Top Soil and Planting Beds	400.0 - EA	149.2	IN - Beyond Rated Life	Priority 3	2020	59,699

COST SUMMARY:

Type	Year	Total Expenditures
G20 Site Improvements	2020	$59,699

The weather at the time of the assessment was:

Item	Description
Approximate Outdoor Temperature (degrees F)	65
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	No
Document Year Built Information Obtained From	

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: Geoffrey Straniere, Field Observer

Reviewed By: 

Matt Anderson, Program Manager

APPENDIX D: PHOTOS

:- Front View of building

:- Plaster work at entry

:- Rear view from courtyard

:- Rear entry doors with disabled access

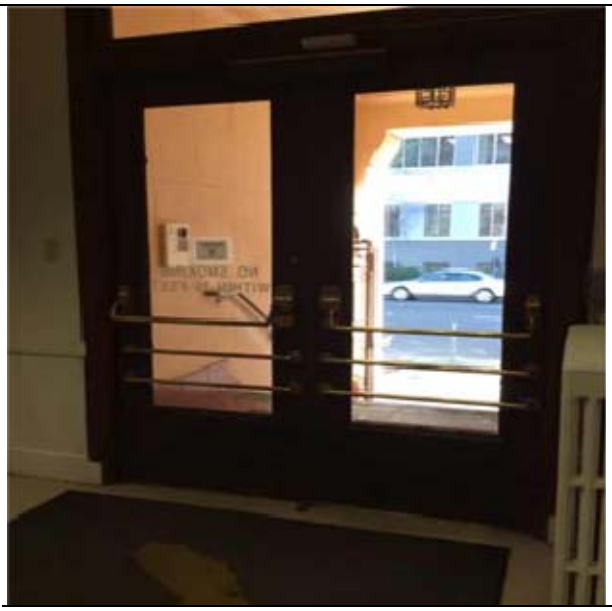
B1022 Pitched Roof Construction

B2011 Concrete Block Masonry:- paint finish

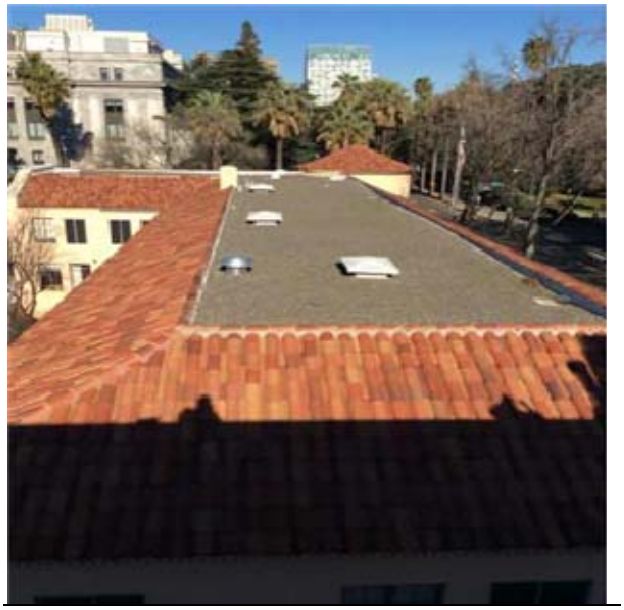
B2021 Wood Windows :- With aluminum fixed storm windows

B2021 Wood Windows

B2021 Aluminum Windows



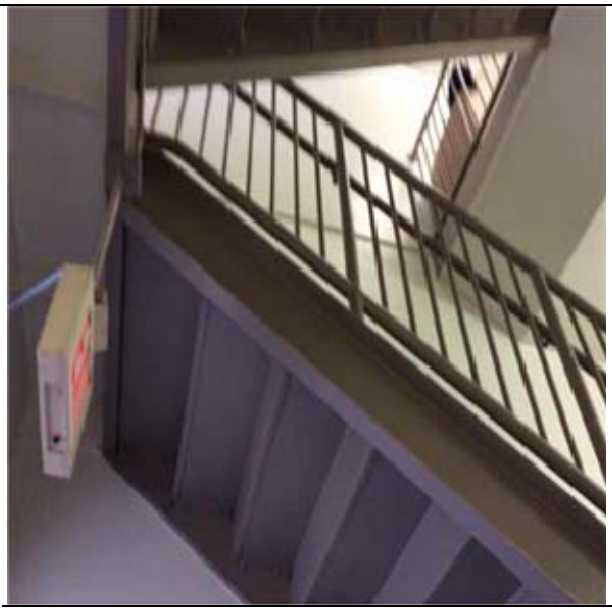
B2031 Glazed Entrance Doors:- Glazed entry doors



B3011 Built-Up Roofing :- Built up and clay tile

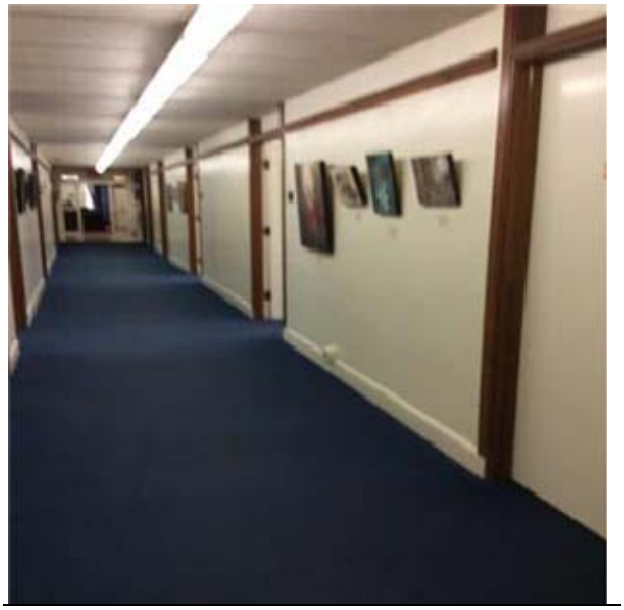
C1032 Site Built Toilet Partitions

C1021 Interior Doors

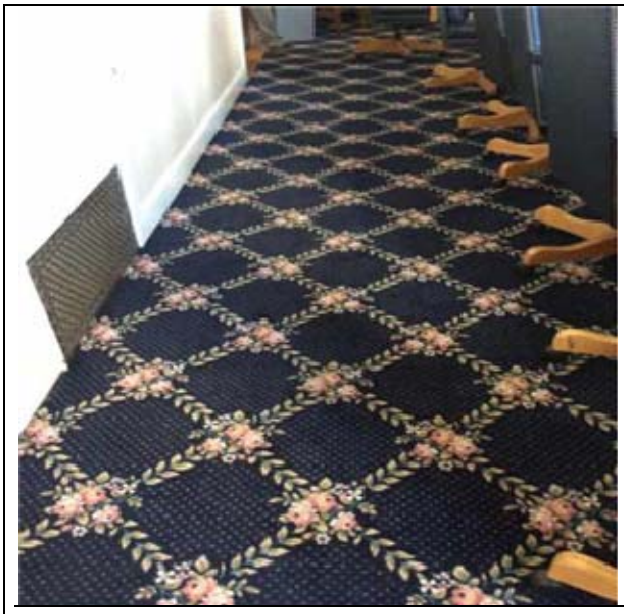


C2011 Regular Stairs:- steel

C2011 Regular Stairs :- Carpet covered



C3012 Paint Interior Walls, Drywall



C3025 Carpet Tiles - Standard :- conference room

C3025 Carpet Tiles - Standard:- corridors and hallways

C3032 Acoustical Ceiling Tile

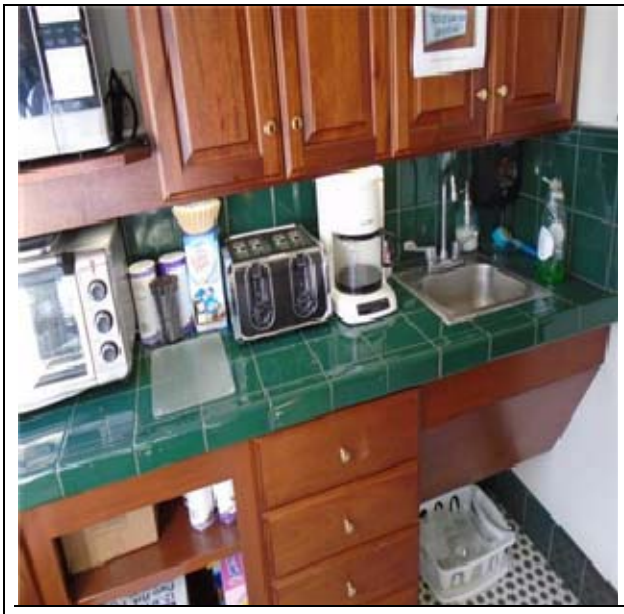
C3032 Acoustical Ceiling Tile:- glue-on tile in first floor cubicle farm

D1011 Hydraulic Elevators, 2,500 LB

D1011 Hydraulic Elevators, 2,500 LB

D2011 Commercial Grade Water Closet, 1.6 GPF Unit

D2012 Urinal



D2013 Counter Top Sink and Faucet

D2013 Wall Mounted Lavatory

D2017 Stall Shower and Faucet

D2018 Drinking Fountain

D2022 Domestic Hot Water Heater 40 Gallon

D3020 Steam Boiler, Gas 600 MBH

D3022 Water Circulation Pump 5 HP

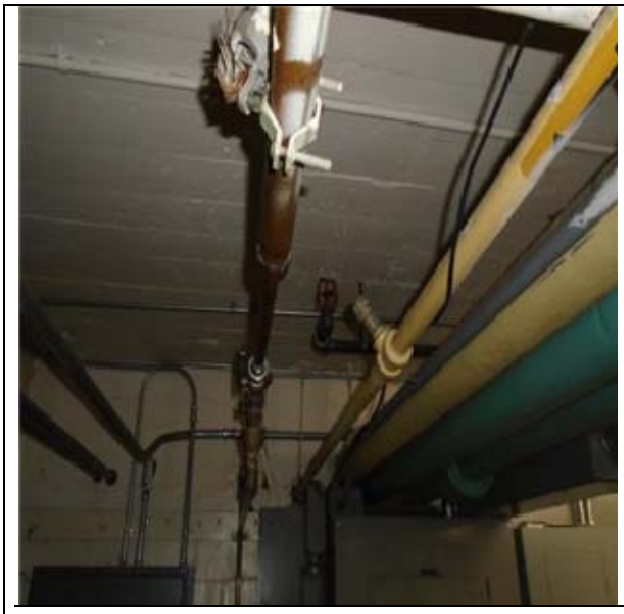
D3023 Condensate Return System

D3041 Interior AHU 10,000 CFM

D3042 Exhaust Fan 2,000 CFM

D3052 Window Air-Conditioner 12,000 BTUh

D3052 Window Air-Conditioner 12,000 BTUh



D4011 Sprinkler Heads

D4011 Sprinkler Heads

D4011 Fire Sprinkler System

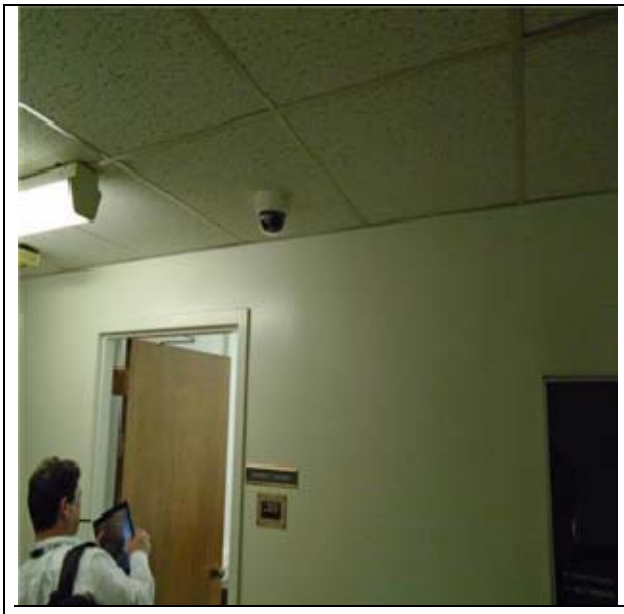
D5010 Switchgear, Mainframe, 1600 Amps

D5012 Secondary Dry Transformer 75 kVA

D5012 Breaker Panel 225 Amps, 30 Circuits

D5037 Fire Alarm System

D5038 Security System - Full Spec



D5038 Security System - Full Spec

G2053 Top Soil and Planting Beds:- Planting beds

APPENDIX E: TERMINOLOGY AND ABBREVIATIONS

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

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

TERMINOLOGY and ABBREVIATIONS	
Practically Reviewable	Information that is practically reviewable means that the information is provided by the source in a manner and form that, upon examination, yields information relevant to the property without the need for extraordinary analysis of irrelevant data.
Practice	A definitive procedure for performing one or more specific operations or functions that does not produce a test result.
Primary Improvements	The site and building improvements that are of fundamental importance with respect to the Property.
Project Manager	The individual Professional Engineer, Contractor, or Registered Architect having a general, well rounded knowledge of all pertinent site and building systems and components that conducts the on site visit and walk-through observation.
Property	The site and building improvements, which are specifically within the scope of the FCA to be prepared in accordance with the agreement between the Client and EMG.
Readily Accessible	Those areas of the Property that are promptly made available for observation by the Project Manager without the removal of materials or chattel, or the aid of any instrument, device, or equipment at the time of the Walk-through Survey.
Reasonably Ascertainable	Information that is publicly available, provided to EMG's offices from either its source or an information research/retrieval concern, practically reviewable, and available at a nominal cost for either retrieval, reproduction or forwarding.
Recreational Facilities	Spas, saunas, steam baths, swimming pools, tennis courts, playground equipment, and other exercise, entertainment, or athletic facilities.
Remaining Useful Life (RUL)	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. 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.
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 *Means* and *Dodge*, EMG's experience with past costs for similar properties, or the current owner's historical incurred costs.
RTU	Rooftop Unit
Shut-Down	Equipment or systems that are not operating at the time of the Project Manager's Walk-through Survey. Equipment or systems may be considered shutdown if it is not in operation as a result of seasonal temperatures.
Significant	Important, material, and/or serious.
Site Visit	The visit to the property by EMG's Project Manager including walk-through visual observations of the Property, interviews of available project personnel and tenants (if appropriate), review of available documents and interviews of available municipal personnel at municipal offices, all in accordance with the agreement for the Property Condition Assessment.

TERMINOLOGY and ABBREVIATIONS	
Specialty Consultants	Practitioners in the fields of engineering, architecture; or, building system mechanics, specialized service personnel or other specialized individuals that have experience in the maintenance and repair of a particular building component, equipment, or system that have acquired detailed, specialized knowledge in the design, assessment, operation, repair, or installation of the particular component, equipment, or system.
Structural Component	A component of the building, which supports non-variable forces or weights (dead loads) and variable forces or weights (live loads).
Suggested Remedy	A preliminary opinion as to a course of action to remedy or repair a physical deficiency. There may be alternate methods that may be more commensurate with the Client's requirements. Further investigation might make other schemes more appropriate or the suggested remedy unworkable. The suggested remedy may be to conduct further research or testing, or to employee 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

BLUE ANCHOR BUILDING FACT SHEET

1400 10th Street
Sacramento
Sacramento County
Category 3 - Low Priority - Special Repairs and Maintenance

BUILDING INFORMATION

- Age: 82 years (completed in 1932)
- Size:* 2-story, distinctive tower at the junction of the two wings
  24,794 GSF 17,001 NUSF 17,001 Assigned SF
  0.23 Acre Parcel
  No parking available
  Capacity - 90 occupants
- Financial: No Encumbrances
  BRA Rate - $1.64/month per SF, FY 2013-14 (DGS Price Book)
  $1.69/month per SF, FY 2014-15 (Proposed DGS Price Book)
  Central Plant rate an additional $0.60/month per SF

SPI Structure #: 2373
Real Property #: 9543
BPM #: 091

- LEED Status: Not requested
- Tenants: 2 Offices for the Governor; tenants include Governor's Office of Business & Economic Development (6,229 SF) and Governor's Office of Planning and Research (10,772 SF)

COMPLETED STUDIES AND SIGNIFICANT FINDINGS

A. 2003 Infrastructure Study

According to the study, the building is in need of a major renovation due to inadequate structural integrity, hazardous materials, fire and life safety issues, needs a new roof, new plumbing system, and conservation of the aging exterior concrete and plaster walls.

B. 2010 American Disability Act Accessibility Compliance Survey

Per the report, the building has accessibility deficiencies including various restroom issues, exit doors, stair handrails, drinking fountains, and shower/locker room issues requiring alterations to achieve compliance. An accessible route of travel must also be achieved to be considered compliant.

C. 2012 Access Compliance Conceptual Budget Evaluation

In follow up to the 2010 American Disability Act Accessibility Compliance Survey this report provides the Conceptual Cost and Path of Travel Plans. ADA upgrades have been proposed for this building as part of DGS's ten year ADA Compliance Upgrades and Deferred Special Repairs Program.

ADDITIONAL BUILDING ISSUES

The existence of asbestos and lead paint adds significant additional cost to maintenance and tenant improvement projects.

CURRENT UTILIZATION PROJECTS

No utilization projects planned.

RECENTLY COMPLETED PROJECTS

Cost

TBD

ACTIVE PROJECTS

Cost

TBD

PLANNED SPECIAL REPAIRS BY FISCAL YEAR

Estimated Cost

TBD

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

* Source: Statewide Property Inventory

APPENDIX G: COST TABLES

10 YEAR EXPENDITURE FORECAST

4tell

Blue Anchor Building
1400 10th Street
Sacramento

Useful Life[1]: Estimated Useful Life / Remaining Useful Life

Plan Type[1]: **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[2]	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		
A. SUBSTRUCTURE																							
Substructure Subtotal												$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
B. SHELL																							
B20	**EXTERIOR ENCLOSURE**																						
B2011	Stucco and Lath	B2011 Paint Exterior Walls	Throughout Facility	B2011 Prepare and Paint Exterior Walls	10	0	8,461.00	SF	$6.00	IN - Appearance	Priority 1	$50,780	$0	$0	$0	$0	$0	$0	$0	$0	$0	$50,780	$0
B2021	3'-0" X 4'-0" St. Fr. Screen Window - 1St Floor	B2021 Wood Windows	Exterior walls	B2021 Repair and Paint Wood Windows	40	5	125.00	EA	$669.08	OP - Maintenance	Priority 3	$0	$0	$0	$0	$0	$83,635	$0	$0	$0	$0	$0	$83,635
B2021	3' X 4' Historic Wood Window	B2021 Aluminum Windows	Exterior walls at rear	Replace B2021 Aluminum Windows	35	0	80.00	EA	$3,509.20	FN - Modernization	Priority 1	$280,736	$0	$0	$0	$0	$0	$0	$0	$0	$0	$280,736	$0
B2031	Aluminum 3'-0" X 7'-0"	B2031 Glazed Entrance Doors	Front Entry	Replace B2031 Glazed Entrance Doors	30	0	2.00	EA	$4,335.51	CC - Accessibility	Priority 1	$8,671	$0	$0	$0	$0	$0	$0	$0	$0	$0	$8,671	$0
B2031	3'-0" X 7'-0" Solid Core, w/Safety Glass, Ptd. Door	B2031 Glazed Doors & Entrances	Exterior courtyard	Replace B2031 Glazed Doors & Entrances	25	0	2.00	EA	$4,335.51	IN - Beyond Rated Life	Priority 1	$8,671	$0	$0	$0	$0	$0	$0	$0	$0	$0	$8,671	$0
B30	**ROOFING**																						
B3011	Clay (Ceramic) roof tiles	B3011 Clay tile roofing	Mansard roof	B3011 Repair clay tile roof mortar & cracked tiles	15	0	60.00	SQ	$65.00	OP - Maintenance	Priority 2	$3,900	$0	$0	$0	$0	$0	$0	$0	$0	$0	$3,900	$0
B3011	Built-Up Roofing, Total Roof	B3011 Built-Up Roofing	Flat roof	B3011 Replace Built-Up Roofing	20	0	55.00	SQ	$1,861.46	IN - Beyond Rated Life	Priority 1	$102,380	$0	$0	$0	$0	$0	$0	$0	$0	$0	$102,380	$0
Shell Subtotal												**$455,138**	**$0**	**$0**	**$0**	**$0**	**$83,635**	**$0**	**$0**	**$0**	**$0**	**$455,138**	**$83,635**
C. INTERIORS																							
C10	**INTERIOR CONSTRUCTION**																						
C1014	C1014 Site Built Toilet Partitions	C1032 Site Built Toilet Partitions	Restrooms	Replace C1014 Site Built Toilet Partitions	20	9	10.00	EA	$1,202.80	IN - Beyond Rated Life	Priority 4	$0	$0	$0	$0	$0	$0	$0	$0	$0	$12,028	$0	$12,028
C30	**INTERIOR FINISHES**																						
C3012	Paint Interior Walls, Drywall	C3012 Paint Interior Walls, Drywall	Throughout Facility	Replace C3012 Paint Interior Walls, Drywall	10	2	80,000.00	SF	$2.13	IN - Appearance	Priority 3	$0	$0	$170,624	$0	$0	$0	$0	$0	$0	$0	$0	$170,624
C3024	Vinyl Tile	C3024 Vinyl Tile	Service areas	Replace C3024 Vinyl Tile	18	2	100.00	SY	$125.78	IN - Appearance	Priority 3	$0	$0	$12,578	$0	$0	$0	$0	$0	$0	$0	$0	$12,578
C3025	Carpet Tiles - Standard	C3025 Carpet Tiles - Standard	Throughout	Replace C3025 Carpet Tiles - Standard	10	0	770.00	SY	$96.61	IN - Appearance	Priority 2	$74,386	$0	$0	$0	$0	$0	$0	$0	$0	$0	$74,386	$0
C3025	Carpet - Single Color Residential Corridors	C3025 Carpeting	Throughout Facility	Replace C3025 Carpeting	8	0	1,110.00	SY	$96.61	IN - Appearance	Priority 2	$107,232	$0	$0	$0	$0	$0	$0	$0	$107,232	$0	$107,232	$107,232
C3032	Acoustical Tile With Exposed Grid System	C3032 Acoustical Ceiling Tile	Ceilings	Replace C3032 Acoustical Ceiling Tiles	20	4	100.00	CSF	$1,201.56	IN - Appearance	Priority 3	$0	$0	$0	$0	$120,156	$0	$0	$0	$0	$0	$0	$120,156
Interiors Subtotal												**$181,619**	**$0**	**$183,202**	**$0**	**$120,156**	**$0**	**$0**	**$0**	**$107,232**	**$12,028**	**$181,619**	**$422,618**
D. SERVICES																							
D10	**CONVEYING SYSTEMS**																						
D1011	Elevator Hydraulic System, 3,500 Lb Capacity	D1011 Hydraulic Elevators, 2,500 LB	Lobby	D1011 5-year load test	10	0	1.00	EA	$3,630.00	CC - Building Code	Priority 1	$3,630	$0	$0	$0	$0	$0	$0	$0	$0	$0	$3,630	$0
	Elevator Hydraulic System, 3,500 Lb Capacity	D1011 Hydraulic Elevators, 2,500 LB	Lobby	D1011 Convert stop switch in the car to keyed type.	15	0	1.00	EA	$363.00	CC - Building Code	Priority 1	$363	$0	$0	$0	$0	$0	$0	$0	$0	$0	$363	$0
D20	**PLUMBING**																						
D2018	Drinking Fountain	D2018 Drinking Fountain	Throughout Facility	Replace D2018 Drinking Fountain	10	5	6.00	EA	$2,876.60	IN - Beyond Rated Life	Priority 3	$0	$0	$0	$0	$0	$17,260	$0	$0	$0	$0	$0	$17,260
D2022	Domestic Hot Water Heater - Gas	D2022 Domestic Hot Water Heater 40 Gallon	Boiler Room	Replace D2022 Domestic Hot Water Heater 40 Gallon	15	6	1.00	EA	$1,805.40	IN - Beyond Rated Life	Priority 3	$0	$0	$0	$0	$0	$0	$1,805	$0	$0	$0	$0	$1,805
D30	**HVAC**																						
D3022.1	Circulation Pump, 7 to 10 HP	D3022 Water Circulation Pump 5 HP	Basement Level	Replace D3022 Water Circulation Pump 5 HP	20	5	1.00	EA	$19,837.20	IN - Beyond Rated Life	Priority 3	$0	$0	$0	$0	$0	$19,837	$0	$0	$0	$0	$0	$19,837
D3023	Condensate return system (SIMPLEX PUMP, FLOAT SWITCH, 3/4 HP, 15 GPM)	D3023 Condensate Return System	Boiler Room	Replace D3023 Condensate Return System	20	5	1.00	EA	$17,336.19	IN - Beyond Rated Life	Priority 3	$0	$0	$0	$0	$0	$17,336	$0	$0	$0	$0	$0	$17,336
D3041.1	Air Handler 8,000 to 12,000 CFM	D3041 Interior AHU 10,000 CFM	Utility Areas/Closets	Replace D3041 Interior AHU 10,000 CFM	20	0	3.00	EA	$16,151.50	OP - Maintenance	Priority 1	$48,454	$0	$0	$0	$0	$0	$0	$0	$0	$0	$48,454	$0
D3042	D3042 Exhaust Ventilation Systems	D3042 Return Air Distribution System	Corridors	Replace D3042 Return Air Distribution System	25	0	16,400.00	SF	$5.36	FN - Modernization	Priority 1	$87,852	$0	$0	$0	$0	$0	$0	$0	$0	$0	$87,852	$0
D3042	Exhaust Fan 2000 CFM	D3042 Exhaust Fan 2,000 CFM	Utility Areas/Closets	Replace D3042 Exhaust Fan 2,000 CFM	20	5	2.00	EA	$3,450.37	IN - Beyond Rated Life	Priority 3	$0	$0	$0	$0	$0	$6,901	$0	$0	$0	$0	$0	$6,901
D3052.1	Window Air-Conditioner 12,000 BTUh	D3052 Window Air-Conditioner 12,000 BTUh	Throughout Facility	Replace D3052 Window Air-Conditioner 12,000 BTUh	12	5	11.00	EA	$1,927.53	IN - Beyond Rated Life	Priority 3	$0	$0	$0	$0	$0	$21,203	$0	$0	$0	$0	$0	$21,203
D40	**FIRE PROTECTION SYSTEMS**																						
D4011	Deluge Sprinkler System - Light Hazard	D4011 Fire Sprinkler System	Basement Level	Install D4011 Fire Sprinkler System	35	0	16,400.00	SF	$10.20	CC - Life Safety	Priority 1	$167,201	$0	$0	$0	$0	$0	$0	$0	$0	$0	$167,201	$0
D4031	D4031 Fire Extinguishers	D4031 Fire Extinguishers	Throughout building	Replace D4031 Fire Extinguishers	15	0	5.00	EA	$125.00	CC - Life Safety	Priority 1	$625	$0	$0	$0	$0	$0	$0	$0	$0	$0	$625	$0
D50	**ELECTRICAL SYSTEMS**																						
D5012	Breaker Panel 225 Amps, 30 Circuits	D5012 Breaker Panel 225 Amps, 30 Circuits	Utility Areas/Closets	Replace D5012 Breaker Panel 225 Amps, 30 Circuits	40	0	6.00	EA	$7,864.32	FN - Modernization	Priority 1	$47,186	$0	$0	$0	$0	$0	$0	$0	$0	$0	$47,186	$0
D5012	Secondary Dry Transformer 75 kVA	D5012 Secondary Dry Transformer 75 kVA	Utility Areas/Closets	Replace D5012 Secondary Dry Transformer 75 kVA	40	0	2.00	EA	$19,199.43	FN - Modernization	Priority 1	$38,399	$0	$0	$0	$0	$0	$0	$0	$0	$0	$38,399	$0
D5022	D5022 Lighting Equipment	D5022 Lighting Fixtures	Office areas and corridors	Replace D5022 Lighting Fixtures	20	4	114.00	EA	$401.20	FN - Modernization	Priority 3	$0	$0	$0	$0	$45,737	$0	$0	$0	$0	$0	$0	$45,737
D5038	Security System - Full Spec	D5038 Security System - Full Spec	Throughout Facility	Replace D5038 Security System - Full Spec	10	5	24,794.00	SF	$8.43	OP - Security	Priority 3	$0	$0	$0	$0	$0	$208,894	$0	$0	$0	$0	$0	$208,894
Services Subtotal												**$393,710**	**$0**	**$0**	**$0**	**$45,737**	**$291,431**	**$1,805**	**$0**	**$0**	**$0**	**$393,710**	**$338,973**
E. EQUIPMENT & FURNISHING																							
Equipment & Furnishing Subtotal												**$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**
G. BUILDING SITEWORK																							
G20	**SITE IMPROVEMENTS**																						
G2053	Shrub/Tree Planting Beds	G2053 Top Soil and Planting Beds	Exterior walkways	Replace G2053 Top Soil and Planting Beds	40	5	400.00	EA	$149.25	IN - Beyond Rated Life	Priority 3	$0	$0	$0	$0	$0	$59,699	$0	$0	$0	$0	$0	$59,699
Building Sitework Subtotal												**$0**	**$0**	**$0**	**$0**	**$0**	**$59,699**	**$0**	**$0**	**$0**	**$0**	**$0**	**$59,699**
Z. GENERAL																							
General Subtotal												**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
Expenditure Totals per Year												**$1,030,467**	**$0**	**$183,202**	**$0**	**$165,893**	**$434,764**	**$1,805**	**$0**	**$107,232**	**$12,028**	**$1,030,467**	**$904,925**
Total Cost (Inflated @ 5% per Yr.)												**$1,030,467**	**$0**	**$201,980**	**$0**	**$201,644**	**$554,882**	**$2,419**	**$0**	**$158,431**	**$18,659**	**Total ***	**$1,935,392**

*** - Present Value Currency**

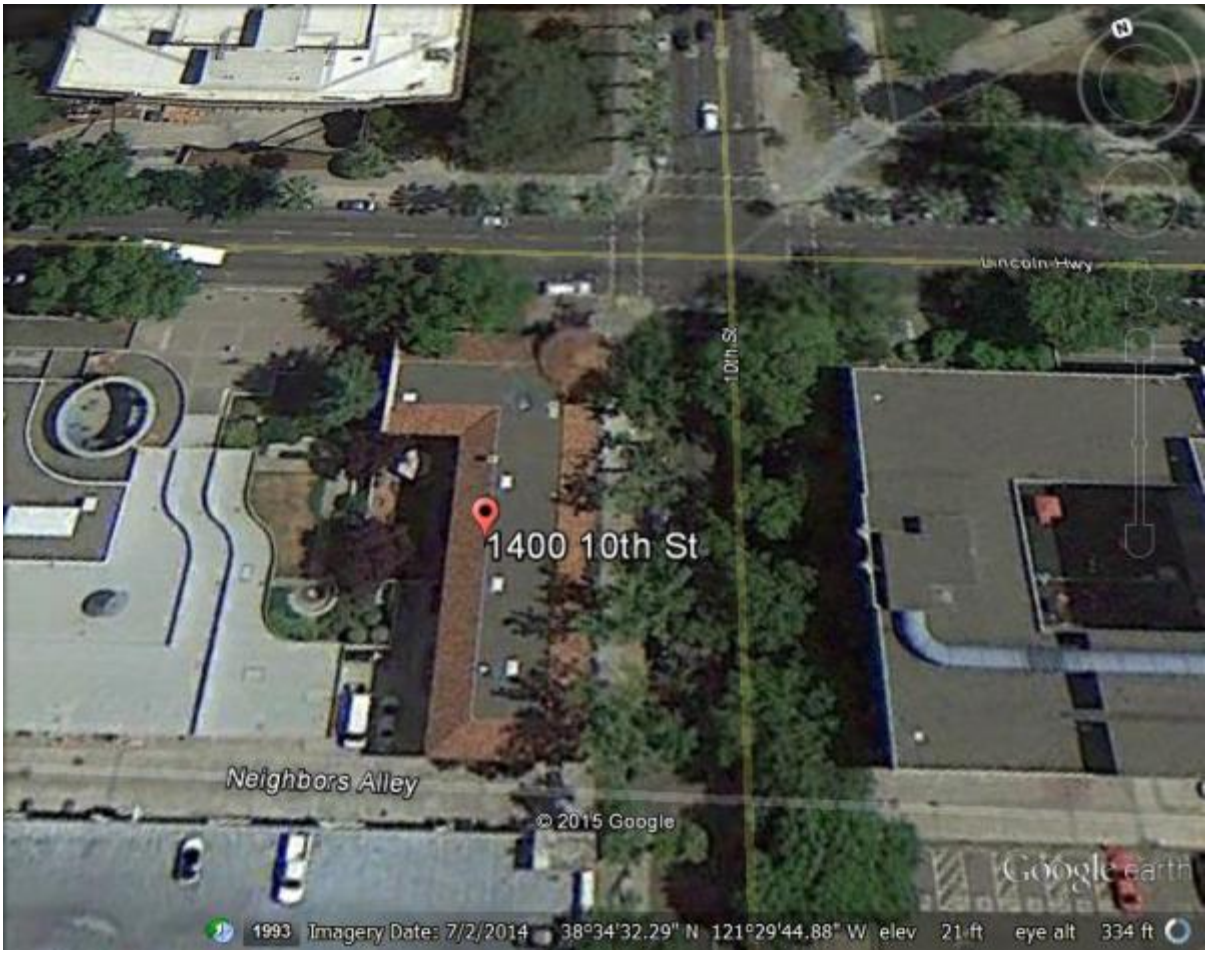
Current Repl.Value $9,747,820

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

APPENDIX H: SUPPORTING DOCUMENTATION



EMG	**Source:** **The north arrow indicator is an approximation of 0° North.**	**Project Number:** 111326.14R-016.305 **Project Name:** Blue Anchor Building
N		**On-Site Date:** January 8, 2015

Estimate of Structures Cost Using Marshall Cost Systems

Blue Anchor Building (091)

Site Calculation

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

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

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

Estimate of Structure Cost :

Building Type	Cost per SF	Number of SF	Building TypeTotal
main building	$291.22	24,794	$7,220,608
	$0.00	0	$0
	$0.00	0	$0
	$0.00	0	$0
	$0.00	0	$0
	Total	24,794	$7,220,608

Estimate of Adjustments for Fees:

Description	% increase
Soft Costs	35.00%
	0.00%
	0.00%

Total Fees/ Interest included in Marshall System	35.00%

Total Structure Estimate:

Description	Unit	Fee Adjust	Adjusted Totals
main building	$7,220,608	35.00%	$9,747,820
	$0	35.00%	$0
	$0	35.00%	$0
	$0	35.00%	$0
	$0	35.00%	$0
Cost Per SF	**$393.15**	**Total Estimate**	**$9,747,820**

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

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

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

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

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

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

PLAN TYPE DEFINITION

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

Code Compliance (CC)

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

Operations (OP)

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

Environmental (EN)

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

Functionality (FN)

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

Integrity (IN)

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

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: Joan Armstrong

Building name: Blue Anchor Building (091)

What is your association with this property? Building Manager

What is the length of your association with this property? 3 years

Phone number: 916-445-2605

Please provide information about inspections relating to the following items

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

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?

none

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

1990

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

roof

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

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

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

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

APPENDIX J: ELEVATOR REPORT

ARCHITECTURAL ELEVATOR CONSULTING, LLC

Blue Anchor
1400 10th Street
Sacramento, CA

Due Diligence
Elevator Report

February 16, 2015

Prepared for:

Ms. Karla Rodriquez
EMG Corporation
Hunt Valley, MD 21212

Prepared by:

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

ARCHITECTURAL ELEVATOR CONSULTING, LLC

TABLE OF CONTENTS

Section I: Executive Summary

A. Introduction

On February 11, 2015 Russell Holt of Architectural Elevator Consulting, LLC (AEC) surveyed all the vertical transportation systems at Blue Anchor, 1400 – 10th Street, Sacramento, CA. There is one (1) hydraulic elevator. The elevator serves four stops and has three openings and one rear opening. The purpose of the survey was to review the major components, to identify upgrades needed over the next ten years and check for compliance with various codes. In addition to reviewing the major components of the elevators we checked the performance parameters of the equipment and tested safety devices such as door restrictors, electric edges and emergency phones.

The elevator was manufactured and installed by ThyssenKrupp Elevator in 2002 and appears to have been added to a new shaft in an older existing building. The elevator has a TKE power unit, holeless twin jacks, controller, door operators, and door equipment. The power unit is equipped with IMO pumps and TKE's I2 valve which are known to be high quality. The signal fixtures in the cars and hall were manufactured by TKE and also in good condition.

During our survey we noted that the elevator was being well maintained by ThyssenKrupp Elevator. Housekeeping in the machine room, car top and pit were clean. The performance was also noted to be good with only minor improvements needed. However, the state required five year full load test appears to be overdue.

B. Elevator Layout

The office building has one (1) elevator that appears to have been added to an existing historical building. The elevator serves all floors, levels B, 1-3. The car is rated at 150 Feet per Minute (FPM) and is designed side opening doors. The elevator has a 2,500 lbs. capacity and has three front openings and one rear opening. The speed and size of elevator appears to be adequate for the building.

Elevator Summary				
Elevator Bank	**Elevator Speed**	**Floors Served**	**Capacity**	**Door Type**
Passenger Car 1	150 FPM	B,1-3	2,500 lbs.	Side

C. Condition

All of the major components of the elevator were found to be in good to excellent condition. The cab interior is also in good condition. No major work is anticipated in the next ten years. In ***Section II*** of this report we provide an in-depth review of each of the major components of the elevators with photographs.

D. Maintenance/Performance

The elevator is currently being maintained by ThyssenKrupp Elevator. The level of maintenance was good. The performance was observed to at or close to designed times and

speeds. In ***Appendix C*** of this report we provide a summary of the performance times for the elevator followed by a maintenance deficiency list. We recommend this list be provided to the elevator service provider so they can correct these items.

E. Code Review:

During our survey we reviewed the elevators for compliance to the following codes; Americans with Disabilities Act (ADA)/California T24, and compliance with the National Elevator Code for Existing Elevators, A17.3.

1. **Americans with Disability Act (ADA)/California T24:** In 1990 the federal government enacted ADA to make public spaces more accessible to disabled persons. California has a few specific accessibility requirements in addition to ADA. The elevator meets all ADA and California Title 24 requirements. The size of the elevators meets the requirements for new and existing elevators. The elevator has the proper hall/car lanterns and gongs. ***Appendix A*** provides a complete listing of the ADA/T24 requirements. The elevator is in full compliance.

2. **Retro Active Codes for Existing Elevators:** We reviewed the elevator for compliance to A17.3 Code, the national safety code for existing elevators. This code requires all elevators, no matter age or installation date, to meet a minimum level of safety. A17.3 is not adopted in California, thus not required by the State, but the elevator complies with most items. A complete check list for this retro-active code is included in ***Appendix B*** of this report. The following is a summary of items not to code:

    a. **In-Car Stop Switch:** The in-car stop switch is not keyed and the alarm does not work. This should be converted to keyed type.

3. **Seismic:** The elevator was installed under seismic code and has a seismic rupture valve in the pit.

F. Recommendation:

The elevator is approaching its mid-life and no major work is anticipated in the next 10 years if the elevator is properly maintained. The five year full load tests appears to be overdue and should be performed as soon as possible and/or documentation provided verifying it was completed.

Section II : Component Review

A. MACHINE ROOM:

Controllers:

The controller was manufactured and installed by ThyssenKrupp Elevator when the elevator was added in 2002. The controller utilizes digital board technology that is known to be reliable. This TAC 20 model is known to be dependable. If properly maintained the controllers should last another 10 to 15 years with no major updates.

Hydraulic Power Units:

The elevator has a TKE power unit equipped with a TKE I2 valve and IMO pump. The power unit was installed in 2002 when the elevator was erected. The power unit is in relatively good condition.

Disconnect:

The elevator disconnect is in good condition and does not need any work.

B. HOISTWAY:

Hoistway Construction:

The hoistway (elevator shaft) is the main area where the elevators go up and down. The hoistways are mostly built of drywall.

Car Guide Rails:

The car rails are in good condition but do not have seismic fish plates. During the proposed modernization, these could be installed. This is recommended as an option but is rarely cost effective.

Pits:

The pit is in good condition. The pit is equipped with a seismic rupture valve.

C. CAR TOP:

Door Operator:

The door operator is Thyssen's HD -98 model which is known to be reliable and dependable. The door operation was noted to be fair with room for improvement. The elevator has the code required door restrictor.

Car Roller/Slide Guides:

On both sides of the elevators and on the top and bottom slide guides keep the elevators riding up and down the omega shaped guide rails. The existing ride quality was noted to be good. No work is anticipated on the guide rails.

D. SIGNAL FIXTURES:

Car Operating Panels:

The elevator has the original Car Operating Panel (COP). The panel is in good condition and the buttons comply with ADA and Title 24. No work is needed on the COP.

Hall/Car Lanterns:

Hall lanterns inform persons waiting in the hall of which direction the elevator is about to travel in next. ADA requires that the hall lanterns illuminate and sound for the waiting passengers. The existing elevator has hall lanterns. The lanterns have the proper gong for up and down.

Hall Call Pushbuttons:

At each floor hall call push buttons are located so that users can call the elevator. The hall call stations have raised operation buttons which are ADA and T24 compliant. During a modernization the fixture and fire exit sign will be replaced.

E. CAB INTERIOR:

Wall Finish:

The existing cab interior is original and is in fair condition. The sides have the code required handrails. The railing heights are in compliance with Title 24 California code.

Ceilings:

The ceiling consists of translucent panels with a T frame design. The appearance is adequate.

Vertical Transporation

Blue Anchor - 1400 10th Street

Item No.	Recommendation	Rating	Quantity	Unit	Unit Cost	Immediate Code Items	Immediate - Repair	Yers 1-3	Years 4-6	Years 7-10	Totals
1	Five Year test is overdue. Last performed in 2007	1	1	EA	$3,000.00	$3,000					$3,000
2	Convert stop switch in the car to keyed type.	1	1	EA	$300.00	$300					$300
											$0
											$0
											$0
											$0
											$0
											$0
											$0
	Subtotal					$3,300	$0	$0	$0	$0	$3,300

1	$3,300	Code and Safety
2	$0	Deffered Maintenance & Repair
3	$0	Capital Expenditure
4		Modernization / Improvements
5	$3,300	Total

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

Appendix A
ADA/California T24 ELEVATOR CHECKLIST

ADA	Item	Complies Yes/No/N/A
	GENERAL	
4.10.1	Elevator must comply with ASME A17.1-1990. Freight elevators are not acceptable unless only elevator provided, and is permitted to carry passengers, both public and employees.	Yes
	AUTOMATIC OPERATION	
4.10.2	Elevators must be Automatic.	Yes
4.10.2	Self-leveling to within 1/2 in.	Yes
	HALL CALL BUTTONS	
4.10.3	Buttons centered at 42 in. above the floor.	Yes
4.10.3	Buttons to illuminate when call is entered and extinguish when answered.	Yes
4.10.3	Buttons to be at least 3/4 in. in the smallest dimension.	Yes
4.10.3	Up button located above down button.	Yes
4.10.3	Buttons raised or flushed. **(T24 must be raised)**	Yes
4.10.3	Objects mounted beneath hall buttons not to project into the lobby more than 4 in.	Yes
	HALL or CAR LANTERNS	
4.10.4	Visible and audible signals at each hoistway entrance to indicate which car is responding to the call.	Yes –Hall
4.10.4	Audible signals to sound once for up and twice for “down” or may verbal announcement stating “up” “down.”	Yes
4.10.4	Hall directional lantern centered 72 in. above floor.	Yes
4.10.4	Directional lantern visible elements minimum of 2-½ in. in the smallest dimension.	Yes
4.10.4	Directional lanterns must be visible from the vicinity of the hall call button.	Yes
4.10.4	In car lanterns, meeting the requirements above are acceptable in lieu of hall directional lanterns.	Yes
	HOISTWAY ENTRANCES	
4.10.5	Raised and Braille floor designations are required on both door jambs. Permanently applied plates are acceptable. **(T24 must be to the left)**	Yes
4.10.5	Centerline of floor designation characters 60 in. above floor.	Yes
4.30.4	Characters must be 2 in. high, raised 1/32 in. upper sans serif (block letters) or simple serif type.	Yes
4.30.4	Grade II Braille to accompany raised characters.	Yes
	DOOR PROTECTIVE & REOPENING DEVICES	
4.10.6	Doors must open and close automatically.	Yes
4.10.6	Non-contact door reopening device at 5 in. and 29 in. above the floor.	Yes
4.1.6(3)(c)	If safety edges are provided on existing elevators, the non-contact door reopening devices may be omitted.	Yes
4.10.6	Reopening device to remain operational for at least 20 seconds.	Yes

Appendix A
ADA/California T24 ELEVATOR CHECKLIST

ADA	Item	Complies Yes/No/N/A
	DOOR AND SIGNAL TIMING	
4.10.7	Minimum acceptable door open time from notification car is answering a hall call until the car doors begin to close: *T=D/(1.5ft/s,* where *T* is the total time in and *D* is the distance from a point in the lobby or corridor 60 in. directly in front of the farthest button controlling that car to centerline of its hoistway door.	Yes
4.10.7	Minimum acceptable notification time 5.0 seconds.	Yes
	DOOR DELAY FOR CAR CALLS	
4.10.8	Doors to remain open for a minimum of 3.0 seconds in response to car calls.	Yes
	FLOOR PLAN NEW ELEVATOR	
4.10.9	At least 36" wide door. Side Open Door: Cab must be 5'-8" wide x 4'-3" deep Center Open Door: Cab must be 6'-8" wide by 4'-3" deep	Yes
	FLOOR PLAN EXISTING ELEVATOR	
4.1.6	Minimum of 48" x 48"	Yes
4.10.9	Clearance between car platform sill and edge of hoistway landing sill no greater than 1-¼ in.	Yes
	Handrails Circular Square Dia.____Top of Handrail _____ Height Side Back **(T24 must be 34")**	Yes
	FLOOR SURFACES	
4.10.10	Surfaces to be stable, firm and slip resistant.	Yes
4.5.3	Carpeting if installed must have firm cushion, pad or backing, or no cushion or pad. Carpeting must have level loop, textured loop, level pile texture. Carpeting pile thickness not to exceed 1/2 in. Carpeting must have exposed edges fastened to the floor surface. Exposed edges of carpets must be trimmed.	Yes
	ILLUMINATION LEVELS	
4.10.11	Five foot-candles of illumination to be provided at car controls, platform and at sill.	Yes
	CAR CONTROLS	
4.10.12	Buttons to be at least 3/4 in. in their smallest dimension.	Yes
4.10.12	Buttons must be flush or raised. **(T24 Must be Raised)**	Yes
4.10.12	Buttons must be designated by raised characters and Braille or symbols complying with ASME A17.1 Rule 210.13.	Yes
4.10.12	Characters must be a minimum of 5/8 in. high, upper case sans (block letters) or simple serif type.	Yes
4.10.12	Grade II Braille to accompany raised character of symbol.	Yes
4.10.12	Raised designations must be to the immediate left of the button to which they apply.	Yes
4.10.12	Call button illuminates when call is entered and extinguish when answered.	Yes

Appendix A
ADA/California T24 ELEVATOR CHECKLIST

ADA	Item	Complies Yes/No/N/A
4.10.12	Floor buttons must be no higher then 48 in. when located in front return. Buttons must be no higher than 54 in. when a side approach provided.	Yes
4.10.12	Emergency controls, including emergency alarm and emergency stop (if provided) must be grouped at the bottom of the panel and have centerlines no less than 35 in. above the finished floor.	Yes
4.10.12	Controls must be on the front return wall with center-opening doors. They may be on the front return or strike jamb sidewall with side doors.	Yes
	CAR POSITION INDICATORS	
4.10.13	Visual car position indicator must be provided above control panel or over door.	Yes
4.10.13	Car position indicator numerals must be a minimum of 1/2 in. high.	Yes
4.10.13	Audible signal to sound as the car passes or stops at a floor and a corresponding floor designation must illuminate. Audible signal must be at least 20 dB with a frequency no higher than 1,500 Hz.	Yes
4.10.13	A button to activate audible signal only for desired trip may be provided.	N/A
4.10.13	An automatic verbal announcement the floor at which a car stops may be substituted for the audible signal.	N/A
	EMERGENCY COMMUNICATIONS	
4.10.14	If provided, emergency two-way communication systems between the elevator and a point outside the hoistway must comply with ASME A17.1-1990, Rule 211.1.	Yes
4.10.14	The highest operable part must be a maximum of 48 in. from the car floor.	Yes
4.10.14	Emergency communication identification must be provided and located adjacent to the device. Characters must be a minimum of 5/8 in. high raised 1/32 in., upper case serif (block letters) or simple serif type, and accompanied by Grade II Braille.	Yes
4.10.13	If a handset is provided the cord must be at least 29 in. long.	Yes
4.27.4	If located in a closed compartment, the door must be operable with one hand. It must not require tight grasping, pinching or twisting of the wrist. The force required to open the door must not exceed 5 lb/f.	Yes
4.10.13	The system must not require voice communication.	Yes

Appendix "B"

A17.3

Code for Existing Hydraulic Elevators

A17.3		Complies Yes/No
2.1	**HOISTWAYS**	
2.1.1	Hoistway Construction (Enclosed & Fire rated per local code or ANSI/NFPA No. 101)	Yes
2.1.2	Windows in Hoistway Enclosures: (If provided are they guarded properly.)	Yes
2.1.3	Projections in Hoistway (Must be flush and level; Leveling zone +3"./ 60 to 75 deg bevel.)	Yes
2.1.4	Pipes Conveying Gases, Vapors, or Liquids. (If provided must be properly covered & securely fastened.)	Yes
2.2	**MACHINE ROOMS AND MACHINERY SPACES**	
2.2.1	Enclosures – Designated Machine Room (No-non elevator equipment- existing can stay)	Yes
2.2.2	Access to Machine Rooms and Machinery Spaces (A permanent means to the machine room- locked door)	Yes
2.2.3	Lighting (Permanent lighting in all machine rooms)	Yes
2.2.4	Ventilation (Natural or mechanical to avoid overheating)	Yes
2.2.5	Pipes Conveying Gases, Vapors, or liquids (Existing pipes allowed if guarded to prevent discharge)	Yes
2.2.6	Protection From Weather	Yes
2.3	**PITS**	
2.3.1	Access to Pits (Means of access to all pits. If access door provide closer & keys onsite.)	Yes
2.3.2	Drains (Drains connected directly to the sewer are not permitted.)	Yes
2.3.3	Stop Switch (A stop switch shall be provided for every pit. Locate near access, color, etc.)	Yes
	Single Bottom Jack: (If single bottom oil must be monitored and tracked)	Yes
2.4	**CLEARANCES AND RUNBYS**	
2.4.1	Horizontal Car Clearances (Not more then 5" for horizontal doors; 7.5" for vertical doors)	Yes
2.4.2	Bottom Car Clearances (Car shall not strike any equipment when resting on fully compressed buffer.)	Yes
2.4.3	Bottom Car and Counterweight Runby (Shall not exceed 24" for cars; or 36" for cwt.)	Yes
2.4.4	Top Car Clearance (Car does not strike any overhead structure)	Yes
2.4.5	Landing Sill Clearance (At least ½" for side guides; at least ¾" for corner guides. Max cannot exceed 1 ½".)	Yes
2.5	If space below pit is accessible it must meet certain rules.	Yes
2.6	**HOISTWAY ENTRANCES**	
2.6.1	Doors or Gates Required (Passenger Elevators – full width/height – no hand latches.) (Freight Elevators – at least 6-0" gate)	Yes
2.6.2	Closing of Hoistway Doors (Door closers required on cars except swinging portion of horizontal door)	Yes
2.6.3	Hoistway Door Vision Panels (Required on manually operated or self closing doors, location, Size, and type of glass)	N/A
2.6.4	Door Hangers (Prevent jumping, and stops, 4 times load)	Yes
2.6.5	Non-Shearing Astragals (For vertical bi-parting doors only)	N/A
2.6.6	Pull Straps (Must not be more than 6'-6" from floor when open)	N/A
2.6.7	Bottom Guides (gibs must be provided.)	Yes
2.7	**HOISTWAY DOOR LOCKING DEVICES, PARKING, DEVICES, AND ACCESS**	
2.7.1	Hoistway Door or Gate Locking Devices (Mechanical and electrical interlocks required)	Yes
2.7.2	Closed position of Hoistway Doors	Yes
2.7.3	Elevator Parking Device (For cars operated from within car only)	N/A
2.7.4	Access to Hoistway (Hoistway door unlocking devices and access switches)	Yes
2.7.5	Restricted Opening of Hoistway Doors and/or Car Doors on Passenger Elevators (Cannot open more then 4" outside unlocking zone +-18" max.)	Yes
2.7.6	Hoistway Emergency Door Contacts (Positively opened)	Yes
2.8	**POWER OPERATION OF DOORS AND GATES**	
2.8.1	Kinetic Energy and Force Limitations for Power-operated Horizontal Sliding Doors. (Shall not	Yes

Appendix "B"

A17.3

Code for Existing Hydraulic Elevators

A17.3		Complies Yes/No
	exceed 7ft/lbs. with re-opening device, without 2.5ft/lbs.; cannot exceed 30 ft/lbs)	
2.8.2	Reopening Device for Power-Operated Car Doors or Gates (Can be rendered inoperative if less then 2.5ft/lb)	Yes
	Mechanical Equipment	
3.1	Buffers And Bumpers (Car and counterweight buffers are required)	Yes
3.3	**CAR FRAMES AND PLATFORMS**	
3.3.1	Car Platforms (Cover entire area)	Yes
3.3.2	Platform Guards (Aprons) (Vertical face at least 21" A17.3, 60-75deg, withstand 150#)	Yes
3.3.3	Hinged Platform Sills (Must have contacts & prevent operation unless within 2")	N/A
3.3.4	Floating (Movable) Platforms (Prohibited if car can move when door is not closed)	N/A
3.3.5	Protection of Platforms Against Fire (Must be covered with metal or fire resistant mat)	Yes
3.4	**CAR ENCLOSURES**	
3.4.1	Car Enclosures (Passenger – total enclosed; Frt maybe perforated, but not by the cwt.; Car top must withstand 300lbs on any 2sqft.)	Yes
	Cab Lining Materials (Must have class 1 rating, flame spread of 25 or less.	Yes
3.4.2	Car Doors and Gates (Must have gate or door and electric contract)	Yes
3.4.3	Location of Car Doors and Gates (Hor, distance not more then 5 ½"., Swing door 4" max., space and site guard requirements.)	Yes
3.4.4	Emergency Exits (Cover hinged, single car blind shaft-every 36', side allowed)	Yes
3.4.5	Car Illumination (At least two lights, 5ftc; frt=2.5ftc; emerg. .2ftc for 4 hrs.)	Yes
3.4.6	Protection of Light Bulbs and Tubes (Guarded or coated to prevent breaks)	Yes
3.7	**CAPACITY AND LOADING**	
3.7.1	Minimum Rated Load for Passenger Elevators (per table 3.7.1)	Yes
3.7.2	Use of Partitions for Reducing Inside Net Platform Area (Partitions must be permanent and symmetrical)	Yes
3.7.3	Min. Rated Load for Freight Elevators (Class A = Not more then ¼ of total cap.; Class B = Motor Veh.; Class C = loading with industrial truck, etc.)	Yes
3.7.4	Capacity Plates (Every car must have one with rated load; Frt : one piece loads, loading and unloading; ¼" high for pass, 1" for frt.)	Yes
3.7.5	Signs on Freight Elevators (NOT A PASS ELEV…etc. ½" high letters)	Yes
3.8 (4.3)	**DRIVING MACHINES AND SHEAVES**	
4.3.1	Connection to Driving Machine (capable of withstanding, without damage, plunger stop)	Yes
4.3.2	Plunger Stop (If greater then 100FPM provide ETS)	Yes
4.3.3	Hydraulic Elevators (In-ground jacks- single vs. double bottom)	Yes
4.4	**Valves, Supply Piping, and Fittings**	
4.4.1	Pump Relief Valve (Between pump & check valve, preset to open at 125% of working pressure, sized to allow proper capacity, must be sealed)	Yes
4.4.2	Check Valve (Will hold the elevator with rated load when pump stops.)	Yes
4.4.3	Mechanically Controlled Operating Valves (These types of valves are prohibited.)	Yes
4.4.4	Supply Piping and Fittings (Must be in sound condition and secured in place.)	Yes
		Yes
	Tanks	
4.5.1	Tanks General Requirements (Must be of adequate size and have an indicator.)	Yes
4.5.2	Pressure Tanks (Tanks subject to collapsing shall be provided with vacuum relief valves., pressure gage, inspectors gage, liquid level detector, hand holes, and manholes.)	Yes
3.9	**TERMINAL STOPPING DEVICES**	
3.9.1	Normal and Terminal Stopping Devices (Locate at upper and lower terminals. If in machine room provide broken rope, tape or chain switch)	Yes
3.10	**OPERATING DEVICES AND CONTROL EQUIP.**	
3.10.1	Types of Operating Devices (Rope or rod devices shall not be used.)	Yes
3.10.2	Car-Switch Operation Elevators (If provided must return to stop position if released by hand)	Yes
3.10.3	Top-of-Car Operating Devices (Continuous pressure <150FPM; bet. Crosshead and door.) (not needed on hydro's if less than 15' of travel)	Yes

Appendix "B"

A17.3

Code for Existing Hydraulic Elevators

A17.3		Complies Yes/No
3.10.4	Electrical Provisions	
	(e) Stop Switch – Top of Car- marked "stop" & "run"	Yes
	(h) Final Terminal Stopping Devices	Yes
	(i) Emergency Terminal Stopping Devices (reduced stroke)	N/A
	(m) Buffer Switches for Oil Buffers (type c safety)	N/A
	(n) Hoistway Door Interlocks or Hoistway Door Contacts	Yes
	(p) Car Door or Gate Electric Contacts	Yes
	(q) Normal Terminal Stopping Devices	Yes
	(r) Car Side Emergency Exit Electric Contact	N/A
	(s) Electric Contacts for Hinged Car Platform Sills	N/A
	(t) In-Car Stop Switch (Must be keyed, if provided)(WAC does not require it to be keyed)	**No**
	(u) Emergency Stop Switch (Must be provided for freight cars)	Yes
	(v) Stop Switch in Pit	Yes
	(w) Buffer Switches for Gas Spring Return Oil Buffers	N/A
3.10.5	Power Supply Line Disconnecting Means (Provided w/ overcurrent protection, within site, and numbered)	Yes
3.10.6	Phase Reversal and Failure Protection (Means to prevent starting if out of phase)	Yes
3.10.7	Devices for Making Hoistway Door Interlocks or Electric Contacts, or Car Door or Gate Electric Contacts Inoperative (These devices are prohibited)	Yes
3.10.9	Control and Operating Circuit Requirements (The failure of any single magnetically operated switch)	Yes
	Grounding and Overcurrent: Must comply with 620-61	Yes
3.11	**EMERGENCY OPERATION AND SIGNALING DEVICES**	
3.11.1	Car Emergency Signaling Devices (Audible signal, two-way communication, on emerg. power)	Yes
3.11.2	Operations of Elevators Under Standby (Emergency) Power (If provided must be able to absorb regenerative power)	Yes
3.11.3	Firefighters' Service(A17.1-1987 Rules 211.3 through 211.8- appendix C; phase I and II switches shall be the same in each bldg)	Yes
4.7.3	Anticreep leveling devices	Yes
4.8	Additional Requirements for Counterweighted Hydraulics (Do not require buffers)	N/A
4.9	Additional Requirements for Roped Hydraulic Elevators.	N/A

Appendix "C"

Performance Review and Maintenance Deficiency List

Performance Review:

In this section we provide the results of randomly reviewing 50% or more of the performance of all elevators.

Part A: Definitions

A stopwatch, tachometer, and spring gauge are utilized to measure the performance of each elevator. Original equipment design, national and local codes and other factors govern these times. The following is an explanation of each item that was reviewed.

- Car Door Dwell Time: When an elevator is responding to a car call, the code requires the elevator doors to stay open a minimum of 3.0 seconds. This is to allow ample time for the passengers to exit.
- Hall Call Dwell Time: When an elevator is responding to a hall call, the code requires the elevator doors to stay open a minimum of 5.0 seconds. This is to allow ample time for the passengers to enter the elevator.
- Floor-To-Floor Time: This measures the time that it takes an elevator to go from one floor to the next floor. Door open and close times are calculated into this time to provide a meaningful measurement. The stopwatch is started when the doors start to close and is stopped when the elevator is level at the next floor with the doors ¾ open for center opening doors, and ½ open for side opening doors.
- Door Open Time: The door open time is measured when the doors start to open until they are fully open.
- Door Close Time: The door close time is measured when the doors start to close until they are fully closed.
- Full Speed: Full speed of an elevator is measured in the machine room utilizing a tachometer or in the car using an accelerometer.
- Door Closing Pressure: The force required to prevent the doors from closing. This pressure is measured with a spring gauge.
- Ride Quality: Acceleration, deceleration, side-to-side sway and noise level are evaluated in this section.

On the following page the results of the elevators checked are provided.

Appendix "C"

Performance Review and Maintenance Deficiency List

	PERFORMANCE TIMES	Design	Car 1			
7.1	Door Open Time	**2.3**	2.5			
7.2	Door Close Time	**4.0**	**5.1**			
7.3	Floor to Floor Up (18 to 19)	**14.5**	**18.2**			
9.6	Floor to Floor Down (19 to 18)	**14.5**	**22.4**			
7.5	Full Speed Up	**150 FPM**	158			
7.6	Full Speed Down	**150 FPM**	**115**			
7.7	Jerk Rate Up	**< 7.0**	**13.4**			
7.8	Jerk Rate Down	**< 7.0**	2.4			
7.9	Power Closing of Door (Pressure Gauge)	**<30lbs**	23 lbs			
7.10	Interrupted Ray	**.5sec**	3.9			
7.11	Car Dwell Time	**3.0**	8.8			
7.12	Hall Call Dwell Time	**5.0**	6.3			
7.13	Hall/Car Lantern Time	**8.0**	10			
7.14	Nudging	**20.0**				
7.15	Test Emergency Phone	**Yes**	Yes			

	Car 1
1.1	No alarm bell on car stop button.
1.2	Five year full load test is overdue.
1.3	Clean the pit of light dirt.

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