



Ronald Reagan State Building (509)

300 South Spring Street, Los Angeles, CA 90013

Facility Condition Assessment

September 2015

Prepared for the State of California Department of General Services



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EXECUTIVE SUMMARY

BACKGROUND

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

The DGS portfolio comprises nearly 17 million gross square feet (GSF) of state-owned office facilities statewide, contained within 54 general-purpose state-owned office building sites. The FCA inventories and evaluates each of the DGS general purpose office buildings to benchmark current condition and establish a replacement value. This FCA assesses the infrastructure conditions for the Ronald Reagan State Building (509).

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 Ronald Reagan State Building (509) 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 Ronald Reagan State Building (509) on March 10, 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 | \$521,745,188 |
| Immediate Repair Costs (12 months) | \$20,813,387 |
| 1-5 Year Capital Needs | \$33,904,506 |
| 6-10 Year Capital Needs | \$7,084,945 |
| Total 10-Year Capital Reserve Needs | \$61,802,838 |

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

Current Year FCI

$$\text{Current FCI} = \frac{\$20,813,387}{\$521,745,188}$$

Ten-Year FCI

$$\text{Ten-Year FCI} = \frac{\$61,802,838}{\$521,745,188}$$

| Current Year FCI | Ten-Year FCI |
|---------------------------------------|--|
| 3.99 % = <i>Good Condition</i> | 11.85 % = <i>Poor Condition</i> |

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

- Passenger elevator modernization and replacements.
- HVAC building automation with replacement of the pneumatic system currently with an entirely digitally controlled system.
- HVAC hydronic chillers replacement.
- Interior lighting modernization recommended at this time.

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

Named after the 40th U.S. President and 23rd state governor, the Ronald Reagan State Building (509) is located at 300 Spring Street in downtown Los Angeles. Designed by the Santa Monica firm of Welton Becket and Associates Architects, construction was completed in 1991 under the jurisdiction of the Los Angeles State Building Authority, a joint city and state entity.

The pre-cast concrete panel façade covers 2 high-rise towers; the 14-story north tower and the 16-story south tower. The two towers are connected by a four-story central atrium. The building houses many pieces of art, including Mary Chemenko's Bronze California Grizzly Bear in the atrium area, and John Okulick's various architectural features. Building amenities include an on-site credit union, childcare facility, cafeteria, and 300-person auditorium. The building has a subterranean parking facility with 450 spaces.

The governor's and lieutenant governor's offices are located within the building. Larger tenant agencies include the Department of Justice, Second District Court of Appeals, the Department of Insurance, and the California Highway Patrol. The occupant capacity is 1,748.

The total facility gross building area is 939,329 SF, consisting of 782,546 gross square feet of office with a net usable area of 571,269 SF and 156,783 gross square feet of underground parking. The ratio of net usable office area to gross office area is 73 percent.

BUILDING DESCRIPTION

The building has a concrete foundation. The building's structural systems consist primarily of steel superstructures with lightweight leveling concrete-topped metal floor decks. The roof structure is flat, covered with a heat-applied modified bitumen roofing membrane.

The exterior walls are finished with pre-cast concrete and marble paneling.

The building's interior walls are comprised of painted gypsum wallboards. The floor finishes are a combination of ceramic tiles, commercial carpet tiles, marble flooring, and vinyl composition tiles. The interior ceilings are finished with acoustic ceiling tiles and painted gypsum ceiling boards.

The facility is served by 2 hydraulic and 15 overhead traction passenger elevators. Additionally, there are two freight elevators which serve all vertical conveyance needs of both the North and South Towers.

Domestic hot water is supplied to the restrooms, breakroom areas, and commercial kitchen by natural gas-fired domestic hot water heaters located in the main mechanical room.

Heating and cooling are provided by a central hydronic system of boilers, chillers, and cooling towers.

Fire/life safety systems include fire sprinklers, fire hydrants located throughout the site surrounding, and smoke detectors, a full complement of fire alarm devices, handheld fire extinguishers, and wet standpipes.

The building covers nearly the entire site and the landscaping is limited to perimeter planters and minor green lawn areas. The green areas are irrigated by an in-ground drip irrigation system. The parking areas include a 450 space subterranean parking garage as well as leased parking spaces across the adjacent roadways. The sidewalks throughout the property are constructed of cast-in-place concrete, with cast-in-place concrete steps at locations of grade changes.

Project Statistics

| Item | Description |
|-------------------------|------------------------------|
| Project Name | Ronald Reagan State Building |
| Building ID | 509 |
| Property Type | Administration |
| Year Built | 1991 |
| Number of Stories | 18 |
| Occupied | Yes |
| Land Area (acres) | 2.6 |
| Gross Square Feet (GSF) | 939,329 |

FACILITY CONDITION ASSESSMENT

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

COMPONENTS OF THE FCA

Current conditions analysis

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

Anticipated building reserve analysis

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

Funding needs analysis

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

CALCULATION OF FUNDING NEEDS

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

Immediate Repair Costs

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

Capital Reserve Needs

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

Current Replacement Value

Current Replacement Value is determined by multiplying the existing building's SF by the Cost per SF to construct a new, similar building on a similar site. Current Replacement Value is not an appraised or

market value for the purposes of a property sale. To estimate the cost per SF, EMG referenced Marshall & Swift's *Marshall Valuation Service*. This building cost data index is an industry standard, adjusted annually, and relied upon by the insurance industry, as well as other agencies and organizations. Cost per SF is calculated by adjusting Marshall & Swift's unit cost for a Government Office Building to account for factors related to building systems, class of construction, and location to reflect the estimated cost of construction at the subject building site.

Remaining Useful Life

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

Opinions of Probable Cost

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

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

Facility Condition Index

The FCI gives an indication of a building's overall state of condition. The values are based on a 0-100 percent scale. The Current Year FCI is the ratio of Immediate Repair Costs to Current Replacement

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

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 Ronald Reagan State Building (509) on March 10, 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.

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

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

PRIORITY RANKING

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

PRIORITY RANKING CATEGORIES

Building Mission Ranking

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

Remaining Useful Life Ranking

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

Asset Component Category

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

Functional Asset Categories

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

PRIORITY RATIO

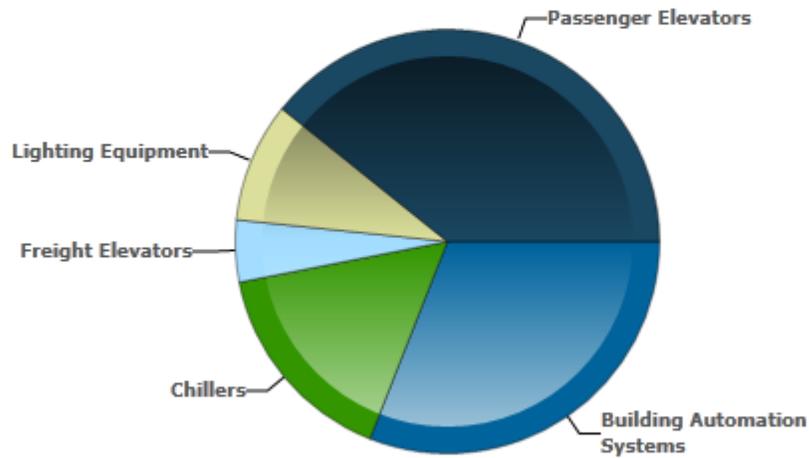
The four categories above are assigned a numerical value and the values are multiplied together for each cost observation. The resulting number is then assigned a priority by the capital planning software with

the lower range assigned Priority 1 and the higher range of numbers assigned among Priority 2, Priority 3, and Priority 4. Priority 5 is reserved for code issues that were permitted by the code at the time of construction but would be required only if a major renovation or code compliance project were to be undertaken.

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

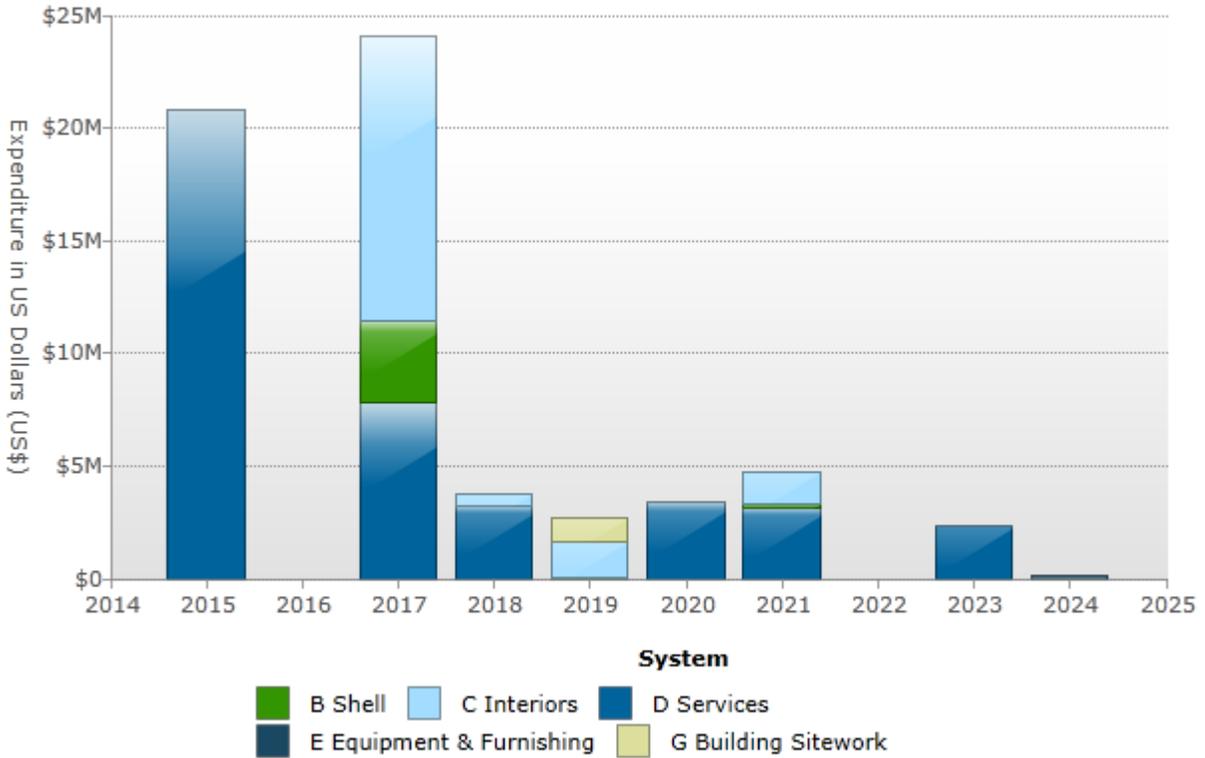
| Condition | Definition |
|-----------|---|
| Good | In new or well-maintained condition, with no visual evidence of wear, soiling, or other deficiencies. |
| Fair | Subjected to wear and soiling but is still in a serviceable and functioning condition. |
| Poor | Subjected to hard or long-term wear.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

Distribution of Immediate Needs by Building System



| Level | Building System | Estimated Cost |
|-------|-----------------------------|---------------------|
| D1011 | Passenger Elevators | \$8,162,700 |
| D1012 | Freight Elevators | \$982,800 |
| D3031 | Chillers | \$3,322,225 |
| D3068 | Building Automation Systems | \$6,443,171 |
| D5022 | Lighting Equipment | \$1,902,490 |
| | Total | \$20,813,387 |

Total Capital Needs By System and Year



| Year | Building System | | | | | | | Total |
|--------------|-----------------|--------------------|---------------------|---------------------|------------------------|-----------------------------|--------------------|---------------------|
| | A Sub-Structure | B Shell | C Interiors | D Services | E Equip. & Furnishings | F Spec. Const. & Demolition | G Bldg. Site Work | |
| 2015 | \$0 | \$0 | \$0 | \$20,813,387 | \$0 | \$0 | \$0 | \$20,813,387 |
| 2017 | \$0 | \$3,620,735 | \$12,582,677 | \$7,828,298 | \$0 | \$0 | \$0 | \$24,031,710 |
| 2018 | \$0 | \$0 | \$538,740 | \$3,223,947 | \$0 | \$0 | \$0 | \$3,762,687 |
| 2019 | \$0 | \$31,821 | \$1,615,018 | \$0 | \$0 | \$0 | \$1,022,347 | \$2,669,186 |
| 2020 | \$0 | \$0 | \$0 | \$3,440,924 | \$0 | \$0 | \$0 | \$3,440,924 |
| 2021 | \$0 | \$218,078 | \$1,356,202 | \$3,115,688 | \$0 | \$0 | \$0 | \$4,689,967 |
| 2023 | \$0 | \$0 | \$0 | \$2,303,637 | \$0 | \$0 | \$0 | \$2,303,637 |
| 2024 | \$0 | \$0 | \$0 | \$0 | \$91,341 | \$0 | \$0 | \$91,341 |
| Total | \$0 | \$3,870,634 | \$16,092,636 | \$40,725,880 | \$91,341 | \$0 | \$1,022,347 | \$61,802,838 |

CURRENT REPLACEMENT VALUE

The Current Replacement Value has been determined as \$521,745,188 for the Ronald Reagan State Building Building (509). 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 |
|---------------|---------|---------------------------|
| 939,329 GSF | \$555 | \$521,745,188 |

FACILITY CONDITION INDEX

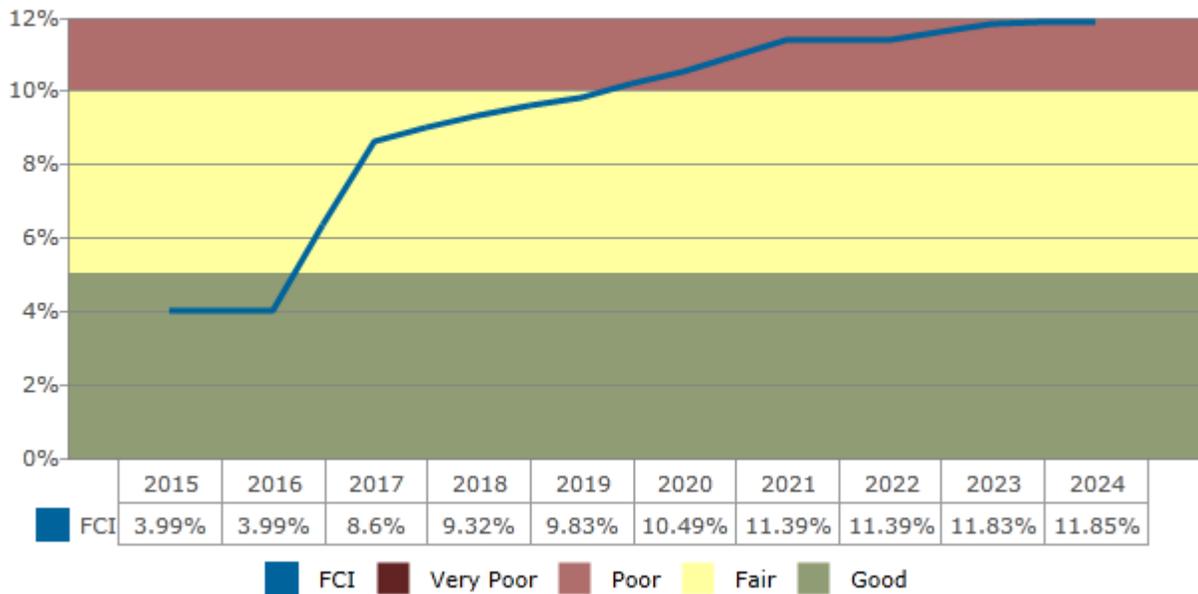
The FCI¹ is an indication of a building’s current and future overall condition. According to industry standards an FCI ratio of 65 percent, or the “rule of two-thirds,” is the threshold for identifying potential candidates for replacement or divestment.² Once the FCI ratio reaches 65 percent, or roughly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

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

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

No accessibility issues identified.

APPENDIX B: GENERAL ASSESSMENT INFORMATION

A Substructure Systems

A10 FOUNDATIONS

| Item | Description |
|------------------------|------------------------|
| A1021 Pile Foundations | A1021 Pile Foundations |
| Condition | Good |
| Qty / UOM | 48,910 / SF |
| RUL (years) | 51 |
| Location | Baesment |

OBSERVATIONS/COMMENTS:

No further action required.

A20 BASEMENT CONSTRUCTION

| Item | Description |
|---------------------------|-----------------------------------|
| A20 Basement Construction | A2010 Parking Garage Construction |
| Condition | Good |
| Qty / UOM | 157,500 / SF |
| RUL (years) | 26 |
| Location | Parking garage |

OBSERVATIONS/COMMENTS:

The parking garage walls will require routine maintenance.

B Shell Systems

B10 SUPERSTRUCTURE

| Item | Description |
|-------------------------------------|----------------------------|
| B1021 Flat Roof Construction | B1021 Steel open web truss |
| Condition | Good |
| Qty / UOM | 23,474 / SF |
| RUL (years) | 51 |
| Location | Skylights |

OBSERVATIONS/COMMENTS:

The truss supports the atrium roof and the skylights

| Item | Description |
|------------------------------------|-----------------------------|
| B1031 Steel Frame Structure | B1031 Steel Frame Structure |
| Condition | Fair |
| Qty / UOM | 782,546 / |
| RUL (years) | 16 |
| Location | Exterior Walls |

OBSERVATIONS/COMMENTS:

Based on current condition and RUL, no further action is recommended.

B20 EXTERIOR ENCLOSURE

| Item | Description |
|----------------------------------|----------------------|
| B2011 Exterior Wall Construction | B2011 Granite Veneer |
| Condition | Good |
| Qty / UOM | 379,200 / SF |
| RUL (years) | 26 |
| Location | Exterior Walls |

OBSERVATIONS/COMMENTS:

The exteriors are maintained by a contractor. No repairs were identified.

| Item | Description |
|----------------------------------|----------------------------|
| B2011 Exterior Wall Construction | B2011 Curtain Wall Glazing |
| Condition | Fair |
| Qty / UOM | 65,000 / SF |
| RUL (years) | 10 |
| Location | Exterior Walls |

OBSERVATIONS/COMMENTS:

Based on current condition and RUL, no further action is recommended.

| Item | Description |
|---------------|---|
| B2021 Windows | B2020 Aluminum Storefront 10' Tall w/O Door |
| Condition | Fair |
| Qty / UOM | 620 / SF |
| RUL (years) | 2 |
| Location | Exterior Walls |

OBSERVATIONS/COMMENTS:

Based on current condition and RUL, replacement is recommended during the assessment term.

COST RECOMMENDATIONS:

| Type | Component Description | Qty / UOM | Unit Cost (\$) | Plan Type | Priority | Year | Expenditures (\$) |
|-------|---|------------|----------------|------------------------|------------|------|-------------------|
| B2021 | Replace B2020 Aluminum Storefront 10' Tall w/O Door | 620.0 - SF | 142.9 | IN - Beyond Rated Life | Priority 2 | 2017 | 88,579 |

| Item | Description |
|----------------------|------------------------|
| B2021 Windows | B2021 Aluminum Windows |
| Condition | Fair |
| Qty / UOM | 850 / EA |
| RUL (years) | 2 |
| Location | Windows |

OBSERVATIONS/COMMENTS:

Based on current condition and RUL, replacement is recommended during the assessment term.

COST RECOMMENDATIONS:

| Type | Component Description | Qty / UOM | Unit Cost (\$) | Plan Type | Priority | Year | Expenditures (\$) |
|-------|--------------------------------|------------|----------------|------------------------|------------|------|-------------------|
| B2021 | Replace B2021 Aluminum Windows | 850.0 - EA | 2652.8 | IN - Beyond Rated Life | Priority 2 | 2017 | 2,254,876 |

| Item | Description |
|---|-----------------------------|
| B2031 Glazed Doors & Entrances | B2031 Glazed Entrance Doors |
| Condition | Fair |
| Qty / UOM | 12 / EA |
| RUL (years) | 6 |
| Location | Entrance Doors |

OBSERVATIONS/COMMENTS:

Based on current condition and RUL, replacement is recommended during the assessment term.

COST RECOMMENDATIONS:

| Type | Component Description | Qty / UOM | Unit Cost (\$) | Plan Type | Priority | Year | Expenditures (\$) |
|-------|-------------------------------------|-----------|----------------|------------------------|------------|------|-------------------|
| B2031 | Replace B2031 Glazed Entrance Doors | 12.0 - EA | 9424.0 | IN - Beyond Rated Life | Priority 3 | 2021 | 113,088 |

| Item | Description |
|-----------------------------------|--|
| B2032 Solid Exterior Doors | B3030 3'-0" X 7'-0" Steel, Painted, Door |
| Condition | Fair |
| Qty / UOM | 12 / EA |
| RUL (years) | 21 |
| Location | Doors |

OBSERVATIONS/COMMENTS:

Based on current condition and RUL, no further action is recommended.

| Item | Description |
|-----------------------------|--|
| B2034 Overhead Doors | B2030 Steel Rolling Overhead Door, Manual - 12' to 20' |
| Condition | Fair |
| Qty / UOM | 5 / EA |
| RUL (years) | 6 |
| Location | Access Doors |

OBSERVATIONS/COMMENTS:

Based on current condition and RUL, replacement is recommended during the assessment term.

COST RECOMMENDATIONS:

| Type | Component Description | Qty / UOM | Unit Cost (\$) | Plan Type | Priority | Year | Expenditures (\$) |
|-------|--|-----------|----------------|------------------------|------------|------|-------------------|
| B2034 | Replace B2030 Steel Rolling Overhead Door, Manual - 12' to 20' | 5.0 - EA | 9508.4 | IN - Beyond Rated Life | Priority 3 | 2021 | 47,542 |

COST SUMMARY:

| Type | Year | Total Expenditures |
|------------------------|------|--------------------|
| B20 Exterior Enclosure | 2017 | \$2,343,456 |
| B20 Exterior Enclosure | 2021 | \$160,630 |

B30 ROOFING

| Item | Description |
|----------------------------|------------------------|
| B3011 Roof Finishes | B3011 Built-Up Roofing |
| Condition | Fair |
| Qty / UOM | 935 / SQ |
| RUL (years) | 2 |
| Location | Roof |

OBSERVATIONS/COMMENTS:

Based on current condition and RUL, replacement is recommended during the assessment term.

COST RECOMMENDATIONS:

| Type | Component Description | Qty / UOM | Unit Cost (\$) | Plan Type | Priority | Year | Expenditures (\$) |
|-------|--------------------------------|------------|----------------|------------------------|------------|------|-------------------|
| B3011 | Replace B3011 Built-Up Roofing | 935.0 - SQ | 1366.1 | IN - Beyond Rated Life | Priority 2 | 2017 | 1,277,279 |

| Item | Description |
|--|---|
| B3012 Traffic Toppings & Paving Membranes | B3012 Helicopter landing concrete roofing |
| Condition | Fair - Good |
| Qty / UOM | 4,608 / SF |
| RUL (years) | 6 |
| Location | Roof |

OBSERVATIONS/COMMENTS:

There are two landing pads on the roof, one at each tower. Recoating is anticipated during the reserve term.

COST RECOMMENDATIONS:

| Type | Component Description | Qty / UOM | Unit Cost (\$) | Plan Type | Priority | Year | Expenditures (\$) |
|-------|---|--------------|----------------|------------------------|------------|------|-------------------|
| B3012 | Replace B3012 Helicopter landing concrete roofing | 4,608.0 - SF | 12.5 | IN - Beyond Rated Life | Priority 3 | 2021 | 57,448 |

| Item | Description |
|-----------------------------------|-----------------------|
| B3021 Glazed Roof Openings | B3021 Skylight system |
| Condition | Good |
| Qty / UOM | 10,070 / SF |
| RUL (years) | 11 |
| Location | Atrium |

OBSERVATIONS/COMMENTS:

The skylight system covers the atrium between the two towers. Caulking and gasket replacement will be required.

COST RECOMMENDATIONS:

| Type | Component Description | Qty / UOM | Unit Cost (\$) | Plan Type | Priority | Year | Expenditures (\$) |
|-------|-----------------------------------|--------------|----------------|------------------|------------|------|-------------------|
| B3021 | Caulking of B3021 Skylight system | 8,056.0 - LF | 4.0 | OP - Maintenance | Priority 3 | 2019 | 31,821 |

COST SUMMARY:

| Type | Year | Total Expenditures |
|-------------|------|--------------------|
| B30 Roofing | 2017 | \$1,277,279 |
| B30 Roofing | 2019 | \$31,821 |
| B30 Roofing | 2021 | \$57,448 |

C Interiors Systems

C10 INTERIOR CONSTRUCTION

| Item | Description |
|---|------------------------------------|
| C1014 Site Built Toilet Partitions | C1014 Site Built Toilet Partitions |
| Condition | Good |
| Qty / UOM | 384 / Stall |
| RUL (years) | 12 |
| Location | Restrooms |

OBSERVATIONS/COMMENTS:

Toilet partitions vary based on the most recent restroom renovation.

| Item | Description |
|-----------------------------|----------------------|
| C1021 Interior Doors | C1021 Interior Doors |
| Condition | Fair |
| Qty / UOM | 440 / EA |
| RUL (years) | 6 |
| Location | Throughout Interiors |

OBSERVATIONS/COMMENTS:

Based on current condition and RUL, replacement is recommended during the assessment term.

COST RECOMMENDATIONS:

| Type | Component Description | Qty / UOM | Unit Cost (\$) | Plan Type | Priority | Year | Expenditures (\$) |
|-------|------------------------------|------------|----------------|------------------------|------------|------|-------------------|
| C1021 | Replace C1021 Interior Doors | 440.0 - EA | 2403.1 | IN - Beyond Rated Life | Priority 4 | 2021 | 1,057,373 |

COST SUMMARY:

| Type | Year | Total Expenditures |
|---------------------------|------|--------------------|
| C10 Interior Construction | 2021 | \$1,057,373 |

C20 STAIRS

| Item | Description |
|-----------------------------|-----------------------|
| C2011 Regular Stairs | C2011 Concrete Stairs |
| Condition | Fair |
| Qty / UOM | 20,000 / LF |
| RUL (years) | 26 |
| Location | Interior Stairs |

OBSERVATIONS/COMMENTS:

Based on current condition and RUL, no further action is recommended.

C30 INTERIOR FINISHES

| Item | Description |
|--|----------------------|
| C3012 Wall Finishes to Interior Walls | C3012 Granite tile |
| Condition | Good |
| Qty / UOM | 13,200 / SF |
| RUL (years) | 12 |
| Location | Throughout Interiors |

OBSERVATIONS/COMMENTS:

Polished granite has been installed in the atrium and various lobby areas. No further action is recommended.

| Item | Description |
|---------------------------------------|-------------------------------------|
| C3012 Wall Finishes to Interior Walls | C3012 Paint Interior Walls, Drywall |
| Condition | Fair |
| Qty / UOM | 1,510,000 / SF |
| RUL (years) | 2 |
| Location | Interior Walls |

OBSERVATIONS/COMMENTS:

Based on current condition and RUL, the interior walls are recommended to be repainted during the assessment term.

COST RECOMMENDATIONS:

| Type | Component Description | Qty / UOM | Unit Cost (\$) | Plan Type | Priority | Year | Expenditures (\$) |
|-------|---|------------------|----------------|-----------------|------------|------|-------------------|
| C3012 | Replace C3012 Paint Interior Walls, Drywall | 1,510,000.0 - SF | 2.1 | IN - Appearance | Priority 3 | 2017 | 3,220,528 |

| Item | Description |
|---------------------------------------|-------------------------------|
| C3012 Wall Finishes to Interior Walls | C3010 Ceramic Tile, wainscots |
| Condition | Good |
| Qty / UOM | 49,546 / SF |
| RUL (years) | 12 |
| Location | Restrooms |

OBSERVATIONS/COMMENTS:

The ceramic tile wainscots are in different colors and materials depending on the restroom and when the finishes were replaced.

| Item | Description |
|-----------------------|-------------------|
| C3024 Flooring | C3024 Vinyl Tile |
| Condition | Fair |
| Qty / UOM | 12,840 / SY |
| RUL (years) | 4 |
| Location | Interior Flooring |

OBSERVATIONS/COMMENTS:

Based on current condition and RUL, replacement is recommended during the assessment term.

COST RECOMMENDATIONS:

| Type | Component Description | Qty / UOM | Unit Cost (\$) | Plan Type | Priority | Year | Expenditures (\$) |
|-------|--------------------------|---------------|----------------|-----------------|------------|------|-------------------|
| C3024 | Replace C3024 Vinyl Tile | 12,840.0 - SY | 125.8 | IN - Appearance | Priority 3 | 2019 | 1,615,018 |

| Item | Description |
|-----------------------|-----------------------------|
| C3024 Flooring | C3024 Ceramic Tile Flooring |
| Condition | Fair |
| Qty / UOM | 49,456 / SF |
| RUL (years) | 11 |
| Location | Interior Flooring |

OBSERVATIONS/COMMENTS:

Based on current condition and RUL, replacement is recommended during the assessment term.

| Item | Description |
|----------------|----------------------------|
| C3024 Flooring | C3024 Marble Tile Flooring |
| Condition | Fair |
| Qty / UOM | 112,000 / SF |
| RUL (years) | 26 |
| Location | Interior Flooring |

OBSERVATIONS/COMMENTS:

Based on current condition and RUL, no further action is recommended.

| Item | Description |
|----------------|----------------------|
| C3024 Flooring | C3024 Sheet Vinyl |
| Condition | Good |
| Qty / UOM | 1,460 / SY |
| RUL (years) | 6 |
| Location | Various common areas |

OBSERVATIONS/COMMENTS:

Based on the RUL, replacement of sheet resilient flooring will be required during the reserve term.

COST RECOMMENDATIONS:

| Type | Component Description | Qty / UOM | Unit Cost (\$) | Plan Type | Priority | Year | Expenditures (\$) |
|-------|---------------------------|--------------|----------------|------------------------|------------|------|-------------------|
| C3024 | Replace C3024 Sheet Vinyl | 1,460.0 - SY | 204.7 | IN - Beyond Rated Life | Priority 4 | 2021 | 298,829 |

| Item | Description |
|------------------------|-------------------------------|
| C3025 Carpeting | C3025 Carpet Tiles - Standard |
| Condition | Fair |
| Qty / UOM | 38,640 / SY |
| RUL (years) | 2 |
| Location | Interior Flooring |

OBSERVATIONS/COMMENTS:

Based on current condition and RUL, replacement is recommended during the assessment term.

COST RECOMMENDATIONS:

| Type | Component Description | Qty / UOM | Unit Cost (\$) | Plan Type | Priority | Year | Expenditures (\$) |
|-------|---------------------------------------|---------------|----------------|-----------------|------------|------|-------------------|
| C3025 | Replace C3025 Carpet Tiles - Standard | 38,640.0 - SY | 96.6 | IN - Appearance | Priority 3 | 2017 | 3,732,840 |

| Item | Description |
|-------------------------------|---|
| C3031 Ceiling Finishes | C3030 Drywall – Painted Finished Ceilings |
| Condition | Fair |
| Qty / UOM | 118,707 / SF |
| RUL (years) | 3 |
| Location | Interior Ceilings |

OBSERVATIONS/COMMENTS:

Based on current condition and RUL, repainting is recommended during the assessment term.

COST RECOMMENDATIONS:

| Type | Component Description | Qty / UOM | Unit Cost (\$) | Plan Type | Priority | Year | Expenditures (\$) |
|-------|---|----------------|----------------|-----------------|------------|------|-------------------|
| C3031 | Replace C3030 Drywall – Painted Finished Ceilings | 118,707.0 - SF | 4.5 | IN - Appearance | Priority 3 | 2018 | 538,740 |

| Item | Description |
|--------------------------|-------------------------------|
| C3032 Suspended Ceilings | C3032 Acoustical Ceiling Tile |
| Condition | Fair |
| Qty / UOM | 4,685 / CSF |
| RUL (years) | 2 |
| Location | Interior Ceilings |

OBSERVATIONS/COMMENTS:

Based on current condition and RUL, replacement is recommended during the assessment term. Replacement of the fire sprinkler piping will require replacement of the ceiling tiles.

COST RECOMMENDATIONS:

| Type | Component Description | Qty / UOM | Unit Cost (\$) | Plan Type | Priority | Year | Expenditures (\$) |
|-------|---------------------------------------|---------------|----------------|-----------------|------------|------|-------------------|
| C3032 | Replace C3032 Acoustical Ceiling Tile | 4,685.0 - CSF | 1201.6 | IN - Appearance | Priority 3 | 2017 | 5,629,309 |

COST SUMMARY:

| Type | Year | Total Expenditures |
|-----------------------|------|--------------------|
| C30 Interior Finishes | 2017 | \$12,582,677 |
| C30 Interior Finishes | 2018 | \$538,740 |
| C30 Interior Finishes | 2019 | \$1,615,018 |
| C30 Interior Finishes | 2021 | \$298,829 |

D Services Systems

D10 CONVEYING SYSTEMS

| Item | Description |
|---------------------------|--|
| D1011 Passenger Elevators | D1011 Traction Elevator Machinery and Controls |
| Condition | Poor - Fair |
| Qty / UOM | 1 / EA |
| RUL (years) | 0 |
| Location | Elevator 21 |

OBSERVATIONS/COMMENTS:

A 2015 assessment report by Elevator Consulting Associates is included in the appendix of this report and details the anticipated modernization costs included in that report. This includes the consultant's suggested additional costs for cab finishes, associated trades, and consulting fees.

COST RECOMMENDATIONS:

| Type | Component Description | Qty / UOM | Unit Cost (\$) | Plan Type | Priority | Year | Expenditures (\$) |
|-------|--|-----------|----------------|--------------------|------------|------|-------------------|
| D1011 | Replace D1011 Traction Elevator Machinery and Controls | 1.0 - EA | 218400.0 | FN - Modernization | Priority 1 | 2015 | 218,400 |

| Item | Description |
|---------------------------|--|
| D1011 Passenger Elevators | D1011 Traction Elevator Machinery and Controls |
| Condition | Poor - Fair |
| Qty / UOM | 8 / EA |
| RUL (years) | 0 |
| Location | Elevators 4, 5, 6, 7, 13, 14, 15, 16 |

OBSERVATIONS/COMMENTS:

A 2015 assessment report by Elevator Consulting Associates is included in the appendix of this report and details the anticipated modernization costs included in that report. This includes the consultant's suggested additional costs for cab finishes, associated trades, and consulting fees.

COST RECOMMENDATIONS:

| Type | Component Description | Qty / UOM | Unit Cost (\$) | Plan Type | Priority | Year | Expenditures (\$) |
|-------|--|-----------|----------------|--------------------|------------|------|-------------------|
| D1011 | Replace D1011 Traction Elevator Machinery and Controls | 8.0 - EA | 536900.0 | FN - Modernization | Priority 1 | 2015 | 4,295,200 |

| Item | Description |
|----------------------------------|--|
| D1011 Passenger Elevators | D1011 Traction Elevator Machinery and Controls |
| Condition | Poor - Fair |
| Qty / UOM | 7 / EA |
| RUL (years) | 0 |
| Location | Elevators 1, 2, 3, 10, 11, 12, 20 |

OBSERVATIONS/COMMENTS:

A 2015 assessment report by Elevator Consulting Associates is included in the appendix of this report and details the anticipated modernization costs included in that report. This includes the consultant's suggested additional costs for cab finishes, associated trades, and consulting fees.

COST RECOMMENDATIONS:

| Type | Component Description | Qty / UOM | Unit Cost (\$) | Plan Type | Priority | Year | Expenditures (\$) |
|-------|--|-----------|----------------|--------------------|------------|------|-------------------|
| D1011 | Replace D1011 Traction Elevator Machinery and Controls | 7.0 - EA | 445900.0 | FN - Modernization | Priority 1 | 2015 | 3,121,300 |

| Item | Description |
|----------------------------------|--|
| D1011 Passenger Elevators | D1011 Elevator Hydraulic System, 3,500 Lb capacity |
| Condition | Poor - Fair |
| Qty / UOM | 2 / EA |
| RUL (years) | 0 |
| Location | Elevator 18, 19 |

OBSERVATIONS/COMMENTS:

A 2015 assessment report by Elevator Consulting Associates is included in the appendix of this report and details the anticipated modernization costs included in that report. This includes the consultant's suggested additional costs for cab finishes, associated trades, and consulting fees.

COST RECOMMENDATIONS:

| Type | Component Description | Qty / UOM | Unit Cost (\$) | Plan Type | Priority | Year | Expenditures (\$) |
|-------|--|-----------|----------------|--------------------|------------|------|-------------------|
| D1011 | Replace D1011 Elevator Hydraulic System, 3,500 Lb capacity | 2.0 - EA | 263900.0 | FN - Modernization | Priority 1 | 2015 | 527,800 |

| Item | Description |
|--------------------------------|--|
| D1012 Freight Elevators | D1011 Traction Elevator Machinery and Controls |
| Condition | Poor - Fair |
| Qty / UOM | 2 / EA |
| RUL (years) | 0 |
| Location | Elevator 9,17 |

OBSERVATIONS/COMMENTS:

A 2015 assessment report by Elevator Consulting Associates is included in the appendix of this report and details the anticipated modernization costs included in that report. This includes the consultant's suggested additional costs for cab finishes, associated trades, and consulting fees.

COST RECOMMENDATIONS:

| Type | Component Description | Qty / UOM | Unit Cost (\$) | Plan Type | Priority | Year | Expenditures (\$) |
|-------|--|-----------|----------------|--------------------|------------|------|-------------------|
| D1012 | Replace D1011 Traction Elevator Machinery and Controls | 2.0 - EA | 491400.0 | FN - Modernization | Priority 1 | 2015 | 982,800 |

COST SUMMARY:

| Type | Year | Total Expenditures |
|-----------------------|------|--------------------|
| D10 Conveying Systems | 2015 | \$9,145,500 |

D20 PLUMBING

| Item | Description |
|---------------------|---|
| D2011 Water Closets | D2011 Commercial Grade Water Closet, 1.6 GPF Unit |
| Condition | Fair |
| Qty / UOM | 348 / EA |
| RUL (years) | 3 |
| Location | Throughout Facility |
| Low Flow Toilet | Yes |
| System Grade | Commercial Grade |

OBSERVATIONS/COMMENTS:

Based on current condition and RUL, replacement is recommended during the assessment term.

COST RECOMMENDATIONS:

| Type | Component Description | Qty / UOM | Unit Cost (\$) | Plan Type | Priority | Year | Expenditures (\$) |
|-------|---|------------|----------------|------------------------|------------|------|-------------------|
| D2011 | Replace D2011 Commercial Grade Water Closet, 1.6 GPF Unit | 348.0 - EA | 1233.1 | IN - Beyond Rated Life | Priority 3 | 2018 | 429,135 |

| Item | Description |
|-----------------|------------------|
| D2012 Urinals | D2012 Urinal |
| Condition | Fair |
| Qty / UOM | 84 / EA |
| RUL (years) | 11 |
| Location | Men's Restrooms |
| Low Flow Toilet | Yes |
| System Grade | Commercial Grade |

OBSERVATIONS/COMMENTS:

Based on current condition and RUL, no further action is recommended.

| Item | Description |
|-------------------------|-----------------------------------|
| D2013 Lavatories | D2013 Counter Top Sink and Faucet |
| Condition | Fair |
| Qty / UOM | 348 / EA |
| RUL (years) | 11 |
| Location | Restrooms |

OBSERVATIONS/COMMENTS:

Based on current condition and RUL, no further action is recommended.

| Item | Description |
|---------------------------------|-----------------------------|
| D2021 Cold Water Service | D2020 Domestic Water Supply |
| Condition | Good |
| Qty / UOM | 780 / Fixture |
| RUL (years) | 26 |
| Location | Throughout Facility |

OBSERVATIONS/COMMENTS:

Minor pipe leaks were reported by the maintenance staff. Repairs are considered to be routine maintenance.

| Item | Description |
|--|--|
| D2023 Domestic Water Supply Equipment | D2023 Commercial Gas-Fired Domestic Water Heater, 365 to 400 MBH Input |
| Condition | Good |
| Qty / UOM | 2 / EA |
| RUL (years) | 17 |
| Location | 16th Floor South Mechanical Room |

OBSERVATIONS/COMMENTS:

Based on current condition and RUL, no further action is recommended.

COST SUMMARY:

| Type | Year | Total Expenditures |
|--------------|------|--------------------|
| D20 Plumbing | 2018 | \$429,135 |

D30 HVAC

| Energy Supply | |
|---------------------------|------------------------|
| Item | Description |
| Fuel Oil Type | N/A |
| Fuel Gas Type | Natural Gas |
| Solid Fuel Type | N/A |
| District Heat Type | N/A |
| District Cooling Type | N/A |
| Solar Thermal | N/A |
| Fuel Tank Type | N/A |
| Fuel Tank Size (gallons) | N/A |
| Fuel Tank Location | N/A |
| Gas Meter Location | Adjacent to Water Room |
| Electrical Meter Location | Main Switchgear Room |
| Water Meter Location | Domestic Water Room |

| Item | Description |
|---------------|---|
| D3021 Boilers | D3020 Water Boiler, RAPAC Gas 1.9 M BTU |
| Condition | Fair |
| Qty / UOM | 7 / EA |
| RUL (years) | 20 |
| Location | Main Mechanical Room |

OBSERVATIONS/COMMENTS:

Based on current condition and RUL, no further action is recommended.

| Item | Description |
|---------------|---|
| D3021 Boilers | D3020 Water Boiler, Kewaunee Gas 14 M BTU |
| Condition | Fair |
| Qty / UOM | 1 / EA |
| RUL (years) | 3 |
| Location | Main Mechanical Room |

OBSERVATIONS/COMMENTS:

Based on current condition and RUL, replacement is recommended during the assessment term.

COST RECOMMENDATIONS:

| Type | Component Description | Qty / UOM | Unit Cost (\$) | Plan Type | Priority | Year | Expenditures (\$) |
|-------|---|-----------|----------------|------------------------|------------|------|-------------------|
| D3021 | Replace D3020 Water Boiler, Kewaunee Gas 14 M BTU | 1.0 - EA | 1056108.0 | IN - Beyond Rated Life | Priority 2 | 2018 | 1,056,108 |

| Item | Description |
|---------------------------|--|
| D3022.1 Circulating Pumps | D3023 Chill Water Supply- 60 HP Motors |
| Condition | Fair |
| Qty / UOM | 3 / EA |
| RUL (years) | 8 |
| Location | Main Mechanical Room |

OBSERVATIONS/COMMENTS:

Based on current condition and RUL, replacement is recommended during the assessment term.

COST RECOMMENDATIONS:

| Type | Component Description | Qty / UOM | Unit Cost (\$) | Plan Type | Priority | Year | Expenditures (\$) |
|-------|--|-----------|----------------|------------------------|------------|------|-------------------|
| D3022 | Replace D3023 Chill Water Supply- 60 HP Motors | 3.0 - EA | 83739.9 | IN - Beyond Rated Life | Priority 4 | 2023 | 251,220 |

| Item | Description |
|---------------------------|--|
| D3022.1 Circulating Pumps | D3022 HVAC Heating Water Circulation Pumps 20 HP |
| Condition | Fair |
| Qty / UOM | 4 / EA |
| RUL (years) | 3 |
| Location | Hot Water Room |

OBSERVATIONS/COMMENTS:

Based on current condition and RUL, replacement is recommended during the assessment term.

COST RECOMMENDATIONS:

| Type | Component Description | Qty / UOM | Unit Cost (\$) | Plan Type | Priority | Year | Expenditures (\$) |
|-------|--|-----------|----------------|------------------------|------------|------|-------------------|
| D3022 | Replace D3022 HVAC Heating Water Circulation Pumps 20 HP | 4.0 - EA | 26054.9 | IN - Beyond Rated Life | Priority 2 | 2018 | 104,220 |

| Item | Description |
|---------------------------|-------------------------------|
| D3022.1 Circulating Pumps | D3022 Circ Water Pumps - 1 HP |
| Condition | Fair |
| Qty / UOM | 8 / EA |
| RUL (years) | 3 |
| Location | Main Mechanical Room |

OBSERVATIONS/COMMENTS:

Based on current condition and RUL, replacement is recommended during the assessment term.

COST RECOMMENDATIONS:

| Type | Component Description | Qty / UOM | Unit Cost (\$) | Plan Type | Priority | Year | Expenditures (\$) |
|-------|---------------------------------------|-----------|----------------|------------------------|------------|------|-------------------|
| D3022 | Replace D3022 Circ Water Pumps - 1 HP | 8.0 - EA | 1091.2 | IN - Beyond Rated Life | Priority 2 | 2018 | 8,730 |

| Item | Description |
|---------------------------|---|
| D3022.1 Circulating Pumps | D3022 Circ Water Pumps - Well Water Pumps |
| Condition | Fair |
| Qty / UOM | 3 / EA |
| RUL (years) | 8 |
| Location | Well Water Room |

OBSERVATIONS/COMMENTS:

Based on current condition and RUL, replacement is recommended during the assessment term.

COST RECOMMENDATIONS:

| Type | Component Description | Qty / UOM | Unit Cost (\$) | Plan Type | Priority | Year | Expenditures (\$) |
|-------|---|-----------|----------------|------------------------|------------|------|-------------------|
| D3022 | Replace D3022 Circ Water Pumps - Well Water Pumps | 3.0 - EA | 44806.8 | IN - Beyond Rated Life | Priority 4 | 2023 | 134,420 |

| Item | Description |
|---------------------------|--------------------------------|
| D3022.1 Circulating Pumps | D3022 Circ Water Pumps - 15 HP |
| Condition | Fair |
| Qty / UOM | 2 / EA |
| RUL (years) | 8 |
| Location | Main Mechanical Room |

OBSERVATIONS/COMMENTS:

Based on current condition and RUL, replacement is recommended during the assessment term.

COST RECOMMENDATIONS:

| Type | Component Description | Qty / UOM | Unit Cost (\$) | Plan Type | Priority | Year | Expenditures (\$) |
|-------|--|-----------|----------------|------------------------|------------|------|-------------------|
| D3022 | Replace D3022 Circ Water Pumps - 15 HP | 2.0 - EA | 22312.6 | IN - Beyond Rated Life | Priority 4 | 2023 | 44,625 |

| Item | Description |
|--------------------------------------|--|
| D3022.2 Condensate Feed Pumps | D3023 Condensate Return - 60 HP Motors |
| Condition | Fair |
| Qty / UOM | 3 / EA |
| RUL (years) | 13 |
| Location | Main Mechanical Room |

OBSERVATIONS/COMMENTS:

Based on current condition and RUL, no further action is recommended.

| Item | Description |
|----------------------------------|--|
| D3023 Auxiliary Equipment | D3023 Heat Exchanger, Hot Water to Water |
| Condition | Fair |
| Qty / UOM | 3 / EA |
| RUL (years) | 13 |
| Location | Hot Water Room |

OBSERVATIONS/COMMENTS:

Based on current condition and RUL, no further action is recommended.

| Item | Description |
|----------------------------------|---|
| D3023 Auxiliary Equipment | D3023 Heat Exchanger, Well Water to Water |
| Condition | Good |
| Qty / UOM | 3 / EA |
| RUL (years) | 23 |
| Location | Well Water Room |

OBSERVATIONS/COMMENTS:

Based on current condition and RUL, no further action is recommended.

| Item | Description |
|------------------|--|
| D3031.1 Chillers | D3031 Water Cooled Chiller, Centrifugal, 600-Ton |
| Condition | Poor |
| Qty / UOM | 2 / EA |
| RUL (years) | 0 |
| Location | Main Mechanical Room |

OBSERVATIONS/COMMENTS:

The 600 ton hydronic chillers were reported to be original and problematic. Based on current condition and RUL, replacement is recommended.

COST RECOMMENDATIONS:

| Type | Component Description | Qty / UOM | Unit Cost (\$) | Plan Type | Priority | Year | Expenditures (\$) |
|-------|--|-----------|----------------|------------------------|------------|------|-------------------|
| D3031 | Replace D3031 Water Cooled Chiller, Centrifugal, 600-Ton | 2.0 - EA | 1661112.7 | IN - Beyond Rated Life | Priority 1 | 2015 | 3,322,225 |

| Item | Description |
|------------------|--|
| D3031.1 Chillers | D3031 Water Cooled Chiller, Centrifugal, 800-Ton |
| Condition | Fair |
| Qty / UOM | 1 / EA |
| RUL (years) | 8 |
| Location | Main Mechanical Room |

OBSERVATIONS/COMMENTS:

The 800 ton chiller was replaced in 2003, is performing adequately, and appears to be well maintained. Based on current condition and RUL, replacement is recommended during the assessment term.

COST RECOMMENDATIONS:

| Type | Component Description | Qty / UOM | Unit Cost (\$) | Plan Type | Priority | Year | Expenditures (\$) |
|-------|--|-----------|----------------|------------------------|------------|------|-------------------|
| D3031 | Replace D3031 Water Cooled Chiller, Centrifugal, 800-Ton | 1.0 - EA | 1661112.7 | IN - Beyond Rated Life | Priority 4 | 2023 | 1,661,113 |

| Item | Description |
|-------------------------------|--|
| D3031.2 Cooling Towers | D3031 Cooling Tower, Water Cooled, 800 Ton |
| Condition | Fair |
| Qty / UOM | 1 / EA |
| RUL (years) | 13 |
| Location | Rooftop |

OBSERVATIONS/COMMENTS:

Based on current condition and RUL, no further action is recommended.

| Item | Description |
|-------------------------------|--|
| D3031.2 Cooling Towers | D3031 Cooling Tower, Galvanized Steel, 650 Ton |
| Condition | Fair |
| Qty / UOM | 2 / EA |
| RUL (years) | 13 |
| Location | Rooftop |

OBSERVATIONS/COMMENTS:

Based on current condition and RUL, no further action is recommended.

| Item | Description |
|---------------------------------------|---------------------------------|
| D3032 Direct Expansion Systems | D3032 Condenser Coils |
| Condition | Fair |
| Qty / UOM | 2 / EA |
| RUL (years) | 3 |
| Location | Penthouse South Mechanical Room |

OBSERVATIONS/COMMENTS:

Fabricated air conditioning units house two 5,070 MBH coils. Based on current condition and RUL, replacement is recommended during the assessment term.

COST RECOMMENDATIONS:

| Type | Component Description | Qty / UOM | Unit Cost (\$) | Plan Type | Priority | Year | Expenditures (\$) |
|-------|-------------------------------|-----------|----------------|------------------------|------------|------|-------------------|
| D3032 | Replace D3032 Condenser Coils | 2.0 - EA | 76963.1 | IN - Beyond Rated Life | Priority 2 | 2018 | 153,926 |

| Item | Description |
|--------------------------------|-------------------------|
| D3032 Direct Expansion Systems | D3032 Condenser Coils |
| Condition | Fair |
| Qty / UOM | 2 / EA |
| RUL (years) | 3 |
| Location | Penthouse Mech Rm North |

OBSERVATIONS/COMMENTS:

Fabricated air conditioning units house two 3,760 MBH coils. Based on current condition and RUL, replacement is recommended during the assessment term.

COST RECOMMENDATIONS:

| Type | Component Description | Qty / UOM | Unit Cost (\$) | Plan Type | Priority | Year | Expenditures (\$) |
|-------|-------------------------------|-----------|----------------|------------------------|------------|------|-------------------|
| D3032 | Replace D3032 Condenser Coils | 2.0 - EA | 76963.1 | IN - Beyond Rated Life | Priority 2 | 2018 | 153,926 |

| Item | Description |
|----------------------------|------------------------------------|
| D3041.1 Air Handling Units | D3041 AHU Fan Motor, 15 HP with AC |
| Condition | Fair |
| Qty / UOM | 6 / EA |
| RUL (years) | 8 |
| Location | 4th Floor HVAC Fan Room |

OBSERVATIONS/COMMENTS:

Based on current condition and RUL, replacement is recommended during the assessment term.

COST RECOMMENDATIONS:

| Type | Component Description | Qty / UOM | Unit Cost (\$) | Plan Type | Priority | Year | Expenditures (\$) |
|-------|--|-----------|----------------|------------------------|------------|------|-------------------|
| D3041 | Replace D3041 AHU Fan Motor, 15 HP with AC | 6.0 - EA | 16151.5 | IN - Beyond Rated Life | Priority 4 | 2023 | 96,909 |

| Item | Description |
|-----------------------------------|--------------------------------|
| D3041.1 Air Handling Units | D3041 AHU Fan Motor, 7/ 1/2 HP |
| Condition | Fair |
| Qty / UOM | 6 / EA |
| RUL (years) | 8 |
| Location | 5th Floor HVAC Fan Room |

OBSERVATIONS/COMMENTS:

Based on current condition and RUL, replacement is recommended during the assessment term.

COST RECOMMENDATIONS:

| Type | Component Description | Qty / UOM | Unit Cost (\$) | Plan Type | Priority | Year | Expenditures (\$) |
|-------|--|-----------|----------------|------------------------|------------|------|-------------------|
| D3041 | Replace D3041 AHU Fan Motor, 7/ 1/2 HP | 6.0 - EA | 16151.5 | IN - Beyond Rated Life | Priority 4 | 2023 | 96,909 |

| Item | Description |
|----------------------------|--|
| D3041.1 Air Handling Units | D3041 Return Air Fans - 68k CFM - 40 HP Motors |
| Condition | Fair |
| Qty / UOM | 2 / EA |
| RUL (years) | 3 |
| Location | Penthouse North Mechanical Room |

OBSERVATIONS/COMMENTS:

Based on current condition and RUL, replacement is recommended during the assessment term.

COST RECOMMENDATIONS:

| Type | Component Description | Qty / UOM | Unit Cost (\$) | Plan Type | Priority | Year | Expenditures (\$) |
|-------|--|-----------|----------------|------------------------|------------|------|-------------------|
| D3041 | Replace D3041 Return Air Fans - 68k CFM - 40 HP Motors | 2.0 - EA | 39385.9 | IN - Beyond Rated Life | Priority 2 | 2018 | 78,772 |

| Item | Description |
|----------------------------|--|
| D3041.1 Air Handling Units | D3041 Return Air Fans - 68k CFM - 40 HP Motors |
| Condition | Fair |
| Qty / UOM | 2 / EA |
| RUL (years) | 3 |
| Location | Penthouse South Mechanical Room |

OBSERVATIONS/COMMENTS:

Based on current condition and RUL, replacement is recommended during the assessment term.

COST RECOMMENDATIONS:

| Type | Component Description | Qty / UOM | Unit Cost (\$) | Plan Type | Priority | Year | Expenditures (\$) |
|-------|--|-----------|----------------|------------------------|------------|------|-------------------|
| D3041 | Replace D3041 Return Air Fans - 68k CFM - 40 HP Motors | 2.0 - EA | 39385.9 | IN - Beyond Rated Life | Priority 2 | 2018 | 78,772 |

| Item | Description |
|----------------------------|--|
| D3041.1 Air Handling Units | D3041 Supply Air Fans - AH 3,4 -77K CFM -150 HP Motors |
| Condition | Fair |
| Qty / UOM | 2 / EA |
| RUL (years) | 3 |
| Location | Penthouse South Mechanical Room |

OBSERVATIONS/COMMENTS:

Based on current condition and RUL, replacement is recommended during the assessment term.

COST RECOMMENDATIONS:

| Type | Component Description | Qty / UOM | Unit Cost (\$) | Plan Type | Priority | Year | Expenditures (\$) |
|-------|--|-----------|----------------|------------------------|------------|------|-------------------|
| D3041 | Replace D3041 Supply Air Fans - AH 3,4 -77K CFM -150 HP Motors | 2.0 - EA | 134638.0 | IN - Beyond Rated Life | Priority 2 | 2018 | 269,276 |

| Item | Description |
|----------------------------|--|
| D3041.1 Air Handling Units | D3041 Supply Air Fans - AH 1,2 -50K CFM -150 HP Motors |
| Condition | Fair |
| Qty / UOM | 2 / EA |
| RUL (years) | 3 |
| Location | Penthouse North Mechanical Room |

OBSERVATIONS/COMMENTS:

Based on current condition and RUL, replacement is recommended during the assessment term.

COST RECOMMENDATIONS:

| Type | Component Description | Qty / UOM | Unit Cost (\$) | Plan Type | Priority | Year | Expenditures (\$) |
|-------|--|-----------|----------------|------------------------|------------|------|-------------------|
| D3041 | Replace D3041 Supply Air Fans - AH 1,2 -50K CFM -150 HP Motors | 2.0 - EA | 134638.0 | IN - Beyond Rated Life | Priority 2 | 2018 | 269,276 |

| Item | Description |
|----------------------------|------------------------|
| D3041.2 Terminal Units VAV | D3041 VAV Boxes Towers |
| Condition | Fair |
| Qty / UOM | 612 / EA |
| RUL (years) | 6 |
| Location | Towers |

OBSERVATIONS/COMMENTS:

The facility is heated and cooled by VAV terminals supplied with hot water and conditioned air from the central air handlers. The maintenance staff reports that VAVs are original to the 1991 construction of the facility. Based on current condition and RUL, replacement is recommended during the assessment term.

COST RECOMMENDATIONS:

| Type | Component Description | Qty / UOM | Unit Cost (\$) | Plan Type | Priority | Year | Expenditures (\$) |
|-------|--------------------------------|------------|----------------|------------------------|------------|------|-------------------|
| D3041 | Replace D3041 VAV Boxes Towers | 612.0 - EA | 2496.7 | IN - Beyond Rated Life | Priority 3 | 2021 | 1,527,990 |

| Item | Description |
|----------------------------|--------------------------|
| D3041.2 Terminal Units VAV | D3041 VAV Boxes Flrs 1-4 |
| Condition | Fair |
| Qty / UOM | 112 / EA |
| RUL (years) | 6 |
| Location | Floors 1-4 |

OBSERVATIONS/COMMENTS:

The facility is heated and cooled by VAV terminals supplied with hot water and conditioned air from the central air handlers. The maintenance staff reports that VAVs are original to the 1991 construction of the facility. Based on current condition and RUL, replacement is recommended during the assessment term.

COST RECOMMENDATIONS:

| Type | Component Description | Qty / UOM | Unit Cost (\$) | Plan Type | Priority | Year | Expenditures (\$) |
|-------|----------------------------------|------------|----------------|------------------------|------------|------|-------------------|
| D3041 | Replace D3041 VAV Boxes Flrs 1-4 | 112.0 - EA | 2496.7 | IN - Beyond Rated Life | Priority 3 | 2021 | 279,632 |

| Item | Description |
|----------------------------|---------------------------------|
| D3041.2 Terminal Units VAV | D3041 VAV Boxes w Coil Flrs 1-4 |
| Condition | Fair |
| Qty / UOM | 72 / EA |
| RUL (years) | 6 |
| Location | Floors 1-4 |

OBSERVATIONS/COMMENTS:

The facility is heated and cooled by variable air volume (VAV) terminals supplied with hot water and conditioned air from the central air handlers. The maintenance staff reports that VAVs are original to the 1991 construction of the facility. Based on current condition and RUL, replacement is recommended during the assessment term.

COST RECOMMENDATIONS:

| Type | Component Description | Qty / UOM | Unit Cost (\$) | Plan Type | Priority | Year | Expenditures (\$) |
|-------|---|-----------|----------------|------------------------|------------|------|-------------------|
| D3041 | Replace D3041 VAV Boxes w Coil Flrs 1-4 | 72.0 - EA | 3460.5 | IN - Beyond Rated Life | Priority 3 | 2021 | 249,155 |

| Item | Description |
|----------------------------|-------------------------------|
| D3041.2 Terminal Units VAV | D3041 VAV Boxes w Coil Towers |
| Condition | Fair |
| Qty / UOM | 306 / EA |
| RUL (years) | 6 |
| Location | Towers Interior |

OBSERVATIONS/COMMENTS:

The facility is heated and cooled by VAV terminals supplied with hot water and conditioned air from the central air handlers. The maintenance staff reports that VAVs are original to the 1991 construction of the facility. Based on current condition and RUL, replacement is recommended during the assessment term.

COST RECOMMENDATIONS:

| Type | Component Description | Qty / UOM | Unit Cost (\$) | Plan Type | Priority | Year | Expenditures (\$) |
|-------|---------------------------------------|------------|----------------|------------------------|------------|------|-------------------|
| D3041 | Replace D3041 VAV Boxes w Coil Towers | 306.0 - EA | 3460.5 | IN - Beyond Rated Life | Priority 3 | 2021 | 1,058,911 |

| Item | Description |
|--|---------------------------------|
| D3042 Exhaust Ventilation Systems | D3042 Supply Fan 77000 CFM |
| Condition | Fair |
| Qty / UOM | 2 / EA |
| RUL (years) | 2 |
| Location | Penthouse South Mechanical Room |

OBSERVATIONS/COMMENTS:

Based on current condition and RUL, replacement is recommended during the assessment term.

COST RECOMMENDATIONS:

| Type | Component Description | Qty / UOM | Unit Cost (\$) | Plan Type | Priority | Year | Expenditures (\$) |
|-------|------------------------------------|-----------|----------------|------------------------|------------|------|-------------------|
| D3042 | Replace D3042 Supply Fan 77000 CFM | 2.0 - EA | 40650.7 | IN - Beyond Rated Life | Priority 2 | 2017 | 81,301 |

| Item | Description |
|--|---|
| D3042 Exhaust Ventilation Systems | D3042 Smoke Evacuation Fans (4.8 to 7.2 MCFM) |
| Condition | Fair |
| Qty / UOM | 6 / EA |
| RUL (years) | 3 |
| Location | Atrium |

OBSERVATIONS/COMMENTS:

Based on current condition and RUL, replacement is recommended during the assessment term.

COST RECOMMENDATIONS:

| Type | Component Description | Qty / UOM | Unit Cost (\$) | Plan Type | Priority | Year | Expenditures (\$) |
|-------|---|-----------|----------------|------------------|------------|------|-------------------|
| D3042 | Replace D3042 Smoke Evacuation Fans (4.8 to 7.2 MCFM) | 6.0 - EA | 20401.5 | CC - Life Safety | Priority 2 | 2018 | 122,409 |

| Item | Description |
|---------------------|--------------------------------------|
| D3052 Package Units | D3052 Computer/Sever Room AC, 5 Tons |
| Condition | Fair |
| Qty / UOM | 1 / EA |
| RUL (years) | 8 |
| Location | Computer Server Room |

OBSERVATIONS/COMMENTS:

Based on current condition and RUL, replacement is recommended during the assessment term.

COST RECOMMENDATIONS:

| Type | Component Description | Qty / UOM | Unit Cost (\$) | Plan Type | Priority | Year | Expenditures (\$) |
|-------|--|-----------|----------------|------------------------|------------|------|-------------------|
| D3052 | Replace D3052 Computer/Sever Room AC, 5 Tons | 1.0 - EA | 18440.8 | IN - Beyond Rated Life | Priority 4 | 2023 | 18,441 |

| Item | Description |
|-----------------------------------|-------------------------------|
| D3068 Building Automation Systems | D3068 Pneumatic HVAC Controls |
| Condition | Fair |
| Qty / UOM | 782,546 / SF |
| RUL (years) | 0 |
| Location | Throughout Facility |

OBSERVATIONS/COMMENTS:

Minor control upgrades were reportedly preformed in 2003, and the current control system is a pneumatic scheme relying on a set of simple two-input controllers. The software being used is Honeywell BMS - XBSI, a legacy system with minimal functionality and the control system is antiquated. A full pneumatic removal and conversion to a web-based electronic direct digital control (DDC) platform is recommended.

COST RECOMMENDATIONS:

| Type | Component Description | Qty / UOM | Unit Cost (\$) | Plan Type | Priority | Year | Expenditures (\$) |
|-------|---------------------------------------|----------------|----------------|--------------------|------------|------|-------------------|
| D3068 | Replace D3068 Pneumatic HVAC Controls | 782,546.0 - SF | 8.2 | FN - Modernization | Priority 1 | 2015 | 6,443,171 |

COST SUMMARY:

| Type | Year | Total Expenditures |
|-------------|-------------|---------------------------|
| D30 HVAC | 2015 | \$9,765,396 |
| D30 HVAC | 2017 | \$81,301 |
| D30 HVAC | 2018 | \$2,295,414 |
| D30 HVAC | 2021 | \$3,115,688 |
| D30 HVAC | 2023 | \$2,303,637 |

D40 FIRE PROTECTION SYSTEMS

| Fire and Life Safety System | |
|--|---|
| Item | Description |
| Fire Alarm System Components Present | |
| Smoke detectors | Yes |
| Pull stations | Yes |
| Audible alarms | Yes |
| Strobe lights | Yes |
| Central fire alarm panel | Yes |
| Annunciator panel | Yes |
| Smoke Detectors Power Supply | Hardwired Electric |
| Carbon Monoxide Detectors | No |
| Heat Detector | Yes |
| Central Fire Alarm Panel Location | Security Desk |
| Annunciator Panel Location | N/A |
| Fire Extinguishers | Yes |
| Fire Extinguisher Inspection Date | March 1, 2015 |
| Distance to Nearest Fire Hydrant (ft) | 20 |
| Illuminated Exit Signs | Yes |
| Kitchen Suppression Systems | Yes |
| Halon Gas Systems | No |
| Smoke Evacuation Systems | No |
| Fire-rated Stairwells | Yes |
| Fire-rated Stairwell Finish | Masonry |
| Stairwell Discharge | Exterior of the building at Grade |
| Stairwell Pressurized | Yes |
| Fire-Rated Doors Observed | Yes |
| Location of Fire-Rated Doors | Other |
| Fire Alarm Service Company | Honeywell |
| Date of Last Fire Alarm Service | March 1, 2013 |
| Are the individual office unit fire alarm systems monitored? | Yes |
| Are the common area fire alarm systems monitored? | Yes |
| Types of Common Areas Monitored | Entire Facility |
| Fire Alarm Monitoring Company | Self Monitored, service contract out for bid, currently |

| Item | Description |
|-------------------------------------|---------------------------------|
| D4011 Sprinkler Water Supply | D4011 Wet-Pipe Sprinkler System |
| Condition | Poor |
| Qty / UOM | 782,546 / SF |
| RUL (years) | 2 |
| Location | Throughout Facility |

OBSERVATIONS/COMMENTS:

The entire facility is serviced by an overhead wet pipe sprinkler system. The contractor had used piping material that did not meet code during the original installation. The maintenance staff reported intermittent leaks from piping, including the standpipes. Most of the vertical defective piping has been replaced. EMG recommends replacement of the system.

COST RECOMMENDATIONS:

| Type | Component Description | Qty / UOM | Unit Cost (\$) | Plan Type | Priority | Year | Expenditures (\$) |
|-------|--------------------------------------|----------------|----------------|------------------|------------|------|-------------------|
| D4011 | D4011 Replacement of Existing Piping | 782,546.0 - SF | 9.3 | CC - Life Safety | Priority 1 | 2017 | 7,276,426 |

| Item | Description |
|--|--|
| D4012 Sprinkler Pumping Equipment | D4012 Fire Pump Diesel 1500 Gpm 279 HP |
| Condition | Fair |
| Qty / UOM | 1 / EA |
| RUL (years) | 3 |
| Location | Fire Pump Room |

OBSERVATIONS/COMMENTS:

Based on current condition and RUL, replacement is recommended during the assessment term.

COST RECOMMENDATIONS:

| Type | Component Description | Qty / UOM | Unit Cost (\$) | Plan Type | Priority | Year | Expenditures (\$) |
|-------|--|-----------|----------------|------------------|------------|------|-------------------|
| D4012 | Replace D4012 Fire Pump Diesel 1500 Gpm 279 HP | 1.0 - EA | 499397.7 | CC - Life Safety | Priority 1 | 2018 | 499,398 |

| Item | Description |
|--------------------------|------------------------------------|
| D4031 Fire Extinguishers | D4031 Ansul System at Kitchen Hood |
| Condition | Fair |
| Qty / UOM | 2 / EA |
| RUL (years) | 2 |
| Location | Cafeteria Kitchen |

OBSERVATIONS/COMMENTS:

Based on current condition and RUL, replacement is recommended during the assessment term.

COST RECOMMENDATIONS:

| Type | Component Description | Qty / UOM | Unit Cost (\$) | Plan Type | Priority | Year | Expenditures (\$) |
|-------|--|-----------|----------------|------------------|------------|------|-------------------|
| D4031 | Replace D4031 Ansul System at Kitchen Hood | 2.0 - EA | 11735.1 | CC - Life Safety | Priority 1 | 2017 | 23,470 |

COST SUMMARY:

| Type | Year | Total Expenditures |
|-----------------------------|------|--------------------|
| D40 Fire Protection Systems | 2017 | \$7,299,896 |
| D40 Fire Protection Systems | 2018 | \$499,398 |

D50 ELECTRICAL SYSTEMS

| Item | Description |
|-----------------------------------|---|
| D5012 Low Tension Service & Dist. | D5012 Breaker Panel 225 Amps, 30 Circuits |
| Condition | Fair |
| Qty / UOM | 276 / EA |
| RUL (years) | 16 |
| Location | Utility Areas/Closets Throughout |

OBSERVATIONS/COMMENTS:

Based on current condition and RUL, no further action is recommended.

| Item | Description |
|-----------------------------------|--|
| D5012 Low Tension Service & Dist. | D5010 Switchgear, Mainframe, 3000 Amps |
| Condition | Fair |
| Qty / UOM | 12 / EA |
| RUL (years) | 16 |
| Location | Main Electrical Room |

OBSERVATIONS/COMMENTS:

Based on current condition and RUL, no further action is recommended.

| Item | Description |
|-----------------------------------|--|
| D5012 Low Tension Service & Dist. | D5012 Secondary Dry Transformer 75 kVA |
| Condition | Fair |
| Qty / UOM | 15 / EA |
| RUL (years) | 16 |
| Location | Utility Areas/Closets Throughout |

OBSERVATIONS/COMMENTS:

Based on current condition and RUL, no further action is recommended.

| Item | Description |
|--------------------------|---|
| D5022 Lighting Equipment | D5010 Electrical Service and Distribution |
| Condition | Poor |
| Qty / UOM | 4,742 / EA |
| RUL (years) | 0 |
| Location | Removed Ceiling Tiles |

OBSERVATIONS/COMMENTS:

The lighting fixtures in areas with the glued-in-place acoustic ceiling tiles are surface mounted, and must be removed before the ceiling tiles can be replaced. Re-use of the fixtures is not practical and replacement with new fixtures is recommended.

COST RECOMMENDATIONS:

| Type | Component Description | Qty / UOM | Unit Cost (\$) | Plan Type | Priority | Year | Expenditures (\$) |
|-------|---|--------------|----------------|--------------------|------------|------|-------------------|
| D5022 | Replace D5010 Electrical Service and Distribution | 4,742.0 - EA | 401.2 | FN - Modernization | Priority 1 | 2015 | 1,902,490 |

| Item | Description |
|--------------------------|-----------------------------------|
| D5022 Lighting Equipment | D5022 Lighting fixtures |
| Condition | Fair |
| Qty / UOM | 1,115 / EA |
| RUL (years) | 2 |
| Location | Areas with fire sprinkler repairs |

OBSERVATIONS/COMMENTS:

Where fire sprinkler piping is recommended for replacement the ceiling tile systems will need to be removed. light fixture replacement is recommended at the time the fire sprinkler piping is replaced.

COST RECOMMENDATIONS:

| Type | Component Description | Qty / UOM | Unit Cost (\$) | Plan Type | Priority | Year | Expenditures (\$) |
|-------|---------------------------------|--------------|----------------|--------------------|------------|------|-------------------|
| D5022 | Replace D5022 Lighting fixtures | 1,115.0 - EA | 401.0 | FN - Modernization | Priority 2 | 2017 | 447,101 |

| Item | Description |
|--------------------------|------------------------|
| D5037 Fire Alarm Systems | D5037 Fire Alarm Panel |
| Condition | Fair |
| Qty / UOM | 1 / EA |
| RUL (years) | 5 |
| Location | Fire Alarm Room |

OBSERVATIONS/COMMENTS:

Based on current condition and RUL, replacement is recommended during the assessment term.

COST RECOMMENDATIONS:

| Type | Component Description | Qty / UOM | Unit Cost (\$) | Plan Type | Priority | Year | Expenditures (\$) |
|-------|--------------------------------|-----------|----------------|------------------|------------|------|-------------------|
| D5037 | Replace D5037 Fire Alarm Panel | 1.0 - EA | 16482.2 | CC - Life Safety | Priority 3 | 2020 | 16,482 |

| Item | Description |
|--------------------------|-------------------------|
| D5037 Fire Alarm Systems | D5037 Fire Alarm System |
| Condition | Fair |
| Qty / UOM | 782,546 / SF |
| RUL (years) | 5 |
| Location | Throughout Facility |

OBSERVATIONS/COMMENTS:

The fire alarm system appears adequate and comprehensive with strobes and an adequate number of modern devices located throughout. Replacement of sprinkler system piping had been addressed, and the most critical zones have been replaced. Based on current condition and RUL, replacement is recommended during the assessment term.

COST RECOMMENDATIONS:

| Type | Component Description | Qty / UOM | Unit Cost (\$) | Plan Type | Priority | Year | Expenditures (\$) |
|-------|---------------------------------|----------------|----------------|------------------|------------|------|-------------------|
| D5037 | Replace D5037 Fire Alarm System | 782,546.0 - SF | 3.5 | CC - Life Safety | Priority 3 | 2020 | 2,770,213 |

| Item | Description |
|---------------------------------------|----------------------------------|
| D5092 Emergency Light & Power Systems | D5092 Emergency Generator 800 KW |
| Condition | Fair |
| Qty / UOM | 1 / EA |
| RUL (years) | 5 |
| Location | Emergency Generator Room |

OBSERVATIONS/COMMENTS:

Based on current condition and remaining useful life (RUL), this asset is recommended to be replaced during the assessment term.

COST RECOMMENDATIONS:

| Type | Component Description | Qty / UOM | Unit Cost (\$) | Plan Type | Priority | Year | Expenditures (\$) |
|-------|--|-----------|----------------|------------------|------------|------|-------------------|
| D5092 | Replace D5092 Emergency Generator 800 KW | 1.0 - EA | 622389.6 | CC - Life Safety | Priority 3 | 2020 | 622,390 |

| Item | Description |
|---------------------------------------|---------------------------------|
| D5092 Emergency Light & Power Systems | D5092 Emergency Transfer Switch |
| Condition | Fair |
| Qty / UOM | 3 / EA |
| RUL (years) | 5 |
| Location | Main Electrical Room |

OBSERVATIONS/COMMENTS:

Based on current condition and RUL, replacement is recommended during the assessment term.

COST RECOMMENDATIONS:

| Type | Component Description | Qty / UOM | Unit Cost (\$) | Plan Type | Priority | Year | Expenditures (\$) |
|-------|---|-----------|----------------|------------------|------------|------|-------------------|
| D5092 | Replace D5092 Emergency Transfer Switch | 3.0 - EA | 10613.1 | CC - Life Safety | Priority 3 | 2020 | 31,839 |

COST SUMMARY:

| Type | Year | Total Expenditures |
|------------------------|------|--------------------|
| D50 Electrical Systems | 2015 | \$1,902,490 |
| D50 Electrical Systems | 2017 | \$447,101 |
| D50 Electrical Systems | 2020 | \$3,440,924 |

E Equipment & Furnishing Systems

E10 EQUIPMENT

| Item | Description |
|---------------|---|
| E10 Equipment | E1019 Compressor for Pneumatic Controls - 30 HP |
| Condition | Good |
| Qty / UOM | 1 / EA |
| RUL (years) | 19 |
| Location | Main Mechanical Room |

OBSERVATIONS/COMMENTS:

Based on current condition and RUL, no further action is recommended.

E20 FURNISHINGS

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

| Item | Description |
|------------------------------|------------------------------|
| E2015 Fixed Multiple Seating | E2015 Fixed Multiple Seating |
| Condition | Good |
| Qty / UOM | 286 / |
| RUL (years) | 10 |
| Location | Auditorium |

OBSERVATIONS/COMMENTS:

Bsed on the estimated RUL, replacement of the seats is anticipated during the reserve term.

COST RECOMMENDATIONS:

| Type | Component Description | Qty / UOM | Unit Cost (\$) | Plan Type | Priority | Year | Expenditures (\$) |
|-------|--------------------------------------|-----------|----------------|------------------------|------------|------|-------------------|
| E2015 | Replace E2015 Fixed Multiple Seating | 286.0 - | 319.4 | IN - Beyond Rated Life | Priority 4 | 2024 | 91,341 |

COST SUMMARY:

| Type | Year | Total Expenditures |
|-----------------|------|--------------------|
| E20 Furnishings | 2024 | \$91,341 |

G Building Sitework Systems

G20 SITE IMPROVEMENTS

| Site Information | |
|---|-------------------------------------|
| Item | Description |
| Main Ingress and Egress | South Spring Street |
| Access from | NW |
| Additional Entrances | South Main Street |
| Access from | SE |
| Parking Count: Open lot | N/A |
| Parking Count: Sheltered by carports | N/A |
| Parking Count: Private garages | N/A |
| Parking Count: Subterranean garage | 450 |
| Parking Count: Freestanding parking structure | N/A |
| Number of ADA Compliant Spaces | N/A |
| Number of ADA Compliant Spaces for Vans | N/A |
| Method of obtaining parking count | Point of contact 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 | Yes |
| Flower beds Present | Yes |
| Decorative Rocks Present | Yes |
| Lava Rocks Present | No |
| Ponds Present | No |
| Fountains Present | No |
| Topography | Flat |

| Item | Description |
|--------------------------|----------------------|
| G2022 Paving & Surfacing | G2022 Granite Pavers |
| Condition | Fair |
| Qty / UOM | 14,560 / SF |
| RUL (years) | 4 |
| Location | Exterior and atrium |

OBSERVATIONS/COMMENTS:

A few damaged pavers were observed along with repairs in progress to other pavers. Additional paver replacement is anticipated during the reserve term.

COST RECOMMENDATIONS:

| Type | Component Description | Qty / UOM | Unit Cost (\$) | Plan Type | Priority | Year | Expenditures (\$) |
|-------|------------------------------|---------------|----------------|------------------------|------------|------|-------------------|
| G2022 | Replace G2022 Granite Pavers | 14,560.0 - SF | 69.6 | IN - Beyond Rated Life | Priority 3 | 2019 | 1,013,329 |

| Item | Description |
|--------------------------|-------------------------------------|
| G2025 Markings & Signage | G2025 Stall and Directional Marking |
| Condition | Good |
| Qty / UOM | 450 / Stall |
| RUL (years) | 4 |
| Location | Subterranean Garage |

OBSERVATIONS/COMMENTS:

Routine restriping will be required during the reserve term.

COST RECOMMENDATIONS:

| Type | Component Description | Qty / UOM | Unit Cost (\$) | Plan Type | Priority | Year | Expenditures (\$) |
|-------|---|---------------|----------------|------------------------|------------|------|-------------------|
| G2025 | Replace G2025 Stall and Directional Marking | 450.0 - Stall | 20.0 | IN - Beyond Rated Life | Priority 3 | 2019 | 9,017 |

| Item | Description |
|----------------|-------------------------------|
| G2056 Planters | G2050 Interior Lobby Planters |
| Condition | Fair |
| Qty / UOM | 15 / EA |
| RUL (years) | 26 |
| Location | Lobby Planters |

OBSERVATIONS/COMMENTS:

Based on current condition and RUL, no further action is recommended.

COST SUMMARY:

| Type | Year | Total Expenditures |
|-----------------------|------|--------------------|
| G20 Site Improvements | 2019 | \$1,022,347 |

The weather at the time of the assessment was:

| Item | Description |
|---|-------------------|
| Approximate Outdoor Temperature (degrees F) | 70 |
| 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 | Client |

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



:- Typical elevation



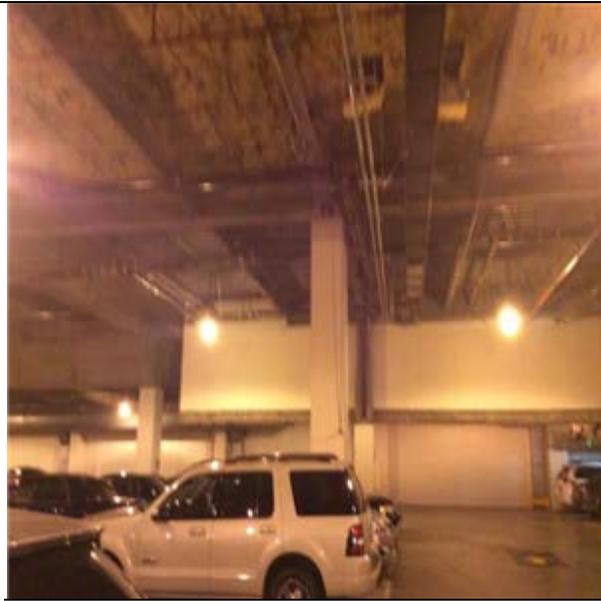
:- Typical elevation



:- Typical elevation



:- Typical elevation



A2010 Parking Garage Construction



B1021 Steel open web truss



B2011 Curtain Wall Glazing



B2011 Granite Veneer



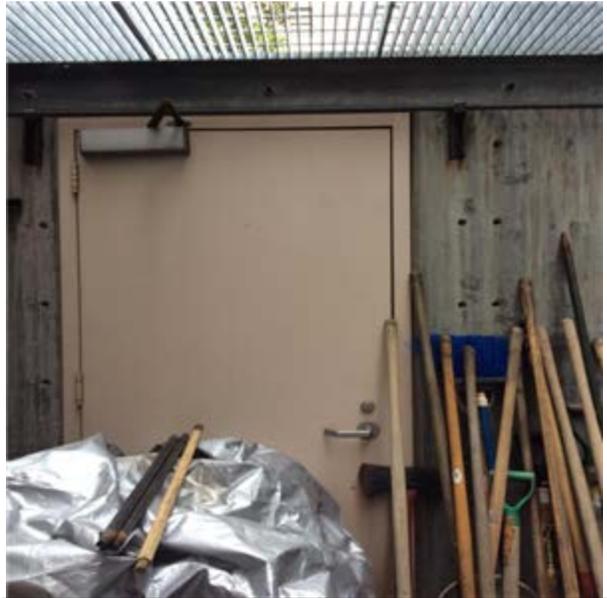
B2020 Aluminum Storefront 10' Tall w/O Door



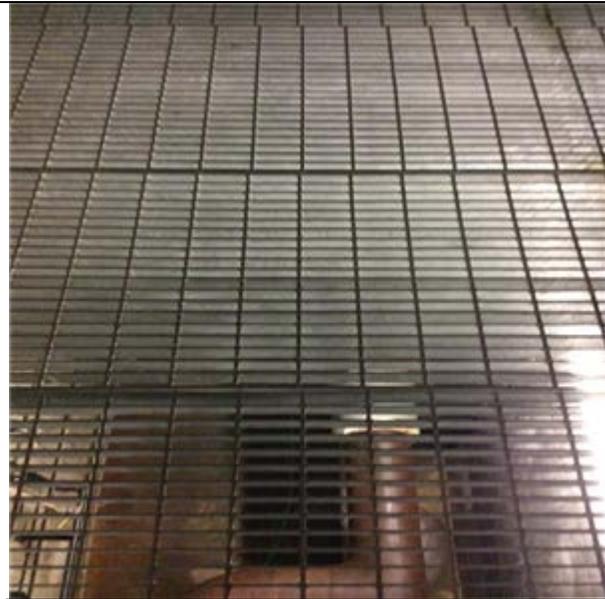
B2021 Aluminum Windows



B2031 Glazed Entrance Doors



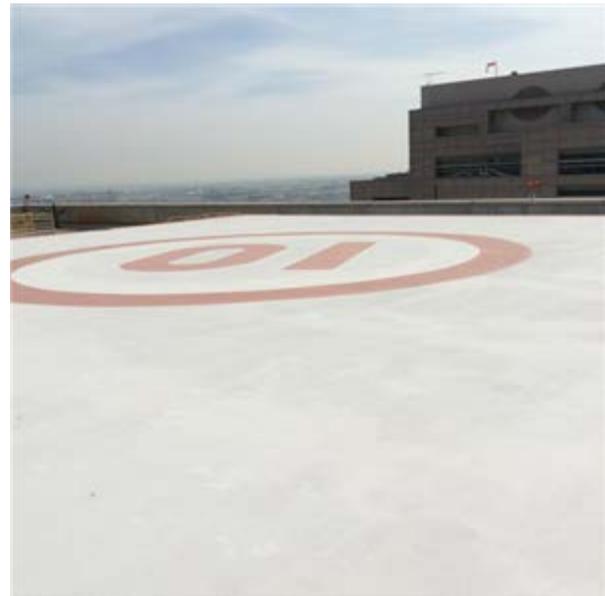
B3030 3'-0" X 7'-0" Steel, Painted, Door



B2030 Steel Rolling Overhead Door, Manual - 12' to 20'



B3011 Built-Up Roofing



B3012 Helicopter landing concrete roofing



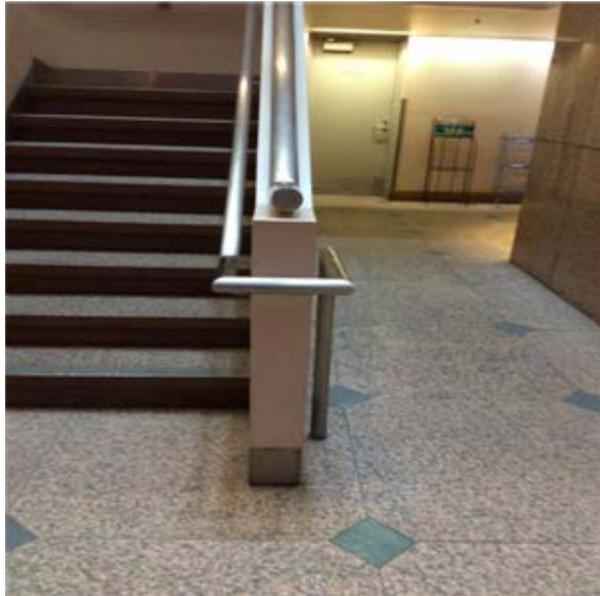
B3021 Skylight system



C1014 Site Built Toilet Partitions



C1021 Interior Doors



C2011 Concrete Stairs



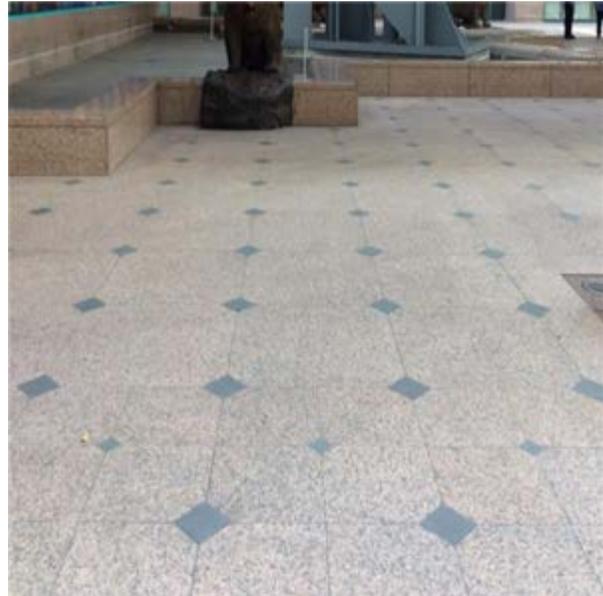
C3012 Granite tile



C3012 Paint Interior Walls, Drywall



C3010 Ceramic Tile, wainscots



C3024 Marble Tile Flooring



C3024 Ceramic Tile Flooring



C3024 Vinyl Tile



C3024 Sheet Vinyl



C3025 Carpet Tiles - Standard



C3032 Acoustical Ceiling Tile



D2011 Commercial Grade Water Closet, 1.6 GPF Unit



D2012 Urinal



D2013 Counter Top Sink and Faucet



D2023 Commercial Gas-Fired Domestic Water Heater, 365 to 400 MBH Input



D3020 Water Boiler, RAPAC Gas 1.9 M BTU



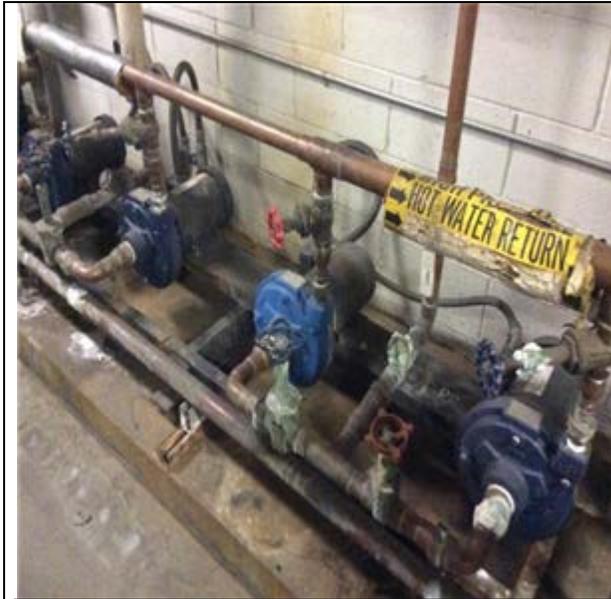
D3020 Water Boiler, Kewaunee Gas 14 M BTU



D3022 Circ Water Pumps - Well Water Pumps



D3023 Chill Water Supply- 60 HP Motors



D3022 Circ Water Pumps - 1 HP



D3022 HVAC Heating Water Circulation Pumps 20 HP



D3022 Circ Water Pumps - 15 HP



D3023 Condensate Return - 60 HP Motors



D3023 Heat Exchanger, Well Water to Water



D3023 Heat Exchanger, Hot Water to Water



D3031 Water Cooled Chiller, Centrifugal, 800-Ton



D3031 Water Cooled Chiller, Centrifugal, 600-Ton



D3031 Cooling Tower, Galvanized Steel, 650 Ton



D3031 Cooling Tower, Water Cooled, 800 Ton



D3032 Condenser Coils



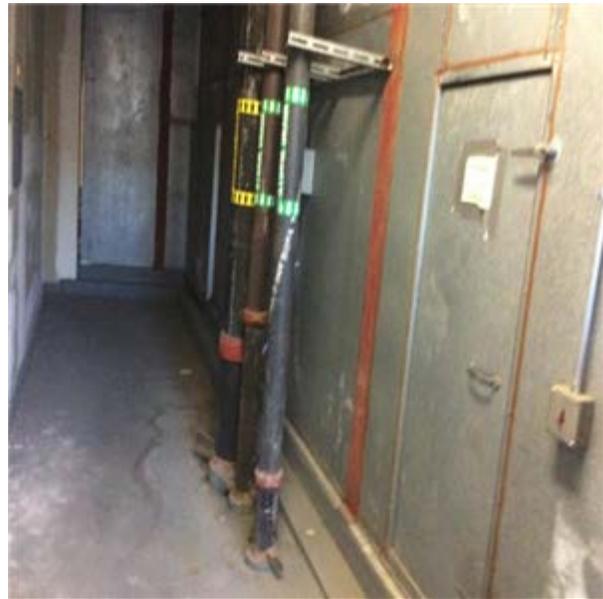
D3032 Condenser Coils



D3041 AHU Fan Motor, 15 HP with AC



D3041 Supply Air Fans - AH 1,2 -50K CFM -150 HP Motors



D3041 Return Air Fans - 68k CFM - 40 HP Motors



D3041 Supply Air Fans - AH 3,4 -77K CFM -150 HP Motors



D3041 Return Air Fans - 68k CFM - 40 HP Motors



D3041 AHU Fan Motor, 7/ 1/2 HP



D3041 VAV Boxes w Coil Towers



D3041 VAV Boxes Towers



D3041 VAV Boxes w Coil Flrs 1-4



D3041 VAV Boxes Flrs 1-4



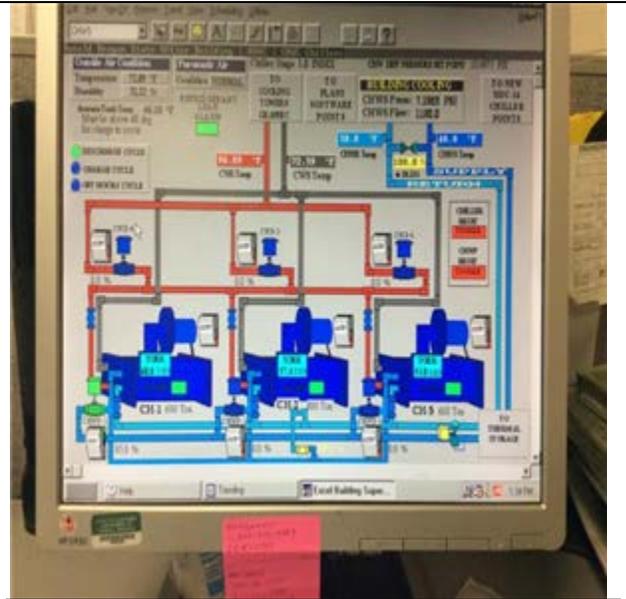
D3042 Smoke Evacuation Fans (4.8 to 7.2 MCFM)



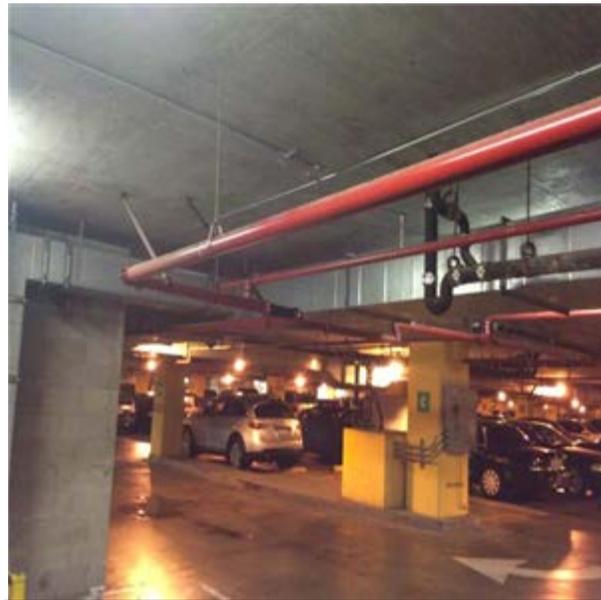
D3042 Supply Fan 77000 CFM



D3052 Computer/Sever Room AC, 5 Tons



D3068 Pneumatic HVAC Controls



D4011 Wet-Pipe Sprinkler System



D4012 Fire Pump Diesel 1500 Gpm 279 HP



D4031 Ansul System at Kitchen Hood



D5010 Switchgear, Mainframe, 3000 Amps



D5012 Breaker Panel 225 Amps, 30 Circuits



D5012 Secondary Dry Transformer 75 kVA



D5037 Fire Alarm Panel



D5037 Fire Alarm System



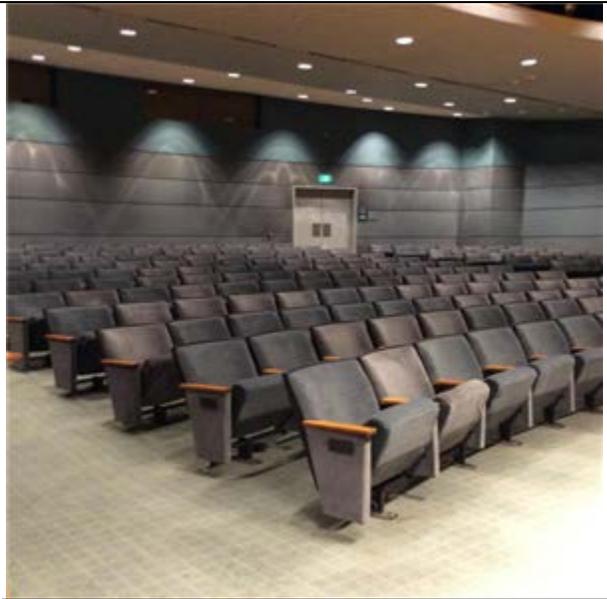
D5092 Emergency Generator 800 KW



D5092 Emergency Transfer Switch



E1019 Compressor for Pneumatic Controls - 30 HP



E2015 Fixed Multiple Seating



G2022 Granite Pavers



G2050 Interior Lobby Planters

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) | <p>The consultant's professional opinion of the number of years before a system or component will require replacement or reconditioning. The estimate is based upon observation, available maintenance records, and accepted EUL's for similar items or systems.</p> <p>Inclement weather, exposure to the elements, demand on the system, quality of installation, extent of use, and the degree and quality of preventive maintenance exercised are all factors that could impact the RUL of a system or component. As a result, a system or component may have an effective age greater or less than its actual age. The RUL may be greater or less than its Expected Useful Life (EUL) less actual age.</p> |
| Replacement Costs | Costs to replace the system or component "in kind" based on Invoices or Bid Documents provided by the current owner or the client, construction costs developed by construction resources such as <i>Means</i> and <i>Dodge</i> , EMG's experience with past costs for similar properties, or the current owner's historical incurred costs. |
| RTU | Rooftop Unit |
| Shut-Down | Equipment or systems that are not operating at the time of the Project Manager's Walk-through Survey. Equipment or systems may be considered shutdown if it is not in operation as a result of seasonal temperatures. |
| Significant | Important, material, and/or serious. |
| Site Visit | The visit to the property by EMG's Project Manager including walk-through visual observations of the Property, interviews of available project personnel and tenants (if appropriate), review of available documents and interviews of available municipal personnel at municipal offices, all in accordance with the agreement for the Property Condition Assessment. |

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

APPENDIX F: BUILDING FACT SHEET

RONALD REAGAN STATE BUILDING FACT SHEET

300 South Spring Street

Los Angeles

Los Angeles County

Category 2 - Medium Priority - Further Study Required

BUILDING INFORMATION

- Age: 23 years (completed in 1991)
- Size: 16-story, two-towers
782,546 GSF 571,269 NUSF 565,420 Assigned USF
2.6 Acre Parcel
450 subterranean parking places + leased across the street
Capacity - 1,748 occupants
- Financial: State of California/City of Los Angeles Joint Powers Authority
1993 Refunding Series A Bond, retired May 2011
No Encumbrances
IRR Rate - \$1.80/month per SF, FY 2013-14 (DGS Price Book)
\$1.85/month per SF, FY 2014-15 (Proposed DGS Price Book)
- LEED Status: Certified Silver LEED-EB, 2010
- Tenants: 14 Agencies, the larger tenants include Department of Justice (217,184 SF), 2nd District Court of Appeals (119,137 SF), and Department of Insurance (100,153 SF)



SPI Structure #: 1256
 Real Property #: 9721
 BPM #: 509

COMPLETED STUDIES AND SIGNIFICANT FINDINGS

A. 2009 Microbiological Induced Corrosion Study (Sprinkler System)

Corrosion in the sprinkler system was caused by microbes in the water system/working drawing phase scheduled for completion in June 2014, for sprinkler system replacement.

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

The report noted some structural repairs that were needed. For years 1-3, the recommendations included upgrades to exterior stone, sealing window glazings, upgrading the Honeywell control system, and a complete re-lining of the thermal storage and fire water tanks. For years 4-10, additional recommendations included roofing repairs, fire alarm panel replacement, and modernization of the three hydraulic elevators. See below for current and projected associated repairs.

C. 2010 American Disability Act Accessibility Compliance Survey

This survey indicated various areas of inaccessibility, with a significant number involving potential major alterations including exterior walkways, passenger loading zones and parking; drinking fountains; handrails in stairwells; exit, entrance and restroom doors; all toilet facilities; auditorium stage; and counters in the North Tower on floors 8 through 11.

D 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

Energy management system for the building is in need of replacement.

CURRENT UTILIZATION PROJECTS

DOJ has agreed to relinquish 9,000 SF on the 8th floor of the South Tower in April of 2014. Backfill opportunities have been identified that would reduce leased space. Preliminary Assessment Study packages in progress.

RECENTLY COMPLETED PROJECTS

Cost

TBD

ACTIVE PROJECTS

Cost

TBD

* Source: Statewide Property Inventory

PLANNED SPECIAL REPAIRS BY FISCAL YEAR

Estimated Cost

TBD

DGS STRATEGY: Further evaluation must occur for this building to determine the condition of the building and the extent of necessary repair/renovation. Future Five-Year Plans may include project funding requests.

APPENDIX G: COST TABLES

10 YEAR EXPENDITURE FORECAST



Ronald Reagan State Building
300 South Spring Street
Los Angeles, California

| | |
|-------------|-----------------------|
| Useful Life | Estimated Useful Life |
| | Remaining Useful Life |

| | | |
|-----------|-------------------|---------------------|
| Plan Type | OP: Operations | CC: Code Compliance |
| | EN: Environmental | FN: Functionality |
| | IN: Integrity | |

| | |
|--------|-----------|
| Legend | Deferred |
| | Scheduled |

| Element # | Component Description | Asset | Location | Action | EUL (Yrs) | RUL (Yrs) | Qty. | Unit Meas. | Unit Cost | Plan Type | Priority | 2015 Year 0 | 2016 Year 1 | 2017 Year 2 | 2018 Year 3 | 2019 Year 4 | 2020 Year 5 | 2021 Year 6 | 2022 Year 7 | 2023 Year 8 | 2024 Year 9 | Total - Deferred | Total - Scheduled |
|-----------|-----------------------|-------|----------|--------|-----------|-----------|------|------------|-----------|-----------|----------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|---------------------|----------------------|
|-----------|-----------------------|-------|----------|--------|-----------|-----------|------|------------|-----------|-----------|----------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|---------------------|----------------------|

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|--|--|--|--|--|--|--|--|--|--|--|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| A. SUBSTRUCTURE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Substructure Subtotal | | | | | | | | | | | | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|--|--|----------------|--|----|---|----------|----|------------|------------------------|------------|-----|-----|-------------|-----|----------|----------|-----------|-----|-----|-----|-----|-----|-------------|-------------|-----|-----|-----|-----|-----|-----|-----|-------------|
| B. SHELL | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B20 EXTERIOR ENCLOSURE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B2021 | Aluminum Window, 4-0 X 6-0, Upper Floor Floor | B2021 Aluminum Windows | Windows | Replace B2021 Aluminum Windows | 25 | 2 | 850.00 | EA | \$2,652.80 | IN - Beyond Rated Life | Priority 2 | \$0 | \$0 | \$2,254.876 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$2,254.876 | | | | | | | | | |
| B2021 | Aluminum Storefront 10' Tall w/O Door | B2020 Aluminum Storefront 10' Tall w/O Door | Exterior Walls | Replace B2020 Aluminum Storefront 10' Tall w/O Door | 25 | 2 | 620.00 | SF | \$142.87 | IN - Beyond Rated Life | Priority 2 | \$0 | \$0 | \$88.579 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$88.579 | | | | | | | | | |
| B2031 | Aluminum 3'-0" X 7'-0" | B2031 Glazed Entrance Doors | Entrance Doors | Replace B2031 Glazed Entrance Doors | 30 | 6 | 12.00 | EA | \$9,424.00 | IN - Beyond Rated Life | Priority 3 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$113,088 | | | | | | | | | |
| B2034 | Steel Rolling Overhead Door, Manual - 12' to 20' | B2030 Steel Rolling Overhead Door, Manual - 12' to 20' | Access Doors | Replace B2030 Steel Rolling Overhead Door, Manual - 12' to 20' | 30 | 6 | 5.00 | EA | \$9,508.39 | IN - Beyond Rated Life | Priority 3 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$47,542 | | | | | | | | |
| B30 ROOFING | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B3011 | Built-Up Roofing, Total Roof | B3011 Built-Up Roofing | Roof | Replace B3011 Built-Up Roofing | 20 | 2 | 935.00 | SQ | \$1,366.07 | IN - Beyond Rated Life | Priority 2 | \$0 | \$0 | \$1,277.279 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$1,277.279 | | | | | | | | |
| B3012 | B3012 Traffic Toppings & Paving Membranes | B3012 Helicopter landing concrete roofing | Roof | Replace B3012 Helicopter landing concrete roofing | 30 | 6 | 4,608.00 | SF | \$12.47 | IN - Beyond Rated Life | Priority 3 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$57,448 | | | | | | | | |
| B3021 | B3021 Glazed Roof Openings | B3021 Skylight system | Atrium | Caulking of B3021 Skylight system | 15 | 4 | 8,056.00 | LF | \$3.95 | OP - Maintenance | Priority 3 | \$0 | \$0 | \$0 | \$0 | \$0 | \$31,821 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$31,821 | | | | | | | | |
| Shell Subtotal | | | | | | | | | | | | \$0 | \$0 | \$3,620,735 | \$0 | \$31,821 | \$0 | \$218,078 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$3,870,634 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|----------------------|---|----|---|--------------|-----|------------|------------------------|------------|-----|-----|--------------|-----------|-------------|-----|-------------|-----|-----|-----|-----|-----|-----|-------------|-------------|-----|-----|-----|-----|-----|-----|--------------|
| C. INTERIORS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C10 INTERIOR CONSTRUCTION | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C1021 | Fire Door, Wood, Flush, 60 Minute, Incl. Demo, with Hardware | C1021 Interior Doors | Throughout Interiors | Replace C1021 Interior Doors | 30 | 6 | 440.00 | EA | \$2,403.12 | IN - Beyond Rated Life | Priority 4 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$1,057,373 | | | | | | | | |
| C30 INTERIOR FINISHES | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C3012 | Paint Interior Walls, Drywall | C3012 Paint Interior Walls, Drywall | Interior Walls | Replace C3012 Paint Interior Walls, Drywall | 10 | 2 | 1,510,000.00 | SF | \$2.13 | IN - Appearance | Priority 3 | \$0 | \$0 | \$3,220,528 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$3,220,528 | | | | | | | |
| C3024 | Vinyl Tile | C3024 Vinyl Tile | Interior Flooring | Replace C3024 Vinyl Tile | 18 | 4 | 12,840.00 | SY | \$125.78 | IN - Appearance | Priority 3 | \$0 | \$0 | \$0 | \$0 | \$1,615,018 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$1,615,018 | | | | | | | |
| C3024 | Sheet Vinyl | C3024 Sheet Vinyl | Various common areas | Replace C3024 Sheet Vinyl | 15 | 6 | 1,460.00 | SY | \$204.68 | IN - Beyond Rated Life | Priority 4 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$298,829 | | | | | | | | |
| C3025 | Carpet Tiles - Standard | C3025 Carpet Tiles - Standard | Interior Flooring | Replace C3025 Carpet Tiles - Standard | 10 | 2 | 38,640.00 | SY | \$96.61 | IN - Appearance | Priority 3 | \$0 | \$0 | \$3,732,840 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$3,732,840 | | | | | | | |
| C3031 | Drywall - Painted Finished Ceilings | C3030 Drywall - Painted Finished Ceilings | Interior Ceilings | Replace C3030 Drywall - Painted Finished Ceilings | 20 | 3 | 118,707.00 | SF | \$4.54 | IN - Appearance | Priority 3 | \$0 | \$0 | \$0 | \$538,740 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$538,740 | | | | | | | | |
| C3032 | Acoustical Tile With Exposed Grid System | C3032 Acoustical Ceiling Tile | Interior Ceilings | Replace C3032 Acoustical Ceiling Tile | 20 | 2 | 4,685.00 | CSF | \$1,201.56 | IN - Appearance | Priority 3 | \$0 | \$0 | \$5,629,309 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$5,629,309 | | | | | | | | |
| Interiors Subtotal | | | | | | | | | | | | \$0 | \$0 | \$12,582,677 | \$538,740 | \$1,615,018 | \$0 | \$1,356,202 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$16,092,636 |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|---|--|--------------------------------------|--|----|---|--------|----|----------------|------------------------|------------|-------------|-----|-----|-------------|-----|-----|-----|-----|-----|-------------|-----|-----|-----|-------------|
| D. SERVICES | | | | | | | | | | | | | | | | | | | | | | | | | |
| D10 CONVEYING SYSTEMS | | | | | | | | | | | | | | | | | | | | | | | | | |
| D1011 | Traction Elevator Machinery and Controls | D1011 Traction Elevator Machinery and Controls | Elevators 1, 2, 3, 10, 11, 12, 20 | Replace D1011 Traction Elevator Machinery and Controls | 25 | 0 | 7.00 | EA | \$445,900.00 | FN - Modernization | Priority 1 | \$3,121,300 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$3,121,300 |
| D1011 | Elevator Hydraulic System, 3,500 Lb Capacity | D1011 Elevator Hydraulic System, 3,500 Lb capacity | Elevator 18, 19 | Replace D1011 Elevator Hydraulic System, 3,500 Lb capacity | 25 | 0 | 2.00 | EA | \$263,900.00 | FN - Modernization | Priority 1 | \$527,800 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$527,800 |
| D1011 | Traction Elevator Machinery and Controls | D1011 Traction Elevator Machinery and Controls | Elevators 4, 5, 6, 7, 13, 14, 15, 16 | Replace D1011 Traction Elevator Machinery and Controls | 25 | 0 | 8.00 | EA | \$536,900.00 | FN - Modernization | Priority 1 | \$4,295,200 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$4,295,200 |
| D1011 | Traction Elevator Machinery and Controls | D1011 Traction Elevator Machinery and Controls | Elevator 21 | Replace D1011 Traction Elevator Machinery and Controls | 25 | 0 | 1.00 | EA | \$218,400.00 | FN - Modernization | Priority 1 | \$218,400 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$218,400 |
| D1012 | Traction Geared Elevator - High Rise | D1011 Traction Elevator Machinery and Controls | Elevator 9,17 | Replace D1011 Traction Elevator Machinery and Controls | 25 | 0 | 2.00 | EA | \$491,400.00 | FN - Modernization | Priority 1 | \$982,800 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$982,800 |
| D20 PLUMBING | | | | | | | | | | | | | | | | | | | | | | | | | |
| D2011 | Commercial Grade Water Closet With 1.6 Gpf Unit | D2011 Commercial Grade Water Closet, 1.6 GPF Unit | Throughout Facility | Replace D2011 Commercial Grade Water Closet, 1.6 GPF Unit | 25 | 3 | 348.00 | EA | \$1,233.15 | IN - Beyond Rated Life | Priority 3 | \$0 | \$0 | \$0 | \$429,135 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$429,135 |
| D30 HVAC | | | | | | | | | | | | | | | | | | | | | | | | | |
| D3021 | Steam Boiler, Gas Or Oil 12500 to 16740 MBH | D3020 Water Boiler, Kewaunee Gas 14 M BTU | Main Mechanical Room | Replace D3020 Water Boiler, Kewaunee Gas 14 M BTU | 25 | 3 | 1.00 | EA | \$1,056,108.00 | IN - Beyond Rated Life | Priority 2 | \$0 | \$0 | \$0 | \$1,056,108 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$1,056,108 |
| D3022.1 | Heating Water Distribution Pump 10 HP | D3022 HVAC Heating Water Circulation Pumps 20 HP | Hot Water Room | Replace D3022 HVAC Heating Water Circulation Pumps 20 HP | 15 | 3 | 4.00 | EA | \$26,054.88 | IN - Beyond Rated Life | Priority 2 | \$0 | \$0 | \$0 | \$104,220 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$104,220 |
| D3022.1 | Circulation Pump, 7 to 10 HP | D3022 Circ Water Pumps - 15 HP | Main Mechanical Room | Replace D3022 Circ Water Pumps - 15 HP | 20 | 8 | 2.00 | EA | \$22,312.56 | IN - Beyond Rated Life | Priority 4 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$44,625 |
| D3022.1 | Circulation Pump 40 HP | D3022 Circ Water Pumps - Well Water Pumps | Well Water Room | Replace D3022 Circ Water Pumps - Well Water Pumps | 20 | 8 | 3.00 | EA | \$44,806.80 | IN - Beyond Rated Life | Priority 4 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$134,420 |
| D3022.1 | Circulation Pump 1 HP | D3022 Circ Water Pumps - 1 HP | Main Mechanical Room | Replace D3022 Circ Water Pumps - 1 HP | 15 | 3 | 8.00 | EA | \$1,091.20 | IN - Beyond Rated Life | Priority 2 | \$0 | \$0 | \$0 | \$8,730 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$8,730 |
| D3022.1 | Circulation Pump 60 HP | D3023 Chill Water Supply- 60 HP Motors | Main Mechanical Room | Replace D3023 Chill Water Supply- 60 HP Motors | 20 | 8 | 3.00 | EA | \$83,739.88 | IN - Beyond Rated Life | Priority 4 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$251,220 |
| D3031.1 | Water Cooled Chiller, Centrifugal, 500-Ton | D3031 Water Cooled Chiller, Centrifugal, 600-Ton | Main Mechanical Room | Replace D3031 Water Cooled Chiller, Centrifugal, 600-Ton | 20 | 0 | 2.00 | EA | \$1,661,112.68 | IN - Beyond Rated Life | Priority 1 | \$3,322,225 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$3,322,225 |
| D3031.1 | Water Cooled Chiller, Centrifugal, 500-Ton | D3031 Water Cooled Chiller, Centrifugal, 800-Ton | Main Mechanical Room | Replace D3031 Water Cooled Chiller, Centrifugal, 800-Ton | 20 | 8 | 1.00 | EA | \$1,661,112.68 | IN - Beyond Rated Life | Priority 4 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$1,661,113 | \$0 | \$0 | \$0 | \$1,661,113 |
| D3032 | Evaporative Condensers 100 Ton | D3032 Condenser Coils | Penthouse Mech Rm North | Replace D3032 Condenser Coils | 20 | 3 | 2.00 | EA | \$76,963.08 | IN - Beyond Rated Life | Priority 2 | \$0 | \$0 | \$0 | \$153,926 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$153,926 |
| D3032 | Evaporative Condensers 100 Ton | D3032 Condenser Coils | Penthouse South Mechanical Room | Replace D3032 Condenser Coils | 20 | 3 | 2.00 | EA | \$76,963.08 | IN - Beyond Rated Life | Priority 2 | \$0 | \$0 | \$0 | \$153,926 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$153,926 |
| D3041.1 | Air Handler 8,000 to 12,000 CFM | D3041 AHU Fan Motor, 7/ 1/2 HP | 5th Floor HVAC Fan Room | Replace D3041 AHU Fan Motor, 7/ 1/2 HP | 20 | 8 | 6.00 | EA | \$16,151.50 | IN - Beyond Rated Life | Priority 4 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$96,909 |
| D3041.1 | Air Handler 8,000 to 12,000 CFM | D3041 AHU Fan Motor, 15 HP with AC | 4th Floor HVAC Fan Room | Replace D3041 AHU Fan Motor, 15 HP with AC | 20 | 8 | 6.00 | EA | \$16,151.50 | IN - Beyond Rated Life | Priority 4 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$96,909 |
| D3041.1 | Central Station Ahu 33500 CFM | D3041 Supply Air Fans - AH 1.2 -50K CFM -150 HP Motors | Penthouse North Mechanical Room | Replace D3041 Supply Air Fans - AH 1.2 -50K CFM -150 HP Motors | 15 | 3 | 2.00 | EA | \$134,637.96 | IN - Beyond Rated Life | Priority 2 | \$0 | \$0 | \$0 | \$269,276 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$269,276 |
| D3041.1 | Air Handler 20,000-22,000 CFM | D3041 Return Air Fans - 68k CFM - 40 HP Motors | Penthouse North Mechanical Room | Replace D3041 Return Air Fans - 68k CFM - 40 HP Motors | 15 | 3 | 2.00 | EA | \$39,385.87 | IN - Beyond Rated Life | Priority 2 | \$0 | \$0 | \$0 | \$78,772 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$78,772 |
| D3041.1 | Central Station Ahu 33500 CFM | D3041 Supply Air Fans - AH 3.4 -77K CFM -150 HP Motors | Penthouse South Mechanical Room | Replace D3041 Supply Air Fans - AH 3.4 -77K CFM -150 HP Motors | 15 | 3 | 2.00 | EA | \$134,637.96 | IN - Beyond Rated Life | Priority 2 | \$0 | \$0 | \$0 | \$269,276 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$269,276 |
| D3041.1 | Air Handler 20,000-22,000 CFM | D3041 Return Air Fans - 68k CFM - 40 HP Motors | Penthouse South Mechanical Room | Replace D3041 Return Air Fans - 68k CFM - 40 HP Motors | 15 | 3 | 2.00 | EA | \$39,385.87 | IN - Beyond Rated Life | Priority 2 | \$0 | \$0 | \$0 | \$78,772 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$78,772 |
| D3041.2 | Vav Box, 270 to 600 CFM | D3041 VAV Boxes Towers | Towers | Replace D3041 VAV Boxes Towers | 30 | 6 | 612.00 | EA | \$2,496.72 | IN - Beyond Rated Life | Priority 3 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$1,527,990 |
| D3041.2 | Vav Box, 270 to 600 CFM | D3041 VAV Boxes Flrs 1-4 | Floors 1-4 | Replace D3041 VAV Boxes Flrs 1-4 | 30 | 6 | 112.00 | EA | \$2,496.72 | IN - Beyond Rated Life | Priority 3 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$279,632 |

| 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 | | | |
| D3041.2 | Vav Box , 600 to 1500 CFM | D3041 VAV Boxes w Coil Flrs 1-4 | Floors 1-4 | Replace D3041 VAV Boxes w Coil Flrs 1-4 | 30 | 6 | 72.00 | EA | \$3,460.49 | IN - Beyond Rated Life | Priority 3 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$249,155 | \$0 | \$0 | \$0 | \$0 | \$249,155 | |
| D3041.2 | Vav Box , 600 to 1500 CFM | D3041 VAV Boxes w Coil Towers | Towers Interior | Replace D3041 VAV Boxes w Coil Towers | 30 | 6 | 306.00 | EA | \$3,460.49 | IN - Beyond Rated Life | Priority 3 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$1,058,911 | \$0 | \$0 | \$0 | \$0 | \$1,058,911 | |
| D3042 | Make Up Air Unit 5000 CFM | D3042 Supply Fan 77000 CFM | Penthouse South Mechanical Room | Replace D3042 Supply Fan 77000 CFM | 20 | 2 | 2.00 | EA | \$40,650.67 | IN - Beyond Rated Life | Priority 2 | \$0 | \$0 | \$81,301 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$81,301 |
| D3042 | Smoke evacuation fan (electrostatic,exhaust fan, smoke, exhaust 4.8 to 7.2 MCFM) | D3042 Smoke Evacuation Fans (4.8 to 7.2 MCFM) | Atrium | Replace D3042 Smoke Evacuation Fans (4.8 to 7.2 MCFM) | 20 | 3 | 6.00 | EA | \$20,401.50 | CC - Life Safety | Priority 2 | \$0 | \$0 | \$0 | \$122,409 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$122,409 |
| D3052 | Air Conditioner, Dx Package (Liebert) 5-Ton | D3052 Computer/Sever Room AC, 5 Tons | Computer Server Room | Replace D3052 Computer/Sever Room AC, 5 Tons | 20 | 8 | 1.00 | EA | \$18,440.78 | IN - Beyond Rated Life | Priority 4 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$18,441 | \$0 | \$0 | \$18,441 |
| D3068 | Direct Digital Controls (DDC) Extensive | D3068 Pneumatic HVAC Controls | Throughout Facility | Replace D3068 Pneumatic HVAC Controls | 20 | 0 | 782,546.00 | SF | \$8.23 | FN - Modernization | Priority 1 | \$6,443,171 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$6,443,171 | \$0 |
| D40 FIRE PROTECTION SYSTEMS | | | | | | | | | | | | | | | | | | | | | | | | |
| D4011 | Sprinkler Head | D4011 Wet-Pipe Sprinkler System | Throughout Facility | D4011 Replacement of Existing Piping | 25 | 2 | 782,546.00 | SF | \$9.30 | CC - Life Safety | Priority 1 | \$0 | \$0 | \$7,276,426 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$7,276,426 |
| D4012 | Fire Pump Diesel 1500 Gpm 279 HP | D4012 Fire Pump Diesel 1500 Gpm 279 HP | Fire Pump Room | Replace D4012 Fire Pump Diesel 1500 Gpm 279 HP | 25 | 3 | 1.00 | EA | \$499,397.71 | CC - Life Safety | Priority 1 | \$0 | \$0 | \$0 | \$499,398 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$499,398 |
| D4031 | Install Ansul System at Kitchen Hood | D4031 Ansul System at Kitchen Hood | Cafeteria Kitchen | Replace D4031 Ansul System at Kitchen Hood | 20 | 2 | 2.00 | EA | \$11,735.10 | CC - Life Safety | Priority 1 | \$0 | \$0 | \$23,470 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$23,470 |
| D50 ELECTRICAL SYSTEMS | | | | | | | | | | | | | | | | | | | | | | | | |
| D5022 | D5022 Lighting Equipment | D5022 Lighting fixtures | Areas with fire sprinkler repairs | Replace D5022 Lighting fixtures | 15 | 2 | 1,115.00 | EA | \$400.99 | FN - Modernization | Priority 2 | \$0 | \$0 | \$447,101 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$447,101 |
| D5022 | D5022 Lighting Equipment | D5010 Electrical Service and Distribution | Removed Ceiling Tiles | Replace D5010 Electrical Service and Distribution | 40 | 0 | 4,742.00 | EA | \$401.20 | FN - Modernization | Priority 1 | \$1,902,490 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$1,902,490 | \$0 |
| D5037 | Fire Alarm Panel | D5037 Fire Alarm Panel | Fire Alarm Room | Replace D5037 Fire Alarm Panel | 15 | 5 | 1.00 | EA | \$16,482.24 | CC - Life Safety | Priority 3 | \$0 | \$0 | \$0 | \$0 | \$0 | \$16,482 | \$0 | \$0 | \$0 | \$0 | \$0 | \$16,482 | |
| D5037 | Fire Alarm System, Install New | D5037 Fire Alarm System | Throughout Facility | Replace D5037 Fire Alarm System | 25 | 5 | 782,546.00 | SF | \$3.54 | CC - Life Safety | Priority 3 | \$0 | \$0 | \$0 | \$0 | \$0 | \$2,770,213 | \$0 | \$0 | \$0 | \$0 | \$0 | \$2,770,213 | |
| D5092 | Transfer Switch | D5092 Emergency Transfer Switch | Main Electrical Room | Replace D5092 Emergency Transfer Switch | 25 | 5 | 3.00 | EA | \$10,613.06 | CC - Life Safety | Priority 3 | \$0 | \$0 | \$0 | \$0 | \$0 | \$31,839 | \$0 | \$0 | \$0 | \$0 | \$0 | \$31,839 | |
| D5092 | Diesel Generator 650 to 750 kW | D5092 Emergency Generator 800 KW | Emergency Generator Room | Replace D5092 Emergency Generator 800 KW | 25 | 5 | 1.00 | EA | \$622,389.63 | CC - Life Safety | Priority 3 | \$0 | \$0 | \$0 | \$0 | \$0 | \$622,390 | \$0 | \$0 | \$0 | \$0 | \$0 | \$622,390 | |
| Services Subtotal | | | | | | | | | | | | \$20,813,387 | \$0 | \$7,828,298 | \$3,223,947 | \$0 | \$3,440,924 | \$3,115,688 | \$0 | \$2,303,637 | \$0 | \$20,813,387 | \$19,912,494 | |
| E. EQUIPMENT & FURNISHING | | | | | | | | | | | | | | | | | | | | | | | | |
| E20 FURNISHINGS | | | | | | | | | | | | | | | | | | | | | | | | |
| E2015 | E2015 Fixed Multiple Seating | E2015 Fixed Multiple Seating | Auditorium | Replace E2015 Fixed Multiple Seating | 15 | 9 | 286.00 | | \$319.37 | IN - Beyond Rated Life | Priority 4 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$91,341 | \$0 | \$91,341 | |
| Equipment & Furnishing Subtotal | | | | | | | | | | | | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$91,341 | \$0 | \$91,341 |
| F. SPECIAL CONSTRUCTION AND DEMOLITION | | | | | | | | | | | | | | | | | | | | | | | | |
| Special Construction And Demolition Subtotal | | | | | | | | | | | | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| G. BUILDING SITEWORK | | | | | | | | | | | | | | | | | | | | | | | | |
| G20 SITE IMPROVEMENTS | | | | | | | | | | | | | | | | | | | | | | | | |
| G2022 | Granite Pavers | G2022 Granite Pavers | Exterior and atrium | Replace G2022 Granite Pavers | 25 | 4 | 14,560.00 | SF | \$69.60 | IN - Beyond Rated Life | Priority 3 | \$0 | \$0 | \$0 | \$0 | \$1,013,329 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$1,013,329 | |
| G2025 | G2025 Markings & Signage | G2025 Stall and Directional Marking | Subterranean Garage | Replace G2025 Stall and Directional Marking | 10 | 4 | 450.00 | Stall | \$20.04 | IN - Beyond Rated Life | Priority 3 | \$0 | \$0 | \$0 | \$0 | \$9,017 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$9,017 | |
| Building Sitework Subtotal | | | | | | | | | | | | \$0 | \$0 | \$0 | \$0 | \$1,022,347 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$1,022,347 | |
| Z. GENERAL | | | | | | | | | | | | | | | | | | | | | | | | |
| General Subtotal | | | | | | | | | | | | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | |
| Expenditure Totals per Year | | | | | | | | | | | | \$20,813,387 | \$0 | \$24,031,710 | \$3,762,687 | \$2,469,186 | \$3,440,924 | \$4,689,967 | \$0 | \$2,303,637 | \$91,341 | \$20,813,387 | \$40,989,451 | |
| Total Cost (Inflated @ 5% per Yr.) | | | | | | | | | | | | \$20,813,387 | \$0 | \$26,494,960 | \$4,355,780 | \$3,244,412 | \$4,391,588 | \$6,285,005 | \$0 | \$3,403,526 | \$141,700 | Total* | \$61,802,838 | |

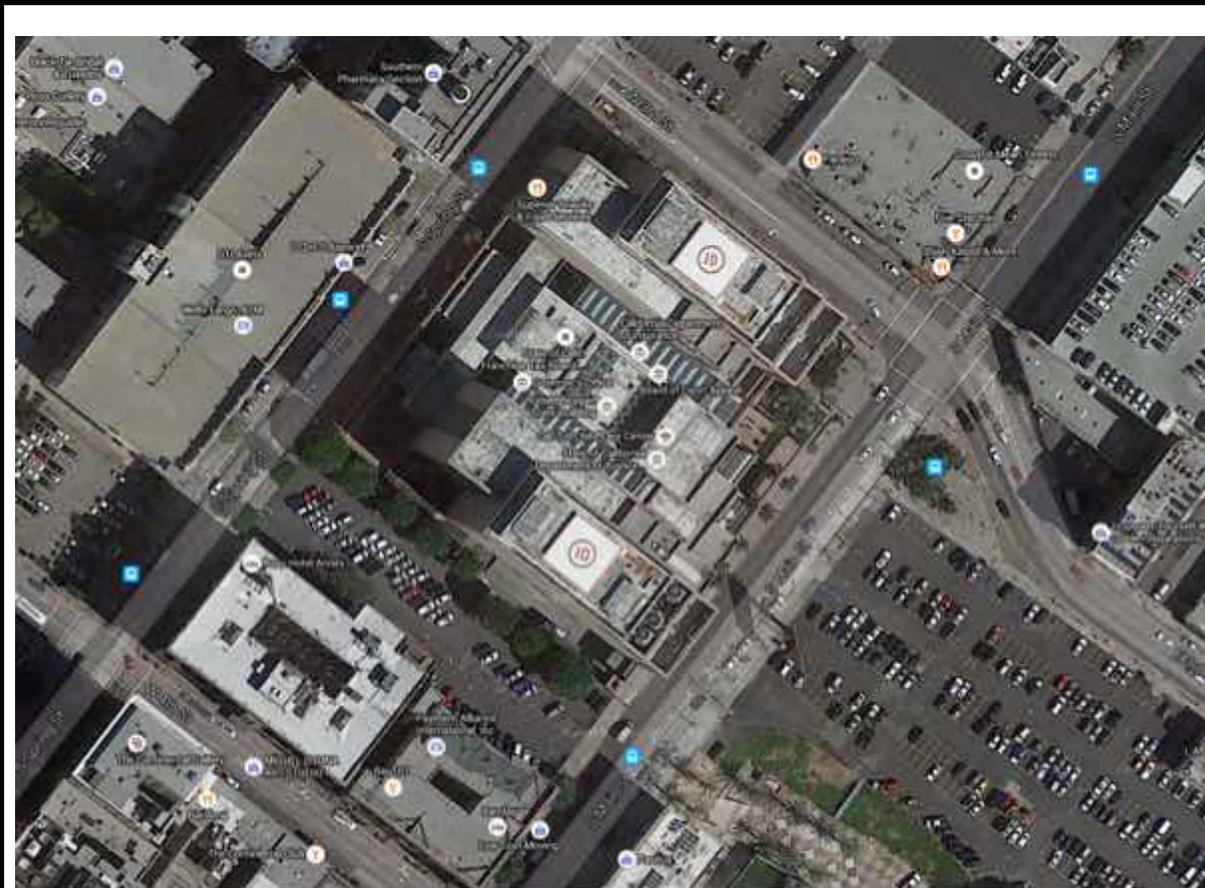
* - Present Value Currency

Footnotes

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

Current Repl.Value \$521,745,188

APPENDIX H: SUPPORTING DOCUMENTATION



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

Project Number:
11132614R-047.305
Project Name:
Ronald Reagan State Building

On-Site Date:
March 10, 2015

Estimate of Structures Cost Using Marshall Cost Systems

Ronald Reagan State Building

Site Calculation

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

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

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

Estimate of Structure Cost :

| Building Type | Cost per SF | Number of SF | Building Type Total |
|---------------------|-------------|----------------|----------------------|
| Main Building | \$496.82 | 782,546 | \$388,786,847 |
| Underground Parking | \$182.48 | 156,783 | \$28,609,303 |
| | \$0.00 | 0 | \$0 |
| | \$0.00 | 0 | \$0 |
| | \$0.00 | 0 | \$0 |
| Total | | 939,329 | \$417,396,151 |

Estimate of Adjustments for Fees:

| Description | % increase | |
|---|------------|---------------|
| Soft Costs Office Bldg | 25.00% | |
| Soft Costs Underground Pkg | 25.00% | |
| | 0.00% | |
| | | |
| | | |
| Total Fees/ Interest included in Marshall System | | 25.00% |

Total Structure Estimate:

| Description | Unit | Fee Adjust | Adjusted Totals |
|--------------------|-----------------|-----------------------|----------------------|
| Main Building | \$388,786,847 | 25.00% | \$485,983,559 |
| | \$28,609,303 | 25.00% | \$35,761,629 |
| | \$0 | 25.00% | \$0 |
| | \$0 | 25.00% | \$0 |
| | \$0 | 25.00% | \$0 |
| Cost Per SF | \$555.44 | Total Estimate | \$521,745,188 |

| 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 ARCHITECTURAL 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: Raul Alegria

Building name: Ronald Reagan State Building (509)

What is your association with this property? 300 So. Spring St.

What is the length of your association with this property? 1.5 years

Phone number: 213-897-2241

Please provide information about inspections relating to the following items

| Inspections | Date Last Inspected | List Name & Contact for Maintenance Contractor, if any. |
|---|---------------------|---|
| 1. Elevators | Nov, 2014 | Fujitec and DGS inspectors |
| 2. HVAC, Mechanical, Electric, Plumbing | Oct, 2014 | Johnson Controls and Robert Tomlinson P.E |
| 3. Life-Safety/Fire | Dec, 2014 | Building Secure Innovations |
| 4. Roofs | 2012 | E-Shop 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?

Re-coat roofs, Phase one Carpet replacement, Tenant space 5-N, 6N, 14S, 15S, 16S. Phase 1 painting tenant space 5N, 6N, 14S, 15S, 16S. Window blind replacement phase III

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

The roofs are original and they are 24 years old.

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

Chillers, pumps CHW and CW. Cement side walks around the property. Roofing, Exterior Granite, and marble finish to the building.

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 | | | | In need of REG-4 fire testing |
| 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 | | | | self insurance |
| 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 | | | | Domestic Hot Water leaks from time to time through the building. Fire Sprinkler piping riser not as often as the domestic water |
| 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 | | | | in a vault and in various floors |
| 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 | | | | BPM/RESD/DGS |
| 38. Have any ADA or Title 24 improvements been made to the property? | x | | | | GROUND FLOOR REST ROOM |
| 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 | | | | ARE ELEVATORS ARE 24 YEARS OLD AND ARE OF NEED OF REPLACEMENT. OUR ELEVATORS ARE OUT DATED. |
| 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



Elevator Assessment

**Building 509 – Ronald Reagan State Building
300 Spring St.
Los Angeles, CA**

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Appendix A – Elevator Equipment Summary

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

| Bank/Elevator Description | Elevator Number | Speed | Capacity | Floors Served | Date of Original Install | Date of Last Mod | Next Mod Due | Elevator Type | Machine/ Power Unit Manuf. | Motor Control | Control Manuf. | Door Size/ Style | Door Equip. Manuf. |
|--|-----------------|---------|--------------|-----------------|--------------------------|------------------|--------------|----------------------------|----------------------------|---------------|----------------|-------------------------|--------------------|
| Elevators 1-3 (Group – ID# 94431-94433) | 1 | 350 fpm | 3,500 pounds | G, 2-5 | 1990 | N/A | 1-2 years | Overhead Geared Traction | Dover | Generator | Dover | 48”x 96” Center Opening | Dover |
| | 2 | 350 fpm | 3,500 pounds | G, 2-5 | 1990 | N/A | 1-2 years | Overhead Geared Traction | Dover | Generator | Dover | 48”x 96” Center Opening | Dover |
| | 3 | 350 fpm | 3,500 pounds | G, 2-5 | 1990 | N/A | 1-2 years | Overhead Geared Traction | Dover | Generator | Dover | 48”x 96” Center Opening | Dover |
| Elevators 4-8 (Group – ID# 94434-94438) | 4 | 500 fpm | 3,500 pounds | G, 2-16 | 1990 | N/A | 1-2 years | Overhead Gearless Traction | Dover | Generator | Dover | 48”x 96” Center Opening | Dover |
| | 5 | 500 fpm | 3,500 pounds | G, 2-16 | 1990 | N/A | 1-2 years | Overhead Gearless Traction | Dover | Generator | Dover | 48”x 96” Center Opening | Dover |
| | 6 | 500 fpm | 3,500 pounds | G, 2-16 | 1990 | N/A | 1-2 years | Overhead Gearless Traction | Dover | Generator | Dover | 48”x 96” Center Opening | Dover |
| | 7 | 500 fpm | 3,500 pounds | G, 2-16 | 1990 | N/A | 1-2 years | Overhead Gearless Traction | Dover | Generator | Dover | 48”x 96” Center Opening | Dover |
| | 8 | 500 fpm | 3,500 pounds | G, 2-16 | 1990 | N/A | 1-2 years | Overhead Gearless Traction | Dover | Generator | Dover | 48”x 96” Center Opening | Dover |
| Elevator 9 (Simplex – ID# 93699) | 9 | 350 fpm | 4,000 pounds | P2, P1, G, 2-16 | 1990 | N/A | 1-2 years | Overhead Geared Traction | Dover | Generator | Dover | 48”x 96” Side Opening | Dover |
| Elevators 10-12 (Group – ID# 94440-94442) | 10 | 350 fpm | 3,500 pounds | G, 2-5 | 1990 | N/A | 1-2 years | Overhead Geared Traction | Dover | Generator | Dover | 48”x 84” Center Opening | Dover |
| | 11 | 350 fpm | 3,500 pounds | G, 2-5 | 1990 | N/A | 1-2 years | Overhead Geared Traction | Dover | Generator | Dover | 48”x 84” Center Opening | Dover |
| | 12 | 350 fpm | 3,500 pounds | G, 2-5 | 1990 | N/A | 1-2 years | Overhead Geared Traction | Dover | Generator | Dover | 48”x 84” Center Opening | Dover |
| Elevators 13-16 (Group – ID# 94443-94446) | 13 | 500 fpm | 3,500 pounds | G, 2-13 | 1990 | N/A | 1-2 years | Overhead Gearless Traction | Dover | Generator | Dover | 48”x 84” Center Opening | Dover |
| | 14 | 500 fpm | 3,500 pounds | G, 2-13 | 1990 | N/A | 1-2 years | Overhead Gearless Traction | Dover | Generator | Dover | 48”x 84” Center Opening | Dover |
| | 15 | 500 fpm | 3,500 pounds | G, 2-13 | 1990 | N/A | 1-2 years | Overhead Gearless Traction | Dover | Generator | Dover | 48”x 84” Center Opening | Dover |
| | 16 | 500 fpm | 3,500 pounds | G, 2-13 | 1990 | N/A | 1-2 years | Overhead Gearless Traction | Dover | Generator | Dover | 48”x 84” Center Opening | Dover |

Appendix A – Elevator Equipment Summary - Continued

| Bank/Elevator Description | Elevator Number | Speed | Capacity | Floors Served | Date of Original Install | Date of Last Mod | Next Mod Due | Elevator Type | Machine/Power Unit Manuf. | Motor Control | Control Manuf. | Door Size/Style | Door Equip. Manuf. |
|-----------------------------------|-----------------|---------|--------------|---------------------------|--------------------------|------------------|--------------|--------------------------|---------------------------|---------------|----------------|--------------------------|--------------------|
| Elevator 17 (Simplex – ID# 93723) | 17 | 350 fpm | 4,000 pounds | G, 2-13 | 1990 | N/A | 1-2 years | Overhead Geared Traction | Dover | Generator | Dover | 48" x 96" Side Opening | Dover |
| Elevator 18 (Simplex – ID# 94448) | 18 | 100 fpm | 3,500 pounds | G, P1, P2 | 1990 | N/A | 1-2 years | Inground Hydraulic | Dover | EM Starter | Dover | 42" x 84" Center Opening | Dover |
| Elevator 19 (Simplex – ID# 94449) | 19 | 125 fpm | 3,500 pounds | P1(F), 2(R) | 1990 | N/A | 1-2 years | Inground Hydraulic | Dover | EM Starter | Dover | 42" x 84" Center Opening | Dover |
| Elevator 20 (Simplex – ID# 94450) | 20 | 300 fpm | 3,000 pounds | P1, G, 2, 3 | 1990 | N/A | 1-2 years | Basement Geared Traction | Dover | Generator | Dover | 42" x 84" Center Opening | Dover |
| Elevator 21 (Simplex – ID# 99055) | 21 | 40 fpm | 700 pounds | Ground to Projection Room | 1990 | N/A | 1-2 years | Geared Traction | Sedgwick | AC | Sedgwick | 36" x 84" Gate | Manual |
| Stair Lift (Simplex – ID# 147802) | SL | 8 fpm | Unknown | Behind Courtroom | 1990 | N/A | 12-15 years | Stairlift | Garaventa | N/A | Garaventa | N/A | N/A |

Appendix A – Elevator Equipment Summary - Continued

| Elevator Number | State Inspection Date | State Inspection Status | 5-Year Test Date | 5-Year Test Status | Annual Test Date | Annual Test Status | Fire Service Testing Logs | Machine Room Maintenance Logs | Overall Level of Maintenance | Modernization Priority |
|-----------------|-----------------------|-------------------------|------------------|--------------------|------------------|--------------------|---------------------------|-------------------------------|------------------------------|------------------------|
| 1 | 3/2014 | Expiring | Not Required | Not Required | Not Required | Not Required | None | None | Average | High |
| 2 | 3/2014 | Expiring | Not Required | Not Required | Not Required | Not Required | None | None | Average | High |
| 3 | 3/2014 | Expiring | Not Required | Not Required | Not Required | Not Required | None | None | Average | High |
| 4 | 3/2014 | Expiring | Not Required | Not Required | Not Required | Not Required | None | None | Average | High |
| 5 | 3/2014 | Expiring | Not Required | Not Required | Not Required | Not Required | None | None | Average | High |
| 6 | 3/2014 | Expiring | Not Required | Not Required | Not Required | Not Required | None | None | Average | High |
| 7 | 3/2014 | Expiring | Not Required | Not Required | Not Required | Not Required | None | None | Average | High |
| 8 | 3/2014 | Expiring | Not Required | Not Required | Not Required | Not Required | None | None | Average | High |
| 9 | 3/2014 | Expiring | Not Required | Not Required | Not Required | Not Required | None | None | Average | High |
| 10 | 3/2014 | Expiring | Not Required | Not Required | Not Required | Not Required | None | None | Average | High |
| 11 | 3/2014 | Expiring | Not Required | Not Required | Not Required | Not Required | None | None | Average | High |
| 12 | 3/2014 | Expiring | Not Required | Not Required | Not Required | Not Required | None | None | Average | High |
| 13 | 3/2014 | Expiring | Not Required | Not Required | Not Required | Not Required | None | None | Average | High |
| 14 | 3/2014 | Expiring | Not Required | Not Required | Not Required | Not Required | None | None | Average | High |
| 15 | 3/2014 | Expiring | Not Required | Not Required | Not Required | Not Required | None | None | Average | High |
| 16 | 3/2014 | Expiring | Not Required | Not Required | Not Required | Not Required | None | None | Average | High |
| 17 | 3/2014 | Expiring | Not Required | Not Required | Not Required | Not Required | None | None | Average | High |
| 18 | 3/2014 | Expiring | 9/2009 | Past Due | Not Required | Not Required | None | None | Average | High |
| 19 | 3/2014 | Expiring | 8/2009 | Past Due | Not Required | Not Required | None | None | Average | High |
| 20 | 3/2014 | Expiring | Not Required | Not Required | Not Required | Not Required | None | None | Average | High |
| 21 | 3/2014 | Expiring | Not Required | Not Required | Not Required | Not Required | None | None | Average | High |

Appendix B – Repair Items

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

| Building 509 – Ronald Reagan State Building | | | | |
|--|--|-----------------------|---|-----------------|
| Current Items | | | These Columns For Use by Contractor and in Future ECA Visits | |
| Item # | Item Description | Units Affected | Item Complete | Comments |
| 1 | Seal leaks on drive sheaves | 1-3 | | |
| 2 | Repair/replace machine bearings | 6, 8, 9 | | |
| 3 | Seal machine leaks | 10-12 | | |
| 4 | Repair bad motor bearing | 13 | | |
| 5 | Hoist ropes deep in sheave grooves – regroove sheave | 15, 17 | | |
| 6 | Change packing | 18 | | |
| 7 | Repair grease seal on main drive sheave | 20 | | |

Appendix C – Maintenance Corrections

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

| Building 509 – Ronald Reagan State Building | | | | |
|--|---|-----------------------|---|-----------------|
| Current Items | | | These Columns For Use by Contractor and in Future ECA Visits | |
| Item # | Item Description | Units Affected | Item Complete | Comments |
| 1 | Provide fire service testing logs in machine room | All | | |
| 2 | Service brakes | 1-3, 9-12, 17 | | |
| 3 | Governor ropes rouged – monitor for replacement | 1-8 | | |
| 4 | Clear car tops | All | | |
| 5 | Monitor door operator belts for replacement | 1-3, 10-12 | | |
| 6 | Clean and service governors | 1-8 | | |
| 7 | Clean machine room, equipment, and floor | 4-9, 13-16, 18 | | |
| 8 | Replace fan in controller | 6 | | |
| 9 | Clean carbon from generator endbell | 4-8 | | |
| 10 | Monitor burn marks on commutator | 8, 15, 16 | | |
| 11 | Clean door operator and belts | 4-8 | | |
| 12 | Clean 2:1 sheave | 4-8 | | |
| 13 | Grease from car tops getting on hall sills – clean immediately | 4-8 | | |
| 14 | Coating coming off of comp flex – correct condition | 7, 9 | | |
| 15 | Clean pits | 4-9, 13-16, 19, 20 | | |
| 16 | Monitor slight machine leaks | 9, 17 | | |
| 17 | Clean machine | 9 | | |
| 18 | Replace bezel on fire service keyswitch in car | 4-9 | | |
| 19 | Doors close at full speed on nudging – make doors close at reduced speed and torque | 13-16 | | |
| 20 | Brake drum surface worn – correct condition | 17 | | |
| 21 | Verify date of last battery lowering test | 18 | | |
| 22 | Monitor oil leaks from valve fitting | 18 | | |
| 23 | Explain why controller is wired open | 18 | | |
| 24 | Pit can full | 18 | | |

Appendix D – Owner’s Maintenance Items

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

Sean Colgan: 916-337-3572 – sean.colgan@elevatorconsultingassociates.com

Matt Ensley: 213-247-8992 – matt.ensley@elevatorconsultingassociates.com

| Building 509 – Ronald Reagan State Building | | | | |
|--|--|-----------------------|---|-----------------|
| Current Items | | | These Columns For Use by University and in Future ECA Visits | |
| Item # | Item Description | Units Affected | Item Complete | Comments |
| 1 | Properly label machine room door – “Elevator Equipment Room – Authorized Personnel Only” | All | | |

Appendix E – Modernization Recommendation

It is commonly held in the industry that elevator equipment should be modernized every 20-25 years. While this is a valid generalization, the actual time for modernization can vary greatly from property to property, depending on the type of equipment installed, its age, the level of usage, etc. In this case, your equipment was installed in 1990 (25 years ago). The elevator controls are by Dover Elevator, which was purchased by ThyssenKrupp years ago. The controls are getting harder to maintain, troubleshoot, and repair, and generally tend to become more problematic with age. These types of controls have been very actively modernized throughout California for the past 5 years or more. As these elevators are already at the outside of the typical modernization window, and since the controls are reaching the time when serviceability will be quite challenging, we do recommend scheduling the modernization of all elevators in the next 1-2 years. Note that the stair climber by the courtroom should not require modernization for quite some time, and is not included in our budgets.

The following table shows the scope of the modernization based on our current observations. Note that the scope may change slightly by the time the elevators are modernized based on the condition of the equipment at that time, changes in code or ADA, etc.

| Elevator Modernization Plan | | |
|---|--------------------|---|
| Item | Elevator(s) | Action |
| Elevator Control | All | New Solid State |
| Motor Control (Drive) | Traction | New AC |
| Solid State Starter | Hydraulic | New |
| Dispatching | New | Standard |
| Battery Lowering Operation | Hydraulic | New |
| Traction Machine | Traction | Refurbish |
| Secondary/Deflector Sheaves | Traction | Refurbish |
| Hoist Motor | Traction | New |
| Power Unit | Hydraulic | New |
| Governor | Traction | Refurbish |
| Hoist Ropes | Traction | Replace only if needed due to measured size |
| Car Safety | Traction | Retain |
| Load Weighing Operation | Traction | New |
| Car Button Station | All | New |
| Car Position Indicator | All | New |
| In-Car Communication (ADA Phone) | All | New |
| Car/Hall Lanterns | All | New |
| Hall Button Stations | All | New |
| Alarm Bells | All | New |
| Hoistway Limits | All | New |
| Wiring | All | New |

| | | |
|--|-----------|-------------------------|
| Car Guides | All | Refurbish |
| Counterweight Guides | Traction | Refurbish |
| Counterweight | Traction | Retain |
| Guide Rails | All | Retain |
| Door Operation | All | New Closed Loop |
| Car and Hall Door Equipment | All | New/Refurbish as needed |
| Door Restrictor | All | New |
| Door Detector Edge | All | New |
| Pit Switch | All | New |
| Pit Springs/Buffers | All | Retain |
| Piston and Casing | Hydraulic | Retain |
| Earthquake Operation | Traction | New |
| Protection Against Ascending Car Overspeed and Unintended Car Movement (Rope Gripper) | Traction | New |
| Compliance with then-current elevator code | All | Included |
| Compliance with ADA | All | Included |
| Cab Interiors | All | Optional |

The modernization breakdown is as follows:

- Elevators 1-3: \$200,000 per elevator, \$600,000 total
- Elevators 4-8: \$250,000 per elevator, \$1,250,000 total
- Elevator 9: \$225,000
- Elevators 10-12: \$200,000 per elevator, \$600,000 total
- Elevators 13-16: \$250,000 per elevator, \$1,000,000 total
- Elevator 17: \$225,000
- Elevator 18: \$100,000
- Elevator 19: \$100,000
- Elevator 20: \$200,000
- Elevator 21: \$75,000

The total recommended budget for the elevator portion of this modernization without cab interiors is \$4,375,000. If you choose to refurbish the cab interiors (floors, side and back walls and ceiling), we would recommend a budget of \$500,000, which does not include any budget for elevator 21. This budget assumes fairly standard finishes for the cab interiors. If you feel that you may want custom or “better than average” cabs, you may wish to add a contingency of 20% to this budget.

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

Not included in the above is work by other trades. When an elevator modernization occurs, it often precipitates the requirement for work in other related areas, either due to code changes since installation, different requirements for the new control systems, desired changes in look of the systems, etc. The most common required work is electrical work (new or modified disconnects in the machine room, increase in lighting, etc.), fire and life safety work (addition of smoke detectors in elevator areas, addition or removal of sprinklers, etc.), general contracting (modifications for access to machine areas, cutting and patching for new fixtures, etc.) and potentially other areas. It is difficult for ECA to provide accurate budgets at this time, as our expertise is in the area of elevators and not necessarily in these other areas. However, we can estimate in this case that the required work by other trades will be roughly \$300,000. We think this is a fairly conservative estimate and, combined with our other budgets should provide you a placeholder to allocate the proper funds (we don't want this work to be a surprise for you down the road).

Finally, as the State typically employs an elevator consultant for assistance with elevator modernization projects, we would recommend adding \$100,000 to the budget for that purpose.

The total budget for the recommended modernization project is \$4,775,000. This includes the elevator contractor's portion of the work, work by other trades, and elevator consulting. It does not include cab interior refurbishment, which would add \$500,000 to the total project cost.

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



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