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State Office Building and Parking Deck Preservation, Restoration and Repairs Predesign **FINAL DRAFT** 

21 Dec 2012

Updated 19 April 2013 - Predesign Addendum 1

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Volume 1

# **CERTIFICATION SIGNATURES**

Due to the complexities involved in major capital undertakings, State Agencies and local government units that are undertaking or sponsoring a Predesign are encouraged to retain the experience of an Architectural Design firm to assist in the process. This expertise will provide overall coordination and interpretation of information for translation into the full scope and cost of a project.

The effort and cost to prepare a predesign for a project can vary depending upon the project needs and the expertise required; for instance, if a Cost Benefit Analysis is needed, the Architectural Design firm will need to bring on a financial consultant. Depending on the type of project, other specialty consultants may be needed such as a Bio-hazard laboratory design, Maximum Security Prison systems, Data Center Tier Level design, Historical, or Food Service.

When the final predesign document is submitted to the Commissioner of Administration, the signature of the licensed architect should accompany the document.

hereby certify that this repo	ort was prepared by me	or under my direct supervision and the
I am a duly registered	ARCHITECT	under the laws of the state of
	Minnesota	
Allamen	un la	
111	S. 1997. 199	

# **PREDESIGN CHECKLIST** - continued

Complete this checklist, sign, and submit with the predesign document.

Complete	N/A	
		1. Review the Contents of a Predesign Submittal in the State's Predesign Manual.
		<ul> <li>2. Structure the format of your Predesign submittal to contain the Components of Predesign. Include component tabs to readily identify and access each component. The components are: <ul> <li>a. Predesign Summary Statement</li> <li>b. Basis for Need – Project Background</li> <li>c. Agency/Organization Planning</li> <li>d. Project Description</li> <li>1. Architectural/Engineering Program</li> <li>2. Precedent Studies</li> <li>3. Technology Plan</li> <li>4. Sustainability, Energy Conservation, and Carbon Emissions</li> <li>5. Operations and Maintenance Requirements</li> <li>6. Statute Requirements</li> <li>7. Specialty Requirements</li> <li>8. Project Procurement and Delivery</li> <li>e. Site Analysis and Selection</li> <li>f. Financial Information</li> </ul> </li> </ul>
		3. Work with the user agency to develop a Section $1 - Predesign$ Summary Statement. The executive summary is a brief, two or three paragraph, and description of the project. Below the description, provide a tabulation of the total square footage, total construction cost and total project cost. For projects that are using matching grants or funding from other sources, indicate the amount of state funding that is being requested (or that was received).
		<b>4.</b> For the Section 1 Predesign Summary Statement: Complete the "Building/Project Data Sheet" to tabulate the pertinent data upon which the cost estimates are based. Include this sheet as a second page to the Section 1 – Predesign Summary Statement.
K		5. For the Section 1 Predesign Summary Statement: If the project involves remodeling of an existing building, use the "Building Audit Sheet" to perform an audit/survey of the building's major components, systems and their conditions. Use and amend the "Building/Project Data Sheet" to indicate the scope of work for the proposed project. Insert behind the Summary Statement.
<b>团</b>		6. For the Section 2 Basis For Need-Project Background: Gather the Section 3 planning information from the Agency/Organization and synthesize it into the format shown in the Section 2A Example. Detailing the Mission, Strategic Plan, Operational Plan and Basis for Need for the project. At the back of this include any additional background information on the project from your work with the agency.

# PREDESIGN - continued Complete N/A

		7. For the Section 2 Basis For Need-Project Background: Verify that the scope of the predesign complies with the language of the appropriation. (For projects that have already received a legislative appropriation).
2		<ul> <li>8. For the Section 3 Agency/Organization Planning: This Section supports the Basis for Need–Project Background. Obtain the following from the user agency/organization: <ul> <li>a. Planning documents such as org charts, mission statement,</li> <li>b. Strategic plan, and</li> <li>c. Operational plan for the project.</li> </ul> </li> <li>This information would include any supporting data, analysis or studies which support the proposed project and demonstrates the need for the project by linking it to the agency's mission, strategic and operational plans; which, in turn were used to prepare Section 2.</li> </ul>
		<b>9.</b> For the Section 3 Agency/Organization Planning: Included are a list and narrative regarding the stakeholders involved and affected by the project (i.e. other agencies, organizations, and entities). Also included are issues that remain to be resolved among stakeholders along with budget and schedule impacts upon the project.
R		<b>10.</b> For the <i>Section 3 Agency/Organization Planning:</i> Impacts on Operations, Budget and Facility Staff are detailed.
		11. For the Section 4.A Architectural /Engineering Program: (For State Agency projects) Obtain and coordinate space planning standards with the Department of Administration. Focus on job related functional needs and the State's Space Guidelines when developing the square foot areas of spaces. (Space Guidelines are located at <u>www.admin.state.mn.us/recs</u> ). Include a review sign-off from The Department of Administration's Real Estate and Construction Services Division.
E.		<ul> <li>12. Work with the user/owner to develop the Section 4.A Architectural/Engineering Program. Employ a participatory programming methodology similar to the example) to analyze operations and activities to discover a more efficient and habitable environment.</li> <li>a. Your methodology should consider Post-Occupancy Evaluation (POE). (POE determines how well the project and its systems met the client's needs and serve the client's operation).</li> </ul>
X		<b>13.</b> For the Section 4.A Architectural/Engineering Program.: Complete the Space Needs Inventory sheet for each room of the project. Include these sheets in the predesign document. The Space Needs sheet should also identify special Mechanical or Electrical needs or upgrades for the space. For instance, you would state the need for special humidification for wood instrument storage in a music classroom.
X	П	14. For the Section 4.A Architectural/Engineering Program.: Prepare and include a

detailed architectural space program with a Table of Spaces and their respective areas (square footages) with a total of assignable and gross square feet.

- ☑ □ 15. For the Section 4.A Architectural/Engineering Program.: Provide adjacency diagrams of all spaces and a diagrammatic/conceptual layout of spaces. Superimpose these diagrams onto the Site Plan to show building/site fit and site relationships.
- ☑ □ 16. For the Section 4.A Architectural/Engineering Program.: On state agency projects, identify potential MINNCOR Industries www.minncor.com and Minnesota State Industries products <u>http://stateindustries.org</u> for the project.
- Image: Image: DescriptionImage: Image: I
- Image: Section 4.A Architectural/Engineering Program. Develop the Furniture, Fixtures and Equipment (FF&E) needs and include the associated costs as a line item in the project cost estimate. Consider Interior/Exterior Signage Exterior landscaping and fixtures, Telecommunication devices, Security Camera System, Lockers, Trash compactor, Window washing equipment, phasing costs, and Moving costs. Note: moving costs are not bondable.
- 19. For Section 4.B Precedent Studies: Research the project. Visit similar building types and include precedent projects into the predesign document and how the precedent affects the proposed project. Include information on the facilities (name, location, size, design features); Then indicate any features that will be incorporated into the proposed project. Special attention should be paid to design features that result in efficiency of program operations and ability to reduce long term operating costs.
- 20. For the Section 4.C Technology Program (for State Agency Projects): Identify and document the technology needs for the project. Develop a Technology Plan for the project using the State's Office of Enterprise Technology (OET) guidelines ("Building Infrastructure Guidelines for State Owned Buildings") located at: www.admin.state.mn.us/recs. Reference and include the "Building Infrastructure Guidelines for State Owned Buildings" in the Predesign document.
- ☑ □ 21. For the Section 4.C Technology Program (for State Agency Projects): Forward the Technology Plan to the State's Office of Enterprise Technology (OET) for review; and obtain a written letter from OET regarding the Technology Plan for the proposed project. Incorporate any changes requested by OET.
- X

 22. For the Section 4.D Sustainability, Energy Conservation and Carbon Emissions: In accordance with Minnesota Statute §16B.235 identify Sustainable and High Performance goals for the project using "*The State of Minnesota Sustainable Building Guidelines*" at <u>http://www.msbg.umn.edu</u>. Include a summary table of goals & strategies. Also include the B3-MSBG project submittal report for the PredesignPhase that is generated by use of the B3-MSBG Tracking Tool at <u>http://www.msbgtracking.com</u>. This requirement applies when the project is new building, addition, or major renovation. See the Applicability rules at the B3-MSBG website.

X

**23.** For the Section 4.D Sustainability, Energy Conservation and Carbon Emissions: Include a table of strategies to comply with Sustainable Building (SB) 2030 requirements. For SB2030 requirements, see: http://www.mn2030.umn.edu

- 24. For the Section 4.D Sustainability, Energy Conservation and Carbon Emissions: In accordance with MN Statute § 16B.32, identify alternative energy uses and associated systems. This applies to a new building or for a renovation of 50 percent or more of an existing building or its energy systems. Anticipate future designs which use active and passive solar energy systems, earth sheltered construction, and other alternative energy sources where feasible.
- ☑ □ 25. For the Section 4.D Sustainability, Energy Conservation and Carbon Emissions When the project is for a State Agency, provide a written analysis for including alternative energy (wind and/or solar) sources to provide 2% of the proposed building's energy consumption. An example of an analysis is located at: www.admin.state.mn.us/recs
- ☑ □ 26. For the Section 4.D Sustainability, Energy Conservation and Carbon Emissions: Provide a written plan in the predesign to consider providing Geothermal and Solar Energy Heating & Cooling Systems on new or replacement HVAC systems. Develop and submit a written plan in the Predesign document, for compliance with MN Statute 16B.326 to give preference to and to review and study geothermal heating and cooling systems. An example of an analysis is located at: www.admin.state.mn.us/recs
- 27. For the Section 4.D Sustainability, Energy Conservation and Carbon Emissions: Include a narrative for the requirement that the project specifications are to include requirements for the contractor to provide and submit a "Waste Management and Recycling Program Plan" for both demolition and construction
- Image: Section 4.D Sustainability, Energy Conservation and Carbon Emissions:Estimated yearly energy consumption and associated costs are included.
- ☑ □ 29. For the Section 4.E Operations and Maintenance Requirements: Conduct information gathering and program meetings with operations and maintenance staff. Document and include these needs into the predesign.
- Image: 30. For the Section 4.E Operations and Maintenance Requirements: For Projects located on the Capitol Complex, obtain "Plant Management Preferred Equipment

	<i>List"</i> , " <i>Capitol Complex Guidelines</i> ", and " <i>Signage Guidelines</i> ". (available at <u>www.admin.state.mn.us/recs</u> ). Include these documents in the Predesign document as instructions for the future design team.
	<b>31.</b> For the Section 4.F Statute Requirements: See Appendix 4c for statute requirements related to all projects receiving any amount of state funding. Include this table of requirements in the final predesign document for the project. (Instructions for the future design team).
3	<ul> <li>32. For the Section 4.F Statute Requirements,: Identify the statutory requirements for the project. These are to be included in the final Predesign Document.</li> <li>a. The statute that gives authority for the operational program that this Predesign is being undertaken for.</li> <li>b. Licensing requirements. (i.e. Department of Health, Dept of Education, etc).</li> <li>c. Design requirements (minimum room/window sizes, etc.)</li> <li>d. Operating Standards (required State, Federal, &amp; Industry standards)</li> <li>e. Federal Statutes/Laws/Requirements.</li> <li>f. Significant Building Code or land use requirements.</li> </ul>
	33. For the Section 4.F Statute Requirements: Include any federal design requirements or other mandated requirements.
	<b>34.</b> For Section 4.G Specialty Requirements: Review the need to conduct a security and/or vulnerability assessment for the project. Include the study in the predesign document along with associated costs.
	<b>35.</b> For Section 4.G Specialty Requirements: Include any unique requirements that are applicable to the specific project. i.e. performance requirements, unique testing requirements, environmental reports, assessments, impact statements, facility condition audits that may have been done, hazardous materials surveys, unique construction, restrictions.
	<b>36.</b> For Section 4.G Specialty Requirements: For projects that involve historic renovations, are within a historic district, or involve demo of a building(s) that is on the register of historic places and/or within a historic district, meet with the State Historic Preservation Office (SHPO) to determine requirements. Include all SHPO requirements in the predesign as well as all specialty consultants (historic preservationist, archeologist) required for the future design team.
M	<b>37.</b> For Section 4.H Project Procurement and Delivery: Provide a written statement and recommendation of the proposed construction delivery method to be used on the project. Include the reasons for this selection. Options include: Design-Bid-Build, Best Value, Construction Manager at Risk, Design-Build
	<b>38.</b> For the Section 5 Site Analysis and Selection: If a site has not been chosen for the proposed project, carry out a site analysis and recommendation process. The

recommended site(s) are to be based on the locations that best meet pre-identified site criteria. For State-owned buildings/State Agency projects, coordinate this effort with the Department of Administration, Real Estate and Construction Services.

Image: Signed state39. For the Section 5 Site Analysis and Selection: When locating or relocating or when proposing a new building or renovation, the Predesign Document must include an analysis of the agency's location(s) using "Criteria for Locating State Offices and Agencies" located at: <a href="http://www.admin.state.mn.us/recs">www.admin.state.mn.us/recs</a>

- □ ☑ 40. For the Section 5 Site Analysis and Selection: If the proposed project is a new building that will be in a campus setting (i.e. school, university, prison, extended care); review location options on the campus in regards to efficient operation and programs provided on the campus. (i.e. Agency masterplanning of a campus should occur in order to give direction as to future growth and organization Note: Masterplanning is not a bondable activity).
- □ 41. For the Section 5 Site Analysis and Selection: Verify if the project will be required to undergo a State Environmental Review. To determine this, go to: <u>http://www.eqb.state.mn.us/EnvRevGuidanceDocuments.htm</u>. If required the predesign will need to include all applicable information and direction to the future design team to provide assistance to the owner and responsible government unit in conducting an environmental assessment (EAW) and environmental impact statement (EIS).

Note: If the project includes federal dollars, determine the need to complete an Environmental Assessment in accordance with the National Environmental Protection Act (NEPA).

Include all applicable guidelines for EAWs and EISs into the predesign submittal document. And include required timelines in the project schedule.

- 42. For the Section 6 Financial Information: Compile the project costs using the Department of Minnesota Management and Budget's Capital Budget Request spreadsheet form (this form is included in this manual). Complete this form and include it in the submitted Predesign document.
- 43. For the Section 6 Financial Information: Compile the projected operating costs using the State Operating Costs form (this form is included in this manual). Complete this form and include it in the Predesign submittal document.
- Image: Section 44. For Section 6 Financial Information, review the Project Delivery Method (single prime, multiple prime, design/build ) for impact on the Cost Plan for the project.
- 45. For Section 6 Financial Information, include design fees for special consultants in the project costs (i.e. food service, acoustical, security, etc.).
- 46. For Section 6 Financial Information, verify existing utility infrastructures for adequate capacity needed to support the proposed building/facility or renovation. Incorporate costs for upgrades into the budget.

		<b>47.</b> For Section 6 Financial Information: If applicable and/or desired, include percent for Art in the project cost. Statute 16B.35 Subdivision 1 applies [up to 1% of the appropriation can be allocated to art in public buildings – Detention facilities and non-public buildings are exempt.]
X		<b>48.</b> For <i>Section 6 Financial Information</i> : Assist the user agency in identifying and incorporating contingency phasing and funding plans into the predesign to anticipate questions during legislative hearings.
	X	<b>49.</b> For <i>Section 6 Financial Information</i> : When the proposed project is for an existing Correctional Facility, obtain the contractor security requirements for the facility and include appropriate cost and schedule adjustments.
		<ul> <li>50. For Section 6 Financial Information: On major building projects, use the predesign to develop an options based strategy for the agency to use in approaching the governor and legislature when requesting funding. The predesign should anticipate possible questions by presenting options for varying scopes and costs. Examples are: <ol> <li>It may make sense to break out options (and costs) to spread the funding request out, over several capital bonding sessions.</li> <li>Phasing of the project</li> <li>Options for private funding or lease with option to own (legislative authority will be required for this option).</li> </ol> </li> <li>Options for a mix of private and public funding (legislative authority will be required for this option).</li> </ul>
		<b>51.</b> For <i>Section 6 Financial Information</i> : For renovations, a Facility Condition Assessment has been conducted on the existing building and associated upgrade costs are included in the estimate.
		<b>52.</b> For Section 6 Financial Information: Determine if there are any hazardous material/asbestos abatement clean-up costs, fuel tank removal and/or contaminated soils clean-up costs for the proposed project or site.
		<b>53.</b> For Section 6 Financial Information: The Life Cycle cost of the major building components and building as a whole has been performed and included in the predesign document. Show comparison costs of varying construction systems/components and their life span. Indicate the selected system that was used to prepare the cost estimates.
X		<b>54.</b> For <i>Section 6 Financial Information:</i> State's Design Guidelines were reviewed and associated costs accounted for.
X		<b>55.</b> For Section 7 Schedule Information: Develop a total project schedule (annotated bar chart) and include in the submittal document. Include time for

	hazardous material abatement, site clean-up, fuel tank removal and soils replacement costs, project schedule phasing time, relocation/move time, and any potential long-lead material deliveries.
8	<b>56.</b> For <i>Section 7 Schedule Information</i> : Include a quality control/coordination review and cost in the design budget. Indicate a minimum of 1.5 months in the schedule for this review.
	57. For State Agency projects: Complete the Technology Checklist
	<ul><li>58. This predesign document contains all the necessary requirements and costs for:</li><li>a. The owner to confidently pursue funding based on the cost estimates contained.</li></ul>
	<b>b.</b> The owner to structure their contract with a design firm as to the design scope of work and fee; and.
	c. The future design team all project requirements in order for the design firm to carry out the design.
2	<b>59.</b> Include the SIGNATURE sheet, with signature of the ARCHITECT (see page 1).

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# 1.1 Summary Statement

This Pre-Design is a comprehensive approach for the Preservation, Restoration and Repairs to the MN State Office Building and Parking Deck. The intent of the Pre-Design is to review the conditions and needs of the MN State Office Building and Parking Deck by identifying and prioritizing project scope items and their estimated costs in order to inform decision makers as to critical needs.

#### Scope Items

Many of the building components and control systems are beyond their rated life expectancy causing higher operating and repair costs and risking failure. The Pre-design reviewed all aspects of the building including; mechanical, electrical, lighting, fire alarm, sprinkler, exiting, security and exterior envelope. Although the building and parking deck are currently functional all aspects as noted above were found to be deficient and in need of upgrade or complete replacement. This conclusion is supported by the previous findings in the FCA completed by VFA, Inc. in 2011. The FCA called for replacement of systems 'in kind' however did not take into account where systems did not meet code or were functionally deficient. The Predesign expands on this and identifies and includes scope of work or scope items to fully integrate and improve the function of the building including improving the building envelope and systems to meet the required B3/SB2030 criteria.

Programmatic review of spaces was not included within the scope of this document. Each space was reviewed based on retaining its current use. The majority of mechanical and electrical changes can be accommodated within the space currently allocated other than the addition of approximately 200 SF reprogrammed or reallocated per floor for ventilation shafts and the any changes required for technology improvements. The overall program however should be reviewed prior to design and construction to address the overall functional efficiency of the building and specific programmatic needs of the users not currently addressed by the building or this document.

Project Cost S	Project Cost Summary – Interim Project				
Interim Project	The 'Interim Project' includes items that have been identified as the highest priority and allow the building to continue its use until the full project can be funded and executed.				
	Interim Project Work Scope				
	Security				
	Card Access to allow lock down/co	ontrol of building			
	Video Cameras     Life Safety				
	Upgrade exit hardware				
	Rate required exit corridors				
	Lighting				
	Improve task lighting over office an     Envelope	eas			
	<ul> <li>Insulate portion of roof adjacent to</li> </ul>	offices to an insulation	value of R64		
		Cost *	Duration **		
Construction	Total – All work to be completed off	\$1,296,000	5 months		
hours to allow	ongoing use of building	<b>*</b> = 00/0 <b>=</b>	Construction		
	Building area - 259,833 SF	\$5.00/SF	2 months		
			Documents		
	* Cost is represented in 2012 dollars an	d does not include esca	alation if work is		
	to be completed in future years				

Project Cost Summary – Full Project / Unoccupied					
Full Project Unoccupied	The 'Full Project' upgrades all aspects of the building related to mechanical, electrical, lighting, fire alarm, sprinkler, exiting, security and exterior envelope. It would require major demolition and ideally would be completed with the building unoccupied.				
Cost * Duration **					
Construction Total –		\$65,494,800	24 months Construction		
	Building area - 259,833 SF	\$252/SF	15 months		
			Design and		
			Documents		
* Cost is represented in 2012 dollars and does not include escalation if work is to be completed in future years					

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Project Cost Summary – Full Project / Occupied / Phased				
Full Project Occupied Phase 1 – Floors 5 & 6 and Roof	Phase 1 would complete the 5 <sup>th</sup> and 6 <sup>th</sup> mechanically from the rest of the building	floors as these floors o g.	an be isolated	
		Cost *	Duration	
Total Construc	tion - Phase 1	\$26,018,000	14 months Construction	
	Building area - 64,958 SF	\$400/SF	12 month	
			Design and	
			Documents	
Full Project Occupied Phase 2 – East half of exterior and Basement thru 4 <sup>th</sup>	Phase 2 would complete the east half of	the building.		
		Cost *	Duration	
Total Construc	tion – Phase 2	\$33,858,80	18 months	
	1		Construction	
	Building area - 94,437 SF	\$358/SF	8 months**	
			Design and	
			Documents	
Full Project Occupied Phase 3 – West half of exterior and Basement thru 4 <sup>th</sup>	Phase 3 would complete the west half of	the building.		
		Cost *	Duration	
	Total Construction - Phase 3	\$28,698,100	16 months Construction	
	Building area - 94,437 SF	\$304/SF	6 months** Design and Documents	
	** SD and DD completed in Phase 1			
	*Cost is represented in 2012 dollars and to be completed in future years	does not include escal	ation if work is	
Funding Source	28			

Future bonding cycle.

#### 1.2 Building Project Data Sheet

Name of Project: MN State Office Building and Parking Deck Preservation, Restoration and Repairs

Agency/Organization: MN Real Estate and Construction Services (RECS)

Building Location: 100 Reverend Dr. Martin Luther King Jr Drive St Paul, MN

Building Occupancy Type – Group B per 2009 IBC with secondary A-3 Assembly spaces Primary Space Types: Legislative offices, library, hearing and conference rooms, mechanical and storage for elected officials and staff of the Minnesota State Legislature majority of building utilized by House of Representatives Type 1B fully sprinklered per 2009 IBC Type of Construction: Building Size: Residence: Number of Stories: 8 floors plus penthouse Total Square Feet: 259,833 SF Site Size: 1 acre Parking: Tvpe: Concrete parking deck Number of Stalls: 390 Area of Parking: 140,000 SF Roofing Type and Condition: Flat Portion – EPDM membrane Sloped Portion – Ludiwici tile Exterior Wall: Solid masonry with stone exterior – good, repointed Interior Wall: See Room Inventory Table - Appendix E Structural System: Masonry bearing walls exterior, concrete floor and beams Hazardous Material Removal & Cost: There is no survey information at this time. An allowance is included in the estimates. A complete survey with updated estimate should be completed prior to proceeding with design. Mechanical System Type and Condition: See Appendix A Fire Protection Type and Condition: See Appendix A Electrical System Type and Condition: See Appendix A Technology System and Condition: See 4C Technology within body of document Costs: See Project/Cost Summary

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## 2.1 Background Summary

The MN State Office Building (MNSOB) was originally constructed in 1932 based on drawings created by State Architect Clarence Johnston. The original building was seven stories tall and although the original drawings show metal windows the building was constructed with wood double hung windows, confirmed via photo documentation. The original building was rectangular in shape with 2 internal court yards. The building remained seven stories until 1985 when two stories and rooftop HVAC penthouses were added and the internal courtyards infilled. Per construction documents from the 1985 addition the wood windows were removed and replaced with metal and all interior finishes were removed and replaced except for those in the main elevator lobbies and ground floor corridor.



## 2.2 Agency Mission

**Department of Administration:** To provide the best value in government administrative services.

We do this by emphasizing:

- **Customer Satisfaction**, serving our customers in a professional and ethical manner, producing valuable results;
- **Continuous Improvement**, reducing costs and cycle times, optimizing performance and delivering innovative business solutions at every opportunity; and
- Employee Engagement, enabling and encouraging all staff to help achieve our mission

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# 3 Agency Organization

The stakeholders involved to date are as follows:

#### <u>Senate</u>

Sven Lindquist

House of Representatives Troy Olson

<u>Governor's Staff</u> Sarah Hinde

**Revisors Office** 

Michele Timmons

#### Department of Administration, Real Estate and Construction Services (RECS) Glen Heino

# Plant Management

Chris Guevin Gordy Specht Jerry Larson Bruce Aune Howard Hiipakka Jim Aleckson Roger Thorsvik

#### Capitol Security

Captain Bob Meyerson

# <u>Design Team</u>

Miller Dunwiddie Architecture – John Mecum/Denita Lemmon LKPB Mechanical and Electrical Engineering – Peter Potvin MBJ Structural Engineering – Mike Ramerth Robert Rippe & Assoc Kitchen Consultant– Robert Rippe Faithful & Gould Construction Planning/Estimating– John Pidgeon Security Planning Consultants – James Johnson





21 Dec 2012



## 4A Project Description

In 2011, VFA, Inc. of Boston, Massachusetts was hired to complete a Facilities Condition Assessment for the State of Minnesota including the State Office Building and Parking Deck. The following major Issues were identified in the executive summary of the report:

- Inefficient and aged windows and skylights
- Nearly all plumbing systems, mechanical systems, air distribution systems and their associated control systems are beyond their useful life, causing higher operating and repair costs and risking shut down in the event of total system failure.
- Emergency power and light systems are all beyond rated life and may be inadequate in the event of emergency.

The process to complete this Predesign began by reviewing these issues and past plans to determine the full scope required to Preserve, Restore and Repair the State Office Building to continue its use as an office building to house Legislative officials and staff.

#### 4A.1 Understanding the Building - As Built

The State Office Building is solid concrete framing with stone veneer. The interior side of the exterior walls is constructed of clay tile and plaster. The 1985 renovation modified these walls by applying 2" of rigid insulation directly to the original plaster walls. The walls were finished with ½" painted gypsum board over the insulation. The result is that some areas of the exterior wall are solid interior to exterior with no air space and only 2" of insulation and other areas, particularly at the exterior piers have air space of up to 6".

The windows are metal frame casement windows with fixed transom in the 1932 portion and awnings in the 1985 addition. The windows are double pane insulated glass but the frames are not thermally broken. From the 1985 drawings it appears the wood frames were to remain. Additional investigation is required to determine if those are still intact and at a minimal could be used to determine the original profiles.

The 1985 addition of the upper floors is concrete block and metal framing with prefinished siding. The walls are insulated with batt insulation. There is no vapor barrier within concealed areas. The interior of the block is finished in plaster veneer directly to the block.

The renovation in 1985 was extensive in that all historic finishes excluding the decorative plaster ceilings in the elevator lobby were removed and reinstalled leaving very little if any of the building untouched. The finished spaces were constructed with hard fixed finishes. Individual offices have rigidly framed gypsum board ceilings and walls. The ceilings have decorative detailed gypsum board soffits housing light troughs that uplight the ceiling and conceal the insulated ducts. The open office areas have 2x2 lay-in tile ceilings with surrounding gypsum board soffits.

#### 4A.2 Understanding the Building - As Used

Visual observation as well as maintenance and occupant feedback helped the team to determine the overall and underlying condition of the building. The goal of the Predesign was not to assess the programmatic use of spaces so spaces were reviewed as currently used. The building is well maintained so many of the issues are very difficult to notice however the building has a number of deficiencies related to function above and beyond those identified by VFA related system life expectancy:

- There is ongoing maintenance related to the condensation of window and skylight systems
- Mechanical units are difficult to maintain and/or replace due to location.
  - Fan coil units within offices require access and maintenance within occupied office areas.
  - Units within interstitial space above the 5<sup>th</sup> floor require staff to work on their backs on trolleys supported on suspended catwalks.
  - Units within basement require access from one unit to the next via mechanical enclosure limiting access and ability to move tools and replacement parts.
  - Ductwork configuration limits clearance and access to doors for exiting and maintenance from mechanical areas.
- Mechanical system cannot be centrally controlled. Occupants can have heating and cooling units running at full capacity with the windows open or when spaces are not occupied.
- Mechanical comfort is varied throughout the building. Open office areas and areas on the upper floors have limited control. Heating is a particular concern as plug loads have been increased significantly by the use of unit heaters.
- Light levels in all areas are insufficient for use and code.
- Location of power supplies are inadequate or not efficiently located for program resulting in heavy use of extension cords in some areas.
- There are no secure areas within in the building or way to inform occupants if there was a risk other than fire.

#### 4A.3 Scope of Work/Cost Plan

The following pages include a full summary of the work scope as developed by the design team with input from Plant Management and Capitol Security. It does not address any programmatic use changes of individual spaces other than the changes needed for mechanical and electrical upgrades. Changes to programmatic use of other areas were not within the scope of this document.

The project areas included in the Scope of Work for the State Office Building and Parking Deck fall under or satisfy the following areas:

<u>Life Safety</u> – The buildings primary occupancy is classified as Group B with some secondary Group A-3 uses. There are a number of deficiencies as required by current code for these uses within this building.

<u>System/Building Maintenance</u> - Although the State Office Building has been well maintained there are physical conditions and equipment that are in need of upgrade that have passed their useful life. A number of these were identified in the VFA Facilities Condition Assessment. The design team used this document as a starting point to determine the best solutions for upgrade/replacement of these systems.

<u>Security</u> – As an office building for elected officials certain care needs to be given in creating a secure and safe environment. The team included a security specialist who worked closely with Capitol Security to determine the necessary measures.

<u>Sustainability</u> – Current funding criteria will require this project to meet B3/SB2030. This is a high standard based on exceeding a set 2004 benchmark of similar project types. It will be the basis to determine the modifications/improvement to the overall efficiency of the building envelope, .environment and mechanical systems.

## **Project Description**

The scope of work is also separated between an 'Interim' Project verses 'Full' Project. The 'Interim' Project includes items that have been identified as the highest priority and allow the building to continue its use until the 'Full' project can be funded and executed. The 'Full' Project upgrades all aspects of the building related to mechanical, electrical, lighting, fire alarm, sprinkler, exiting, security and exterior envelope. It would require major demolition and ideally would be completed with the building unoccupied. If phased to allow the building to remain occupied the work would be completed as follows: Phase 1 – Floors 5 & 6 and roof, Phase 2 – East half of exterior and Basement –  $4^{th}$  floor, Phase 3 – West half of exterior and Basement –  $5^{th}$  floor.

The following matrix identifies the work scope by these areas:

Life Safety			Compl	eted
				oject -
Deficiency	Description	Scope of Work	Interim	Full
Exiting - stairs	Exit stair head clearance is deficient	Request an exception to allow the existing clearance or remove and reconstruct entire stair shaft to accommodate reconfigured stair. Priced with exception as otherwise stairs are compliant and provide safe means of egress.		x
Exiting - stairs	Non-compliant handrails	Remove and replace existing handrails		Х
Exiting - Egress Path	Stairs discharge onto main level but not to exterior. Rated corridor is required.	Provide rated path of egress to exterior of building from exit stairs.	х	х
Exiting – Egress Doors	Door hardware does not provide egress along determined paths of travel	Modify the door hardware and as required doors to meet this requirement.	х	х
Exit lighting	Exit lighting does not meet illumination requirements	Provide code required frequency and level for exit lighting	Х	X
Sprinklers	Sprinkler spacing due to configuration/style of ceilings is deficient in 80% of building	Addition/correction of sprinkler head spacing and height requires complete reconfiguration of ceilings throughout building. Demolition and repair of ceilings would be more costly than complete removal and allows for installation of more flexible/efficient systems. Modifications to mains may be required as well to serve code complaint configuration.		×
Fire/Smoke Alarm	Updated within last 10 years. Placement of devices is not compliant with NFPA 72. Detection is missing in skylights. No mass notification is present.	Provide devices as required. Provide speakers, microphone and over ride. Upgrade control of dampers.		

Life Safety - 0	Continued		Compl with Pro	eted oject -
Deficiency	Description	Scope of Work	Interim	Full
Emergency Power	Generator and switches are adequate.	Replace emergency panels as required for building upgrade		х
	Modifications to building will require upgrade to panels.			
Fire Service	Water supply to	Remove and replace water supply main		
– Water Supply	to supply fire pump			X
Fire Pump	Fire pump is undersized	Remove and replace pump and assembly to meet code		Х
Pressurized Standpipe System	Current standpipes cannot accept the pressure required to supply height of building	Replace existing standpipes to provide high pressure standpipes		х

System Maintenance			Completed with Project -	
Deficiency	Description	Scope of Work	Interim	Full
Elevators				
Elevators 1-4	Elevators 1-4 were updated in 1995 however the machines, deflector sheaves and car slings are original. These systems are obsolete and inefficient.	Replace machines and sheaves and provide unintended movement device. Replace controls with regenerative drive system to allow energy produced from elevator to be sent back to the grid. Modify panel relief at hoistway door as required by code. Provide proper venting and energy efficient lighting in cabs. Replace buffers.		x
Elevator 5	Elevator was replaced in 1985. Controller was updated between 2007 and 2011 to provide fire service requirements only	Replace hoist motor and controls with VVVF. Provide regenerative drive system to allow energy produced from elevator to be sent back to the grid. Replace door locks, tracks and closers. Replace door operators. Replace wiring and hoistway switches. Update cab with proper venting and energy efficient lighting.		x
Elevator 6	Elevator 6 serves 6 <sup>th</sup> and 7 <sup>th</sup> floor. Original to 1985 addition with no updates.	Full modernization of equipment is required.		х
Elevator 7	Installed in 1960's. Cylinder recently replaced to meet code.	Elevator is extremely warn and requires replacement.		х
Lift	Screw lift serving Hearing Room	Unit is compliant. Use is cumbersome. Programmatic changes or reconfiguration of room could make unit obsolete.		х
Mechanical Sy	stems			
Air Handling Units	All units are beyond there useful life. Many units have access issues.	Remove AHU-S3, S4, S5, S6, S7, S8, S9, S10, S11, S12 and S13. Replace units AHU-S1, S2, S14 and S15. These 4 new units will serve entire building.		х
Air Distribution	Current duct system is lined which is no longer the industry standard related to air quality	Remove entire lined duct system. Removal of ducts similar to correction of sprinkler system will require removal of ceilings throughout the building.		х

System Maintenance - Continued			Completed with Project	
Deficiency	Description	Scope of Work	Interim	Full
Mechanical Systems - Continued				
Air Conditioning	VAV boxes are EOLE and have no ability to be controlled centrally. See fan coil below.	Install new VAV boxes with reheat coils to serve all spaces.		x
Chilled Water Service/ Distribution	Provided by District Energy St Paul. Chiller on site is used for peak loading. Heat exchangers are at the end of their life expectancy (EOLE).	Install new plate and frame heat exchangers. Revise water piping to serve chilled beams and roof mounted air handling units.		x
Chilled Water Fan Coils	Inefficient - systems located at perimeter wall in occupied spaces. Deficient capacity at several locations causing discomfort. EOLE – require continual maintenance	Remove fan coils. Install chilled water piping loop to serve chilled beams on each floor to provide sensible cooling to perimeter spaces and spaces with high variable cooling. Base cooling will be handled by VAV system.		х
Heating Water Service/ Distribution	Provided by District Energy St Paul. Heat exchangers are at the end of their life expectancy (EOLE).	Replace heat exchangers. Install new heating water risers and distribution. Install new unit heaters. Remove fan coil units and replace with fin tube radiation with individual control.		x
Temperature Control	System is outdated and central control does not have ability to optimize function or energy use.	Install new Direct Digital Control (DDC) system and Building Automation System (BAS) to allow improved efficiency and control.		Х
Parking Ramp Exhaust Fan	EOLE	Replace exhaust fans		х
Parking Ramp CO monitoring system	Nonfunctional	Replace CO monitoring system		x

System Maintenance - Continued			Completed with Project	
Deficiency	Description	Scope of Work	Interim	Full
Mechanical Sy	stems - Continued			
Domestic Water Supply	4" domestic water supply was installed in 1984	Test to determine condition. No scope included.		х
Domestic Water Heating	Heat exchange system is reaching end of its life expectancy	Replace plate and frame heat exchanger. Test piping. Revise recirculating system to improve efficiency.		х
Electrical				
Electrical Service	Branch circuit panels are undersized for load and circuit capacity of building	Replacement of circuit panels and capacity will require replacement of main electrical distribution equipment.		х
General Power	Distribution is inadequate in some areas – high use of extension cords	Power outlet distribution will be reviewed and upgraded per code and programmatic use		х
Electrical Lighting	Many areas do not have sufficient illumination for use	Replace all lighting as associated with need for illumination and removal of ceilings for mechanical distribution and sprinkler modifications.		х
Voice and Data	a			
Cable Management	Mixed circuits. Unused cables left throughout building.	Remove unused/obsolete cabling systems. Provide management system to separate use. Address programmatic issue of multiple user groups – not addressed within this study.		х
Data - bandwidth	Limited to 10Gbps of bandwidth	Provide adequate cabling for current standard at time of construction.		Х
Data - distribution	Single connections	Provide adequate data boxes as identified programmatically (not addressed within this study) with distributed distribution to allow for future flexibility.		х
Audio/Visual	1			
High definition video	Current system does not support HD-SDI. Cameras are EOLE	Replace system to meet current standards.		х
Tele - conferencing	No teleconferencing is available	Provide inputs to allow remote testimony.		х
Digital Signage	Analog signage	Add digital signage and integrate with audio visual head end equipment.		х

Building Maintenance			Completed with Project -	
Deficiency	Description	Scope of Work	Interim	, Full
See System Maintenance and Susta		inability for other items not listed here: mech	nanical an	d
electrical upgrades and insulation at walls and roof				
Windows	Non-thermally	Remove existing windows and frames.		
	broken frames	Per 1985 drawings wood frames may still		Х
	contributing to	be in place. Use existing frame		
	interior damage	information to match profile for		
	and energy loss	replacement aluminum, double hung		
		wood windows with simulated divided		
		lights to replicate original. Glazing will be		
		tripane or equivalent.		
Skylights	Non-thermally	Remove and replace existing skylights		
	broken frames	with thermally broken aluminum systems.		Х
	contributing to	Provide tripane or equivalent glazing –		
	interior damage	opacity to be determined by adjacent		
	and energy loss.	use.		
	Aged and			
	yellowing panels at			
	kalwal assemblies			
Masonry	Open mortar joints	Repoint approximately 10% of overall		
	between stone	exterior of building and parking deck.		Х
	units.	Repair terracotta at portico ceiling.		
	Damaged/missing	Replace missing elements.		
	terracotta			
	elements.			
Metal Rail	Finish on metal	Prep, paint and repair rail system at		Х
	rails of parking	perimeter of deck, all levels.		
	deck is failing			

Security			Completed with Project -	
Deficiency	Description	Scope of Work	Interim	Full
CCTV System	Limited distribution throughout building. No comprehensive monitoring. Cables are vulnerable.	Provide networked system with increased distribution. Conceal/secure camera supply.	х	Х
Building Access Control	Certain doors have card access but not all doors are on system.	Provide comprehensive system set up for zoning and overall building control.	х	х
CFA System	Tunnel and garage has some coverage but building is deficient	Provide comprehensive system and signing.		Х
Panic Buttons	Building as minimal coverage	Provide comprehensive system		Х
Air Intakes	Location at grade is a vulnerability	Systems/location to protect air intake will be addressed within mechanical scope.		Х
Mail Room HVAC	Mail room HVAC is connected to other locations of building	Provide segregated system.		х
Security Lighting	Location of exterior lighting	Overall coverage of lighting should be reviewed and improved.		Х
Shelter-In Place	There is not secure location within building identified	Determine programmatically which areas should be secured and determine extent of shelter needed.		Х

Sustainability			Completed with Project -		
Deficiency/ Opportunity	Description	Scope of Work	Interim	Full	
See System and window im	See System and Building Maintenance for items not listed here: mechanical systems, skylight and window improvements				
Solar Panels	Meet requirements for solar use	Provide 15KW solar panel system located on flat portion of roof.		Х	
Insulate roof	Current batt insulation does not provide adequate insulation or a vapor barrier to create comfortable and energy efficient office spaces. Current insulation is held in place with plastic and chicken wire in some areas.	Remove batt insulation. Provide continuous 9" 2-part spray applied insulation to underside of entire roof area. This will provide a vapor barrier and R64 insulation value. This work can be completed without impacting ongoing use of the building but will allow upper office to realize increased comfort of office space.	X		
Insulate walls	Current wall configuration has an average insulation value of R10 and no vapor barrier. Lack of vapor barrier has impacted anchor performance of masonry anchors. Drafts from walls impact occupants.	Add additional insulation to interior side of wall. Amount of increased insulation should be determined based on comprehensive energy model. Add vapor barrier at interior face of all exterior walls. Existing insulation and gypsum board can remain in place. Interior partition walls should be removed to allow vapor barrier to be installed continuously floor to ceiling across each side of building. This will limit moisture mitigation and condensation within exterior wall causing the anchor failure but will also mitigate cold air movement from the wall to the interior. The current air temperature at the interior face of the wall in the original portion of the building can only be maintained at 50 degrees on a 10 degree day. The insulation and vapor barrier will mitigate this to improve comfort of space.		X	

miller dunwiddie

### 4B Precedent Study

The Precedent Study reviewed seven actively used office buildings including some used for state or other government uses. The age of the buildings and amount of ongoing renovation varies greatly and points to the reality that each building has its own unique circumstances. There are is however some ideas that can be applied to the State Office Building found in each.

<u>Wainwright Building</u> – This building is State owned and was selected since it is a historic building that has undergone a prior major renovation. Since this renovation they have actively used and maintained the building however has had to complete additional exterior work. There are no immediate plans to additional work at this time. The renovation in 1975 was completed with the building unoccupied.

<u>Scranton State Office Building</u> – This building was selected since it also houses state offices but because it also represents the need for a building d to be updated to extend its useful life. The extent of the update included many items to improve energy efficiency and was not comprehensive however reflects an approximate duration of 32 years from construction to renovation. The State Office Building's first renovation extended 50 years and the second is needed after an additional 30 years.

<u>Ford House Office Building</u> - Also a government office building. This represents the extent and cost of window replacement.

<u>River Vue</u> – This is a unique example as it represents a state's decision to sell the building rather than renovate. There was much debate as to which decision would have the greatest cost. It was projected that relocation costs would outpace the cost of the renovation.

<u>Landers State Office Building</u> – Major renovation occurred on this building in 1975 when purchased by the state. Electrical upgrades were completed in 2005.

<u>State Office Building, Madison</u> – Building has undergone 2 additions and renovations as required to meet programmatic need. These occurred within 8 years of the original construction and then again in 20 years. The work completed in 2008 is similar as to that required on the State Office Building in 2002.

<u>Inland Steel Building</u> – This building is privately owned but represents a concept of office hoteling which may work for the state. The renovation included a number of energy efficient concepts related to the windows and lighting that could be used on the State Office Building.
	veat	Built Construction type	window and	PUPOSE OF BUILDING	Used by the State	Provinity to Capital	Remodel Veal	Remote Work	tstinated pro	et freshendend	Historic Designation	Mist Fats
Wainwright Building; St. Louis. MO	1892	Steel Frame with brick cladding		Built as office space for the St. Louis Brewers Association.	Purchased in 1974 by the State of Missouri and used as offices	About 2.5 hours from capitol in Jefferson City	1975 2011	Remodeled because of disrepair and to renovate for office space Façade Repair	\$12,400,000		National Register of Historic Places and National Historic Landmark in Missouri	Purchased by state after the National Trust for Historic Preservation saved it from demolition.
Scranton State Office Building;	1976				Used as state offices	About 2.5 hours from capitol in Harrisburg	Before 2009	Lighting upgrades; water conservation upgrades; building automation upgrades; weatherization and insulation upgrades; HVAC upgrades; power distribution upgrades	\$1,400,000	2009 earned Energy Star rating		
Ford House Office Building;	1939	Load-bearing masonry building	Original steel casement windows	Originally housed the US Census Bureau	One of 4 buildings containing the US House of Representatives Staff. Also contains the Architect of the Capitol and Congressional Budget Office	About one mile. Only House office building not connected underground to Capitol or other office buildings	2007	Window replacement - steel casements replaced with aluminum casements	\$5,400,000		Contributing to the Capitol Hill District National Register of Historic Places and US Historic District	Built as part of the Works Progress Administration Program under Franklin Roosevelt. 1st 'general federal office building'. It was used to house New Deal workers.
River Vue; Pittsburgh, PA	1955	Steel Frame with glass curtain wall and stone spandrals		Built for governmental offices	Used as state offices until Feb. 2009	About 4 hours from capitol in Harrisburg	2010	Renovated after sale into luxury apartments	\$45,000,000			State sold building to Millcraft Industries who renovated it into 218 luxury apartments

	Veat	Built Construction Type	Window and Type	PUPOSE OF BUILDING	Used by the State	Provinte Capital	Remodel Vea	Renote work	Estimated pro	Bet tress this and	HISTON DESERTION	NIS-FAIS
Landers State Office Building; Springfield, MO	1914	Steel Frame with terra cotta cladding	Newer windows but follow historic mullion configuration and size	Built by D.J. Landers as a general office building	Purchased in 1978 by the state to use as offices	About 3 hours from capitol in Jefferson City	1978 2005	Remodeled by state for offices Electrical upgrade			Springfield Public Square Historic District	Bought in 1978 by Missouri Largest intact office building in Springfield
State Office Building; Madison, WI	1931	Steel Frame with granite cladding		Built as state office building including additions	Used as state offices	About 2 blocks from the capitol building	1939 1959 2008	Addition Addition Façade repointing, refinishing steel, repair sealants and install window trim			National Register of Historic Places	
Inland Steel Building;	1957	Steel frame with glass and stainless steel cladding		Inland Steel Headquarters	Privately owned		2009	Renovate from offices into an office hotel.		Sustainable roof; low flow fixtures; low-e high performance glazing; high efficiency lighting	Chicago Landmark	
Chicago, IL												

# FINAL DRAFT

# 4C Technology

The technology needs for the building are outlined in Appendix A.3 and within Appendix F (Parsons Electric Budgetary Proposal). At the time of this Predesign the Predesign for the MN State Capitol is not complete and as many programmatic functions may shift between the two buildings proposing changes to the future technology needs at this point would not create an accurate or comprehensive plan. Therefore, similar to the approach taken for the other scope items in this document, it was assumed that each space maintained its current use and upgrades were recommended based on industry standards for these areas.



# PREDESIGN CHECKLIST – continued TECHNOLOGY & TELECOMMUNICATIONS Complete N/A

	•	<b>1.</b> Obtain a copy of Office of Enterprise Technology's (OET's) " <i>Building Infrastructure Guidelines For State-Owned Buildings</i> " and review the requirements for costs to be included in the project. For future design use, should the project be funded, include the Technology Plan and guidelines in the predesign submittal. The technology guidelines are available in the appendix of the state's <i>Design Guidelines</i> .
		<ul> <li>2. In coordination with OET, determine the need for and develop a Technology &amp; Telecommunications Plan for the project. When recommended by the Office of Enterprise Technology, form and convene a Predesign meeting to determine the agency's technology needs, goals, timelines and objectives. The Predesign Team will consist of, but will not be limited to:</li></ul>
•		<b>3.</b> For remodeling projects, verify existing technology infrastructures for adequate capacity. Include upgrade costs in the Cost Estimate.
•		4. Identify the user agency's short and long range plans for technology needs.
		5. Identify if the project is or will be a single building or campus configuration.
		6. Identify existing distribution rooms and their capacity.
		7. Identify requirements for new distribution rooms.
		8. Identify Fiber Optic requirements, existing locations, new fiber lines.
•		9. Identify copper-wiring requirements, existing and new.
•		<b>10.</b> If telecommunications work is to be within an existing building, identify existing conditions; i.e. floor & ceiling heights & conditions, piping and duct conditions, water problems, feeder cable limitations, equipment room limitations.
•		<b>11.</b> Identify existing telecommunications infrastructure service to the building.
•		<b>12.</b> Identify types of existing cable trays and requirements for new cable trays.
	•	<b>13.</b> For projects in existing buildings, identify available communications "pairs" coming into the building.
•		14. Identify IPOP, APOP and MPOP needs.
		<b>15.</b> Forward a copy of the project Technology Plan to OET.

# PREDESIGN CHECKLIST – continued TECHNOLOGY & TELECOMMUNICATIONS Complete N/A

•	<b>16.</b> Obtain a written letter from the Office of Enterprise Technology (OET) indicating acceptance of the Technology Plan for the project. Incorporate OET's letter into the Predesign Document.
•	<b>17.</b> Incorporate any changes into the Technology Plan as requested by OET (resulting from review of agency's technology plan for the project).
•	<b>18.</b> Verify existing utility infrastructures for adequate capacity and cost upgrades needed to support the proposed building/facility or renovation.
•	<b>19.</b> See Appendix P for sample of predesign submittal cover letter.

# PREDESIGN CHECKLIST

Check off the above items as they are completed and include this checklist with your final submittal document. Completion of this checklist is **MANDATORY**.

CONSULTANT SIGNATURE:
Signature:
Name of Project: Minnesota State Office Building
Printed Name: Todd A. Daly
Agency:
Title: Vice President
Facility:
Company: Michaud Cooley Erickson
State Project No. <u>MIN0202</u>
NOTE: For State Agencies & Higher Education (University of MN, MN State Colleges & Universities):

In accordance with MN Statute 16B.33, Subdivision 3 (see Appendix), should your project be funded, and the construction cost is \$2,000,000 or greater and/or design fees are \$200,000 or greater, the State Designer Selection Board will be required to select the architectural/engineering firm. The selected design team will then be given the predesign document to define their scope of work and budget. This requirement does not apply to grant projects to Local Governmental Units.

FINAL DRAFT



#### 4D Sustainability

The basis for Sustainability for this project will be set within the B3/SB2030 criteria. All Checklist items will be reviewed based on the entire list of work scope items. Some items may need to be deferred due to funding. The overall goal is to determine a benchmark and determine how much the project will improve the building and site's function and efficiency.

#### 4D.1 B3 checklist/strategies

#### **Performance Management Overview**

- P.0 <u>Guideline Management –</u> The team has established Denita Lemmon as the Guideline Leader and requested and established a B3/SB2030 account for the project.
- P.1 <u>General Project Data</u> Building data has been gathered
- P.2 <u>Planning for Conservation</u> Utilization of building has been calculated

#### P.3 Integrated Design Process Team has been identified to proceed from Predesign through Occupancy and includes all disciplines

- P.4 Design and Construction Commissioning Plan is in place for Owner provided Commissioning Agent to be brought on board at DD. Also MDA utilizes in house staff to complete oversite of process separate from Guideline Leader
- P.5 <u>Operations Commissioning</u> Plan is in place for Owner provided Commissioning Agent to be brought on board at DD
- P.6 Lowest Life Cycle Cost 3 alternatives will be evaluated for each proposed system

#### Site & Water Overview

- **S.1** Identification and Avoidance of Critical Sites Existing site is being reused. It has been an office building since 1932. Prior to 1932 the site had 7 houses within the footprint of the building.
- **S.2** <u>Stormwater Management</u> There is minimal site related to this building. The roof and parking deck stormwater control will be the major factors.
- S.3 <u>Soil Management</u> No soil is intended to be impacted.
- **S.4** <u>Sustainable Vegetation Design</u> Extent of sustainable vegetation is being reviewed. Sodded areas may be excellent candidates for mitigation
- **S.5** <u>Light Pollution Reduction</u> Light at parking deck is being reviewed under separate project.
- **S.6** Erosion and Sedimentation Control during Construction Erosion plan will be defined and implemented during construction
- **S.7** <u>Landscape Water Efficiency</u> Site is being reviewed for possible sustainable vegetation.
- **S.8** <u>Building Water Efficiency</u> Proposed replacement of many fixtures will improve water efficiency
- **S.9** <u>Appropriate Location and Development Pattern</u> State Office building is part of planned Capitol Complex.
- **S.10** Brownfield Redevelopment This site has not be identified as a Brownfield Site
- **S.11** <u>Heat Island Reduction</u> The major contributor on the site is the parking deck and lot. Their impact will be reviewed.
- **S.12** Transportation Impacts Reduction Site is located on bus routes and is adjacent to future LRT stop and staff or visitors could ride their bikes.
- **S.13** <u>Wastewater Management</u> Wastewater ties into City system. No onsite measures are being considered.

#### **Energy & Atmosphere Overview**

E.1 Energy Efficiency

Lighting and mechanical systems are being reviewed and recommended for replacement based on maintenance and efficiency.

- E.2 <u>Renewable Energy</u> Geothermal and PV arrays will be reviewed..
- E.3 <u>Efficient Equipment and Appliances</u> Where applicable 'Energy Star' appliances will be used. Where commercial grade equipment and appliances are considered and rating is not available the most energy efficient will be reviewed for application.
- E.4 Atmospheric Protection

#### Indoor Environmental Quality Overview

- I.1 <u>Restrict Environmental Tobacco Smoke</u> There is designated areas on the grounds for smoking
- **1.2** <u>Specify Low-emitting Materials</u> All materials will be reviewed for performance and emissions
- I.3 Moisture Control

The building envelope is secure and dry other than a few locations related to ice dams. Condensation at windows and skylights will be addressed with replacement.

- I.4 <u>Ventilation Design</u> All systems proposed will be increasing and improving air intake quality and control
- I.5 <u>Thermal Comfort</u> System upgrades/replacement are intended to improve thermal comfort overall
- **I.6** Quality Lighting Overall lighting associated with use will be updated. Historic fixtures will be retained.
- **1.7** Effective Acoustics Each space will be reviewed to either isolate or control sound as required for function
- **I.8** <u>Reduce Vibration in Buildings</u> Mechanical systems will be isolated from structure and detailed to minimize vibration
- **I.9** Daylight Natural day lighting is at perimeter of building and via skylights. This project does not assume any changes to office layouts so day lighting will be confined to perimeter offices.
- I.10 <u>View Space and Window Access</u> See I.9 above
- I.11 <u>Personal Control of IEQ Conditions and Impacts</u> Each room will have thermostat control
- **I.12** Encourage Healthful Physical Activity Building does include changing and shower facilities to allow people to utilize getting to work and breaks for exercise.



# 4D.2 Building Energy Efficiency

The Minnesota State Office Building (MNSOB) is comprised of 263,400 gross square feet. Energy usage in the building is provided from three sources – electricity, which power lights, motors, and electrical accessories; District chilled water, which provides the cooling source for air conditioning; and District hot water, which provides heating for the building. For the twelve month period of March 2011 to February 2012, the energy usage by source was as follows:

Electrical: 3,046,632 kWH/year (10,395 MMBtu/year) Chilled Water: 209,123 Ton-hours/year (2,509 MMBtu/year) Hot Water: 1,300 MWH/year (4,436 MMBtu/year)

Note: 1 MW = 1,000 kilowatts = 1,000,000 watts; 1 MMBtu = 1,000,000 Btu Btu = British Thermal Unit, a measure of energy Ton = Ton of cooling = 12,000 Btu

A useful parameter to compare how well a building is performing is called the "Total Energy Index" (TEI), which is the annual total energy usage of the building from all sources in a common unit (Btu's) divided by the gross building area in square feet, resulting in Btu/square foot/year. The parameter is also called an "Energy Usage Index" (EUI). For the period reviewed, the MNSOB had a Total Energy Index (TEI) of 65,833 Btu/sq. ft./yr.

There is a mandate in Minnesota for new and remodeled buildings funded by state bonds that they exceed the January 2004 state energy code by 30%. The code in effect at that time was based on the ASHRAE 90.1-1989 energy code. A typical office building complying with that code would have a TEI of about 100,000 Btu/sq. ft./yr. Therefore, new and remodeled buildings would be required to have a TEI of less than 70,000 Btu/sq. ft./yr, which the MNSOB currently complies with.

The TEI requirements are based on a typical office building operating at hours considered normal for that type of a building. The MNSOB is a bit unique in that during legislative sessions (6 months of the year), the building is occupied for longer hours, and for the remainder of the year, the building is not fully occupied. Based on a review of the energy usage, it appears that on an annualized basis, the MNSOB operates similarly to a typical office building.

While the MNSOB is currently operating efficiently, there are several opportunities to make it more efficient. The proposed improvements to the building that will provide more efficient building operation include:

- Increase insulation values of the walls and roof
- Replace mechanical air handling systems with systems that provide greater flexibility in part load operation



- Replace existing lighting with more efficient lighting and include better controllability to allow lights in unoccupied spaces to be shut off. The existing lighting density is 1.11 w/sq. ft. The proposed lighting density is 0.90 w/sq. ft., which is an 18% reduction.
- Provide the ability to shut off or minimize air supply to unoccupied spaces
- Provide monitoring of air distribution devices and space conditions to provide better troubleshooting capabilities to identify and correct problem areas and assure that spaces are maintaining comfort conditions efficiently

By making the proposed building improvements, it is estimated that the overall energy usage will be reduced by about 16.0%, for a revised TEI of 55,300 Btu/sq. ft./yr. This reduction is a result of more efficient equipment, and the ability to better control equipment part load operation.

Per the project design requirements, 2% of the building power should be provided by solar energy or wind power. The design would consider the installation of a 40 kW Photovoltaic (PV) System. The PV array would be located on the roof of the building. Allow for approximately 10,000 square feet of structure to support the array. The array will be orientated to the south with a 37 degree angle. Combiners, inverters and monitor equipment will be located in the mechanical penthouse. The Photovoltaic system will be connected to the main building electrical power system at one of the main switchboards and include a utility disconnect and separate meter. It is estimated that the PV system would provide on average about 12% of the installed capacity throughout the entire year (8,760 hours). This allows for partly sunny days as well as nighttime conditions. Based on this, it is estimated that the PV system would reduce the electrical consumption of the building by 42,048 kWH/year (1.7% reduction of annual electrical consumption). It is estimated that the overall energy usage, including solar panels, will be reduced by about 16.8%, for a revised TEI of 54,755 Btu/sq. ft./yr.

# 4E Operations and Maintenance

The use of the building has not changed and programmatic changes will be minimal. The only changes related to operating costs are related to utilities and maintenance. The project proposes replacement of all units to high efficient systems. Access and maintenance will be improved.

# FINAL DRAFT

# 4F Statutory Requirements

## 16B.24 GENERAL AUTHORITY.

Subdivision 1.Operation and maintenance of buildings.

The commissioner is authorized to maintain and operate properties acquired by the Department of Administration, and, when the commissioner considers it advisable and practicable, any other building or premises owned or rented by the state for the use of a state agency. The commissioner shall assign and reassign office space in the Capitol and state buildings to make an equitable division of available space among agencies. The commissioner shall regularly update the long-range strategic plan for locating agencies and shall follow the plan in assigning and reassigning space to agencies. The plan must include locational and urban design criteria, a cost-analysis method to be used in weighing state ownership against leasing of space in specific instances, and a transportation management plan. If the commissioner determines that a deviation from the plan is necessary or desirable in a specific instance, the commissioner shall provide the legislature with a timely written explanation of the reasons for the deviation. The power granted in this subdivision does not apply to state hospitals or to educational, penal, correctional, or other institutions not enumerated in this subdivision the control of which is vested by law in some other agency.

Subd. 2.Repairs.

The commissioner shall supervise and control the making of necessary repairs to all state buildings and structures.

Applicability of Statutes for Project	s Receiving State Funding
Required Statute	Predesign Reference
1. 16B.241 Coordinated Facility Planning	NA – this Predesign does not impact planning by the Departments of Health, Agriculture, and Natural Resources; the Pollution Control Agency; and the Board of Water and Soil Resources as directed by this statute.
2. 16B.32 Subd 1 Alternative Energy Sources	Predesign includes review of photovoltaic.
3. 16B.32 Subd 1a Renewable Energy Sources – 2% of energy use Solar or Wind	Installation of 40kW PV is proposed.
4. 16B.323 Solar Energy in State Buildings. Up to 5% of appropriation to be used on Solar energy system.	Installation of 40kW PV is proposed.
5. 16B.32 Subd 2 Energy Conservation Goals	Mechanical equipment changes will be placed into service utilizing available Excel Program if found to qualify.
6. 16B.325 Apply Sustainable Guidelines	The project has been initiated with MSBG. See 4D Sustainability for B3 checklist and strategies.
7. 16B.326 Written Plan considering Geothermal & solar energy heating and cooling	See Mechanical and Electrical Narrative - Appendix A
8. 16B.33 State Designer Selection Board	The design team was selected for this project under Statute 16B.33
9. 16B.335 Subd 1 Notification to House and Senate Committees	This will take place once bonding is put into place.
10. 16B.335 Subd 3 Predesign Submittal 11. 16B.335 Subd 4	Predesign package will be submitted to Commissioner for review. Preliminary review has already been completed. See Mechanical and Electrical Narrative – Appendix A
Energy Conservation Standards	
12. 16B.335 Subd 5 & 6 Information Tech Review by OET	See 4C Technology for plan. OET will review plan once programmatic changes/needs are identified.
13. 16B.335 Subd 3c MINNCOR Products 14. 16B.35 % for Art	Where applicable these products will be reviewed for use during DD. This will be determined based on legislative request
Information Tech Review by OET 13. 16B.335 Subd 3c MINNCOR Products 14. 16B.35 % for Art	programmatic changes/needs are identified.         Where applicable these products will be reviewed for use during DD.         This will be determined based on legislative request.

# 4G Special Requirements

# 4G.1 Building Code Plan Review

The State Office Building is within the Capitol Complex of buildings. It will require review and permitting from the City of St Paul Code Review.

# 4G.2 St Paul Heritage Preservation Commission (HPC)

Since the building does require a City of St Paul permit it will be reviewed by the St Paul Heritage Preservation Commission Staff or the Commission.

# 4G.3 State Historic Preservation Office (SHPO)

The SHPO has authority to review work at the State Office Building as mandated by State Statute 138. When a project has been determined and begins design a letter of intent should be filed with the state compliance office so that a file for the project can be opened. Once a file has been opened the project design documents should be distributed for review at 30% - 60% and 90% completion. The timeline for this review should be discussed early with SHPO as some reviews can take up to 60 days and may impact design or construction schedules.

# 4G.4 Capitol Area Architectural and Planning Board (CAAP Board)

The CAAP Board will review work at the State Office Building. They have zoning approval within the Capitol Complex of buildings. The City will not issue a permit without confirming plans meet approval of CAAP Board.

# 4H Project Delivery

## 4H.1 Procurement

It is recommended that this project be procured utilizing a Construction Manager at Risk, based on the following:

- Limited staging areas on site will require significant preplanning during the design process to maintain security and minimize disruption to the operations of the offices during the phased construction.
- Phased construction will require communication early on with user groups to understand construction method.

# 4H.2 Means and Methods

The ideal construction process would have the building vacated and turned over to the CM@R for construction.

# 4H.3 Schedule

The single phase schedule represents a total of 168 weeks from start to finish to complete all work at the State Office Building. Phased construction could increase that time to 292 weeks or more and is dependent on funding and timing of design and construction phasing.



# MN State Office Building & Parking Deck Preservation, Restoration and Repairs Predesign

Full Project - Single Phase	16 Weeks	20 Weeks	24 Weeks	8 Wks	100 Weeks
Schematic Design			1		
Workshop to review/confirm project needs/thanges Initial concept sketches and systems critera Initial construction cost estimate Owner review meeting Review meeting with Codes & MN SHPO 30% Owner review meeting and follow-up period	8	>			
Contractor Procurement	1.000				
Issue RFP CMR Selection					
Design Development					
Refine design & details Select equipment, layout drawings Update estimate Owner review meeting and follow-up period SHPO Review 60%		Ŷ			
Construction Documents	1.1				
Drawing refinement and coordination Specifications Update estimate Owner review meeting and follow-up period SHPO Review 90% Issue final documents/estimate			<u> </u>		
Contracting/Permiting				1.14	
Walk thru/Bids/Award Permit review period					
Construction					
Abatement Weekly coordination meetings Shop Drawings Demolition Construction Substantial Completon 12 Month Warranty					
	16 weeks	>36 weeks	60 weeks	STREES .	168 weeks total
Legistlative Calendar	+				
2013 tong year' session Start Jan 8, 2013 2014 'short year' session Start Feb 2014 2015 'long year' session Start Jan 2015					

# 5 Site Selection

Since 1932 the State Office Building has provided offices for Legislative officials and staff.

# Full Project/Unoccupied Updated 19 April 2013 - Predesign Addendum 1

			AGENCY	CAPIT	AL BUDGE	T R	EQUEST					
			Fis	cal Ye	ars 2012 -	201	17					
		Dolla	rs in Thous	ands	(\$137,500	=\$	138 thousan	d)				
TOTAL PROJECT COSTS		<b>Proje</b> All pri	Project Costs All prior Years		Project Costs FY 2012 & 2013 Predesign		oject Costs	Project Costs All Years			Project Start	Project Finish
All Years and All Funding Sources		to 6/30/11		7/1/11-6/30/13							(WONTH/YF)	(Wonth/Yr)
0. Funding												
FY 11 ( HF2700 Ch 189, Sec 11)		\$	250.0								Mar-10	
FY 12				\$	-							
	SUBTOTAL	\$	250.0	\$	-				\$	250.0		1
1. Property Acquisition N/A	L.			1								
Other Costs: FCA		\$	7.6									
	SUBTOTAL	\$	7.6									
2. Predesign	·			The second se							_	
State Designer Selection Board				\$	1.1				\$	1.1		Oct-11
Predesign Consultant Fee				\$	223.8				\$	223.8	Feb-12	Jul-12
	SUBTOTAL			\$	224.9	\$	-		\$	224.9		
3. Design Fees				-1		-						
Schematic				\$	11.8	\$	875.0		\$	886.8		
Design Development				\$	15.7	\$	1,166.0		\$	1,181.7		
Contract Documents				\$	31.5	\$	2,333.0		\$	2,364.5		
Construction Administration				\$	19.5	\$	1,458.0		\$	1,477.5		
Other Costs (surveys,testing?)				*					\$	-		
	SUBTOTAL			\$	78.5	\$	5,832.0		\$	5,910.5	_	
4. Project Management						1						
State Staff Project Management		\$	1.4	\$	5.0	\$	45.0		\$	51.4		
Non-State Project Management				\$	-							
CM at Risk Preconstruction Fee (est	\$100 x100hrs	)				\$	250.0		\$	250.0		
Other Costs				\$	-							
	SUBTOTAL	\$	1.4	\$	5.0	\$	295.0		\$	301.4		
5. Construction Costs						1						
Site & Building Prep				*								
Demolition				*								
Infrastructure/Utilities				*								
Hazardous Materials Abatement				\$	35.0	\$	350.0		\$	385.0		
General Construction				\$	785.0	\$	53,036.0		\$	53,821.0		

		Project Costs	Proj	ect Costs	Pro	oject Costs	Proj	ect Costs	Project	Project
IUTAL PROJECT COSTS		All prior Years	FY 20	12 & 2013	Pha	sed	All Years		Start	Finish
All Years and All Funding Sources									(Month/Yr)	(Month/Yr)
(Construction Costs Continued):		to 6/30/11	7/1/11	1-6/30/13						
Construction Contingency			\$	78.5	\$	5,303.6	\$	5,382.1		
Construction Testing (est 1/4%)			\$	2.0	\$	132.6	\$	134.6		
Other Costs			*		*		\$	-		
CM at Risk Construction Fee (est 2.59	% x 5.3M)		\$	19.6	\$	1,325.9	\$	1,345.5		
	SUBTOTAL		\$	920.1	\$	60,148.1	\$	61,068.2	_	
6. Art (N/A on-going private donations)										
	SUBTOTAL		\$	-	\$	-	\$	-		
7. Occupancy										
Relocation Fees (can't use bonded)			N/A	۱.						
Furniture, Fixtures and Equipment			N/A							
Telecommunications (voice & data)			*		*					
Security Equipment			*		*					
Commissioning (¾-1½%)			\$	5.9	\$	397.8	\$	403.7		
Other (signage, keying, window treat	tment)									
	SUBTOTAL		\$	5.9	\$	397.8	\$	403.7		
						I			_	
Subtotal Before Inflation Factors		\$ 9.0	\$	1,234.3	\$	66,672.9	\$	67,916.1		
9 Inflation Midnaint of Construction							Mida	int Data		
Nidpoint of Construction							νιαρα	Jint Date.		
			*		*					
					-					
	CURTOTAL								_	
	SUBIOTAL								1	
9. Other										
Owner Contingency (5%)			Ś	61.7	Ś	3.333.6	\$	3.395.8		
	SUBTOTAI		Ŧ		Ŧ	0,000.0	<u>۲</u>	0,00010		
	GRAND TTL	\$-	\$	1,296.0	\$	70,006.5	\$	71,312.0		

# Phased Projects Updated 19 April 2013 - Predesign Addendum 1

AGENCY CAPITAL BUDGET REQUEST													
				F	iscal Year	s 20	12 - 2017						
			Dollars i	n Tho	usands (\$	5137,	500 = \$138	thou	usand)				
		Proied	ct Costs	Proie	ct Costs	Pro	iect Costs	Pro	iect Costs	Pro	iect Costs	Pro	iect Costs
TOTAL PROJECT COSTS		All prior Years		FY 2012 & 2013		Phase 1		Phase 2		Pha	se 3	All Years	
All Years and All Funding Sources				Predesign									
		to 6/30/	/11	7/1/11	-6/30/13								
0. Funding		1		1				1		1			
FY 11 ( HF2700 Ch 189, Sec 11)		\$	250.0										
FY 12				\$	-								
	SUBTOTAL	\$	250.0	\$	-							\$	250.0
1. Property Acquisition N/A													
Other Costs: FCA		\$	7.6										
	SUBTOTAL	\$	7.6										
2. Predesign													
State Designer Selection Board				\$	1.1							\$	1.1
Predesign Consultant Fee				\$	223.8							\$	223.8
	SUBTOTAL			\$	224.9	\$	-	\$	-	\$	-	\$	224.9
3. Design Fees													
Schematic				\$	11.8	\$	356.0	\$	455.0	\$	326.0	\$	1,148.8
Design Development				\$	15.7	\$	475.0	\$	607.0	\$	435.0	\$	1,532.7
Contract Documents				\$	31.5	\$	950.0	\$	1,215.0	\$	869.0	\$	3,065.5
Construction Administration				\$	19.5	\$	30.0	\$	759.0	\$	543.0	\$	1,351.5
Other Costs (surveys,testing?)				*								\$	_
	SUBTOTAL			\$	78.5	\$	1,811.0	\$	3,036.0	\$	2,173.0	\$	7,098.5
4. Project Management										1		1	
State Staff Project Management		\$	1.4	\$	5.0	\$	45.0	\$	45.0	\$	45.0	\$	141.4
Non-State Project Management				\$	-								
CM at Risk Preconstruction Fee (est	\$100 x100hrs)					\$	250.0	\$	250.0	\$	250.0	\$	750.0
Other Costs	· · · ·			\$	-							-	
	SUBTOTAL	\$	1.4	\$	5.0	\$	295.0	\$	295.0	\$	295.0	\$	891.4
5. Construction Costs				-									
Site & Building Prep				*									
Demolition				*									
Infrastructure/Utilities				*								1	
Hazardous Materials Abatement				\$	35.0	\$	200.0	\$	200.0	\$	200.0	\$	635.0
General Construction				\$	785.0	\$	19,800.0	\$	25,300.0	\$	21,730.0	\$	67,615.0

		Project Costs	s Proj	Project Costs		ject Costs	Project Costs		Pro	ject Costs	Project Costs	
TOTAL PROJECT COSTS		All prior Years	FY 20	12 & 2013	Phas	Phased		sed	Phas	sed	All Years	
All Years and All Funding Sources												
(Construction Costs Continued):		to 6/30/11	7/1/11	1-6/30/13								
Construction Contingency			\$	78.5	\$	1,980.0	\$	2,530.0	\$	2,173.0	\$	6,761.5
Construction Testing (est 1/4%)			\$	2.0	\$	49.5	\$	63.3	\$	54.3	\$	169.0
Other Costs			*		*		*		*		\$	-
CM at Risk Construction Fee (est 2.59	% x 5.3M)	Γ	\$	19.6	\$	495.0	\$	632.5	\$	543.3	\$	1,690.4
	SUBTOTAL		\$	920.1	\$	22,524.5	\$	28,725.8	\$	24,700.6	\$	76,870.9
6. Art (N/A on-going private donations)												
	SUBTOTAL		\$	-	\$	-	\$	-	\$	-	\$	-
7. Occupancy												
Relocation Fees (can't use bonded)	Τ	Τ	N/A	۹	Τ		Τ		Τ		Τ	
Furniture, Fixtures and Equipment			N/A	•	$\square$							
Telecommunications (voice & data)			*		*		*		*			
Security Equipment			*		*		*		*			
Commissioning (¾-1½%)			\$	5.9	\$	148.5	\$	189.8	\$	163.0	\$	507.1
Other (signage, keying, window treat	ment)											
	SUBTOTAL		\$	5.9	\$	148.5	\$	189.8	\$	163.0	\$	507.1
Subtotal Before Inflation Factors		\$ 9	.0\$	1,234.3	\$	24,779.0	\$	32,246.5	\$	27,331.6	\$	85,600.3
	<u> </u>	-							_			
8. Inflation Midpoint of Construction								N	lidpo	oint Date:		
Midpoint of Construction	Τ	Γ									<u> </u>	
Inflation Multiplier	Τ	Τ	*		*		*		*		Τ	
Inflation Cost					$\square$							
	SUBTOTAL											
9. Other												
Owner Contingency (5%)			\$	61.7	\$	1,239.0	\$	1,612.3	\$	1,366.6	\$	4,280.0
	SUBTOTAL											
	GRAND TTL	\$	- \$	1,296.0	\$	26,018.0	\$	33,858.8	\$	28,698.1	\$	89,880.4

# **MECHANICAL SYSTEMS**

# 1.1 FIRE PROTECTION SYSTEM

- A. Existing Conditions
  - 1. The building fire sprinkler and standpipe systems appear to have been installed in 1984.
  - 2. A 6 inch water supply serves the fire sprinkler and standpipe systems.
  - 3. A 4 inch x 2 way fire department connection is provided on the building exterior for fire department pumper truck connection.
  - 4. The existing fire pump is 500 gpm rated at 70 psi. A jockey pump is provided to maintain pressure in the standpipe and sprinkler systems. The fire pump controller is provided with an automatic transfer switch. Fire pump motor is a 30 horse power motor.
  - 5. A Class I standpipe system with 4 inch standpipes supplies 2½ inch fire department valves.
  - 6. The existing office building is completely sprinklered except for a computer room in the basement.
  - 7. The existing parking ramp has a dry pipe sprinkler system serving sprinklers on the lowest level. A Class I dry standpipe system with 6 inch standpipes supplies 2 ½ inch fire department valves. The parking ramp sprinkler and standpipe systems appear to have been installed in 1988.
  - 8. Existing sprinklers are standard response sprinklers rated at 155 and 165 degree F typically. Concealed pendent, semi-recessed pendent, brass upright, brass pendent and sidewall type sprinklers are installed.
  - 9. Existing sprinklers in bathrooms are quick response semi-recessed sprinklers rated at 155 degree F. Sprinklers in bathrooms appear to have been installed in 2006.
  - 10. A computer room in the basement is protected by an FM-200 clean agent fire suppression system.
- B. Deficiencies
  - 1. The fire pump is undersized and should be a 1000 gpm fire pump based on the number of standpipes installed in the building and the requirements of NFPA Standard 14.
  - 2. The fire pump boost is not sufficient to provide the code requirement of 100 psi at the top most standpipe outlet while flowing 500 gpm for the remote standpipe and 250 gpm for each of two additional standpipes. However, at the time the building fire standpipes were installed the code requirement was for 65 psi at the top most standpipe outlet while flowing 500 gpm for the remote standpipe and 250 gpm for each of two additional standpipes. It is acceptable to have the system provide standpipe pressures at 65 psi because it met the code requirements at the time the building was built. The current fire pump and standpipe system do not appear to be adequate to provide the 65 psi requirement.

- 3. Quick response sprinklers are required in light hazard occupancies (offices, conference rooms, toilets, lobbies and other areas with low fuel load) in the current code. NFPA Standard 13 requires that quick response sprinklers be installed in light hazard occupancies when significant remodeling occurs.
- 4. The sidewall sprinklers located below soffits throughout the building are not installed in accordance with NFPA Standard 13 requirements and do not meet the sidewall sprinkler manufacturer's installation guidelines.
- 5. The sidewall sprinklers located in the elevator lobby areas are too far down from the ceiling and are not installed in accordance with NFPA Standard 13 requirements or the sidewall sprinkler manufacturer's installation guidelines.
- 6. Sprinklers are installed on the supply piping to the 2½ inch fire department valves. This is not allowed by NFPA Standard 13. These sprinklers are not connected to the sprinkler system serving a floor and do not have a control valve.
- 7. Sprinklers are not installed in several large skylights that are required to have sprinklers per NFPA Standard 13.
- 8. Existing piping in the mechanical rooms has what appears to be surface rust. In some areas the mechanical room pipe and fittings should be replaced.
- 9. Sprinklers in the interstitial space are located too far below the deck above to provide adequate heat collection at the sprinklers.
- 10. In several locations, the existing sprinkler spacing is not adequate to protect for the current use of the space or the storage configurations within the space.
- 11. Automatic sprinkler protection is required in the basement level computer room, in addition to the FM-200 clean agent fire suppression system that is installed to protect the room.
- 12. The parking ramp fire sprinkler and standpipe systems do not require modifications.
- C. Recommendations
  - 1. Replace the existing 6 inch water supply main into the building with a new 8 inch water supply required for a 1000 gpm fire pump.
  - 2. Replace the existing 500 gpm fire pump and associated controllers and equipment with a new 1000 gpm fire pump and controllers.
    - a. Revise the electrical service and generator service to the fire pump as required for a larger size fire pump and jockey pump and associated controllers and transfer switches.
  - 3. Revise the fire pump pressure to provide 100 psi at the top most remote standpipe outlet while flowing 500 gpm for the remote standpipe and 250 gpm for each of two additional standpipes up to a maximum of 1000 gpm. This will require the following changes:
    - a. Provide a high pressure fire pump.

- b. Replace the existing fire pump assembly including fittings, piping and devices with high pressure equipment.
- c. Replace the existing standpipe system with high pressure piping, fittings and devices.
- d. Replace the existing standpipes in the stairways with new 6 inch high pressure standpipes.
- e. Install new 2½ inch pressure regulating fire department valves in the stairways.
- f. Install new pressure regulating sprinkler system control valve assemblies for each wet and dry pipe sprinkler system. Provide a new 6 inch pressure regulating valve to regulate pressure to the parking ramp dry pipe system.
- g. Install 3 inch drain risers in each stairway to allow for testing of pressure regulating fire department valves and sprinkler system control valves.
- h. Provide new fire pump test header to the exterior of the building as required by NFPA Standard 20.
- 4. Remove existing sidewall sprinklers located below soffits and provide new sprinklers installed in accordance with NFPA Standard 13 requirements.
- 5. Relocate existing sidewall sprinklers in the elevator lobby areas to be within 6 inches of the ceiling to be in accordance with NFPA Standard 13 requirements.
- 6. Replace existing standard response sprinklers with quick response sprinklers throughout office, conference, and other Light Hazard occupancy areas of the building.
- 7. Add sprinkler protection in skylights where required by NFPA Standard 13.
- 8. Raise sprinkler lines and sprinklers in the interstitial space so that sprinklers are located near the exposed structure in accordance with their listings. Provide additional sprinklers as required due to obstructions at the deck.
- 9. Add or relocate sprinklers in areas where existing sprinklers are not adequately spaced to protect the hazard within the space.
- 10. Add a double interlock preaction sprinkler system with galvanized piping to protect the basement level computer room. The existing FM-200 clean agent system will remain.
- The building is to be completely sprinklered in accordance with the 2006 International Building Code (IBC) with 2007 State of Minnesota Amendments, 2006 International Fire Code (IFC) with 2007 State of Minnesota Amendments, and the 2010 edition of NFPA Standard 13.

# A. Existing Conditions

- 1. A new 4 inch domestic water service was installed in the building in 1984. This service is separate from the fire protection service.
- 2. Toilet rooms appear to be in good condition and are using low water consumption plumbing fixtures.
- 3. Domestic hot water is produced using District Energy St. Paul hot water through a plate and frame heat exchanger. The design conditions of the District heating water are 250°F supply temperature and 155°F return water temperature. The domestic water design conditions are 50°F entering water temperature and 125°F leaving water temperature.
- 4. Cast iron waste and vent piping is used throughout the facility.
- 5. It appears that the domestic cold, hot and recirculating hot water piping are copper. The piping is insulated with fiberglass insulation.
- B. Deficiencies
  - 1. Heat exchanger is reaching the end of its life expectancy.
  - 2. Because of the age of the water distribution system, there may be fittings that are eroded, compromising the life expectancy of the piping.
  - 3. The recirculating hot water piping and pump need to be evaluated to assure proper efficient operation.
- C. Recommendations
  - 1. Replace new plate and frame heat exchanger.
  - 2. Perform testing of sections of the domestic water distribution piping to identify the condition of that piping. If excessive erosion is noticeable, replace the system.
  - 3. Revise the domestic hot water recirculating system.

# 1.3 MECHANICAL SYSTEMS – HVAC AIR HANDLING SYSTEMS

MN State Office Building MD067000

## A. Existing Conditions

- 1. The building is served by eighteen (18) primary air handling units described as follows:
  - a. AHU-S1: Located in the Basement. Variable air volume air handling unit with a capacity of 42,150 cfm. This air handling system serves the following spaces:
    - 1) Ground floor west (except auditorium).
    - 2) First floor west.
    - 3) Second floor west.
    - 4) Third floor west.
    - 5) Fourth floor west.
    - 6) Fifth floor west.
  - b. AHU-S2: Located in the Basement. Variable air volume air handling unit with a capacity of 37,180 cfm. This air handling system serves the following spaces:
    - 1) Basement floor east (except hearing room).
    - 2) Ground floor east (except hearing room).
    - 3) First floor east.
    - 4) Second floor east (except hearing room).
    - 5) Third floor east (except heating room).
    - 6) Fourth floor east (except heating room).
    - 7) Fifth floor east (except heating room).
  - c. AHU-S3: Located in the Basement. Constant volume air handling unit with a capacity of 12,840 cfm. This air handling system serves the following spaces:
    - 1) Basement kitchen.
  - d. AHU-S4: Located in the Basement. Constant volume air handling unit with a capacity of 3,180 cfm. This air handling system serves the following spaces:
    - 1) Basement hearing room.
  - e. AHU-S5: Located in the Basement. Constant volume air handling unit with a capacity of 3,335 cfm. This air handling system serves the following spaces:
    - 1) Second floor hearing room.
  - f. AHU-S6: Located on the Ground floor. Constant volume air handling unit with a capacity of 2,775 cfm. This air handling system serves the following spaces:

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- 1) Ground floor auditorium.
- g. AHU-S7: Located on the Ground floor. Constant volume air handling unit with a capacity of 3,335 cfm. This air handling systems serves the following spaces:
  - 1) Ground floor hearing room.
- h. AHU-S8: Located in the interstitial space between the Fourth floor and Fifth floor. Constant volume air handling unit with a capacity of 1,455 cfm. This air handling system serves the following spaces:
  - 1) Third floor hearing room.
- i. AHU-S9: Located in the interstitial space between the Fourth floor and Fifth floor. Constant volume air handling unit with a capacity of 1,455 cfm. This air handling system serves the following spaces:
  - 1) Third floor hearing room.
- j. AHU-S10: Located in the interstitial space between the Fourth floor and Fifth floor. Constant volume air handling unit with a capacity of 1,205 cfm. This air handling system serves the following spaces:
  - 1) Fourth floor hearing room.
- k. AHU-S11: Located in the interstitial space between the Fourth floor and Fifth floor. Constant volume air handling unit with a capacity of 1,205 cfm. This air handling system serves the following spaces:
  - 1) Fourth floor hearing room.
- I. AHU-S12: Located in the interstitial space between the Fourth floor and Fifth floor. Constant volume air handling unit with a capacity of 1,455 cfm. This air handling system serves the following spaces:
  - 1) Fifth floor hearing room.
- m. AHU-S13: Located in the interstitial space between the Fourth floor and Fifth floor. Constant volume air handling unit with a capacity of 1,455 cfm. This air handling system serves the following spaces:
  - 1) Fifth floor hearing room.
- n. AHU-S14: Located on the Roof. Variable air volume air handling unit with a capacity of 17,930 cfm. This air handling system serves the following spaces:
  - 1) Sixth floor.
- o. AHU-S15: Located on the Roof. Variable air volume roof mounted air handling unit with a capacity of 11,200 cfm. This air handling system serves the following spaces:
  - 1) Seventh floor.
- p. AHU-S16: Located in the Basement. Constant volume air handling unit with a

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capacity of 11,200 cfm used for stair pressurization. This air handling system serves the following spaces:

- 1) Stair B.
- q. AHU-S17: Located in the Basement. Constant volume air handling unit with a capacity of 3,500 cfm used for stair pressurization. This air handling system serves the following spaces:
  - 1) Stair C.
- r. AHU-S18: Located in the Basement. Constant volume air handling unit with a capacity of 3,500 cfm used for stair pressurization. This air handling system serves the following spaces:
  - 1) Stair A.
- 2. Exhaust fans: The building includes several exhaust fans, some of which exhaust out of the building and some of which provides additional ventilation to the conference rooms, and discharge above the return air plenum ceiling.
- B. Deficiencies
  - 1. The existing air conditioning units are reaching the end of their life expectancy.
  - 2. Outdoor air dampers air in poor condition in most location (some have been recently replaced).
  - 3. The six air handling units located above the interstitial space between the Fourth floor and the Fifth floor are constant air volume and difficult to access for maintenance.
- C. Recommendations
  - 1. Replace the existing air handling units AHU-S1 and AHU-S2 with two new units. Each unit to include:
    - a. 60,000 cfm supply fan and 55,000 cfm return fan.
    - b. Fan wall supply fans with four (4) direct drive fan array to provide supply capacity.
    - c. Variable air volume system. Variable speed drives on supply and return fans.
    - d. Tamco style Low leak outdoor air and relief air dampers.
    - e. Air blenders.
    - f. MERV 8 prefilters and MERV 14 final filters.
    - g. Hot water preheat coil.
    - h. Chilled water cooling coil.
    - i. Steam humidifier.

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- j. Double wall insulated construction.
- k. Units to be fabricated in small sections to allow installing in the basement.
- I. Ebtron type electronic air flow measuring on the supply and return.
- 2. Remove air handling units AHU-S3, AHU-S4, AHU-S5, AHU-S6, AHU-S7, AHU-S8, AHU-S9, AHU-S10, AHU-S11, AHU-S12, AHU-S13.
  - a. Areas currently served by these air handling units will be served by new air handling units AHU-S1 and AHU-S2.
- 3. Replace the existing air handling units AHU-S14 and AHU-S15 with two new units. Each unit to include:
  - a. 22,000 cfm supply fan and 20,000 cfm return fan.
  - b. Variable air volume system. Variable speed drives on supply and return fans.
  - c. Tamco style Low leak outdoor air and relief air dampers.
  - d. Air blenders.
  - e. MERV 8 prefilters and MERV 14 final filters.
  - f. Hot water preheat coil.
  - g. Chilled water cooling coil.
  - h. Steam humidifier.
  - i. Double wall insulated construction.
  - j. Units to be roof mounted.
  - k. Ebtron type electronic air flow measuring on the supply and return.
- 1.4 MECHANICAL SYSTEMS AIR HANDLING UNIT OUTDOOR AIR INTAKES
  - A. Existing Conditions
    - 1. The air handling units located on the Basement level bring their outdoor air in through area wells that extend up to grade level.
  - B. Deficiencies
    - 1. The design of the existing air intakes makes them subject to fumes from fertilizer used on the lawn. It also presents a security concern for malicious acts that would compromise the quality of outdoor air being brought into the building.
  - C. Recommendations
    - 1. Redesign the air intakes to elevate them above grade by a minimum of ten feet. Four methods to accomplish this were explored.

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- a. Create air intake shafts in the northwest and southwest corners of the building extending from the basement level to the second level. Three windows at each location on the first and second levels (six windows total for each shaft) will be converted to air intake louvers. The option requires converting existing office space to the air intake shaft. It appears to be the most feasible method of providing elevated air intakes to the air handling equipment in the Basement.
- b. Route the air intakes through the building to above the first floor ceiling, and install new louver intakes along the outside walls. This option will be very difficult and expensive due to limited ceiling space in the Basement and the First floor, and will require significant structural changes of floor openings and well as exterior wall openings, It will also be very disruptive to the ceiling spaces in the Basement and First floor, interfering with the installation of other ductwork and systems in those spaces. This option is not considered to be feasible.
- c. Install vertical shafts on the outside of the building that extend from the area wells to about ten feet above grade. This option can be achieved relatively easily, but will require either blocking off some first floor windows, or obstructing the view from the first floor windows if multiple shafts are installed between the windows.
- d. Extend underground ductwork from the basement, through the area wells, and out in the lawn area, where the duct would terminate into vertical intake air enclosures that would extend a minimum of ten feet above grade. This option would be the least disruptive to the building, but will require structures in the lawn area to the north of the building.

#### 1.5 MECHANICAL SYSTEMS – CHILLED WATER

- A. Existing Conditions
  - 1. Chilled water for cooling is provided by District Energy St. Paul. There is an existing chiller on site, which apparently to be used only for peak cooling loads. The design conditions for the chilled water are 48°F supply and 58°F return.
  - 2. There are two (2) piping loops serving the building.
    - a. One piping loop serves the air handling units.
    - b. One piping loop serves the fan coils.
- B. Deficiencies
  - 1. Heat exchangers are reaching the end of their life expectancy.
  - 2. Fan coil chilled water piping is located along perimeter wall.
- C. Recommendations
  - 1. Install new plate and frame heat exchangers.
  - 2. Install new chilled water piping loop to serve chilled beams on each floor.

- 3. Revise air handling unit chilled water piping. Run new piping mains to the roof mounted air handling units.
- 4. Install new chilled water piping on each floor level to accommodate a new chilled beam cooling system.

#### 1.6 MECHANICAL SYSTEMS – HEATING WATER

- A. Existing Conditions
  - Hot water for heating is provided by District Energy St. Paul. The design conditions of the District heating water are 250°F supply temperature and 155°F return water temperature. The heating water is produced using wood waste, a renewable reasource.
  - 2. There are two plate and frame heating water heat exchangers:
    - a. One serves unit heaters and provides heating water at design conditions of 180°F supply and 140°F return.
    - b. One serves air handling units and provides heating water at design conditions of 180°F supply and 120°F return.
- B. Deficiencies
  - 1. Heat exchangers are reaching the end of their life expectancy.
  - 2. Reheat is not installed on interior Variable Air Volume (VAV) boxes, which has caused overcooling problems in the past.
  - 3. Unit heaters are reaching the end of their life expectancy.
- C. Recommendations
  - 1. Install new plate and frame heat exchangers.
  - 2. Install new heating water risers throughout the building.
  - 3. Install heating water distribution piping on each floor level to serve the fin tube radiation, unit heaters, and VAV box reheat coils.
  - 4. Install new unit heaters.

#### 1.7 MECHANICAL SYSTEMS – SPACE AIR CONDITIONING

- A. Existing Conditions
  - 1. Basement:
    - a. Spaces are conditioned using constant air volume air handling units.
  - 2. Ground Floor:
    - a. The auditorium and hearing room are conditioned with constant air volume air handling units.

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- b. Office interior spaces are conditioned through Variable Air Volume (VAV) boxes without reheat.
- c. Perimeter spaces are conditioned using VAV boxes without reheat coils, adjusted to provide constant minimum ventilation air, and perimeter fan coil units. The fan coil units include heating and cooling coils.
- 3. First Floor through Fifth Floor:
  - a. Office interior spaces are conditioned through Variable Air Volume (VAV) boxes without reheat.
  - b. Perimeter spaces are conditioned using VAV boxes without reheat coils, adjusted to provide constant minimum ventilation air, and perimeter fan coil units. The fan coil units include heating and cooling coils.
- 4. Sixth and Seventh Floor:
  - a. Office interior spaces are conditioned through Variable Air Volume (VAV) boxes without reheat.
  - b. Perimeter spaces are conditioned using VAV boxes with reheat coils
  - c. Unit heaters are installed in roof attic spaces to provide heat.
- B. Deficiencies
  - 1. Variable Air Volume (VAV) boxes are reaching the end of their life expectancy.
  - 2. VAV boxes include pneumatic controls, which does not allow central monitoring of the boxes.
  - 3. Many interior spaces have variable space loads but are constant air volume.
  - 4. Unit heaters are reaching the end of their life expectancy.
  - 5. Fan coil units located at the perimeter of the Ground floor through the Fifth floor:
    - a. Require continual maintenance.
    - b. Allow space occupants to change settings.
    - c. Do not have adequate heating or cooling capacity in several locations, causing uncomfortable space conditions.
    - d. Require filter changing in the occupied spaces.
    - e. Are not centrally monitored through the Building Automation System (BAS).
- C. Recommendations
  - 1. Install new VAV boxes with reheat coils to serve all spaces.
    - a. Interior space cooling loads will be satisfied through the VAV boxes.

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- b. Perimeter space cooling loads will be satisfied with VAV boxes in conjunction with chilled beams.
- 2. Install new unit heaters.
- 3. Remove perimeter fan coil units.
  - a. Install fin tube radiation for heating. Provide control for each space.
  - b. Install chilled beams to provide sensible cooling to the perimeter spaces, as well as spaces with highly variable cooling loads (i.e. conference rooms). A base occupancy cooling load will be handled by the VAV system. The perimeter heat gains and high space loads will be handled by the chilled beams.

## 1.8 GEOTHERMAL HEATING AND COOLING

- A. Existing Conditions
  - 1. The building is heated and cooled from the District Energy chilled water and heating water systems. A description of how these systems should be modified is identified above. In lieu of using the District Energy system, and alternative to consider would be geothermal heating and cooling, which uses the ground as a heat sink (cooling)/heat source (heating).
- B. Recommendations
  - 1. The installation of a geothermal heating/cooling system will require the installation of about 400 wells approximately 200 feet deep outside the building. The life cycle costs of a geothermal system would be higher than for the District Energy system.

#### 1.9 TEMPERATURE CONTROLS/BUILDING AUTOMATION SYSTEM (BAS)

- A. Existing Conditions
  - 1. Temperature controls are primarily pneumatic style.
  - 2. Building Automation System (BAS) has limited capability to monitor mechanical systems.
- B. Deficiencies
  - 1. Control and BAS type is outdated and has limited capabilities in performing energy optimizing functions and central monitoring of equipment.
- C. Recommendations
  - 1. Install new Direct Digital Control (DDC) system which improves systems operating efficiency and provides more flexibility in equipment control sequences.
  - 2. Install new Building Automation System (BAS) to provide central monitoring of the building mechanical systems.

### 1.10 MECHANICAL - PARKING RAMP

- A. Existing Conditions
  - 1. The parking ramp is open on the top level, thereby not requiring mechanical ventilation, but restricted on the lower level.
    - a. The lower level includes two (2) 2 HP ventilation fans along the perimeter.
    - b. A carbon monoxide (CO) sensing system is installed to cycle the exhaust fans.
- B. Deficiencies
  - 1. Exhaust fans are beyond their life expectancy.
  - 2. The CO monitoring system is not functioning.
- C. Recommendations
  - 1. Replace the existing exhaust fans with new fans.
  - 2. Replace the CO monitoring system with a new system to cycle the exhaust fans if the CO levels exceed a predetermined level.

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#### ELECTRICAL SYSTEMS

- 1.1 ELECTRICAL SYSTEMS GENERAL
  - A. The Minnesota State Office Building was originally constructed in 1932. At that time the building consisted of 7 floors
  - B. The facility was completely remolded in the mid 80's. During that remodel two floors and a mechanical penthouse were added. The remodel included replacement of the entire electrical system.
- 1.2 ELECTRICAL SYSTEMS DISTRIBUTION
  - A. Existing Conditions
    - 1. The facility is fed from the capitol 13.KV electrical distribution loop.
    - 2. A new medium voltage selector switch has been installed to connect the building to the loop distribution system. The selector switch allows the building to be connected to one of the distribution loops. The switch allows the building to transfer to an active loop if power is lost on one of the loops. The selector switch was manufactured by G&W.
    - 3. Two (2) 1000 KVA substations are located in the main electrical in the basement. The substations were manufactured by ITE with National Industi transformers.
    - 4. Each substation provides power to one side of a double ended 277/480 volt, 3 phase, 4 wire, 1600 amp switchboard located in the main electrical room. The double ended switchboard includes a tie switch to allow the entire switchboard to be energized by one of the substations. The switchboards were manufactured by ITE.
    - A 225 KW transformer (T-1) located in the basement provides 120/208 volt, 3 phase
      4, wire, power to switchboard DP-1. Switch board DP-1 then provides power to vertical 120/208 volt risers as follows:
      - a. A 400 amp riser provides power to the north side of levels Basement up to third level.
      - b. A 400 amp riser provides power to the south side of levels Basement up to third level.
      - c. A 200 amp riser provides power to the north side of levels four through seven.
      - d. A 200 amp riser provides power to the south side of levels four through seven.
    - 6. Power is distributed from the main electrical room to four (4) vertically stacked closets. These closets are located to the north and south of the main elevator lobby along the main corridor on each floor.
    - 7. 277/480 volt, 3 phase 4 wire and 120/208 volt, 3 phase, 4 wire Branch Circuit panels are located in the electrical closets. Most branch circuit panels are manufactured by ITE.
    - 8. One very old branch circuit panel was observed in an office on the first floor. This panel appeared to be a 120/208 volt 3 phase, panel from the original construction.

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- 9. Motor control centers are located in the basement and in the penthouse. These MCC's provide power to mechanical equipment in adjacent spaces. The MCC;s are manufactured by ITE.
- 10. The fire Pump is fed from a disconnect, tapped on the secondary side of one of the main transformers, ahead of the main. MC Cable has been run from the disconnect to the Fire Pump.
- B. Deficiencies
  - 1. The existing main electrical distribution equipment appears to be well maintained and in generally good condition.
  - 2. The main electrical room doors are not equipped with code required panic hardware
  - 3. The second exit from the main electrical room leads into a mechanical space and is partially obstructed by ductwork.
  - 4. There are minor maintenance items that should be addressed such as a broken circuit breaker in one of the MCC's.
  - 5. The branch circuit panels located in the electrical closets throughout the building are in generally good condition however appear to be undersized for building loads and circuit capacity.
  - 6. Per the mechanical narrative the existing Fire Pump is undersized and will be replaced as part of the building remodeling.
- C. Recommendations
  - 1. The existing main electrical distribution equipment will be replaced:
    - a. Provide two (2) new 1000 KVA transformers, each transformer shall consist of:
      - 1) 13,800 Volt delta primary
      - 2) 277/480 volt, wye secondary
      - 3) Provide primary fused switch
      - 4) Secondary fused switch
    - b. Provide a new 277/480 volt double ended main switchboard. Each end will be fed from one of the transformers. Provide a tie switch between the sections.
    - c. Provide a kirk-key interlock system between the secondary switches and the tie switch to prevent connection to both transformers.
  - 2. Due to the major renovations planned all branch circuit panels throughout the building will be replaced and relocated into new stacked electrical rooms. The following panels will be added to each floor:
    - a. Two (2) 277/480 volt, 3 phase, 4 wire 200 amp 42 circuit panels will be added on each floor.
    - b. Two (2) 120/208 volt 3 phase, 4 wire 150 amp, 84 circuit panels will be added on each floor. Each panel will be fed from a 75 KVA transformer. The transformers will be fed from the 277/480 volt panels on each floor.

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- 3. New Motor Control Centers will be provided to replace the existing units. Power will be provided to new mechanical equipment. Refer to the mechanical predesign report for information related to new mechanical equipment.
  - a. Provide a 480 volt, 3 phase, 3 wire, 600 amp motor control center in the basement electrical room. Provide starters for new mechanical equipment.
  - b. Provide a 480 volt, 3 phase, 3 wire, 600 amp motor control center in the basement pump room. Provide starters for new mechanical equipment.
- 4. Provide a 1200 amp breaker connected ahead of the main at one of the new switchboards to provide power to the new Fire Pump. Route RHW conductors (225 amp) in conduit from the breaker to the Fire Pump.

#### 1.3 ELECTRICAL SYSTEMS – EMERGENCY POWER

- A. Existing Conditions
  - 1. A 500 KW exterior Diesel Generator provides power to; Life Safety, Legally Required and Optional emergency power loads in the building, as well as power to the building fire pump.
  - 2. Three automatic transfer switches are located in a dedicated room in the basement. The following transfer switches are present:
    - a. Life Safety 277/480 volt, 100 Amp
    - b. Legally Required 277/480 volt, 400 Amp
    - c. Optional 277/480 volt, 600 Amp
  - 3. Life safety power is distributed from the ATS to an adjacent 277/480 volt, distribution panel. This panel provides power to other life safety panels in the building. The distribution panel also feeds a transformer that provides power to low voltage life safety panels on the upper floors.
  - 4. Legally Required emergency power is distributed from the ATS to an adjacent 277/480 volt, distribution panel. The distribution panel provides power to legally required loads such as Elevators and Stair Pressurization fans.
  - 5. Optional emergency power is distributed from the ATS to an adjacent 277/480 volt, distribution panel. The distribution panel provides power to optional emergency loads in the building.
- B. Deficiencies
  - 1. The ATS's and distribution equipment appear to have been installed in 2007; therefore they are relatively new and in excellent condition.
  - 2. The emergency electrical room doors are not equipped with code required panic hardware.
- C. Recommendations
  - 1. The existing generator shall remain as is.

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- 2. Existing transfer switches and distribution equipment shall remain as is.
- 3. Emergency panels downstream of the distribution equipment, located on the upper floors will be replaced as part of the building remodel to be located in the new electrical rooms.
  - a. New 277/480 volt, 3 phase, 4 wire, 100 amp Life safety panels will be provided on every other floor.
  - b. New 120/208 volt 3 phase, 4 wire,100 amp Life safety panels with 30 KVA transformers will be located on every other floor.
  - c. Optional and legally required panels will be provided to replace the existing panels.
  - d. Provide a 250 amp circuit breaker at the generator to provide power to the new Fire Pump. Route RHW conductors (225 amp) in conduit from the breaker to the Fire Pump.

#### 1.4 ELECTRICAL SYSTESM – PHOTOVOLTAIC

- A. Existing Conditions
  - 1. The building currently does not have any Photovoltaic Equipment.
- B. Deficencies
  - 1. N/A
- C. Recommendations
  - 1. Provide 40 KW of Photovoltaic arrays on the roof of the building
  - 2. The PV arrays will provide power into the building's electrical system via an inverter system.

#### 1.5 ELECTRICAL SYSTEMS – LIGHTING

- A. Existing Conditions
  - 1. In general building lighting is relatively old and does not provide sufficient illumination in most spaces.
  - 2. Office lighting typically consists of single lamp, T8, fluorescent strip fixtures mounted in an architectural cove.
  - 3. Some interior staff offices are provided with 2' X 2', 2 lamp, T8, fluorescent lay-in fixtures.
  - 4. Reception areas are provided with 2' X 2', 2 lamp, T8, fluorescent lay-in fixtures.
  - 5. Hearing Room lighting consists of single lamp, T8, fluorescent strip fixtures mounted in an architectural cove, and 1' X 4', 2 lamp, T8, fluorescent lay-in fixtures.

- 6. Conference room lighting consists of single lamp, T8, fluorescent strip fixtures mounted in an architectural cove, and dimmable compact fluorescent down lights.
- 7. Library lighting consists of single lamp, T8, fluorescent pendants fixtures mounted between the bookcases, with several different kinds of T8, fluorescent lay-in fixtures, and compact fluorescent down lights.
- 8. Corridor lighting typically consist of compact fluorescent wall sconces, with additional 2' X 2', 2 lamp, T8, fluorescent lay-in fixtures located in some areas.
- 9. Toilet room lighting consists of single lamp, T8, fluorescent strip fixtures mounted in an architectural cove, with additional compact fluorescent down lights.
- 10. Stairwell lighting consists of surface mounted, 2 lamp, T8, fluorescent wraparound fixtures.
- 11. Public lighting consists of historic fixtures that appear to have been retrofit to compact fluorescent sources. These fixtures appear to be in generally good condition.
- 12. Exit lights are old LED style fixtures. The existing exit lighting does not appear to have sufficient illumination of the fixture face.
- 13. Exterior lighting consists of historic fixtures with Metal Halide lamps. The fixtures appear to be in generally good condition.
- B. Deficiencies
  - 1. In general the current building lighting systems so not provide sufficient illumination in most areas. All areas appear to be dark.
  - 2. Exit light fixtures do not appear to meet illumination requirements for exit lighting.
- C. Recommendations
  - 1. Due to planned major building renovations it its recommended that all general lighting be replaced with new lighting. New lighting shall consist of:
    - a. General office lighting: 2' X 4' 2 lamp, T8, 32 watt lay-in direct/indirect volumetric fixtures.
    - b. Open office and Reception area lighting: 2' X 4' 2 lamp, T8, 32 watt lay-in direct/indirect volumetric fixtures.
    - c. Corridor lighting: 2' X 4' 2 lamp, T8, 32 watt lay-in direct/indirect volumetric fixtures.
    - d. Hearing Room lighting: Design of the hearing room lighting will be determined based on the architectural ceiling design. Four (4) foot fluorescent lamps will be utilized in coves or in light fixtures. Dimmable compact fluorescent down lights will also be incorporated into the design 4.
    - e. Conference Room lighting: 2' X 4' 2 lamp, T8, 32 watt lay-in direct/indirect volumetric fixtures. Dimmable compact fluorescent down lights will also be incorporated

- f. Toilet Room lighting: Linear 2 lamp T8, 32 Watt fixture/cove over the chase wall. Compact fluorescent down lights will also be provided.
- g. Library lighting: Linear 2 lamp T8, 32 watt pendant fixtures, with additional compact fluorescent down lighting
- 2. Replace all existing Exit light fixtures with new LED exit light fixtures.

#### 1.6 ELECTRICAL SYSTEMS – EGRESS LIGHTING

- A. Existing Conditions
  - 1. Emergency egress lighting is currently provided by the corridor wall sconce fixtures throughout building.
  - 2. Egress lighting is currently only provided in the ring corridor around the elevator core and elevator lobbies.
  - 3. Stairways egress lighting is provided by the wall mounted wraparounds.
- B. Deficiencies
  - 1. The existing emergency egress lighting does not appear to be sufficient.
  - 2. Egress lighting does not appear to be present in all areas of the egress pathway.
- C. Recommendations
  - 1. Provide emergency back-up battery ballasts in selected new lighting fixtures throughout the egress pathway.

#### 1.7 ELECTRICAL SYSTEMS – GENERAL POWER

- A. Existing Conditions
  - 1. The general receptacle layout appears to be sufficient for the use of the spaces.
  - 2. Some additional outlets have been added throughout the building for specific loads.
  - 3. Some extension cords were observed throughout the building with a higher concentration on the upper floors.
  - 4. The existing underfloor power distribution system appears to have been abandoned in most areas.
- B. Deficiencies
  - 1. The underfloor power distribution system is old and has been abandoned in most areas. The condition of the underfloor ducts is not obtainable.
  - 2. Additional power should be added in most areas to support the use of the spaces.
- C. Recommendations
  - 1. The existing underfloor power distribution system should be completely abandoned.

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2. New power outlets will be provided throughout the facility as part of the building renovation.

#### 1.8 ELECTRICAL SYSTEMS – FIRE ALARM SYSTEM

- A. Existing Conditions
  - 1. It appears the building fire alarm system has been updated in the last ten years.
  - 2. The building fire alarm system is a fully addressable voice evacuation system utilizing speakers for audible notification and strobe lights for visual notification.
  - 3. The fire alarm control panel (FACP) is located in the Fire Alarm Command Center on the first floor. The FACP is a Honeywell XLS1000 system, currently supported by Honeywell.
  - 4. A microphone for the fire alarm system is integrated in the FACP.
  - 5. A fire alarm terminal with a CPU and graphic user interface is located in the Fire Command Center.
  - 6. Smoke detection was found to be throughout most areas of the building. Many detectors have a yellow color.
  - 7. Fire Protection systems including the wet sprinkler systems and FM-200 system in the basement computer room are monitored by the fire alarm system.
- B. Deficiencies
  - 1. Placement of smoke detectors on a wall is not compliant with NFPA 72 code.
  - 2. Placement of notification is not compliant with NFPA 72 in hallways and in rooms to achieve full coverage.
  - 3. Intelligibility varies greatly in the public spaces.
  - 4. Detection is not present in several large skylights.
  - 5. The fire alarm system currently does not tie into the existing Audio/Visual systems to override the room sound system during an alarm.
  - 6. No mass notification was found integrated into the digital signage.
- C. Recommendations:
  - 1. Relocate and add smoke detection as required to meet the current adopted NFPA 72 Fire Alarm code.
  - 2. Provide beam detectors at large skylight locations to provide full coverage smoke detection.
  - 3. Relocate and add audible and visual notification as required to meet the current adopted NFPA 72 Fire Alarm code.
  - 4. Provide additional speakers to increase intelligibility in public spaces.

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- 5. Provide remote microphone in dispatch center for communication during campus wide emergency.
- 6. Provide additional relays and programming to close smoke dampers and combination fire smoke dampers during air handling unit shutdown.
- 7. Provide additional connections to digital signage for visual mass notification function.
- 8. Provide override to mute local audio systems during initiation of notification.

#### 1.9 ELECTRICAL SYSTEMS – VOICE AND DATA SYSTEMS

- A. Existing Conditions
  - 1. The existing voice infrastructure utilizes VOIP systems which have been updated in the last five years. There is existing cabling left from the initial phone installation in 1984.
  - 2. The building has a demarcation room in the basement for the analog phone lines. Which are converted to a Voice over Internet Protocol (VOIP) system.
  - 3. The main computer room in the basement houses all the core network, server, and VOIP systems for the capital and state office building.
  - 4. All data and VOIP systems in the State Office Building, and the Capitol are fed from the main computer room.
  - 5. There are two network closets on each floor stacked from the third to the sixth level.
  - 6. Network equipment appears to have been upgraded to current standards.
  - 7. The seventh level Revisor's office does not have a separate voice data closet. An open rack in the printing room is used for cross connections and network equipment.
  - 8. OM1 62.5 micron multi-mode fiber is installed from the network closets to the main computer room.
  - 9. Legacy category 3 backbone and horizontal cabling is found throughout the building. Legacy wall fields are found in the network closets.
  - 10. Category 5 cabling is used for horizontal cabling.
  - 11. Typical voice/data drop includes one voice and one data connection. The voice connection is not used and has been replaced by the VOIP system.
  - 12. Network closets house audio visual equipment used in hearing rooms.
  - 13. A large stand alone as well as smaller rack mount uninterruptible power supplies are being utilized in the main equipment room. Smaller tower UPS systems were found in network closets.
  - 14. House, Senate, and Revisor data infrastructure is physically separated throughout the building except at the core switch service connection.

#### B. Deficiencies

MN State Office Building MD067000

- 1. Cable management is mixed with power circuits and is disorderly under the raised floor system in the main computer room.
- 2. OM1 multi-mode cabling is used for the backbone fiber infrastructure. This is limited to less than 10Gbps of bandwidth.
- 3. Each data outlet has a single data connection and phone connection not enabled.
- 4. Legacy unused Category 3 cabling has been left throughout the building.
- 5. Existing Category 5 cabling and terminations is not rated for 1 Gbps bandwidth. Users are not able to utilize the full bandwidth provided by the network equipment.
- 6. Racks and cabinets are not easily accessible. Network closets are much less than the BICSI recommended size for areas being served.
- 7. Cooling should be reviewed, a number of the closets are very warm from the addition of active equipment, including audio visual equipment, being stored in these rooms.
- 8. A cable management system does not exist in the network closets or on the floors.
- 9. Fire stopping was missing in a number of sleeves between the network closets.
- 10. Existing network infrastructure in the Library is located a cubicle in the open office space.
- C. Recommendations
  - 1. Provide cable management
  - 2. Provide additional voice/data outlets revised to current layout. Provide additional connections at printer locations.
  - 3. Remove legacy Category 3 cabling.
  - 4. Provide separate network closet for seventh floor Revisor's office.
  - 5. Replace Category 5 cabling with 1Gbps rated Category 5e or Category 6 cabling.
  - 6. Relocate audio visual equipment to separate room.
  - 7. Provide new network closet in Library area for network infrastructure.

#### 1.10 ELECTRICAL SYSTEMS – SECURITY

- A. Existing Conditions
  - 1. The security system at the State Office Building includes Access Control, Closed Circuit Television (CCTV), and Call for Assistance (CFA) systems.
  - 2. The access control system is a Honeywell system, it has been installed and extended within the last five years. It utilizes RS422 communication between the head end equipment and the controllers.

- 3. Access Control is used as the primary method for securing certain doors at strategic locations. In addition, certain exit doors can be remotely locked from the Capital Security as part of the access control system.
- 4. The existing CCTV system is a hybrid Bosch system remotely connected to DVR's at the Capital Security office.
- 5. Cameras vary in type and age throughout the building and parking ramp.
- 6. The CFA system consists of push button intercom stations located in the tunnels, parking garage, and other select locations.
- 7. CFA models appear to vary between Stentophone type and Huntington type stations.
- B. Deficiencies
  - 1. All existing systems are currently stand alone system. No integration exists between the CCTV, Access Control, and Call-for-Assistance systems.
  - 2. Free access between floors and office areas. In an emergency situation, locking down areas of the building is challenging and staff intensive.
  - 3. Power adapter for interior cameras is accessible.
  - 4. Legacy analog cameras are utilized.
  - 5. The system is inconsistent in that not all entrances/exits are equipped with cameras.
  - 6. The parking garage is inconsistent in their application in that not all entry/exit points have CFA's.
  - 7. Two types of signs are in place to identify call stations.
- C. Recommendations
  - 1. Review with the owner the doors that are now protected versus what might improve operations if added in select areas.
  - 2. Divide the building into separate zones so that each zone and/or the entire building can be accomplished from the Capitol Security.
  - 3. Provide at least one camera stationary at every point where a person may enter or exits the facility. Cameras shall continually record whenever motion is detected.
  - 4. Replace all cameras with megapixel network cameras, provide separate building security network infrastructure in network closets.
  - 5. Add CFA's to all points of ingress/egress. Additionally, uniform signs are needed to identify the call stations.

## 1.11 ELECTRICAL SYSTEMS - AUDIO / VISUAL

A. Existing Conditions

MN State Office Building MD067000

- 1. The Audio Visual systems at the SOB include the audio and video equipment utilized in the hearing rooms. Additionally, there is one location in the main floor elevator lobby with digital signage.
- 2. The systems in the hearing rooms appear to be over 12 years old, and utilize analog signals.
- 3. The hearing rooms include local audio systems for sound recording and reinforcement. Goose-neck microphones feed into a mixer and are then amplified over speakers.
- 4. There is a relay to isolate the audio so it is not recorded.
- 5. The video systems include broadcast cameras utilizing a serial digital interface (SDI) to record live footage. The recorded footage can be broadcasted live or recorded and edited for future viewing.
- 6. The head end equipment is currently located in network closets.
- B. Deficiencies
  - 1. Current cameras and cables do not support high definition video (HD-SDI).
  - 2. Existing cameras are at end of life and can only be replaced with used products.
  - 3. Existing mixers are at end of life and need repair frequently.
  - 4. Existing microphones can be flipped up towards the speakers which causes feedback and volume adjustment issues.
  - 5. Teleconferencing function is not available.
  - 6. Digital signage utilizes analog signal and it only at one location.
- C. Recommendations
  - 1. Replace cameras, cables, and head-end equipment with products that support HD-SDI, so video can be rebroadcast in high definition.
  - 2. Connect all head-end systems together to allow for more flexibility for overflow viewing and recording.
  - 3. Provide inputs to allow for remote testimony through teleconferencing.
  - 4. Replace analog mixers with digital signal processors which support echo cancelation.
  - 5. Provide new microphones integral to table or overhead to prevent the speaker from flipping microphone up.
  - 6. Add digital signage to all elevator lobbies and other select locations. Update system to digital system and integrate with audio visual head-end equipment.

#### 1.12 ELECTRICAL SYSTEMS - PARKING RAMP

A. Existing Conditions

MN State Office Building MD067000

- 1. Lighting within the parking ramp consists of square surface mounted high pressure sodium light fixtures.
- 2. The Lighting within the stairways is provided by the same square surface mounted high pressure sodium light fixture mounted on the walls.
- 3. Lighting on the upper level of the ramp consists of pole mounted high pressure sodium globe fixtures.
- 4. Two branch circuit panels are located in the parking ramp and provide power to lighting and mechanical equipment.
  - a. A 277/480 volt, 3 phase, 4 wire, 200 amp paneLboard provides power for lighting.
  - b. A 120/208 volt, 3 phase, 4 wire, 200 amp panelboard with an associated 45 KVA transformer provides power for general loads.

#### B. Deficiencies

- 1. The ramp lighting is in generally good condition however it is relatively old and inefficient.
- 2. The power panels in the ramp are old and are nearing the end of their expected life.
- C. Recommendations
  - 1. Provide new surface mounted lighting fixtures throughout the parking ramp. The new fixtures shall be LED.
  - 2. Replace the existing branch circuit panels and transformer within the parking ramp.

miller dunwiddie

#### TECHNOLOGY SYSTEMS

#### 1.1 ELECTRICAL SYSTEMS – VOICE AND DATA SYSTEMS

- A. Existing Conditions
  - 1. The existing voice infrastructure utilizes VOIP systems which have been updated in the last five years. There is existing cabling left from the initial phone installation in 1984.
  - 2. The building has a demarcation room in the basement for the analog phone lines. Which are converted to a Voice over Internet Protocol (VOIP) system.
  - 3. The main computer room in the basement houses all the core network, server, and VOIP systems for the capital and state office building.
  - 4. All data and VOIP systems in the State Office Building, and the Capitol are fed from the main computer room.
  - 5. There are two network closets on each floor stacked from the third to the sixth level.
  - 6. Network equipment appears to have been upgraded to current standards.
  - 7. The seventh level Revisor's office does not have a separate voice data closet. An open rack in the printing room is used for cross connections and network equipment.
  - 8. OM1 62.5 micron multi-mode fiber is installed from the network closets to the main computer room.
  - 9. Legacy category 3 backbone and horizontal cabling is found throughout the building. Legacy wall fields are found in the network closets.
  - 10. Category 5 cabling is used for horizontal cabling.
  - 11. Typical voice/data drop includes one voice and one data connection. The voice connection is not used and has been replaced by the VOIP system.
  - 12. Network closets house audio visual equipment used in hearing rooms.
  - 13. A large stand alone as well as smaller rack mount uninterruptible power supplies are being utilized in the main equipment room. Smaller tower UPS systems were found in network closets.
  - 14. House, Senate, and Revisor data infrastructure is physically separated throughout the building except at the core switch service connection.
- B. Deficiencies
  - 1. Cable management is mixed with power circuits and is disorderly under the raised floor system in the main computer room.
  - 2. OM1 multi-mode cabling is used for the backbone fiber infrastructure. This is limited to less than 10Gbps of bandwidth.
  - 3. Each data outlet has a single data connection and phone connection not enabled.

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- 4. Legacy unused Category 3 cabling has been left throughout the building.
- 5. Existing Category 5 cabling and terminations is not rated for 1 Gbps bandwidth. Users are not able to utilize the full bandwidth provided by the network equipment.
- 6. Racks and cabinets are not easily accessible. Network closets are much less than the BICSI recommended size for areas being served.
- 7. Cooling should be reviewed, a number of the closets are very warm from the addition of active equipment, including audio visual equipment, being stored in these rooms.
- 8. A cable management system does not exist in the network closets or on the floors.
- 9. Fire stopping was missing in a number of sleeves between the network closets.
- 10. Existing network infrastructure in the Library is located a cubicle in the open office space.
- C. Recommendations
  - 1. Provide cable management
  - 2. Provide additional voice/data outlets revised to current layout. Provide additional connections at printer locations.
  - 3. Remove legacy Category 3 cabling.
  - 4. Provide separate network closet for seventh floor Revisor's office.
  - 5. Replace Category 5 cabling with 1Gbps rated Category 5e or Category 6 cabling.
  - 6. Relocate audio visual equipment to separate room.
  - 7. Provide new network closet in Library area for network infrastructure.

#### 1.2 ELECTRICAL SYSTEMS – SECURITY

- A. Existing Conditions
  - 1. The security system at the State Office Building includes Access Control, Closed Circuit Television (CCTV), and Call for Assistance (CFA) systems.
  - 2. The access control system is a Honeywell system, it has been installed and extended within the last five years. It utilizes RS422 communication between the head end equipment and the controllers.
  - 3. Access Control is used as the primary method for securing certain doors at strategic locations. In addition, certain exit doors can be remotely locked from the Capital Security as part of the access control system.
  - 4. The existing CCTV system is a hybrid Bosch system remotely connected to DVR's at the Capital Security office.
  - 5. Cameras vary in type and age throughout the building and parking ramp.

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MD067000

- 6. The CFA system consists of push button intercom stations located in the tunnels, parking garage, and other select locations.
- 7. CFA models appear to vary between Stentophone type and Huntington type stations.
- B. Deficiencies
  - 1. All existing systems are currently stand alone system. No integration exists between the CCTV, Access Control, and Call-for-Assistance systems.
  - 2. Free access between floors and office areas. In an emergency situation, locking down areas of the building is challenging and staff intensive.
  - 3. Power adapter for interior cameras is accessible.
  - 4. Legacy analog cameras are utilized.
  - 5. The system is inconsistent in that not all entrances/exits are equipped with cameras.
  - 6. The parking garage is inconsistent in their application in that not all entry/exit points have CFA's.
  - 7. Two types of signs are in place to identify call stations.
- C. Recommendations
  - 1. Review with the owner the doors that are now protected versus what might improve operations if added in select areas.
  - 2. Divide the building into separate zones so that each zone and/or the entire building can be accomplished from the Capitol Security.
  - 3. Provide at least one camera stationary at every point where a person may enter or exits the facility. Cameras shall continually record whenever motion is detected.
  - 4. Replace all cameras with megapixel network cameras, provide separate building security network infrastructure in network closets.
  - 5. Add CFA's to all points of ingress/egress. Additionally, uniform signs are needed to identify the call stations.

#### 1.3 ELECTRICAL SYSTEMS – AUDIO / VISUAL

- A. Existing Conditions
  - 1. The Audio Visual systems at the SOB include the audio and video equipment utilized in the hearing rooms. Additionally, there is one location in the main floor elevator lobby with digital signage.
  - 2. The systems in the hearing rooms appear to be over 12 years old, and utilize analog signals.
  - 3. The hearing rooms include local audio systems for sound recording and reinforcement. Goose-neck microphones feed into a mixer and are then amplified over speakers.

- 4. There is a relay to isolate the audio so it is not recorded.
- 5. The video systems include broadcast cameras utilizing a serial digital interface (SDI) to record live footage. The recorded footage can be broadcasted live or recorded and edited for future viewing.
- 6. The head end equipment is currently located in network closets.
- B. Deficiencies
  - 1. Current cameras and cables do not support high definition video (HD-SDI).
  - 2. Existing cameras are at end of life and can only be replaced with used products.
  - 3. Existing mixers are at end of life and need repair frequently.
  - 4. Existing microphones can be flipped up towards the speakers which causes feedback and volume adjustment issues.
  - 5. Teleconferencing function is not available.
  - 6. Digital signage utilizes analog signal and it only at one location.
- C. Recommendations
  - 1. Replace cameras, cables, and head-end equipment with products that support HD-SDI, so video can be rebroadcast in high definition.
  - 2. Connect all head-end systems together to allow for more flexibility for overflow viewing and recording.
  - 3. Provide inputs to allow for remote testimony through teleconferencing.
  - 4. Replace analog mixers with digital signal processors which support echo cancelation.
  - 5. Provide new microphones integral to table or overhead to prevent the speaker from flipping microphone up.
  - 6. Add digital signage to all elevator lobbies and other select locations. Update system to digital system and integrate with audio visual head-end equipment.

miller dunwiddie



# **State Office Building**

Elevator Evaluation May 2012

## Elevators 1-4

The four main elevators were originally installed by Otis Elevator in 1932; the elevators were upgraded with new proprietary control systems with fire service and non-proprietary safeties, governors, fixtures, roller guides, door operators, door locks, and cabs by Kone Elevator in 1995. The gearless hoist machines, deflector sheaves, and car slings appear to be from the original installation and have been in service for the last 80 years.

Recommendations:

- 1. Replace machines with a more energy efficient type machines
- 2. Providing unintended movement device.
- 3. Replace deflector sheaves due to accumulated wear and age.
- 4. Replace controls with a regenerative drive system, this system with reclaim unused energy produced by the under-hauling condition created by the counterweight when the car runs in the up direction. This reclaimed power can then be sent to the energy grid thus reducing operating costs of the equipment.
- 5. Clad hoistway doors inset with a clear panel to infill the 3/8" panel relief.
- 6. Cab updating with proper venting and energy efficient LED down lighting
- 7. Replacement of car and counterweight buffers

1

# Elevator 5

The original Otis elevator was installed in the 1930s and had been completely removed (this included the hoist machine, deflector sheaves, buffers, safeties, sling, counterweight, doors, platform). In 1985 it had been replaced with an Armor/Kone service passenger elevator. Between 2007 and 2011 due to recent code changes the controller was updated with an Electrodyne fire service overlay system and a rope gripper. This overlay system does not increase efficiently or provide any enhancement to the system except for the phase I and phase II fire service used only by firefighters in an emergency situation. EAG recommends controller replacement due to the age, obsolescence and the accumulated wear of the past 25 plus years.

# Recommendations:

- 1. Retain the hoist machine, sling, safeties, deflector sheaves, rails, doors, frames and sills
- 2. Replace the hoist motor with a VVVF motor (variable voltage variable frequency)
- 3. Replace the controls with a state of the art non-propriety VVVF controller and drive
- 4. Install a regenerative drive system, this system with reclaim unused energy produced by the under-hauling condition created by the counterweight when the car runs in the up direction. This reclaimed power can then be sent to the energy grid thus reducing operating costs of the equipment.
- 5. Replace door locks, tracks, rollers, closers
- 6. Replace door operators
- 7. Replace wiring
- 8. Replace all hoistway switches
- 9. Cab updating with proper venting and energy efficient LED down lighting

# Elevator 6

This elevator was installed by ESCO elevator in 1985, it is a two stop elevator serving 6th floor to 7th floor. This is a twin post hole-less type elevator that appears to be of original design with no updates. The power unit is all original and is located in the penthouse machine room of cars 1-4. The control system is old relay logic technology. EAG recommends a full modernization of this equipment due to the age, obsolescent and the accumulated wear of the past 25 plus years.

Recommendations:

- 1. Replace the existing power unit with a new submersible type power unit
- 2. Replace threaded oil line with Victaulic type fittings
- 3. Cab upgrades with energy efficient LED down lighting
- 4. Replace the old relay logic controller with a non-proprietary micro processor based system
- 5. Replace all hoistway switches and wiring.
- 6. Replace door operator
- 7. Replace door locks, tracks, rollers, closers and gibs

# Elevator 7

This elevator was installed in the 1960's by R&O elevator; Schindler has recently replaced the cylinder due to a recent code adoption. This freight elevator is all original except for the cylinder this elevator has out lived its useful life. Door panels tracks and door locks are extremely warn along with the original power unit. There are voids around the door frames allowing openings to the hoistway. The car sling bolster is non-compliant and the piston has to potential of pulling away from the underside of the platform. EAG recommends a complete modernization of this unit.

Recommendations:

- 1. Replace power unit
- 2. Replace car sling
- 3. Replace hoistway doors (with an option for power doors)
- 4. Replace cab and platform
- 5. Replace controller with a non-proprietary type solid state control system
- 6. Replace fixtures

# **Platform Lift**

This lift is manufactured by Porch Lift and travels about 30 inches; this is a screw drive unit. Using a screw and nut to raise and lower the platform. This lift appears to be in compliance with code so EAG has no recommended updates for this equipment.

miller dunwiddie

#### Exterior Wall Review



The State Office Building per the original 1932 Clarence Johnston Drawings is solid concrete framing with stone veneer. The entire building was re-pointed in 2002. Spot pointing will be required at some stone displacement and failed joints that has occurred since the 2002 project.

The interior side of the exterior stone and concrete walls is constructed of clay tile with direct applied finish plaster. The clay tile is set in from the interior face of the exterior walls at the structural piers in some areas by approximately 5"-6". In all other areas the clay tile is directly behind the exterior wall. The interior after the renovation in 1985 includes 2" of rigid insulation directly applied to the original plaster walls and finished with 1/2" painted gypsum board. This means some areas of the exterior wall are solid interior to exterior with no air space and only 2" of insulation and other areas, particularly at the exterior piers have air space of up to 6". There is no vapor barrier. The minimum R-value achieved by this wall is approximately R10. The areas with the air space would achieve a slightly higher value but overall the majority of the exterior wall area would be approximately R10.

The exposed lintels were painted in 2002 and some replacement occurred at isolated locations. The lintels should be reviewed individually in concurrence with the window replacement and painted as required.

miller dunwiddie

#### MN State Office Building & Parking Deck Preservation, Restoration and Repairs Predesign

The 1985 addition of the upper floors was constructed of concrete block and metal framing with prefinished siding and batt insulation with no vapor barrier. The interior of the block is finished in veneer plaster applied directly to the block. The only insulation at these upper levels is at the underside of the roof. It is identified on the 1985 drawings as R30 batt. It appears that chicken wire and poly sheeting has been added since to secure the batt to the underside of the roof.





#### MN State Office Building & Parking Deck Preservation, Restoration and Repairs Predesign

#### Window Review

The windows are metal frame casement windows with fixed transom in the 1932 portion and alternating awnings and fixed windows in the 1985 addition. The windows are double pane insulated glass but the frames are not thermally broken or properly detailed for exterior drainage. From the 1985 drawings it appears the wood frames were remain. to investigation Additional is required to determine if those are still intact and at a minimal could be used to determine the



original profiles. The insulated glass systems are in fair condition with some present hazing of



the glass. The frames however are showing signs of internal deterioration and are contributing to interior damage of the building as condensation moisture within the frames is trapped within the frames and draining to the interior of the building.

#### MN State Office Building & Parking Deck Preservation, Restoration and Repairs Predesign

#### Skylight Review

The skylights are also metal frame and were all added in the 1985 addition. The majority are double pane insulated glass but there a few 'kalwall' assemblies. The metal frames are not thermally broken or properly detailed for exterior drainage. The insulated glass systems are in fair condition with some present hazing of the glass. The 'kalwall' assemblies have 'yellowed'



substantially which is typical for this product but impact the quality of light filtered through the assembly. The frames however similar to the windows are showing signs of internal deterioration and are contributing to interior damage of the building condensation as moisture within the frames is trapped within the frames and draining to the interior of the building. The difficulty is that the detailing of the interior wall finishes relation to these in frames will require mean replacement will require removal and replacement the of interior finishes. This is required in some areas to correct damage but others in is only required for access the skylight assembly.

miller dunwiddie

#### **Roof Review**

The fully pavered EPDM roofs on the main building were installed in 1998 and are 14 years old. There is an upper roof level and then two narrow roofs on the east and west ends of the building. They have a 15 year manufacturer's warranty that is still in effect. The roofs are generally in fair to good condition. Repairs have been performed in the past on some of the flashing seams. Currently the seams appear water tight and the pavers are not deteriorated. There were no deficiencies noted that would require immediate attention and/or be covered under the remaining manufacturer's warranty. The seams should be continued to be monitored as they age.

However, each of the narrow EPDM roofs at the 4<sup>th</sup> floor level are adjacent to a long translucent panel skylight. These skylights are deteriorated and would not be expected to perform satisfactorily for long - see skylight review above. Although the narrow EPDM should roofs perform adequately for a few more years, it would make sense to replace them at the same time as the skylights.





There is a small rock ballasted EPDM roof area at the east end of the building at the second floor level. The flashing and sealants are in poor condition and this roof area should be replaced when possible.

miller dunwiddie
### MN State Office Building & Parking Deck Preservation, Restoration and Repairs Predesign

There are 2 clay tile roof areas on the main building. The upper tile roof was installed as part of a building addition in 1984. The lower tile roof was reroofed in 1998. There are a few tile that have broken and some that have come loose and have been repaired but tile on both areas appear to be in good condition. Both owner personnel and the roof contractor who maintains these roofs indicate that nails fastening the tile have backed out in the past at numerous locations. Several of these locations



were observed along the ridge of these roof areas where nails have backed out. Since the clay tile would have a life expectancy of 75 years we would recommend the tile be removed and then refastened/reinstalled with stainless steel or copper ring shank nails. Some replacement tile would need to be included in this reinstallation work.



There is a connecting link roof at grade between the main building and the parking ramp. This area has a pavered EPDM roof system. Base flashing repairs have been made around the perimeter but the field of the roof has not been replaced according to owner personnel. This roof area has a of leakage problems. history Several water tests have been performed and some leaks have been found and repaired. There is currently one persistent leak that has not been repaired along the

east side of this roof area. Due to the age of the roof and the ongoing leakage issues we would recommend replacing this area when possible.

The parking ramp has 2 roofed structures. Each structure has a pavered EPDM roof area surrounded by sloped tile roof areas. It is our understanding that the EPDM roof areas were replaced within the last 3 or 4 years and are performing satisfactory. The tile roofs and the gutter at their perimeter had some minor repairs performed on them during that same time period. Currently there is no reported problems. These areas should perform satisfactory for several years. The copper gutter should be monitored for any cracking and periodically cleaned of debris.

## miller dunwiddie

ARCHITECTURE

Appendix D – Security Confidential Document Not Printec



State Office Building and Parking Deck Preservation, Restoration and Repairs Predesign **FINAL DRAFT** 

21 Dec 2012

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VFA Reports - MNSOB and Parking Deck

Inventory of PMD MNSOB Drawings

Appendix G Appendix H Volume 3

Volume 1













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## **State Office Building Space Inventory**

### Architectural Finish Material Key

- W1 Gyp bd walls to deck or above ceiling
- W2 Gyp bd walls to ceiling acoustic concerns
- W3 54" office system movable
- W4 Full height office system movable
- W5 Partition system metal panel/glass transom
- W6 Stone
- W7 Plaster
- W8 Metal and glass
- W9 Ceramic tile
- CL1 Painted flat gyp bd
- CL2 Painted sloped gyp bd / slot in gyp bd for mech return
- CL3 Painted decorative gyp bd light shelf 3 sides of room
- CL4 Painted decorative gyp bd light shelf 1 side of room
- CL5 Diagonal 2x2 grid and AC tile
- CL6 Plaster decorative molding at perimeter
- CL7 Plaster decorative molding at perimeter and coffered
- CL8 Clear glazed/alum frame skylight
- CL9 Kal Wal skylight yellowed / Alum frame
- FL1 Stone
- FL2 Carpet
- FL3 Carpet Tile
- FL4 Ceramic Tile
- FL5 Concrete
- FL6 Raised Access Floor
- D1 Wood chair rail
- D2 Wood wainscot
- D3 4x4 acoustic fabric panel

1 supply grill above light shelf at face of soffit / 2 return grills at end

- ME1 of soffit / Fin tube radiation at exterior wall
- ME2 1 supply grill above light shelf / slot return at break of clg slope
- ME3 Diffuser in 2x2 grid
- ME4 Painted metal slot diffusers in flat gyp bd ceiling
- SP1 Side wall
- SP2 Ceiling
- E1 Light shelf 3 sides of room
- E2 Light shelf 1 side of room
- E3 Track lighting
- E4 2x2 light
- E5 Wall sconce
- E6 Historic wall sconce
- E7 2x4 linear

	Square											
Room	Foot	Number of	Number of						Architectural			
Number	Area	Occupants -	Occupants -		Rea'd	Actual	Architectural	Architectural	Finishes -	Mechanical /		
	(SF)	Code	Actual	Function	Exits	Exits	Finishes - Walls	Finishes - Ceiling	Floors	HVAC / Piping	Lighting	Notes
	(- )			Corridor and Elevator						-, 1-0	0 0	
101	1614	-	-	Lobby	-	-	W6/W8	CL7	FL1		E5	
101A	314	-	-	Elevator Shaft	-	-					-	
101B	7	1	1	Closet	1	1						
101C	9	-	-	Fire Command	-	-	W1	CL1	FL1		E7	
101D	92	1	1	Storage	1	1		-				
				0							E5 - corner	
102	524	-	-	Corridor and Stair	-	-	W7	CL7	FL1		fixtures	Exit corridor - rated requirement
103	213	3	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	E1A	
104	191	-	-	Men's Restroom	-	-	W9	CL1	FL4	1 -	E8/E9	Door operator
104A	27	-	-	Shaft	-	-						
105	203	3	1	Office	1	1	W1/D1	CL3A	FL3	ME1/SP1	E1A	
106	379	-	-	Entry Lobby	-	-	W6	CL7	FL1	,	E5/E10	
106A	44	-	-	Entry Vestibule	-	-	W6	CL7	FI 1		F5	
106B	44	-	-	Entry Vestibule	-	-	W6	CL7	FI 1		 F5	
1060	38	-	-	Entry Vestibule	-	-	W6	CL7	FL1		E5	
107	202	3	1	Office	1	1	W1/D1		FL3	MF1/SP1	F1A	
109	202	3	1	Office	1	1	W1/D1	CL3A	FL3	ME1/SP1	F1A	
110	176	-	-	Women's Restroom	-	-	W/9	CI 1	FL4	10121/011	F8/F9	Door operator
1104	5	1	1	Storage	1	1		011			20/25	
110A	27	-	-	Shaft	-	-						
112	330	-	-	Corridor	-	-	W6	CL 7	FI 1		E5/E10	Exit corridor - rated requirement
112	555							01/			23/210	Field verify - may be less than 44" wide
1124	94	_	-	Stair	_	_	W10	CI 10	EL 5		F12	as required by code
112A 112B	111	-	-	Shaft	-	-	**10	CLIU	125		LIZ	
1120	217	3	1	Office	1	1	W1/D1	CI 3A	FI 3	ME1/SP1	F1A	
114	101	-	-	Entry Vestibule	-	-	W6	CL7	FL1	10121/011	E5	
115	188	2	1	Office	1	1	W1/D1		FL3	MF1/SP1	F1A	
117	201	3	1	Office	1	1	W1/D1	CL3A	FL3	ME1/SP1	F1A	
119	201	3	1	Office	1	1	W1/D1	CL3A	FL3	ME1/SP1	F1A	
121	201	3	1	Office	1	1	W1/D1	CL3A	FL3	ME1/SP1	F1A	
123	235	3	1	Office	1	1	W1/D1	CL3A	FL3	ME1/SP1	F1A	
124	18	1	1	Storage	1	1		01071	. 20		2273	
125	221	3	1	Office	1	1	W1/D1	CI 3A	FL3	MF1/SP1	F1	
1260	11	-	-	Shaft	-	-		01071	. 20		F1A	
127	236	3	1	Office	1	1	W1/D1	CI 3A	FI 3	MF1/SP1	F1A	
128	15	1	1	Electrical Closet	1	1			. 20		2273	
129	235	3	1	Office	1	1	W1/D1	CI 3A	FI 3	MF1/SP1	F1A	
130	490	-	-	Corridor	-	-	W1	CI 1	FL3	10121/011	F5	Exit corridor - rated requirement
130A	115	1	1	Storage	1				. 20		20	requires 1 hour rating
150/1	115		-	Storuge	-							Field verify - may be less than 44" wide
130B	130	-	-	Stair	-	-	W10	CI 10	FI 5		F12	as required by code
131	227	2	1	Office	1	1	W1/D1	CL3A	FI 3	MF1/SP1	F1A	
132	878	9	9	Open Office	1	2	W2/W3	CI 5B	FI 3	MF3	F4	
132A	7/	1	1	Storage	1	1		CLSD	1 25	in Lo	L-7	
132R	74	32	22	Conference	1	1						
1320	231	55	33	conicience	1	Т	1					

	Square											
Room	Foot	Number of	Number of						Architectural			
Number	Area	Occupants -	Occupants -	-	Req'd	Actual	Architectural	Architectural	Finishes -	Mechanical /		
	(SF)	Code	Actual	Function	Exits	Exits	Finishes - Walls	Finishes - Ceiling	Floors	HVAC / Piping	Lighting	Notes
132C	138	2	1	Office	1	1	W2	CL5B	FL3	ME3	E4	
132D	192	2	1	Office	1	1	W2	CL5B	FL3	ME3	E4	
132E	53	1	1	Office	1	1	W2/W3	CL5B	FL3	ME3	E4	
132F	40	1	1	Storage	1	1						
132G	6	1	1	Closet	1	1						
133	221	3	1	Office	1	1	W1/D1	CL3A	FL3	ME1/SP1	E1A	
135	241	3	1	Office	1	1	W1/D1	CL3A	FL3	ME1/SP1	E1A	
137	309	4	4	Open Office	1	2	W1/W3	CL3A/CL5A	FL3	ME3/SP2	E1A/E4	
137A	111	2	1	Office	1	1	W2	CL5B	FL8	ME3/SP2	E4	
137B	30	1	1	Closet	1	1						
137C	171	12	12	Break Room	1	1	W2	CL5B	FL8	ME3/SP2	E4	
139	181	2	1	Office	1	1	W1/D1	CL3A	FL3	ME1/SP1	E1A	
141	205	3	1	Office	1	1	W1/D1	CL3A	FL3	ME1/SP1	E1A	
142	4523	46	46	Open Office	1	2	W1/W3	CL4/CL1/CL5A	FL3	ME3/SP2	E4/E5	
142A	130	-	-	Shaft	-	-						
												requires an elevator lobby or hoistway
142B	76	-	-	Elevator Shaft	-	-						pressurization
142C	130	2	1	Open Office	1	1	W1/W3	CL4/CL1	FL3	ME3/ME4	E4/E5	
												Field verify - may be less than 44" wide
142D	132	-	-	Stair	-	-	W10	CL10	FL5		E12	as required by code
142E	128	2	2	Open Office	1	1	W1/W3	CL5B	FL3	ME3	E4	
142F	21	1	1	Electrical Closet	1	1						
142G	65	1	1	Office	1	1						
142H	35	-	-	Restroom	-	-	W8					Insufficient door push/pull clearance
1421	36	-	-	Restroom	-	-						
142J	46	-	-	Stair	-	-						
143	183	2	1	Office	1	1	W1/D1	CL3A	FL3	ME1/SP1	E1A	
145	193	2	1	Office	1	1	W1/D1	CL3A	FL3	ME1/SP1	E1A	
147	406	5	1	Office	1	1	W1/D1	CL3A	FL3	ME1/SP1	E1A	
148	435	63	63	Conference	2	2	W1	CL3C	FL3		E9/E1C	
149	205	3	1	Office	1	1	W1/D1	CL3A	FL3	ME1/SP1	E1A	
												Not accessible - Insufficient door
151	200	2	1	Office	1	1	W1/D1	CL3A	FL3	ME1/SP1	E1A	push/pull clearance
153	229	3	1	Office	1	1	W1/D1	CL3A	FL3	ME1/SP1	E1A	
153A	134	2	1	Office	1	1	W1/D1	CL3A	FL3	ME1/SP1	E1A	
164	145	2	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	E1A	
166	135	2	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	E1A	
168	379	4	1	Office	1	1	W1/W3	CL3A	FL3	ME1/SP1	E1A	
												Not accessible - Insufficient door
168A	33	-	-	Restroom	-	-	W9/W1/W11	W1	FL4		E5	push/pull clearance
170	175	2	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	E1A	
171	290	3	3	Open Office	1	1						
171A	43	1	1	Closet	1	1						
174	101	-	-	Entry Vestibule	-	-						
174A	712	8	8	Open Office	1	2	W1/W3	CL3A/Cl5A/CL1	FL3	ME3/SP2	E4	
174B	52	-	-	Stair	-	-	W1		FL7		E8	Not for exiting

	Square											
Room	Foot	Number of	Number of						Architectural			
Number	Area	Occupants -	Occupants -	-	Req'd	Actual	Architectural	Architectural	Finishes -	Mechanical /		
	(SF)	Code	Actual	Function	Exits	Exits	Finishes - Walls	Finishes - Ceiling	Floors	HVAC / Piping	Lighting	Notes
175	925	10	10	Open Office	1	1	W1/W3	CL3A/CL5A	FL3	ME3/SP2	E4	
175A	130	19	19	Conference	1	2						
175B	74	1	1	Storage	1	1	W2	CL5B	FL3	ME3/SP2	E4	
175C	103	1	1	Copier	1	1	W2	CL5B	FL3	ME3/SP2	E4	
176	144	2	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	E1A	
178	362	52	52	Conference	2	2						Insufficient door push/pull clearance
178A	61	1	1	Storage	1	1						
180	2928	30	30	Open Office	1	2	W1/W3	CL3A/CL5A/CL1	FL3	ME3/SP2	E1A/E4	
180A	130	-	-	Shaft	-	-						
180B	126	2	1	Office	1	1						Insufficient door push/pull clearance
180C	84	-	-	Elevator Lobby	-	-						
												Requires 2 exits - Main corridor doors
181	914	131	131	Hearing Room	2	2	W1	CL4	FL3	SP3	E9/E13/E14	open into space
181A	86	1	1	Storage	1	1						Insufficient door push/pull clearance
185	261	3	3	Open Office	1	1	W1/W3	CL3A/CL5A/CL1	FL3	ME3/SP2	E1A/E4	
185A	122	18	18	Conference	1	1	W2	CL1	FL3		E4	
185B	167	2	1	Office	1	1	W1	CL3A	FL3	ME3/SP2	E1A	
185C	99	1	1	Office	1	1	W1	CL3A/CL5A	FL3	ME3/SP2	E1A/E4	
185D	99	1	1	Office	1	1	W1	CL3A/CL5A	FL3	ME3/SP2	E1A/E4	
												Not accessible - Insufficient door
186	196	14	14	Break Room	1	1	W2	CL5B/CL3A	FL8	ME3/SP2	E1A/E4	push/pull clearance
190	229	3	1	Office/ Vestibule	1	1	W2	CL3A	FL3	ME4	E1A	
190A	191	2	1	Office	1	1	W1	CL3A/CL5A	FL3	ME1/SP2	E1A	
190B	160	2	1	Office	1	1	W1	CL3A	FL3	ME3/SP2	E1A	
190C	135	2	1	Office	1	1	W1	CL5	FL3	ME1/SP2	E4	
190D	179	26	26	Conference	1	1	W1	CL5	FL3	ME3/SP2	E4	Insufficient door push/pull clearance
190E	767	8	8	Open Office	1	1	W1	CL3A/CL5A	FL3	ME3/SP2	E1A/E4	

	Square											
Room	Foot		Number of					Architectural				
Number	Area	Number of	Occupants -		Rea'd	Actual	Architectural	Finishes -	Architectural	Mechanical /		
	(SF)	Occupants	Actual	Function	Exits	Exits	Finishes -Walls	Ceiling	Finishes - Floors	HVAC / Piping	Lighting	Notes
200	2475	354	299	Hearing Room	2	4				-, 1 0	0 0	
200A	641	-	-	Elevator Lobby	-	-						
200B	273	-	-	Elevator Shaft	-	-						
200C	39	1	1	Storage	1	1						
200D	39	1	1	Storage	1	1						
201	230	3	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	E1A	Insufficient door push/pull clearance
202	237	-	-	Corridor	-	-				,		
202A	165	-	-	Stair	-	-						
203	200	3	1	Office	1	1	W/1	CI 3A	FI 3	MF1/SP1	F1A	
2034	191	-	-	Men's Restroom	-	-		CLS/T	1 23	11121/011	21/1	Insufficient door push/pull clearance
203/1	10	1	1	Storage	1	1						
204	176	-	-	Women's Restroom	-	-						Insufficient door nush/null clearance
205B	192		-	Corridor	-	-						
2050	27			Shaft	_							
2030	27	-	-	Shart	_	-						Field verify - may be less than 11" wide as
2050	160			Stair								required by code
2050	105	2	1	Office	1	- 1	\M/2	CLEA	EI 2	ME2/SD2	E1	Insufficient door push (pull clearance
200	110	2	1	Office	1	1	VV2	CLOA	FL3	ME1/SD1	L4 E1 A	Insufficient door push/pull clearance
207	1042	30	20	Once Onen Office	1	2		CLSA	FLS		EIA E4	
208	1945	20	20	Office	1	5	VV 1/ VV 5/ VV 5	CLSA	FLS	IVIES/SP2	E4	
208A	133	2	1	Office	1	1	W2/W4	CLSA	FL3	IVIE3/SP2	E4	
2088	121	2	1	Charage	1	1	VV 2/ VV 4	CL5A	FL3	IVIE3/SP2	E4	
2080	16	1	1	Storage	1	1						Insufficient door puck (pull clearance
2080	412	-	-	Confidor	-	-	14/2		51.2	ME2/CD2	54	
208E	234	34	34	Conference	1	1	W2	CLSA	FL3	ME3/SP2	E4	
209	207	3	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	EIA	Insufficient door push/pull clearance
211	1/3	2	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	EIA	
213	185	2	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	E1A	
215	183	2	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	E1A	
217	189	2	1	Office	1	1						
219	57	1	1	Storage	1	1						
220	124	2	1	Office	1	1	W5	CL5A	FL3	ME3/SP2	E4	
221	235	3	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	E1A	
222	124	2	1	Office	1	1	W5	CL5A	FL3	ME3/SP2	E4	
223	232	3	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	E1A	Insufficient door push/pull clearance
224	298	20	20	Break Room	1	1						Insufficient door push/pull clearance
225	232	3	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	E1A	
226	124	2	1	Office	1	1	W5	CL5A	FL3	ME3/SP2	E4	Insufficient door push/pull clearance
227	238	3	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	E1A	
229	227	3	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	E1A	
230	36	-	-	Restroom	-	-						
231	234	3	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	E1A	
232	3092	31	31	Open Office	1	2	W1/W3	CL5A	FL3	ME3/SP2	E4/E5	
232A	56	1	1	Storage	1	1						
232B	130	-	-	Shaft	-	-						
												requires an elevator lobby or hoistway
232C	74	-	-	Elevator Shaft	-	-						pressurization

232D	18	1	1	Storage	1	1						
2325 232F	39	1	1	Storage	1	1						
2322	236	3	1	Office	1	1	W/1	CI 3A	FI 3	MF1/SP1	F1A	
233	182	2	1	Office	1	1	W1	CL3D	FL3	ME1/SP1	F1A	
239	182	2	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	E1A	
241	178	2	1	Office	1	1		CLS/T	125	10121/011	21/1	
241	191	2	1	Office	1	1						
245	209	2	1	Office	1	1	W/1	CI 3A	FI 3	ME1/SP1	F1A	Insufficient door push/pull clearance
245	205	3	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	F1A	Insufficient door push/pull clearance
247	2025	21	21	Onen Office	1	1	W1/W3	CL5A	FL3	ME3/SP2	E4/E5	
240	166	21	1	Office	1	1	W/2	CL5A	FL3	ME3/SP2	E4/E3	
240A	108	2	1	Office	1	1	W2	CL5A	FL3	ME3/SP2	E4	
2400	138	2	1	Office	1	1	W2	CL5A	FL3	ME3/SP2	E4	Insufficient door push/pull clearance
2480	115	2	1	Office	1	1	W/2	CLSA	FL3	ME3/SP2	E4	
240D	108	2	1	Office	1	1	W2	CL5A	FL3	ME3/SP2	E4	
240L	117	2	1	Office	1	1	W2	CL5A	FL3	ME3/SP2	E4	
2486	119	2	1	Office	1	1	W2	CL5A	FL3	ME3/SP2	E4	
2400 248H	128	2	1	Office	1	1	W2	CL5A	FL3	ME3/SP2	F4	
2481	117	2	1	Office	1	1	W2	CL5A	FL3	ME3/SP2	E4	Insufficient door push/pull clearance
251	221	3	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	F1A	
253	230	3	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	F1A	Insufficient door nush/null clearance
255	230	3	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	E1A	
259	210	3	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	F1A	
261	203	3	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	F1A	
263	132	2	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	F1A	
265	127	2	1	Office	1	1	W1	CL3A	FL 3	MF1/SP1	F1A	
267	379	4	1	Office	1	1	W1	CL3D	FL3	ME1/SP1	E1A	
269	145	2	1	Office	1	1	W1	CI 3A	FL3	MF1/SP1	F1A	
269A	16	1	1	Storage	1	1		01071	. 10		227	
270	3173	32	32	Open Office	1	2	W1/W3	CL5A	FL3	ME3/SP2	E4	
270A	130	-	-	Shaft	-	-	,					
270B	12	1	1	Storage	1	1						
271	167	2	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	E1A	Insufficient door push/pull clearance
272	571	82	82	Conference	2	2						·····
273	194	2	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	E1A	
277	217	3	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	E1A	
278	72	1	1	Storage	1	1				1-		
_												Field verify - may be less than 44" wide as
278A	130	-	-	Stair	-	-						required by code
279	217	3	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	E1A	
281	187	2	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	E1A	
283	213	3	1	Office	1	1	W1	CL3D	FL3	ME1/SP1	E1A	
286	54	1	1	Storage	1	1						
287	221	3	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	E1A	
289	220	3	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	E1A	Insufficient door push/pull clearance
289C	62	1	1	Storage	1	1		-	-			
				0-								Insufficient door push/pull clearance.
												Field verify - may be less than 44" wide as
290A	130	-	-	Stair	-	-						required by code
291	228	3	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	E1A	Insufficient door push/pull clearance

294	11	1	1	Storage	1	1						
294A	27	-	-	Shaft	-	-						
295	218	3	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	E1A	
296	44	-	-	Vestibule	-	-						Insufficient door push/pull clearance
296A	44	-	-	Vestibule	-	-						Insufficient door push/pull clearance
297	128	2	1	Office	1	1						
298	17	1	1	Storage	1	1						
299	17	1	1	Storage	1	1						
299A	11	1	1	Storage	1	1						

	Square											
Room	Foot		Number of				Architectural	Architectural	Architectural			
Number	Area	Number of	Occupants -		Rea'd	Actual	Finishes -	Finishes -	Finishes -	Mechanical /		
	(SF)	Occupants	Actual	Function	Exits	Exits	Walls	Ceiling	Floors	HVAC / Piping	Lighting	Notes
300A	205	1	1	Control Room	1	1		<u> </u>		, 1 0	0 0	Insufficient push/pull clearance
300N	1032	148	90	Hearing Room	2	3						Insufficient push/pull clearances
300S	982	141	90	Hearing Room	2	3						Insufficient push/pull clearances
301	237	3	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	E1A	Insufficient push/pull clearances
301A	633	-	-	Elevator Lobby	-	-						
301B	273	-	-	Elevator Shaft	-	-						
301C	44	-	-	Vestibule	-	-						Insufficient push/pull clearances
301D	46	-	-	Vestibule	-	-						Insufficient push/pull clearances
302	405	-	-	Stair	-	-						
303	229	3	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	E1A	
303A	180	-	-	Men's Restroom	-	-						Insufficient push/pull clearances
303B	27	-	-	Shaft	-	-						
304	867	9	9	Open Office	1	2	W1/W3	CL5A	FL3	ME3/SP2	E4	Insufficient push/pull clearances
304A	136	2	1	Office	1	1	W2	CL5A	FL3	ME3/SP2	E4	
304B	122	2	1	Office	1	1	W2	CL5A	FL3	ME3/SP2	E4	
304C	126	2	1	Office	1	1	W2	CL5A	FL3	ME3/SP2	E4	
304D	125	2	1	Office	1	1	W2	CL5A	FL3	ME3/SP2	E4	
305	176	-	-	Women's Restroom	-	-						
305A	12	1	1	Storage	1	1						
305B	231	-	-	Corridor	-	-						
												Field verify - may be less than 44"
305C	169	-	-	Stair	-	-						wide as required by code
305D	27	-	-	Shaft	-	-						
306	291	42	42	Conference	1	1						
307	226	3	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	E1A	
307A	13	-	-	Vestibule	-	-						
308A	13	-	-	Vestibule	-	-						
309	218	3	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	E1A	
311	178	2	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	E1A	
312	31	1	1	Storage	1	1						
312A	51	-	-	Corridor	-	-						Insufficient push/pull clearances
												Field verify - may be less than 44"
312B	130	-	-	Stair	-	-						wide as required by code
313	188	2	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	E1A	
314	48	-	-	Corridor	-	-						
												Field verify - may be less than 44"
314A	130	-	-	Stair	-	-						wide as required by code
315	190	2	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	E1A	
316	29	-	-	Corridor	-	-						
316A	25	-	-	Corridor	-	-						
317	188	2	1	Office	1	1	W1	CL3D	FL3	ME1/SP1	E1A	
319	63	1	1	Storage	1	1						
320	126	2	1	Office	1	1	W5	CL5A	FL3	ME3/SP2	E4	
321	235	3	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	E1A	

322	126	2	1	Office	1	1	W5	CL5A	FL3	ME3/SP2	E4	
323	238	3	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	E1A	Insufficient push/pull clearances
324	232	3	1	Office	1	1						
324B	110	2	1	Office	1	1						
324C	107	2	1	Office	1	1						
325	126	2	1	Office	1	1	W5	CL5A	FL3	ME3/SP2	E4	
326	126	2	1	Office	1	1	W5	CL5A	FL3	ME3/SP2	E4	
327	232	3	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	E1A	
328	126	2	1	Office	1	1	W5	CL5A	FL3	ME3/SP2	E4	
329	234	3	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	E1A	
330	126	2	1	Office	1	1	W5	CL5A	FL3	ME3/SP2	E4	
331	233	3	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	E1A	
335	208	3	1	Office	1	1	W1	CL3D	FL3	ME1/SP1	E1A	
337	203	3	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	E1A	
339	64	1	1	Storage	1	1						
342	3969	40	40	Open Office	1	2	W1/W3	CL5A	FL3	ME3/SP2	E4	
												requires an elevator lobby or
342A	74	-	-	Elevator Shaft	-	-						hoistway pressurization
342B	18	1	1	Storage	1	1						
342C	36	1	1	Storage	1	1						
342D	39	1	1	Storage	1	1						
343	187	2	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	E1A	Insufficient door push/pull clearance
345	226	3	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	E1A	Insufficient door push/pull clearance
346	306	44	44	Conference	1	1						Insufficient door push/pull clearance
347	130	2	1	Office	1	1						Insufficient door push/pull clearance
348	298	20	20	Break Room	1	1						Insufficient door push/pull clearance
349	226	3	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	E1A	
350	2208	23	23	Open Office	1	3	W1/W3	CL5A	FL3	ME3/SP2	E4	
351	235	3	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	E1A	Insufficient door push/pull clearance
353	223	3	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	E1A	
357	225	3	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	E1A	Insufficient door push/pull clearance
359	243	3	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	E1A	Insufficient door push/pull clearance
361	110	2	1	Office	1	1						
362	2084	21	21	Open Office	1	1	W1/W3/W5	CL5A	FL3	ME3/SP2	E4	
363	105	2	1	Office	1	1						
365	219	3	1	Office	1	1	W1	CL3D	FL3	ME1/SP1	E1A	Insufficient door push/pull clearance
367	214	3	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	E1A	
369	222	3	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	E1A	
370	126	2	1	Office	1	1	W5	CL5A	FL3	ME3/SP2	E4	
371	226	3	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	E1A	
372	126	2	1	Office	1	1	W5	CL5A	FL3	ME3/SP2	E4	
373	176	2	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	E1A	
374	91	1	1	Office	1	1	W5	CL5A	FL3	ME3/SP2	E4	
375	226	3	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	E1A	
376	126	2	1	Office	1	1	W5	CL5A	FI 3	ME3/SP2	F4	
377	226	3	1	Office	1	1	W1	CL3A	FIR	ME1/SP1	F1A	
378	126	2	1	Office	1	1	W5	CL5A	FI 3	MF3/SP2	F4	
379	207	2	1	Office	1	1	W1		FI 3	ME1/SP1	Γ.Ψ F1Δ	
515	207	5	-	Jince	1 1	1	VV I	CLJD	i LJ	14121/311	Γ1 <b>Λ</b>	-

381	218	3	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	E1A	
383	113	2	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	E1A	
384	3333	34	34	Open Office	1	2	W1/W3	CL5A	FL3	ME3/SP2	E4	
384A	130	-	-	Shaft	-	-						
384B	58	1	1	Storage	1	1						
384C	10	1	1	Storage	1	1						
384D	13	1	1	Storage	1	1						
384E	72	1	1	Storage	1	1						
384F	63	1	1	Storage	1	1						
384G	60	1	1	Storage	1	1						
385	101	2	1	Office	1	1						
387	240	3	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	E1A	Insufficient door push/pull clearance
389	228	3	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	E1A	Insufficient door push/pull clearance
393	229	3	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	E1A	
395	11	1	1	Storage	1	1						
396	17	1	1	Storage	1	1						
397	17	1	1	Storage	1	1						
398	11	1	1	Storage	1	1						

Room Foot Number of   Number Architectural Architectural   Architectural Architectural   Number Area   Number of Occupants -   Reg/d Actual   Finishes - Finishes -	
Number Area Number of Occupants - Reo'd Actual Finishes - Finishes - Reo'd Actual Finishes - Finishes - Reo'd Actual	
Reamber 7 week reamber of occupants including	
(SF) Occupants Actual Function Exit Exit Walls Ceiling Floors HVAC / Piping Lighting	Notes
400 623 Elevator Lobby	
400A 273 Elevator Shaft	
400B 240 Stair	
400C 165 Stair	
400N 884 127 80 Hearing Room 2 2	
400S 815 117 90 Hearing Room 2 3	
401     239     3     1     Office     1     1     W1     CL3A     FL3     ME1/SP1     E1A	Insufficient door push/pull clearance
403     227     3     1     Office     1     1     W1     CL3A     FL3     ME1/SP1     E1A	
403A 191 Men's Restroom	Insufficient door push/pull clearance
405 176 Women's Restroom	
405A 12 1 1 Storage 1 1 1	
405B 27 Shaft	
406     217     3     3     Open Office     1     1     W2     CL5A     FL3     ME3/SP2     E4	Insufficient door push/pull clearance
407     226     3     1     Office     1     1     W1     CL3A     FL3     ME1/SP1     E1A	Insufficient door push/pull clearance
409     224     3     1     Office     1     1     W1     CL3A     FL3     ME1/SP1     E1A	Insufficient door push/pull clearance
410     2062     21     Open Office     1     3     W1/W3     CL5A     FL3     ME3/SP2     E4	
	Field verify - may be less than 44" wide as
410A 130 Stair	required by code
	Field verify - may be less than 44" wide as
410B 169 Stair	required by code
	Field verify - may be less than 44" wide as
410C 130 Stair	required by code
410E 17 1 1 Storage 1 1 1	
410F 11 1 1 Storage 1 1 1	
411     185     2     1     Office     1     1     W1     CL3A     FL3     ME1/SP1     E1A	
411A 17 1 1 Storage 1 1 1	
411B 11 1 1 Storage 1 1 1	
411C 27 Shaft	
413 203 3 1 Office 1 1 W1 CL3A FL3 ME1/SP1 E1A	
415 195 2 1 Office 1 1 W1 CL3A FL3 ME1/SP1 E1A	
415A 13 Vestibule	Insufficient door push/pull clearance
415B 12 Vestibule	Insufficient door push/pull clearance
416 179 1 1 Control Room 1 1 1	
416A 44 Corridor	Insufficient door push/pull clearance
416B 44 Corridor	Insufficient door push/pull clearance
417 194 2 1 Office 1 1 W1 CL3D FL3 ME1/SP1 E1A	
419 64 1 1 Storage 1 1 1	
421 229 3 1 Office 1 1 W1 CL3A FL3 ME1/SP1 E1A	
422 124 2 1 Office 1 1 W5 CL5A FL3 ME3/SP2 E4	
423 233 3 1 Office 1 1 W1 CL3A FL3 ME1/SP1 E1A	
424 124 2 1 Office 1 1 W5 CL5A FL3 ME3/SP2 E4	
426 124 2 1 Office 1 1 W5 CL5A FL3 ME3/SP2 E4	
428 124 2 1 Office 1 1 W5 CL5A FL3 ME3/SP2 E4	
429 237 3 1 Office 1 1 W1 CL3A FL3 ME1/SP1 E1A	
430 124 2 1 Office 1 1 W5 CL5A FL3 ME3/SP2 E4	

431	229	3	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	E1A	Insufficient door push/pull clearance
432	124	2	1	Office	1	1	W5	CL5A	FL3	ME3/SP2	E4	·····
433	229	3	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	E1A	
434	124	2	1	Office	1	1	W5	CL5A	FL3	ME3/SP2	E4	
437	206	3	1	Office	1	1	W1	CL3D	FL3	ME1/SP1	E1A	
438	4462	45	45	Open Office	1	2	W1/W3	CL5A	FL3	ME3/SP2	E4	
438A	17	1	1	Storage	1	1						
438B	36	-	-	Restroom	-	-						Insufficient door push/pull clearance
438C	40	1	1	Storage	1	1						
438D	130	-	-	Shaft	-	-						
												requires an elevator lobby or hoistway
438E	74	-	-	Elevator Shaft	-	-						pressurization
439	201	3	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	E1A	
442	65	1	1	Storage	1	1						
443	228	3	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	E1A	Insufficient door push/pull clearance
445	222	3	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	E1A	Insufficient door push/pull clearance
446	2198	22	22	Open Office	1	1	W1/W3	CL5A	FL3	ME3/SP2	E4	
448A	162	2	1	Office	1	1	W2	CL5A	FL3	ME3/SP2	E4	
448B	103	2	1	Office	1	1	W2	CL5A	FL3	ME3/SP2	E4	
448C	117	2	1	Office	1	1	W2	CL5A	FL3	ME3/SP2	E4	
448D	142	2	1	Office	1	1	W2	CL5A	FL3	ME3/SP2	E4	Insufficient door push/pull clearance
448E	117	2	1	Office	1	1	W2	CL5A	FL3	ME3/SP2	E4	
448F	115	2	1	Office	1	1	W2	CL5A	FL3	ME3/SP2	E4	
448G	117	2	1	Office	1	1	W2	CL5A	FL3	ME3/SP2	E4	
448H	118	2	1	Office	1	1	W2	CL5A	FL3	ME3/SP2	E4	
4481	115	2	1	Office	1	1	W2	CL5A	FL3	ME3/SP2	E4	
448J	134	2	1	Office	1	1						
448K	153	2	1	Office	1	1						
448L	148	2	1	Office	1	1						
449	225	3	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	E1A	
450	312	4	1	Office	1	1						Insufficient door push/pull clearance
451	234	3	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	E1A	Insufficient door push/pull clearance
453	225	3	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	E1A	
454	484	70	70	Conference	2	2						
457	145	2	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	E1A	
459	401	5	1	Office	1	1	W1/D2	CL3A	FL3	ME1/SP1	E1A	
460	385	-	-	Corridor	-	-						
460A	16	1	1	Storage	1	1		0.01				
461	165	2	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	E1A	
463	462	5	1	Office	1	1	W1/D2	CL3A	FL3	ME1/SP1	E1A	Insufficient door push/pull clearance
463A	99	-	-	Restroom	-	-		0154	<b>F</b> 1.2	N452/602	<b>F</b> 4	
464	1/3	2	1	Office	1	1	W5	CL5A	FL3	IVIE3/SP2	E4	
466	126	2	1	Office	1	1	14/4	0124	<b>F</b> 1.2	NAEA (CDA	54.4	
467	125	2	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	E1A	
408	/3	1	1	Storage	1	1						
468A	10	2	1	Office	1	1	14/1	CI 24	EL 2	ME1/CD1	E1 A	
409	125	2	1	Office	1	1			FL3		EIA	
470	121	2	1	Office	1	1	VV5	CLSA	FL3	IVIE3/SPZ	E4	
4/1	204	3	1	UTTICE	1	1	W1	CL3A	FL3	ME1/SP1	E1A	

472	126	2	1	Office	1	1	W5	CL5A	FL3	ME3/SP2	E4	
473	204	3	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	E1A	
474	126	2	1	Office	1	1	W5	CL5A	FL3	ME3/SP2	E4	
475	178	2	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	E1A	
476	126	2	1	Office	1	1	W5	CL5A	FL3	ME3/SP2	E4	
477	218	3	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	E1A	
479	218	3	1	Office	1	1	W1	CL3D	FL3	ME1/SP1	E1A	
485	236	3	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	E1A	
486	72	1	1	Office	1	1						
487	224	3	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	E1A	
491	227	3	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	E1A	
498	3160	32	32	Open Office	1	1	W1/W3	CL5A	FL3	ME3/SP2	E4	
498A	130	-	-	Shaft	-	-						
498B	52	1	1	Storage	1	1						
498C	6	1	1	Storage	1	1						
498D	10	1	1	Storage	1	1						
499	63	1	1	Storage	1	1						

Room	Square		Number of				Architectural	Architectural				
Number	Foot	Number of	Occupants -		Req'd	Actual	Finishes -	Finishes -	Architectural	Mechanical /		
	Area (SF)	Occupants	Actual	Function	Exits	Exits	Walls	Ceiling	Finish - Floors	HVAC / Piping	Lighting	Notes
500	626	-	-	Elevator Lobby	-	-						
500A	273	-	-	Elevator Shaft	-	-						
500B	43	-	-	Corridor	-	-						
500C	43	-	-	Corridor	-	-						
500N	1045	150	100	Hearing Room	2	3						
500M	13	-	-	Corridor	-	-						
500P	13	-	-	Corridor	-	-						
500S	1038	149	100	Hearing Room	2	3						
500T	23	-	-	Corridor	-	-						
500U	23	-	-	Corridor	-	-						
501	206	3	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	E1A	
502	240	-	-	Stair Landing / Corridor	-	-						
502A	162	-	-	Stair	-	-						
503	238	3	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	E1A	
503A	191	-	-	Men's Restroom	-	-						Insufficient door push/pull clearance
503B	27	-	-	Shaft	-	-						
504	671	7	7	Open Office	1	2	W1/W3	CL5A	FL3	ME3/SP2	E4	
504A	139	2	1	Office	1	1	W2	CL5A	FL3	ME3/SP2	E4	
504B	124	2	1	Office	1	1	W2	CL5A	FL3	ME3/SP2	E4	
504C	122	2	1	Office	1	1	W2	CL5A	FL3	ME3/SP2	E4	
504D	140	2	1	Office	1	1	W2	CL5A	FL3	ME3/SP2	E4	
505	176	-	-	Women's Restroom	-	-			_	- / -		
505A	12	1	1	Storage	1	1						
505B	198	_	-	Corridor	-	-						
		-	-		-	-						Field verify - may be less than 44" wide
505C	169			Stair								as required by code
506	302	4	1	Office	1	1						
507	221	3	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	E1A	Insufficient door push/pull clearance
509	235	3	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	E1A	Insufficient door push/pull clearance
511	2006	21	21	Open Office	1	3	W1/W3	CL5A	FL3	ME3/SP2	E4	
		-	-		-	-						Field verify - may be less than 44" wide
511A	130			Stair								as required by code
512	51	1	1	Mechanical	1	1						
513	130	1	1	Control Room	1	1						Insufficient door push/pull clearance
515	207	3	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	E1A	
516	11	1	1	Storage	1	1						
517	211	3	1	Office	1	1	W1	CL3D	FL3	ME1/SP1	E1A	
517A	17	1	1	Storage	1	1						
518	63	1	1	Storage	1	1						
518A	17	1	1	Storage	1	1						
519	11	1	1	Storage	1	1						
519A	27	_	-	Shaft	-	-						
520	124	2	1	Office	1	1	W5	CL5A	FL3	ME3/SP2	E4	
521	235	3	1	Office	1	1	W1	CL3A	FL3	MF1/SP1	 F1A	
522	126	2	1	Office	1	1	W/5	CL5A	FLS	MF3/SP2	F4	
523	230	2	1	Office	1	1	W/1	CL3A	FI 3	MF1/SP1	<u>Γ</u>	
525	235	2	1	Office	1	1	W/1	CL3A	FLS	MF1/SP1	F1Δ	
525	255	5	T	onice	1	1	VV I	CLJA	163	IVICT/ JFT	L17	

527	238	3	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	E1A	
528	124	2	1	Office	1	1	W5	CL5A	FL3	ME3/SP2	E4	
529	239	3	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	E1A	
530	124	2	1	Office	1	1	W5	CL5A	FL3	ME3/SP2	E4	
531	236	3	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	E1A	
532	124	2	1	Office	1	1	W5	CL5A	FL3	ME3/SP2	E4	
533	235	3	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	F1A	
537	219	3	1	Office	1	1	W1	CL3D	FL3	ME1/SP1	F1A	
538	64	1	1	Storage	1	1		0100	. 20			
539	203	3	1	Office	1	1	W1	CI 3A	FI 3	MF1/SP1	F1A	
541	3682	37	37	Open Office	1	2	W1/W3	CL5A	FL3	ME3/SP2	F4/F5	
541A	130	-	-	Shaft	-	-	,		. 20		2.1/20	
0.11.1	100	-	-		-	-						requires an elevator lobby or hoistway
541B	74			Elevator Shaft								pressurization
5410	16	1	1	Storage	1	1		-				
541D	36	-	-	Bestroom	-	-		-				Insufficient door nush/null clearances
5416	40	1	1	Storage	1	1		-				
541F	301	21	21	Break Room / Kitchenette	1	1		-				Insufficient door push/pull clearances
543	238	3	1	Office	1	1	W1	CI 3A	FL 3	MF1/SP1	F1A	Insufficient door push/pull clearances
544	2116	22	22	Open Office	1	1	W1/W3	CL5A	FL3	ME3/SP2	F4	
545	2228	3	1	Office	1	1	W1	CL3A	FL3	ME3/SF2	F1A	Insufficient door nush/null clearances
546	329	47	47	Conference	1	1		625/1	125	11121/011	217	
5484	93	1	1	Storage	1	1						
549	237	3	1	Office	1	1	W/1	CI 3A	FI 3	ME1/SP1	F1Δ	
550	58	-	-	Corridor	-	-	**1	CLSA	125	10121/511		Insufficient door nush/null clearances
551	238	3	1	Office	1	1	W/1	CI 3A	FI 3	ME1/SP1	F1Δ	Insufficient door push/pull clearances
553	236	3	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	E1A F1A	insumeient door pushypun cicurances
556	100			Corridor	-	-	**1	CLSA	125	10121/511	L17	Insufficient door push/pull clearances
557	219	3	1	Office	1	1	W/1	CL3A	FI 3	ME1/SP1	F1Δ	Insufficient door push/pull clearances
558	65	1	1	Storage	1	1	**1	CLSA	125	10121/511		insumeient door pushypun cicurances
559	223	3	1	Office	1	1	W/1	CI 3A	FI 3	ME1/SP1	F1Δ	Insufficient door nush/null clearances
563	223	3	1	Office	1	1	W1	CL3D	FL3	ME1/SP1	E1A	insumeient door pushypun cicuranees
564	3/16	35	35	Onen Office	1	2	W1/W3	CLSA	FL3	ME3/SP2	EIA EA	
5644	130	-		Shaft	-	-	W1/W3	CLSA	165	WIE3/31 2	L7	
564B	130	1	1	Storage	1	1						
5640	10	1	1	Storage	1	1						
564D	72	1	1	Storage	1	1						
5040	, 2	-	-		-	-		-				Field verify - may be less than 44" wide
564F	130			Stair								as required by code
564K	164	11	11	Kitchenette	1	1						
565	242	3	1	Office	1	1	W/1	CI 34	FI 3	MF1/SP1	F1Δ	
567	234	3	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	F1A	
568	124	2	1	Office	1	1	W5	CL5A	FL3	ME3/SP2	F4	
569	234	3	1	Office	1	1	W1	CL3A	FL3	ME3/SF2	F1A	
570	174	2	1	Office	1	1	W/5	CL5A	FIR	MF3/SP2	F4	
571	235	3	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	Γ F1Δ	Insufficient door push/pull clearpace
572	126	2	1	Office	1	1	W/5	CL5A	FIR	MF3/SP2	F4	
574	126	2	1	Office	1	1	W5	CL5A	FL3	MF3/SP2	F4	
575	236	3	1	Office	1	1	W1	CL3A	FLS	MF1/SP1	F1A	
576	174	2	1	Office	1	1	W/5	CL5A	FIR	MF3/SP2	F4	
577	236	3	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	<u>Γ</u>	
511	230	2	-	•	-		** -	0157	. 15	11111/011	L1/1	

578	124	2	1	Office	1	1	W5	CL5A	FL3	ME3/SP2	E4	
579	236	3	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	E1A	
580	124	2	1	Office	1	1	W5	CL5A	FL3	ME3/SP2	E4	
581	234	3	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	E1A	
583	237	3	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	E1A	
585	235	3	1	Office	1	1	W1	CL3D	FL3	ME1/SP1	E1A	Insufficient door push/pull clearnace
591	219	3	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	E1A	Insufficient door push/pull clearnace
593	219	3	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	E1A	Insufficient door push/pull clearnace
595	63	1	1	Storage	1	1						
596	50	1	1	Storage	1	1						
597	235	3	1	Office	1	1	W1	CL3A	FL3	ME1/SP1	E1A	

	Square											
Room	Foot		Number of				Architectural	Architectural	Architectural			
Number	Area	Number of	Occupants -		Req'd	Actual	Finishes -	Finishes -	Finishes -	Mechanical /		
	(SF)	Occupants	Actual	Function	Exits	Exits	Walls	Ceiling	Floors	HVAC / Piping	Lighting	Notes
600	2123	22	22	Open Office	1	3	W1/W3	CL5A	FL3	ME3/SP2	E4	
600A	15	1	1	Storage	1	1						
601	144	2	1	Office	1	1	W1	CL2	FL3	ME2/SP1	E1B	
601A	662	-	-	Elevator Lobby	-	-						
601B	273	-	-	Elevator Shaft	-	-						
601C	113	-	-	Stair	-	-						
601D	49	-	-	Elevator Shaft	-	-						
602	240	-	-	Corridor/Stair Landing	-	-						
602A	165	-	-	Stair	-	-						
603	154	2	1	Office	1	1	W1	CL2	FL3	ME2/SP1	E1B	
604	299	43	43	Conference	1	1						
605	173	2	1	Office	1	1	W1	CL2	FL3	ME2/SP1	E1B	
602B	190	-	-	Men's Restroom	-	-						
605A	176	-	-	Women's Restroom	-	-						
605B	82	1	1	Storage	1	1						
606	197	-	-	Corridor	-	-						
607	171	2	1	Office	1	1	W1	CL2	FL3	ME2/SP1	E1B	
608	173	12	12	Break Room	1	1						
609	178	2	1	Office	1	1	W1	CL2	FL3	ME2/SP1	E1B	
610	196	2	1	Work Room	1	1						
611	337	2	2	Storage	1	1						requires 1 hour rating
612	214	1	1	Elevator Equipment	1	1						
615	210	3	1	Office	1	1	W1	CL2	FL3	ME2/SP1	E1B	Insufficient door push/pull clearance
616	947	-	-	Corridor	-	-						
												Field verify - may be less than 44" wide
616A	130	-	-	Stair	-	-						as required by code
616B	48	-	-	Corridor	-	-						
617	171	2	1	Office	1	1	W1	CL2	FL3	ME2/SP1	E1B	
618	180	2	1	Office	1	1						
619	178	2	1	Office	1	1	W1	CL2	FL3	ME2/SP1	E1B	
620	165	2	1	Office	1	1						
621	179	2	1	Office	1	1	W1	CL2	FL3	ME2/SP1	E1B	
622	164	2	1	Office	1	1						
623	171	2	1	Office	1	1	W1	CL2	FL3	ME2/SP1	E1B	
623A	65	-	-	Corridor	-	-						
624	164	2	1	Office	1	1						
625	180	2	1	Office	1	1	W1	CL2	FL3	ME2/SP1	E1B	
626	165	2	1	Office	1	1						
627	177	2	1	Office	1	1	W1	CL2	FL3	ME2/SP1	E1B	
628	164	2	1	Office	1	1						
629	248	3	1	Office	1	1	W1	CL2	FL3	ME2/SP1	E1B	
630	165	2	1	Office	1	1						
631	485	5	5	Open Office	1	1	W1/W3	CL5A	FL3	ME3/SP2	E4	Insufficient door push/pull clearance
633	176	2	1	Office	1	1	W1	CL2	FL3	ME2/SP1	E1B	
635	169	2	1	Office	1	1	W1	CL2	FL3	ME2/SP1	E1B	
637	175	2	1	Office	1	1	W1	CL2	FL3	ME2/SP1	E1B	

639	156	2	1	Office	1	1	W1	CL2	FL3	ME2/SP1	E1B	
641	143	2	1	Office	1	1	W1	CL2	FL3	ME2/SP1	E1B	
643	157	2	1	Office	1	1	W1	CL2	FL3	ME2/SP1	E1B	
644	1070	-	-	Corridor	-	-						
644A	22	1	1	Storage	1	1						
												Field verify - may be less than 44" wide
644B	130	-	-	Stair	-	-						as required by code
645	3349	34	34	Library - Stacks	1	3						Insufficient door push/pull clearances
	815	17	17	Library - Reading	1	3						
645A	1337	14	14	Open Office	1	2	W1/W3	CL5A	FL3	ME3/SP2	E4	
645B	1174	12	12	Open Office	1	1	W1/W3	CL5A	FL3	ME3/SP2	E4	
646	93	1	1	Work Room	1	2						
647	218	3	1	Office	1	1						
648	187	13	13	Break Room	1	1						
649	160	2	1	Office	1	1						
651	180	1	1	Storage	1	1						requires 1 hour rating
654	176	2	1	Office	1	1						Insufficient door push/pull clearance
655A	213	3	3	Open Office	1	1						
655B	512	6	6	Open Office	1	1						
656	519	-	-	Corridor	-	-						
657	227	3	1	Office	1	1	W1	CL2	FL3	ME2/SP1	E1B	
659	171	2	1	Office	1	1	W1	CL2	FL3	ME2/SP1	E1B	
661	174	2	1	Office	1	1	W1	CL2	FL3	ME2/SP1	E1B	
662	159	1	1	Storage	1	1						requires 1 hour rating
663	156	2	1	Office	1	1	W1	CL2	FL3	ME2/SP1	E1B	
682	15	1	1	Storage	1	1						
682A	27	-	-	Shaft	-	-						
683	19	1	1	Storage	1	1						
684	20	1	1	Storage	1	1						
685	15	1	1	Storage	1	1						
685A	27	-	-	Shaft	-	-						

	Square											
Room	Foot		Number of				Architectural	Architectural	Architectural			
Number	Area	Number of	Occupants -		Rea'd	Actual	Finishes -	Finishes -	Finishes -	Mechanical /		
Mulliber	(SF)	Occupants	Actual	Function	Fxits	Fxits	Walls	Ceiling	Floors	HVAC / Piping	Lighting	Notes
700	2888	29	29	Open Office	1	3	W1/W3	CL5A	FI 3	MF3/SP2	F4	Insufficient door nush/null clearances
700	2000	25	23	openomee	-	5		CLOIT	125	111237312	2-1	Field verify - may be less than 44" wide as
700A	130	_	-	Stair	_	-						required by code
700R	15	1	1	Storage	1	1						
7000	67	1	1	Storage	1	1						
700D	14	-	-	Shaft	-	-						
701	130	2	1	Office	1	1	W1	CL2	FI 3	MF2/SP1	F1B	
701A	82	-	-	Corridor - Roof Acces	-	-				,		
701B	46	-	-	Elevator Shaft	-	-						
702	2099	21	21	Open Office	1	1						Insufficient door push/pull clearances
702A	9	1	1	Storage	1	1						
703	129	19	19	Conference	1	2	W1	CL2	FL3	ME2/SP1	E1B	
705	129	19	19	Conference	1	2	W1	CL2	FL3	ME2/SP1	E1B	
707	130	2	1	Office	1	1	W1	CL2	FL3	ME2/SP1	E1B	
709	129	2	1	Office	1	1	W1	CL2	FL3	ME2/SP1	E1B	
711	129	1	1	Storage	1	1	W1	CL2	FL3	ME2/SP1	E1B	requires 1 hour rating
713	211	15	15	Break Room	1	1	W1	CL2	FL3	ME2/SP1	E1B	
715	56	1	1	Storage	1	1				,		
719	286	3	3	Work Room	1	1						
719A	68	-	-	Shaft	-	-						
719B	35	-	-	Shaft	-	-						
721	133	2	1	Office	1	1						
723	42	1	1	Storage	1	1						
725	42	1	1	Storage	1	1						
735	130	2	1	Office	1	1	W1	CL2	FL3	ME2/SP1	E1B	
737	129	2	1	Office	1	1	W1	CL2	FL3	ME2/SP1	E1B	
739	129	2	1	Office	1	1	W1	CL2	FL3	ME2/SP1	E1B	
741	130	2	1	Office	1	1	W1	CL2	FL3	ME2/SP1	E1B	
743	129	2	1	Office	1	1	W1	CL2	FL3	ME2/SP1	E1B	
744	1249	5	5	Mechanical	1	1						
745	129	2	1	Office	1	1	W1	CL2	FL3	ME2/SP1	E1B	
746	20	1	1	Storage	1	1						
747	130	2	1	Office	1	1	W1	CL2	FL3	ME2/SP1	E1B	
749	129	2	1	Office	1	1	W1	CL2	FL3	ME2/SP1	E1B	
751	129	2	1	Office	1	1	W1	CL2	FL3	ME2/SP1	E1B	
753	120	2	1	Office	1	1	W1	CL2	FL3	ME2/SP1	E1B	Insufficient door push/pull clearance
755	199	2	1	Office	1	1	W1	CL2	FL3	ME2/SP1	E1B	Insufficient door push/pull clearance
757	138	2	1	Office	1	1	W1	CL2	FL3	ME2/SP1	E1B	
759	135	2	1	Office	1	1	W1	CL2	FL3	ME2/SP1	E1B	
761	134	2	1	Office	1	1	W1	CL2	FL3	ME2/SP1	E1B	
763	180	2	1	Office	1	1	W1	CL2	FL3	ME2/SP1	E1B	Insufficient door push/pull clearance
												Insufficient door push/pull clearance,
												Field verify - may be less than 44" wide as
736A	130	-	-	Stair	-	-						required by code



miller dunwiddie









Provided By: Loeffler Construction & Consulting 20520 Keokuk Avenue, Suite LL10 Lakeville, MN 55044 (952) 955-9119

# **Clarification Letter**

- Project Approach
- Clarifications and Assumptions




June 20, 2012

Denita D. Lemmon, AIA Miller Dunwiddie 123 North Third Street Suite 104 Minneapolis, MN 55401

RE: Minnesota State Office Building Conceptual Design Estimate

Dear Denita:

Loeffler Construction & Consulting (LCC) is pleased to provide you with a Conceptual Cost Estimate for the above referenced Project. The cost estimate was developed from multiple visits to the subject building and analysis of the existing 1984 and conceptual 2009 project plans. We also worked with Michaud Cooley Erickson and their pre-design reports representing the proposed mechanical and electrical systems.

LCC used standard estimating assumptions to anticipate the final scope of the work. The cost estimate blends the resources of our construction cost data base with conceptual project pricing from our consultant subcontractors. Also attached is a clarification letter which should be used as a supplement to the detailed conceptual cost estimate.

This document should be considered only a draft, we need to schedule a meeting and review our broad assumptions with Miller Dunwiddie and their consultants to assure that we are properly assessing the proposed scope of work accurately.

Please contact me to schedule this important next step in the process.

ncerely,

Douglas A. Loeffler LEED AP<sup>®</sup> Director of Preconstruction

cc: Shawn R. Meschke – Senior Project Manager

# MINNESOTA STATE OFFICE BUILDING RENOVATION CLARIFICATION LETTER

# Interim Approach

We invested the majority of our estimating time on the long term solution as it was far more challenging than the interim solution. We need to review the interim project scope with you so that we can verify our assumptions on the proposed scope of work. Included in the scope of the interim project are three components:

- 1. Required demolition to allow for 9" of spray foam insulation in the attic
- 2. Required demolition and minor aesthetic construction required to add and improve lighting in selected areas of the building
- 3. Security and Life Safety Upgrades

# Long Term Approach

The long term approach evolved into a complete "gut" and reconstruct-in-place the entire state office building while maintaining the integrity of the elevator lobbies, historic stone and marble corridors and building exterior. Beyond these areas of the building we understand that the building will be completely gutted back to the original structure. The existing stairwells will remain but will receive code complaint metal railings per code. Reconstruction will require that the building be un-occupied for a period of two years to allow for construction. We are providing detailed pricing which explains every line item in our estimate so we will only provide a high-level outline to further explain our approach:

# **Building Exterior**

The main scope of work relating to the building's exterior will include the replacement of the existing window systems. The existing fixed windows will be removed from the building. LCC has included a unit price of \$125/sq.ft for aluminum clad, double-hung, wood windows. The glass in these low-E, argon filled windows by Kolbe and Kolbe, have a U-value in the range of 0.28 to 0.29. The units would have simulated divided lights and a pre-finished wood interior which would replicate the original double-hung windows of the original building. These windows have been used on similar public restoration projects in Minnesota in the recent past. If it is the intent to install operable double hung windows with all of the related trim work and detail to match the original windows the cost per square foot may reach the \$250-\$275/sq.ft range. We can work with to more accurately define a budget price for these windows as we receive more information.

We include the cleaning and sealing of the existing stone exterior of the building, and have a included an budgeting for tuck-pointing approximately 10% of the building's exterior stone surface.

# **Building Exterior – (continued)**

We also include the replacement of all skylights and replaced the iconic Ludowici Greek Tile roofing so that it will last 50-100 years. The existing flat roof will be replaced and covered completely with precast roof pavers similar to the existing and two new air handlers will be placed on the flat roof.

We understand that solar panels on the roof are being contemplated so we included an allowance for a 15KW solar panel system to be mounted on a portion of the roof.

There will be excavation required to extend the fresh air intake for the building which will extend out some twelve feet beyond the face of the building and then rise up into a 'goose neck configuration for security reasons. This will require a concrete enclosure, waterproofing and landscaping restoration. We also included modest budgets for site improvements and for replacement of some sidewalks that might be damaged by the aforementioned exterior improvements.

We have no exterior work on the State Office Building Parking Ramp.

# **Interior Work**

We understand that the entire building will be un-occupied for a period of two years to allow for the reconstruction of the interior of the State Office Building. Along with the historic corridors and elevator lobbies, we also did not budget for any work in the public toilet rooms which have been recently remodeled. Our approach to the interiors is as follows:

# **Interior Demolition**

LCC teamed with Kellington Construction in the estimation of selective demolition. We have assumed that all non-load bearing drywall partitions will be removed along with the related finishes in the building. The scope of selective demolition work is represented below.

- Remove all walls, doors, ceilings, flooring, floor mastic, mechanical, electrical, theater style seating in the hearing rooms and casework on all interior levels.
- Remove chicken wire and insulation from the attic areas.
- Shore, saw-cut and remove structural slab for two new openings, per floor, with the dimensions of 10'-0" x 10'-0".
- Remove all existing mechanical, electrical and fire protection infrastructure and equipment except for sprinkler mains.
- The removal of the catwalks above the 4<sup>th</sup> floor is not included in this estimate
- Removal of the interior stairwells is not included in this estimate

# **New Interior Construction**

LCC performed a take-off of the 1984 building Construction plans to obtain the quantities for our interior finishes. We understand that the new design and interior layout for the building will be similar to its current use and therefore using the 1984 drawings provided us with a basis for budgeting. Room areas were broken down into the following categories:

- Common / Corridor Areas
- Open Office Areas
- Private Office Areas
- Lobby Areas
- Conference Rooms
- Hearing Rooms
- Private Toilet Rooms
- Stairways
- Electrical / Mechanical Rooms
- Electrical and Technology closets

LCC has provided colored take-off drawings that define these areas on each floor of the building. The estimated cost of the finishes (carpet, wallcovering, etc.) in each area varies depending upon the use of the space.

# **Elevator Modernization**

We teamed with Schindler Elevator Corporation to address the modernization of the elevators as described in the pre-design report prepared by Elevator Advisory Group dated May 2012. All seven elevators are addressed in the report and we budgeted the replacement of parts and modernization of all elevators consistent with the report. Please see the budget proposal by Schindler Elevator Corporation attached.

# **Fire Protection Systems**

LCC teamed with Summit Fire Protection Company to estimate the replacement of the entire fire protection system except for sprinkler mains. Beyond the replacement of all piping and heads, (except mains) a new fire pump was included to meet new codes as well as demand. Please see the budget proposal by Summit Fire Protection attached.

# **Mechanical Systems**

LCC hired Harris Mechanical as a consultant to estimate the replacement of the Plumbing and HVAC systems. The entire existing mechanical system will be removed. New air handlers will be installed at the basement level. New vertical air distribution ductwork will be installed in existing and new penetrations through the building concrete floors. New water supply risers

Ms. Denita D. Lemmon, AIA State Office Building Page 5

will be installed to each set of public bathrooms and connected to the existing fixtures. Please see the budget proposal by Harris Mechanical attached.

### **Electrical Systems**

LCC hired Parsons Electric as a consultant to estimate the replacement of the electrical systems which includes a new distribution system in the building. Parsons spent time in the existing building analyzing the existing electrical systems and planning the logistics of an entirely new installation starting at the main service to the building.

We closely followed the pre-design report published by Michaud Cooley Erickson dated April 27, 2012. There was a major update to the electrical scope that we received June 13, 2012.

Please see the proposal by Parson Electric attached.

# **General Requirements**

We have estimated the general requirements based upon a two-year construction schedule. The line items below represent further clarification of our general conditions on the project.

- We have included temporary facilities to support the construction of this project.
- We have included temporary utilities required for construction.
- We have included the cost for the building permit and plan check fee.
- We have included the cost for the builders risk and general liability insurance.
- We have included the cost for a Performance Bond.
- SAC / WAC charges have not been included in this estimate

We suggest that the design team meet to discuss the contents of this draft of the conceptual estimate to assure that our interpretation of the scope is accurate.

Since

Douglas A. Loeffler LEED AP® President

cc: Shawn R. Meschke, P.E.

# **Cost Estimate**

- Cost Estimate Summary Interim Project
- Cost Estimate Summary Long Term Project
- Cost Estimate Details Long Term Project



LOEFFLER CONST	RUCTION & CONSULTING		100 <b>1</b> 00 100	10.000
Project Name:	Minnesota State Office Building			FELED
Project Location:	St. Paul, MN		LUL	TLLK
Description:	Interior / Exterior Renovation		CONSTRUCTIO	ON & CONSULTING
Owner:	State of Minnesota			
Architect:	Miller Dunwiddie			
Bid Date:	Wednesday, June 20, 2012			
Project Lead	Doug Loeffler			
Project Team:	Doug Loeffler / Shawn Meschke			
Building Area / Tota	I Cost per SE with Sitework:	259 833	\$3.02	
Building Area / Tota Building Area / Tota	I Cost per SF w/out Sitework:	259,833	\$2.62	
Site Acreage / Cost	of Site per Acre	3.00	\$0.00	
		5.00	<i>\$0.00</i>	50 FT
SECTION	DESCRIPTION		TOTAL	SQ. FT.
01.00.00	Conoral Conditions	struction Schodulo	¢60,000	¢0.22
01 00 00	Building Dermit, Den Check Fee, State Surcharge, & NO SAC		\$60,000	\$0.23
01 41 20	Dehumidification & Moisture Control	X WAC	\$12,000	\$0.03 \$0.03
01 51 25	Temperary Building Heating and Cooling		\$3,000 \$0	\$0.02 \$0.02
01 53 00	Construction Aids (Trach Chute / Hoisting / Man Lifts / Scaffe	Iding/Tomp Walls)	ېر د م م د م	\$0.00 \$0.10
01 34 00	Field Engineering / Surveying		\$2 <i>3,9</i> 83 ¢0	\$0.10
01 74 75	Final Cleaning		ېږ \$10,000	\$0.00 \$0.04
02 15 00	Existing Conditions - Interior Domolition Attic Only		\$10,000	\$0.04 \$0.11
02 13 00	Concrete		\$29,300 \$0	\$0.11
04 20 00	Masonry		ېږ د (	\$0.00 \$0.00
04 20 00	Metals		ېږ د (	\$0.00 \$0.00
05 10 00	Wood Plastics and Composites		0Ç 00\ 082	\$0.00 \$0.31
07 00 00	Thermal and Moisture Protection		\$72,900	\$0.31 \$0.28
07 00 00	Openings		\$72,500	\$0.28 \$0.09
09 00 00	Finishes		\$25,700	\$0.05
10 00 00	Snecialties		\$0,000 \$0	\$0.25
11 00 00	Equipment		90 \$0	\$0.00
12 00 00	Furnishings		90 \$0	\$0.00
13 00 00	Special Construction		\$0 \$0	\$0.00
14 00 00	Conveying Systems		\$0 \$0	\$0.00
21 00 00	Fire Protection Systems		\$0 \$0	\$0.00
22 10 00	Plumbing		\$0	\$0.00
23 70 00	HVAC Systems		\$0	\$0.00
26 00 00	Electrical - Lighting upgrades		\$51,800	\$0.20
27 00 00	Communications (Data & Telecommunications)		\$0	\$0.00
28 00 00	Electronic Safety and Security Systems		\$159,500	\$0.61
31 00 00	Farthwork		\$0	\$0.00
32 00 00	Exterior Improvements		\$0 \$0	\$0.00
33 00 00	Utilities		\$0 \$0	\$0.00
			\$605 583	\$2.33
	Subcontractor Bonds	1 259/	¢003,583	\$2.55 \$0.02
		1.25%	\$7,570 6122 624	\$U.U3
	Puildors Pick Insurance	10.00%	\$122,031	ېU.47 د م م
	Puildore Pick Doductible (Puil Dodu) (500,000 Doductible	0.25%	\$1,839	\$0.01
	General Liability Incurance	1 250/	ć0 220	ŞU.UU
	Derformance and Daymont Rond	1.25%	ې۶,۷2U د ۲۰ م	\$U.U4
	Contractor Foo	1.00%	\$10,968	ŞU.U4
		3.50%	\$20,523	ŞU.10
			\$784,335	\$3.02

LOEFFLER CONST	RUCTION & CONSULTING		100 CO. 100	1
Project Name:	Minnesota State Office Building			FELED
Project Location:	St. Paul, MN			TLLK
Description:	Interior / Exterior Renovation		CONSTRUCTIO	N & CONSULTING
Owner:	State of Minnesota			
Architect:	Miller Dunwiddie			
Bid Date:	Wednesday. June 20. 2012			
Project Lead:	Doug Loeffler			
Project Team:	Doug Loeffler / Shawn Meschke			
Building Area / Tota	I Cost per SE with Sitework:	259 833	\$187.18	
Building Area / <b>Tota</b>	I Cost per SE w/out Sitework:	259,833	\$184.87	
Site Acreage / Cost	of Site per Acre:	3.00	\$52.874.64	
			+/-· ····	SO ET
SECTION	DESCRIPTION		TOTAL	COST
01.00.00	General Conditions Based on 24 Month Cor	astruction Schedule	\$2 124 638	\$8.18
01 00 00	Building Permit, Plan Check Fee, State Surcharge, & NO SAC &		\$440,000	\$1.10
01 51 23	Dehumidification & Moisture Control		\$389 750	\$1.00
01 53 00	Temporary Building Heating and Cooling		\$337,783	\$1.30
01 54 00	Construction Aids (Trash Chute / Hoisting / Man-Lifts / Scaffo	Iding/Temp Walls)	\$545.649	\$2.10
01 71 00	Field Engineering / Surveying		\$22.500	\$0.09
01 74 75	Final Cleaning		\$116.925	\$0.45
02 15 00	Existing Conditions - Interior Demolition		\$1.527.905	\$5.88
03 30 00	Concrete		\$259,833	\$1.00
04 20 00	Masonry		\$1,142,073	\$4.40
05 10 00	Metals		\$633,481	\$2.44
06 10 00	Wood Plastics and Composites		\$1,748,952	\$6.73
07 00 00	Thermal and Moisture Protection		\$1,968,602	\$7.58
08 00 00	Openings		\$3,074,822	\$11.83
09 00 00	Finishes		\$5,356,185	\$20.61
10 00 00	Specialties		\$180,588	\$0.70
11 00 00	Equipment		\$162,117	\$0.62
12 00 00	Furnishings		\$409,929	\$1.58
13 00 00	Special Construction		\$50,000	\$0.19
14 00 00	Conveying Systems		\$1,604,598	\$6.18
21 00 00	Fire Protection Systems		\$956,180	\$3.68
22 10 00	Plumbing		\$199,260	\$0.77
23 70 00	HVAC Systems		\$9,162,938	\$35.26
26 00 00	Electrical		\$3,162,068	\$12.17
27 00 00	Communications (Data & Telecommunications)		\$6,397,500	\$24.62
28 00 00	Electronic Safety and Security Systems		\$998,660	\$3.84
31 00 00	Earthwork		\$29,380	\$0.11
32 00 00	Exterior Improvements		\$57,500	\$0.22
33 00 00	Utilities		\$55,500	Ş0.21
	SUBTOTAL COST		\$43,115,316	\$165.93
	Subcontractor Bonds	1.25%	\$538,941	\$2.07
	Contingency	5.00%	\$2,182,713	\$8.40
	Builders Risk Insurance	0.25%	\$114,592	\$0.44
	Builders Risk Deductible (Buy-Back) - \$500,000 Deductible			\$0.00
	General Liability Insurance	1.25%	\$574,395	\$2.21
	Performance and Payment Bond	1.00%	\$465,260	\$1.79
	Contractor Fee	3.50%	\$1,644,693	\$6.33
	TOTAL AMOUNT		\$48,635,909	\$187.18

LOEFFLER CONSTRUCTION & CONSULTING	
Project:	Minnesota State Office Building

Interior / Exterior Renovation

Miller Dunwiddie



Interior Demolition

Scope:

Architect:

	Description:	Quantity:	U	nit	Unit Price:	Amount:	Notes:
02 15 00	Interior Demolition (Light)		0	SF	\$2.50	\$0	Steel stud walls, ACT clgs, carpet
02 15 00	Interior Demolition (Med.)		259,833	SF	\$4.91	\$1,275,780	Steel Catwalks above 4th floor not removed!
02 15 00	Interior Demolition (Hvy)		0	SF	\$5.00	\$0	Ceramic floors, plaster clgs, etc.
02 15 00	Asbestos Tile Removal		0	SF	\$3.75	\$0	
02 15 00	Demo Chicken Wire and Attic Insulation		4,500	SF	\$6.25	\$28,125	Three men for thre weeks
02 15 00	Sawcut Concrete for new Shafts		1,600	SF	\$15.00	\$24,000	
02 15 00	Owner to remove all contents of the building		0	SF	\$0.00	\$0	
02 15 00	Remove the AHU's in the Basement		1	LS	\$200,000.00	\$200,000	
	Total Selective Demolition					\$1,527,905	\$5.88 Cost per Sq. Ft.
	Concrete						
	Description:	Quantity:	U	nit	Unit Price:	Amount:	Notes:
03 31 00	Continuous Footings		0 C	Y	\$220.00	\$0	
03 31 00	Small Pad Footings		0 C	Y	\$180.00	\$0	
03 31 00	Large Pad Footings		0 C	Y	\$175.00	\$0	
03 31 00	Concrete Walls		0 SI	F	\$19.00	\$0	
03 31 00	4" Slab-On-Grade		0 SI	F	\$3.60	\$0	
03 31 00	5" Slab-On-Grade		0 SI	F	\$4.10	\$0	
03 31 00	Structural Slabs - Support new Openings		0 E/	A	\$8,500.00	\$0	
03 31 00	Structural Slab Finishing - Trowel Finish		0 SI	F	\$0.55	\$0	
03 31 00	Structural Slab Finishing - Float Finish		0 SI	F	\$0.35	\$0	
03 31 00	Concrete Beams - Pouring		0 C	Y	\$135.00	\$0	
03 31 00	Columns/Piers - Forming and Pouring		0 C	Y	\$540.00	\$0	
03 31 00	Concrete Drop Heads		0 C	Y	\$300.00	\$0	
03 31 00	Steel stair pan fill		0 SI	F	\$12.00	\$0	
03 31 00	Misc. Structural Modifications		0 E/	A	\$1,500.00	\$0	
03 31 00	Misc. Concrete Infill		0 C	Y	\$150.00	\$0	
03 31 00	Slab on Metal Deck		0 SI	F	\$4.00	\$0	
03 31 00	2" Topping Slab		0 SI	F	\$2.50	\$0	
03 31 00	Premium Cost for Pour Strips		0 L9	5	\$0.00	\$0	
03 31 00	Premium for Epoxy Coated Rebar		0 T	on	\$375.00	\$0	
03 31 00	Poured Elevated Concrete Stairs		0 FI	r	\$11,200.00	\$0	
03 31 00	GC's, Fee, and Contingency		15% LS	5	n/a	\$0	
03 31 00	Misc. Concrete Modifications		259,833 SI	F	\$1.00	\$259,833	Misc. Concrete Openings for new Air Intake
	Total Cast-in-Place Concrete					\$259,833	\$1.00 Cost per Sq Ft

Project: Scope: Architect:



Masonry

	Description:	Quantity:	Unit	Unit Price:	Amount:	Notes:
04 20 00	8" Block walls		0 SF	\$13.00	\$0	
04 20 00	12" Block walls		0 SF	\$14.00	\$0	
04 20 00	16"x24"X4" Rock Face		0 SF	\$23.00	\$0	
04 20 00	Brick Veneer		0 SF	\$25.00	\$0	
04 20 00	Masonry Veneer w/ some Precast		0 SF	\$28.00	\$0	
04 20 00	Stone Panels		0 SF	\$30.00	\$0	
04 20 00	Stone Cornice		0 LF	\$50.00	\$0	
04 20 00	Stone Headers		0 LF	\$25.00	\$0	
04 20 00	Stone Window Sills		0 LF	\$25.00	\$0	
04 20 00	Stone Accent Band		0 LF	\$30.00	\$0	
04 20 00	Stone Veneer System		0 SF	\$50.00	\$0	
04 20 00	Granite Accent Band		0 SF	\$35.00	\$0	
04 20 00	Cast Stone		0 SF	\$30.00	\$0	
04 20 00	Arriscraff Veneer		0 SF	\$60.00	\$0	
04 20 00	Arris Craft Sills		0 LF	\$30.00	\$0	
04 72 00	Limestone Watertable Corduroy Finish		0 LF	\$125.00	\$0	
04 72 00	Liestone Watertable Honed Finish		0 LF	\$64.00	\$0	
04 20 00	Limestone Veneer Site Walls w/Precast Cap		0 LF	\$410.00	\$0	
04 20 00	Misc. Masonry in Lower Level		1 LS	\$60,000.00	\$60,000	
	Total Masonry				\$60,000	\$0.23 Cost per Sq Ft
	Masonry Restoration					
	Description:	Quantity:	Unit	Unit Price:	Amount:	Notes:
04 50 00	Tooth Out Brick @ Jambs		0 LF	\$10.20	\$0	
04 50 00	Patch Brick Back in at Jamb Openings		0 LF	\$55.00	\$0	
04 50 00	Patch Brick @ Precast Header Openings		0 SF	\$50.00	\$0	
04 50 00	Clean & Seal Exterior Stone Façade		66,537 SF	\$1.75	\$116,440	
04 50 00	Tuck Pointing (10% Allowance)		66,537 SF	\$12.00	\$798,444	
04 50 00	Tuckpointing (100% of area)		0 SF	\$22.00	\$0	
04 50 00	Install Flashing into a Brick Wall		0 LF	\$200.00	\$0	Really difficult can be \$250 SF
04 50 00	Hand Brick Washing		0 SF	\$1.50	\$0	
04 50 00	Remove and Replace Brick		0 Ea	\$250.00	\$0	
04 50 00	Marble Floor Restoration and Polishing		14,931 SF	\$4.50	\$67,190	
04 50 00	Misc. Masonry Restoration - Repairs		1 LS	\$100,000	\$100,000	
	Total Masonry Restoration				\$1,082,073	\$4.16 Cost per Sq Ft

Minnesota State Office Building

Interior / Exterior Renovation

Miller Dunwiddie

Project: Scope: Architect: Minnesota State Office Building Interior / Exterior Renovation Miller Dunwiddie



Steel

	Description:	Quantity:	Unit	Unit Price:	Amount:	Notes:
05 10 00	Structural Framing Steel - New openings		28 TON	\$4,500.00	\$126,000	2 tons per opening - 14 openings
05 10 00	Structural Framing Steel - Medium		0 TON	\$2,000.00	\$0	
05 10 00	Structural Framing Steel - Heavy		0 TON	\$1,500.00	\$0	
05 50 00	Quantity of Stairtowers		0 EA	n/a	\$0	
05 50 00	Quantity of Stairtowers		0 Flr	n/a	\$0	
05 50 00	Steel pan-filled stairway		0 VLF	\$930.00	\$0	Includes railings and handrails
05 50 00	Grand Stair at Main Lobby		0 VLF	\$1,430.00	\$0	Includes railings and handrails
05 50 00	Wall Mounted Steel Handrails		0 LF	\$20.00	\$0	
05 50 00	Steel Balcony Railings		0 LF	\$105.00	\$0	
05 50 00	Elevator Pit Ladder		0 VLF	\$200.00	\$0	
05 50 00	Elevator Sill Angles		0 LF	\$57.00	\$0	
05 50 00	Elevator Hoist Beams		0 LF	\$95.00	\$0	
05 50 00	Elevator Roof Structure		0 SF	\$18.00	\$0	
05 50 00	Stair Tower Roof Structure		0 SF	\$17.00	\$0	
05 50 00	Mechanical Penthouse Framing		0 SF	\$21.00	\$0	
05 50 00	Miscellaneous Roof Structure		0 SF	\$21.00	\$0	Bar joist, metal deck, steel posts
05 50 00	Skyway Steel Structure		0 SF	\$82.00	\$0	
05 50 00	Steel Overhead Door Jamb		0.00 Tons	\$3,000.00	\$0	
05 50 00	Ships Ladders		0 LF	\$200.00	\$0	
05 50 00	Steel Bollards		0 EA	\$340.00	\$0	
05 50 00	Brick Relieving Angles		0 LF	\$22.00	\$0	
05 50 00	Loose Lintels		0 LF	\$20.00	\$0	
05 50 00	Steel Embeds		0 EA	\$20.00	\$0	
05 50 00	Dock Levelor Angles		0 LF	\$35.00	\$0	
05 50 00	Other Miscellaneous Steel		0.00 Tons	\$3,000.00	\$0	
05 50 00	10 Pipe Sloping Pipe Rail - At main Stairs		502 LF	\$250.00	\$125,500	Includes removal of the existing
05 50 00	Stair Rail against Wall		602 EA	\$95.00	\$57,190	Includes removal of the existing
05 50 00	Misc. Metals Allowance	2	59,833 SF	\$1.25	\$324,791	Bracing 1/2 high walls, misc. supports
05 50 00	Other Items		0.00 TON	\$0.00	\$0	
05 50 00	Other Items		0.00 TON	\$0.00	\$0	
05 50 00	Other Items		0.00 TON	\$0.00	\$0	
	Total Miscellaneous and Structural Steel				\$633,481	\$2.44 Cost per Sq Ft

Project: Scope: Architect:



#### Carpentry

	Description:	Quantity:	Unit	Unit Price:	Amount:	Notes:
06 10 00	Roof Blocking	987	BF	\$10.00	)	\$9,870 Calculated at 3.5 BF/LF
06 10 00	Plywood at Parapet	1,128	SF	\$5.50	)	\$6,204
06 10 00	Floor Joists	0	SF	\$6.00	)	\$0.00
06 10 00	Roof Joists	0	SF	\$6.00	)	\$0.00
06 10 00	Wood Stair Framing	0	VF	\$10.00	)	\$0.00
06 10 00	Exterior Walls, Sheathing and Tyvek	0	SF	\$5.00	)	\$0.00
06 10 00	Interior Stud Walls	0	SF	\$4.00	)	\$0.00
06 10 00	Door and Window Headers	0	BF	\$3.00	)	\$0.00
06 10 00	Hand Frame Roof Flat	0	SF	\$5.00	)	\$0.00
06 10 00	2 x 6 Joist Framing	0	SF	\$5.00	)	\$0.00
06 10 00	2 x 6 Sloped hand Framing	0	SF	\$5.00	)	\$0.00
06 10 00	2 x 6 Overbuild Roof Framing	0	SF	\$6.00	)	\$0.00
06 10 00	Soffit Framing and Plywood	0	SF	\$10.00	)	\$0.00
06 10 00	Fascia Framing and Trim	0	SF	\$7.50	)	\$0.00
06 10 00	Hoisting for Trusses w/Hydro Crane	0	WK	\$6,000.00	)	\$0.00
06 10 00	Forklift and Operator	0	WK	\$4,000.00	)	\$0.00
06 10 00	Blocking at Pre-Hung Doors	0	EA	\$40.00	)	\$0.00
06 10 00	Blocking at Casework	1	LF	\$4.00	)	\$4.00
06 10 00	Interior Commercial Bldg. Blocking	72,470	BF	\$5.50	\$398	3,585.00 Calculated at 2.0 BF/LF
06 10 00	Layout and Clean-up	259,833	SF	\$0.25	\$64	l,958.25
	Total Rough Carpentry				\$479	),621.25 \$1.85 Cost per Sq Ft

Minnesota State Office Building

Interior / Exterior Renovation

Miller Dunwiddie

Project: Scope: Architect: Minnesota State Office Building Interior / Exterior Renovation Miller Dunwiddie



#### Finish Carpentry and Millwork

	Description:	Quantity:	Unit	Unit Price:	Amount:		Notes:
06 20 00	Wood Base	8,303	LF	\$6.25		\$51,894	
06 20 00	2-3/4" Maple Casing	0	LF	\$3.00		\$0	
06 20 00	Maple Base Shoe	0	LF	\$1.25		\$0	
06 20 00	5-3/8" Maple Crown Moulding	0	LF	\$6.00		\$0	
06 20 00	2-Piece Maple Crown Moulding	0	LF	\$9.00		\$0	
06 20 00	White Melamine Closet Shelving	0	LF	\$15.00		\$0	
06 20 00	Maple closet shelving (48 l.f. per floor)	384	LF	\$48.00		\$18,432	Includes stainless steel rod and brackets
06 20 00	Wood Handrail	0	LF	\$15.00		\$0	
06 20 00	Wood Railing	0	LF	\$100.00		\$0	
06 20 00	Decorative Columns	0	EA	\$400.00		\$0	
06 20 00	Laminate countertops	0	SF	\$19.50		\$0	
06 20 00	Corian Tops with Bowls - public baths	0	LF	\$135.00		\$0	
06 20 00	Granite Countertops (no Lav)	0	SF	\$68.00		\$0	
06 20 00	Stainless Steel countertops	0	SF	\$92.00		\$0	
06 20 00	Stair Treads	0	EA	\$30.00		\$0	
06 20 00	Wood Banisters	0	EA	\$50.00		\$0	
06 20 00	Window Sills	0	LF	\$5.00		\$0	
06 20 00	Chair Rail at corridors	6,200	LF	\$3.00		\$18,600	
06 20 00	Wall Caps at half walls	220	LF	\$7.00		\$1,540	
06 20 00	Wood Paneling	0	SF	\$2.00		\$0	
06 20 00	Plastic Laminate Upper Cabinets	0	LF	\$130.00		\$0	
06 20 00	Plastic Laminate Base Cabinets	0	LF	\$150.00		\$0	
06 20 00	Reception Casework and Countertop (2 / floor)	192	LF	\$600.00	Ş	\$115,200	
06 20 00	Millwork Allowance	259,833	SF	\$2.00	Ş	\$519,666	
	Total Finish Carpentry Material				Ş	\$725,332	Material Only
	Finish Carpentry Labor	1	LS		Ş	\$543,999	Labor Only
					Materials	& Labor	\$4.89 Cost per Sq Ft

Project: Scope: Architect: Minnesota State Office Building Interior / Exterior Renovation Miller Dunwiddie



### Waterproofing

	Description:	Quantity:	Unit	Unit Price:		Amount:	Notes:
07 10 00	Cementitious waterproof parge coating		0 SF	\$	7.00	\$	0
07 10 00	Foundation Wall Dampproofing - Interior	7,25	54 SF	\$	3.50	\$25,38	9
07 10 00	Waterproof new Air Intake Below Grade	1,00	00 SF	\$	3.50	\$3,50	D
07 10 00	215mil hot applied,3" insul, drainage & protectn bd		0 SF	\$	6.00	\$	0
07 10 00	Bentonite w/ drainage mat, and 3" insulation		0 SF	\$	5.90	\$	0
07 10 00	3M Traffic Coating - 60 mil.		0 SF	\$	3.50	\$	0
07 10 00	3M Traffic Coating - 40 mil.		0 SF	\$	2.30	\$	0
07 10 00	Misc Items		0 SF	\$	1.50	\$	0
07 10 00	Silane Sealer on Concrete Floors		0 SF	\$	0.40	\$	0
	Total Waterproofing					\$28,88	9 \$0.11 Cost per Sq Ft
	Insulation						
	Description:	Quantity:	Unit	Unit Price:		Amount:	Notes:
07 20 00	Building insulation - wood frame building		0 SF	\$	1.65	\$	O Total Building SF with Blown Attic Insul.
07 20 00	R19 Batt insulation with 6 mil vapor barrier		0 SF	\$	0.75	Ş	0 Square foot of wall area
07 20 00	Spray Foam Insulation in Attic	4,50	O SF	\$1	6.20	\$72,90	<b>0</b> \$1.80 Per Inch Foot
07 20 00	Spray Foam Insulation at underside of Roof	3,84	I9 SF	\$1	6.20	\$62,35	<b>4</b> \$1.80 Per Inch Foot
07 20 00	Spray Applied Vapor Retarder		0 SF	\$	1.00	\$	0
07 20 00	3" Semi-rigid mineral wool insulation		0 SF	\$	5.75	\$	0 Precast Wall Panels
07 20 00	Perimeter Safing and Smoke Seal		0 LF	\$1	0.00	\$	0 Curtainwall and Precast Skin Types
	Total Insulation					\$135,25	4 \$0.52 Cost per Sq Ft

Project: Scope: Architect: Minnesota State Office Building Interior / Exterior Renovation Miller Dunwiddie



### Roofing

	Description:	Quantity:	Unit	Unit Price:	Amount:	Notes:
07 50 00	TPO Mechanically Attached	3,849	SF	\$10.00	\$38,490	60 Mil (same price as EPDM)
07 50 00	Sole Source Roofing Premium	0	SF	\$3.00	\$0.00	
07 50 00	Tapered Roof Premium	3,849	SF	\$4.00	\$15,396	
07 50 00	Energy Star Premium	3,849	SF	\$1.00	\$3,849	
07 32 10	Concrete Roof Tile System (easy access)	0	SF	\$30.00	\$0	Includes ice & water up 9', 100% Rolled Roof
07 32 10	Ludowici - Greek Tile Roof (Difficult access)	29,920	SF	\$40.00	\$1,196,800	Includes ice & water up 9', 100% Rolled Roof
07 50 00	Green Roof	0	SF	\$22.50	\$0.00	
07 50 00	Composition Shingles	0	SF	\$3.50	\$0.00	
07 50 00	R20 Nail Base	0	SF	\$5.50	\$0.00	
07 50 00	Precast Roofing Pedestals	3,849	SF	\$23.00	\$88,527	
07 50 00	Walkway Pads	1,000	SF	\$8.00	\$8,000	
07 50 00	Insulation only R20	0	SF	\$4.00	\$0.00	
07 50 00	Temporary Roofing		SF	\$1.50	\$0.00	
07 50 00	Parapet Flashing	0	SF	\$7.00	\$0.00	
	Total roofing				\$1,351,062	\$5.20 Cost per Sq Ft

#### Sheet Metal

	Description:	Quantity:	Unit	Unit Price:	Amount:	Notes:
07 60 00	Sheet Metal Coping	0	LF	\$25.00		\$0.00 60 Mil (same price as EPDM)
07 60 00	Roof Overflow Scuppers	0	EA	\$350.00		\$0.00
07 60 00	Gutters and Downspouts	0	LF	\$18.00		\$0.00
07 40 00	Firestone UC-500 24 Gauge Panels	0	SF	\$20.00		\$0 Ranges from \$18/SF - \$32/SF
07 40 00	4 mm Composite Wall Panels	0	SF	\$23.00		\$0 Can be as high as \$36/SF
07 40 00	Metal Soffit Panels	0	SF	\$10.00		\$0
07 40 00	Metal Roof Panels	0	SF	\$9.50		\$0 Standing Seam (plywood by others
07 40 00	Parapet Flashing	0	LF	\$12.00		\$0
07 40 00	20 Oz. Fabricated Copper Flashing	0	SF	\$7.70		\$0 Does NOT include installation
07 60 00	HVAC Louvers	0	SF	\$60.00		\$0.00
07 60 00	Other items	0	SF	\$1.50		\$0.00
	Total Sheet Metal					\$0 \$0.00 Cost per Sq Ft

Project: Scope: Architect: Minnesota State Office Building Interior / Exterior Renovation Miller Dunwiddie



# Caulking

	Description:	Quantity:	Unit	Unit Price:	Amount:	Notes:
07 10 00	Dampproof Elevator Pits	0	SF	\$3.50	\$0	
07 10 00	Waterproofing Walls	0	SF	\$4.00	\$0	
07 10 00	Waterproofing Slabs or Plazas	0	SF	\$3.50	\$0	
07 20 00	Insulating Block walls to R5.2 w/foam	0	SF	\$1.00	\$0	
07 20 00	6" batt Insulation with Vapor Barrier	0	SF	\$1.05	\$0	
07 20 00	Blown in Cellulose 11.5 " = R 26	0	SF	\$1.55	\$0	
07 20 00	Spray Foam Insulation	0	SF	\$1.80	\$0	Per Inch Foot
07 51 13	Built-up Roofing	0	SF	\$12.00	\$0	4 plies plus asphalt base sheet etc.
07 71 23	Aluminum Gutters 2 x 3	0	SF	\$8.00	\$0	
07 71 23	Galvanized Gutters 2 x 3	0	SF	\$15.00	\$0	
07 71 23	Copper Gutters 2 x 3	0	SF	\$18.00	\$0	
07 81 16	Cementitious Fireproofing	66,755	SF	\$4.50	\$300,398	Includes patching Floors 5-7
07 90 00	Exterior Skin Caulking	77,652	SF	\$1.25	\$97,065	Includes windows, masonry, etc
07 90 00	Interior Hollow Metal Frames	406	EA	\$50.00	\$20,300	Both sides of door frame
07 90 00	Ext. Concrete Caulking	0	SF	\$0.20	\$0	
07 90 00	Miscellaneous condo interior caulking	0	Unit	\$25.00	\$0	
07 90 00	Garage Floor Caulking	0	SF	\$0.10	\$0	
07 90 00	Fire Caulking	3,500	LF	\$3.50	\$12,250	
07 90 00	Other Caulking	0	LF	\$2.00	\$0	
07 90 00	Misc. Project Caulking	259,833	SF	\$0.09	\$23,385	Floor Area
07 90 00	20 Oz. Fabricated Copper Flashing	0	SF	\$12.55	\$0	
07 90 00	Other items	0	SF	\$1.50	\$0.00	
07 90 00	Other items	0	SF	\$7.00	\$0.00	
	Total Caulking				\$453,397	\$1.74 Cost per Sq Ft

Project: Scope: Architect: Minnesota State Office Building Interior / Exterior Renovation Miller Dunwiddie



#### Openings

	Description:	Quantity:	Unit	Unit Price:	Amount:	Notes:
08 11 16	Hollow Metal Frames	0	EA	\$250.00	\$0	
08 11 16	HM Frames with SL or BL	0	EA	\$350.00	\$0	
08 11 16	Hollow Metal Frames / Wood Doors	406	EA	\$850.00	\$345,100	
08 10 00	Wood Door / Sidelite system at Private Offices	315	EA	\$2,000.00	\$630,000	
08 14 13	Wood Doors at Hearing Rooms	48	EA	\$1,450.00	\$69,600	
08 14 13	Wood Doors at Conference Rooms	15	EA	\$1,200.00	\$18,000	
08 14 13	Wood Doors at Lobbies	50	EA	\$1,800.00	\$90,000	
08 14 13	Solid Core Wood Doors 7 ' High	0	EA	\$400.00	\$0	
08 10 00	Stairwell Exit Doors	0	EA	\$1,250.00	\$0	
08 10 00	Interior Pre-Hung Doors	0	EA	\$275.00	\$0	
08 30 00	Sectional Overhead Doors	0	EA	\$2,500.00	\$0.00	
08 30 00	Access Panels	192	EA	\$150.00	\$28,800	
08 30 00	Coiling Overhead Doors	0	EA	\$6,500.00	\$0.00	
08 30 00	Elevator Smoke Control Doors	0	EA	\$4,500.00	\$0.00	
08 38 19	Double Actiong Swing Door at Kitchen	2	EA	\$2,500.00	\$5,000.00	
08 71 00	Finish Hardware (Cylinder Locks)	834	EA	\$400.00	\$333,600	
08 71 00	Hinges, Stops and Locks only	0	EA	\$325.00	\$0	
08 71 00	Residential Interior Door Hardware	0	EA	\$90.00	\$0	
08 71 00	Horton Automatic Operators	0	EA	\$2,500.00	\$0	
08 71 00	Electronic Lock Premium	0	EA	\$335.00	\$0	
	Total Openings				\$1,520,100	\$

\$5.85 Cost per Sq Ft

Project: Scope: Architect: Minnesota State Office Building Interior / Exterior Renovation Miller Dunwiddie



### Glass and Glazing Systems

	Description:	Quantity:	Unit	Unit Price:	Amount:	Notes:
08 40 00	Entrances & Storefront		0 SF	\$40.00		$0 \ Add \ 15\%$ for Bronze anodized or Add $27\%$ for B
08 40 00	Windowall Systems Mid-Rise		0 SF	\$75.00		\$0
08 40 00	Curtainwall Systems		0 SF	\$75.00		\$0
08 40 00	Ribbon Windows		0 SF	\$50.00		\$0
08 40 00	Operable Window Premium		0 EA	\$400.00		\$0
08 40 00	Triple Pane Premium		0 SF	\$10.00		\$0
08 45 10	Replace type 'A' skylights		1 LS	\$239,588.00	\$239,5	588 Pricing from W.L. Hall Company
08 45 10	Replace type 'B' skylights		1 LS	\$69,000.00	\$69,0	000 Pricing from W.L. Hall Company
08 45 10	Replace type 'C' skylights		1 LS	\$79,518.00	\$79,5	518 Pricing from W.L. Hall Company
08 45 10	Kallwall Skylights		0 SF	\$45.00		\$0
08 45 10	Large Dome Type Skylights		0 SF	\$40.00		\$0
08 51 13	Aluminum Windows		0 SF	\$58.33		\$0 e.g. is 3 x4 window with isulated glass
08 52 10	Windows Replacements w/ True Divided Lights		11,115 SF	\$125.00	\$1,389,3	<b>375</b> e.g. is 5 x 3 window with insulated glass
08 52 10	Glass at Private Office sidelites		8,820 SF	\$38.00	\$335,1	160
08 53 13	Vinyl Windows		0 SF	\$23.00		\$0 e.g. is 5 x 3 window with insulated glass
08 54 13	Composite Fiberglass Windows		0 SF	\$21.00		\$0 Artspace Minot Quote from Pella Impervia
08 62 12	Unit Skylights		0 SF	\$32.50		\$0 Plastic Dmoe Type
08 40 00	Patio Doors		0 EA	\$1,000.00		\$0
08 40 00	Revolving Doors		0 EA	\$26,000.00		\$0
08 40 00	Automatic Entrance Doors		0 PR	\$10,000.00		\$0
08 40 00	Interior Storefront System		0 SF	\$60.00		\$0
08 40 00	Mirrors - private baths		84 SF	\$14.00	\$1,1	176
08 40 00	Mirrors - public baths		0 SF	\$15.00		\$0
08 40 00	Final Cleaning Glass both Sides		0 SF	\$0.25	\$0	.00
08 91 00	Louvers		0 SF	\$30.00	\$0	.00
08 88 00	Interior Glass and Glazing Allowance		1 LS	\$30,000.00	\$30,000	.00
	Total Glass and Glazing Systems				\$2,143,8	\$8.25 Cost per Sq Ft

Project: Scope: Architect: Minnesota State Office Building Interior / Exterior Renovation Miller Dunwiddie



### Drywall and Stucco

	Description:	Quantity:	Unit	Unit Price:	Amount:	Notes:
07 20 00	Insulation at Walls (B - 5th)	68,511	SF	\$1.25	\$85,63	9
09 20 00	Exterior Walls	0	SF	\$8.75		50
09 20 00	Drywall back-up to precast/spandrel panel	0	SF	\$3.60		50 Framing, insulation, & sheetrock
09 20 00	Parapet framing	0	SF	\$17.00		50 Ranges from \$15-\$40/SF
09 20 00	Corridor Walls	0	SF	\$6.75		50
09 20 00	Unit Demising Walls	0	SF	\$8.25		50
09 20 00	Furred Walls	125,806	SF	\$4.00	\$503,22	24
09 20 00	Steel Stud Partitions - Gypsum one side	79,580	SF	\$5.50	\$437,69	00
09 20 00	Steel Stud Partitions - Gypsum two sides	184,777	SF	\$7.50	\$1,385,82	28
09 20 00	Steel Stud Partitions - Half-high walls	767	SF	\$4.50	\$3,45	52
09 20 00	Double Layer of Drywall Premium	0	SF	\$1.35		50
09 20 00	Rated Mechanical Shaft Walls - new open.	7,840	SF	\$8.50	\$66,64	<b>10</b> 2" Studs
09 20 00	Stairwell Walls (2 Hour)	0	SF	\$7.50		50
09 20 00	Furred drywall ceilings - Hearing Rooms	19,133	SF	\$8.25	\$157,84	17
09 20 00	Suspended drywall ceilings	0	SF	\$5.75		50
09 20 00	Veneer plaster ceiling (direct to concrete)	0	SF	\$3.25		50
09 20 00	Soffits	0	LF	\$40.00		50
09 20 00	Install hollow metal door frames	0	EA	\$70.00		50
09 20 00	Frame for and install access panels	0	EA	\$150.00		50
09 20 00	Layout for Drywall Sub	259,833	SF	\$0.75	\$194,87	75 Includes all interior partitions and Soffits
	Total Drywall and Stucco				\$2,835,19	94 \$10.91 Cost per Sq Ft

Project: Scope: Architect: Minnesota State Office Building Interior / Exterior Renovation Miller Dunwiddie



Tile

	Description:	Quantity:	Unit	Unit Price:	Amount:	Notes:
09 30 00	Ceramic Tile Walls		0 SF	\$9.00	\$0	\$2.50 Material Allowance
09 30 00	Patterned Ceramic Tile Walls		0 SF	\$12.00	\$0	\$3.50 Material Allowance
09 30 00	Ceramic Tile Floors		0 SF	\$8.00	\$0	\$2.50 Material Allowance
09 30 00	Porcelain Tile Floors		0 SF	\$3.50	\$0	\$2.50 Material Allowance
09 30 00	Kitchen Quarry Tile		1,839 SF	\$10.50	\$19,310	\$2.50 Material Allowance
09 30 00	Stone Wall Tile		EA	\$16.00	\$0	
09 30 00	Thin-Set Stone Tile at Lobby		0 SF	\$17.25	\$0	
09 30 00	Tiled Shower Base		3 EA	\$750.00	\$2,250.00	Senator Showers
09 30 00	Other items		0 SF	\$7.00	\$0.00	
	Total Tile				\$21,560	\$0.08 Cost per Sq Ft
	Acoustical Ceilings					
	Description:	Quantity:	Unit	Unit Price:	Amount:	Notes:
09 50 00	2x4 Acoustic Ceilings		0 SF	\$2.50	\$0	
09 50 00	2x2 Acoustic Ceilings - Private Offices		63,247 SF	\$3.00	\$189,741	
09 50 00	2x2 Acoustic Ceilings - Open Offices		91,991 SF	\$3.00	\$275,973	
09 50 00	2x2 Acoustic Ceilings - Conference Rooms		6,352 SF	\$3.25	\$20,644	
09 50 00	2x2 Acoustic Ceilings - Corridors		18,617 SF	\$4.25	\$79,122	
09 50 00	2x2 Acoustic Ceilings - Bathrooms		0 SF	\$2.25	\$0	
09 50 00	2x2 Acoustic Ceilings - Kitchen (vinyl coated)		1,839 SF	\$2.75	\$5,057	
09 50 00	Wood paneled ceilings - Lobby Areas		14,931 SF	\$5.75	\$85,853	
09 50 00	2x2 Acoustical 9/16" Grid Tegular Tile		0 SF	\$4.25	\$0	
09 50 00	Tectum Panels		0 SF	\$8.00	\$0	
09 50 00	Acoustical Panels		4,000 SF	\$20.00	\$80,000	
09 50 00	Misc. Items		259,833 SF	\$0.20	\$51,966.60	
	Total Acoustical Ceilings				\$788,357	\$3.03 Cost per Sq Ft

Project: Scope: Architect:



Flooring

	Description:	Quantity:	Unit	Unit Price:	Amount:	Notes:
09 65 00	Shot Blasting floor prep	0	SF	\$2.10	\$0	
09 65 00	Stair Treads and Risers	0	LF	\$30.00	\$0	
09 65 00	Rubber Base	0	SF	\$2.00	\$0	
09 65 00	Vinyl Base (30%)	16,606	LF	\$3.25	\$53,968	
09 65 00	Carpet Base (55%)	30,444	LF	\$4.75	\$144,607	
09 65 00	Wood Base (15%)	8,303	LF	\$6.25	\$51,893	
09 65 00	Welded Integral Vinyl Cove Base	0	EA	\$8.35	\$0	
09 65 00	Rubber Flooring in Exercise Room	0	SF	\$9.00	\$0	
09 65 00	VCT Flooring	0	SF	\$2.85	\$0	
09 65 00	Welded Linoleum w \$30 SY Allowance	0	SF	\$5.25	\$0	
09 60 00	Wood Flooring	0	LF	\$16.00	\$0	
09 64 66	Sand & Re-finish Hardwood w/machine	0	SF	\$2.00	\$0	
09 64 66	Sand & Re-finish Hardwood w/out mach	0	SF	\$4.00	\$0	
09 64 66	Gymnasium Floor	0	SF	\$12.00	\$0	
09 68 00	Re-Finish Terrazzo Flooring	14,931	SF	\$5.00	\$74,655	
09 68 00	Carpet - Common Areas / Corridors	2,069	SY	\$34.00	\$70,346	
09 68 00	Carpet - Open Office Areas	10,221	SY	\$30.00	\$306,630	
09 68 00	Carpet - Private Offices	7,027	SY	\$36.00	\$252,972	
09 68 00	Carpet - Conference Rooms	706	SY	\$40.00	\$28,240	
09 68 00	Carpet - Hearing Rooms	2,126	SY	\$40.00	\$85,040	
09 68 00	Carpet Pad	0	SF	\$0.75	\$0	
09 68 00	Carpet Broadloom	0	SF	\$3.25	\$0	
09 68 00	Carpet Tiles w \$30 SY allowance	0	SF	\$4.00	\$0.00	
09 68 00	Carpet Tiles w \$40 SY allowance	0	SF	\$5.55	\$0.00	
09 68 00	Misc. Floor Leveling, Anti Fracture Membrane etc.	259,833	SF	\$0.10	\$25,983.30	
	Total Flooring				\$1,094,334	\$4.2

Minnesota State Office Building

Interior / Exterior Renovation

Miller Dunwiddie

\$4.21 Cost per Sq Ft

Project: Scope: Architect: Minnesota State Office Building Interior / Exterior Renovation Miller Dunwiddie



#### Painting

	Description:	Quantity:	Unit	Unit Price:	Amount:		Notes:
09 90 00	Clear Floor Sealer	16,654	SF	\$0.35	i	\$5,829	
09 90 00	Paint Exposed Structure	0	SF	\$0.65	<b>;</b>	\$0	
09 90 00	Paint Stairs and Service Room Walls	0	SF	\$0.60	)	\$0	
09 90 00	Paint Stair and Handrails	750	LF	\$11.00	)	\$8,250	
09 90 00	Paint Drywall Walls	495,759	SF	\$0.45	i \$2	223,092	
09 90 00	Paint Drywall Ceilings	19,133	SF	\$0.55	; ;	\$10,523	
09 90 00	Finish Doors and Frames	406	EA	\$105.00	) :	\$42,630	
09 90 00	Finish Door system at Private Offices	315	EA	\$225.00	) :	\$70,875	
09 90 00	Finish Doors at Conf / Hearing / Lobby	113	EA	\$180.00	) :	\$20,340	
09 90 00	Paint CMU Walls includes Block Filler	0	SF	\$1.00	)	\$0	
09 90 00	Remove Wallcovering Prep for Paint	0	LF	\$1.10	)	\$0	
09 90 00	Vinyl Wall Covering type 1 with 15% waste	0	SF	\$1.60	)	\$0	\$10/LY material allowance Low Production
09 90 00	15% Vinyl Wall Covering type 2 with 15% waste	74,364	SF	\$2.45	<b>; \$</b> :	182,191	\$20/LY material allowance low production
09 90 00	Paint 10 pipe stair rails	502	LF	\$11.00	)	\$5,522	
09 90 00	Paint Single Pipe Stair wall Railings	602	LF	\$2.50	)	\$1,505	
09 90 00	Misc. Painting not specified	259,833	SF	\$0.10	) :	\$25,983	
09 90 00	Epoxy Flooring in Mechanical Rooms	2,500	SF	\$8.00	\$20	,000.00	
	Total Painting				\$(	516 <b>,740</b>	\$2.37 Cost per Sq Ft

Project: Scope: Architect: Minnesota State Office Building Interior / Exterior Renovation Miller Dunwiddie



### Specialties

	Description:	Quantity:	Unit	Unit Price:	Amount:	Notes:
10 10 10	Marker Boards (Conference Rooms)		720 SF	\$12.00	\$8,640	)
10 14 00	Building Directory		2 LS	\$2,500.00	\$5,000	)
10 14 00	Door Signs		834 EA	\$85.00	\$70,890	)
10 14 00	Exterior Signage Allowance		0 LS	\$10,000.00	\$(	)
10 21 00	Toilet Partititons		0 EA	\$900.00	\$(	)
10 22 33	Accordian Partitions (Commercial)		0 SF	\$32.00	\$(	) Add \$8 SF for acoustical
10 26 00	Acrovyn Wallcovering		0 SF	\$4.75	\$(	)
10 21 00	Corner Guards Acrylic 4 Foot		960 EA	\$40.00	\$38,400	)
10 21 00	Corner Guards Stainless Steel 4 Foot		0 EA	\$55.00	\$0	)
10 28 00	Toilet Accessories Private Toilets		14 EA	\$275.00	\$3,850	)
10 28 00	Toilet Accessories Public Toilets		0 EA	\$650.00	\$0	)
10 40 00	Fire Extinguishers		12 EA	\$100.00	\$1,200	Basement only
10 40 00	Fire Extinguisher and Cabinet		80 EA	\$200.00	\$16,000	) Ten per floor
10 51 00	Lockers 12'x12"x36"		0 EA	\$85.00	\$0	)
10 51 00	Lockers 12'x15"x72"		85 EA	\$125.00	\$10,62	in Basement
10 51 00	Lockers Athletic		0 EA	\$350.00	\$0	)
10 55 00	Mailboxes		0 EA	\$65.00	\$(	)
10 99 99	Misc. Specialties		259,833 SF	\$0.10	\$25,983	3
	Total Specialties				\$180,588	\$0.70 Cost per Sq Ft
	Equipment					
	Description:	Quantity:	Unit	Unit Price:	Amount:	Notes:
11 05 05	Kitchen Equipment Demolition		0 EA	\$200.00	\$(	)
11 12 00	Parking Control Equipment		0 EA	\$21,000.00	\$(	) Ticket Spitter with Magnetic Stripe
11 13 00	Dock Levelors		0 EA	\$4,000.00	\$(	)
11 13 00	Dock Shelter		0 EA	\$1,500.00	\$(	)
11 13 00	Dock Lights		0 EA	\$425.00	\$(	)
11 14 13	Pedestrian Control Devices (Turnstiles)		0 EA	\$1,500.00	\$(	) Manual Stainless Steel
11 21 53	Barber Shop Equipment		5 Chair	\$5 <i>,</i> 000.00	\$25,000	) Total Equipment per chair
11 30 00	Residential Appliances		0 Unit	\$3,300.00	\$(	)
11 44 00	Kitchen Equipment (warming kitchen)		0 LS	\$50,000.00	\$(	)
11 44 00	Kitchen Equipment (full Kitchen)		0 SF	\$150.00	\$(	) Minimal Kitchens run \$120 SF -\$180 max
11 40 00	Break Room Appliances (one set)		16 EA	\$450.00	\$7,200	)
11 00 00	Other items & Misc Equipment		259,833 SF	\$0.50	\$129,917	1
	Total Equipment				\$162,117	\$0.62 Cost per Sq Ft

Project: Scope: Architect: Minnesota State Office Building Interior / Exterior Renovation Miller Dunwiddie



Furnishings

	Description:	Quantity:	U	Init	Unit Price:	Amount:	Notes:	
12 24 13	Mini Blinds metal		0 SF	F	\$8.00	\$0	)	
12 24 13	Mecho Shades		11,117 S	F	\$12.50	\$138,963	1	
12 30 00	Low End Cabinets		0 U	Inits	\$1,800.00	\$0	)	
12 30 00	Mid-Range Cabinets (2 units/floor)		16 U	Inits	\$5,000.00	\$80,000	)	
12 30 00	High End Cabinets		10 U	Inits	\$11,500.00	\$115,000	)	
12 30 00	Snaidero European Cabinets		0 U	Inits	\$28,000.00	\$0	)	
12 32 16	Science Lab Casework		0 LF	F	\$150.00	\$0	)	
12 36 13	2 CM Granite Countertops w/ 4" backsplash		200 SI	F	\$120.00	\$24,000	)	
12 48 00	Recessed Entrance Mats		0 SF	F	\$24.50	\$0	)	
12 63 13	Motorized Bleachers		0 E/	A	\$275.00	\$0	)	
12 63 13	Auditorium Seating		0 E/	A	\$385.00	1		
12 30 00	Misc. Furnishing Costs		259,833 SI	F	\$0.20	\$51,967	,	
	Total Equipment					\$409,929	)	\$1.58 Cost per Sq Ft
	Special Construction							
	Description:	Quantity:	U	Init	Unit Price:	Amount:	Notes:	
13 11 46	Swimming Pools		0 SF	F	\$150.00	\$0	)	
13 11 46	Lap Pool		0 SF	F	\$175.00	\$0	)	
13 11 46	Whirlpool Spa		0 E/	A	\$10,500.00	\$0	)	
13 21 13	Clean Room 12' x 12' Class 1		0 E/	A	\$20,000.00	\$0	)	
13 21 50	Walk in Cooler		0 SF	F	\$150.00	\$0	)	
12 30 00	Replace the Barber Shop in the lower Level		500 SI	F	\$100.00	\$50,000.00	)	
	Total Special Construction					\$50,000	)	\$0.19 Cost per Sq Ft

#### LOEFFLER CONSTRUCTION & CONSULTING Project: Minnesota State (

Scope: Architect: Minnesota State Office Building Interior / Exterior Renovation Miller Dunwiddie



**Conveying Systems** 

	Description:	Quantity:	Unit	Unit Price:	Amount:	Notes:
14 21 13	Elevator No. 1		8 Floor	\$38,000.00	\$304,000	
14 24 13	Elevator No. 2		8 Floor	\$38,000.00	\$304,000	
14 24 13	Elevator No. 3		8 Floor	\$38,000.00	\$304,000	
14 24 13	Elevator No. 4		8 Floor	\$38,000.00	\$304,000	
14 24 13	Elevator No. 5		7 Floor	\$38,000.00	\$266,000	
14 24 13	Elevator No. 6		2 Floor	\$30,000.00	\$60,000	
14 24 13	Elevator No. 7		2 Floor	\$30,000.00	\$60,000	
14 24 13	Elevator No. 2		0 Floor	\$20,000.00	\$0	
14 20 00	Escalator		0 Run	\$155,000.00	\$0.00	
14 91 00	Trash Chute		0 Floor	\$1,500.00	\$0.00	
14 20 00	Elevator Modernization		0 Floor	\$37,000.00	\$0.00	
14 20 00	Escalator		0 Run	\$155,000.00	\$0.00	
14 20 00	Misc. Elevator Related Costs in Modernization		259,833 SF	\$0.01	\$2,598	
	Total Conveying Systems				\$1,604,598	\$6.18 Cost per Sq Ft
	Fire Protection Systems					
	Description:	Quantity:	Unit	Unit Price:	Amount:	Notes:
21 13 13	Fire Protection Demolition		0 SF	\$0.75	\$0	
21 13 13	Fire Protection System Wet		0 SF	\$2.00	\$0	
21 13 13	Fire Protection System Dry		0 SF	\$2.25	\$0	
21 13 13	Canopy Sprinklers		0 SF	\$16,700.00	\$0	
21 13 13	Attic Sprinklers		0 SF	\$30,000.00	\$0	
21 13 13	Water Curtain at an Atrium		0 LF	\$35.00	\$0	
21 13 13	Fire Pump		0 GPM	\$200.00	\$0	
21 13 13	Jockey Pump		0 SF	\$155,000.00	\$0.00	
21 13 13	Dry Sidewall Sprinkler Head at Balcony		0 EA	\$200.00	\$0.00	
21 13 13	Drop Heads from Shell Space to Ceiling		0 SF	\$1.00	\$0.00	
21 13 13	Modify a head		0 EA	\$75.00	\$0.00	
21 13 13	Improvements to Existing System		1 LS	\$925,000.00	\$925,000.00	Summit Fire Protection Budget
21 13 13	Misc. Fire Protection System Improvements		259,833 SF	\$0.12	\$31,180	
	Total Fire Protection Systems				\$956,180	\$3.68 Cost per Sq Ft

Project: Scope: Architect: Minnesota State Office Building Interior / Exterior Renovation Miller Dunwiddie



Plumbing

	Description:	Quantity:	Unit	Unit Price:	Amount:	Notes:	
22 00 00	Plumbing Permits		0 LS	\$1.00	)	\$0	
22 00 00	Roof and Overflow Drain System		0 EA	\$4,500.00	)	\$0 1,600 SF per drain	
22 00 00	Gas Piping System Distribution		0 SF	\$0.43	5	\$0	
22 00 00	Water Heating System		0 SF	\$0.50	)	\$0	
22 00 00	Water Storage Tank System		0 Gal	\$4.15	5	\$0	
22 00 00	Internal Sewer and Water Mains		0 LF	\$75.00	)	\$0	
22 00 00	Plumbing Fixtures		0 EA	\$1,600.00	)	\$0	
22 00 00	Add for Motion Sensor Valves		0 EA	\$300.00	)	\$0	
22 00 00	Domestic Water Booster Pump		0 EA	\$200.00	)	\$0	
22 00 00	Floor Drains		0 EA	\$1,700.00	)	\$0	
22 00 00	Trench Drains		0 LF	\$105.00	)	\$0	
22 00 00	Connect Pool Equipment		0 EA	\$5,500.00	)	\$0	
22 00 00	Hook-up Lab Sinks		0 EA	\$2,500.00	)	\$0 8 sinks per lab typical	
22 00 00	Science Lab Gas and Air		0 EA	\$775.00	)	\$0	
22 00 00	Kitchen plumbing		0 SF	\$14.00	)	\$0	
22 07 19	Plumbing Insulation	25	59,833 SF	\$0.00	)	\$0	
22 00 00	Grease Interceptor 7 GPM		0 EA	\$1,575.00	)	\$0	
22 00 00	Grease Interceptor 10 GPM		0 EA	\$1,875.00	)	\$0	
22 00 00	Grease Interceptor 20 GPM		0 EA	\$3,250.00	)	\$0	
22 00 00	10 gallon Electric Water Heater		0 EA	\$695.00	)	\$0	
22 00 00	30 gallon Electric Water Heater		0 EA	\$985.00	)	\$0	
22 00 00	50 gallon Electric Water Heater		0 EA	\$4,925.00	)	\$0	
22 00 00	200 gallon Electric Water Heater		0 EA	\$22,500.00	)	\$0	
22 00 00	400 gallon Electric Water Heater		0 EA	\$31,200.00	)	\$0	
22 00 00	Janitor Mop Sink with Connections		0 EA	\$3,000.00	)	\$0	
22 00 00	Electric Water Cooler combination Unit		0 EA	\$6,150.00	)	\$0	
22 00 00	Improvements to Existing System	25	9,833 SF	\$0.77	\$199	,260 New Domestic Water Pip	ing
	Total Plumbing Systems				\$199	,260 \$0.77 Cost	per Sq Ft

Project: Scope: Architect:



HVAC

	Description:	Quantity:	Unit	Unit Price:	Amount:	Notes:
23 00 00	Mechanical Permits	1	LS	\$96,000.00	\$96,000	
23 00 00	Split System Residential DX units	0	TN	\$1,650.00	\$0	
23 00 00	Liebert Units at Data Rooms	0	TN	\$1,681.00	\$0	
23 00 00	Central Boiler System, Gas Fired	0	MBH	\$20.20	\$0	
23 00 00	Dual Fuel Boiler System	0	MBH	\$22.00	\$0	
23 00 00	Cabinet Unit Heaters (Gas Fired)	0	EA	\$1,250.00	\$0	
23 00 00	Cabinet Unit Heaters (Hot Water)	0	EA	\$1,600.00	\$0	
23 00 00	Electric Baseboard Heating	0	LF	\$75.00	\$0	
23 00 00	Chilled Water Risers	0	LF	\$40.00	\$0	
23 00 00	Hot Water Risers	0	LF	\$40.00	\$0	
23 00 00	Chilled Water Loop Piping	0	LF	\$35.00	\$0	
23 00 00	Hot Water reheat piping	0	LF	\$35.00	\$0	
23 00 00	Piping Insulation	259,833	LF	\$1.00	\$259,833	Part of the \$781,200 insulation budget
23 00 00	On-Floor Air Handling Units	0	CFM	\$3.55	\$0	
23 00 00	Make-up Air Handling Units	0	CFM	\$5.30	\$0	
23 00 00	Energy Recovery Units	0	CFM	\$7.75	\$0	
23 00 00	Toilet or Janitor Exhaust	0	EA	\$825.00	\$0	
23 00 00	Sheet Metal Ductwork and Diffusers	0	SF	\$12.63	\$0	
23 00 00	15KW Electric Fan PoweredVAV Boxes	0	EA	\$850.00	\$0	
23 00 00	Interior VAV Boxes	0	EA	\$750.00	\$0	
23 37 15	Louvers	300	SF	\$64.00	\$19,200	
23 00 00	Temperature Controls	259,833	SF	\$5.01	\$1,302,350	
23 00 00	Test and Balance	259,833	SF	\$0.45	\$117,824	
23 00 00	Parking Garage Fans	2	EA	\$21,000.00	\$42,000	
23 00 00	Stairwell Pressurization	0	CFM	\$31,200.00	\$0	
23 00 00	Elevator Pressurization	0	CFM	\$3,000.00	\$0	
23 33 53	Sheet metal Insulation	259,833	SF	\$2.01	\$521 <i>,</i> 365	Part of the \$781,200 insulation budget
23 00 00	HVAC Systems	259,833	SF	\$26.19	\$6,804,366	Harris Mechanical Budget Proposal
23 00 00	Improvements to Existing System	259,833	SF	\$0.00	\$0	
23 56 16	Solar Heating	259,833	SF	\$0.00	\$0	
	Total HVAC Systems				\$9,162,938	\$35.26 Cost per Sq Ft

Minnesota State Office Building

Interior / Exterior Renovation

Miller Dunwiddie

Project: Scope: Architect: Minnesota State Office Building Interior / Exterior Renovation Miller Dunwiddie



#### Electrical

	Description:	Quantity:	Unit	Unit Price:	Amount:	Notes:
26 00 00	Electrical Demolition	0	SF	\$1.25	\$0	Included in the budget below
26 00 00	480 V Service Entrance & Switchgear	0	AMP	\$55.00	\$0	
26 00 00	15 KV Switch and Transformer	0	AMP	\$500.00	\$0	
26 00 00	Double-Ended Switchgear Premium	0	AMP	\$22.00	\$0	
26 00 00	TVSS Switchgear premium	0	Each	\$14,000.00	\$0	Transient Volt Surge Suppression
26 00 00	Power Distribution	0	SF	\$4.50	\$0	Does Not include Outlets or Switches
26 00 00	225 kVA PDU's at Computer Floor	0	EA	\$35,000.00	\$0	Data Center Component
26 00 00	400 Amp Buss Duct and Taps	0	LF	\$150.00	\$0	
26 00 00	K-13 Transformer Premium	0	EA	\$2,675.00	\$0	Greater Capacity Loads
26 00 00	Cable Tray, 4" deep	0	LF	\$32.05	\$0	
26 00 00	Hook-up AHU's	0	CFM	\$0.05	\$0	
26 00 00	Hook-up Cabinet Unit Heaters	0	EA	\$350.00	\$0	4 hours plus feeders
26 00 00	Hook-up Baseboard Heaters	0	LF	\$65.00	\$0	
26 00 00	Hook-up Fire Pump	0	HP	\$90.00	\$0	
26 00 00	Hook-up Motion Sensor Fixtures	0	EA	\$200.00	\$0	Hard-wired
26 00 00	Lighting and Power at Shell and Core	0	SF	\$7.50	\$0	
26 00 00	Main Lobby Lighting Premium	0	SF	\$10.00	\$0	
26 00 00	General Lighting Installation	0	EA	\$200.00	\$0	Number of Light Fixtures
26 00 00	Stairwells and areas with Fluorescent	0	SF	\$2.25	\$0	include Mechanical and Electrical rooms
26 00 00	Indirect Lighting	0	LF	\$75.00	\$0	
26 00 00	Add for LED Lighting	0	SF	\$5.00	\$0	
26 00 00	Dimming Systems	0	SF	\$6.75	\$0	
26 00 00	Exterior Building Lighting	0	EA	\$1,000.00	\$0	
26 00 00	EMT Outlets	0	SF	\$250.00	\$0	One per 70 SF
26 00 00	Floor Outlets	0	SF	\$500.00	\$0	
26 00 00	Workstations Through the Wall	0	EA	\$500.00	\$0	7 Wire Harness hook-up
26 00 00	Workstations Through the Floor	0	EA	\$750.00	\$0	7 Wire Harness hook-up
26 00 00	Emergency/Exit Lighting system	0	SF	\$0.15	\$0	
26 00 00	Parking Garage Wiring	0	SF	\$1.50	\$0	
26 00 00	Solar Panels	15	кw	\$8,333.33	\$125,000	15KW
26 00 00	Parking Garage Lighting	0	SF	\$1.75	\$0	
26 00 00	Electrical Budget Proposal from Parsons Electric	259,833	LS	\$11.26	\$2,925,340	No new data center is included
26 00 00	Misc. Electrical Scope Items	259,833	SF	\$0.43	\$111,728	Temp Power distribution, Power Co Charges
	Total Electrical Systems				\$3,162,068	\$12.17 Cost per Sq Ft

	LOEFFLER CONSTRUCTION & CONSULTING Project: Scope: Architect:	Minnesota S Interior / Ex Miller Dunw	State Office Building terior Renovation riddie				LOEFFLER CONSTRUCTION & CONSULTING
	Communications						
	Description:	Quantity:	Unit	Unit Price:	Amount:	Notes:	
27 00 00	Tele/Data Cabling (no Hook-up)		259,833 SF	\$5.73	\$1,488,900	All run in Cat	6A
27 41 00	Audio Visual Systems		259,833 SF	\$18.89	\$4,908,600		
27 00 00	Nurse Call System		0 SF	\$1.50	\$0		
27 00 00	Safe Baby System		0 EA	\$15,500.00	\$0		
27 00 00	Cable TV System Outlets		0 EA	\$350.00	\$0		
27 00 00	Sound Masking System		0 SF	\$0.20	\$0.00		
	Total Communications Systems				\$6,397,500		24.62 Cost per Sq Ft
	Electronic Safety and Security						
	Description:	Quantity:	Unit	Unit Price:	Amount:	Notes:	
28 13 53	Access Control System		259,833 SF	\$1.40	\$364,220		
28 00 00	Detention System Conduit and Wiring		0 SF	\$3.25	\$0		
28 00 00	Detention Security System		0 SF	\$10.00	\$0		
28 00 00	Card Access at Entrances		0 EA	\$2,500.00	\$0		
28 23 13	Surveillance System		259,833 SF	\$0.93	\$242,440		
28 23 13	Add a security Camera		0 EA	\$1,025.00	\$0		
28 23 13	CCTV Cameras at Entrances		0 EA	\$6,500.00	\$0		
28 31 23	Fire Alarm Life Safety System		259,833 SF	\$1.51	\$392,000		
	Total Electronic Safety/Security Systems				\$998,660		\$3.84 Cost per Sq Ft
	Earthwork						
	Description:	Quantity:	Unit	Unit Price:	Amount:	Notes:	
31 00 00	Mobilization		1 LS	\$12,000.00	\$12,000	Within the M	etro
310000	Site Clearing		0 Acres	\$5,000.00	\$0		
310000	Site Grading		0 Acres	\$15,000.00	\$0		
31 00 00	Perimeter Drain Tile		0 LF	\$12.00	\$0	Interior and E	xterior of Foundation walls
310000	Building Excavation		0 LCY	\$6.00	\$0		
31 00 00	Excavate and Backfill for new Fresh Air Intake		120 LCY	\$90.00	\$10,800		
310000	Pad Excavation and Backfill		0 CY	\$58.00	\$0		
310000	Continuous Excavation and Backfill		0 LF	\$20.00	\$0		
31 00 00	Export Additional Material		0 LCY	\$11.00	\$0		
31 00 00	Import and Place Engineered Soils		0 LCY	\$14.00	\$0		
31 00 00	Import Black Dirt		40 LCY	\$52.00	\$2,080		
31 00 00	Silt Fence		1,000 LF	\$4.50	\$4,500		
31 00 00	Sand Cushion at SOG		0 SF	\$0.20	\$0.00		
	Total Earthwork				\$29,380		\$0.11 Cost per Sq Ft

Project: Scope: Architect: Minnesota State Office Building Interior / Exterior Renovation Miller Dunwiddie



Exterior Improvements

	Description:	Quantity:	Unit	Unit Price:	Amount:	Notes:
32 06 00	4" Concrete Walks		5,000 SF	\$5.50	\$27,	500 Replaced after construction
32 06 00	8" Driveway Aprons		0 SF	\$6.40		\$0
32 06 00	B612 Curb & Gutter		0 LF	\$15.00		\$0
32 06 00	S512 Curb & Gutter		0 LF	\$18.55		\$0
32 06 00	Concrete Islands		0 SF	\$13.50		\$0
32 06 00	Install Bollards		0 EA	\$150.00		\$0 includes set and fill
32 11 00	Pavement Demolition		0 SF	\$0.60		\$0 3-3.5" Typical
32 11 00	Mobilization for Paving Crew/Equipment		0 LS	\$3,500.00		\$0
32 11 00	Stabilization Fabric		0 SY	\$1.85		\$0
32 11 00	Class 5 Base at Paving (6-8" thick)		0 SY	\$9.00		\$0 Crushed Limestone
32 11 00	Tack Coat		0 SY	\$1.00		\$0
32 11 00	Sealcoating		0 SY	\$1.50		\$0
32 11 00	2" Base Course		0 SY	\$8.85		\$0
32 11 00	2" Wearing Course		0 EA	\$9.05		\$0
32 11 00	Striping per stall		0 EA	\$15.00		\$0 .39 LFT plus \$20 each fro handicap symbol
32 84 00	Underground Irrigation		0 Zone	\$950.00		\$0 .33 SF = \$12,780
32 91 00	Hardwood Mulch		0 SF	\$0.75		\$0 Figured 3" deep
32 91 00	Stone Mulch		0 SF	\$1.50		\$0
32 91 00	Topsoil		0 SF	\$0.65		\$0 Figured 4-5" deep
32 91 00	Sod		0 SY	\$275.00		\$0
32 91 00	Trees		0 EA	\$300.00		\$0
32 91 00	Shrubs		0 EA	\$45.00		\$0
32 91 00	Perennials		0 EA	\$10.00		\$0
32 91 00	Steel Edging		0 LF	\$7.00		\$0
32 00 00	Misc. Exterior Improvements		1 LS	\$30,000.00	\$30,000	.00 Ash Urns, Bike Racks, Restoration Etc.
	Total Exterior Improvements				\$57,	500 \$0.22 Cost per Sq Ft

Project: Scope: Architect:

Minnesota State Office Building Interior / Exterior Renovation Miller Dunwiddie



Utilites

	Description:	Quantity:	Unit	Unit Price:	Amount:	Notes:
33 00 00	Utility Disconnect	0	EA	\$2,000.00	\$0	
33 00 00	2" Water Main	0	LF	\$10.00	\$0	
33 00 00	2" Gate Valve	0	EA	\$500.00	\$0	
33 00 00	4" Water Main	0	LF	\$25.00	\$0	
33 00 00	4" Gate Vavle	0	EA	\$550.00	\$0	
33 00 00	6" Water main Fire Protection	0	LF	\$30.00	\$0	
33 00 00	6" Gate Valve	0	EA	\$700.00	\$0	
33 00 00	8" Water main	200	LF	\$55.00	\$11,000	
33 00 00	8" Gate Valve	2	EA	\$1,500.00	\$3,000	
33 00 00	8" PVC Storm	0	LF	\$12.00	\$0	
33 00 00	10" PVC Storm	0	LF	\$14.00	\$0	
33 00 00	12" RCP Storm	0	LF	\$16.00	\$0	
33 00 00	15" RCP Storm	0	LF	\$19.00	\$0	
33 00 00	6" Sanitary	0	LF	\$30.00	\$0	
33 00 00	8" Sanitary	0	LF	\$32.00	\$0	
33 00 00	Water Taps/Tie ins	0	EA	\$2,500.00	\$0	
33 00 00	Structures	0	EA	\$2,500.00	\$0	
33 00 00	Water Main Lead-In	1	EA	\$1,500.00	\$1,500	Required for the new Fire Pump size
33 00 00	Fire Protection Lead-In	0	EA	\$1,500.00	\$0	
33 00 00	Sanitary Stub-in	0	EA	\$420.00	\$0	
33 00 00	Allowance for Restoration	1	LS	\$40,000.00	\$40,000	
33 00 00	Misc Items	0	EA	\$0.00	\$0	
	Total Utilities				\$55,500	\$0.21 Cost per Sq Ft

### SCHINDLER ELEVATOR CORPORATION

June 14, 2012

Doug Loeffler State Of Minnesota 50 Sherburne Ave Ste G10 Saint Paul, MN 55155

Dear Gordy Specht:

#### Re: PreBid MOD

State Office Bldg 100 Rev Dr Martin Luther King Saint Paul, MN 55155-1232

Schindler Elevator Corporation is pleased to submit the following Modernization budget proposal in the amount of \$1,658,900. Please note that this pricing, unless specifically noted, is "budget" in nature and may vary based upon timing and building conditions. All pricing assumes work is to be done during normal business hours.

The recommendations contained in this proposal will benefit the building owner's long term investment, building management's daily operation, and building tenant's ever increasing expectations.

Our modernization division will work with you to develop a comprehensive program to suit your particular time, budget, and occupancy constraints and provide you with the best possible solution for your vertical transportation needs.

For more than 125 years Schindler Elevator Corporation has been a recognized leader in the development and maintenance of safe, efficient, cost effective people moving systems. Schindler has a unique combination of expertise, product technology, and field resources to modernize equipment in any type of facility and suit any modernization requirement.

On behalf of Schindler Elevator Corporation, we want to extend our appreciation for the opportunity to be your vertical transportation provider. We look forward to working with you. Please feel free to contact me with any questions you may have.

Yours truly,

#### **Schindler Elevator Corporation**

Peder Baukol MOD Sales Representative 651-406-5338

> Page 1 of 5 PBAL-8V9H4L 2012.2

# **Building Name**

Bank	A Elevators 1-4
Number of Cars	4
Capacity	3000 pounds
Speed	500fpm
Landings	8
Openings	8

Controller	Replace	Existing control system will be replaced with a new MCE control system.
Machine	Replace	Existing machine to be removed and replaced with a new gearless machine
Car Fixtures	Replace	Existing car fixtures will be replaced with new ADA compliant fixtures, finish to match existing
Corridor Fixtures	Replace	Existing corridor fixtures will be removed and replaced with new ADA compliant fixtures, finish to match existing
Car GuideShoe	Replace	Existing car guideshoes will be replaced
Cwt GuideShoe	Replace	Existing counterweight guideshoes will be replaced
Cab	Replace	Existing elevator cab will be remodeled with new LED lighting and proper venting.
Door Operator	Replace	Existing door operator will be removed and replaced

# **Building Name**

Bank	B Elevator 5
Number of Cars	1
Capacity	3500 pounds
Speed	350fpm
Landings	7
Openings	7

Controller	Replace	Existing control system will be replaced with a new MCE control system.
Car Fixtures	Replace	Existing car fixtures will be replaced with new ADA compliant fixtures, finish to match existing
Corridor Fixtures	Replace	Existing corridor fixtures will be removed and replaced with new ADA compliant fixtures, finish to match existing
Car GuideShoe Cab	Replace Replace	Existing car guideshoes will be replaced Existing elevator cab will be remodeled with new LED lighting and proper venting.
Door Operator Tracks/Hangers	Replace Replace	Existing door operator will be removed and replaced Existing tracks and hangers will be replaced

# **Building Name**

Bank	C Elevator 6
Number of Cars	1
Capacity	2100 pounds
Speed	100 fpm
Landings	2
Openings	2

Controller	Replace	Existing control system will be replaced with a new MCE control system.
Car Fixtures	Replace	Existing car fixtures will be replaced with new ADA compliant fixtures, finish to match existing
Corridor Fixtures	Replace	Existing corridor fixtures will be removed and replaced with new ADA compliant fixtures, finish to match existing
Cab	Replace	Existing elevator cab will be remodeled with new LED lighting and proper venting.
Door Operator	Replace	Existing door operator will be removed and replaced
Tracks/Hangers	Replace	Existing tracks and hangers will be replaced
Power Unit	Replace	Existing power unit will be removed and replaced

# **Building Name**

Bank	D Elevator 7
Number of Cars	1
Capacity	3000 pounds
Speed	50 fpm
Landings	2
Openings	2

Controller	Replace	Existing control system will be replaced with a new MCE control system
Car Fixtures	Replace	Existing car fixtures will be replaced with new ADA compliant fixtures, finish to match existing
Corridor Fixtures	Replace	Existing corridor fixtures will be removed and replaced with new ADA compliant fixtures, finish to match existing
Car GuideShoe	Replace	Existing car guideshoes will be replaced
Cab	Replace	Existing elevator cab will be removed and replaced
Platform	Replace	Existing elevator platform will be removed and replaced
Door Operator	Replace	Existing door operator will be removed and replaced
Tracks/Hangers	Replace	Existing tracks and hangers will be replaced
Power Unit	Replace	Existing power unit will be removed and replaced


#### **Summit Fire Protection Co. Proposal and Contract**

June 15, 2012

Loeffler 20520 Keokuk Ave. #110 Lakeville, MN 55044

Attention: Doug Loeffler

Fax:

Phone:

Regarding: State Building

Specifications: The equipment to be provided by Summit Fire Protection as part of these Specifications, as well as design and installation services, to the extent described in these Specifications, are sometimes referred to in this Proposal as the "Project"

Our proposal is based on the City of St. Paul requirements (State of MN), and NFPA 13. All work to be performed during normal working hours Site visit- YES  $\boxtimes$  NO  $\square$  NEW  $\square$ 

#### SCOPE OF WORK

- Provide design/build sprinkler shop drawings, hydraulic calcs for City/Insurance/Owner approval.
- Proposal based on plans/specifications dated: 2-4-2009
- Permit cost for the fire sprinkler system
- Final acceptance testing of all components as dictated by NFPA 13, 2002 including final two-hour 200 pound hydrostatic test and sprinkler alarm test
- Design/Build Sprinkler System per plan/spec
- Perform new flow test if required
- Provide (1) wet system per floor
  - Required shutoff valves
    - Required tamper/flow switches (wired by others)
    - Main drain to be piped to an outside location
    - Standard Fire Department Connection
    - Backflow preventer per the State of MN/City of St. Paul

- Required pressure gauges
- Code required valve signage
- Provide (1) Double Interlock Preaction system at the existing Computer/Data Room in the Basement

   Existing FM-200 Clean Agent system to remain
- Provide new fire pump, existing pump is not sufficient to meet new sprinkler/standpipe demand
  - o 1000 gpm at 150 psi
  - o 150 HP, 3560 RPM, 3/60/460Volt ODP Motor
  - o Firetro Wye-Delta Reduced Voltage Starter with open Transition Fire Pump Controller
  - Firetrol Power Transfer Switch
  - Jockey pump rated at 10 gpm at 175 psi
  - Re-use existing Test header
  - Required valves, by pass and approved assembly
  - Provide new 6" standpipes in all stairwells (replace existing)
- Provide new 3" drain riser at standpipe with zone control valves

CORPORATE: 575 MINNEHAHA AVENUE W ST. PAUL, MN 55103 TEL (651) 251-1880 FAX (651) 251-1879

760 LIBERTY WAY NORTH LIBERTY, IA 52317 TEL (319) 665-4330 FAX (319) 665-4331

3026 40<sup>th</sup> Avenue NW Rochester, MN 55901 Tel (507) 280-0622 Fax (507) 280-0577

Includes upsizing the incoming backflow and valves for new 1000 gpm. fire pump

- Coordination with other trades for complete installation
- Quick response sprinklers to be provided throughout
- Exposed Brass upright sprinklers in all areas where structure is exposed
- Fully Concealed sprinklers throughout all ceiling areas
  - Sprinklers to be centered in ceiling tiles where applicable
- Provide coverage at skylights where required by NFPA 13 (skylights 32 sq. ft. or greater and not separated by others by at least 10'-0 require sprinkler coverage)
- Relocate existing horizontal sidewall sprinklers (throughout) where required to meet code required deflector distances from the ceiling
- Water curtains/window sprinklers provided where required for openings between floors and/or windows at areas considered "atrium" or non-rated glass installed at rated partitions
- Raise sprinkler lines/heads in the interstitial space for sprinklers located too far down from the deck
- Lower sidewall sprinklers at sloped roof attic area as required (sprinklers are located into the existing vapor barrier and blown insulation)
- Remove all sprinklers installed off the standpipe system
- Replace sprinkler piping at mechanical rooms that is corroded
- Schedule 40 black lines for all wet system line piping (thread-able), Schedule 10 black piping for all sprinkler mains 2 <sup>1</sup>/<sub>2</sub>" and larger (grooved)
- Galvanized schedule 40 for Double Interlock Preaction System
- High pressure fittings (300 lb.) where required
- Pressure reducing hose valves as required
- Pressure reducing zone control assemblies as required
- Swivel Ring Hangers for all pipe sizes
- Assumes non-combustible construction throughout
- All applicable taxes
- Mobilization as required
- Fire Caulking as required
- Lifts as required
- Includes Addendum(s): N.A.

#### **EXCLUSIONS**

- Work in the existing parking ramp (dry system and/or standpipe)
- Overtime, building was verbally noted to be completely vacated during construction
   Pricing assumes our labor crew can maintain a constant presence on site
- Painting
- Patching
- Alarm Wiring
- Overtime labor
- Dry System(s)/Air compressors
- Other special application suppression systems (Clean Agent/Preaction etc.)
- Sleeves for pipe penetrations
- Site Power
- Central monitoring of sprinkler system
- Phone lines
- Any electrical installation

760 LIBERTY WAY NORTH LIBERTY, IA 52317 TEL (319) 665-4330 FAX (319) 665-4331 3026 40<sup>тн</sup> Avenue NW Rochester, MN 55901 Tel (507) 280-0622 Fax (507) 280-0577

Budget Proposal: We propose to perform the work as described above for the sum of <u>NINE HUNDRED TWENTY FIVE</u> THOUSAND Dollars & no/100 Cents.

Base Price: <u>\$925,000.00</u>

Completion of the Project: Summit Fire Protection offers to provide to Owner the equipment, supplies and materials, as well as the design and installation services and labor to complete the Project, as described in the Specifications. This offer for services shall be null and void, at Summit Fire Protection's option, if not accepted within 45 days from the date of this proposal. Upon delivery by Owner of acceptance of this Proposal, we reserve the right to adjust all prices based on the cost of materials at the time of contract, due to the volatility in the steel market. The customer may be required to pay for materials at the time of contract to guarantee price.

General Conditions: The Summit Fire Protection General Conditions attached to this Proposal are a part of this Proposal. Upon acceptance of this Proposal by Owner, the General Conditions will be a part of the contract between Summit Fire Protection and Owner.

#### SUMMIT FIRE PROTECTION CO.

By: <u>Chris Gillen</u>

Sign Name

<u>Chris Gillen</u> Print Name

#### **OWNER ACCEPTANCE OF PROPOSAL**

Summit Fire Protection's Proposal is hereby accepted and agreed to by Owner. Owner acknowledges that Owner received and read the Proposal and the attached General Conditions. Upon acceptance by Owner, this Proposal, along with the attached General Conditions, will be a binding contract between Summit Fire Protection and Owner.

Owner Signature:\_\_\_\_\_

Print Name:

Date: \_\_\_\_\_

CORPORATE: 575 MINNEHAHA AVENUE W ST. PAUL, MN 55103 TEL (651) 251-1880 FAX (651) 251-1879

760 LIBERTY WAY NORTH LIBERTY, IA 52317 TEL (319) 665-4330 FAX (319) 665-4331 3026 40<sup>тн</sup> Avenue NW Rochester, MN 55901 Tel (507) 280-0622 Fax (507) 280-0577

#### SUMMIT FIRE PROTECTION CO. PROPOSAL AND CONTRACT GENERAL CONDITIONS

These General Conditions are attached to and made a part of the Summit Fire Protection Co. Proposal and Contract to which they are attached (the "Contract") as if fully set forth on the front page of the Contract. As used in these General Conditions, "Summit Fire Protection," "Owner," "Project," and "Contract Price" shall have the same meanings as those terms have in the Proposal.

- 1. Payment. Owner agrees to pay the Contract Price for the Project as and when required in the Proposal.
- 2. Changes. Except for substitutions, as described below in this paragraph, any alteration or modification to the Project must be documented and approved by Summit Fire Protection and Owner by a written change order signed by Summit Fire Protection and Owner. Summit Fire Protection reserves the right to require Owner to pay for all change order items (labor, equipment and any other materials) at the time of signing the change order. In the event of discontinuations, changes or the unavailability of specific equipment or materials described in the Specifications, Summit Fire Protection will have the right to substitute equipment and materials with substantially similar quality and features; provided, however, that if the replacement items are more expensive, then Summit Fire Protection shall notify Owner and Owner may elect whether to pay the additional expense (as an increase to the Contract Price) or to modify the Proposal to include less expensive items, if available, that would not increase the Contract Price.
- 3. <u>Limited Warranty</u>. All materials and labor supplied by Summit Fire Protection will be warranted for one (1) year from the date of completion of the Project. Upon request, Summit Fire Protection will supply a signed warranty letter to Owner, which states the completion date of the Project and the warranty termination date. Certain equipment may include manufacturer's warranties. Summit Fire Protection provides no additional warranty on such equipment. Owner shall have the right to seek enforcement of any such manufacturer's warranty. Summit Fire Protection shall have no obligation to seek enforcement of any such manufacturer's warranty. Summit Fire Protection shall have no obligation to seek enforcement of any such manufacturer's warranty against the manufacturer. Any labor or other services requested by Owner of Summit Fire Protection in connection with Summit Fire Protection's warranty after the one year warranty termination date shall be paid by Owner to Summit Fire Protection based on Summit Fire Protection's standard fees and charges at the time. No other express or implied warranties are made by Summit Fire Protection. Summit Fire Protection does not warrant the Project from normal wear or use. Summit Fire Protection's warranty shall not apply with respect to misuse, abuse or any use that is not in conformity with all applicable specifications and instructions.
- 4. <u>Unavoidable Delays</u>. To the extent any time period for performance by Summit Fire Protection applies, Summit Fire Protection shall not be responsible for any delays due to federal, state or municipal actions or regulations, strikes or other labor shortages, equipment or other materials delays or shortages, acts or omissions of Owner, or any other events or causes beyond the control of Summit Fire Protection.
- 5. Access. Owner shall allow Summit Fire Protection to have reasonable access to the job site to allow the completion of the Project on the dates and at the times requested by Summit Fire Protection personnel.
- 6. <u>Risk of Loss</u>. Risk of loss shall pass to Owner at the time the equipment and other materials that are part of the Project are delivered to the job site. This means that, for example, in the event of damage or destruction due to casualty, or in the event of theft, Owner shall be responsible for payment for such equipment and materials even if the Project has not been completed. Title to the equipment and other materials shall be held by Summit Fire Protection until payment in full of the Contract Price, at which time title shall pass to Owner. Summit Fire Protection shall have the right to remove the equipment and other materials that are a part of the Project if payment of the full Contract Price is not made by Owner immediately upon completion of the Project. That right shall be in addition to, and not in limitation of, Summit Fire Protection's other rights and remedies.
- 7. Limitation of Remedies. The Project is not an insurance policy or a substitute for an insurance policy. In the event of any breach, default or negligence by Summit Fire Protection under this Contract, Owner agrees that the maximum liability of Summit Fire Protection shall not exceed an amount equal to the Contract Price. Owner expressly waives any right to make any claim in excess of that amount. Further, Owner waives any right to any claims for punitive, exemplary or consequential damages. Owner shall provide Summit Fire Protection with reasonable notice of any claim and a reasonable opportunity to cure the alleged breach or default. Owner shall indemnify, defend and hold Summit Fire Protection harmless from and against claims, actions, costs and expenses, including reasonable legal fees and costs, arising out of any injury, death or damage occurring on or about the job site unless caused by the gross negligence or willful misconduct of Summit Fire Protection.
- 8. <u>Owner's Failure to Pay</u>. If Owner fails to pay any amount due to Summit Fire Protection as and when required, Summit Fire Protection shall have the right, but not the obligation, to immediately stop work on the Project and Summit Fire Protection may pursue any and all available remedies, including the right to place a lien against the job site. In addition, Owner shall be obligated to reimburse Summit Fire Protection for reasonable legal fees and costs incurred by Summit Fire Protection in the enforcement of this Contract.
- 9. <u>Miscellaneous</u>. The headings used herein are for convenience only and are not to be used in interpreting this Contract. This Contract shall be construed, enforced and interpreted under the laws of the State of Minnesota. Jurisdiction and venue for the interpretation and enforcement of this Contract shall be solely in the courts of the State of Minnesota located in Ramsey County, Minnesota. Each party waives the right to a jury trial. This Contract may not be modified, amended or changed orally, but only by an agreement in writing signed by the parties hereto. Neither party shall be deemed to have waived any rights under this Contract unless such waiver is given in writing and signed by such party. If any provision of this Contract is invalid or unenforceable, such provision shall be deemed to be modified to be within the limits of enforceability or validity, if feasible; however, if the offending provision cannot be so modified, it shall be stricken and all other provisions of this Contract in all other respects shall remain valid and enforceable. This Contract is not assignable by Owner. This Contract is the entire agreement between the parties regarding the subject matter of this Contract; any prior or simultaneous oral or written agreement regarding the subject matter hereof is superseded by this Contract.

CORPORATE: 575 MINNEHAHA AVENUE W ST. PAUL, MN 55103 TEL (651) 251-1880 FAX (651) 251-1879

760 LIBERTY WAY NORTH LIBERTY, IA 52317 TEL (319) 665-4330 FAX (319) 665-4331 3026 40<sup>тн</sup> Avenue NW Rochester, MN 55901 Tel (507) 280-0622 Fax (507) 280-0577

09 MONTREAL CIRCLE ST. PAUL, MN. 85102 OFFICE (651) 602-6500 FAX (651) 602-5699 www.burec.com

June 15, 2012

Loffeler Construction 20520 Keokuk Avenue Suite LL10 Lakeville MN 55044

Subject: State Office Building \_ Budget



AN EQUAL OPPORTUNITY EMPLOYER:

#### Mr. Doug Loffeler,

We are pleased to submit this Budget proposal for the mechanical work on the above referenced project. We have put together a proposal that demonstrates our knowledge and understanding of this project based on plans dated 02/04/09, narrative dated 04/27/12, existing field conditions and our knowledge of the site.

#### Items included in base bid:

- Plumbing
- HVAC duct and piping
- Pipe & duct insulation
- Air & water balance
- Temperature controls
- Mechanical permits
- Sales tax

#### DETAILED SCOPE BREAKDOWN HVAC Piping and Ductwork Included in Budget Pricing:

- Drain, cut and make safe chilled and heating piping for Gross demolition contractor(by GC)
- · Recover all Refrigerant and oil from existing AHU's
- Cut and make safe ductwork for gross demolition contractor(by GC)
- Install new chilled and heating piping connecting to existing district energy.
- Install new ductwork
- (36) Fire Smoke Dampers
- (3) Relief Hoods
- (2) Hot water Pumps
- (1) Hot Water Heat Exchanger
- (37) Unit and Cabinet heaters
- (2000 lin/ft) fin tube radiation
- (165) Vav's
- (4) Chilled water pumps
- (260) Chilled Beams
- (4) AHU's
- (1226) Grd's
- (4) Car Ramp exhaust Fans
- (8) Bathroom PRV exhaust fans

#### **Plumbing Included in Budget Pricing:**

- Drain, cut and make safe for gross demolition contractor(byGC)
- · Install new domestic water risers and connect to existing bathrooms
- Install new domestic water distribution piping

#### Our proposal is based upon the following assumptions:

- 1. Temporary sanitary facilities will be provided by others.
- 2. Temporary electrical for tools will be provided by others.
- 3. Temporary heat/cooling and enclosure will be provided by others.
- 4. Existing valves and dampers for isolation are in working condition.
- 5. Provisions for space pressurization or temporary barriers will be provided by others.
- 6. Temporary exhaust fans, Hepa filters, filters or dust control equipment will be provided by others.
- 7. Wall and ceiling removal, cutting, patching and replacement will be provided by others.
- 8. Concrete floor / wall patching will be provided by others.

#### **BUDGET - Pricing is as follows:**

#### Base Bid Total:

#### \$9,343,000.00

#### We have not included the following items in our proposal:

- 1. Electrical work
- 2. Fire protection work
- 3. Site utility work
- 4. Rock excavation
- 5. Dewatering
- 6. Fireproof patch
- 7. Structural steel
- 8. Soil correction (frozen, unsuitable or contaminated)
- 9. Roofing work
- 10. Temporary roof drainage
- 11. Painting
- 12. Cutting and patching (core drilling 10" and less is included)
- 13. Concrete work for equipment pads, curbs and bases
- 14. Architectural access panels
- 15. Architectural lovers and blank off panels
- 16. Dumpsters
- 17. Handling/Disposal of hazardous materials
- 18. Warranty or repair of existing HVAC or plumbing systems
- 19. Toilet room accessories and backing
- 20. Construction of rated enclosures for mechanical work
- 21. Security provisions
- 22. Final cleaning
- 23. Premium time
- 24. Performance and payment bond
- 25. BIM coordination drawings

Leadership through innovative & responsible solutions.

Thank you for the opportunity to present this proposal. If you have any questions or require further information, please contact me at 651-602-6674.

Sincerely,

Mers Né Neil Menzies

Chief Estimator

Leadership through innovative & responsible solutions.



June 15, 2012

Doug Loeffler Loeffler Construction & Consulting 20520 Keokuk Ave, Suite LL110 Lakeville, MN 55044

Subject: Minnesota State Office Building St. Paul, MN

Dear Mr. Loeffler:

Parsons would like to thank you for the opportunity to provide you with our budgetary proposal for the electrical work associated with the Minnesota State Office Building. We believe that our experience and unique approach to success would enhance the project team as a whole.

We have included a detailed scope narrative outlining our assumptions as well as a cost breakdown for your use.

Please do not hesitate to notify us if you require additional information.

Sincerely,

PARSONS ELECTRIC

+ At Dan Pitala

Dan Pitala Vice President

#### **INTERIM SCOPE NARRATIVE**

#### Interim

> The following has been included in our Interim pricing.

Description	QTY
New 2x2 Volumetric Lay-in	140
Relocate 2x2 Lay-in	60
Video Camera	18
Card Access	15

#### LONG TERM SCOPE NARRATIVE

#### Site

We have included the trenching and cutting and patching of the concrete for the new fire pump feed from the generator.

#### **Power Distribution**

- > Furnish and install switch gear and branch panels per the narrative.
- ➤ We have replaced the existing MCC's with new distribution panels.
- > Based on all feeders and branch wire being copper.
- ➢ All overhead feeders will be EMT.
- ▶ Branch wiring to be MC with EMT homeruns.
- Please refer to the quantities and descriptions below.

Description	QTY
1000KVA MV XFMR	2
1600A 277/480V Double Ended MSWBD	1
200A 277/480V PNL	16
75KVA XFMR CLG MNT	16
150A 120/208V DOUBLE TUB PNL	16
100A 277/480V LS PNL	4
30KVA XFMR CLG MNT	4
100A 120/208V LS PNL	4
MCC-1 600A DIST PNL	1
MCC-2 200A DIST PNL	1
EM-MCC-1 200A DIST PNL	1
400A 277/480V PNL	1

#### **Emergency Power Distribution**

We have included the installation of a new circuit breaker in the existing generator for the new fire pump feed.

#### Lighting and Control

- > Furnish and install light fixtures and control per the quantities listed below.
- > The purchase and installation of under counter task lighting has been excluded.
- We have included a \$15,000 allowance for lighting control in each hearing room.

#### **Light Fixture Quantities**

Description	QTY
2x4 Volumetric Lay-in	1,077
2x4 Volumetric Lay-in Dual Switching	1,160
CFL Downlight Dimmable	440
4' Linear Pendant Mnt	69
LED Exit	114
4' Strip Chain Hung	139
4' Wraparound w/Occupancy Sensor	45
4' Linear Cove Toilet Room	33
4' Cove Strip Start	423

#### Lighting Control Quantities

Description	QTY
20A SP SW	47
20A 3W SW	14
20A 2G SP SW	396
20A 2G 3W SW	14
FLUOR SP DIMMER 277V 8A	20
MOTION SENSOR, WALL MTD SINGLE LEVEL	21
MOTION SENSOR W/RELAY PACK, CLG	438
Central Lighting Control System	1
Hearing Room Lighting Control	10

#### **Branch Power**

Furnish and install receptacles and branch power per the quantities listed below.

Description	QTY
20A DUPLEX 5352	1,507
20A GFI DUPLEX GF5352	23
20A DUPLEX 5352	21

#### **Floor Boxes**

▶ Furnish and install floor boxes per the quantities listed below.

Description	QTY
PT7 Poke Through	67

#### Mechanical

- > Provide electrical connections to mechanical equipment referenced in the narrative.
- ▶ Install loose VFD's and Motor Starters furnished by others.

#### Lightning Protection

Lightning protection has not been included in this proposal.

#### Cable Tray

Furnish and install wire basket tray per the quantities listed below.

Description	QTY
12" WIRE BASKET TRAY	4100 <b>'</b>

#### Fire Alarm

▶ We have included a \$350,000 allowance for the fire alarm system.

#### Horizontal Cabling Subsystem

- > Parsons will provide and install (1190) dual outlets.
  - Where VoIP systems are deployed single cable outlets could be considered to reduce cost.
- These outlets represent (2380) new Category 6A cables.
  - o The state cabling standard now lists 6A cable as the standard for new projects.
- The cables will be installed from outlet jack, through stub out, through plenum ceiling area using conduit sleeves to either the TR (Telecommunications Room) or the

Equipment Room/MDF (Main Distribution Frame).

> Parsons will support the cable with hangers, structural support and cable ties.

#### Work Location Cabling Subsystem

- > Parsons will terminate the cables on Category 6A jacks at the workstation.
- > Patch cords for the terminals are included in this proposal.
  - o (4,760) Category 6A cords at varying lengths.
    - o (102) LC-LC OM3 Fiber Patch Cords

#### Equipment Room and Telecommunications Closet Subsystem

- Parsons will provide and place two 19" X 7' floor mounted equipment racks equipped with horizontal and vertical cable management in each of the (19) TR's.
  - Installing new racks and migrating equipment over is the most effective method of cleaning up wire management issues.
- Parsons will provide and place cable tray in each of the closets as necessary to provide a clean route for the cables to the rack or wall mounted hardware.
- ➤ The Category 6A cable will terminate on 48 port patch panel hardware at the TR/MDF.

#### Riser Backbone Subsystem

- Parsons will provide and install one 24F OM3 Multimode Fiber Optic cable from the MDF to each of the (19) TR's.
- Parsons will provide and install one 25pr Category 3 cable from the MDF to each of the (19) TR's for any analog circuits that may need to be extended.

#### **Demolition of Legacy Cabling**

- Parsons will demolish existing Legacy cables and associated connector blocks and rack equipment.
  - o Budget is based on (1000) locations and associated equipment.

#### Audio Visual Subsystem

*Large Hearing Rooms (B02, G10, G05 & 200)* are each provided with the following functionality:

- An installed wired microphone complement for participating members will provide reinforcement of presenters. Media content provided by others will be interfaced with I/O plates, routed, distributed and processed to amplifiers via DSP.
- Digital Signal Processing will provide mixing of audio signals to amplifiers, amplification will provide output to speakers. The DSP will include an AEC feature to assist in feedback reduction.
- Ceiling speakers will be used to reinforce speech and other audio content in the hearing room.
- > Two Large video monitors are provided for video display. Content may be interfaced

via field input, internal distribution or Codec.

- Codec is included for use in video teleconferencing. The digital video and audio switching equipment and distribution equipment is provided to allow distribution of the video teleconferencing signals to monitors and audio reinforcement.
- Media player is included to provide content by others.
- Cameras will provide input for video teleconferencing, as well as providing output to the production office in the capital building for recording and broadcasting content of hearings as desired.
- System control is provided by digital control system. Control for the audio, video and Codec equipment is routed through this system. The system includes cable interfacing and processor. The system can be interfaced to the LAN.
- A touch screen is provided to interface the user and allow control of the hearing room.
- Cabling, custom plates, patch cables and UTP transmitters/receivers are provided to interface specified equipment.
- The system will provide the ability to have the large hearing room send signals to, or receive signals from other hearing room(s) in situations that overflow seating is required.
- Each Large Hearing Room will have an interface to provide Playback and VOD via a media server.

*Small Hearing Rooms (300N, 300S, 400N, 400S, 500N & 500S)* are each provided with the following functionality:

- An installed wired microphone complement for participating members will provide reinforcement of presenters. Media content provided by others will be interfaced with I/O plates, routed, distributed and processed to amplifiers via DSP.
- Digital Signal Processing will provide mixing of audio signals to amplifiers, amplification will provide output to speakers. The DSP will include an AEC feature to assist in feedback reduction.
- Ceiling speakers will be used to reinforce speech and other audio content in the hearing room.
- Two Large video monitors are provided for video display. Content may be interfaced via field input, internal distribution or Codec.
- Media player is included to provide content by others.
- Cameras will provide output to the production office in the capital building for recording and broadcasting content of hearings as desired.
- System control is provided by digital control system. Control for the audio, video and audio equipment is routed through this system. The system includes cable interfacing and processor. The system can be interfaced to the LAN.
- A touch screen is provided to interface the user and allow control of the hearing room.
- Cabling, custom plates, patch cables and UTP transmitters/receivers are provided to interface specified equipment.
- The system will provide the ability to have the small hearing room send signals to, or receive signals from other hearing room(s) in situations that overflow seating is required.
- Each Small Hearing Room will have an interface to provide Playback and VOD via a media server.

#### **One Press Conference Room (181)** is provided with the following functionality:

- Wired podium microphones provided for reinforcement of presenters. The podium microphones will be interfaced with I/O plates, routed, distributed and processed to amplifier via simple DSP.
- Digital Signal Processing will provide mixing of audio signals to an amplifier, amplification will provide output to speakers. The DSP will include a global AEC feature to assist in feedback reduction.
- Ceiling speakers will be used to reinforce speech and other audio content in the hearing room.
- A portable multi-channel audio and video press feed is provided.
- System control is provided by a remote wall plate.
- > Cabling, custom plates, and patch cables are provided to interface specified equipment.

#### Small Conference Rooms (272,346 & 454) are each provided with the following functionality:

- > Field input plate will be routed, distributed and processed to amplifier via simple DSP.
- Digital Signal Processing will provide mixing of audio signals to an amplifier, amplification will provide output to speakers.
- Ceiling speakers will be used to reinforce speech and other audio content in the hearing room.
- One Large video monitor is provided for video display. Content may be interfaced via field input.
- System control is provided by a remote wall plate.
- > Cabling, custom plates, and patch cables are provided to interface specified equipment.

## *A Digital Playback, VOD Media Server* will be provided. This system will function as follows:

- System control is provided by a digital server. Server resides at a "head end" in a server closet. Content is sent to the local players for local playback on corresponding monitors. The system is interfaced via the LAN.
- Local digital player will be able to display content or video routed from other areas of the building.
- > Cabling, plates and patch cables are provided to interface specified equipment.

A Digital Signage Control System with eight (8) Video Signage Locations (Basement floor through the Sixth floor elevator lobbies) will be provided. This system will function as follows:

- System control is provided by a digital signage server. Server resides at a "head end" in a server closet. Content is sent to the players for local playback on corresponding monitors. The system is interfaced via the LAN.
- Monitors are provided for video display.
- > Content will be displayed locally via the digital signage player.
- ► Local digital signage player will be able to display pre-programmed content or video

routed from other areas of the building.

> Cabling, plates and patch cables are provided to interface specified equipment.

#### Parsons will provide the following *Documentation:*

- Shop Drawings
- Owner's Manuals
- ➢ As-Built drawings
- > All system programming and commissioning

Parsons will provide the following *Set up and Maintenance programs:* 

- > One year maintenance program for the Playback and VOD server
- One year maintenance program for the Playback and VOD players
- > One year maintenance program for the digital signage server
- > One year maintenance program for the digital signage players
- On site systems configuration
- On site systems commissioning
- One day on site training

#### Access Control Subsystem

- Parsons will provide and install (4) double door exterior door locations, (28) double door interior locations, and (14) single door interior locations. Each location will be installed with an HID IClass card reader, GE Security door contact(s), Bosch request to exit motion, and connections to electronic locking hardware provided by others.
- Parsons will provide and install all necessary control panels and auxiliary boards to manage the above devices.
- Parsons will program the readers to allow their modes to be changed from Capital Security in chosen zones.

#### Video Surveillance Subsystem

- ▶ Parsons will provide and install (51) fixed IP cameras
- ▶ Parsons will provide and install (12) PTZ IP cameras
- > Parsons will provide and install (2) NVR's for storage of the above cameras.

#### Call for Assistance Subsystem

- > Parsons will provide and install (20) analog Stentofon stations
- > Parsons will provide and install (2) analog desktop Stentofon master stations
- ▶ Parsons will provide and install (40) signs with common verbiage
- > Parsons will provide and install all necessary head end components for the above devices

#### Protection, Bonding, Grounding

> Parsons will ground and bond cables per NEC standards.

#### Documentation

- ➤ Category 6A test results.
- As-Built drawings.

#### Testing of data outlets

▶ NEXT, Attenuation, Continuity, Polarity, Reversals, Shorts and Grounds

#### Testing of copper riser cables and voice outlets

Continuity, Polarity, Reversals, Shorts and Grounds

#### Testing of fiber optic cables

> Overall loss and attenuation

#### **Temporary Power**

➤ We have included construction temporary per OSHA standards.

#### Clarifications

- CCTV, Security, Audio Visual, and Tele/Data are open wiring with conduit to accessible ceiling.
- We have included make safe demolition only.
- We have included sales tax.

#### **General Exclusions**

- ➢ All concrete pads.
- > Utility service charges and fees.
- Power use charges
- > HVAC control wiring and associated conduit.
- Payment and Performance Bond.
- Parking costs.
- Construction trailer connections.

#### Price

#### Interim

Description	Price
Light Fixtures	\$51,800.00
Security / Access Control / CCTV	\$159,500.00
Demolition	\$9,300.00
Interim To	stal \$220,600.00

### Long Term

Description	Price
Distribution	\$688,280.00
Generator	\$8,375.00
Light Fixtures	\$1,564,500.00
Receptacles	\$480,120.00
Mechanical	\$131,875.00
Elevator	\$26,140.00
Tele/ Data	\$1,488,900.00
A/V	\$4,908,600.00
Fire Alarm	\$392,000.00
Security / Access Control	\$364,220.00
Cable Tray	\$117,975.00
Grounding	\$15,865.00
Temp Lighting/ Power	\$99,325.00
Demolition	\$35,325.00
Long Term Total	\$10,321,500.00

# **Quantities/ Take-Off**

- Loeffler "Planswift" colored Take-off sheets
- Summary of Quantities

















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# **MN STATE OFFICE BUILDING**

# EXTERIOR BUILDING SKIN COMPONENTS

# TOTAL PERIMETER OF BUILDING

Basement	806	l.f.	9	7,254		
Ground Floor	858	l.f.	12	10,296		
1st Floor	816	l.f.	13	10,608		
2nd Floor	798	l.f.	11.83	9,440		
3rd Floor	810	l.f.	11.5	9,315		
4th Floor	802	l.f.	15.63	12,535		
5th Floor	788	l.f.	11.5	9,062	68,511	floors B - 5th
6th Floor	760	l.f.	13.21	10,040		
7th Floor	442	l.f.	14.38	6,356		
TOTALS	6880	l.f.		84,906	Total Are	э
				77,652	Skin Area	above Grade
HEIGHT OF BUILDING				11,115	Window a	rea
Basement		9.00	ft.	66,537	Net Skin A	rea
Ground Floor		12.00	ft.			
1st Floor		13.00	ft.			
2nd Floor		11.83	ft.			
3rd Floor		11.50	ft.			
4th Floor		15.63	ft.			
5th Floor		11.50	ft.			
6th Floor		13.21	ft.			
7th Floor		14.38	ft.			
TOTAL HEIGHT OF BUI	LDING	112.05	ft.			
AREA OF BUILDING EX	TERIOR	Couth	Feet	Mast		
	North	South	East	west		
S.F. incl. windows	15,560	15,513	11,434	12,421		
		ATEC				
AREA OF BUILDING IN	TERIOR FLOOR PI	22 615	cf			
Ground Floor		34 330	si			
1st Floor		31 940	si			
2nd Floor		30 735	of			
3rd Floor		31 520	sf			
Ath Floor		30 938	sf			
5th Floor		31 720	sf			
6th Floor		23,981	sf			
7th Floor		11 054	sf			
TOTAL FLOOR AREA		259.833	-sf			
			нысит	6 F		
WINDOWS	# OF UNITS	WIDTH	HEIGHT	3.F.		
Basement						
Louvers Only	0	0.00	0.00	0.00		
	0	0.00	0.00	0.00		
	0	0.00	0.00	0.00		
	0	0.00	0.00	0.00		
					-	
TOTALS	0					
Ground Floor						
2'-2" Window	2	2 17	7 00	30 38		
2'-4" Window	2	2.17	7.00	65 24		
3'-0" Window		2.33	7.00	<u>441</u> 00		
3'-6" Window	21 2	3.00	7.00	196.00		
5'-0" Window	2	5.00	1.00	10.00		
5'-0" Window	2	5.00	4.00	40.00		
5'-0" Window	∠ 12	5.00	0.00 7.00	420.00		
	12 51	5.00	7.00	420.00	f	
IUTALS	21			1232.02	51	

1st Floor					
Storefront Entrance	1				
2'-2" Window	2	2.17	7.75	33.64	
2'-4" Window	4	2.33	7.75	72.23	
3'-0" Window	21	3.00	7.75	488.25	
3'-6" Window	8	3.50	7.75	217.00	
5'-0" Window	30	5.00	7 75	1162 50	
TOTALS	65	5100	7110	1973 62	- cf
IUIALS	05			1575.02	31
2nd Floor					
2hd Floor	2	2.47	7.00	24.62	
2-2 Window	2	2.17	7.28	31.60	
2'-4" Window	4	2.33	7.28	67.85	
3'-0" Window	27	3.00	7.28	589.68	
3'-6" Window	8	3.50	7.28	203.84	
5'-0" Window	32	5.00	7.28	1164.80	
TOTALS	73			2057.76	sf
3rd Floor					
2'-2" Window	2	2.17	7.17	31.12	
2'-4" Window	4	2.33	7.17	66.82	
3'-0" Window	27	3.00	7.17	580.77	
3'-6" Window	8	3 50	7 17	200.76	
5'-0" Window	32	5.00	7.17	1147 20	
TOTALS	72	5.00	7.17	2026.67	- cf
TOTALS	75			2020.07	51
4th Eleor					
	2	2 17	7 17	21 12	
	2	2.17	7.17	51.12	
2-4 WINDOW	4	2.33	7.17	00.82	
3'-0" Window	27	3.00	/.1/	580.77	
3'-6" Window	8	3.50	7.17	200.76	
5'-0" Window	32	5.00	7.17	1147.20	_
TOTALS	73			2026.67	sf
5th Floor					
2'-2" Window	2	2.17	6.29	27.30	
2'-4" Window	4	2.33	6.29	58.62	
3'-0" Window	27	3.00	6.29	509.49	
3'-6" Window	8	3.50	6.29	176.12	
5'-0" Window	32	5.00	6.29	1006.40	
TOTALS	73			1777.93	sf
					0.
6th Floor	sloped roof				
	Sloped root				
skylights type 'A'	11	5 50	4 50	1089.00	
skylights type A	44	5.50	4.50	1089.00	
τοταις	11	02		1090.00	f
TUTALS	44	ea		1069.00	51
7th Floor	cloned reaf				
7th Floor	sloped root				
alu dialata tu - 101	4	F 00	70.00	202.02	<b>. f</b>
skylights type 'B'	1	5.00	/8.00	390.00	st
skylights type 'C'	12	4.00	4.00	192.00	st
clerestory 1	131	3.10	2.33	946.21	sf
clerestory 2	4	3.21	2.33	29.92	sf
clerestory 3	4	3.63	2.33	33.83	sf
louvers	2	9.00	2.33	41.94	sf

# **GYPSUM BOARD PARTITIONS / WALL FINISHES**

Wall Type (Linear Feet)	count	wall length	wall height	wall area	no. of sides	painted height	painted area	wall perimeter	
Basement									
3-5/8" Interior Walls - 2 sides	1	1,875	8.5	15,938	2	9	33,750	3,750	
3-5/8" Interior Walls - 1 side	1	1,308	8.5	11,118	1	9	11,772	1,308	
7/8" Furred Walls	1	868	8.5	7,378	1	9	7,812	868	
3-5/8" Half Wall	1	6/ 10	3.5 0 E	235	2	3.5	469	134	
Column Wrap - Small	0	10 6	8.5	0	1	9	0	0	
3'-0" x 7'-0"	73	0	0.0	Ū	-	5	0	0	
Ground Floor									
3-5/8" Interior Walls - 2 sides	1	2,144	11	23,584	2	9	38,592	4,288	
3-5/8" Interior Walls - 1 side	1	1,506	11	16,566	1	9	13,554	1,506	
7/8" Furred Walls	1	1,534	11	16,874	1	9 2 E	13,806	1,534	
S-S/S Hall Wall	1	75 10	5.5 11	230	2	5.5 Q	0	140	
Column Wrap - Small	44	6	11	2,904	1	9	2,376	264	
3'-0" x 7'-0"	132						,		
1st Floor									
3-5/8" Interior Walls - 2 sides	1	1,991	12	23,892	2	9	35,838	3,982	
3-5/8" Interior Walls - 1 side	1	896	12	10,752	1	9	8,064	896	
3-5/8" Half Wall	1	1,771	3.5	21,252	1	3.5	15,939	0	
Column Wrap - Large	5	10	12	600	1	9	450	50	
Column Wrap - Small	0	6	12	0	1	9	0	0	
3'-0" x 7'-0"	105								
2nd Floor		2.025		22.205	2	0		4.070	
3-5/8" Interior Walls - 2 sides	1	2,035	11	22,385 8 600	2	9	36,630 7 110	4,070 700	
7/8" Furred Walls	1	1.262	11	13.882	1	9	11.358	1,262	
3-5/8" Half Wall	1	79	3.5	277	2	3.5	553	158	
Column Wrap - Large	29	10	11	3,190	1	9	2,610	290	
Column Wrap - Small 3'-0" x 7'-0"	0 108	6	11	0	1	9	0	0	
3rd Floor									
3-5/8" Interior Walls - 2 sides	1	2,183	10.5	22,922	2	9	39,294	4,366	
3-5/8" Interior Walls - 1 side	1	840	10.5	8,820	1	9	7,560	840	
7/8" Furred Walls	1	1,238	10.5	12,999	1	9	11,142	1,238	
3-5/8" Half Wall	0	0	3.5	0	2	3.5	0	0	
Column Wrap - Large	33	10 6	10.5 10.5	3,465	1	9	2,970	330	
3'-0" x 7'-0"	109	0	10.5	0	1	9	0	0	
4th Floor									
3-5/8" Interior Walls - 2 sides	1	2,241	10.5	23,531	2	9	40,338	4,482	
3-5/8" Interior Walls - 1 side	1	811	10.5	8,516	1	9	7,299	811	
7/8 Furred Walls 3-5/8" Half Wall	1	1,240	10.5 3.5	13,020	1	9 35	11,160 0	1,240	
Column Wrap - Large	32	10	10.5	3,360	1	9	2,880	320	
Column Wrap - Small	0	6	10.5	0	1	9	0	0	
3'-0" x 7'-0"	116								
5th Floor									
3-5/8" Interior Walls - 2 sides	1	2,293	10.5	24,077	2	9	41,274 6 722	4,586	
7/8" Furred Walls	1	1.306	10.5	13,713	1	9	11.754	1,306	
3-5/8" Half Wall	0	0	3.5	0	2	3.5	0	0	
Column Wrap - Large	24	10	10.5	2,520	1	9	2,160	240	
Column Wrap - Small 3'-0" x 7'-0"	0 106	6	10.5	0	1	9	0	0	
6th Floor									
3-5/8" Interior Walls - 2 sides	1	1,497	12.5	18,713	2	9	26,946	2,994	
3-5/8" Interior Walls - 1 side	1	464	12.5	5,800	1	9	4,176	464	
7/8" Furred Walls	1	1,369	12.5	17,113	1	9	12,321	1,369	
3-5/8" Half Wall	0	0	3.5	0	2	3.5	0	0	
Column Wrap - Large Column Wrap - Small	4 65	6	12.5	500 4.875	⊥ 1	9	3,510	40 390	
3'-0" x 7'-0"	85	0	12.5	4,075	1	5	5,510	550	
7th Floor									
3-5/8" Interior Walls - 2 sides	1	779	12.5	9,738	2	9	14,022	1,558	
3-5/8" Interior Walls - 1 side	1	118 766	12.5	1,475	1	9	1,062	118 766	
3-5/8" Half Wall	1 0	0	3.5	сл <i>с,е</i> О	1 2	3.5	0,094 N	0	
Column Wrap - Large	2	10	12.5	250	1	9	180	20	
Column Wrap - Small 3'-0" x 7'-0"	10 37	6	12.5	750	1	9	540	60	
	5,								
TOTALS		36,235		413,343			495,759	55,352	
				wall			painted	wall	
				area (s.f.)			area (sf)	perimeter (I.f.)	
				()			()	·····/	



\_ . 0 106

0

18,713 5,800 17,113

3-5/8" wall 2 sides	3-5/8" walls 1 side	7'8" furred walls	3-5/8" half wall	column large	columns small	3-0 x 7x0
184,777	79,580	125,806	767	129	119	834
	1,473	9,575	0	2	10	37
9,738	1 475				65	85

# **BUILDING AREAS**

AREAS (in S.F.)	# of Offices	Private Offices	Open Offices	# of Conf.	Conf. Room	Hearing Room	Hearing Doors	Common/ Corridor	Lobby Area	Bath Area	Stair Area	Elect / Storage	Mech Corridor	Kitchen Area	Void of Finish	TOTAL AREA	Private Baths
Basement	0		5,068	0		5,070	8		1,036	1,731	505	13,832	2,078	1,839	942	32,101	6
Ground Floor	31	6,251	10,349	2	1,301	5,174	10	2,804	3,858	444	835	152			997	32,165	0
First Floor	35	7,635	14,346	2	942			2,692	3,535	541	619	428			895	31,633	3
Second Floor	47	9,742	10,944	2	1,024	2,618	6	2,456	1,211	499	547	145			819	30,005	1
Third Floor	45	8,957	12,126	2	696	2,213	8	2,460	1,255	523	615	153			796	29,794	1
Fourth Floor	51	10,249	11,139	2	910	1,915	8	2,569	1,477	607	612	125			875	30,478	2
Fifth Floor	49	10,448	11,530	2	716	2,143	8	2,609	1,458	496	604	313			844	31,161	1
Sixth Floor	33	6,491	11,735	2	619			2,151	1,101	425	720	184			713	24,139	0
Seventh Floor	24	3,474	4,754	1	144			876			448	1,322			128	11,146	0
TOTALS (S.F.)	315	63,247	91,991	15	6,352	19,133	48	18,617	14,931	5,266	5,505	16,654	2,078	1,839	7,009	252,622	14
TOTALS (S.Y.)		7,027	10,221		706	2,126		2,069	1,659	585	612	1,850	231	204	779		
	# of Offices	Private Offices	Open Offices	# of Conf.	Conf. Room	Hearing Room		Common/ Corridor	Lobby Area	Bath Area	Stair Area	Elect / Storage	Mech Corridor	Kitchen Area	Void of Finish		

# **Documents Log**

- Photos of the existing Space
- Rafferty, Rafferty, Mikutowski, Lundgren 1984 Drawings (Reference only)
- LWSM Mechanical and Electrical 1984 Drawings (Reference only)
- Miller Dunwiddie 22 May 2012 Memo
- Elevator Advisory Group, Inc. Elevator Evaluation May 2012
- Michaud Cooley Erickson Pre-Design Report April 27, 2012
- Updated Electrical outline June 2012



# INTERIM

Security

Card Access at 1 pair of exterior doors

Card Access at 14 pair of interior doors

Add 18 video cameras

# Life Safety

Upgrade exit hardware - panic devices at 14 pair of doors

Upgrade 30 wood doors to rated door with closure in existing opening

Provide rated corridors - 10,000 SF of rated wall

# Lighting

Add 140 2x2 fixtures in existing 2x2 ceiling

Provide power and connect to existing controls, limited clearance above ceiling

Relocate 60 2x2 fixture in existing 2x2 ceiling

Provide power and connect to existing controls, limited clearance above ceiling

# Envelope

Insulate attic - 2 part spray foam 9" to equal R64

10,000 SF located in attic crawlspace. Work to be performed after hours.

# LONG TERM

Security

Card Access at 3 pair of exterior doors

Card Access at 14 pair of interior doors

Card Access at 14 single interior doors

Provide 45 video cameras

Life Safety

Upgrade sprinkler - branch piping and heads, existing mains to remain - 260,000 SF

# Interior

Remove and replace 350 private offices - 75,000 SF / 100,000 SF open office area

Demolition - see 1984 dwgs	New Construction
Carpet tile	Carpet tile - 175,000 SF
2x2 ceiling tile & lighting	2x2 optimum ceiling tile & lighting - 175,000 SF
Gyp bd ceiling and soffit - linear light trough	Gyp bd walls - 160,000 SF

Gyp bd walls

Remove and replace 13 hearing rooms - perimeter walls to remain

Demolition - see 1984 dwgs	New Construction
Carpet	Carpet - 20,000 SF
Ceiling & lighting	Gyp bd & lighting - 175,000 SF
Remove fixed seating	Acoustic wall & ceiling panels - 35,000 SF

Remove gyp brd finish at exterior walls - insulate and refinish - 50,000 SF

Insulate underside of roof - 2 part spray foam 9" to equal R64

26,000 SF - ceilings removed with office work noted above to access underside of roof

Remove and replace 8,000 SF of mech space - see mech narrative

Provide 2 shafts - 10x10

Remove structural concrete slab at 2 floors

Rated shaft walls - 1600 SF of wall

Exterior

Remove and replace existing windows - See 1984 elevations for sizes

New tripane thermally broken metal clad window

Remove and replace existing skylights - See 1984 roof plan and elevations

New tripane thermally broken metal window



State Office Building and Parking Deck Preservation, Restoration and Repairs Predesign FINAL DRAFT

21 Dec 2012

Prepared by: MillerDunwiddie Architecture

Pierce Pini & Associates

Meyer Borgman Johnson

Michaud Cooley Erickson

James L. Johnson Associates

Loeffler Construction & Consulting

Volume 3

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Inventory of PMD MNSOB Drawings

miller dunwiddie

Appendix H

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# MINNESOTA STATE OFFICE BUILDING

FY 2010

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# Executive Summary

VFA, Inc. has conducted a detailed Facilities Condition Assessment for the State of Minnesota. This assessment was conducted during November, 2010 and this report will discuss those assets.

The following facility assessment reporting demonstrates the VFA method of facilities analysis and the proprietary software systems that support this analysis. The primary goals of the assessment include:

- Determine the overall existing condition of the Assets.
  - Identify and prioritize the buildings systems and necessary requirements.
  - Recommend actions to be taken for these requirements. ٠
- Determine anticipated Capital Renewal.

Existing condition - The Existing Condition is determined by a Facility Condition Index (FCI) which is calculated by dividing the Current Replacement Value (CRV) of the assets by the identified necessary requirement costs, deferred system renewals and future system renewals. The CRV is determined through unit cost procedure of all components of the building(s) using a nationally accepted database; RSMeans. Requirements are determined by lifecycle analysis using a nationally established and accepted program; Building and Office Management (BOMA). Partial system requirements are determined by field observation and most recent versions of local and national building Codes including but not limited to International Building Council (IBC), National Fire Protection Association (NFPA), National Electric Code (NEC) and the American Disabilities Act (ADA).

Anticipated capital renewal - Projections of the ongoing degradation of the assets components and the costs associated with the renewal or replacement of these components as they reach the end of their useful lives.

# Initial Project Setup & Building Survey

The VFA Full Condition Assessment methodology is a process where the systems within a building are evaluated for their age, condition and cost. The systems are evaluated individually and the aggregated results enable a data-driven understanding of building condition, system replacement timing and capital expenditure needs over a given period of time.





The process begins with an on-site kick-off meeting with VFA's project team and members of the client facilities team. The participants collaborate to enable the VFA team to learn about specific system issues within each of the buildings to be assessed. The client team has the opportunity to ask additional guestions of the VFA team.

infrastructure element to evaluate their systems. The Architect evaluates the exterior systems, interior finishes and overall structure. The Electrical assessor evaluates the main electrical service and distribution, branch circuitry, lighting, emergency power, fire alarm and communications systems. The Mechanical assessor evaluates the heating, ventilating and air conditioning (HVAC), plumbing and fire protections systems.

For each system, specific information is gathered, including date installed, type, capacity, effective age and overall operational condition. The systems are categorized according to the NIST Uniformat II standards. The team records the information while in the field so that it can be referenced in the next phase of the methodology: data entry and cost analysis.

During data entry and cost analysis, the team reviews the information gathered in the field and compiles and formats the data into a building "systems model." This information is recorded in the VFA software, VFA.facility. A separate system record is created for each building system. The system record consists of a description of the system, the date installed, actual or estimated age, expected lifetime, years remaining in lifetime, system quantity / capacity, replacement cost, renewal cost and any recommended requirements identified by field observations. The system costs and requirement costs are generated from VFA's comprehensive software which utilizes the integrated RS Means cost estimating assemblies and line items. The baseline RS Means costs are adjusted for each location by assigning one of the RS Means City Cost Indexes (CCI) to account for localized material and labor rates. System expected lifetimes are based on BOMA lifecycle standards.

System records are based on templates intended to identify the type of construction that comprises each system and provide reasonable estimates for replacement costs, renewal costs and requirement costs for that asset. Once completed, the system records, in aggregate. comprise a system model for each building. The system model in the software enables a datadriven understanding of building condition, system replacement timing and capital requirement expenditure needs over a given period of time. In addition, the system replacement costs are summed to calculate the Current Replacement Value for the building. The Current Replacement



FCI = -

Value becomes an important component of the building's Facility Condition Index (FCI), a key benchmark indicator which quantifies the condition of the building.

The FCI is calculated by dividing the sum of the near term system renewal costs, and recommended requirements costs, by The Current Replacement Value of the entire building. The near-term renewal costs are the sum of the requirements costs and the system renewal costs for those systems that will reach the end of their useful life during the next fiscal year. The resulting fraction represents the portion of the building's replacement value that needs to be replaced or renewed within the next year and is an indicator of condition. The lower the FCI, the better the overall condition of the building.

1 Year System Renewal Costs & Requirement Costs

Asset Replacement Value



Assessment Methodology

# Criteria Used To Determine Priorities, Categories and Primary Systems

The requirements were classified in several ways. In addition to detailed specific descriptions, each requirement was assigned to a category, priority, and primary system association. This parallel differentiation allows for multiple queries of the database, facilitating analysis of the data. It is possible, for instance, to query the database for all Priority 1 requirements in the HVAC System, or all Priority 1 and 2 Building Integrity requirements in the Exterior Wall Systems.

# Priorities

Priorities are assigned to requirements to indicate severity and a time frame in which corrective action should take place. The following list is of the 5 default priorities:

 Priority 1 : Current Year
 Year Offset = 1; Within 12 months

 Projects requiring immediate action to return a facility to normal operation, stop

 accelerated deterioration or correct a cited safety hazard.

 Priority 2 : Potentially Critical
 Year Offset = 3; 24 – 36 months

 Situations that, if not corrected expeditiously, will become critical within a year, including intermittent interruptions, rapid deterioration or potential safety hazards.

<u>Priority 3 : Necessary - Not Yet Critical</u> Conditions requiring appropriate attention to preclude predictable deterioration or potential downtime and the associated damage or higher costs if deferred further.

# Priority 4: Improvements

Items that represent sensible improvements to existing conditions. Items that are not required for the most basic function of a facility and items that will improve overall usability and/or reduce long term maintenance.

# Priority 5: Grandfathered

Items that do not conform to existing codes, but are grandfathered in their existing condition. No immediate action is required, although the items will need to be addressed if any significant work is performed on the building. The amount of work that triggers code compliance is typically at least partially at the discretion of the local building official.

# Year Offset =10

Year Offset=10



# **Requirement Reports**

Each Requirement has common components which can be found on each Requirement Detail: They are:

- 1) Requirement Name: A simple description for identifying the issue.
- Requirement ID This is a number formatted as "REQ" followed by a number. This is a tracking code assigned by Facility.
- Linked System Identifies the System to which the Requirement is a portion of.
- Prime System Identifies the System Group to which the Requirement is a portion of.
- 5) Priority Identifies the level of priority the Requirement has been assigned. See listing below for definition of Priorities.
- Inspector Which trade made the determination of the Requirement.
- Action Date Defines the latest date the Requirement should be addressed. It is a mathematical derivation of the Inspection Date and the level of Priority set.
- Inspection Date Identifies what date the Requirement was identified by inspection.
- Finish Date User input date at which the Requirement was resolved and work completed to rectify the issue.
- Status User Input date stating whether issue is resolved and work completed to rectify the issue.
- 11) Actual Cost User Input the actual amount spent to rectify the issue. Typically used to compare original estimate in relation to actual costs.
- 12) Estimated Cost Amount suggested by the system to budget to rectify the issue. Amount does not include soft costs including but not limited to design fees, permit fees. contingencies for protection of surrounding areas, security if required or contractor overhead and profit.
- Requirement Description A short description of the issue.
- 14) Photo Image clarifying and verifying condition.

15) Action Description - A brief description of the action required to correct the issue. Within each requirement is an Estimate base upon RSMeans unit costing. Each estimate includes:

- Code A thirteen digit line item identifier from RSMeans.
- Description RSMeans line item description.
- Quantity and Unit The number and type of unit used to determine quantity of materials and labor to complete the work.
- Unit Cost Cost per the Quantity of work required to complete the work. The unit cost includes cost of material and direct labor to install.
- 5) Total Cost Quantity multiplied by the Unit Cost.



# Requirement Categories

First tier categories are listed below with Second tier categories grouped underneath. Either a First tier category or a Second tier category can be applied to a requirement.

# **Regulations Compliance**

- Accessibility: Conditions that violate the American Disabilities Act guidelines. (Examples: Non-compliant building entrances, plumbing fixtures, and door hardware).
- Building Code: Conditions that violate Building codes (Examples: Any condition that disregards building, electrical, mechanical, and plumbing codes.)
- Life Safety: Conditions that violate the NFPA 101 Life Safety Code (Example: . Any condition that endangers life in the event of fire, smoke, fumes or panic.)

# Operations

- Energy: Conditions that adversely affect energy use (Examples: Single pane 0 windows, pipe insulation).
- Maintenance: Components or systems that require routine maintenance. . (Examples: Recalibrate thermostats, clean ducts).
- Security: Conditions that compromise the protection of the asset or its occupants . (Examples: Broken locks, lack of lighting).

# Functionality

- Mission: Components or systems that do not meet the standards of the • organization (Examples: Non- uniform paint and décor; equipment upgrades to ensure a facility is operational 24/7.)
- Modernization: Conditions that need to be made modern in appearance or function (Example: Outdated furniture).
- Plant Adaptation: Components or systems that must change to fit a new or . adapted use (Example: Renovation or restoration of old space).
- Obsolescence: Components or systems that are or are becoming obsolete . (Example: Outdated equipment).
- Capacity: Components or systems that do not have the ability to keep up with demand load (Example: Heating equipment that cannot adequately cover its intended area, overcrowding).

# Integrity



- Appearance: Problems with the asset's appearance that are not functional in . nature (Examples: Peeling paint, worn carpet).
- Reliability: Components or systems that cannot be depended upon (Example: Equipment that functions correctly but sometimes is unpredictable).
- Beyond Rated Life: A component or system that had exceeded its rated life ۰ (Example: A 20 year warranted roof that is 30 years old).

# Miscellaneous

Other: Other deficient items not covered in all other categories (Examples: Space ۰ utilization, Occupational Health and Safety, and OSHA Facilities and Equipment).

# Cost Estimating

For each identified requirement, an action was recommended. Utilizing their experiences and good engineering practice, VFA assessors based their recommended actions on an "in kind" replacement with the current technology available. The corrective work was then estimated using 2010 R.S. Means Estimating Data accessed directly by VFA.facility. For work not covered by R.S. Means, a lump sum figure was inserted and described in the text of the requirement.

# Other Notes:

1) Some Renewals have what appears to be a "Type AA" Type W" Renewal. They "Type" refers to the VFA Facility fixture type and not the renewal type.

State Office Building

# State of Minnesota State Office Building

Saint Paul, Minnesota

# **Background Info**

Year Built	1932
Year Renovated	1985
Building Square Feet	290,000 SF
Replacement Value:	\$67,970,000
Date Assessed	November 2010

# **Existing Asset Summary**

The State Office Building (SOB) is located at 100 Rev. Dr. Martin Luther King, Jr. Drive, St. Paul, MN 55155. This 290,000 SF, nine (9) story building was originally constructed in 1932 on a rectangular footprint. The original 1932 building was seven (7) stories high (basement through 5th floors). The two (2) upper stories (6th-7th) plus rooftop HVAC penthouses were added in 1985.

Two original interior and open air courts (Ground-5th floors) were in-filled with new floor space in 1985 as well.

The facility houses legislative offices, hearing and conference rooms, legislative cafeteria and dining room, media control space, building support spaces plus electrical, telecommunications and HVAC equipment spaces for elected officials of the Minnesota State Legislature.

The building's primary occupancy per the 2009 IBC is classified as Group B, Business and its primary construction type per the 2009 IBC is Type 1B Fully Sprinklered. There are secondary occupancies per the 2009 IBC classified as Group A-3, Assembly - hearing rooms and large conference rooms.



State Office Building

# **Major Issues**

Beyond rated life and energy inefficient windows are the building's largest exterior shell need. This need includes the vertical perimter windows and the glazed roof openings (under separate line items in detail report).

Nearly all mechanical systems and their associate control systems are beyond their rated useful life, causing higher operating and repair costs and risking shut down in the event of total system failure.

Most plumbing systems are beyond rated life and risk functional shut down if pipe systems fail.

Emergency power and light systems are all beyond rated life and may be inadequate in the event of emergency.

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Capital	Asset Management Process	
Highligh	ted steps are complete	

Priority	Urgency based on Condition	Due Date
1	Currently Critical	within 1 yr of survey
2	Potentially Critical	within 2 yrs of survey
з	Necessary	within 3-5 yrs of survey
4	Recommended	no due date
5	Grandfathered Code	no due date

T	ab	le	1	,	Five	Year	Needs
---	----	----	---	---	------	------	-------

Requirement Name	U2CAT - Prime System	Category	Priority	Due Date
Guardrails - Non-Compliant Heights or	C20 - Stairs - Unenclosed Access Stairs -	Building Code	1	2011
Spacing - Unenclosed Access Stairs	Ground Floor			
Guardrails - Non-Compliant Heights -	C20 - Stairs - Unenclosed Monumental	Building Code	1	2011
Monumental Stairs	Stairs - Partial Height - N Tower			
VCT - Average - 1985 Renewal	C3020 - Floor Finishes - VCT - Average -	Beyond Useful Life	1	2011
	1985			
Emergency Eyewash and Shower Units	D2010 - Plumbing Fixtures - Emergency	Beyond Useful Life	1	2011
Renewal	Eyewash and Shower Units			
Water Heater - Elec - 10 Gal - 1985	D2020 - Domestic Water Distribution -	Beyond Useful Life	1	2011
Renewal	Water Heater - Elec - 10 Gal - 1985			
Water Heater - Hot Water Heat Exchanger	D2020 - Domestic Water Distribution -	Beyond Useful Life	1	2011
and Tank Renewal	Water Heater - Hot Water Heat			
	Exchanger and Tank			
Natural Gas Service to Bldg Renewal	D3012 - Gas Supply System - Natural Gas	Beyond Useful Life	1	2011
	Service to Bldg			
Central AHU - VAV System w/Distribution	D3040 - Distribution Systems - Central	Beyond Useful Life	1	2011
Renewal	AHU - VAV System w/Distribution			
Exhaust System - General Building - In-	D3040 - Distribution Systems - Exhaust	Beyond Useful Life	1	2011
Line Renewal	System - General Building - In-Line			
Exhaust System - General Building -	D3040 - Distribution Systems - Exhaust	Beyond Useful Life	1	2011
Rooftop Renewal	System - General Building - Rooftop			

Table continued on next page.



# FACILITY CONDITION EXECUTIVE SUMMARY REPORT

State Office Building

# Table 1. Five Year Needs (cont.)

Comparison of the second state of the second s	The second state of the se			
Requirement Name	U2CAT - Prime System	Category	Priority	Due
Heat Exchanger - Liquid/Liquid - Plate	D3040 - Distribution Systems - Heat	Beyond Useful Life	1	2011
and Frame Renewal	Exchanger - Liquid/Liquid - Plate and			
	Frame			
Unit Heaters - Hot Water Renewal	D3050 - Terminal and Package Units -	Beyond Useful Life	1	2011
	Unit Heaters - Hot Water			
DDC/Pneumatic System - Hybrid	D3060 - Controls and Instrumentation -	Beyond Useful Life	1	2011
Renewal	DDC/Pneumatic System - Hybrid			
Electrical Service ? Inadequate Means	D5011 - High Tension Service and Dist.	Building Code	1	2011
of Egress from Electrical Room	Electrical Service - 13.8kV			
Branch Wiring - Insufficient Outlets -	D5021 - Branch Wiring Devices - Branch	Capacity/Design	1	2011
Ground Floor	Wiring - Equipment and Devices			
Branch Wiring - Receptacle in Disrepair	D5021 - Branch Wiring Devices - Branch	Life Safety	1	2011
- Room G10	Wiring - Fourinment and Devices		-	2022
Branch Wiring ? Outlets Not Installed	D5021 - Branch Wiring Devices - Branch	Building Code	1	2011
and wring i outlets not instance	Wiring - Equipment and Devices	Danonie code	1	2011
Exterior Lighting - Luminaires in	DE022 - Lighting Equipment Antique	Peliability	1	2011
Exterior Lighting - Loninaires in	Lishting Collid Process Scherics Post	Reliability	1	2011
Disrepair	Lighting - Solid Bronze Exterior Post			
	Candelabras	Destadio - Conto		
Communication Wiring - Improperly	D5039 - Local Area Networks - Data	Building Code	1	2011
Installed - Corridor 180B	Wiring	-		
Communication Wiring - Improperly	D5039 - Local Area Networks - Data	Building Code	1	2011
Installed - Room 142F	Wiring			
Local Area Networks - Unprotected	D5039 - Local Area Networks - Data	Building Code	1	2011
Plumbing Pipes above Equip - Rm 132E	Wiring			
Exit Signs ? Not Properly Illuminated	D5092 - Emergency Light and Power	Building Code	1	2011
	Systems - Exit Signs			
Access Control System Renewal	D5038 - Security and Detection	Beyond Useful Life	2	2012
	Systems - Access Control System			
Security Cameras Renewal	D5038 - Security and Detection	Beyond Useful Life	2	2012
	Systems - Security Cameras			
Exit Signs Renewal	D5092 - Emergency Light and Power	Beyond Useful Life	2	2012
	Systems - Exit Signs			
Site Lighting Renewal	G4020 - Site Lighting - Site Lighting	Beyond Useful Life	2	2012
Substructure - Basement Slab Cracks	A - Substructure - Structural Slab on	Reliability	3	2015
	Grade - Light Industrial - 1985			
Aluminum Windows - 1985 Renewal	B2020 - Exterior Windows - Aluminum	Beyond Useful Life	3	2015
	Windows - 1985	,	-	2013
Automatic Openers - Pair - 1985	B2030 - Exterior Doors - Automatic	Reyond Useful Life	3	2015
Renewal	Openers - Pair - 1985	beford osciarence	2	2010
Door Accombly - 6 x 7 Bronze -	B2020 - Exterior Doors - Door Accombly	Beyond Upoful Life	2	2015
Storefront Boogwol	6 v 7 Brosse Starefront	DEVOID USEIDI LITE	2	2015
Storenoni Renewal	- 6 X / Bronze - Storefront	Developed (1) - 5 - 11/5-		
Door Assembly - 6 x / HM - 1985	B2030 - Exterior Doors - Door Assembly	beyond Useful Life	3	2015
Kenewal	- 6 x / HM - 1985			
Single-Ply EPDM with Pavers on Root -	B30 - Rooting - Single-Ply EPDM with	Beyond Useful Life	3	2015
1985 Renewal	Pavers on Roof - 1985			
Skylights - Kalwall Types - 1985	B3021 - Glazed Roof Openings -	Beyond Useful Life	3	2015
Renewal	Skylights - Kalwall Types - 1985			
Skylights - Monumental - 1985 Renewal	B3021 - Glazed Roof Openings -	Beyond Useful Life	3	2015
	Skylights - Monumental - 1985			

Table continued on next page.



# FACILITY CONDITION EXECUTIVE SUMMARY REPORT

State Office Building

Requirement Name	U2CAT - Prime System	Category	Priority	Due
Skylights - Unit Types - 1985 Renewal	B3021 - Glazed Roof Openings - Skylights - Unit Types - 1985	Beyond Useful Life	3	2015
ACT System - Standard - 1985 Renewal	C3030 - Ceiling Finishes - ACT System - Standard - 1985	Beyond Useful Life	3	2015
Elevator #5 Controller - Beyond Rated Life	D1011 - Passenger Elevators - Passenger Elevators - Elevator #5	Beyond Useful Life	3	2015
Custodial/Utility Sinks Renewal	D2010 - Plumbing Fixtures - Custodial/Utility Sinks	Beyond Useful Life	3	2015
Restroom Fixtures Renewal	D2010 - Plumbing Fixtures - Restroom Fixtures	Beyond Useful Life	3	2015
Water Coolers - Wall-Mount Dual- Height Renewal	D2010 - Plumbing Fixtures - Water Coolers - Wall-Mount Dual-Height	Beyond Useful Life	3	2015
Water Dist Complete Renewal	D2020 - Domestic Water Distribution - Water Dist Complete	Beyond Useful Life	3	2015
Water Heater - Elec - 10 Gal - 2004 Renewal	D2020 - Domestic Water Distribution - Water Heater - Elec - 10 Gal - 2004	Beyond Useful Life	3	2015
Boiler Steam - Humidification Renewal	D3020 - Heat Generating Systems - Boiler Steam - Humidification	Beyond Useful Life	3	2015
HVAC Equipment - Abandoned	D3040 - Distribution Systems - Central AHU - VAV System w/Distribution	Obsolescence	3	2015
Four Pipe Distribution System w/Pump Renewal	D3040 - Distribution Systems - Four Pipe Distribution System w/Pump	Beyond Useful Life	3	2015
Fluorescent Lighting - Approaching Rated Life	D5022 - Lighting Equipment - Interior Lighting - Fluorescent Lighting	Beyond Useful Life	3	2015
Emergency Panelboards - Approaching Rated Life	D5092 - Emergency Light and Power Systems - Emergency Power Distribution	Beyond Useful Life	3	2015
Exterior Stairs - Missing Handrails - Monumental Steps	B1015 - Exterior Stairs and Fire Escapes - Exterior Monumental Steps - Granite and Concrete	Building Code	5	
Branch Wiring - Outlets at Vending Machines Not GFCI Type - Basement	D5021 - Branch Wiring Devices - Branch Wiring - Equipment and Devices	Grandfathered Code	5	
Branch Wiring - Outlets in Kitchen Not GFCI Type	D5021 - Branch Wiring Devices - Branch Wiring - Equipment and Devices	Grandfathered Code	5	

# Table 1. Five Year Needs (cont.)

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# **Asset Snapshot Report**

by Asset Name

Final



# by Asset Name

Agency: Administration Location: Capital Complex

Asset Name: State Office Building Asset Number: 2

# STATISTICS

	FCI	Cost:	19,316,817	FCI:	: (	0.28	
	Total Requirements	Cost:	19,347.659	RI:	: (	0.28	
Current Replace	ement Value	69,886	,366	Size			290,000 SF
Address 1		100 Re	w. Dr. Martin Luther King, Jr. Drive	Address 2			-
City		St. Pau	1	State/Province/Region			MN

# РНОТО



# State Office Building

State Office Building

# ASSET DESCRIPTION

The State Office Building (SOB), Building No. 2, is located at 100 Rev. Dr. Martin Luther King, Jr. Drive, St. Paul, MN 55155. This approximately 290,000 SF, nine (9) story building was originally constructed in approximately 1932 and was both expanded and comprehensively renovated in approximately 1985. The facility has a rectangular footprint. The original 1932 building was seven (7) stories high (basement through 5th floors). The two (2) upper stories (6th-7th) plus rooftop HVAC penthouses were added in 1985. Two original interior and open air courts (Gnd-5th floors) were infilled with new floor space in 1985 as well.

# All costs in USD.

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Jun 6, 2011



by Asset Name

The facility houses legislative offices, hearing and conference rooms, legislative cafeteria and dining room, media control space, building support spaces plus electrical, telecommunications and HVAC equipment spaces for elected officials of the Minnesota State Legislature.

The building's primary occupancy per the 2009 IBC is classified as Group B, Business and its primary construction type per the 2009 IBC is Type 1B Fully Sprinklered. There are secondary occupancies per the 2009 IBC classified as Group A-3, Assembly - hearing rooms and large conference rooms.

# SYSTEMS DESCRIPTION

## A - Substructure - Caissons (Drilled Pier) in Stable Ground

This substructure includes concrete caissons, 50-ft. deep in wet or stable ground. System life extended by renovation work.

# A - Substructure - Foundation Wall and Footings - 20 Ft. - Full Basement

Full basement wall and foundation with a 20-Ft. height to include strip footing, foundation walls and damp proofing. Also included are the underdrains. System life extended by renovation work.

### A - Substructure - Grade Beams - Large

The substructure includes grade beams with a span of 30-feet and 52-inches deep. System life extended by renovation work.

A - Substructure - Structural Slab on Grade - Light Industrial - 1985

The building substructure includes a light industrial type structural slab on grade.

# A - Substructure - Structural Slab on Grade - Light Wells

The basement louver wells and ground floor light wells includes a non-industrial type structural slab on grade. System life extended by renovation work.

# A - Substructure - Structural Slab on Grade - Loading Dock - 1985

The ground floor loading dock includes a light industrial type structural slab on grade.

# B10 - Superstructure - Fireproofing - Fiber Encasement - 1985

1-hour fire resistance rated sprayed on fiber encasement fireproofing for structural components at original atrium infill spaces plus 8th and 9th floors plus rooftop HVAC equipment penthouses. B10 - Superstructure - Multi-Story - Concrete

Multi-story lightweight structure with reinforced cast-in-place concrete construction at original building. System life extended by renovation work.

# B10 - Superstructure - Multi-Story - Steel - 1985

Multi-story steel building includes steel columns, beams, floor pans, and roof structure at original atrium infill spaces plus 8th and 9th floors plus rooftop HVAC equipment penthouses.

# B1014 - Ramps - Accessible Ramps - Basement - 1985

Cast-in-place (CIP) concrete handicap access (or equipment access) ramp w/cheek walls & rails both sides, 5' wide. Locations noted: Hearing Room B02, Corridor B09, Corridor B10, Dining Area B11 and HVAC Equip. Rooms B32 and B33.

### B1015 - Exterior Stairs and Fire Escapes - Exterior Exit Steps - Granite and Concrete

Exterior granite and concrete exit steps (8' wide x 7 risers) at E ground floor exits (G42 and G34) with 18 LF of side rail. System life extended by renovation work.

# B1015 - Exterior Stairs and Fire Escapes - Exterior Monumental Steps - Granite and Concrete

### All costs in USD.



by Asset Name

Exterior granite and concrete monumental steps (50' wide x 6 risers) at E 1st floor entrance (106) with no rails. System life extended by renovation work. B1015 - Exterior Stairs and Fire Escapes - Exterior Steps - Steel - Loading Dock - 1985

Exterior steel stairs (4R) with railing at loading dock. B2010 - Exterior Walls - Bronze Spandrel Panels - High Quality

The exterior wall construction at 2nd and 3rd floor window spandrels is of high quality embossed decorative bronze panels with masonry backup. System life extended by renovation work. B2010 - Exterior Walls - Granite Veneer Walls - Deluxe

The exterior walls are of high quality, high cost granite veneer with masonry, concrete masonry unit (CMU) or cast-in-place (CIP) concrete backup wall. Includes round columns, quoins, belts and other architectural trim elements. System life extended by renovation work.

B2013 - Exterior Louvers, Screens, and Fencing - Metal Wall Louvers - 1985

Metal louvers at exterior walls at basement HVAC equipment rooms. B2016 - Exterior Soffits - Granite Vencer Soffits - Deluxe

The exterior soffits are of high quality, high cost granite veneer with suspension system. Includes dentil moldings, carvings and other architectural trim elements. System life extended by renovation work. B2016 - Exterior Soffits - Plaster Veneer On GWB - 1 Coat - Loading Dock

GWB soffit system, on 8-ft. above floor at loading dock. Plaster veneer, taped, finished and painted with primer and 2 finish coats. Ceiling on suspension system or fastened to metal furring. System life extended by Owner's maintenance program.

B2020 - Exterior Windows - Aluminum Windows - 1985

The building includes fixed and operable aluminum framed exterior units with insulating glass. B2030 - Exterior Doors - Automatic Openers - Pair - 1985

Door hardware add-ons, automatic openers, commercial, electronic door opener, for single swing doors, pair, per opening, incl. motion sensor, 12V control box, motor, handicap actuator buttons and wiring at north and south elevations.

B2030 - Exterior Doors - Door Assembly - 6 x 7 Bronze - Storefront

The exterior doors include pr. of original construction, swinging glazed bronze storefront leafs plus glazed transom, ornamental bronze frame, hardware including closers. System life extended by renovation work. B2030 - Exterior Doors - Door Assembly - 6 x 7 HM - 1985

Exterior doors include pr. 3 x 7 steel doors and steel frame with hinges, locksets (lever), exit hardware and closers at loading dock. Includes painted doors and painted frame. B30 - Roofing - Single-Ply EPDM with Pavers on Roof - 1985

The roof covering includes concrete paver ballast on a plaza which is also the roof of the structure below at 8th and 9th floors. System life extended by Owner's maintenance program. B30 - Roofing - Single-Ply Membrane - Fully Adhered - Loading Dock - 1985

The roof covering is of a single-ply fully adhered membrane with insulation at ground floor loading dock. B30 - Roofing - Terra Cotta and Clay Tile Roofing

The roof covering consists of terra cotta or clay tile roof covering at original building roof. System life extended by renovation work. Quantity accounts for 4/12 roof slope. B30 - Roofing - Terra Cotta and Clay Tile Roofing - 1985

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by Asset Name



The roof covering consists of terra cotta or clay tile roof covering at original atrium infill spaces plus 8th and 9th floors. Quantity accounts for 4/12 roof slope. B3021 - Glazed Roof Openings - Skylights - Kalwall Types - 1985

Sloping unit skylights, insulated curbs, double Kalwall type glazing. B3021 - Glazed Roof Openings - Skylights - Loading Dock - 1985

Skylights, fixed frame units with insulating solar glazing at ground floor loading dock. Quantity accounts for 4/12 sloped glazing. B3021 - Glazed Roof Openings - Skylights - Monumental - 1985

Skylights, fixed frame units with insulating solar glazing at 9th floor (library) atrium. Quantity accounts for 6/12 sloped glazing. B3021 - Glazed Roof Openings - Skylights - Unit Types - 1985

Sloping unit skylights, flat glass, insulated curbs, double glazing. B3022 - Roof Hatches - Roof Hatch - 1985

Roof hatch with insulated curb at 9th floor roof access. C1010 - Partitions - CMU Block Walls - Facing 1 Side - 1985

The building interior walls are of 8-in. hollow concrete block, light or regular weight, with GWB on one side at stair and elevator towers. etc. C1010 - Partitions - CMU Block Walls - Plain - 1985

Interior walls are of 8-in. hollow concrete block, light and regular weight, with no finish at basement and penthouse equipment rooms, etc. C1010 - Partitions - GWB Partitions On Furring - 1985

The building interior includes 5/8-in. GWB partitions on 7/8-in. furring over other substrate, such as CMU (refer to other partition or exterior walls types for substrate). C1010 - Partitions - GWB Walls - Standard (Unpainted) - 1985

The building interior includes standard GWB partitions, taped and finished, but not painted, with no insulation. C1010 - Partitions - Plaster Walls - 3 Coats - Ornamental

The building interior walls are of three coats of ornamental and detailed gypsum plaster on 3.4 lbs ribbed lath on masonry backup at original elevator lobbies, etc. System life extended by renovation work. C1017 - Interior Windows and Storefronts - Bronze Windows - 1985

The building interior includes original construction fixed and operable bronze framed exterior units with tempered or wire glass. These windows were retained, repaired and reglazed during the 1985 renovation. C1017 - Interior Windows and Storefronts - Butt Joint Clerestories - 1985

Building interior includes butt joint tempered glazing clerestories at some interior office banks. C1020 - Interior Doors - Bi-Fold Doors - Pair - 6 x 7 Wd - NR - 1985

Interior doors at corridor electrical closets include two (2) pr. non-rated 3 x 7 wood doors and wood frame with bi-fold hinges and lockset at each closet. Includes painted doors and painted frame. C1020 - Interior Doors - Revolving Door - Manual Operation

The inxterior doors include original construction, revolving glazed wood and bronze storefront leafs plus glazed transom, ornamental bronze frame and hardware. System life extended by renovation work. C1020 - Interior Doors - Swinging Doors - 3 x 7 HM - Rated - 1985

Interior doors include rated 3 x 7 steel door and steel frame with hinges, lockset (lever), panic hardware and closer. Includes painted door and painted frame. *All costs in USD*.

by Asset Name

State of Minnesota

C1020 - Interior Doors - Swinging Doors - 3 x 7 Wd - NR - 1985

Interior doors include non-rated 3 x 7 wood door and steel frame with hinges, lockset (lever) and closer. Includes stained door and painted frame. C1020 - Interior Doors - Swinging Doors - 3 x 7 Wd - Rated - 1985

Interior doors include rated 3 x 7 wood door and steel frame with hinges, lockset (lever), panic hardware and closer. Includes stained door and painted frame. C1020 - Interior Doors - Swinging Doors - Pair - 6 x 7 HM - Rated - 1985

Interior doors include pr. rated 3 x 7 steel doors and steel frame with hinges, locksets (lever), panic hardware and closers. Includes painted doors and painted frame. C1020 - Interior Doors - Swinging Doors - Pair - 6 x 7 Wd - NR - 1985

Interior doors include pr. non-rated 3 x 7 wood doors and steel frame with hinges, locksets (lever) and closers. Includes stained doors and painted frame. C1020 - Interior Doors - Swinging Doors - Pair - 6 x 7 Wd - Rated - 1985

Interior doors include pr. rated 3 x 7 wood doors and steel frame with hinges, locksets (lever), panic hardware, closers and electronic holdopens. Includes stained doors and painted frame. C1030 - Fittings - Restroom Accessories - Average - 2009

The restroom accessories include mirror, grab bars, paper towel dispenser and disposal, toilet paper holder and soap dispenser. C1030 - Fittings - Toilet Partitions - Average - 2009

Restrooms are equipped with standard quality, floor mounted, overhead braced solid phenolic resin partitions. C1035 - Identifying Devices - Fittings - Signage (Room Numbering and Identification) - 2010

Room, door and graphic symbol signs. Adhesive backs and Braille.

Signage is in compliance with ADAAG and other building code requirements. Signage is periodically changed when political alignments dictate and care should be taken to ensure new signage is also ADAAG and code compliant.

C20 - Stairs - Access Steps - 2nd Floor - 1985

The (1/4 story - 2nd at 200) interior access steps include 4 risers per flight without landing. Step construction consists of cast-in-place (CIP) concrete treads and risers. Approximately 12 LF of wall rail per flight included in cost estimate.

C20 - Stairs - Access Steps - Basement - 1985

The (1/4 story - Basement at B01B, B10, B11, B17 and B32) interior access steps include 4 risers per flight without landing. Step construction consists of cast-in-place (CIP) concrete treads and risers. Approximately 12 LF of wall rail per flight included in cost estimate.

C20 - Stairs - Access Steps - Ground Floor - 1985

The (1/4 story - Gnd at G05 and G10) interior access steps include 4 risers per flight without landing. Step construction consists of cast-in-place (CIP) concrete treads and risers. Approximately 12 LF of wall rail per flight included in cost estimate.

# C20 - Stairs - Corridor Steps - Ground Floor

The (1/4 story - Gnd at G34 and G41) interior corridor steps to E exits include 4 risers per flight without landing. Step construction consists of cast-in-place (CIP) concrete treads and risers with cast terrazzo finish. Approximately 12 LF of wall rail per flight included in cost estimate. System life extended by renovation work.

C20 - Stairs - Enclosed Access Stairs - 6th Floor - 1985

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# by Asset Name

The enclosed partial height (3 stories - 6th-Rooftop HVAC penthouse) interior access stairs include 12 risers per flight with landing and 2 flights per story. Stair construction consists of structural steel channels and risers plus steel pan and concrete treads. Approximately 28 LF of wall rail per flight included in cost estimate.

# C20 - Stairs - Enclosed Exit Stairs - Full Height - SW and SE Towers - 1985

The enclosed full height (9 stories - B-7th floors) interior exit stairs (SE and SW stair towers) include 7 risers per flight with landing and 3 flights per story. Stair construction consists of structural steel channels and risers plus steel pan and concrete treads. Approximately 8 LF of center rail plus 8 LF of wall rail per flight included in cost estimate.

# C20 - Stairs - Enclosed Exit Stairs - Partial Height - S Tower - 1985

The enclosed partial height (5 stories - 1st-5th floors) interior exit stairs (S stair tower) includes 7 risers per flight with landing and 3 flights per story. Stair construction consists of structural steel channels and risers plus steel pan and concrete treads. Approximately 8 LF of center rail plus 8 LF of wall rail per flight included in cost estimate.

# C20 - Stairs - Entrance Steps - 1st Floor

The (1/4 story - 1st at 106) 8-ft. wide interior entrance steps to E main entrance include 4 risers per flight without landing. Step construction consists of cast-in-place (CIP) concrete treads and risers with marble finish. No rails present. System life extended by renovation work.

# C20 - Stairs - Unenclosed Access Stairs - Ground Floor

The unenclosed (2 stories - Gnd-1st at G18 and G74) interior access stairs include 20 risers per flight without landing and 1 flight per story and are part of the original construction. Stair construction consists of cast-in-place (CIP) concrete treads and risers with cast terrazzo finish. Approximately 22 LF of wall rail and 48 LF of side rail per flight included in cost estimate. System life extended by renovation work. C20 - Stairs - Unenclosed Monumental Stairs - Partial Height - N Tower

# The partial height (8 stories - B-6th floors) interior unenclosed monumental stairs (N stair tower) includes 7 risers per flight with landing and 3 flights per story and is part of the original construction. Stair construction consists of cast-in-place (CIP) concrete treads and risers with marble finish throughout. Gypsum board soffits throughout. Approximately 12 LF of ornate metal center rail plus 8 LF of ornate metal wall rail per flight included in cost estimate. System life extended by renovation work.

# C3010 - Wall Finishes - Acoustic Wall Panels - 1985

Interior wall finishes include fabric covered acoustic panels at hearing rooms. System life extended by Owner's maintenance program. C3010 - Wall Finishes - Ceramic Tile Walls - 1985

Wall coverings at isolated private restrooms include 4-in. x 4-in. thin set ceramic decorator tiles at medium price. System life extended by Owner's maintenance program. C3010 - Wall Finishes - Marble Panel Walls

Wall finishes include marble panels at original elevator lobbies, monumental stairs and adjacent corridors. System life extended by renovation work. C3010 - Wall Finishes - Painted Finish - Average (1 Coat Prime - 2 Coats Finish) - 2008

Interior wall finishes include standard paint finish. C3010 - Wall Finishes - Porcelain Tile Walls - 2009

Building wall coverings at public toilets include 16-in. x 16-in. thin set porcelain ceramic decorator tiles at above average price. Tile job includes bullnose and other trim. C3010 - Wall Finishes - Raised Wood Paneling - High End - 1985

Wall finishes include high quality raised wood paneling at hearing rooms, dining room, etc. System life extended by Owner's maintenance program. C3020 - Floor Finishes - Access Computer Room Flooring System - 2009

Floor finishes at computer room B46 include raised, access type computer room flooring (plastic laminate finish) with related steps, handrails, guardrails and ramps.

# All costs in USD.

by Asset Name



C3020 - Floor Finishes - Carpeting - Broadloom - High Quality - 2000

Floor finishes include deluxe carpeting with carpet pad in public areas such as hearing rooms and basement dining area, etc. System life extended by Owner's maintenance program. C3020 - Floor Finishes - Carpeting - Tile - 2000

Floor finishes at office areas, corridors, etc. include a standard range carpet tiles (18 x 18 modules) and vinyl base for medium traffic areas. System life extended by Owner's maintenance program. C3020 - Floor Finishes - Ceramic Tile Floors - 1985

Floor finishes include ceramic tile and base in isolated private restrooms. System life extended by Owner's maintenance program. C3020 - Floor Finishes - Marble Floors

Floor finishes include marble panels and related base at original elevator lobbies and adjacent corridors. System life extended by renovation work. C3020 - Floor Finishes - Porcelain Tile Floors - 2009

Floor coverings at public toilets include 16-in. x 16-in. thin set porcelain ceramic decorator tiles at above average price. C3020 - Floor Finishes - Quarry Tile - 1985

Floor finishes at kitchen areas include mudset quarry or ceramic tile. System life extended by Owner's maintenance program. C3020 - Floor Finishes - Terrazzo Floors - Cast-in-Place

Floor finishes include cast-in-place terrazzo and related base at original elevator lobbies and adjacent corridors. System life extended by renovation work. C3020 - Floor Finishes - VCT - Average - 1985

Floor finishes include areas of standard VCT flooring and related base at ground floor maintenance areas. C3030 - Ceiling Finishes - ACT System - Standard - 1985

Standard suspended ACT ceiling system with 2 x 2 regular tiles in 9/16-in. grids. System life extended by Owner's maintenance program. C3030 - Ceiling Finishes - GWB Taped and Finished - 1985

GWB ceiling system over 8-ft above floor taped, finished and painted with primer and 2 finish coats. Ceiling on suspension system or fastened to metal furring. System life extended by Owner's maintenance program. C3030 - Ceiling Finishes - Metal Slat Ceilings - 1985

Painted aluminum slat ceiling system with suspension system and acoustic insulation pads at hearing rooms. System life extended by Owner's maintenance program. C3030 - Ceiling Finishes - Ornately Detailed Planted Plaster Ceilings

Ornately detailed three-coat painted plaster ceiling system on metal lath and suspended channels at original elevator lobbies and adjacent corridors. System life extended by renovation work. C3030 - Ceiling Finishes - Painted Concrete Surfaces - 1985

Paint finish applied to exposed cast-in-place concrete beams and deck, etc. primarily in basement and ground floor service areas. System life extended by Owner's maintenance program. D1010 - Elevators and Lifts - Hydraulic Freight Elevator

The conveying equipment includes a freight hydraulic elevator. This elevator serves two floors. It has a capacity of 3,000 lb. D1010 - Elevators and Lifts - Hydraulic Passenger Elevator

The conveying equipment includes a passenger hydraulic elevator. This elevator serves only the 6th and 7th floors. It has a capacity of 2,100 lb. D1011 - Passenger Elevators - Passenger Elevators - Elevator #1, #2, #3, #4

All costs in USD.

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by Asset Name

Elevators #1, #2, #3 and #4 are gearless traction type passenger elevators. The elevators are located in the central core of the building. Each elevator is rated at 3,000 lbs maximum load capacity at 625 feet per minute. The elevators provide vertical transportation from the Basement to the Sixth Floor inclusive. The elevators have polished brass doors and trim, wood walls, halogen lights, carpet on the floor and all required emergency communications. Install date represents most recent overhaul.

## D1011 - Passenger Elevators - Passenger Elevators - Elevator #5

Elevators #5 is a geared traction type passenger elevator. The elevator is located on the West side of the building. The elevator is rated at 3,500 lbs maximum load capacity at 350 feet per minute. The elevator provides vertical transportation from the Basement to the Fifth Floor inclusive. The elevator has polished brass doors and trim, faux wood walls and ceiling with halogen lighting, carpet on the floor and all required emergency communications. Install date represents most recent overhaul.

D1013 - Lifts - Wheelchair Lift

The conveying system includes a wheelchair lift. . D2010 - Plumbing Fixtures - Custodial/Utility Sinks

The plumbing fixtures include floor mounted cast in place custodial/utility sinks. Includes rough-in and faucet. These are located on each floor. D2010 - Plumbing Fixtures - Emergency Eyewash and Shower Units

Plumbing fixtures include emergency safety shower and eyewash units. D2010 - Plumbing Fixtures - Kitchenette - Cabinet, Counter and Sink

The plumbing fixtures include kitchenette cabinet, counter and sink units. These are typically located in break rooms. **D2010 - Plumbing Fixtures - Restroom Fixtures** 

The restroom fixtures include vitreous china urinals, water closets, and lavatories. They also include built-in shower units in the locker room. The fixture selections are for a building with a standard density of high quality fixtures.

D2010 - Plumbing Fixtures - Water Coolers - Wall-Mount Dual-Height

Plumbing fixtures include dual-height water coolers. D2020 - Domestic Water Distribution - Water Dist Complete

The building domestic water distribution system includes a three inch main line, water meter, rpz backflow preventer, with rough ins included. This system does not include a water heater. D2020 - Domestic Water Distribution - Water Heater - Elec - 10 Gal - 1985

The domestic hot water system is supplemented by 10 gallon electric water heaters located near their point of use, typically in janitorial closets. This system is for the water heater installed in 1985. D2020 - Domestic Water Distribution - Water Heater - Elec - 10 Gal - 2004

The domestic hot water system is supplemented by 10 gallon electric water heaters located near their point of use, typically in janitorial closets. This system is for the water heater installed in 2004. D2020 - Domestic Water Distribution - Water Heater - Hot Water Heat Exchanger and Tank

The domestic hot water is produced by a shell and tube heat exchanger that utilizes heated water from District Energy to produce domestic hot water. This system also includes a separate expansion tank.

Note: Hot water heat transfer package not available in RS Means. A similar steam system has been selected for budgetary purposes.

D2030 - Sanitary Waste - Sanitary Waste - Gravity Disch

The building includes an average sanitary waste system, of cast iron piping, with gravity discharge to the municipal system.

# All costs in USD.



D2040 - Rain Water Drainage - Roof Drainage - Gravity

by Asset Name

Rain water drainage includes interior piping, roof drains and 4-inch discharge piping by gravity flow to a municipal main D3012 - Gas Supply System - Natural Gas Service to Bldg

The building includes a natural gas supply to the kitchen.

D3020 - Heat Generating Systems - Boiler Steam - Humidification

The building has two 240kW electric steam boilers used for humidification.

Note - the exact size boiler could not be matched in RS Means. A similar boiler was selected and the quantity adjusted for budgetary purposes. D3040 - Distribution Systems - Central AHU - VAV System w/Distribution

The HVAC system includes central system AHUs with cooling and heating coils, VFD, VAV ducted distribution, diffusers and plenum return. The air handlers are located on the roof, in the penthouse and basement mechanical rooms.

D3040 - Distribution Systems - Exhaust System - General Building - In-Line

The HVAC ventilation system includes duct mounted in-line exhaust fans with ducting. D3040 - Distribution Systems - Exhaust System - General Building - Rooftop

The HVAC ventilation system includes roof-mounted exhaust fans with ducting. D3040 - Distribution Systems - Exhaust System - General Building - Wall Exhaust

The HVAC ventilation system includes a wall mounted propeller exhaust fan. D3040 - Distribution Systems - Exhaust System - Restroom Fan

HVAC ventilation system includes centrifugal restroom exhaust fans with ducting. D3040 - Distribution Systems - Four Pipe Distribution System w/Pump

HVAC distribution is provided by a four-pipe distribution system. This system distributes heating hot water and chilled water to perimeter terminal units. D3040 - Distribution Systems - Heat Exchanger - Liquid/Liquid - Plate and Frame

The HVAC system includes two plate and frame, liquid to liquid, heat exchangers. These are used to produce heating hot water from utility supplied hot water. D3050 - Terminal and Package Units - Computer Room Cooling - DX w/Air Cooled Remote Condenser

The HVAC system includes three Liebert computer room cooling units with an air cooled remote condensers. D3050 - Terminal and Package Units - Unit Heaters - Electric

Heating is provided by suspended, electric unit heaters. These are found in service areas and electrical rooms. D3050 - Terminal and Package Units - Unit Heaters - Hot Water

Heating is provided by suspended, forced hot water unit heaters. These units are found in mechanical and service areas. D3060 - Controls and Instrumentation - DDC/Pneumatic System - Hybrid

HVAC controls include average DDC system for system optimization, basic pc control, moderate sensor types and quantities. System includes pneumatic activation of control valves and dampers.

All costs in USD.

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by Asset Name



# D40 - Fire Protection - Fire Extinguishers - Dry Chem w/Cabinet

Handheld type dry chemical fire extinguishers are located throughout the building. Includes cabinets. **D40 - Fire Protection - FM200 System** 

The fire protection systems include a minimum to moderate density FM200 system. This system serves room B46.

# D40 - Fire Protection - Kitchen Hood Suppression

System includes a R-102 chemical fire suppression system for a typical commercial kitchen. Fire suppression includes fusible links, manual pull stations, 3 gallon tanks, nozzles, and control panels. Hood not included. D40 - Fire Protection - Wet Sprinkler System

The fire protection systems includes a light hazard wet sprinkler system, which includes backflow prevention, a fire pump and standpipes. D5011 - High Tension Service and Dist. - Electrical Service - 13.8kV

The main substation is served at 13.8kV via circuits N1 and N2 from the Capitol Complex medium voltage underground distribution system. There are a total of two feeders serving the substation. Medium voltage equipment includes one 3 gang G&W SF6 insulated switch that serves two individual secondary unit substations (Included under Separate System). The G&W switch is normally operated via remote means using web based capabilities and manually only under emergency situations if required.

# D5012 - Low Tension Service and Dist. - Electrical Distribution - 800A Switchboard DP-1

Electrical distribution includes an 800A switchboard including all feeder conduit and wiring. Equipment is located in the main electrical room. The switchboard serves smaller branch circuit panelboards (included under separate system) and other large electrical loads.

# D5012 - Low Tension Service and Dist. - Electrical Distribution - Panelboards

Electrical distribution includes 480Y/277V panelboard(s), with dry type step down transformer(s) serving 208Y/120V panelboard(s) including all feeder conduit and wiring. Most equipment is located in electrical closets but various individual panelboards are installed in corridors and other dedicated spaces. The panelboards serve the branch circuit wiring including but not necessarily limited to telecommunication equipment, mechanical equipment, security systems, lighting and general outlets.

# D5012 - Low Tension Service and Dist. - Electrical Distribution - 1600A Switchboard

There is a 1600A double ended switchboard in the main electrical room. The switchboard is fed at each end from two individual secondary unit substations (Included under Separate System). The switchboard is an eight section cabinet with main lug only connections and metering on each end, one 1600A bolted pressure tie switch, and five additional distribution sections equipped with fused switches serving the electrical distribution system throughout the facility.

# D5012 - Low Tension Service and Dist. - Electrical Service - 1000kVA Secondary Unit Sub

The main electrical service consists of two individual 1000kVA secondary unit substations served from one G&W 13.8KV switch (Included under Separate System). The unit substations each consist of a 15kV fused switch, 1000kVA dry type transformer, and a 1600A bolted pressure switch on the secondary. Secondary voltage is 480Y/277V.

# D5012 - Low Tension Service and Dist. - Motor Control Center #1

Motor Control Center #1 is located in the main electrical room. It serves motor loads in the basement including pumps, HVAC units and other mechanical equipment. D5012 - Low Tension Service and Dist. - Motor Control Center #2

Motor Control Center #2 is located in the elevator room in the Penthouse. It serves motor loads in the elevator room including pumps, HVAC units and other mechanical equipment. D5021 - Branch Wiring Devices - Branch Wiring - Equipment and Devices

All costs in USD.


#### by Asset Name

Branch wiring consists of general purpose outlets and dedicated circuits for specific equipment connections throughout the facility. Other specific equipment connections include but are not necessarily limited to HVAC equipment, small pumps and motors, security systems, lighting and general outlets. All branch wiring is installed in conduit. Systems furniture is utilized in many areas. **D5022 - Lighting Equipment - Antique Lighting - Solid Bronze Exterior Post Candelabras** 

Original solid cast bronze exterior post type candelabras are installed at each exterior entrance. The candelabras have been retrofitted with nine compact fluorescent lamps (CFL) and plastic globes each. Install date represents approximate date of lighting retrofit.

"Bronze candelabras are 78 years old and it is expected they will last another 100 years under same environment. Observed years remaining to reflect expected years remaining of recently installed lighting retrofit."

Note: Non-Means line item used for bronze exterior post. Unit cost is based on approximate price of \$1000 as shown on original purchase order for similar fixtures at the State Capital and escalated to 2010 dollars with a 3.5% discount factor over 78 years (14.67). Original prices provided by State Capital Historical Society. Actual historical assessed value may vary. **D5022 - Lighting Equipment - Exterior Lighting - HID Wallpacks** 

HID wallpack luminaires are installed on the exterior west end of the building. D5022 - Lighting Equipment - Interior Lighting - Compact Fluorescent Wall Sconces

Brass wall sconces are installed throughout most corridors. Luminaires have been retrofitted with compact fluorescent lamps and ballasts and provide accent uplighting throughout. Install date represents approximate date of retrofit.

D5022 - Lighting Equipment - Interior Lighting - Fluorescent Lighting

Fluorescent type lighting is installed throughout the Basement and in office space throughout the remainder of the building. Fixture types include 1x4 and 2x4 recessed troffers, surface mount fixtures and cove lighting in offices and corridors and industrial fluorescent and strip type fixtures in shops, maintenance areas and other non-public spaces. Fluorescent fixtures have been retrofitted with T8 lamps and electronic ballasts.

"System observed years remaining have been increased based on the requirement(s) created and linked to replace all lamps and ballasts system wide." D5022 - Lighting Equipment - Interior Lighting - Pendant Lighting

Pendant type fixtures are installed in the elevator lobbies. Fixtures have been retrofitted with compact fluorescent lamps (CFL). Install date represents approximate date of retrofit. D5022 - Lighting Equipment - Interior Lighting - Recessed Lighting

Recessed lighting is installed in many areas of the building for general lighting and also accent lighting. Lighting type includes a combination of incandescent lamps, halogen spot light lamps and compact fluorescent lamps (CFL). Locations include but are not necessarily limited to Conference Rooms, Corridors and various office spaces.

"This system is in good working order due to good maintenance. Lamps are replaced regularly as required and updated or retrofitted with energy saving lamps. The observed years remaining have been adjusted to reflect the extended life expectancy of this system."

D5032 - Intercommunication and Paging System - Audio Systems - Conference Rooms

Audio systems are installed in Conference Rooms with microphones at each desk and speakers throughout the rooms. Amplifiers are installed behind walls and/or in adjacent rooms.

"System observed years remaining have been increased based on the observed condition of the systems." D5032 - Intercommunication and Paging System - Intercom System

Two way intercom stations are provided on exterior doors and various office doors.

#### All costs in USD.

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by Asset Name

"This system is in better than expected condition for a system of its age due to good maintenance and replacement parts are still available. Based on the criteria, the observed years remaining have been adjusted to reflect the extended life expectancy of this system."

#### D5033 - Telephone Systems - Cell Phone Repeaters

There are SPRINT cell phone repeaters and coax cable backbone installed throughout the building. D5033 - Telephone Systems - Telephone Wiring

Standard voice wiring is installed throughout the facility with drops at workstations and desktops. Punch down blocks and data racks are located in communications closets throughout the facility. Wiring is routed through ceiling spaces using a combination of cable tray, conduits and cable hangars. The majority of the structured wiring in the facility is a mix of original and updated cabling. Wiring is continually upgraded and efforts have been made to keep wiring and connectivity to current standards.

"This system is functional and adequate for the facility due to good maintenance and wiring is continually upgraded and efforts have been made to keep wiring and connectivity to current standards. Based on this criteria; the observed years remaining has been increased to reflect expected additional life of the system."

#### D5035 - Television Systems - Cable Television (CATV)

Cable television (CATV) outlets are provided throughout the building which provide live coverage of Senate and House hearings and other info. The system is in house only and does not include service from outside providers. Broadcasts are provided from two production studios in the State Capital Building.

#### D5037 - Fire Alarm Systems - Fire Alarm System

The fire alarm system is a microprocessor based addressable type system. The system is a general alarm, battery backup, electrically supervised system. Initiation devices include but are not necessarily limited to manual pull stations, smoke detectors, duct smoke detectors, heat detectors, and sprinkler flow switches. Notification devices include bells, horns and visual strobes. The system is monitored 24/7 by personnel in the basement Security Office in the State Capital. The building wide public address system is also integral to the fire alarm system.

#### D5038 - Security and Detection Systems - Access Control System

Access control points include card swipes at exterior doors and selected interior office spaces and intrusion detection monitoring via magnetic switches and other electronic monitoring devices on doors and windows. The system is monitored by Capital Security from the security office in the State Capital Building.

#### D5038 - Security and Detection Systems - Security Cameras

Closed circuit television (CCTV) security cameras are located in the facility and are monitored by Capital Security in the State Capital Building. D5039 - Local Area Networks - Data Wiring

Standard data systems are installed throughout the facility with drops at workstations and desktops. Punch down blocks and data racks are located in communications closets throughout the facility. Wiring is routed through ceiling spaces using a combination of cable tray, conduits and cable hangars. The majority of the structured wiring in the facility is a mix of original and updated cabling. Wiring is continually upgraded and efforts have been made to keep wiring and connectivity to current standards.

#### D5092 - Emergency Light and Power Systems - Emergency Generator - 500kW

There is an 500 kW diesel driven generator located outside the adjacent parking garage entrance. The generator is equipped with a 75 gallon day tank and sound proof weatherproof housing. The main storage tank is located in the parking garage and included under that asset. Feeder wiring is routed underground from the generator to the main electrical room in the State Office Building.

#### D5092 - Emergency Light and Power Systems - Emergency Power Distribution

Emergency power is provided from a dedicated emergency generator located adjacent to the parking garage. Power is provided underground to emergency power equipment room in the basement. Emergency power is supplied for essential building and life safety systems including security systems, exit and emergency lighting, the fire pump, elevators and various emergency panelboards in dedicated spaces throughout the building. Automatic transfer switches (ATS) and associated equipment is located in the basement. Emergency power is provided at 480Y/277V. Dry type transformers are utilized to step down voltage as required. *All costs in USD.* 



#### by Asset Name

#### D5092 - Emergency Light and Power Systems - Exit Signs

Exit signs are generally older signs that have been retrofitted with LED lamps. Most units do not have emergency battery backup. It is assumed exit signs are connected to emergency power panels. Several signs are not illuminated.

"This system is functional but lamps are starting to burn out in accordance with maintenance personnel and should be upgraded or replaced in the near future as replacement parts become obsolete. The observed years remaining have been adjusted to reflect a slight extended life expectancy of this system."

#### D5092 - Emergency Light and Power Systems - Motor Control Center EMCC-1

Motor Control Center EMCC-1 is located in Room B42. It serves essential motor loads in the basement including pumps, HVAC units and other mechanical equipment.

#### E - Equipment and Furnishings - Fixed Casework - High End - 1985

Building includes deluxe kitchen cabinets and countertops, without appliances. System life extended by Owner's maintenance program.

#### E - Equipment and Furnishings - Fixed Casework - Institutional - High End - 1985

Building includes deluxe railings and casework at hearing rooms and publicly accessible service counters. System life extended by Owner's maintenance program.

#### E - Equipment and Furnishings - Fixed Theater Seating - Deluxe - 1985

Furnishings include deluxe, fixed theater seating at hearing rooms.

E - Equipment and Furnishings - Food Service Counter - High End - 1985

Furnishings include deluxe quality food service tables, straight counters and curved counters at basement dining area. System life extended by Owner's maintenance program.

Note: kitchen was out of service at time of assessment.

E - Equipment and Furnishings - Kitchen Equipment - Average - 1985

Equipment and furnishings includes kitchen equipment of average quantity and quality at basement dining area. System life extended by Owner's maintenance program.

Note: kitchen was out of service at time of assessment.

#### E - Equipment and Furnishings - Loading Dock Equipment - 1985

The building includes loading dock equipment (average) including levelers, bumpers, etc. System life extended by Owner's maintenance program. E10 - Equipment - Ship Ladder - Roof Access - 1985

Steel ship ladder (interior) is installed at HVAC penthouse roof access. G2010 - Roadways - Roadway - Loading Dock - 1985

Sloping paved roadway at loading dock, 50-fL x 16-fL x 5" thick pavement, 14" thick gravel base. System life extended by Owner's maintenance program. G2030 - Pedestrian Paving - Pedestrian Pavement - Concrete - 1985

Sidewalks, cast-in-place concrete, 5" thick, 6x6-#10 mesh, broom finish with 4" sand bedding. System life extended by Owner's maintenance program. G2030 - Pedestrian Paving - Pedestrian Pavement - Granite and Concrete

All costs in USD.

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by Asset Name

Granite paving blocks on cast-in-place concrete at exterior entrances and landings. Granite applied over cast-in-place (CIP) concrete base, 5" thick, 6x6-#10 mesh, broom finish with 4" sand bedding. System life extended by renovation work.

#### G2040 - Site Development - Retaining Walls - Concrete - 12 Ft. - Light Wells

Retaining walls at S and E ground floor light wells: 12-ft. high reinforced cast-in-place (CIP) concrete on concrete footings with waterproofing. Granite facing on exposed surfaces. System life extended by renovation work.

#### G2040 - Site Development - Retaining Walls - Concrete - 12 Ft. - Loading Dock - 1985

Retaining wall at loading dock driveway: 12-ft. high reinforced cast-in-place (CIP) concrete on concrete footings with waterproofing and upper guard rail.

#### G2040 - Site Development - Retaining Walls - Concrete - 24 Ft. - Louver Wells

Retaining walls at N basement HVAC louver wells: 24-ft. high reinforced cast-in-place (CIP) concrete on concrete footings with waterproofing. Granite facing on exposed surfaces. System life extended by renovation work.

#### G2040 - Site Development - Retaining Walls - Concrete - 4 Ft. - Loading Dock - 1985

Retaining walls at ground floor loading dock: 4-ft. high (exposed) reinforced cast-in-place (CIP) concrete on concrete footings.

#### G4020 - Site Lighting - Site Lighting

Site lighting includes architectural type steel pole site lighting around the perimeter along sidewalks and roadways. Poles have recently been retrofitted with compact fluorescent lamps (CFL). Luminaires include one compact fluorescent lamp with plastic globe per pole. System includes all feeder wiring and controls.

"Although recently retrofitted with new lamps, several poles have broken lenses or lamps, and steel poles are aged and showing signs of rust damage on bases and risers. Condition does not warrant an immediate need and observed years have been increased slightly to compensate for recent retrofit but poles should be replaced or reconditioned in the near future." **G9013 - Pedestrian Tunnels - Pedestrian Tunnels - 1985** 

Underground pedestrian access tunnel shell assembly to 10 LF beyond building perimeter. Precast and cast-in-place concrete structure, waterproofed. Includes foundations, drainage and roof membrane system. Does not include interior finishes and roof planting. Tunnels run to SOB parking Ramp (W) Capitol (N) and Transportation Building (S) at ground floor.



#### ASSET REPLACEMENT VALUE

## Asset Snapshot Report

by Asset Name

				Year	Next Renewal		
Uniformat	System Name	Lifetime	% Renew	Installed	Year	Renewal Cost	Replacement Value
A-Substructure	Caissons (Drilled Pier) in Stable Ground	75	6	1932	2061	19,869	317,907
A-Substructure	Foundation Wall and Footings - 20 Ft Full Basement	75	6	1932	2061	35,224	563,586
A-Substructure	Grade Beams - Large	75	6	1932	2061	62,153	994,443
A-Substructure	Structural Slab on Grade - Light Industrial - 1985	75	6	1985	2061	19,585	313,365
A-Substructure	Structural Slab on Grade - Light Wells	50	6	1932	2036	605	9,674
A-Substructure	Structural Slab on Grade - Loading Dock - 1985	50	6	1985	2036	231	3,696
B10-Superstructure	Fireproofing - Fiber Encasement - 1985	75	125	1985	2061	505,931	404,745
B10-Superstructure	Multi-Story - Concrete	75	6	1932	2061	404,670	6,474,726
B10-Superstructure	Multi-Story - Steel - 1985	75	6	1985	2061	184,247	2.947,950
B1014-Ramps	Accessible Ramps - Basement - 1985	75	13	1985	2061	7,210	57,680
B1015-Exterior Stairs and Fire Escapes	Exterior Exit Steps - Granite and Concrete	50	38	1932	2036	8,671	23,122
B1015-Exterior Stairs and Fire Escapes	Exterior Monumental Steps - Granite and Concrete	50	38	1932	2036	26,827	71,538
B1015-Exterior Stairs and Fire Escapes	Exterior Steps - Steel - Loading Dock - 1985	50	125	1985	2036	2,049	1,639
B2010-Exterior Walls	Bronze Spandrel Panels - High Quality	60	125	1932	2046	43,349	34.679
B2010-Exterior Walls	Granite Veneer Walls - Deluxe	75	6	1932	2061	424,053	6.784,840

#### All costs in USD.

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by Asset Name

				Year	Next Renewal		
Uniformat	System Name	Lifetime	% Renew	Installed	Year	Renewal Cost	Replacement Value
B2013-Exterior Louvers, Screens, and							
Fencing	Metal Wall Louvers - 1985	50	125	1985	2036	74,943	59,955
B2016-Exterior Soffits	Granite Veneer Soffits - Deluxe	75	6	1932	2061	31,500	504,001
	Plaster Veneer On GWB - 1 Coat						
B2016-Exterior Soffits	- Loading Dock	30	125	1985	2021	2,650	2,120
B2020-Exterior Windows	Aluminum Windows - 1985	30	125	1985	2016	1,703,517	1,362,814
B2030-Exterior Doors	Automatic Openers - Pair - 1985	30	125	1985	2016	24,093	19,274
	Door Assembly - 6 x 7 Bronze -						
B2030-Exterior Doors	Storefront	30	125	1932	2016	106,786	85,429
	Door Assembly - 6 x 7 HM -						
B2030-Exterior Doors	1985	30	125	1985	2016	4,950	3,960
	Single-Ply EPDM with Pavers on	25	125	1085	2016	205 487	164 200
B30-Roofing	K00I - 1985	25	125	1985	2016	205,487	164,390
B30 Poofing	Single-Ply Membrane - Fully Adhered - Loading Dock - 1985	25	125	1985	2017	4 581	3 665
B30-Koomig	Runered - Eozaning Dock - 1965	25	125	1905	2017	4,501	5,005
B30-Roofing	Roofing	50	125	1932	2036	376,637	301,310
	Terra Cotta and Clay Tile						
B30-Roofing	Roofing - 1985	50	125	1985	2036	161,653	129,322
B3021-Glazed Roof Openings	Skylights - Kalwall Types - 1985	30	125	1985	2016	86,638	69,311
B3021-Glazed Roof Openings	Skylights - Loading Dock - 1985	30	125	1985	2017	3,223	2,578
B3021-Glazed Roof Openings	Skylights - Monumental - 1985	30	125	1985	2016	54,783	43.826
B2021 Clased Roof Openings	Skylights Unit Types 1085	20	125	1085	2016	242 071	103 657
B3021-Glazed Root Openings	Skylights - Onit Types - 1985	50	125	1965	2010	242,071	195,057
B3022-Roof Hatches	Roof Hatch - 1985	40	125	1985	2026	1,828	1,462
C1010 Brathiers	CMU Block Walls - Facing 1	50	63	1085	2026	279 692	605 802
Croro-Partitions	Siuc - 1763	50	03	1705	2030	270,003	005,892
C1010-Partitions	CMU Block Walls - Plain - 1985	50	63	1985	2036	156,955	251,128
All costs in USD.							



by Asset Name

				Year	Next Renewal		
Uniformat	System Name	Lifetime	% Renew	Installed	Year	<b>Renewal</b> Cost	Replacement Value
C1010-Partitions	GWB Partitions On Furring - 1985	50	63	1985	2036	157,672	252,275
C1010-Partitions	GWB Walls - Standard (Unpainted) - 1985	50	63	1985	2036	489,665	783,464
C1010-Partitions	Plaster Walls - 3 Coats - Ornamental	50	63	1932	2036	108,081	172.930
C1017-Interior Windows and Storefronts	Bronze Windows - 1985	50	125	1932	2036	73.238	58,590
C1017-Interior Windows and Storefronts	Butt Joint Clerestories - 1985	50	125	1985	2036	87,585	70,068
C1020-Interior Doors	Bi-Fold Doors - Pair - 6 x 7 Wd - NR - 1985	50	125	1985	2036	101,144	80.915
C1020-Interior Doors	Revolving Door - Manual Operation	50	125	1932	2036	282,908	226,326
C1020-Interior Doors	Swinging Doors - 3 x 7 HM - Rated - 1985	50	125	1985	2036	84,256	67,405
C1020-Interior Doors	Swinging Doors - 3 x 7 Wd - NR - 1985	50	125	1985	2036	2,754,724	2,203,780
C1020-Interior Doors	Swinging Doors - 3 x 7 Wd - Rated - 1985	50	125	1985	2036	179,383	143,506
C1020-Interior Doors	Swinging Doors - Pair - 6 x 7 HM - Rated - 1985	50	125	1985	2036	52,202	41,761
C1020-Interior Doors	Swinging Doors - Pair - 6 x 7 Wd - NR - 1985	50	125	1985	2036	113,073	90.459
C1020-Interior Doors	Swinging Doors - Pair - 6 x 7 Wd - Rated - 1985	50	125	1985	2036	440,253	352,203
C1030-Fittings	Restroom Accessories - Average - 2009	25	125	2009	2035	279,771	223,817
C1030-Fittings	Toilet Partitions - Average - 2009	40	125	2009	2050	292,309	233,847

All costs in USD.

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by	Asset	Name

				Year	Next Renewal		
Uniformat	System Name	Lifetime	% Renew	Installed	Year	Renewal Cost	Replacement Value
	Fittings - Signage (Room Numbering and Identification) -						
C1035-Identifying Devices	2010	10	125	2010	2021	233,359	186,688
C20-Stairs	Access Steps - 2nd Floor - 1985	75	38	1985	2061	1,317	3,513
C20-Stairs	Access Steps - Basement - 1985	75	38	1985	2061	3,294	8,783
C20-Stairs	Access Steps - Ground Floor - 1985	75	38	1985	2061	2,635	7.026
C20-Stairs	Corridor Steps - Ground Floor	75	38	1932	2061	3,980	10,614
C20-Stairs	Enclosed Access Stairs - 6th Floor - 1985	75	38	1985	2061	17,864	47,637
C20-Stairs	Enclosed Exit Stairs - Full Height - SW and SE Towers - 1985	75	38	1985	2061	132,773	354,063
C20-Stairs	Enclosed Exit Stairs - Partial Height - S Tower - 1985	75	38	1985	2061	41,492	110,645
C20-Stairs	Entrance Steps - 1st Floor	75	38	1932	2061	2,848	7,596
C20-Stairs	Unenclosed Access Stairs - Ground Floor	75	38	1932	2061	13.208	35,222
C20-Stairs	Unenclosed Monumental Stairs - Partial Height - N Tower	75	38	1932	2061	88,673	236,461
C3010-Wall Finishes	Acoustic Wall Panels - 1985	25	125	1985	2021	58,309	46,647
C3010-Wall Finishes	Ceramic Tile Walls - 1985	25	125	1985	2017	17,547	14,038
C3010-Wall Finishes	Marble Panel Walls	50	125	1932	2036	1,810,552	1,448,441
C3010-Wall Finishes	Painted Finish - Average (1 Coat Ptime - 2 Coats Finish) - 2008	10	125	2008	2019	662,935	530,348
C3010-Wall Finishes	Porcelain Tile Walls - 2009	25	125	2009	2035	128,378	102,702



by	Asset	Name
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				Year	Next Renewal		
Uniformat	System Name	Lifetime	% Renew	Installed	Year	Renewal Cost	Replacement Value
C3010-Wall Finishes	Raised Wood Paneling - High End - 1985	30	81	1985	2021	653,431	804,222
C3020-Floor Finishes	Access Computer Room Flooring System - 2009	25	125	2009	2035	192,111	153.689
C3020-Floor Finishes	Carpeting - Broadloom - High Quality - 2000	10	125	2000	2017	622,514	498,011
C3020-Floor Finishes	Carpeting - Tile - 2000	10	125	2000	2017	1,767,205	1,413,764
C3020-Floor Finishes	Ceramic Tile Floors - 1985	25	125	1985	2017	15,172	12,138
C3020-Floor Finishes	Marble Floors	50	125	1932	2036	387,879	310,303
C3020-Floor Finishes	Porcelain Tile Floors - 2009	25	125	2009	2035	136,010	108,808
C3020-Floor Finishes	Quarry Tile - 1985	25	125	1985	2021	81,128	64,902
C3020-Floor Finishes	Terrazzo Floors - Cast-in-Place	50	125	1932	2036	940,318	752,254
C3020-Floor Finishes	VCT - Average - 1985	10	125	1985	2011	14,255	11,404
C3030-Ceiling Finishes	ACT System - Standard - 1985	20	125	1985	2016	359,600	287,680
C3030-Ceiling Finishes	GWB Taped and Finished - 1985	30	125	1985	2021	949,623	759,699
C3030-Ceiling Finishes	Metal Slat Ceilings - 1985	25	125	1985	2021	28,583	22,867
C3030-Ceiling Finishes	Ornately Detailed Painted Plaster Ceilings	30	125	1932	2021	383,752	307,001
C3030-Ceiling Finishes	Painted Concrete Surfaces - 1985	30	125	1985	2021	13,784	11,027
D1010-Elevators and Lifts	Hydraulic Freight Elevator	35	125	1985	2021	182,325	145,860
D1010-Elevators and Lifts	Hydraulic Passenger Elevator	35	125	1985	2021	86,308	69,046
D1011-Passenger Elevators	Passenger Elevators - Elevator #1, #2, #3, #4	50	125	1995	2046	2,975,411	2, 380, 329
D1011-Passenger Elevators	Passenger Elevators - Elevator #5	35	125	1995	2031	465 271	372 217
D1013-Lifts	Wheelchair Lift	25	105	2004	2030	15,483	14,745

#### All costs in USD.

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by Asset Name

				Year	Next Renewal		
Uniformat	System Name	Lifetime	% Renew	Installed	Year	<b>Renewal</b> Cost	Replacement Value
D2010-Plumbing Fixtures	Custodial/Utility Sinks	30	125	1985	2016	35,783	28,626
D2010-Plumbing Fixtures	Emergency Eyewash and Shower Units	30	125	2009	2011	7,342	5,873
D2010-Plumbing Fixtures	Kitchenette - Cabinet, Counter and Sink	30	125	2000	2031	32,882	26,305
D2010-Plumbing Fixtures	Restroom Fixtures	30	125	1985	2016	333,376	266,701
D2010-Plumbing Fixtures	Water Coolers - Wall-Mount Dual-Height	20	125	1995	2016	41,094	32,875
D2020-Domestic Water Distribution	Water Dist Complete	30	113	1985	2016	671,965	597,302
D2020-Domestic Water Distribution	Water Heater - Elec - 10 Gal - 1985	10	112	1985	2011	4,442	3.966
D2020-Domestic Water Distribution	Water Heater - Elec - 10 Gal - 2004	10	112	2004	2015	4,442	3,966
D2020-Domestic Water Distribution	Water Heater - Hot Water Heat Exchanger and Tank	25	112	1985	2011	68,142	60,841
D2030-Sanitary Waste	Sanitary Waste - Gravity Disch	50	125	1985	2036	802,926	642,340
D2040-Rain Water Drainage	Roof Drainage - Gravity	50	125	1985	2036	642,675	514,140
D3012-Gas Supply System	Natural Gas Service to Bldg	40	125	1932	2011	2,209	1,767
D3020-Heat Generating Systems	Boiler Steam - Humidification	30	125	1985	2016	103,016	82,413
D3040-Distribution Systems	Central AHU - VAV System w/Distribution	25	125	1985	2011	4,081,221	3,264,977
D3040-Distribution Systems	Exhaust System - General Building - In-Line	25	125	1985	2011	55,901	44,721
D3040-Distribution Systems	Exhaust System - General Building - Rooftop	25	125	1985	2011	44,446	35,557
D3040-Distribution Systems	Exhaust System - General Building - Wall Exhaust	25	125	1985	2011	1,189	951
All costs in USD.							



by Asset Name

				Year	Next Renewal		
Uniformat	System Name	Lifetime	% Renew	Installed	Year	<b>Renewal</b> Cost	Replacement Value
D3040-Distribution Systems	Exhaust System - Restroom Fan	20	125	1985	2011	16,535	13,228
D3040-Distribution Systems	Four Pipe Distribution System w/Pump	30	125	1985	2016	5,698,959	4,559,168
D3040-Distribution Systems	Heat Exchanger - Liquid/Liquid - Plate and Frame	25	125	1932	2011	546,177	436,942
D3050-Terminal and Package Units	Computer Room Cooling - DX w/Air Cooled Remote Condenser	20	125	2009	2030	191,352	153,082
D3050-Terminal and Package Units	Unit Heaters - Electric	15	112	2009	2025	29,148	26,025
D3050-Terminal and Package Units	Unit Heaters - Hot Water	25	112	1985	2011	24,330	21,724
D3060-Controls and Instrumentation	DDC/Pneumatic System - Hybrid	25	125	1985	2011	1,809,384	1,447,507
D40-Fire Protection	Fire Extinguishers - Dry Chem w/Cabinet	30	105	2010	2041	9,236	8,796
D40-Fire Protection	FM200 System	15	125	2009	2025	32,600	26,080
D40-Fire Protection	Kitchen Hood Suppression	20	125	2004	2025	6,582	5,265
D40-Fire Protection	Wet Sprinkler System	35	125	1985	2021	2,080,489	1,664,391
D5011-High Tension Service and Dist.	Electrical Service - 13.8kV	30	125	2000	2031	278,036	222,429
D5012-Low Tension Service and Dist.	Electrical Distribution - 800A Switchboard DP-1	30	125	1986	2017	71,185	56,948
D5012-Low Tension Service and Dist.	Electrical Distribution - Panelboards	30	125	1986	2017	1,266,658	1,013,326
D5012-Low Tension Service and Dist.	Electrical Distribution – 1600A Switchboard	30	125	1986	2017	668,126	534,501
D5012-Low Tension Service and Dist.	Electrical Service – 1000kVA Secondary Unit Sub	30	125	1986	2017	799,207	639,366
D5012-Low Tension Service and Dist.	Motor Control Center #1	30	125	1986	2017	231,509	185,207
D5012-Low Tension Service and Dist.	Motor Control Center #2	30	125	1986	2017	103,509	82,807

#### All costs in USD.

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by	Asset	Name

Uniformat	System Name	Lifetime	% Renew	Year Installed	Next Renewal Year	Renewal Cost	Replacement Value
Children and Child	Dearch Winner Engineert and	1) double	, in the second			Academan Cont	
D5021-Branch Wiring Devices	Branch wiring - Equipment and Devices	30	125	1986	2017	2,689,803	2,151,842
D5022-Lighting Equipment	Antique Lighting - Solid Bronze Exterior Post Candelabras	20	125	2008	2029	235,841	188,673
D5022-Lighting Equipment	Exterior Lighting - HID Wallpacks	20	125	2000	2021	5,488	4,391
D5022-Lighting Equipment	Interior Lighting - Compact Fluorescent Wall Sconces	20	125	2008	2029	505,054	404,043
D5022-Lighting Equipment	Interior Lighting - Fluorescent Lighting	20	125	1990	2031	3,084,875	2,467.900
D5022-Lighting Equipment	Interior Lighting - Pendant Lighting	20	125	2008	2029	104,119	83,295
D5022-Lighting Equipment	Interior Lighting - Recessed Lighting	20	125	1990	2026	2,352,625	1,882,100
D5032-Intercommunication and Paging System	Audio Systems - Conference Rooms	15	125	1990	2018	1,056,519	845,215
D5032-Intercommunication and Paging							
System	Intercom System	15	125	2000	2021	29,987	23,990
D5033-Telephone Systems	Cell Phone Repeaters	15	125	2005	2021	228,266	182,613
D5033-Telephone Systems	Telephone Wiring	15	125	1980	2021	1,350,965	1,080,772
D5035-Television Systems	Cable Television (CATV)	15	125	2002	2018	310,401	248,321
D5037-Fire Alarm Systems	Fire Alarm System	10	125	2008	2019	783,802	627,041
D5038-Security and Detection Systems	Access Control System	10	125	2002	2013	232,588	186,070
D5038-Security and Detection Systems	Security Cameras	10	125	2002	2013	427,971	342,377
D5039-Local Area Networks	Data Wiring	15	125	2005	2021	933,303	746,643
D5092-Emergency Light and Power Systems	Emergency Generator - 500kW	20	125	2008	2029	331,906	265,525
D5092-Emergency Light and Power Systems	Emergency Power Distribution	30	125	2008	2039	584,779	467,823



by Asset Name

				Year	Next Renewal		
Uniformat	System Name	Lifetime	% Renew	Installed	Year	<b>Renewal</b> Cost	<b>Replacement Value</b>
D5092-Emergency Light and Power Systems	Exit Signs	10	125	2000	2013	279,816	223,852
D5092-Emergency Light and Power Systems	Motor Control Center EMCC-1	30	125	1986	2017	40,123	32,099
E-Equipment and Furnishings	Fixed Casework - High End - 1985	25	125	1985	2021	93,812	75,050
E-Equipment and Furnishings	Fixed Casework - Institutional - High End - 1985	25	125	1985	2021	198,698	158,958
E-Equipment and Furnishings	Fixed Theater Seating - Deluxe - 1985	35	63	1985	2021	141,699	226,719
E-Equipment and Furnishings	Food Service Counter - High End - 1985	25	125	1985	2017	45,411	36.329
E-Equipment and Furnishings	Kitchen Equipment - Average - 1985	20	125	1985	2017	45,275	36,220
E-Equipment and Furnishings	Loading Dock Equipment - 1985	25	125	1985	2017	14,411	11,529
E10-Equipment	Ship Ladder - Roof Access - 1985	50	100	1985	2036	4,260	4,260
G2010-Roadways	Roadway - Loading Dock - 1985	25	63	1985	2017	3,175	5.080
G2030-Pedestrian Paving	Pedestrian Pavement - Concrete - 1985	25	63	1985	2017	437	698
G2030-Pedestrian Paving	Pedestrian Pavement - Granite and Concrete	25	63	1932	2021	36,588	58,540
G2040-Site Development	Retaining Walls - Concrete - 12 Ft Light Wells	50	125	1932	2036	210,444	168,355
G2040-Site Development	Retaining Walls - Concrete - 12 Ft Loading Dock - 1985	50	125	1985	2036	17,978	14,382
G2040-Site Development	Retaining Walls - Concrete - 24 Ft Louver Wells	50	125	1932	2036	231,912	185,530
G2040-Site Development	Retaining Walls - Concrete - 4 Ft Loading Dock - 1985	50	125	1985	2036	9,948	7.958



by Asset Name

69,886,366

				Year	Next Renewal		
Uniformat	System Name	Lifetime	% Renew	Installed	Year	<b>Renewal</b> Cost	<b>Replacement Value</b>
G4020-Site Lighting	Site Lighting	20	125	1970	2013	265,951	212,760
G9013-Pedestrian Tunnels	Pedestrian Tunnels - 1985	50	13	1985	2036	7,485	59,877
						Subtotal	69,886,366

**Total Replacement Value** 



REQUIREMENTS AND RENEWALS

Asset Snapshot Report

by Asset Name



#### All costs in USD.

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					by Asset Name
Requirement Name / Renewals	Prime System	Category	Priority	Action Date	Cost
Central AHU - VAV System w/Distribution Renewal	D3040-Distribution Systems	Beyond Useful Life	1- Currently Critical	11/08/2010	4,081,221
DDC/Pneumatic System - Hybrid Renewal	D3060-Controls and Instrumentation	Beyond Useful Life	1- Currently Critical	11/08/2010	1,809,384
Emergency Eyewash and Shower Units Renewal	D2010-Plumbing Fixtures	Beyond Useful Life	1- Currently Critical	11/08/2010	7,342
Exhaust System - General Building - In-Line Renewal	D3040-Distribution Systems	Beyond Useful Life	1- Currently Critical	11/08/2010	55,901
Exhaust System - General Building - Rooftop Renewal	D3040-Distribution Systems	Beyond Useful Life	I - Currently Critical	11/08/2010	44,446
Exhaust System - General Building - Wall Exhaust Renewal	D3040-Distribution Systems	Beyond Useful Life	1- Currently Critical	11/08/2010	1.189
Exhaust System - Restroom Fan Renewal	D3040-Distribution Systems	Beyond Useful Life	I- Currently Critical	11/08/2010	16,535
Heat Exchanger - Liquid/Liquid - Plate and Frame Renewal	D3040-Distribution Systems	Beyond Useful Life	1- Currently Critical	11/08/2010	546.177
Natural Gas Service to Bldg Renewal	D3012-Gas Supply System	Beyond Useful Life	1- Currently Critical	11/08/2010	2,209
Unit Heaters - Hot Water Renewal	D3050-Terminal and Package Units	Beyond Useful Life	I- Currently Critical	11/08/2010	24,330
VCT - Average - 1985 Renewal	C3020-Floor Finishes	Beyond Useful Life	1- Currently Critical	11/08/2010	14,255
Water Heater - Elec - 10 Gal - 1985 Renewal	D2020-Domestic Water Distribution	Beyond Useful Life	1- Currently Critical	11/08/2010	4.442
Water Heater - Hot Water Heat Exchanger and Tank Renewal	D2020-Domestic Water Distribution	Beyond Useful Life	1- Currently Critical	11/08/2010	68,142
				2010 Subtotal	6,675,573
Branch Wiring - Insufficient Outlets - Ground Floor	D5021-Branch Wiring Devices	Capacity/Design	1- Currently Critical	11/08/2011	24.414
Branch Wiring - Receptacle in Disrepair - Room G10	D5021-Branch Wiring Devices	Life Safety	I- Currently Critical	11/08/2011	344



					by Asset Name
Requirement Name / Renewals	Prime System	Category	Priority	Action Date	Cost
Branch Wiring – Outlets Not Installed at HVAC Units	D5021-Branch Wiring Devices	Building Code	I- Currently Critical	11/08/2011	8,592
Communication Wiring - Improperly Installed - Corridor 180B	D5039-Local Area Networks	Building Code	I- Currently Critical	11/08/2011	1,380
Communication Wiring - Improperly Installed - Room 142F	D5039-Local Area Networks	Building Code	1- Currently Critical	11/08/2011	1.380
Electrical Service – Inadequate Means of Egress from Electrical Room	D5011-High Tension Service and Dist.	Building Code	1- Currently Critical	11/08/2011	9,708
Exit Signs – Not Properly Illuminated	D5092-Emergency Light and Power Systems	Building Code	1- Currently Critical	11/08/2011	4,639
Exterior Lighting - Luminaires in Disrepair	D5022-Lighting Equipment	Reliability	1- Currently Critical	11/08/2011	18,841
Guardrails - Non-Compliant Heights - Monumental Stairs	C20-Stairs	Building Code	1- Currently Critical	11/08/2011	17,777
Guardrails - Non-Compliant Heights or Spacing - Unenclosed Access Stairs	C20-Stairs	Building Code	I- Currently Critical	11/08/2011	12,618
Local Area Networks – Unprotected					
132E	D5039-Local Area Networks	Building Code	I- Currently Critical	11/08/2011	1,268
				2011 Subtotal	100,961
Access Control System Renewal	D5038-Security and Detection Systems	Beyond Useful Life	2- Potentially Critical	11/08/2012	232,588
Exit Signs Renewal	D5092-Emergency Light and Power Systems	Beyond Useful Life	2- Potentially Critical	11/08/2012	279,816
Security Cameras Renewal	D5038-Security and Detection Systems	Beyond Useful Life	2- Potentially Critical	11/08/2012	427,971
Site Lighting Renewal	G4020-Site Lighting	Beyond Useful Life	2- Potentially Critical	11/08/2012	265.951
				2012 Subtotal	1,206,326

#### All costs in USD.

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## Asset Snapshot Report

					by Asset Name
Requirement Name / Renewals	Prime System	Category	Priority	Action Date	Cost
Water Heater - Elec - 10 Gal - 2004 Renewal	D2020-Domestic Water Distribution	Beyond Useful Life	3- Necessary - Not Yet Critical	11/08/2014	4,442
				2014 Subtotal	4,442
ACT System - Standard - 1985 Renewal	C3030-Ceiling Finishes	Beyond Useful Life	3- Necessary - Not Yet Critical	11/08/2015	359,600
Aluminum Windows - 1985 Renewal	B2020-Exterior Windows	Beyond Useful Life	3- Necessary - Not Yet Critical	11/08/2015	1,703,517
Automatic Openers - Pair - 1985 Renewal	B2030-Exterior Doors	Beyond Useful Life	3- Necessary - Not Yet Critical	11/08/2015	24,093
Boiler Steam - Humidification Renewal	D3020-Heat Generating Systems	Beyond Useful Life	3- Necessary - Not Yet Critical	11/08/2015	103,016
Custodial/Utility Sinks Renewal	D2010-Plumbing Fixtures	Beyond Useful Life	3- Necessary - Not Yet Critical	11/08/2015	35,783
Door Assembly - 6 x 7 Bronze - Storefront Renewal	B2030-Exterior Doors	Beyond Useful Life	3- Necessary - Not Yet Critical	11/08/2015	106.786
Door Assembly - 6 x 7 HM - 1985 Renewal	B2030-Exterior Doors	Beyond Useful Life	3- Necessary - Not Yet Critical	11/08/2015	4,950
Elevator #5 Controller - Beyond Rated Life	D1011-Passenger Elevators	Beyond Useful Life	3- Necessary - Not Yet Critical	11/08/2015	154,573
Emergency Panelboards - Approaching Rated Life	D5092-Emergency Light and Power Systems	Beyond Useful Life	3- Necessary - Not Yet Critical	11/08/2015	71,532
Fluorescent Lighting - Approaching Rated Life	D5022-Lighting Equipment	Beyond Useful Life	3- Necessary - Not Yet Critical	11/08/2015	1,428,637
Four Pipe Distribution System w/Pump Renewal	D3040-Distribution Systems	Beyond Useful Life	3- Necessary - Not Yet Critical	11/08/2015	5,698,959
HVAC Equipment - Abandoned	D3040-Distribution Systems	Obsolescence	3- Necessary - Not Yet Critical	11/08/2015	1,915
Restroom Fixtures Renewal	D2010-Plumbing Fixtures	Beyond Useful Life	3- Necessary - Not Yet Critical	11/08/2015	333,376
Single-Ply EPDM with Pavers on Roof - 1985 Renewal	B30-Roofing	Beyond Useful Life	3- Necessary - Not Yet Critical	11/08/2015	205.487
Skylights - Kalwall Types - 1985 Renewal	B3021-Glazed Roof Openings	Beyond Useful Life	3- Necessary - Not Yet Critical	11/08/2015	86,638
Skylights - Monumental - 1985 Renewal	B3021-Glazed Roof Openings	Beyond Useful Life	3- Necessary - Not Yet Critical	11/08/2015	54,783
Skylights - Unit Types - 1985 Renewal	B3021-Glazed Roof Openings	Beyond Useful Life	3- Necessary - Not Yet Critical	11/08/2015	242,071



					by Asset Name	2
Requirement Name / Renewals	Prime System	Category	Priority	Action Date	Cost	
Substructure - Basement Slab Cracks	A-Substructure	Reliability	3- Necessary - Not Yet Critical	11/08/2015	25,151	
Water Coolers - Wall-Mount Dual-Height Renewal	D2010-Plumbing Fixtures	Beyond Useful Life	3- Necessary - Not Yet Critical	11/08/2015	41,094	
Water Dist Complete Renewal	D2020-Domestic Water Distribution	Beyond Useful Life	3- Necessary - Not Yet Critical	11/08/2015	671,965	
				2015 Subtotal	11,353,926	



# **System Detail Report**

## by Renewal Fiscal Year

Final



Asset Name : State Office Building Asset Number : 2

Agency:	Administration
Location:	Capital Complex
Fiscal Year:	2011

System:	C3020-Floor Finishes	Lifetime:	10
Name:	VCT - Average - 1985	Years Remaining:	0 (Observed)
Quantity:	2,900	% Used:	100 (Observed)
Unit Cost:	3.93	Year Installed:	1985
Replacement Cost:	11,404	Date Inspected:	11/08/2010
Unit of Measure:	SF	SCI:	1.25
RENEWAL	,		
Renewal FY:	2011	Renewal Cost:	14,255
% Renew:	125		

#### DESCRIPTION

State of Minnesota

Floor finishes include areas of standard VCT flooring and related base at ground floor maintenance areas.

#### SYSTEM COSTS

Unit Cos	t Basis:	1,000.00				
Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	096512001150	Cove base, rubber or vinyl, standard colors, 4" h. 0.080" thick	250.00	3.13	L.F.	782.50
А	C30204101600	Vinyl, composition tile, maximum	1,000.00	3.15	S.F.	3,150.00
					Subtotal:	3,932.50
				Adjustment Factor:		1.0000
					Total:	3,932.50

#### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
VCT - Average - 1985 Renewal	Beyond Useful Life	1- Currently Critical	System Renewal	11/08/2010	14,255
				Total	14,255

Linked Photos







VCT - Average - 1985 Renewal



#### Agency: Administration Location: Capital Complex Fiscal Year: 2011

Asset Name : State Office Building Asset Number : 2

System:	D2010-Plumbing Fixtures	Lifetime:	30
Name:	Emergency Eyewash and Shower Units	Years Remaining:	0 (Observed)
Quantity:	2	% Used:	100 (Observed)
Unit Cost:	2,936.64	Year Installed:	2009
Replacement Cost:	5,873	Date Inspected:	11/08/2010
Unit of Measure:	Each	SCI:	1.25
RENEWAL			
Renewal FY:	2011	Renewal Cost:	7.342
% Renew:	125		

#### DESCRIPTION

Plumbing fixtures include emergency safety shower and eyewash units.

#### SYSTEM COSTS

Unit Cost Basis: 1.00

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
υ	154142004200	Industrial safety fixture, eye and face wash. combination fountain, stainless steel, pedestal mounted, excludes rough-in	1.00	857.82	Ea.	857.82
U	154142006400	Industrial safety fixture. shower, single head, drench, ball valve, pull. freestanding, multi-nozzle, shower only, 12 spray, excludes rough-in	1.00	2,078.82	Ea.	2,078.82
					Subtotal:	2,936.64
				Adjust	ment Factor:	1.0000
					Total:	2,936.64

#### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
Emergency Eyewash and Shower Units Renewal	Beyond Useful Life	1- Currently Critical	System Renewal	11/08/2010	7,342
				Total	7,342

Linked Photos

## System Detail Report







Emergency Eyewash and Shower Units Renewal Emergency Eyewash and Shower Units Renewal



Agency: Administration Location: Capital Complex Fiscal Year: 2011

1.00

Asset Name : State Office Building Asset Number : 2

System:	D2020-Domestic Water Distribution	Lifetime:	25	
Name:	Water Heater - Hot Water Heat Exchanger and Tank	Years Remaining:	0 (Observed)	
Quantity:	1	% Used:	100 (Observed)	
Unit Cost:	60,841.11	Year Installed:	1985	
Replacement Cost:	60,841	Date Inspected:	11/08/2010	
Unit of Measure:	Each	SCI:	1.12	
RENEWAL				
Renewal FY:	2011	Renewal Cost:	68,142	
% Renew:	112			

#### DESCRIPTION

The domestic hot water is produced by a shell and tube heat exchanger that utilizes heated water from District Energy to produce domestic hot water. This system also includes a separate expansion tank.

Note: Hot water heat transfer package not available in RS Means. A similar steam system has been selected for budgetary purposes.

#### SYSTEM COSTS

Unit Cost Basis:

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	151802001340	Pump, circulating, bronze, heated or chilled water application, in line, flanged joints, 3/4 H.P., 3" size	1.00	2,760.13	Ea.	2,760.13
U	154809001300	Heat transfer package, complete, hot water, 180Deg. F enter, 200Deg. F leaving, 15 psi steam, two pump system, 255 GPM, includes controls, expansion tank, converter, air separator	1.00	58,080.98	Ea.	58,080.98
					Subtotal:	60,841.11
				Adjust	ment Factor:	1.0000
					Total:	60,841.11

#### LINKED REQUIREMENTS

	Name	Category	Priority	Inspector	Action Date	Cost
	Water Heater - Hot Water Heat Exchanger and Tank	Beyond Useful Life	1- Currently Critical	System Renewal	11/08/2010	68,142
	Renewal					
					Total	68,142
L	inked Photos					
A	Il costs in USD.					

## System Detail Report

#### by Renewal Fiscal Year



State of Minnesota

Water Heater - Hot Water Heat Exchanger and Tank Renewal Water Heater - Hot Water Heat Exchanger and Tank Renewal



Water Heater - Hot Water Heat Exchanger and Tank Renewal Water Heater - Hot Water Heat Exchanger and Tank Renewal



#### Agency: Administration Location: Capital Complex Fiscal Year: 2011

Asset Name : State Office Building Asset Number : 2

System:	D2020-Domestic Water Distribution	Lifetime:	10
Name:	Water Heater - Elec - 10 Gal - 1985	Years Remaining:	0 (Observed)
Quantity:	2	% Used:	100 (Observed)
Unit Cost:	1,983.15	Year Installed:	1985
Replacement Cost:	3,966	Date Inspected:	11/08/2010
Unit of Measure:	Each	SCI:	1.12
RENEWAL			
Renewal FY:	2011	Renewal Cost:	4,442
% Renew:	112		

#### DESCRIPTION

The domestic hot water system is supplemented by 10 gallon electric water heaters located near their point of use, typically in janitorial closets. This system is for the water heater installed in 1985.

#### SYSTEM COSTS

Unit Cost Basis: 1.00

Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
D20202101780	Electric water heater, residential, 100< F rise, 10 gallon tank, 7 GPH	1.00	1,983.15	Ea.	1,983.15
				Subtotal:	1,983.15
			Adjustment Factor:		1.0000
				Total:	1,983.15
	Code Label	Code Label Description   D20202101780 Electric water heater, residential, 100   F rise, 10 gallon tank, 7 GPH	Code LabelDescriptionQuantityD20202101780Electric water heater, residential, 1001.00F rise, 10 gallon tank, 7 GPH	Code Label Description Quantity Unit Cost   D20202101780 Electric water heater, residential, 100 1.00 1,983.15   F rise, 10 gallon tank, 7 GPH Adjust	Code Label Description Quantity Unit Cost Unit   D20202101780 Electric water heater, residential, 100 1.00 1,983.15 Ea.   F rise, 10 gallon tank, 7 GPH Subtotal: Subtotal:   Lettric water heater, residential, 100 Total: Total:

#### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
Water Heater - Elec - 10 Gal - 1985 Renewal	Beyond Useful Life	1- Currently Critical	System Renewal	11/08/2010	4,442
				Total	4,442

Linked Photos





Water Heater - Elec - 10 Gal - 1985 Renewal Water Heater - Elec - 10 Gal - 1985 Renewal

All costs in USD.

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State of Minnesota

Agency: Administration Location: Capital Complex Fiscal Year: 2011 Asset Name : State Office Building Asset Number : 2

	System:	D3012-Gas Supply System	Lifetime:	40
	Name:	Natural Gas Service to Bldg	Years Remaining:	0 (Observed)
	Quantity:	1	% Used:	100 (Observed)
	Unit Cost:	1,767.22	Year Installed:	1932
	Replacement Cost:	1,767	Date Inspected:	11/08/2010
	Unit of Measure:	Each	SCI:	1.25
F	RENEWAL		2	
	Renewal FY:	2011	Renewal Cost:	2,209
	% Renew:	125		

#### DESCRIPTION

The building includes a natural gas supply to the kitchen.

#### SYSTEM COSTS

ISTEM COSTS	
Init Cost Basis:	1.00

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	025504664040	Natural Gas Piping, steel pipe, tar coated and wrapped, plain end natural gas distribution, 1" diameter, schedule 40, excludes excavation or backfill	25.00	19.05	L.F.	476.25
U	025504680140	Natural Gas Metering, gas stops, with or without checks, 1-1/4" size	1.00	150.93	Ea.	150.93
U	025504680640	Natural Gas Metering, pressure 1 regulator valves, iron and bronze, 1-1/2" diameter		233.91	Ea.	233.91
U	151101000550	Valves, brass, gas cocks, threaded, 1"	2.00	59.20	Ea.	118.40
U	151906054020	Meter, gas, residential, 1" pipe size	1.00	331.39	Ea.	331.39
U	155101204610	Burner, gas safety, shut off valve, threaded, 1"	2.00	228.17	Ea.	456.34
					Subtotal:	1,767.22
				Adjust	ment Factor:	1.0000
					Total:	1,767.22

#### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
Natural Gas Service to Bldg Renewal	Beyond Useful Life	1- Currently Critical	System Renewal	11/08/2010	2,209
				Total	2 200



#### Linked Photos



Natural Gas Service to Bldg Renewal Natural Gas Service to Bldg Renewal

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State of Minnesota

Agency: Administration Location: Capital Complex Fiscal Year: 2011 Asset Name : State Office Building Asset Number : 2

System:	D3040-Distribution Systems	Lifetime:	20
Name:	Exhaust System - Restroom Fan	Years Remaining:	0 (Observed)
Quantity:	2	% Used:	100 (Observed)
Unit Cost:	6,614.14	Year Installed:	1985
Replacement Cost:	13,228	Date Inspected:	11/08/2010
Unit of Measure:	Each	SCI:	1.25
RENEWAL			· · · · · · · · · · · · · · · · · · ·
Renewal FY:	2011	Renewal Cost:	16,535
% Renew:	125		

#### DESCRIPTION

HVAC ventilation system includes centrifugal restroom exhaust fans with ducting.

#### SYSTEM COSTS

Unit Cos	t Basis:	1.00				
Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	158101000140	Metal Ductwork, fabricated rectangular, 1000 to 2000 lb., aluminum alloy 3003-H14, includes fittings, joints, supports and allowance for a flexible connection, excludes insulation	250.00	20.31	Lb.	5,077.50
U	158301007740	Fans, utility set, steel construction, pedestal, V-belt drive, drive cover, 1/4" S.P., three phase, 2000 CFM, 1 H.P.	1.00	1,536.64	Ea.	1,536.64
÷					Subtotal:	6,614.14
	×.			Adjust	ment Factor:	1.0000
					Total:	6,614.14

#### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
Exhaust System -	Beyond Useful Life	1- Currently Critical	System Renewal	11/08/2010	16,535
Restroom Fan Renewal					
				Total	16,535
Linked Photos					



## System Detail Report

## by Renewal Fiscal Year



Exhaust System - Restroom w/Roof Fan Renewal Exhaust System - Restroom w/Roof Fan Renewal



Agency: Administration Location: Capital Complex Fiscal Year: 2011 Asset Name : State Office Building Asset Number : 2

-				
Sy	/stem:	D3040-Distribution Systems	Lifetime:	25
N	ame:	Exhaust System - General Building - Rooftop	Years Remaining:	0 (Observed)
Q	uantity:	5	% Used:	100 (Observed)
U	nit Cost:	7,111.38	Year Installed:	1985
Re	eplacement Cost:	35,557	Date Inspected:	11/08/2010
U	nit of Measure:	Each	SCI:	1.25
REN	TEWAL			
Ren	newal FY:	2011	Renewal Cost:	44,446
% F	Renew:	125		

#### DESCRIPTION

The HVAC ventilation system includes roof-mounted exhaust fans with ducting.

1.00

#### SYSTEM COSTS

Unit Cost	Basis:	
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Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	158101000140	Metal Ductwork, fabricated rectangular, 1000 to 2000 lb., aluminum alloy 3003-H14, includes fittings, joints, supports and allowance for a flexible connection, excludes insulation	250.00	20.31	Lb.	5,077.50
U	158301007180	Fans, roof exhauster, centrifugal, aluminum housing, bird screen, back draft damper, direct drive, 1/4" S.P., 2050 CFM, 12" galvanized curb, 16" sq. damper	1.00	2,033.88	Ea.	2,033.88
					Subtotal:	7,111.38
				Adjust	ment Factor:	1.0000
					Total:	7,111.38

#### LINKED REQUIREMENTS

	Name	Category	Priority	Inspector	Action Date	Cost
	Exhaust System - General	Beyond Useful Life	1- Currently Critical	System Renewal	11/08/2010	44,446
	Building - Rooftop					
	Renewal					
					Total	44,446
L	inked Photos					
A	ll costs in USD.					

## System Detail Report





Exhaust System - General Building - Centrifugal Renewal Exhaust System - General Building - Centrifugal Renewal





Agency: Administration Location: Capital Complex Fiscal Year: 2011 Asset Name : State Office Building Asset Number : 2

System:	D3040-Distribution Systems	Lifetime:	25
Name:	Central AHU - VAV System w/Distribution	Years Remaining:	0 (Observed)
Quantity:	290,000	% Used:	100 (Observed)
Unit Cost:	11.26	Year Installed:	1985
Replacement Cost:	3,264,977	Date Inspected:	11/08/2010
Unit of Measure;	SF	SCI:	1.25
RENEWAL			
Renewal FY:	2011	Renewal Cost:	4,081,221
% Renew:	125		

#### DESCRIPTION

The HVAC system includes central system AHUs with cooling and heating coils, VFD, VAV ducted distribution, diffusers and plenum return. The air handlers are located on the roof, in the penthouse and basement mechanical rooms.

#### SYSTEM COSTS

Unit Cost Basis:	1,000.00
Chit Cool Dubie!	

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	157306009430	Rooftop air conditioner, subassembly for assembly systems, ductwork, VAV cooling/ton rooftop multizone and single zone, per ton	1.56	4,842.89	Ton	7,554.91
υ	158407005620	Duct accessories, mixing box, variable air volume, cool and hot water coils, damper, actuator and thermostat, 400 CFM	1.00	947.28	Ea.	947.28
U	158407005650	Duct accessories, mixing box, variable air volume, cool and hot water coils, damper, actuator and thermostat, 1000 CFM	0.60	1,003.98	Ea.	602.39
U	158503001180	Diffuser, aluminum, ceiling, rectangular, 1 to 4 way blow, 24" x 24", includes opposed blade damper	2.50	399.44	Ea.	998.60
U	162209001150	Variable frequency drives, custom-engineered, 460 volt, 20 HP motor size	0.01	6,339.80	Ea.	38.04
A	D20908101280	Copper tubing, hard temper, solder, type K, 1" diameter	20.00	24.43	L.F.	488.60
A	D30401121040	AHU, central station, cool/heat coils, VAV, filters, 20,000 CFM	0.01	104,787.41	Ea.	628.72



## System Detail Report

#### by Renewal Fiscal Year

Subtotal:	11,258.54
Adjustment Factor:	1.0000
Total:	11,258.54

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#### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
Central AHU - VAV System w/Distribution Renewal	Beyond Useful Life	1- Currently Critical	System Renewal	11/08/2010	4,081,221
HVAC Equipment - Abandoned	Obsolescence	3- Necessary - Not Yet Critical	Mech	11/08/2015	1,915

Total 4,083,136

#### Linked Photos



Central AHU - VAV System w/Distribution Renewal Central AHU - VAV System w/Distribution Renewal


Agency: Administration Location: Capital Complex Fiscal Year: 2011 Asset Name : State Office Building Asset Number : 2

			the second se
System:	D3040-Distribution Systems	Lifetime:	25
Name:	Heat Exchanger - Liquid/Liquid - Plate and Frame	Years Remaining:	0 (Observed)
Quantity:	290,000	% Used:	100 (Observed)
Unit Cost:	1.51	Year Installed:	1932
Replacement Cost:	436,942	Date Inspected:	11/08/2010
Unit of Measure:	SF	SCI:	1.25
RENEWAL			
Renewal FY:	2011	Renewal Cost:	546,177
% Renew:	125		

#### DESCRIPTION

The HVAC system includes two plate and frame, liquid to liquid, heat exchangers. These are used to produce heating hot water from utility supplied hot water.

#### SYSTEM COSTS

Unit Cos	t Basis:	1,000.00				
Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
A	D30406101020	Plate heat exchanger, 800 GPM	0.01	100,446.35	Ea.	1,506.70
					Subtotal:	1,506.70
				Adjustment Factor:		1.0000
					Total:	1,506.70

#### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
Heat Exchanger - Liquid/Liquid - Plate and Frame Renewal	Beyond Useful Life	1- Currently Critical	System Renewal	11/08/2010	546,177
				Total	546 177

Linked Photos



## by Renewal Fiscal Year



Heat Exchanger - Liquid/Liquid - Plate and Frame Renewal Heat Exchanger - Liquid/Liquid - Plate and Frame Renewal



Agency: Administration Location: Capital Complex Fiscal Year: 2011 Asset Name : State Office Building Asset Number : 2

System:	D3040-Distribution Systems	Lifetime:	25	
Name:	Exhaust System - General Building - In-Line	Years Remaining:	0 (Observed)	
Quantity:	7	% Used:	100 (Observed)	
Unit Cost:	6,388.68	Year Installed:	1985	
Replacement Cost:	44,721	Date Inspected:	11/08/2010	
Unit of Measure:	Each	SCI:	1.25	
RENEWAL				
Renewal FY:	2011	Renewal Cost:	55,901	
% Renew:	125			

#### DESCRIPTION

The HVAC ventilation system includes duct mounted in-line exhaust fans with ducting.

1.00

#### SYSTEM COSTS

Unit Cost Basis:

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
υ	158101000140	Metal Ductwork, fabricated rectangular, 1000 to 2000 lb., aluminum alloy 3003-H14, includes fittings, joints, supports and allowance for a flexible connection, excludes insulation	250.00	20.31	Lb.	5,077.50
U	158301000514	Fans, air conditioning and process air handling, axial flow, constant speed, direct drive, 1/8" S.P., 2095 CFM, 1/2 H.P., 12"	1.00	1,311.18	Ea.	1,311.18
					Subtotal:	6,388.68
				Adjust	ment Factor:	1.0000
					Total:	6,388.68

#### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
Exhaust System - General	Beyond Useful Life	1- Currently Critical	System Renewal	11/08/2010	55,901
Building - In-Line					
Renewal					
				Total	55,901
Linked Photos					





Exhaust System - General Building - In-Line Renewal Exhaust System - General Building - In-Line Renewal







State of Minnesota

Asset Name : State Office Building Asset Number : 2

Agency: Administration Location: Capital Complex Fiscal Year: 2011

System:	D3040-Distribution Systems	Lifetime:	25
Name:	Exhaust System - General Building - Wall Exhaust	Years Remaining:	0 (Observed)
Quantity:	1	% Used:	100 (Observed)
Unit Cost:	950.94	Year Installed:	1985
Replacement Cost:	951	Date Inspected:	11/08/2010
Unit of Measure:	Each	SCI:	1.25
RENEWAL			
Renewal FY:	2011	Renewal Cost:	1,189
% Renew:	125		

### DESCRIPTION

The HVAC ventilation system includes a wall mounted propeller exhaust fan.

#### SYSTEM COSTS

Unit Cost Basis:		1.00				
Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	158301006140	Fans, propeller exhaust, wall shutter, direct drive, 1/4" S.P., two speed, 1000 CFM, 1/8 H.P.	1.00	950.94	Ea.	950.94
					Subtotal:	950.94
				Adjust	ment Factor:	1.0000
					Total:	950.94

#### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
Exhaust System - General Building - Wall Exhaust Renewal	Beyond Useful Life	1- Currently Critical	System Renewal	11/08/2010	1,189
				Total	1,189

Linked Photos



## by Renewal Fiscal Year



Exhaust System - General Building - Wall Exhaust Renewal Exhaust System - General Building - Wall Exhaust Renewal



by Renewal Fiscal Year

Agency: Administration Location: Capital Complex Fiscal Year: 2011 Asset Name : State Office Building Asset Number : 2

### DESCRIPTION

Heating is provided by suspended, forced hot water unit heaters. These units are found in mechanical and service areas.

## SYSTEM COSTS

Unit Cost Basis:		t Basis:	1.00				
	Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
	A	D30501301040	Space heater, suspended, horizontal mount, hot water, propeller fan, 150 MBH	0.27	5,746.96	Ea.	1,551.68
						Subtotal:	1,551.68
					Adjust	ment Factor:	1.0000
						Total:	1,551.68

#### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
Unit Heaters - Hot Water Renewal	Beyond Useful Life	1- Currently Critical	System Renewal	11/08/2010	24,330
				Total	24,330

#### Linked Photos

## by Renewal Fiscal Year



Unit Heaters - Hot Water Renewal Unit Heaters - Hot Water Renewal



Agency: Administration Location: Capital Complex Fiscal Year: 2011 Asset Name : State Office Building Asset Number : 2

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System:	D3060-Controls and Instrumentation	Lifetime:	25
Name:	DDC/Pneumatic System - Hybrid	Years Remaining:	0 (Observed)
Quantity:	290,000	% Used:	100 (Observed)
Unit Cost:	4.99	Year Installed:	1985
Replacement Cost:	1,447,507	Date Inspected:	11/08/2010
Unit of Measure:	SF	SCI:	1.25
RENEWAL	i e		
Renewal FY:	2011	Renewal Cost:	1,809,384
% Renew:	125		

#### DESCRIPTION

State of Minnesota

HVAC controls include average DDC system for system optimization, basic pc control, moderate sensor types and quantities. System includes pneumatic activation of control valves and dampers.

#### SYSTEM COSTS

Unit Cost Basis: 1,000.00

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	138322000120	Control Components/DDC Systems, subcontractor's quote incl. material & labor, analog inputs, sensors (avg. 50' run in 1/2" EMT), duct temperature	0.25	403.69	Ea.	100.92
U	138322000130	Control Components/DDC Systems, analog inputs, sensors (avg. 50' run in 1/2" EMT), space temperature	0.25	648.97	Ea.	162.24
U	138322000140	Control Components/DDC Systems, subcontractor's quote incl. material & labor, analog inputs, sensors (avg. 50' run in 1/2" EMT), duct humidity, +/- 3%	0.25	679.63	Ea.	169.91
U	138322000170	Control Components/DDC Systems, subcontractor's quote incl. material & labor, analog inputs, sensors (avg. 50' run in 1/2" EMT), CFM/transducer	0.25	746.06	Ea.	186.52
U	138322000172	Control Components/DDC Systems, subcontractor's quote incl. material & labor, analog inputs, sensors (avg. 50' run in 1/2" EMT), water temperature (see Section 23 21 20 for well tap add)	0.25	638.75	Ea.	159.69



## by Renewal Fiscal Year

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	138322000174	Control Components/DDC Systems, subcontractor's quote incl. material & labor, analog inputs, sensors (avg. 50' run in 1/2" EMT), water flow (see Section 23 21 20 for circuit sensor add)	0.20	2,350.60	Ea.	458.37
U	138322000176	Control Components/DDC Systems, subcontractor's quote incl. material & labor, analog inputs, sensors (avg. 50' run in 1/2" EMT), water pressure differential (see Section 23 21 20 for tap add)	0.25	955.57	Ea.	238.89
U	138322001040	Control Components/DDC Systems, subcontractor's quote incl. material & labor, analog outputs, (avg. 50' run in 1/2" EMT), electric, excl. control device	0.25	373.03	Ea.	93.26
U	138322002110	Control Components/DDC Systems, subcontractor's quote incl. material & labor, status (alarms), digital inputs (avg. 50' run in 1/2" EMT), freeze	0.25	424.13	Ea,	106.03
U	138322002120	Control Components/DDC Systems, subcontractor's quote incl. material & labor, status (alarms), digital inputs (avg. 50' run in 1/2" EMT), fire	0.25	383.25	Ea.	95.81
U	138322002160	Control Components/DDC Systems, subcontractor's quote incl. material & labor, status (alarms), digital inputs (avg. 50' run in 1/2" EMT), duct high temperature thermostat	0.25	556.99	Ea.	139.25
U	138322002170	Control Components/DDC Systems, subcontractor's quote incl. material & labor, status (alarms), digital inputs (avg. 50' run in 1/2" EMT), duct smoke detector	0.25	689.85	Ea.	172.46
U	138322002210	Control Components/DDC Systems, status (alarms), digital output (avg. 50' run in 1/2" EMT), start/stop	0.25	332.15	Ea.	83.04
U	138322003110	Control Components/DDC Systems, subcontractor's quote incl. material & labor, controller MUX panel, 128 point, incl. function boards	0.01	7,077.35	Ea.	35.39
U	138322003282	Control Components/DDC Systems, subcontractor's quote incl. material & labor, host computer (avg. 50' run in conduit), package complete with PC, keyboard, printer, color CRT, modem & basic software	0.01	9,581.25	Ea.	47.91



# by Renewal Fiscal Year

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	138322004100	Control Components/DDC Systems, front end costs, computer (PC)/software program	0.01	6,387.50	Ea.	31.94
U	138322004400	Control Components/DDC Systems, front end costs, communications trunk cable	1.00	3.72	L.F.	3.72
U	138322008050	Control Components/DDC Systems, applications software, basic maintenance manager software, excl. database entry	0.01	1,916.25	Ea.	19.16
U	138322008100	Control Components/DDC Systems, applications software, time program	0.25	6.69	Point	1.67
U	138322008140	Control Components/DDC Systems, applications software, optimum start/stop	0.25	40.37	Point	10.09
Ū	138362001100	Pneumatic Control Systems, unit ventilator, day/night operation, freezestat, ASHRAE, cycle 2	0.01	5,083.98	Ea	50.84
U	138362003500	Pneumatic Control Systems, fan coil, heating & cooling valves, 4 pipe control system	0.01	1,859.58	Ea.	9.30
U	138362004000	Pneumatic Control Systems, pneumatic thermostat, incl. controlling room radiator valve	0.10	1,333.85	Ea.	133.39
U	138362004040	Pneumatic Control Systems, program energy saving optimizer	0.01	8,261.55	Ea.	82.62
U	138362004690	Pneumatic Control Systems, air supply for pneumatic, tank mounted duplex compressor, sterter, alternator, piping, dryer, PRV station & filter control system, 4 kW	0.01	33,349.88	Ea.	166.75
U	138362008600	Pneumatic Control Systems, VAV boxes, incl. thermostat, damper motor, reheat coil & tubing	1.00	2,122.38	Ea.	2,122.38
U	138382009415	Control Components, pneumatic tubing, urethane, 1/8" OD x 1/16" ID	2.50	6.69	L.F.	16.73
U	138382009416	Control Components, pneumatic tubing, urethane, 1/4" OD x 1/8" ID	5.00	7.65	L.F.	38.25
U	138382009417	Control Components, pneumatic tubing, urethane, 5/32" OD x 3/32" ID	7.50	7.32	L.F.	54.90
					Subtotal;	4,991.43
				Adjust	ment Factor:	1.0000

Total: 4.991,43



## by Renewal Fiscal Year

#### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
DDC/Pneumatic System -	Beyond Useful Life	1- Currently Critical	System Renewal	11/08/2010	1,809,384
Hybrid Renewal					

Total 1,809,384

#### Linked Photos



DDC/Pneumatic System - Hybrid Renewal







Agency: Administration Location: Capital Complex Fiscal Year: 2013

1.00

Asset Name : State Office Building Asset Number : 2

The Designment of the second			
System:	D5038-Security and Detection Systems	Lifetime:	10
Name:	Security Cameras	Years Remaining:	2 (Observed)
Quantity:	1	% Used:	80 (Observed)
Unit Cost:	342,377.03	Year Installed:	2002
Replacement Cost:	342,377	Date Inspected:	11/08/2010
Unit of Measure:	Each	SCI:	1.25
RENEWAL			
Renewal FY:	2013	Renewal Cost:	427,971
% Renew:	125		

#### DESCRIPTION

Closed circuit television (CCTV) security cameras are located in the facility and are monitored by Capital Security in the State Capital Building.

#### SYSTEM COSTS

Unit	Cost	Basis:	
------	------	--------	--

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	161322055020	Electric metallic tubing (EMT), 3/4" diameter, to 15' high, incl 2 terminations, 2 field bend elbows, 11 beam clamps, and 11 couplings per 100 LF	5,000.00	6.38	L.F.	31,900.00
U	161367009000	Electronic rack enclosures, 72" H x 30" W x 36" D	1.00	3,472.51	Ea.	3,472.51
U	167404002040	Switching and routing equipment, network switch, 10/100/1000 Mbps, 48 ports	1.00	5,921.72	Ea.	5,921.72
U	168107503550	Coaxial connectors, BNC plug for, RG A/U #59 cable	20.00	21.28	Ea.	425.60
U	168107503610	Coaxial connectors, BNC jack for, RG A/U #59 cable	20.00	21.55	Ea.	431.00
U	168107503670	Coaxial connectors, BNC panel jack for, RG A/U #59 cable	20.00	25.19	Ea.	503.80
U	168107503730	Coaxial connectors, BNC bulkhead jack, RG A/U #59 cable	20.00	25.46	Ea.	509.20
U	168107503960	Coaxial cable, fire rated, 75 ohm, RG A/U #59 cable	50.00	217.23	C.L.F.	10,861.50
U	168506002400	Closed circuit television system (CCTV), industrial quality, one station (camera & monitor)	1.00	3,455.43	Total	3,455.43



## by Renewal Fiscal Year

Class Code Labe	Description	Quantity	Unit Cost	Unit	Total Cost
U 1685060026	500 Closed circuit television system (CCTV), industrial quality, for additional camera stations, add	19.00	2,042.95	Ea.	38,816.05
U 1685060026	<ul> <li>Closed circuit television system</li> <li>(CCTV), industrial quality, for low</li> <li>light, add</li> </ul>	20.00	1,690.81	Ea.	33,816.20
U 1685060028	800 Closed circuit television system (CCTV), industrial quality, for weatherproof camera station, add	16.00	1,640.57	Ea.	26,249,12
U 1685060030	00 Closed circuit television system (CCTV), industrial quality, for pan and tilt, add	10.00	3,374.17	Ea.	33,741.70
U 1685060034	600 Closed circuit television system (CCTV), industrial quality, for zoom lens - remote control, add, max	10.00	9,933.46	Ea.	99,334.60
U 1685060034	Closed circuit television system (CCTV), industrial quality, for automatic iris for low light, add	20.00	2,646.93	Ea.	52,938.60
				Subtotal:	342,377.03
			Adjust	ment Factor:	1.0000
				Total:	342,377.03

#### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
Security Cameras Renewal	Beyond Useful Life	2- Potentially Critical	System Renewal	11/08/2012	427,971
				Total	427,971

## Linked Photos



#### D5038 - Security Cameras

D5038 - Security Cameras

11



Agency: Administration Location: Capital Complex Fiscal Year: 2013

1.00

Asset Name : State Office Building Asset Number : 2

System:	D5038-Security and Detection Systems	Lifetime:	10
Name:	Access Control System	Years Remaining:	2 (Observed)
Quantity:	1	% Used:	80 (Observed)
Unit Cost:	186.070.01	Year Installed:	2002
Replacement Cost:	186,070	Date Inspected:	11/08/2010
Unit of Measure:	Each	SCI:	1.25
RENEWAL			
Renewal FY:	2013	Renewal Cost:	232,588
% Renew:	125		

#### DESCRIPTION

Access control points include card swipes at exterior doors and selected interior office spaces and intrusion detection monitoring via magnetic switches and other electronic monitoring devices on doors and windows. The system is monitored by Capital Security from the security office in the State Capital Building.

#### SYSTEM COSTS

Unit Cost Basis:

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	137103000080	Access Control, card type, 3 time zones, card key, max	1.00	2,695.00	Ea.	2,695.00
U	137103000120	Access Control, system with printer & control console, 6 zones, card key	1.00	13,200.00	Total	13,200.00
U	137103000160	Access Control, card key, for each door, max, add	25.00	2,200.00	Ea.	55,000.00
υ	137200650100	Detection Systems, burglar alarm, battery operated, mechanical trigger, excl. wires & conduit	50.00	464.29	Ea.	23,214.50
υ	137200650200	Detection Systems, burglar alarm, battery operated, electrical trigger, excl. wires & conduit	50.00	522.59	Ea.	26,129.50
U	137200651010	Detection Systems, card reader, proximity type, excl. wires & conduit	25.00	585.58	Ea.	14,639.50
U	137200652600	Detection Systems, indicating panels, 40 channel, excl. wires & conduit	7.00	5,971.04	Ea.	41,797.28
U	161367009000	Electronic rack enclosures, 72" H x 30" W x 36" D	1.00	3,472.51	Ea.	3,472.51
U	167404002040	Switching and routing equipment, network switch, 10/100/1000 Mbps, 48	1.00	5,921.72	Ea.	5,921.72



# by Renewal Fiscal Year

Subtotal:	186,070.01
Adjustment Factor:	1.0000
Total:	186,070.01

#### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
Access Control System Renewal	Beyond Useful Life	2- Potentially Critical	System Renewal	11/08/2012	232,588
				Total	232 588

### Linked Photos



### D5038 - Access Control System

D5038 - Access Control System



State of Minnesota

Asset Name : State Office Building Asset Number : 2

Agency:	Administration
Location:	Capital Complex
Fiscal Year:	2013
	D5092-Emergency Light and Power
	Systems

	System:	D5092-Emergency Light and Power Systems	Lifetime:	10
	Name:	Exit Signs	Years Remaining:	2 (Observed)
	Quantity:	290,000	% Used:	80 (Observed)
	Unit Cost:	0.77	Year Installed:	2000
	Replacement Cost:	223,852	Date Inspected:	11/08/2010
	Unit of Measure:	SF	SCI:	1.27
I	RENEWAL			
	Renewal FY:	2013	Renewal Cost:	279,816
	% Renew:	125		

#### DESCRIPTION

Exit signs are generally older signs that have been retrofitted with LED lamps. Most units do not have emergency battery backup. It is assumed exit signs are connected to emergency power panels. Several signs are not illuminated.

"This system is functional but lamps are starting to burn out in accordance with maintenance personnel and should be upgraded or replaced in the near future as replacement parts become obsolete. The observed years remaining have been adjusted to reflect a slight extended life expectancy of this system."

#### SYSTEM COSTS

Unit Cos	at Basis:	1,000.00				
Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	161366009000	Outlet boxes, minimum labor/equipment charge	1.00	172.24	Job	172.24
υ	165303200080	Exit lighting, incandescent, single face, ceiling or wall mount	0.50	132.17	Ea.	66.09
υ	165303200100	Exit lighting, incandescent, double face, ceiling or wall mount	0.50	155.92	Ea,	77.96
U	165303200290	Exit lighting, L.E.D. retrofit kits	1.00	65.12	Ea.	65.12
А	D50102301240	Branch installation 600 V, including EMT conduit and THW wire, 20 A	50.00	7.81	L.F.	390.50
					Subtotal:	771.91
				Adjust	ment Factor:	1.0000
					Total	771.91

#### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
Exit Signs Renewal	Beyond Useful Life	2- Potentially Critical	System Renewal	11/08/2012	279,816
Exit Signs – Not Properly Illuminated	Building Code	1- Currently Critical	Elec	11/08/2011	4,639



## by Renewal Fiscal Year

Name	Category	Priority	Inspector	Action Date	Cost
				Total	284,455
Linked Photos					



D5092 - Exit Signs D5092 - Exit Signs





Agency: Administration Location: Capital Complex Fiscal Year: 2013 Asset Name : State Office Building Asset Number : 2

System:	G4020-Site Lighting	Lifetime:	20
Name:	Site Lighting	Years Remaining:	2 (Observed)
Quantity:	17	% Used:	90 (Observed)
Unit Cost:	12,515.32	Year Installed;	1970
Replacement Cost:	212,760	Date Inspected:	11/08/2010
Unit of Measure:	Each	SCI:	1.25
RENEWAL			
Renewal FY:	2013	Renewal Cost:	265,951
% Renew:	125		

### DESCRIPTION

Site lighting includes architectural type steel pole site lighting around the perimeter along sidewalks and roadways. Poles have recently been retrofitted with compact fluorescent lamps (CFL). Luminaires include one compact fluorescent lamp with plastic globe per pole. System includes all feeder wiring and controls.

"Although recently retrofitted with new lamps, several poles have broken lenses or lamps, and steel poles are aged and showing signs of rust damage on bases and risers. Condition does not warrant an immediate need and observed years have been increased slightly to compensate for recent retrofit but poles should be replaced or reconditioned in the near future."

#### SYSTEM COSTS

Unit Cos	st Basis:	1.00				
Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
υ	023154620020	Structural excavation for minor structures, bank measure, normal soil, pits to 6' deep, hand pits	1.00	136.48	B.C.Y.	136.48
U	023156200750	Excavating, chain trencher, utility trench, common earth, 12 H.P., 8" wide, 36" deep, chain trencher, operator walking	200.00	1.99	L.F.	398.00
U	033102400740	Structural concrete, in place, column (4000 psi), square, max reinforcing, 12" x 12", includes forms(4 uses), reinforcing steel, concrete, placing and finishing	1.00	2,903.75	С.Ү.	2,903.75
U	164202000500	Lighting contactors, 3 pole, electrically held, 600 volt, 200 amp, NEMA 1	0.20	3,282.14	Ea.	656.43
U	165203004600	Light poles, anchor base, galvanized steel, 20' high, excl concrete bases	1.00	1,911.02	Ea.	1,911.02
U	165203005400	Light poles, galvanized steel, bracket arms, 1 arm, excl concrete bases	1.00	276.82	Ea.	276.82
U	165203008020	Walkway luminaire, exterior, sphere 18" opal, incandescent, 300 watt	1.00	592.33	Ea.	592.33



# by Renewal Fiscal Year

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	165203009000	Exterior fixtures, minimum labor/equipment charge	1.00	183.73	Job	183.73
U	165856000586	Fluorescent lamp, compact, 26 watt, replaces standard 100 watt bulb	0.01	1,876.12	С	18.76
А	D50102300240	Feeder installation 600 V, including RGS conduit and XHHW wire, 100 A	200.00	27.19	L,F.	5,438.00
					Subtotal:	12,515.32
				Adjust	ment Factor:	1.0000
					Total:	12,515.32

## LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
Site Lighting Renewal	Beyond Useful Life	2- Potentially Critical	System Renewal	11/08/2012	265,951
				Total	265,951

## Linked Photos



G4020 - Site Lighting

G4020 - Site Lighting



Agency: Administration Location: Capital Complex Fiscal Year: 2015 Asset Name : State Office Building Asset Number : 2

System:	D2020-Domestic Water Distribution	Lifetime:	10
Name:	Water Heater - Elec - 10 Gal - 2004	Years Remaining:	4 (Observed)
Quantity:	2	% Used:	60 (Observed)
Unit Cost:	1,983.15	Year Installed:	2004
Replacement Cost:	3,966	Date Inspected:	11/08/2010
Unit of Measure:	Each	SCI:	1.12
RENEWAL			
Renewal FY:	2015	Renewal Cost:	4,442
% Renew:	112		

#### DESCRIPTION

The domestic hot water system is supplemented by 10 gallon electric water heaters located near their point of use. typically in janitorial closets. This system is for the water heater installed in 2004.

#### SYSTEM COSTS

Unit Cost Basis: 1.00

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
A	D20202101780	Electric water heater, residential, 100< F rise, 10 gallon tank, 7 GPH	1.00	1,983.15	Ea	1,983.15
					Subtotal:	1,983.15
				Adjust	ment Factor:	1.0000
					Total:	1,983.15

#### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
Water Heater - Elec - 10 Gal - 2004 Renewal	Beyond Useful Life	3- Necessary - Not Yet Critical	System Renewal	11/08/2014	4,442
				Total	4.442



Agency: Administration Location: Capital Complex Fiscal Year: 2016 Asset Name : State Office Building Asset Number : 2

Sy	stem:	B2020-Exterior Windows	Lifetime:	30
Na	ime:	Aluminum Windows - 1985	Years Remaining:	5 (Observed)
Qu	antity:	12,496	% Used:	83 (Observed)
Un	nit Cost:	109.06	Year Installed:	1985
Re	placement Cost:	1,362,814	Date Inspected:	11/08/2010
Un	uit of Measure:	SF	SCI:	1.25
REN	EWAL			
Ren	ewal FY:	2016	Renewal Cost:	1,703,517
% R	tenew:	125		

#### DESCRIPTION

The building includes fixed and operable aluminum framed exterior units with insulating glass.

#### SYSTEM COSTS

Unit Cos	t Basis:	1,000.00				
Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	085201002101	Windows, aluminum sash, custom, grade HC, excl. glazing, max	1,000.00	73.80	S.F.	73,800.00
U	088104600700	Insulating Glass, double glazed, 1/4" float, 1/4" tempered, for 1" thick unit	1,000.00	35.26	S.F.	35,260.00
					Subtotal:	109,060.00
				Adjust	ment Factor:	1.0000
					Total:	109.060.00

#### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
Aluminum Windows - 1985 Renewal	Beyond Useful Life	3- Necessary - Not Yet Critical	System Renewal	11/08/2015	1,703,517
				Total	1,703,517

Linked Photos

All costs in USD.







Aluminum Windows - 1985 Renewal

Aluminum Windows - 1985 Renewal

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### by Renewal Fiscal Year

Agency: Administration Location: Capital Complex Fiscal Year: 2016

1.00

Asset Name : State Office Building Asset Number : 2

System:	B2030-Exterior Doors	Lifetime:	30
Name:	Automatic Openers - Pair - 1985	Years Remaining:	5 (Observed)
Quantity:	2	% Used:	83 (Observed)
Unit Cost:	9,637.13	Year Installed:	1985
Replacement Cost:	19,274	Date Inspected:	11/08/2010
Unit of Measure:	Each	SCI:	1.25
RENEWAL			
Renewal FY:	2016	Renewal Cost:	24,093
% Renew:	125		

### DESCRIPTION

Door hardware add-ons, automatic openers, commercial, electronic door opener, for single swing doors, pair, per opening, incl. motion sensor, 12V control box, motor, handicap actuator buttons and wiring at north and south elevations.

#### SYSTEM COSTS

Unit Cost Basis:

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	087101001500	Door Hardware, automatic openers, commercial, electronic door opener, for single swing doors, pair, per opening, incl. motion sensor, 12 V control box, motor	1.00	8,720.91	Opng.	8,720.91
U	087101001750	Door Hardware, automatic openers, commercial, for handicap actuator buttons (2), incl. 12 V DC wiring, add	1.00	916.22	Pr.	916.22
					Subtotal:	9,637.13
				Adjust	ment Factor:	1.0000
					Total:	9,637.13

#### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
Automatic Openers - Pair - 1985 Renewal	Beyond Useful Life	3- Necessary - Not Yet Critical	System Renewal	11/08/2015	24,093
				Total	24,093

Linked Photos

All costs in USD.







Automatic Openers - Pair - 1985 Renewal Automatic Openers - Pair - 1985 Renewal



### Agency: Administration Location: Capital Complex Fiscal Year: 2016

Asset Name : State Office Building Asset Number : 2

System:	B2030-Exterior Doors	Lifetime:	30
Name:	Door Assembly - 6 x 7 Bronze - Storefront	Years Remaining:	5 (Observed)
Quantity:	8	% Used:	83 (Observed)
Unit Cost:	10,678.58	Year Installed:	1932
Replacement Cost:	85,429	Date Inspected:	11/08/2010
Unit of Measure:	Each	SCI:	1.25
RENEWAL			
Renewal FY: % Renew:	2016 125	Renewal Cost:	106,786

#### DESCRIPTION

The exterior doors include pr. of original construction, swinging glazed bronze storefront leafs plus glazed transom, ornamental bronze frame, hardware including closers. System life extended by renovation work.

#### SYSTEM COSTS

Unit Cost Basis:	1.00
enni eeri zaitei	

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
A	B20301107450	Door, aluminum & glass, with transom, black finish, double door, hardware, 6'-0" x 10'-0" opening	1.50	7,119.05	Opng.	10,678.58
					Subtotal:	10,678.58
				Adjust	ment Factor:	1.0000
					Total:	10.678.58

#### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
Door Assembly - 6 x 7 Bronze - Storefront Renewal	Beyond Useful Life	3- Necessary - Not Yet Critical	System Renewal	11/08/2015	106,786
				Total	106,786

#### Linked Photos

## by Renewal Fiscal Year



Door Assembly - 6 x 7 Bronze - Storefront Renewal Door Assembly - 6 x 7 Bronze - Storefront Renewal







Agency: Administration Location: Capital Complex Fiscal Year: 2016 Asset Name : State Office Building Asset Number : 2

System:	B2030-Exterior Doors	Lifetime:	30			
Name:	Door Assembly - 6 x 7 HM - 1985	Years Remaining:	5 (Observed)			
Quantity:	1	% Used:	83 (Observed)			
Unit Cost:	3,960.14	Year Installed:	1985			
Replacement Cost:	3,960	Date Inspected:	11/08/2010			
Unit of Measure:	Each	SCI:	1.25			
RENEWAL						
Renewal FY:	2016	Renewal Cost:	4,950			
% Renew:	125					

### DESCRIPTION

Exterior doors include pr. 3 x 7 steel doors and steel frame with hinges, locksets (lever), exit hardware and closers at loading dock. Includes painted doors and painted frame.

#### SYSTEM COSTS

Unit Cost Basis: 1.00

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	087106500500	Door hardware, lockset, standard duty, cylindrical, with sectional trim, lever handled, keyed, single cylinder function	2.00	232.34	Ea.	464.68
A	B20302203700	Door, steel 18 gauge, hollow metal, 2 doors with frame, no label, 6'-0" x 7'-0" opening	1.00	3,495.46	Opng.	3,495.46
					Subtotal:	3,960.14
				Adjust	ment Factor:	1.0000
					Total:	3,960.14

#### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
Door Assembly - 6 x 7 HM - 1985 Renewal	Beyond Useful Life	3- Necessary - Not Yet Critical	System Renewal	11/08/2015	4,950
				Total	4,950

#### Linked Photos

All costs in USD.





Door Assembly - 6 x 7 HM - 1985 Renewal Door Assembly - 6 x 7 HM - 1985 Renewal





### by Renewal Fiscal Year

Agency: Administration Location: Capital Complex Fiscal Year: 2016 Asset Name : State Office Building Asset Number : 2

	System:	B30-Roofing	Lifetime:	25		
	Name:	Single-Ply EPDM with Pavers on Roof - 1985	Years Remaining:	5 (Observed)		
	Quantity:	3,985	% Used:	80 (Observed)		
	Unit Cost:	41.25	Year Installed:	1985		
	Replacement Cost:	164,390	Date Inspected:	11/08/2010		
	Unit of Measure:	SF	SCI:	1.25		
RENEWAL						
	Renewal FY:	2016	Renewal Cost:	205,487		
	% Renew:	125				

#### DESCRIPTION

The roof covering includes concrete paver ballast on a plaza which is also the roof of the structure below at 8th and 9th floors. System life extended by Owner's maintenance program.

#### SYSTEM COSTS

Unit Cost Basis: 1,000.00

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
N	A B30103201200	Insulation, rigid, roof deck, foamglass, tapered for drainage	250.00	2.48	S.F.	620.00
А	B30101203300	Roofing, single ply membrane, EPDM, 60 mils, fully adhered	1,000.00	2.67	S.F.	2,670.00
A	B30103201840	Insulation, rigid, roof deck, extruded polystyrene, 15 PSI compressive strength, 3" thick, R15	1,000.00	2.06	S.F.	2,060.00
А	B30104300150	Flashing, aluminum, no backing sides, .050''	83.00	6.29	S.F.	522.07
А	G20301501400	Plaza, asphalt pavers, 6" x 12" x 3" thick, suspended slab, insulation and mastic bedding	1,000.00	35.38	S.F.	35,380.00
					Subtotal:	41,252.07
				Adjust	ment Factor:	1.0000
					Total	41 252 07

#### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
Single-Ply EPDM with Pavers on Roof - 1985 Renewal	Beyond Useful Life	3- Necessary - Not Yet Critical	System Renewal	11/08/2015	205,487



## by Renewal Fiscal Year

Name	Category	Priority	Inspector	Action Date	Cost
				Total	205,487

Linked Photos



Single-Ply EPDM with Pavers on Roof - 1985 Renewal Single-Ply EPDM with Pavers on Roof - 1985 Renewal



### by Renewal Fiscal Year

Agency: Administration Location: Capital Complex Fiscal Year: 2016 Asset Name : State Office Building Asset Number : 2

System:	B3021-Glazed Roof Openings	Lifetime:	30	
Name:	Skylights - Unit Types - 1985	Years Remaining:	5 (Observed)	
Quantity:	1,787	% Used:	83 (Observed)	
Unit Cost:	108.37	Year Installed:	1985	
Replacement Cost:	193,657	Date Inspected:	11/08/2010	
Unit of Measure:	SF	SCI:	1.25	
RENEWAL				
Renewal FY:	2016	Renewal Cost:	242,071	
% Renew:	125			
DESCRIPTION				

Sloping unit skylights, flat glass, insulated curbs, double glazing.

### SYSTEM COSTS

Unit Cost Basis:		1,000.00				
Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	086208002300	Skylights, insulated safety glass with aluminum frame	1,000.00	108.37	S.F.	108,370.00
					Subtotal:	108,370.00
				Adjustment Factor:		1.0000
					Total:	108,370.00

#### LINKED REQUIREMENTS

Name	2	Category	Priority	Inspector	Action Date	Cost
Skylig 1985	ghts - Unit Types - Renewal	Beyond Useful Life	3- Necessary - Not Yet Critical	System Renewal	11/08/2015	242,071
					Total	242,071

Linked Photos

All costs in USD.



## by Renewal Fiscal Year



Skylights - Unit Types - 1985 Renewal Skylights - Unit Types - 1985 Renewal





State of Minnesota

Agency: Administration Location: Capital Complex Fiscal Year: 2016 Asset Name : State Office Building Asset Number : 2

1					
	System:	B3021-Glazed Roof Openings	Lifetime:	30	
	Name:	Skylights - Monumental - 1985	Years Remaining:	5 (Observed)	
	Quantity:	340	% Used:	83 (Observed)	
	Unit Cost:	128.90	Year Installed:	1985	
	Replacement Cost:	43,826	Date Inspected:	11/08/2010	
	Unit of Measure:	SF	SCI:	1.25	
RENEWAL					
	Renewal FY:	2016	Renewal Cost:	54,783	
	% Renew:	125			

## DESCRIPTION

Skylights, fixed frame units with insulating solar glazing at 9th floor (library) atrium. Quantity accounts for 6/12 sloped glazing.

### SYSTEM COSTS

Unit Cost Basis:		1,000.00				
Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	086208002300	Skylights, insulated safety glass with aluminum frame	1,000.00	108.37	S.F.	108,370.00
U	088106752050	Reflective Glass, solar film on glass, excl. glass, maximum	1,000.00	20.53	S.F.	20,530.00
					Subtotal:	128,900.00
				Adjustment Factor:		1.0000
					Total:	128,900.00

#### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
Skylights - Monumental - 1985 Renewal	Beyond Useful Life	3- Necessary - Not Yet Critical	System Renewal	11/08/2015	54,783
				Total	54,783

Linked Photos

All costs in USD.

L

## by Renewal Fiscal Year





Skylights - Monumental - 1985 Renewal Skylights - Monumental - 1985 Renewal





by Renewal Fiscal Year

## Agency: Administration Location: Capital Complex Fiscal Year: 2016

Asset Name : State Office Building Asset Number : 2

System:	B3021-Glazed Roof Openings	Lifetime:	30		
Name:	Skylights - Kalwall Types - 1985	Years Remaining:	5 (Observed)		
Quantity:	509	% Used:	83 (Observed)		
Unit Cost:	136.17	Year Installed:	1985		
Replacement Cost:	69,311	Date Inspected:	11/08/2010		
Unit of Measure:	SF	SCI:	1.25		
RENEWAL					
Renewal FY:	2016	Renewal Cost:	86,638		
% Renew:	125				

### DESCRIPTION

Sloping unit skylights, insulated curbs, double Kalwall type glazing.

#### SYSTEM COSTS

Unit Cos	t Basis:	1,000.00				
Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	086208002300	Skylights, insulated safety glass with aluminum frame	1,000.00	108.37	S.F.	108,370.00
υ	086208002800	Skylights, sandwich panels, fiberglass, for roofs, 2-3/4" thick, 250 SF and up	1,000.00	27.80	S.F.	27,800.00
					Subtotal:	136,170.00
				Adjust	ment Factor:	1.0000
					Total:	136,170.00

#### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
Skylights - Kalwall Types - 1985 Renewal	Beyond Useful Life	3- Necessary - Not Yet Critical	System Renewal	11/08/2015	86,638
				Total	86 638

Linked Photos

All costs in USD.




Skylights - Kalwall Types - 1985 Renewal Skylights - Kalwall Types - 1985 Renewal



## by Renewal Fiscal Year

Agency: Administration Location: Capital Complex Fiscal Year: 2016 Asset Name : State Office Building Asset Number : 2

System:	C3030-Ceiling Finishes	Lifetime:	20
Name:	ACT System - Standard - 1985	Years Remaining:	5 (Observed)
Quantity:	58,000	% Used:	75 (Observed)
Unit Cost:	4.96	Year Installed:	1985
Replacement Cost:	287,680	Date Inspected:	11/08/2010
Unit of Measure:	SF	SCI:	1.25
RENEWAL			
Renewal FY:	2016	Renewal Cost:	359,600
% Renew:	125		

### DESCRIPTION

Standard suspended ACT ceiling system with 2 x 2 regular tiles in 9/16-in. grids. System life extended by Owner's maintenance program.

#### SYSTEM COSTS

Unit Cos	at Basis:	1,000.00				
Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
A	C30302106100	Acoustic ceilings, 3/4" fiberglass board, 24" x 24" tile, tee grid, suspended support	1,000.00	4.96	S.F.	4,960.00
					Subtotal:	4,960.00
				Adjust	ment Factor:	1.0000

#### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
ACT System - Standard - 1985 Renewal	Beyond Useful Life	3- Necessary - Not Yet Critical	System Renewal	11/08/2015	359,600
				Total	359,600

Linked Photos

All costs in USD.

4,960.00

Total:







ACT System - Standard - 1985 Renewal ACT System - Standard - 1985 Renewal





Agency: Administration Location: Capital Complex Fiscal Year: 2016 Asset Name : State Office Building Asset Number : 2

System:	D2010-Plumbing Fixtures	Lifetime:	30
Name:	Restroom Fixtures	Years Remaining:	5 (Observed)
Quantity:	290,000	% Used:	83 (Observed)
Unit Cost:	0.92	Year Installed:	1985
Replacement Cost:	266,701	Date Inspected:	11/08/2010
Unit of Measure:	SF	SCI:	1.25
RENEWAL			
Renewal FY:	2016	Renewal Cost:	333,376
% Renew:	125		

### DESCRIPTION

The restroom fixtures include vitreous china urinals, water closets, and lavatories. They also include built-in shower units in the locker room. The fixture selections are for a building with a standard density of high quality fixtures.

#### SYSTEM COSTS

Unit Cost Basis: 1,000.00

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
A	D20101102120	Water closet, vitreous china, bowl only with flush valve, floor mount	0.26	1,639.27	Ea.	429.49
А	D20102102040	Urinal, vitreous china, stall type	0.09	2,259.58	Ea.	194.78
А	D20103101600	Lavatory w/trim, vanity top, PE on CI, 19" x 16" oval	0.21	1,319.09	Ea.	282.29
A	A D20107101800 Shower, stall, fiberglass 1 piece, three walls, 32" square		0.01	1,872.73	Ea.	13.11
					Subtotal:	919.67
				Adjust	ment Factor:	1.0000
					Total:	919.67

#### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
Restroom Fixtures Renewal	Beyond Useful Life	3- Necessary - Not Yet Critical	System Renewal	11/08/2015	333,376
				Total	333,376

Linked Photos

All costs in USD.







Restroom Fixtures Renewal

Restroom Fixtures Renewal

Total:

3,180.72



by Renewal Fiscal Year

# Agency: Administration Location: Capital Complex Fiscal Year: 2016

Asset Name : State Office Building Asset Number : 2

ſ	System:	D2010-Plumbing Fixtures	Lifetime:	30
	Name:	Custodial/Utility Sinks	Years Remaining:	5 (Observed)
	Quantity:	9	% Used:	83 (Observed)
	Unit Cost:	3,180.72	Year Installed:	1985
	Replacement Cost:	28,626	Date Inspected:	11/08/2010
	Unit of Measure:	Each	SCI:	1.25
F	RENEWAL			-
	Renewal FY:	2016	Renewal Cost:	35,783
	% Renew:	125		

## DESCRIPTION

The plumbing fixtures include floor mounted cast in place custodial/utility sinks. Includes rough-in and faucet. These are located on each floor.

#### SYSTEM COSTS

Unit Cos	t Basis:	1.00				
Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
A	D20104404260	Service sink w/trim, PE on CI, corner floor, 28" x 28", w/rim guard	1.00	3,180.72	Ea.	3,180.72
					Subtotal:	3,180.72
				Adjust	ment Factor:	1.0000

## LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
Custodial/Utility Sinks Renewal	Beyond Useful Life	3- Necessary - Not Yet Critical	System Renewal	11/08/2015	35,783
				Total	35,783

Linked Photos

All costs in USD.







Custodial/Utility Sinks Renewal Custodial/Utility Sinks Renewal

Total:

2,191.66





## Agency: Administration Location: Capital Complex Fiscal Year: 2016

Asset Name : State Office Building Asset Number : 2

System	:	D2010-Plumbing Fixtures	Lifetime:	20	)	
		Water Coolers - Wall-Mount				
Name:		Dual-Height	Years Remaining:	5	(Observed)	
Quantit	y:	15	% Used:	75	5 (Observed)	
Unit Co	ost:	2,191.66	Year Installed:	19	995	
Replace	ement Cost:	32,875	Date Inspected:	11	/08/2010	
Unit of	Measure:	Each	SCI:	1.	25	
RENEWA	AL					
Renewal	FY:	2016	Renewal Cost:	41,	094	
% Renew	v:	125				
DESCRIF	PTION					
Plumbir	ng fixtures include d	lual-height water coolers.				
SYSTEM	COSTS					
Unit Cos	t Basis:	1.00				
Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
A	D20108201880	Water cooler, electric, wall hung, dual height, 14.3 GPH	1.00	2,191.66	Ea.	2,191.66
					Subtotal:	2,191.66
				Adjustn	nent Factor:	1.0000

#### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
Water Coolers - Wall-Mount Dual-Height Renewal	Beyond Useful Life	3- Necessary - Not Yet Critical	System Renewal	11/08/2015	41,094
				Total	41.094

Linked Photos

L





Water Coolers - Wall-Mount Dual-Height Renewal Water Coolers - Wall-Mount Dual-Height Renewal





Agency: Administration Location: Capital Complex Fiscal Year: 2016 Asset Name : State Office Building Asset Number : 2

System:	D2020-Domestic Water Distribution	Lifetime:	30
Name:	Water Dist Complete	Years Remaining:	5 (Observed)
Quantity:	290,000	% Used:	83 (Observed)
Unit Cost:	2.06	Year Installed:	1985
Replacement Cost:	597,302	Date Inspected:	11/08/2010
Unit of Measure:	SF	SCI:	1.13
RENEWAL			
Renewal FY:	2016	Renewal Cost:	671,965
% Renew:	113		

## DESCRIPTION

State of Minnesota

The building domestic water distribution system includes a three inch main line, water meter, rpz backflow preventer, with rough ins included. This system does not include a water heater.

## SYSTEM COSTS

Unit Cost Basis: 1,000.00

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	151101601070	Valves, bronze, angle, rising stem. threaded, 150 lb., 3/4"	1.50	190.69	Ea.	286.04
U	151101601110	Valves, bronze, angle, rising stem, threaded, 150 lb., 2"	0.25	662.71	Ea.	165.68
U	151107001450	Valves, steel, cast, check, swing type, flanged, 150 lb., 3"	0.12	1,160.34	Ea.	139.24
U	151209401100	Water supply meter, detector, serves dual systems such as fire and domestic or process water, wide range capacity, 400 GPM, 3" mainline x 2" by-pass, UL and FM approved	0.00	7,527.92	Ea.	22.58
U	151401005080	Backflow preventer, reduced pressure principle, bronze, automatic operation, OS&Y valves, flanged, 3" pipe size, includes valves and four test cocks	0.00	7,479.84	Ea.	22.44
A	D20908101220	Copper tubing, hard temper, solder, type K, 1/2" diameter	15.00	15.41	L.F.	231.15
А	D20908101260	Copper tubing, hard temper, solder, type K, 3/4" diameter	10.00	20.00	L.F.	200.00
A	D20908101340	Copper tubing, hard temper, solder, type K, 2" diameter	5.00	50.25	L.F.	251.25
A	D20908101380	Copper tubing, hard temper, solder, type K, 3" diameter	1.50	91.74	L.F.	137.61



# by Renewal Fiscal Year

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
A	D20908202500	Copper, wrought, solder joints, 90< elbow, 1/2" diameter	2.00	40.03	Ea.	80.06
A	D20908202510	Copper, wrought, solder joints, 90< elbow, 3/4" diameter	0.50	44.39	Ea	22.20
A	D20908202550	Copper, wrought, solder joints, 90< elbow, 2" diameter	0.25	121.51	Ea	30.38
A	D20908202610	Copper, wrought, solder joints, 90< elbow, 3" diameter	0.08	265.58	Ea,	21.25
A	D20908202700	Copper, wrought, solder joints, tee, 1/2" diameter	2.00	61.96	Ea,	123.92
A	D20908202710	Copper, wrought, solder joints, tee, 3/4" diameter	0.50	71.79	Ea.	35.90
A	D20908202750	Copper, wrought, solder joints, tee, 2" diameter	0.25	201.48	Ea.	50.37
A	D20908202770	Copper, wrought, solder joints, tee, 3" diameter	0.06	482.56	Ea.	28.95
A	D20908202890	Copper, wrought, solder joints, coupling, 3/4" diameter	2.00	39.39	Ea.	78.78
A	D20908202930	Copper, wrought, solder joints, coupling, 2" diameter	1.00	84.54	Ea.	84.54
A	D20908202950	Copper, wrought, solder joints. coupling, 3" diameter	0.25	189.35	Ea.	47.34
					Subtotal:	2,059.68
				Adjust	ment Factor:	1.0000
					Total:	2,059.68

# LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
Water Dist Complete Renewal	Beyond Useful Life	3- Necessary - Not Yet Critical	System Renewal	11/08/2015	671,965
				Total	671,965

Linked Photos







Water Dist Complete Renewal Water Dist Complete Renewal



# Agency: Administration Location: Capital Complex Fiscal Year: 2016

Asset Name : State Office Building Asset Number : 2

System:	D3020-Heat Generating Systems	Lifetime:	30
Name:	Boiler Steam - Humidification	Years Remaining:	5 (Observed)
Quantity:	2	% Used:	83 (Observed)
Unit Cost:	41,206.55	Year Installed:	1985
Replacement Cost:	82,413	Date Inspected:	11/08/2010
Unit of Measure:	Each	SCI:	1.25
RENEWAL			
Renewal FY:	2016	Renewal Cost:	103,016
% Renew:	125		

### DESCRIPTION

The building has two 240kW electric steam boilers used for humidification.

Note - the exact size boiler could not be matched in RS Means. A similar boiler was selected and the quantity adjusted for budgetary purposes.

#### SYSTEM COSTS

Unit Cost Basis:		1.00				
Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
A	D30201281070	Boiler, electric, steam, 300 KW, 1023 MBH	0.90	45,785.06	Ea.	41,206.55
					Subtotal:	41,206.55
				Adjustment Factor:		1.0000
					Total:	41,206.55

#### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
Boiler Steam - Humidification Renewal	Beyond Useful Life	3- Necessary - Not Yet Critical	System Renewal	11/08/2015	103,016
				Total	103,016

Linked Photos



# by Renewal Fiscal Year



Boiler Steam - Humidification Renewal Boiler Steam - Humidification Renewal



Agency: Administration Location: Capital Complex Fiscal Year: 2016 Asset Name : State Office Building Asset Number : 2

System:	D3040-Distribution Systems	Lifetime:	30	
Name:	Four Pipe Distribution System w/Pump	Years Remaining:	5 (Observed)	
Quantity:	290,000	% Used:	83 (Observed)	
Unit Cost:	15.72	Year Installed:	1985	
Replacement Cost:	4,559,168	Date Inspected:	11/08/2010	
Unit of Measure:	SF	SCI:	1.25	
RENEWAL				
Renewal FY: % Renew:	2016 125	Renewal Cost:	5,698,959	

### DESCRIPTION

State of Minnesota

HVAC distribution is provided by a four-pipe distribution system. This system distributes heating hot water and chilled water to perimeter terminal units.

#### SYSTEM COSTS

Unit Cost Basis:		1,000.00				
Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
υ	150806007140	Insulation, pipe covering (price copper tube one size less than I.P.S.), fiberglass with all service jacket, 1-1/2" wall, 2" iron pipe size	50.00	9.17	L.F.	458.50
U	150806007180	Insulation, pipe covering (price copper tube one size less than I.P.S.), fiberglass with all service jacket, 1-1/2" wall, 4" iron pipe size	50.00	12.23	L.F.	611.50
U	151101601110	Valves, bronze, angle, rising stem, threaded, 150 lb., 2"	0.25	662.71	Ea.	165.68
U	151102000118	Valves, iron body, angle, flanged, 125 lb., 4"	0.04	2,268.50	Ea.	90.74
υ	151107001460	Valves, steel, cast, check, swing type, flanged, 150 lb., 4"	0.05	1,691.00	Ea.	84.55
А	D20908101340	Copper tubing, hard temper, solder, type K, 2" diameter	50.00	50.25	L.F.	2,512.50
A	D20908101400	Copper tubing, hard temper, solder, type K, 4" diameter	50.00	149.10	L.F.	7,455.00
A	D30203301030	Pump, base mounted with motor, end-suction, 4" size, 7-1/2 HP, to 350 GPM	0.20	21,714.00	Ea.	4,342.80
					Subtotal:	15,721.27
				Adjust	ment Factor:	1.0000



# by Renewal Fiscal Year

Subtotal:	15,721.27		
Total:	15,721.27		

## LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
Four Pipe Distribution System w/Pump Renewal	Beyond Useful Life	3- Necessary - Not Yet Critical	System Renewal	11/08/2015	5,698,959
				Total	5.698.959

# Linked Photos



Four Pipe Distribution System w/Pump Renewal

Four Pipe Distribution System w/Pump Renewal



Asset Name : State Office Building Asset Number : 2

	System:	B30-Roofing	Lifetime:	25
	Name:	Single-Ply Membrane - Fully Adhered - Loading Dock - 1985	Years Remaining:	6 (Observed)
	Quantity:	400	% Used:	76 (Observed)
	Unit Cost:	9.16	Year Installed:	1985
	Replacement Cost:	3,665	Date Inspected:	11/08/2010
	Unit of Measure:	SF	SCI:	0.00
ŀ	RENEWAL			
	Renewal FY:	2017	Renewal Cost:	4,581
	% Renew:	125		

# DESCRIPTION

State of Minnesota

Agency: Administration

Location: Capital Complex

Fiscal Year: 2017

The roof covering is of a single-ply fully adhered membrane with insulation at ground floor loading dock.

#### SYSTEM COSTS

Unit Cost Basis: 1,000.00

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
N	A B30103201200	Insulation, rigid, roof deck, foamglass, tapered for drainage	250.00	2.48	S.F.	620.00
A	B30101203300	Roofing, single ply membrane, EPDM, 60 mils, fully adhered	1,000.00	2.67	S.F.	2,670.00
A	B30103201840	Insulation, rigid, roof deck, extruded polystyrene, 15 PSI compressive strength, 3" thick, R15	1,000.00	2.06	S.F.	2,060.00
A	B30104201500	Roof edges, aluminum, duranodic, .050" thick, 8" face	126.00	30.26	L.F.	3,812.76
					Subtotal:	9,162.76
				Adjust	ment Factor:	1.0000
					Total:	9,162.76

#### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
				Total	0



by Renewal Fiscal Year

### Agency: Administration Location: Capital Complex Fiscal Year: 2017

Asset Name : State Office Building Asset Number : 2

System:	B3021-Glazed Roof Openings	Lifetime:	30
Name:	Skylights - Loading Dock - 1985	Years Remaining:	6 (Observed)
Quantity:	20	% Used:	80 (Observed)
Unit Cost:	128.90	Year Installed:	1985
Replacement Cost:	2,578	Date Inspected:	11/08/2010
Unit of Measure:	SF	SCI:	0.00
RENEWAL			
Renewal FY:	2017	Renewal Cost:	3,223
% Renew:	125		

#### DESCRIPTION

Skylights, fixed frame units with insulating solar glazing at ground floor loading dock. Quantity accounts for 4/12 sloped glazing.

#### SYSTEM COSTS

Unit Cost Basis:		1,000.00						
Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost		
U	086208002300	Skylights, insulated safety glass with aluminum frame	1,000.00	108.37	S.F.	108,370.00		
U	088106752050	Reflective Glass, solar film on glass, excl. glass, maximum	1,000.00	20.53	S.F.	20,530.00		
					Subtotal:	128,900.00		
				Adjustment Factor: 1.000		1.0000		
					Total:	128,900.00		
LINKED	NKED REQUIREMENTS							

Name	Category	Priority	Inspector	Action Date	Cost
				Total	0





Agency: Administration Location: Capital Complex Fiscal Year: 2017 Asset Name : State Office Building Asset Number : 2

System:	C3010-Wall Finishes	Lifetime:	25
Name:	Ceramic Tile Walls - 1985	Years Remaining:	6 (Observed)
Quantity:	1,095	% Used:	76 (Observed)
Unit Cost:	12.82	Year Installed:	1985
Replacement Cost:	14,038	Date Inspected:	11/08/2010
Unit of Measure:	SF	SCI:	0.00
RENEWAL			
Renewal FY:	2017	Renewal Cost:	17,547
% Renew:	125		

# DESCRIPTION

State of Minnesota

Wall coverings at isolated private restrooms include 4-in. x 4-in. thin set ceramic decorator tiles at medium price. System life extended by Owner's maintenance program.

### SYSTEM COSTS

Unit Cost Basis: 1,000.00

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	093101002800	Ceramic tile, bullnose trim, thin set, 6" x 4-1/4"	250.00	11.72	L.F.	2,930.00
U	093101005400	Ceramic tile, walls, interior, thin set, 4-1/4" x 4-1/4"	1,000.00	8.09	S.F.	8,090.00
U	093101007000	Ceramic tile, for epoxy grout, 1/16" joints, 4-1/4" tile, add	1,000.00	1.80	S.F.	1,800.00
					Subtotal:	12,820.00
				Adjustment Factor:		1.0000
					Total:	12,820.00

#### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
				Total	٥



by Renewal Fiscal Year

# Agency: Administration Location: Capital Complex Fiscal Year: 2017

1 000 00

Asset Name : State Office Building Asset Number : 2

	System:	C3020-Floor Finishes	Lifetime:	10
	Name:	Carpeting - Tile - 2000	Years Remaining:	6 (Observed)
	Quantity:	193,600	% Used:	40 (Observed)
	Unit Cost:	7.30	Year Installed:	2000
	Replacement Cost:	1,413,764	Date Inspected:	11/08/2010
	Unit of Measure:	SF	SCI:	0.00
ŀ	RENEWAL			
	Renewal FY:	2017	Renewal Cost:	1,767,205
	% Renew:	125		

#### DESCRIPTION

Floor finishes at office areas, corridors, etc. include a standard range carpet tiles (18 x 18 modules) and vinyl base for medium traffic areas. System life extended by Owner's maintenance program.

# SYSTEM COSTS

Unit Cos	L Dasis.	1,000.00				
Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	096512001150	Cove base, rubber or vinyl, standard colors, 4" h, 0.080" thick	250.00	3.13	L.F.	782.50
А	C30204100100	Carpet tile, nylon, fusion bonded, 18" x 18" or 24" x 24", 42 oz	1,000.00	6.52	S.F.	6,520.00
					Subtotal:	7,302.50
				Adjust	ment Factor:	1.0000
					Total:	7,302.50

### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
•				Total	0



## Agency: Administration Location: Capital Complex Fiscal Year: 2017

Asset Name : State Office Building Asset Number : 2

25	Lifetime:	C3020-Floor Finishes	System:		
naining: 6 (Observed)	Years Remaining:	Ceramic Tile Floors - 1985	Name:		
76 (Observed)	% Used:	725	Quantity:		
lled: 1985	Year Installed:	16.74	Unit Cost:		
ccted: 11/08/2010	Date Inspected:	12,138	Replacement Cost:		
0.00	SCI:	SF	Unit of Measure:		
RENEWAL					
ost: 15,172	Renewal Cost:	2017	Renewal FY:		
		125	% Renew:		
ost: 15,172	SCI: Renewal Cost:	2017 125	Replacement Cost: Unit of Measure: RENEWAL Renewal FY: % Renew:		

### DESCRIPTION

Floor finishes include ceramic tile and base in isolated private restrooms. System life extended by Owner's maintenance program.

#### SYSTEM COSTS

Unit Cost Basis:		1,000.00				
Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	093101001000	Ceramic tile, cove base, thin set, 6" x 4-1/4" h	460.00	11.33	L.F.	5,211.80
U	093101003300	Ceramic tile, floors, glazed, porcelain type, 1 color, color group 2, 1" x 1"	1,000.00	10.63	S.F.	10,630.00
υ	093101003350	Ceramic tile, 1" x 1", floors, porcelain type, for random blend, 2 colors, add	1,000.00	0.90	S.F.	900.00
					Subtotal:	16,741.80
				Adjustment Factor:		1.0000
					Total:	16,741.80

#### LINKED REQUIREMENTS

Name	Category	tegory Priority		Action Date	Cost
				Total	0





## Agency: Administration Location: Capital Complex Fiscal Year: 2017

Asset Name : State Office Building Asset Number : 2

	System:	C3020-Floor Finishes	Lifetime:	10
	Name:	Carpeting - Broadloom - High Quality - 2000	Years Remaining:	6 (Observed)
	Quantity:	26,800	% Used:	40 (Observed)
	Unit Cost:	18.58	Year Installed:	2000
	Replacement Cost:	498,011	Date Inspected:	11/08/2010
	Unit of Measure:	SF	SCI:	0.00
RENEWAL				
	Renewal FY:	2017	Renewal Cost:	622,514
	% Renew:	125		

## DESCRIPTION

Floor finishes include deluxe carpeting with carpet pad in public areas such as hearing rooms and basement dining area, etc. System life extended by Owner's maintenance program.

# SYSTEM COSTS

Unit Cost Basis: 1,000.00

ss Code Label Description		Quantity	Unit Cost	Unit	Total Cost
096512001150	6512001150 Cove base, rubber or vinyl, standard colors, 4" h, 0.080" thick		3.13	L.F.	782.50
096806009501	Carpet pad, bonded urethane, max	1,000.00	1.43	S.F.	1,430.00
096808004701	Carpet, comm. grade, direct cement, wool, patterned, 32 oz., medium to heavy traffic	1,000.00	16.37	S.F.	16,370.00
				Subtotal:	18,582.50
			Adjust	ment Factor:	1.0000
				Total:	18,582.50
	Code Label 096512001150 096806009501 096808004701	Code LabelDescription096512001150Cove base, rubber or vinyl, standard colors, 4" h. 0.080" thick096806009501Carpet pad, bonded urethane. max096808004701Carpet, comm. grade, direct cement, wool, patterned, 32 oz., medium to heavy traffic	Code LabelDescriptionQuantity096512001150Cove base, rubber or vinyl, standard colors, 4" h, 0.080" thick250.00096806009501Carpet pad, bonded urethane, max1,000.00096808004701Carpet, comm. grade, direct cement, wool, patterned, 32 oz., medium to heavy traffic1,000.00	Code LabelDescriptionQuantityUnit Cost096512001150Cove base, rubber or vinyl, standard colors, 4" h, 0.080" thick250.003.13096806009501Carpet pad, bonded urethane, max1,000.001.43096808004701Carpet, comm. grade, direct cement, wool, patterned, 32 oz., medium to heavy traffic16.37Adjust	Code LabelDescriptionQuantityUnit CostUnit096512001150Cove base, rubber or vinyl, standard colors, 4" h, 0.080" thick250.003.13L.F.096806009501Carpet pad, bonded urethane, max1,000.001.43S.F.096808004701Carpet, comm. grade, direct cement, wool, patterned, 32 oz., medium to heavy traffic1,000.0016.37S.F.Subtotal: Total:

#### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
				Total	0



Asset Name : State Office Building Asset Number : 2

Agency:	Administration
Location:	Capital Complex
Fiscal Year:	2017

1.00

System:	D5012-Low Tension Service and Dist.	Lifetime:	30			
Name:	Electrical Service – 1000kVA Secondary Unit Sub	Years Remaining:	6 (Observed)			
Quantity:	2	% Used:	80 (Observed)			
Unit Cost:	319,682.91	Year Installed:	1986			
Replacement Cost:	639,366	Date Inspected:	11/08/2010			
Unit of Measure:	Each	SCI:	0.00			
RENEWAL	ENEWAL					
Renewal FY:	2017	Renewal Cost:	799,207			
% Renew:	125					

#### DESCRIPTION

The main electrical service consists of two individual 1000kVA secondary unit substations served from one G&W 13.8KV switch (Included under Separate System). The unit substations each consist of a 15kV fused switch, 1000kVA dry type transformer, and a 1600A bolted pressure switch on the secondary. Secondary voltage is 480Y/277V.

### SYSTEM COSTS

Unit Cost Basis:

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
E	015906002700W	Rent crane truck mounted, hydraulic, 80 ton capacity	1.00	10,411.95	Ea./week	10,411.95
U	160608009000	Grounding, minimum labor/equipment charge	3.00	172.24	Jop	516.72
U	161209009000	Wire, minimum labor/equipment charge	6.00	172.24	Job	1,033.44
U	161322059990	Conduit, to 15' high, minimum labor/equipment charge	24.00	172.24	Jop	4,133.76
U	162702005660	Transformer, dry-type, 3 phase 15 kV primary 277/480 volt secondary, 1000 kVA	1.00	80,452.56	Ea.	80,452.56
U	162706205320	Transformer handling, add to normal labor cost in restricted areas, approximately 5000 pounds, 1000 kVA	3.00	4,133.86	Ea.	12,401.58
U	162808400170	Transient voltage suppressor transformer, single phase, 240 V, 14.4 kVA	3.00	3,086.58	Ea.	9,259.74
U	162908000100	Switchboard instruments, 3 phase 4 wire, AC indicating, ammeter & switch	1.00	2,280.21	Ea.	2,280.21



# by Renewal Fiscal Year

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost		
U	162908000200	Switchboard instruments, 3 phase 4 wire, AC indicating, voltmeter & switch	1.00	2,280.21	Ea.	2,280.21		
U	162908000300	Switchboard instruments, 3 phase 4 wire, AC indicating, wattmeter	1.00	4,420.12	Ea.	4,420.12		
U	162908000400	Switchboard instruments, 3 phase 4 wire, AC recording, ammeter	00.1	7,919.27	Ea.	7,919.27		
U	162908000500	Switchboard instruments, 3 phase 4 wire, AC recording, voltmeter	1.00	7,919.27	Ea.	7,919.27		
U	162908001200	Switchboard instruments, 3 current transformers, 2000 to 4000 amp	1.00	6,079.39	Ea.	6,079.39		
U	162908001300	Switchboard instruments, fused potential transformer, maximum 600 V	1.00	1,277.97	Ea.	1,277.97		
U	162908600160	Voltage monitor systems, AC voltage remote, with internal modem	1.00	5,227.89	Ea.	5,227.89		
U	163307600700	Load interrupter switch, 2 position, 400 kVA & above, 13.8 kV, 600 amp w/CLF fuses, NEMA 1	1.00	32,173.15	Ea	32,173.15		
U	163307601000	Pothead, one 3 conductor or three 1 conductor	1.00	3,449.83	Ea.	3,449.83		
U	163307603200	Transformers, forced air cooling & temperature alarm	1.00	4,860.45	Ea.	4,860.45		
U	164408403200	Switchboards, pressure switch, 4 wire, 120/208 V, 1600 amp, incl CT compartment, excl CT's or PT's	1.25	24,000.85	Ea.	30,001.06		
U	164408601740	Switchboards, shunt trip for remote operation, 1200-2000 amp	1.00	5,643.92	Ea.	5,643.92		
U	164408601950	Switchboards, 3 current transformer, 1600 - 2000 amp, factory installed	1.00	3,424.41	Ea.	3,424.41		
U	164408602050	Switchboards, current/potential transformer metering compartment, w/watt meter, 1600 - 2000 amp	1.00	11.504.54	Ea.	11,504.54		
U	164408602520	Switchboards, modifier, three distribution sections, add	2.00	11,110.64	Ea.	22,221.28		
U	164408602620	Switchboards, auxiliary pull section 36", add	3.00	3,124.16	Ea.	9,372.48		
U	164408603250	Switchboards, transition section between switchboard and transformer or motor control center. 4 wire alum. bus, 1600 amp	2.00	6,220.73	Ea.	12,441.46		
А	D50101101160	High voltage cable, neutral & conduit included, copper 500 kcmil, 15 kV	25.00	158.49	L.F.	3,962.25		
A	D50102300520	Feeder installation 600 V, including RGS conduit and XHHW wire, 1600 A	50.00	500.28	L.F	25,014.00		
All costs in	ll costs in USD.							



# by Renewal Fiscal Year

319,682.91	Subtotal:
1.0000	Adjustment Factor:
319,682.91	Total:

#### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
		Notes na musical normality in the advantage of the second s		Total	0





Agency: Administration Location: Capital Complex Fiscal Year: 2017 Asset Name : State Office Building Asset Number : 2

System:	D5012-Low Tension Service and Dist.	Lifetime:	30
Name:	Electrical Distribution - 800A Switchboard DP-1	Years Remaining:	6 (Observed)
Quantity:	1	% Used:	80 (Observed)
Unit Cost:	56,948.18	Year Installed:	1986
Replacement Cost:	56,948	Date Inspected:	11/08/2010
Unit of Measure:	Each	SCI:	0.00
RENEWAL			
Renewal FY:	2017	Renewal Cost:	71,185
% Renew:	125		

#### DESCRIPTION

Electrical distribution includes an 800A switchboard including all feeder conduit and wiring. Equipment is located in the main electrical room. The switchboard serves smaller branch circuit panelboards (included under separate system) and other large electrical loads.

#### SYSTEM COSTS

Unit Cost Basis:

1.00

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	160608009000	Grounding, minimum labor/equipment charge	1.00	172.24	Job	172.24
U	161209009000	Wire, minimum labor/equipment charge	32.00	172,24	Job	5,511.68
U	161322059990	Conduit, to 15' high, minimum labor/equipment charge	8.00	172.24	Job	1,377.92
U	161367000200	Pull boxes, sheet metal, type SC, 8" W x 8" H x 4" D, NEMA 1	1.00	106.38	Ea.	106.38
U	164408000300	Switchboards, distribution section, aluminum bus bars, 4 W, 120/208 or 277/480 V, 800 amp, excl breakers	1.00	4,870.53	Ea.	4,870.53
U	164408200430	Circuit breaker, 3 pole, 480 V, 125 to 400 amp, LA frame, for feeder section	5.00	3,414.62	Ea.	17,073.10
U	164408404800	Switchboards, circuit breaker, mold case, 3 pole, 4 wire, 800 amp	1.00	12,583.77	Ea.	12,583.77
U	164408601730	Switchboards, shunt trip for remote operation, 800 amp	1.00	2,745.56	Ea.	2,745.56
А	D50102300400	Feeder installation 600 V, including RGS conduit and XHHW wire, 800 A	50.00	250.14	L.F.	12,507.00
					Subtotal:	56,948.18
				Adjust	ment Factor:	1.0000

All costs in USD.



# by Renewal Fiscal Year

Subtotal:	56,948.18
Total:	56,948.18

## LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
				Total	0



## by Renewal Fiscal Year

Agency:	Administration
Location:	Capital Complex
Fiscal Year:	2017

Asset Name : State Office Building Asset Number : 2

System:	D5012-Low Tension Service and Dist.	Lifetime:	30
Name:	Electrical Distribution - Panelboards	Years Remaining:	6 (Observed)
Quantity:	1	% Used:	80 (Observed)
Unit Cost:	1,013,326.05	Year Installed:	1986
Replacement Cost:	1,013,326	Date Inspected:	11/08/2010
Unit of Measure:	Each	SCI:	0.00
RENEWAL			
Renewal FY:	2017	Renewal Cost:	1,266,658
% Renew:	125		

### DESCRIPTION

Electrical distribution includes 480Y/277V panelboard(s), with dry type step down transformer(s) serving 208Y/120V panelboard(s) including all feeder conduit and wiring. Most equipment is located in electrical closets but various individual panelboards are installed in corridors and other dedicated spaces. The panelboards serve the branch circuit wiring including but not necessarily limited to telecommunication equipment, mechanical equipment, security systems, lighting and general outlets.

#### SYSTEM COSTS

Unit Cost Basis:

1.00

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	160608009000	Grounding, minimum labor/equipment charge	100.00	172.24	Job	17,224.00
U	161209009000	Wire, minimum labor/equipment charge	400.00	172.24	Job	68,896.00
U	161322059990	Conduit, to 15' high, minimum labor/equipment charge	100.00	172.24	Job	17,224.00
U	161341500640	Wireway, screw cover, 12" x 12", NEMA 1, to 15' high, incl fittings and supports	200.00	133.91	L.F.	26,782.00
U	161367000200	Pull boxes, sheet metal, type SC, 8" W x 8" H x 4" D, NEMA 1	5.00	106.38	Ea.	531.90
U .	161367000610	Pull boxes, sheet metal, type SC, 30" W x 30" H x 8" D, NEMA 1	5.00	567.22	Ea.	2,836.10
U	161367000620	Pull boxes, sheet metal, type SC, 36" W x 36" H x 8" D, NEMA 1	5.00	696.63	Ea.	3,483.15
U	162702003100	Transformer, dry-type, ventilated, 3 phase 480 V primary 120/208 V secondary, 15 kVA	1.00	3,311.33	Ea.	3,311.33
U	162702003500	Transformer, dry-type, ventilated, 3 phase 480 V primary 120/208 V secondary, 45 kVA	2.00	4,620.80	Ea.	9,241.60



# by Renewal Fiscal Year

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	162702003700	Transformer, dry-type, ventilated, 3 phase 480 V primary 120/208 V secondary, 75 kVA	2.00	6,329.59	Ea.	12,659.18
U	162702003900	Transformer, dry-type, 3 phase 480 V primary 120/208 V secondary, 112.5 kVA	1.00	7,874.33	Ea.	7,874.33
U	162702004100	Transformer, dry-type, 3 phase 480 V primary 120/208 V secondary, 150 kVA	3.00	9,757.23	Ea.	29,271.69
U	162702004500	Transformer, dry-type, 3 phase 480 V primary 120/208 V secondary, 300 kVA	2.00	16,401.71	Ea	32,803.42
U	162706205150	Transformer handling, add to normal labor cost in restricted areas, approximately 200 pounds, 15 kVA	1.00	510.35	Ea.	510.35
U	162706205180	Transformer handling, add to normal labor cost in restricted areas, approximately 500 pounds, 50 kVA	2.00	688.98	Ea	1,377.96
U	162706205190	Transformer handling, add to normal labor cost in restricted areas, approximately 600 pounds, 75 kVA	2.00	765.53	Ea.	1,531.06
U	162706205210	Transformer handling, add to normal labor cost in restricted areas, approximately 800 pounds, 112.5 kVA	1.00	939.51	Ea.	939.51
U	162706205230	Transformer handling, add to normal labor cost in restricted areas, approximately 1000 pounds, 150 kVA	3.00	1,148.29	Ea	3,444.87
υ	162706205280	Transformer handling, add to normal labor cost in restricted areas, approximately 2000 pounds, 300 kVA	2.00	2,066.93	Ea.	4,133.86
U	162801000960	Automatic voltage regulators, standard grade, three phase, 460 V, 118 kVA	1.00	17,028.90	Ea.	17,028.90
U	164407202250	Panelboards, 3 phase 4 wire, main circuit breaker, 120/208 V, 225 amp, 42 circuits, NQOD, incl 20 A 1 pole plug-in breakers	25.00	4,898.50	Ea.	122,462.50
U	164407202300	Panelboards, 3 phase 4 wire, main circuit breaker, 120/208 V, 400 amp, 42 circuits, NQOD, incl 20 A 1 pole plug-in breakers	11.00	6,121.23	Ea.	67,333.53
U	164407202350	Panelboards, 3 phase 4 wire, main circuit breaker, 120/208 V, 600 amp, 42 circuits, NQOD, incl 20 A 1 pole plug-in breakers	1.00	8,266.46	Ea.	8,266.46



# by Renewal Fiscal Year

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	164407202650	Panelboards, 3 phase 4 wire, main circuit breaker, 277/480 V, 225 amp, 42 circuits, NEHB, incl 20 A 1 pole plug-in breakers	30.00	6,767.54	Ea.	203,026.20
A	D50102300240	Feeder installation 600 V, including RGS conduit and XHHW wire, 100 A	250.00	27.19	L.F.	6,797.50
А	D50102300280	Feeder installation 600 V, including RGS conduit and XHHW wire, 200 A	1,000.00	49.25	L.F.	49,250.00
A	D50102300320	Feeder installation 600 V, including RGS conduit and XHHW wire, 400 A	300.00	98.50	L.F.	29,550.00
A	D50102300360	Feeder installation 600 V, including RGS conduit and XHHW wire, 600 A	50.00	185.10	L.F.	9,255.00
A	D50201650680	Safety switch, 100 A fused, 3 phase, 50 HP 460 V or 60 HP 575 V	5.00	1,341.55	Ea	6,707.75
A	D50201650840	Safety switch, 200 A fused, 3 phase, 125 HP 460 V or 150 HP 575 V	1.00	2,020.97	Ea.	2,020.97
А	D50201651000	Safety switch, 400 A fused, 3 phase, 250 HP 460 V or 350 HP 575 V	55.00	4,373.03	Ea	240,516.65
A	D50201651040	Safety switch, 600 A fused, 3 phase, 400 HP 460 V	1.00	7,034.28	Ea	7,034.28
					Subtotal:	1,013,326.05
				Adjust	ment Factor:	1.0000
					Total:	1,013,326.05

## LINKED REQUIREMENTS

.

Name	Category	Priority	Inspector	Action Date	Cost
				Total	0



Asset Name : State Office Building Asset Number : 2

Agency:	Administration	
Location:	Capital Complex	
Fiscal Vear	2017	

System:	D5012-Low Tension Service and Dist.	Lifetime:	30
Name:	Electrical Distribution – 1600A Switchboard	Years Remaining:	6 (Observed)
Quantity:	1	% Used:	80 (Observed)
Unit Cost:	534,501.09	Year Installed:	1986
Replacement Cost:	534,501	Date Inspected:	11/08/2010
Unit of Measure:	Each	SCI:	0.00
RENEWAL			
Renewal FY:	2017	Renewal Cost:	668,126
% Renew:	125		

### DESCRIPTION

State of Minnesota

There is a 1600A double ended switchboard in the main electrical room. The switchboard is fed at each end from two individual secondary unit substations (Included under Separate System). The switchboard is an eight section cabinet with main lug only connections and metering on each end, one 1600A bolted pressure tie switch, and five additional distribution sections equipped with fused switches serving the electrical distribution system throughout the facility.

#### SYSTEM COSTS

Unit Cost Basis:

1.00

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
Е	015906002700M	Rent crane truck mounted, hydraulic, 80 ton capacity	1.00	37,771.46	Ea./month	37,771.46
U	160608009000	Grounding, minimum labor/equipment charge	8.00	172.24	Job	1,377.92
U	161209009000	Wire, minimum labor/equipment charge	160.00	172.24	Job	27,558.40
U	161322059990	Conduit, to 15' high, minimum labor/equipment charge	40.00	172.24	dof	6,889.60
U	162706205320	Transformer handling, add to normal labor cost in restricted areas, approximately 5000 pounds, 1000 kVA	8.00	4,133.86	Ea.	33,070.88
U	162808400170	Transient voltage suppressor transformer, single phase, 240 V, 14.4 kVA	6.00	3,086.58	Ea.	18,519,48
U	162908000100	Switchboard instruments, 3 phase 4 wire, AC indicating, ammeter & switch	2.00	2,280.21	Ea.	4,560.42
U	162908000200	Switchboard instruments, 3 phase 4 wire, AC indicating, voltmeter & switch	2.00	2,280.21	Ea.	4.560.42



# by Renewal Fiscal Year

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	162908000300	Switchboard instruments, 3 phase 4 wire, AC indicating, wattmeter	2.00	4,420.12	Ea.	8,840.24
U	162908000400	Switchboard instruments, 3 phase 4 wire, AC recording, ammeter	2.00	7,919.27	Ea.	15,838.54
U	162908000500	Switchboard instruments, 3 phase 4 wire, AC recording, voltmeter	2.00	7,919.27	Ea.	15,838.54
U	162908001200	Switchboard instruments, 3 current transformers, 2000 to 4000 amp	2.00	6,079.39	Ea.	12,158.78
U	162908001300	Switchboard instruments, fused potential transformer, maximum 600 V	2.00	1,277.97	Ea.	2,555.94
υ	162908600160	Voltage monitor systems, AC voltage remote, with internal modem	2.00	5,227.89	Ea.	10,455.78
U	163307601200	Switchgear, key interlocks	3.00	844.57	Ea	2.533.71
U	164408000600	Switchboards, distribution section, aluminum bus bars, 4 W, 120/208 or 277/480 V, 1600 amp, excl breakers	8.00	6,773.94	Ea.	54,191.52
U	164408200750	Fusible switch, single, 600 V, 100 amp, for feeder section	11.00	1,445.36	Ea	15,898.96
υ	164408200800	Fusible switch, single, 600 V, 200 amp. for feeder section	8.00	2,097.13	Ea.	16,777.04
υ	164408200850	Fusible switch, single, 600 V, 400 amp, for feeder section	8.00	3,766.75	Ea.	30,134.00
U	164408200900	Fusible switch, single, 600 V, 600 amp, for feeder section	1.00	4,500.06	Ea.	4,500.06
U	164408403200	Switchboards, pressure switch, 4 wire, 120/208 V, 1600 amp, incl CT compartment, excl CT's or PT's	1.25	24,000.85	Ea.	30,001.06
U	164408601740	Switchboards, shunt trip for remote operation, 1200-2000 amp	2.00	5,643.92	Ea.	11,287.84
U	164408601950	Switchboards, 3 current transformer, 1600 - 2000 amp, factory installed	2.00	3,424,41	Ea	6,848.82
U	164408602050	Switchboards, current/potential transformer metering compartment, w/watt meter, 1600 - 2000 amp	2.00	11,504.54	Ea.	23,009.08
U	164408602520	Switchboards, modifier, three distribution sections, add	3.00	11,110.64	Ea.	33,331.92
U	164408602620	Switchboards, auxiliary pull section 36", add	8.00	3,124.16	Ea.	24,993.28
А	D50102300240	Feeder installation 600 V, including RGS conduit and XHHW wire, 100 A	250.00	27.19	L.F.	6,797.50
А	D50102300280	Feeder installation 600 V, including RGS conduit and XHHW wire, 200 A	200.00	49.25	L.F.	9,850.00



# by Renewal Fiscal Year

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
A	D50102300320	Feeder installation 600 V, including RGS conduit and XHHW wire, 400 A	200.00	98.50	L.F.	19,700.00
A	D50102300360	Feeder installation 600 V, including RGS conduit and XHHW wire, 600 A	25.00	185.10	L.F.	4,627.50
A	D50102300520	Feeder installation 600 V, including RGS conduit and XHHW wire, 1600 A	80.00	500.28	L.F.	40,022.40
					Subtotal:	534,501.09
				Adjust	ment Factor:	1.0000
					Total:	534,501.09

# LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
				Total	0



Agency: Administration Location: Capital Complex Fiscal Year: 2017 Asset Name : State Office Building Asset Number : 2

System:	D5012-Low Tension Service and Dist.	Lifetime:	30	
Name:	Motor Control Center #1	Years Remaining:	6 (Observed)	
Quantity:	1	% Used:	80 (Observed)	
Unit Cost:	185,207.47	Year Installed:	1986	
Replacement Cost:	185,207	Date Inspected:	11/08/2010	
Unit of Measure:	Each	SCI:	0.00	
RENEWAL				
Renewal FY:	2017	Renewal Cost	231,509	
% Renew:	125			

### DESCRIPTION

Motor Control Center #1 is located in the main electrical room. It serves motor loads in the basement including pumps, HVAC units and other mechanical equipment.

#### SYSTEM COSTS

Unit Cost Basis: 1.00

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	160608009000	Grounding, minimum labor/equipment charge	7.00	172.24	Job	1,205.68
U	161209009000	Wire, minimum labor/equipment charge	132.00	172.24	Job	22,735.68
υ	161322059990	Conduit, to 15' high, minimum labor/equipment charge	33.00	172.24	Job	5,683.92
U	161367000200	Pull boxes, sheet metal, type SC, 8" W x 8" H x 4" D, NEMA 1	7.00	106.38	Ea.	744.66
U	162706205180	Transformer handling, add to normal labor cost in restricted areas, approximately 500 pounds, 50 kVA	7.00	688.98	Ea.	4,822.86
U	164406400100	Motor control center, starters, class 1, type B, comb. MCP, FVNR, with control XFMR, size 1, 10 HP, 12" high, incl starters & structures	27.00	2,097.13	Ea.	56,622.51
U	164406400350	Motor control center, starters, class 1, type B, comb. MCP, FVNR, with control XFMR, size 4, 75 HP, 24" high, incl starters & structures	4.00	5,168.13	Ea.	20,672.52
U	164406400900	Motor control center, combination of starters, up to 72" high	7.00	3,244.92	Ea.	22.714.44
U	164406401100	Motor control center, for copper bus add per structure	7.00	287.13	Ea.	2,009.91
Afl costs in USD.						

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# by Renewal Fiscal Year

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	164406401200	Motor control center, for NEMA 12, add per structure	7.00	165.78	Ea.	1,160.46
U	164406401300	Motor control center, for 42,000 rms, add per structure	7.00	214.53	Ea.	1,501.71
U	164406401700	Motor control center, for pilot lights, add per starter	31.00	172.00	Ea.	5,332.00
U	164406401800	Motor control center, for push button, add per starter	31.00	172.00	Ea	5,332.00
U	164406401900	Motor control center, for auxiliary contacts, add per starter	31.00	341.02	Ea.	10,571.62
А	D50102300200	Feeder installation 600 V, including RGS conduit and XHHW wire, 60 A	750.00	19.79	L.F.	14,842.50
A	D50102300360	Feeder installation 600 V, including RGS conduit and XHHW wire, 600 A	50.00	185.10	L.F.	9,255.00
					Subtotal:	185,207.47
				Adjust	ment Factor:	1.0000
					Total:	185,207.47

# LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
				Total	0



## by Renewal Fiscal Year

Agency: Administration Location: Capital Complex Fiscal Year: 2017 Asset Name : State Office Building Asset Number : 2

System:	D5012-Low Tension Service and Dist.	Lifetime:	30
Name:	Motor Control Center #2	Years Remaining:	6 (Observed)
Quantity:	1	% Used:	80 (Observed)
Unit Cost:	82,807.08	Year Installed:	1986
Replacement Cosi:	82,807	Date Inspected:	11/08/2010
Unit of Measure:	Each	SCI	0.00
RENEWAL			
Renewal FY:	2017	Renewal Cost:	103,509
% Renew:	125		

## DESCRIPTION

Motor Control Center #2 is located in the elevator room in the Penthouse. It serves motor loads in the elevator room including pumps, HVAC units and other mechanical equipment.

#### SYSTEM COSTS

Unit Cost Basis: 1.00

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost	
U	160608009000	Grounding, minimum labor/equipment charge	3.00	172.24	Job	516.72	
U	161209009000	Wire, minimum labor/equipment charge	48.00	172.24	Job	8,267.52	
U	161322059990	Conduit, to 15' high, minimum labor/equipment charge	12.00	172.24	Job	2,066.88	
U	161367000200	Pull boxes, sheet metal, type SC, 8" W x 8" H x 4" D, NEMA 1	3.00	106.38	Ea.	319.14	
U	162706205180	Transformer handling, add to normal labor cost in restricted areas, approximately 500 pounds, 50 kVA	3.00	688.98	Ea.	2,066.94	
U	164406400100	Motor control center, starters, class 1, type B, comb. MCP, FVNR, with control XFMR, size 1, 10 HP, 12" high, incl starters & structures	12.00	2,097.13	Ea.	25.165.56	
U	164406400900	Motor control center, combination of starters, up to 72" high	3.00	3,244.92	Ea.	9,734.76	
U	164406401100	Motor control center, for copper bus add per structure	3.00	287.13	Ea.	861.39	
U	164406401200	Motor control center, for NEMA 12, add per structure	3.00	165.78	Ea.	497.34	
U	164406401300	Motor control center, for 42,000 rms, add per structure	3.00	214.53	Ea.	643.59	
All costs in	All costs in USD.						


# by Renewal Fiscal Year

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	164406401700	Motor control center, for pilot lights, add per starter	12.00	172.00	Ea.	2,064.00
U	164406401800	Motor control center, for push button, add per starter	12.00	172.00	Ea.	2,064.00
U	164406401900	Motor control center, for auxiliary contacts, add per starter	12.00	341.02	Ea	4,092.24
A	D50102300200	Feeder installation 600 V, including RGS conduit and XHHW wire, 60 A	300.00	19.79	L.F.	5,937.00
A	D50102300360	Feeder installation 600 V, including RGS conduit and XHHW wire, 600 A	100.00	185.10	L.F.	18,510.00
					Subtotal:	82,807.08
				Adjust	ment Factor:	1.0000
					Total:	82,807.08

# LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
And the second				Total	Û



# Agency: Administration Location: Capital Complex Fiscal Year: 2017

Asset Name : State Office Building Asset Number : 2

System:	D5021-Branch Wiring Devices	Lifetime:	30
Name:	Branch Wiring - Equipment and Devices	Years Remaining:	6 (Observed)
Quantity:	290.000	% Used:	80 (Observed)
Unit Cost:	7.42	Year Installed:	1986
Replacement Cost:	2,151,842	Date Inspected:	11/08/2010
Unit of Measure:	SF	SCI:	0.00
RENEWAL			
Renewal FY:	2017	Renewal Cost:	2,689,803
% Renew:	125		

# DESCRIPTION

Branch wiring consists of general purpose outlets and dedicated circuits for specific equipment connections throughout the facility. Other specific equipment connections include but are not necessarily limited to HVAC equipment, small pumps and motors, security systems, lighting and general outlets. All branch wiring is installed in conduit. Systems furniture is utilized in many areas.

# SYSTEM COSTS

Unit Cost Basis: 1,000.00

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
A	D50201200920	Receptacles and wall switches, 1000 SF, 14 receptacles	1,000.00	3.49	S.F.	3,490.00
А	D50201300360	Wall switches, 5.0 per 1000 SF	1,000.00	1.32	S.F.	1,320.00
А	D50201350520	Miscellaneous power, 3 watts	1,000.00	0.81	S.F.	810.00
А	D50201400400	Central air conditioning power, 10 watts	1,000.00	1.30	S.F.	1,300.00
A	D50201550360	Motor feeder systems, three phase, feed to 200 V 3 HP, 230 V 5 HP, 460 V 10 HP, 575 V 10 HP	5.00	11.03	L.F.	55.15
A	D50201550520	Motor feeder systems, three phase, feed to 200 V 10 HP, 230 V 10 HP, 460 V 30 HP, 575 V 30 HP	5.00	12.40	L.F.	62.00
A	D50201550680	Motor feeder systems, three phase, feed to 200 V 20 HP, 230 V 25 HP, 460 V 50 HP, 575 V 60 HP	5.00	19.63	L.F.	98.15
А	D50201650280	Safety switch, 30 A fused, 3 phase, 5 HP, 200 V or 7 1/2 HP, 230 V	0.10	484.83	Ea.	48.48
А	D50201650440	Safety switch, 60 A fused, 3 phase, 15 HP 200 V or 15 HP 230 V	0.10	726.02	Ea.	72.60
A	D50201650600	Safety switch, 100 A fused, 3 phase, 20 HP 200 V or 25 HP 230 V	0.10	1,047.06	Ea.	104.71



# by Renewal Fiscal Year

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
A	D50201700320	Motor connections, three phase, 200/230/460/575 V, up to 5 HP	0.10	116.72	Ea.	11.67
А	D50201700400	Motor connections, three phase, 200/230/460/575 V, up to 10 HP	0.10	181.81	Ea.	18.18
А	D50201700480	Motor connections, three phase, 200/230/460/575 V, up to 25 HP	0.10	292.02	Ea.	29.20
					Subtotal:	7,420.14
				Adjust	ment Factor:	1.0000
					Total:	7,420.14

# LINKED REQUIREMENTS

.

Name	Category	Priority	Inspector	Action Date	Cost
Branch Wiring - Insufficient Outlets - Ground Floor	Capacity/Design	1- Currently Critical	Elec	11/08/2011	24,414
Branch Wiring - Outlets at Vending Machines Not GFCI Type - Basement	Grandfathered Code	5- Grandfathered Code	Elec	-	1,088
Branch Wiring - Outlets in Kitchen Not GFCI Type	Grandfathered Code	5- Grandfathered Code	Elec	-	1,283
Branch Wiring - Receptacle in Disrepair - Room G10	Life Safety	1- Currently Critical	Elec	11/08/2011	344
Branch Wiring – Outlets Not Installed at HVAC Units	Building Code	1- Currently Critical	Elec	11/08/2011	8,592
				Total	35,721

Total



Agency: Administration Location: Capital Complex Fiscal Year: 2017

1.00

Asset Name : State Office Building Asset Number : 2

System:	D5092-Emergency Light and Power Systems	Lifetime:	30		
Name:	Motor Control Center EMCC-1	Years Remaining:	6 (Observed)		
Quantity:	1	% Used:	80 (Observed)		
Unit Cost:	32,098.52	Year Installed:	1986		
Replacement Cost:	32,099	Date Inspected:	11/08/2010		
Unit of Measure:	Each	SCI:	0.00		
RENEWAL					
Renewal FY:	2017	Renewal Cost:	40,123		
% Renew:	125				

# DESCRIPTION

Motor Control Center EMCC-1 is located in Room B42. It serves essential motor loads in the basement including pumps, HVAC units and other mechanical equipment.

#### SYSTEM COSTS

Unit Cost Basis:

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	160608009000	Grounding, minimum labor/equipment charge	2.00	172.24	Job	344.48
U	161209009000	Wire, minimum labor/equipment charge	20.00	172.24	Job	3,444.80
U	161322059990	Conduit, to 15' high, minimum labor/equipment charge	5.00	172.24	Job	861.20
U	161367000200	Pull boxes, sheet metal, type SC, 8" W x 8" H x 4" D, NEMA 1	2.00	106.38	Ea.	212.76
U	162706205180	Transformer handling, add to normal labor cost in restricted areas, approximately 500 pounds, 50 kVA	2.00	688.98	Ea.	1,377.96
U	164406400100	Motor control center, starters, class 1. type B, comb. MCP, FVNR, with control XFMR, size 1, 10 HP, 12" high, incl starters & structures	4.00	2,097.13	Ea.	8,388.52
U	164406400900	Motor control center, combination of starters, up to 72" high	2.00	3,244.92	Ea.	6,489.84
U	164406401100	Motor control center, for copper bus add per structure	2.00	287.13	Ea.	574.26
U	164406401200	Motor control center, for NEMA 12, add per structure	2.00	165.78	Ea.	331.56
U	164406401300	Motor control center, for 42,000 rms, add per structure	2.00	214.53	Ea.	429.06
All costs in	USD.					



# by Renewal Fiscal Year

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	164406401700	Motor control center, for pilot lights, add per starter	4.00	172.00	Ea.	688.00
U	164406401800	Motor control center, for push button, add per starter	4.00	172.00	Ea.	688.00
U	164406401900	Motor control center, for auxiliary contacts, add per starter	4.00	341.02	Ea.	1,364.08
А	D50102300200	Feeder installation 600 V, including RGS conduit and XHHW wire, 60 A	100.00	19.79	L.F.	1,979.00
A	D50102300280	Feeder installation 600 V, including RGS conduit and XHHW wire, 200 A	100.00	49.25	L.F.	4,925.00
					Subtotal:	32,098.52
				Adjust	ment Factor:	1.0000
					Total:	32,098.52

# LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
				Total	0



# Agency: Administration Location: Capital Complex Fiscal Year: 2017

Asset Name : State Office Building Asset Number : 2

System:	E-Equipment and Furnishings	Lifetime:	25	
Name:	Food Service Counter - High End - 1985	Years Remaining:	6 (Observed)	
Quantity:	40	% Used:	76 (Observed)	
Unit Cost:	908.23	Year Installed:	1985	
Replacement Cost:	36,329	Date Inspected:	11/08/2010	
Unit of Measure:	LF	SCI:	0.00	
RENEWAL				
Renewal FY:	2017	Renewal Cost:	45,411	
% Renew:	125			

# DESCRIPTION

Furnishings include deluxe quality food service tables, straight counters and curved counters at basement dining area. System life extended by Owner's maintenance program.

Note: kitchen was out of service at time of assessment.

1.00

#### SYSTEM COSTS

Unit Cost Basis:

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	114301108800	Serving counter, commercial kitchen equipment, straight section	0.25	900.14	L.F.	225.04
U	114301108820	Serving counter, commercial kitchen equipment, curved section	0.25	1,119.52	L.F.	279.88
U	114301109135	Table, commercial kitchen equipment, basic, max	0.25	735.47	L.F.	183.87
U	114301109145	Table, commercial kitchen equipment, with sink, max	0.25	877.78	L.F.	219.45
					Subtotal:	908.24
				Adjust	ment Factor:	1.0000
					Total:	908.24

#### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
				Total	0



# Agency: Administration Location: Capital Complex Fiscal Year: 2017

Asset Name : State Office Building Asset Number : 2

	System:	E-Equipment and Furnishings	Lifetime:	20
	Name:	Kitchen Equipment - Average - 1985	Years Remaining:	6 (Observed)
	Quantity:	1	% Used:	70 (Observed)
	Unit Cost:	36,219.76	Year Installed:	1985
	Replacement Cost:	36,220	Date Inspected:	11/08/2010
	Unit of Measure:	Each	SCI:	0.00
1	RENEWAL			
	Renewal FY:	2017	Renewal Cost:	45,275
	% Renew:	125		

#### DESCRIPTION

Equipment and furnishings includes kitchen equipment of average quantity and quality at basement dining area. System life extended by Owner's maintenance program.

Note: kitchen was out of service at time of assessment.

1.00

#### SYSTEM COSTS

Unit Cost Basis:

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
A	E10903500110	Architectural equipment, kitchen equipment, bake oven, single deck	1.00	5,274.55	Ea.	5,274.55
A	E10903500120	Architectural equipment, kitchen equipment, broiler, without oven	1.00	4,064.55	Ea.	4,064.55
A	E10903500130	Architectural equipment, kitchen equipment, commercial dish washer, semiautomatic, 50 racks/hr	1.00	9,259.36	Ea.	9,259.36
A	E10903500150	Architectural equipment, kitchen equipment, cooler, beverage, reach-in. 6 FT long	1.00	5,300.24	Ea.	5,300.24
A	E10903500160	Architectural equipment, kitchen equipment, food warmer, counter, 1.65 KW	1.00	528.00	Ea.	528.00
A	E10903500170	Architectural equipment, kitchen equipment, fryers, with submerger, single	1.00	1,914.85	Ea.	1,914.85
A	E10903500200	Architectural equipment, kitchen equipment range, restaurant type, burners, 2 ovens & 24" griddle	1.00	4,612.74	Ea.	4,612,74
A	E10903500210	Architectural equipment, kitchen equipment, range hood, including CO2 system, economy	1.00	5,265.47	Ea.	5,265.47
All costs in	USD.					



# by Renewal Fiscal Year

Cost

0

Subtotal	36,219.76
Adjustment Factor	: 1.0000
Total	36,219.76
LINKED REQUIREMENTS	

# Name Category Priority Inspector Action Date



# Agency: Administration Location: Capital Complex Fiscal Year: 2017

Asset Name : State Office Building Asset Number : 2

			The second se		
System:	E-Equipment and Furnishings	Lifetime:	25		
Name:	Loading Dock Equipment - 1985	Years Remaining:	6 (Observed)		
Quantity:	1	% Used:	76 (Observed)		
Unit Cost:	11,528.68	Year Installed:	1985		
Replacement Cost:	11,529	Date Inspected:	11/08/2010		
Unit of Measure:	Each	SCI:	0.00		
RENEWAL					
Renewal FY:	2017	Renewal Cost	14,411		
% Renew:	125				

## DESCRIPTION

The building includes loading dock equipment (average) including levelers, bumpers, etc. System life extended by Owner's maintenance program.

# SYSTEM COSTS

Unit Cost Basis:		at Basis:	1.00				
	Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
	U	111614000550	Dock bumpers, rubber blocks, 4 1/2" thick x 12" h x 24" long	3.00	151.37	Ea.	454.11
	U	111614004700	Loading dock equipment, dock levelers, hydraulic, 10 ton capacity, 6' x 8'	1.00	11,074.57	Ea	11,074.57
						Subtotal:	11,528.68
					Adjustment Factor:		1.0000
						Total:	11,528.68

#### LINKED REQUIREMENTS

Name	Category	Priority	Priority Inspector Action D		Cost
				Total	0





Agency: Administration Location: Capital Complex Fiscal Year: 2017 Asset Name : State Office Building Asset Number : 2

System:	G2010-Roadways	Lifetime:	25		
Name:	Roadway - Loading Dock - 1985	Years Remaining:	6 (Observed)		
Quantity:	800	% Used:	76 (Observed)		
Unit Cost:	6.35	Year Installed:	1985		
Replacement Cost:	5,080	Date Inspected:	11/08/2010		
Unit of Measure:	SF	SCI:	0.00		
RENEWAL					
Renewal FY:	2017	Renewal Cost:	3,175		
% Renew:	63				

# DESCRIPTION

Sloping paved roadway at loading dock, 50-ft. x 16-ft. x 5" thick pavement, 14" thick gravel base. System life extended by Owner's maintenance program.

## SYSTEM COSTS

Unit Cost Basis:		1,000.00					
Class	Code Label	Description		Quantity	Unit Cost	Unit	Total Cost
A	G20102303400	Bituminous roadway, two lanes, 5" thick pavement, 14" thick gravel base, 32' wide		32.00	198.44	L.F.	6,350.08
						Subtotal:	6,350.08
					Adjust	ment Factor:	1.0000
						Total:	6,350.08
LINKED REQUIREMENTS							
Name		Category	Priority	Inspector	A	ction Date	Cost
						Total	0

All costs in USD.



# Agency: Administration Location: Capital Complex Fiscal Year: 2017

Asset Name : State Office Building Asset Number : 2

System:	G2030-Pedestrian Paving	Lifetime:	25		
Name:	Pedestrian Pavement - Concrete - 1985	Years Remaining:	6 (Observed)		
Quantity:	120	% Used:	76 (Observed)		
Unit Cost:	5.82	Year Installed:	1985		
Replacement Cost:	698	Date Inspected:	11/08/2010		
Unit of Measure:	SF	SCI:	0.00		
RENEWAL					
Renewal FY:	2017	Renewal Cost:	437		
% Renew:	63				

#### DESCRIPTION

Sidewalks, cast-in-place concrete, 5" thick, 6x6-#10 mesh, broom finish with 4" sand bedding. System life extended by Owner's maintenance program.

# SYSTEM COSTS

Unit Cost Basis:		1,000.00				
Class	Code Label	Description	Quantity	Unit Cost	Unit	 Total Cost
υ	027752750140	Sidewalks, driveways, and patios, bedding for brick or stone, sand, 4" thick, excludes base	1,000.00	0.95	S.F.	950.00
U	027752750351	Sidewalks, driveways, and patios, sidewalk, concrete, cast-in-place with 6 x 6 - W1.4 x W1.4 mesh, broomed finish, 3000 psi, 5" thick, excludes base	1.000.00	4.87	SIF	4,870.00
					Subtotal:	5,820.00
				Adjust	ment Factor:	1.0000
					Total:	5,820.00

# LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
				Total	0



# Agency: Administration Location: Capital Complex Fiscal Year: 2018

1.00

Asset Name : State Office Building Asset Number : 2

System:	D5032-Intercommunication and Paging System	Lifetime:	15
Name:	Audio Systems - Conference Rooms	Years Remaining:	7 (Observed)
Quantity:	10	% Used:	53 (Observed)
Unit Cost:	84,521.50	Year Installed:	1990
Replacement Cost:	845,215	Date Inspected:	11/08/2010
Unit of Measure:	Each	SCI:	0.00
RENEWAL	<		
Renewal FY:	2018	Renewal Cost:	1,056,519
% Renew:	125		

#### DESCRIPTION

Audio systems are installed in Conference Rooms with microphones at each desk and speakers throughout the rooms. Amplifiers are installed behind walls and/or in adjacent rooms.

"System observed years remaining have been increased based on the observed condition of the systems."

## SYSTEM COSTS

Unit Cost Basis:

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	111366003800	Movie equipment, sound systems, Dolby/Super Sound, incl. amplifier, maximum	1.00	21,560.92	Ea.	21,560.92
U	168107501400	Microphone cable	25.00	167.93	C.L.F.	4,198.25
U	168208400200	Sound system, microphone	25.00	251.34	Ea.	6,283.50
U	168208401800	Sound system, cabinet	1.00	1,566.61	Ea.	1,566.61
U	168208402000	Intercommunication master station, 30 station capacity	1.00	3,181.03	Ea.	3,181.03
υ	168208404400	House phone, combination speaker and microphone	25.00	290.90	Ea.	7,272.50
A	D50309100240	Communication and alarm systems, includes outlets, boxes, conduit and wire, sound systems, 30 outlets	1.00	40,458.69	Ea.	40,458.69
					Subtotal:	84,521.50
				Adjust	ment Factor:	1.0000

Total: 84,521.50

#### LINKED REQUIREMENTS

State of Minnesota					System Deta	uil Report
State of Minu	esota				by Renewa	Fiscal Year
Name		Category	Priority	Inspector	Action Date	Cost

Total

0





Agency: Administration Location: Capital Complex Fiscal Year: 2018

1.00

Asset Name : State Office Building Asset Number : 2

System:	D5035-Television Systems	Lifetime:	15
Name:	Cable Television (CATV)	Years Remaining:	7 (Observed)
Quantity:	1	% Used:	53 (Observed)
Unit Cost:	248,320.86	Year Installed:	2002
Replacement Cost:	248,321	Date Inspected:	11/08/2010
Unit of Measure:	Each	SCI:	0.00
RENEWAL			
Renewal FY:	2018	Renewal Cost:	310,401
% Renew:	125		

# DESCRIPTION

Cable television (CATV) outlets are provided throughout the building which provide live coverage of Senate and House hearings and other info. The system is in house only and does not include service from outside providers. Broadcasts are provided from two production studios in the State Capital Building.

### SYSTEM COSTS

Unit Cost Basis:

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
A	D50309101040	Communication and alarm systems, includes outlets, boxes, conduit and wire, master TV antenna systems,100 outlets	2.00	124,160.43	Ea.	248,320.86
					Subtotal:	248,320.86
				Adjust	ment Factor:	1.0000
					Total:	248,320.86

#### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
				Total	0



# by Renewal Fiscal Year

# Agency: Administration Location: Capital Complex Fiscal Year: 2019

Asset Name : State Office Building Asset Number : 2

System:	C3010-Wall Finishes	Lifetime:	10
Name:	Painted Finish - Average (1 Coat Prime - 2 Coats Finish) - 2008	Years Remaining:	8 (Observed)
Quantity:	395,782	% Used:	20 (Observed)
Unit Cost:	1.34	Year Installed:	2008
Replacement Cost:	530,348	Date Inspected:	11/08/2010
Unit of Measure:	SF	SCI:	0.00
RENEWAL			
Renewal FY:	2019	Renewal Cost:	662,935
% Renew:	125		

# DESCRIPTION

Interior wall finishes include standard paint finish.

# SYSTEM COSTS

Unit Cost Basis:	1,000.00
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Class	Code Label	Description		Quantity	Unit Cost	Unit	Total Cost
А	C30102300080	Painting, interior on plaste	r and	1,000.00	1.34	S.F.	1,340.00
		drywall, brushwork, prime	r & 2 coats				
						Subtotal:	1,340.00
					Adjust	ment Factor:	1.0000
						Total:	1,340.00
LINKED	REQUIREMENTS						
Name		Category	Priority	Inspector	А	ction Date	Cost

Action Date	
Total	

All costs in USD.



Agency: Administration Location: Capital Complex Fiscal Year: 2019 Asset Name : State Office Building Asset Number : 2

System:	D5037-Fire Alarm Systems	Lifetime:	10
Name:	Fire Alarm System	Years Remaining:	8 (Observed)
Quantity:	1	% Used:	20 (Observed)
Unit Cost:	627,041.28	Year Installed:	2008
Replacement Cost:	627,041	Date Inspected:	11/08/2010
Unit of Measure:	Each	SCI:	0.00
RENEWAL			
Renewal FY:	2019	Renewal Cost:	783.802
% Renew:	125		

### DESCRIPTION

The fire alarm system is a microprocessor based addressable type system. The system is a general alarm, battery backup, electrically supervised system. Initiation devices include but are not necessarily limited to manual pull stations, smoke detectors, duct smoke detectors, heat detectors, and sprinkler flow switches. Notification devices include bells, horns and visual strobes. The system is monitored 24/7 by personnel in the basement Security Office in the State Capital. The building wide public address system is also integral to the fire alarm system.

#### SYSTEM COSTS

Unit Cost Basis:

1.00

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
υ	137200654170	Detection Systems, fire alarm control panel, addressable with voice, up to 400 points, excluding wires & conduits	5.00	11,799.19	Ea.	58,995.95
U	137200654400	Detection Systems, fire alarm control panel, battery & rack, automatic charger, excluding wires & conduits	5.00	698.55	Ea.	3,492.75
U	137200654600	Detection Systems, UPS battery charger, signal bell, excluding wires & conduits	5.00	160.10	Ea.	800.50
U	137200658200	Detection Systems, annunciator panel, 16 zone lamp, excluding wires & conduits	5.00	1,045.83	Ea.	5,229.15
U	161367009000	Electronic rack enclosures, 72" H x 30" W x 36" D	1.00	3,472.51	Ea.	3,472.51
U	167107553040	Patch panel, jack RJ-45/110 type, 96 ports	1.00	1,183.08	Ea.	1,183.08
U .	167404002040	Switching and routing equipment, network switch, 10/100/1000 Mbps, 48 ports	1.00	5,921.72	Ea.	5,921.72
А	D50309100280	Communication and alarm systems, includes outlets, boxes, conduit and wire sound systems 100 outlets	1.00	131,242.08	Ea.	131,242.08



# by Renewal Fiscal Year

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
A	D50309100456	Communication and alarm systems, fire detection, addressable, 100 detectors, includes outlets, boxes, conduit and wire	5.00	76,470.76	Ea.	382,353.80
A	D50309100459	Fire alarm control panel, 12 zone, excluding wire and conduit	5.00	4,510.11	Ea.	22,550.55
А	D50309100462	Fire alarm command center, addressable with voice, excl. wire & conduit	1.00	11,799.19	Ea.	11,799.19
					Subtotal:	627,041.28
				Adjust	ment Factor:	1.0000
					Total:	627,041.28

# LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
				Total	0



# Agency: Administration Location: Capital Complex Fiscal Year: 2021

Asset Name : State Office Building Asset Number : 2

System:	B2016-Exterior Soffits	Lifetime:	30	
Name:	Plaster Veneer On GWB - 1 Coal - Loading Dock	Years Remaining:	10 (Observed)	
Quantity:	400	% Used:	67 (Observed)	
Unit Cost:	5.30	Year Installed:	1985	
Replacement Cost:	2,120	Date Inspected:	11/08/2010	
Unit of Measure:	SF	SCI:	0.00	
RENEWAL				
Renewal FY: % Renew:	2021 125	Renewal Cost:	2,650	

# DESCRIPTION

GWB soffit system, on 8-ft. above floor at loading dock. Plaster veneer, taped, finished and painted with primer and 2 finish coats. Ceiling on suspension system or fastened to metal furring. System life extended by Owner's maintenance program.

#### SYSTEM COSTS

Unit Cost Basis:	1,000.00

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	092109000012	Thin coat plaster, 1 coat veneer, excl. lath	1,000.00	0.97	S.F.	970.00
A	C30301105700	Gypsum board ceilings, 5/8" fire rated gypsum board, painted and textured finish,1-5/8" metal stud furring, 24" OC support	1,000.00	4.33	S.F.	4,330.00
					Subtotal:	5.300.00
				Adjustment Factor:		1.0000
					Total:	5,300.00

#### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
				Total	0



# Agency: Administration Location: Capital Complex Fiscal Year: 2021

Asset Name : State Office Building Asset Number : 2

C1035-Identifying Devices Lifetime: 10 System: Fittings - Signage (Room Numbering and Identification) -2010 Years Remaining: 10 (Observed) Name: % Used: Quantity: 290,000 0 (Observed) 0.64 Year Installed: 2010 Unit Cost: Replacement Cost: 186.688 Date Inspected: 11/08/2010 SCI: Unit of Measure: SF 0.00 RENEWAL Renewal FY: 2021 Renewal Cost: 233,359 % Renew: 125

#### DESCRIPTION

Room, door and graphic symbol signs. Adhesive backs and Braille.

1.00

Signage is in compliance with ADAAG and other building code requirements. Signage is periodically changed when political alignments dictate and care should be taken to ensure new signage is also ADAAG and code compliant.

#### SYSTEM COSTS

Unit Cost Basis:

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	104402001200	Signs, flexible door sign, adhesive back, w/Braille, 5/8" letters, 8" x 8"	0.01	80.05	Ea.	0.40
U	104402001600	Signs, graphic symbols, adhesive back, 8" x 8"	0.01	48.70	Ea.	0.24
					Subtotal:	0.64
				Adjust	ment Factor:	1.0000
					Total:	0.64
LINKED	REQUIREMENTS					

Name	Category	Priority	Inspector	Action Date	Cost
				Total	0





Agency: Administration Location: Capital Complex Fiscal Year: 2021 Asset Name : State Office Building Asset Number : 2

System:	C3010-Wall Finishes	Lifetime:	30
Name:	Raised Wood Paneling - High End - 1985	Years Remaining:	10 (Observed)
Quantity:	17,525	% Used:	67 (Observed)
Unit Cost:	45.89	Year Installed:	1985
Replacement Cost:	804,222	Date Inspected:	11/08/2010
Unit of Measure:	SF	SCI:	0.00
RENEWAL			
Renewal FY:	2021	Renewal Cost:	653,431
% Renew:	81		

## DESCRIPTION

Wall finishes include high quality raised wood paneling at hearing rooms, dining room, etc. System life extended by Owner's maintenance program.

#### SYSTEM COSTS

Unit Cost Basis:		1,000.00					
Class	Code Label	Description		Quantity	Unit Cost	Unit	Total Cost
U	097707000330	Panel systems, class veneer, 3/4" MDO	l fire rated, cherry	1,000.00	45.89	S.F.	45,890.00
						Subtotal:	45,890.00
					Adjust	ment Factor:	1.0000
						Total:	45,890.00
LINKED	REQUIREMENTS						
Name		Category	Priority	Inspector	A	ction Date	Cost
			-			Total	0

All costs in USD.





# Agency: Administration Location: Capital Complex Fiscal Year: 2021

Asset Name : State Office Building Asset Number : 2

			A REAL PROPERTY AND A REAL
System:	C3010-Wall Finishes	Lifetime:	25
Name:	Acoustic Wall Panels - 1985	Years Remaining:	10 (Observed)
Quantity:	4,380	% Used:	60 (Observed)
Unit Cost:	10.65	Year Installed:	1985
Replacement Cost:	46,647	Date Inspected:	11/08/2010
Unit of Measure:	SF	SCI:	0.00
RENEWAL			
Renewal FY:	2021	Renewal Cost:	58,309
% Renew:	125		

#### DESCRIPTION

Interior wall finishes include fabric covered acoustic panels at hearing rooms. System life extended by Owner's maintenance program.

# SYSTEM COSTS

Unit Cost Basis:		1,000.00					
Class	Code Label	Description		Quantity	Unit Cost	Unit	Total Cost
U	098401000710	Sound Absorbing Panels, 4 panels, dacron covered, in frame, wall mounted, 4' x thick	ïberglass ner alum. 8′x 1−1/2″	1,000.00	10.65	S.F.	10,650.00
						Subtotal:	10,650.00
					Adjustr	nent Factor:	1.0000
						Total:	10,650.00
LINKED	REQUIREMENTS						
Name		Category	Priority	Inspector	A	ction Date	Cost

Total



State of Minnesota

Agency: Administration Location: Capital Complex Fiscal Year: 2021 Asset Name : State Office Building Asset Number : 2

System:	C3020-Floor Finishes	Lifetime:	25		
Name:	Quarry Tile - 1985	Years Remaining:	10 (Observed)		
Quantity:	2,900	% Used:	60 (Observed)		
Unit Cost:	22.38	Year Installed:	1985		
Replacement Cost:	64,902	Date Inspected:	11/08/2010		
Unit of Measure:	SF	SCI:	0.00		
RENEWAL					
Renewal FY:	2021	Renewal Cost:	81,128		
% Renew:	125				

## DESCRIPTION

Floor finishes at kitchen areas include mudset quarry or ceramic tile. System life extended by Owner's maintenance program.

# SYSTEM COSTS

Unit Cost Basis:		1,000.00				
Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	093101000600	Ceramic tile, cove base, mud set, 4-1/4" x 4-1/4"	250.00	16.16	L.F.	4,040.00
A	C30204101820	Tile, quarry tile, mud set, maximum	1,000.00	18.34	S.F.	18,340.00
					Subtotal:	22,380.00
				Adjust	ment Factor:	1.0000
					Total:	22,380.00

# LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
				Total	0

All costs in USD.





Agency: Administration Location: Capital Complex Fiscal Year: 2021 Asset Name : State Office Building Asset Number : 2

System:	C3030-Ceiling Finishes	Lifetime:	30		
Name:	GWB Taped and Finished - 1985	Years Remaining:	10 (Observed)		
Quantity:	175,450	% Used:	67 (Observed)		
Unit Cost:	4.33	Year Installed:	1985		
Replacement Cost:	759,699	Date Inspected:	11/08/2010		
Unit of Measure:	SF	SCI:	0.00		
RENEWAL					
Renewal FY:	2021	Renewal Cost:	949,623		
% Renew:	125				

#### DESCRIPTION

GWB ceiling system over 8-ft above floor taped, finished and painted with primer and 2 finish coats. Ceiling on suspension system or fastened to metal furring. System life extended by Owner's maintenance program.

#### SYSTEM COSTS

Unit Cost Basis:		1,000.00				
Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
A	C30301105700	Gypsum board ceilings, 5/8" fire rated gypsum board, painted and textured finish, 1-5/8" metal stud furring, 24" OC support	1,000.00	4.33	S.F.	4,330.00
					Subtotal:	4,330.00
				Adjusti	nent Factor:	1.0000
					Total:	4,330.00
LINKED REQUIREMENTS						

Name	Category	Priority	Inspector	Action Date	Cost
	ana a na ana amin'ny tanàna mandritry dia mampina dia GMT+1.			Total	0



Agency: Administration Location: Capital Complex Fiscal Year: 2021 Asset Name : State Office Building Asset Number : 2

System:	C3030-Ceiling Finishes	Lifetime:	30		
Name:	Ornately Detailed Painted Plaster Ceilings	Years Remaining:	10 (Observed)		
Quantity:	26,100	% Used:	67 (Observed)		
Unit Cost:	11.76	Year Installed:	1932		
Replacement Cost:	307,001	Date Inspected:	11/08/2010		
Unit of Measure:	SF	SCI:	0.00		
RENEWAL					
Renewal FY: % Renew:	2021 125	Renewal Cost:	383,752		

# DESCRIPTION

Ornately detailed three-coat painted plaster ceiling system on metal lath and suspended channels at original elevator lobbies and adjacent corridors. System life extended by renovation work.

#### SYSTEM COSTS

Unit Cost Basis: 1,000.00

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
A	C30301400120	Plaster, perlite, including finish, 3 coats	1,250.00	6.21	S.F.	7,762.50
А	C30301400280	Lath, gypsum, metal, diamond, 3.4 lb	1,000.00	1.38	S.F.	1,380.00
A	C30301400520	Furring, steel channels, 1-1/2" galvanized, 16" OC	1,000.00	2.62	S.F.	2,620.00
					Subtotal:	11,762.50
				Adjust	ment Factor:	1.0000
					Total:	11,762.50

## LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
				Total	. 0



by Renewal Fiscal Year

# Agency: Administration Location: Capital Complex Fiscal Year: 2021

Asset Name : State Office Building Asset Number : 2

ĺ	System:	C3030-Ceiling Finishes	Lifetime:	25
	Name:	Metal Slat Ceilings - 1985	Years Remaining:	10 (Observed)
	Quantity:	1,450	% Used:	60 (Observed)
	Unit Cost:	15.77	Year Installed:	1985
	Replacement Cost:	22,867	Date Inspected:	11/08/2010
	Unit of Measure:	SF	SCI:	0.00
RENEWAL				
	Renewal FY:	2021	Renewal Cost:	28.583
	% Renew:	125		

#### DESCRIPTION

Painted aluminum slat ceiling system with suspension system and acoustic insulation pads at hearing rooms. System life extended by Owner's maintenance program.

# SYSTEM COSTS

Unit Cost Basis:		1,000.00					
Class	Code Label	Description		Quantity	Unit Cost	Unit	Total Cost
U	091201008800	Suspended Ceiling System 24" O.C. with 1-5/8" chan O.C., incl. carriers	n, 2" carriers, nels, 16"	1,000.00	3.72	S.F.	3,720.00
U	U 095107601300 Complete Suspended Ceilings, metal pan with acoustic pad, painted aluminum, incl. standard susp. system, excl. 1-1/2" carrier channels		ngs, metal nted usp. system, ls	1,000.00	12.05	S.F.	12,050.00
						Subtotal:	15,770.00
					Adjust	ment Factor:	1.0000
						Total:	15,770.00
LINKED REQUIREMENTS							
Name		Category	Priority	Inspector	A	ction Date	Cost

Total



Agency: Administration Location: Capital Complex Fiscal Year: 2021 Asset Name : State Office Building Asset Number : 2

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ſ	System:	C3030-Ceiling Finishes	Lifetime:	30	
	Name:	Painted Concrete Surfaces - 1985	Years Remaining:	10 (Observed)	
	Quantity:	18,850	% Used:	67 (Observed)	
	Unit Cost:	0.59	Year Installed:	1985	
	Replacement Cost:	11,027	Date Inspected:	11/08/2010	
	Unit of Measure:	SF	SCI:	0.00	
RENEWAL					
	Renewal FY:	2021	Renewal Cost:	13,784	
1	% Renew:	125			

# DESCRIPTION

Paint finish applied to exposed cast-in-place concrete beams and deck, etc. primarily in basement and ground floor service areas. System life extended by Owner's maintenance program.

# SYSTEM COSTS

Unit Cost Basis: 1,000.00

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	099109200800	Paints & coatings, walls & ceilings, interior, concrete, drywall or plaster, latex paint, 2 coats, smooth finish, brushwork	250.00	0.96	S.F.	240.00
U	099109200880	Paints & coatings, walls & ceilings, interior, concrete, drywall or plaster, latex paint, 2 coats, smooth finish, spray	750.00	0.46	S.F.	345.00
					Subtotal:	585.00
				Adjust	ment Factor:	1.0000
					Total:	585.00

# LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
				Total	0

All costs in USD.



# Agency: Administration Location: Capital Complex Fiscal Year: 2021

Asset Name : State Office Building Asset Number : 2

Unit

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Adjustment Factor:

Subtotal:

Total:

Total Cost

69,046.20

69,046.20

69,046.20

1.0000

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	System:	D1010-Elevators and Lifts	Lifetime:	35
	Name:	Hydraulic Passenger Elevator	Years Remaining:	10 (Observed)
	Quantity:	1	% Used:	71 (Observed)
	Unit Cost:	69,046.20	Year Installed:	1985
	Replacement Cost:	69.046	Date Inspected:	11/08/2010
	Unit of Measure:	Each	SCI:	0.00
F	RENEWAL			
	Renewal FY:	2021	Renewal Cost:	86,308
	% Renew:	125		

## DESCRIPTION

The conveying equipment includes a passenger hydraulic elevator. This elevator serves only the 6th and 7th floors. It has a capacity of 2,100 lb.

#### SYSTEM COSTS

Unit Cost Basis:		1.00				
Class	Code Label	Description	Quantity	Unit Cost		
A	D10101102800	Hydraulic, passenger elevator, 4000 lb, 2 floors, 100 FPM	1.00	69,046.20		

# LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
				Total	0

by Renewal Fiscal Year

Asset Name : State Office Building Asset Number : 2

System:	D1010-Elevators and Lifts	Lifetime:	35 .	
Name:	Hydraulic Freight Elevator	Years Remaining:	10 (Observed)	
Quantity:	1	% Used:	71 (Observed)	
Unit Cost:	145,860.12	Year Installed:	1985	
Replacement Cost:	145,860	Date Inspected:	11/08/2010	
Unit of Measure:	Each	SCI:	0.00	
RENEWAL				
Renewal FY:	2021	Renewal Cost:	182,325	
% Renew:	125			

# DESCRIPTION

State of Minnesota

Agency: Administration

Location: Capital Complex

Fiscal Year: 2021

The conveying equipment includes a freight hydraulic elevator. This elevator serves two floors. It has a capacity of 3,000 lb.

# SYSTEM COSTS

Unit Cost Basis:		1.00				
Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
A	D10101106700	Hydraulic, freight elevators (class"B"), 3000 lb, 2 floors, 50 FPM	1.00	145,860.12	Ea.	145,860.12
				Adjust	Subtotal:	145,860.12
				Adjust	Total:	145,860.12

#### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
				Total	0





Agency: Administration

Location: Capital Complex

Fiscal Year: 2021

by Renewal Fiscal Year

Asset Name : State Office Building Asset Number : 2

_				
I	System:	D40-Fire Protection	Lifetime:	35
	Name:	Wet Sprinkler System	Years Remaining:	10 (Observed)
	Quantity:	290,000	% Used:	71 (Observed)
	Unit Cost:	5.74	Year Installed:	1985
	Replacement Cost:	1,664,391	Date Inspected:	11/08/2010
	Unit of Measure:	SF	SCI:	0.00
RENEWAL				
	Renewal FY:	2021	Renewal Cost:	2,080,489
	% Renew:	125		

#### DESCRIPTION

The fire protection systems includes a light hazard wet sprinkler system, which includes backflow prevention, a fire pump and standpipes.

#### SYSTEM COSTS

Unit Cost Basis:		1,000.00				
Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	151401001400	Backflow preventer, double check principle, corrosion resistant, automatic operation, OS&Y valves, flanged, 4" pipe size, includes valves and four test cocks	0.10	5,733.50	Ea.	573.35
A	D40104100600	Wet pipe sprinkler systems, steel, light bazard, 1 floor, 5000 SF	250.00	4.74	S.F.	1,185.00
A	D40104100720	Wet pipe sprinkler systems, steel, light hazard, each additional floor, 5000 SF	750.00	3.03	S.F.	2,272.50
A	D40203100560	Wet standpipe risers, class I, steel, black, sch 40, 4" diam pipe, 1 floor	0.10	7,767.60	Floor	776.76
А	D40203100580	Wet standpipe risers, class I. steel, black, sch 40, 4" diam pipe, additional floors	0.20	2,165.73	Floor	433.15
A	D40204103600	Fire pump, electric, with controller, 5" pump, 40 HP, 1000 GPM	0.02	21,955.65	Ea.	439.11
A	D40204103700	Fire pump, electric, for jockey pump system, add	0.02	2,970.52	Ea.	59.41
					Subtotal:	5,739.28
				Adjust	ment Factor:	1.0000
					Total:	5,739.28

# LINKED REQUIREMENTS

State of Minnesote				System Detail R	eport
State of minnesota				by Renewal Fisca	ıl Year
Name	Category	Priority	Inspector	Action Date	Cost

Land Dr. A

0

Total

All costs in USD.

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# Agency: Administration Location: Capital Complex Fiscal Year: 2021

Asset Name : State Office Building Asset Number : 2

System:	D5022-Lighting Equipment	Lifetime:	20
Name:	Exterior Lighting - HID Wallpacks	Years Remaining:	10 (Observed)
Quantity:	3	% Used:	50 (Observed)
Unit Cost:	1,463.59	Year Installed:	2000
Replacement Cost:	4,391	Date Inspected:	11/08/2010
Unit of Measure:	Each	SCI:	0.00
RENEWAL			×
Renewal FY:	2021	Renewal Cost:	5,488
% Renew:	125		

#### DESCRIPTION

HID wallpack luminaires are installed on the exterior west end of the building.

### SYSTEM COSTS

Unit Cost I	Basis:	1.00

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
Е	015904000150D	Rent aerial lift to 15'high 1000 lb cap scissor type	1.00	98.03	Ea./day	98.03
υ	161366009000	Outlet boxes, minimum labor/equipment charge	1.00	172.24	Job	172.24
υ	165203001190	Metal halide fixture, exterior, wall pack, 250 Watt, incl lamps	1.00	486.46	Ea.	486.46
υ	165802000450	Photoelectric control, S.P.D.T., 208 V/277 V	1.00	316.36	Ea.	316.36
А	D50102301240	Branch installation 600 V, including EMT conduit and THW wire, 20 A	50.00	7.81	L.F.	390.50
					Subtotal:	1,463.59
				Adjust	ment Factor:	1.0000
					Total:	1,463.59

#### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
				Total	0



# by Renewal Fiscal Year

Agency: Administration Location: Capital Complex Fiscal Year: 2021 Asset Name : State Office Building Asset Number : 2

System:	D5032-Intercommunication and Paging System	Lifetime:	15
Name:	Intercom System	Years Remaining:	10 (Observed)
Quantity:	1	% Used:	33 (Observed)
Unit Cost:	23,989.86	Year Installed:	2000
Replacement Cost:	23,990	Date Inspected:	11/08/2010
Unit of Measure:	Each	SCI:	0.00
RENEWAL			
Renewal FY:	2021	Renewal Cost:	29,987
% Renew:	125		

#### DESCRIPTION

Two way intercom stations are provided on exterior doors and various office doors.

"This system is in better than expected condition for a system of its age due to good maintenance and replacement parts are still available. Based on the criteria, the observed years remaining have been adjusted to reflect the extended life expectancy of this system."

# SYSTEM COSTS

Unit Cos	t Basis:	1.00					
Class	Code Label	Description		Quantity	Unit Cost	Unit	Total Cost
A	D50309100520	Communication and a includes outlets, boxe wire, intercom system	alarm systems, s, conduit and as, 12 stations	1.25	19,191.89	Ea.	23,989.86
						Subtotal:	23,989.86
					Adjust	ment Factor:	1.0000
						Total:	23,989.86
LINKED	REQUIREMENTS						
Name		Category	Priority	Inspector	A	ction Date	Cost
40 Contraction Colored To						Total	0



by Renewal Fiscal Year

# Agency: Administration Location: Capital Complex Fiscal Year: 2021

Asset Name : State Office Building Asset Number : 2

System:	D5033-Telephone Systems	Lifetime:	15	
Name:	Cell Phone Repeaters	Years Remaining:	10 (Observed)	
Quantity:	1	% Used:	33 (Observed)	
Unit Cost:	182,612.95	Year Installed:	2005	
Replacement Cost:	182,613	Date Inspected:	11/08/2010	
Unit of Measure:	Each	SCI:	0.00	
RENEWAL				
Renewal FY:	2021	Renewal Cost:	228,266	
% Renew:	125			

#### DESCRIPTION

There are SPRINT cell phone repeaters and coax cable backbone installed throughout the building.

#### SYSTEM COSTS

Unit Cos	st Basis:	1.00					
Class	Code Label	Description		Quantity	Unit Cost	Unit	Total Cost
U	167104001420	Fiber optics repe range	ater, digital, 1.2 mile	100.00	914.01	Ea.	91,401.00
υ	167404001100	Switching and ro network hub, dua cabinet	uting equipment, 1 speed, 24 ports, incl	15.00	4,811.13	Ea.	72,166.95
U	168107500950	TV antenna lead- feeder outlet	in cable, coaxial,	35.00	133.10	C.L.F.	4,658.50
U	168107501000	TV antenna lead- riser	in cable, coaxial, main	35.00	166.30	C.L.F.	5,820.50
U	168107503560	Coaxial connecto A/U #62 cable	rs, BNC plug for, RG	200.00	21.28	Ea.	4,256.00
U	168107503620	Coaxial connecto A/U #62 cable	rs, BNC jack for, RG	200.00	21.55	Ea.	4,310.00
						Subtotal:	182,612.95
					Adjust	ment Factor:	1.0000
						Total:	182,612.95
LINKED	REQUIREMENTS						
Name		Category	Priority	Inspector	A	ction Date	Cost
						Total	0



by Renewal Fiscal Year

Agency: Administration Location: Capital Complex Fiscal Year: 2021 Asset Name : State Office Building Asset Number : 2

System:	D5033-Telephone Systems	Lifetime:	15
Name:	Telephone Wiring	Years Remaining:	10 (Observed)
Quantity:	290,000	% Used:	33 (Observed)
Unit Cost:	3.73	Year Installed:	1980
Replacement Cost:	1,080,772	Date Inspected:	11/08/2010
Unit of Measure:	SF	SCI:	0.00
RENEWAL			
Renewal FY: 2	2021	Renewal Cost:	1,350,965
% Renew: 1	25		

# DESCRIPTION

Standard voice wiring is installed throughout the facility with drops at workstations and desktops. Punch down blocks and data racks are located in communications closets throughout the facility. Wiring is routed through ceiling spaces using a combination of cable tray, conduits and cable hangars. The majority of the structured wiring in the facility is a mix of original and updated cabling. Wiring is continually upgraded and efforts have been made to keep wiring and connectivity to current standards.

"This system is functional and adequate for the facility due to good maintenance and wiring is continually upgraded and efforts have been made to keep wiring and connectivity to current standards. Based on this criteria; the observed years remaining has been increased to reflect expected additional life of the system."

#### SYSTEM COSTS

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Unit Co	OST Basis:	1,000.00				
Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	161367007920	Telephone cabinet, w/wood backboard. double door, 48" H x 36" W x 6" D	0.25	1,455.08	Ea.	363.77
U	167107505600	Unshielded twisted pair (UTP) cable, solid, plenum, #24, 25 pair, category 3	3.00	351.01	C.L.F.	1,053.03
A	D50303101020	Telephone wiring for offices & laboratories, 8 jacks/MSF	1,000.00	2.31	S.F.	2,310.00
					Subtotal:	3,726.80
				Adjust	ment Factor:	1.0000
		<			Total:	3,726.80

#### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
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by Renewal Fiscal Year

Agency: Administration Location: Capital Complex Fiscal Year: 2021

Asset Name : State Office Building Asset Number : 2

System:	D5039-Local Area Networks	Lifetime:	15
Name:	Data Wiring	Years Remaining:	10 (Observed)
Quantity:	290,000	% Used:	33 (Observed)
Unit Cost:	2.57	Year Installed:	2005
Replacement Cost:	746,643	Date Inspected:	11/08/2010
Unit of Measure:	SF	SCI:	0.01
RENEWAL			
Renewal FY:	2021	Renewal Cost:	933,303
% Renew:	125		

## DESCRIPTION

Standard data systems are installed throughout the facility with drops at workstations and desktops. Punch down blocks and data racks are located in communications closets throughout the facility. Wiring is routed through ceiling spaces using a combination of cable tray, conduits and cable hangars. The majority of the structured wiring in the facility is a mix of original and updated cabling. Wiring is continually upgraded and efforts have been made to keep wiring and connectivity to current standards.

# SYSTEM COSTS

Unit Cos	at Basis:	1,000.00				
Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
A	D50309200110	Internet wiring, 8 data/voice outlets per 1000 S.F.	1.00	2,574.63	M.S.F.	2,574.63
					Subtotal:	2,574.63
				Adjust	ment Factor:	1.0000
					Total:	2,574,63

#### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
Communication Wiring - Improperly Installed - Corridor 180B	Building Code	1- Currently Critical	Elec	11/08/2011	1,380
Communication Wiring - Improperly Installed - Room 142F	Building Code	1- Currently Critical	Elec	11/08/2011	1,380
Local Area Networks – Unprotected Plumbing Pipes above Equipment – Room 132E	Building Code	1- Currently Critical	Elec	11/08/2011	1,268
				Total	4,028

4,028



Asset Name : State Office Building Asset Number : 2

						Total	0
Name		Category	Priority	Inspector	ł	Action Date	Cost
LINKED	REQUIREMENTS	i -					
						Total:	503.82
					Adjust	ment Factor:	1.0000
						Subtotal:	503.82
А	E20105100120	Architectural equipn equipment seating, p upholstered, deluxe	ainted steel,	1.00	503.82	Ea.	503.82
Class	Code Label	Description		Quantity	Unit Cost	Unit	Total Cost
Unit Cos	t Basis:	1.00					
SYSTEM	COSTS						
Furnish	ings include deluxe,	fixed theater seating at	hearing rooms.	2			
DESCRI	PTION						
% Renev	v:	63					
Renewal	FY:	2021		Renewal Cost:	14	1,699	
RENEW	AT.						
Unit of	Measure:	Each		SCI:	(	0.00	
Replace	ement Cost:	226,719	226,719 Date Inspected:		11/08/2010		
Unit Co	ost:	503.82		Year Installed:	1	1985	
Ouantit	v:	450		% Used:	1	(Observed)	
Name:		Fixed Theater 1985	Seating - Deluxe -	Years Remaining:	1	(Observed)	
System	•	E-Equipment	and Furnishings	Lifetime:	2	55	

Agency: Administration

Location: Capital Complex

Fiscal Year: 2021




#### Agency: Administration Location: Capital Complex Fiscal Year: 2021

Asset Name : State Office Building Asset Number : 2

System:	E-Equipment and Furnishings	Lifetime:	25		
Name:	Fixed Casework - Institutional - High End - 1985	Years Remaining:	10 (Observed)		
Quantity:	200	% Used:	60 (Observed)		
Unit Cost:	794.79	Year Installed:	1985		
Replacement Cost:	158,958	Date Inspected:	11/08/2010		
Unit of Measure:	LF	SCI:	0.00		
RENEWAL					
Renewal FY:	2021	Renewal Cost:	198,698		
% Kenew:	125				

#### DESCRIPTION

Building includes deluxe railings and casework at hearing rooms and publicly accessible service counters. System life extended by Owner's maintenance program.

#### SYSTEM COSTS

Unit Cost Basis: 1.00

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	057207000700	Railing, ornamental, composite metal and wood or glass, 3'-6" high, posts @ 6' O.C., hand assembled, maximum	1.00	377.82	L.F.	377.82
U	064101009600	Custom Cabinets, rule of thumb: kitchen cabinets, excl. counters & appliances, maximum	1.00	416.97	L.F.	416.97
					Subtotal:	794.79
				Adjust	ment Factor:	1.0000
					Total:	794.79
INIZED	DECLIDENTENTS					

#### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
				Total	0





Agency: Administration Location: Capital Complex Fiscal Year: 2021 Asset Name : State Office Building Asset Number : 2

A REAL PROPERTY AND A REAL						
System:	E-Equipment and Furnishings	Lifetime:	25			
Name:	Fixed Casework - High End - 1985	Years Remaining:	10 (Observed)			
Quantity:	160	% Used:	60 (Observed)			
Unit Cost:	469.06	Year Installed:	1985			
Replacement Cost:	75,050	Date Inspected:	11/08/2010			
Unit of Measure:	LF	SCI:	0.00			
RENEWAL						
Renewal FY:	2021	Renewal Cost:	93,812			
% Renew:	125					

#### DESCRIPTION

Building includes deluxe kitchen cabinets and countertops, without appliances. System life extended by Owner's maintenance program.

#### SYSTEM COSTS

Unit Cost Basis:		1.00				
Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	064101009600	Custom Cabinets, rule of thumb: kitchen cabinets, excl. counters & appliances, maximum	1.00	416.97	L.F.	416.97
υ	064151000100	Counter tops, stock, plastic laminate, 24" wide, includes backsplash, maximum	1.00	52.09	L.F.	52.09
					Subtotal:	469.06
				Adjust	ment Factor:	1.0000
					Total:	469.06

#### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
				Total	0

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#### Agency: Administration Location: Capital Complex Fiscal Year: 2021

Asset Name : State Office Building Asset Number : 2

System:	G2030-Pedestrian Paving	Lifetime:	25
Name:	Pedestrian Pavement - Granite and Concrete	Years Remaining:	10 (Observed)
Quantity:	1,000	% Used:	60 (Observed)
Unit Cost:	58.54	Year Installed:	1932
Replacement Cost:	58,540	Date Inspected:	11/08/2010
Unit of Measure:	SF	SCI:	0.00
RENEWAL			
Renewal FY:	2021	Renewal Cost:	36,588
% Renew:	63		

#### DESCRIPTION

Granite paving blocks on cast-in-place concrete at exterior entrances and landings. Granite applied over cast-in-place (CIP) concrete base, 5" thick, 6x6-#10 mesh, broom finish with 4" sand bedding. System life extended by renovation work.

#### SYSTEM COSTS

Unit Cost Basis:		1,000.00					
Class	Code Label	Description		Quantity	Unit Cost	Unit	Total Cost
υ	027752750140	Sidewalks, driveways, and bedding for brick or stone, thick, excludes base	patios, sand, 4"	1,000.00	0.95	S.F.	950.00
U	027752750351	Sidewalks, driveways, and sidewalk, concrete, cast-in x 6 - W1.4 x W1.4 mesh, t finish, 3000 psi, 5" thick, c	patios, -place with 6 oroomed excludes base	1,000.00	4.87 S.F.		4,870.00
U	048503002700	Granite pavers, belgian blo long, 4"-6" wide, 4"-6" dee	ock, 8"-13" ep	1,000.00	52.72 S.F.		52,720.00
						Subtotal:	58,540.00
					Adjust	ment Factor:	1.0000
						Total:	58,540.00
LINKED	REQUIREMENTS						
Name		Category	Priority	Inspector	А	ction Date	Cost

All costs in USD.

0

Total



Agency: Administration Location: Capital Complex Fiscal Year: 2025 Asset Name : State Office Building Asset Number : 2

System:	D3050-Terminal and Package Units	Lifetime:	15		
Name:	Unit Heaters - Electric	Years Remaining:	14 (Observed)		
Quantity:	5	% Used:	7 (Observed)		
Unit Cost:	5,205.08	Year Installed:	2009		
Replacement Cost:	26,025	Date Inspected:	11/08/2010		
Unit of Measure:	Each	SCI:	0.00		
RENEWAL					
Renewal FY:	2025	Renewal Cost:	29,148		
% Renew:	112				

#### DESCRIPTION

State of Minnesota

Heating is provided by suspended, electric unit heaters. These are found in service areas and electrical rooms.

#### SYSTEM COSTS

Unit Cost Basis:		1.00				
Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	157602509020	Electric heating, cabinet unit heaters, ceiling mount, 208 to 480 volt, three pole, 13.5 kW	1.00	3,240.31	Ea.	3,240.31
A	D50201450520	Motor installation, three phase, 200 V, 1-1/2 HP motor size	1.00	1,964.77	Ea.	1,964.77
					Subtotal:	5,205.08
				Adjust	ment Factor:	1.0000
					Total:	5,205.08

#### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
				Total	0



#### Agency: Administration Location: Capital Complex Fiscal Year: 2025

Asset Name : State Office Building Asset Number : 2

	System:	D40-Fire Protection	Lifetime:	15		
	Name:	FM200 System	Years Remaining:	14 (Observed)		
	Quantity:	16,000	% Used:	7 (Observed)		
	Unit Cost:	1.63	Year Installed:	2009		
	Replacement Cost:	26,080	Date Inspected:	11/08/2010		
	Unit of Measure:	CU FT	SCI:	0.00		
J	RENEWAL					
	Renewal FY:	2025	Renewal Cost:	32,600		
	% Renew:	125				

#### DESCRIPTION

The fire protection systems include a minimum to moderate density FM200 system. This system serves room B46.

#### SYSTEM COSTS

Unit Cost Basis: 1.00						
Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
A	D40909200820	Average FM200 system, minimum	1.00	1.63	C.F.	1.63
					Subtotal:	1.63
				Adjust	ment Factor:	1.0000
					Total:	1.63

#### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
				Total	0





Agency: Administration Location: Capital Complex Fiscal Year: 2025 Asset Name : State Office Building Asset Number : 2

System:	D40-Fire Protection	Lifetime:	20		
Name:	Kitchen Hood Suppression	Years Remaining:	14 (Observed)		
Quantity:	1	% Used:	30 (Observed)		
Unit Cost:	5,265.47	Year Installed:	2004		
Replacement Cost:	5,265	Date Inspected:	11/08/2010		
Unit of Measure:	Each	SCI:	0.00		
RENEWAL					
Renewal FY:	2025	Renewal Cost:	6,582		
% Renew:	125				

#### DESCRIPTION

System includes a R-102 chemical fire suppression system for a typical commercial kitchen. Fire suppression includes fusible links, manual pull stations, 3 gallon tanks, nozzles, and control panels. Hood not included.

#### SYSTEM COSTS

Unit Cost	Basis:	1.00
Unit COst	Dasis.	1.0

Class	Code Label	Description		Quantity	Unit Cost	Unit	Total Cost
U	114251107950	Hood fire protection system, commercial kitchen equipment,	min	1.00	5,265.47	Ea.	5,265.47
						Subtotal:	5,265.47
					Adjust	ment Factor:	1.0000
						Total:	5,265.47
LINKED	REQUIREMENTS						
Name		Category Prio	ority	Inspector	A	ction Date	Cost
						Total	0





2

#### Agency: Administration Location: Capital Complex Fiscal Year: 2026

Asset Name : State Office Building Asset Number : 2

	System:	B3022-Roof Hatches	Lifetime:	40
	Name:	Roof Hatch - 1985	Years Remaining:	15 (Observed)
	Quantity:	1	% Used:	63 (Observed)
	Unit Cost:	1,462.36	Year Installed:	1985
	Replacement Cost:	1,462	Date Inspected:	11/08/2010
	Unit of Measure:	Each	SCI:	0.00
RENEWAL				
	Renewal FY:	2026	Renewal Cost:	1,828
	% Renew:	125		

#### DESCRIPTION

Roof hatch with insulated curb at 9th floor roof access.

#### SYSTEM COSTS

Unit Cost	Basis:	1.00
Cuir Coot	D CCAD.	1.00

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
А	B30202100200	Roof hatch, with curb, 1" fiberglass insulation, 2'-6" x 3'-0", aluminum	1.00	1,462.36	Opng.	1,462.36
					Subtotal:	1,462.36
				Adjust	ment Factor:	1.0000
					Total:	1,462.36

#### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
				Total	0



Agency: Administration Location: Capital Complex Fiscal Year: 2026 Asset Name : State Office Building Asset Number : 2

System:	D5022-Lighting Equipment	Lifetime:	20	
Name:	Interior Lighting - Recessed Lighting	Years Remaining:	15 (Observed)	
Quantity:	290,000	% Used:	25 (Observed)	
Unit Cost:	6,49	Year Installed:	1990	
Replacement Cost:	1,882,100	Date Inspected:	11/08/2010	
Unit of Measure:	SF .	SCI:	0.00	
RENEWAL				
Renewal FY:	2026	Renewal Cost:	2,352,625	
% Renew:	125			

#### DESCRIPTION

Recessed lighting is installed in many areas of the building for general lighting and also accent lighting. Lighting type includes a combination of incandescent lamps, halogen spot light lamps and compact fluorescent lamps (CFL). Locations include but are not necessarily limited to Conference Rooms, Corridors and various office spaces.

"This system is in good working order due to good maintenance. Lamps are replaced regularly as required and updated or retrofitted with energy saving lamps. The observed years remaining have been adjusted to reflect the extended life expectancy of this system."

#### SYSTEM COSTS

Unit Cost Basis:		1,000.00					
Class	Code Label	Description		Quantity	Unit Cost	Unit	Total Cost
A	D50202160400	Incandescent fixtures recess mounted, type A, 5 watt per SF, 40 FC, 30 fixtures per 1000 SF		500.00	12.98	S.F.	6,490.00
						Subtotal:	6,490.00
					Adjust	ment Factor:	1.0000
						Total:	6,490.00
LINKED REQUIREMENTS							
Name		Category	Priority	Inspector	A	ction Date	Cost
						Total	0



#### Agency: Administration Location: Capital Complex Fiscal Year: 2029

Asset Name : State Office Building Asset Number : 2

1	and the second			
	System:	D5022-Lighting Equipment	Lifetime:	20
	Name:	Interior Lighting - Compact Fluorescent Wall Sconces	Years Remaining:	18 (Observed)
	Quantity:	290,000	% Used:	10 (Observed)
	Unit Cost:	1.39	Year Installed:	2008
	Replacement Cost:	404,043	Date Inspected:	11/08/2010
	Unit of Measure:	SF	SCI:	0.00
RENEWAL				
	Renewal FY:	2029	Renewal Cost:	505,054
	% Renew:	125		

#### DESCRIPTION

Brass wall sconces are installed throughout most corridors. Luminaires have been retrofitted with compact fluorescent lamps and ballasts and provide accent uplighting throughout. Install date represents approximate date of retrofit.

#### SYSTEM COSTS

Unit Cost	Basis:	1,000.00

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
υ	161366009000	Outlet boxes, minimum labor/equipment charge	1,00	172.24	Job	172.24
U	165103000240	Fixture hangers, canopy	1.00	67.65	Ea.	67.65
υ	165103000260	Fixture hangers, connecting block	1.00	21.67	Ea.	21.67
U	165103000280	Fixture hangers, cushion hanger	1.00	65.81	Ea.	65.81
U	165103000300	Fixture hangers, box hanger, with mounting strap	1.00	95.22	Ea.	95.22
U	165104405030	Incandescent fixture, interior, ceiling mounted, square, 300 W, incl lamps, mounting hardware and connections	1.00	455.98	Ea.	455.98
U	165104407630	Electronic ballast, replacement, interior lighting fixtures, for two tubes, to 15' high	2.00	125.67	Ea.	251.34
U	165856000570	Fluorescent lamp, double twin tube compact lamp	0.03	2,269.77	С	68.09
A	D50102301240	Branch installation 600 V, including EMT conduit and THW wire, 20 A	25.00	7.81	L.F.	195.25
					Subtotal:	1.393.25

Adjustment Factor: 1.0000

Total: 1,393.25



### by Renewal Fiscal Year

### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
				Total	0



#### Agency: Administration Location: Capital Complex Fiscal Year: 2029

1.00

Asset Name : State Office Building Asset Number : 2

	System:	D5022-Lighting Equipment	Lifetime:	20	
	Name	Interior Lighting - Pendant Lighting	Years Remaining:	18 (Observed)	
	Quantity:	50	% Used:	10 (Observed)	
	Unit Cost:	1,665.90	Year Installed:	2008	
	Replacement Cost:	83,295	Date Inspected:	11/08/2010	
	Unit of Measure:	Each	SCI:	0.00	
ŀ	RENEWAL				
	Renewal FY:	2029	Renewal Cost:	104,119	
	% Renew:	125			

#### DESCRIPTION

Pendant type fixtures are installed in the elevator lobbies. Fixtures have been retrofitted with compact fluorescent lamps (CFL). Install date represents approximate date of retrofit.

#### SYSTEM COSTS

Unit Cost Basis:

Unit Cost Class Code Label Description Quantity Unit Total Cost U 161366009000 Outlet boxes, minimum 1.00 172.24 Job 172.24 labor/equipment charge U 165103000220 Fixture hangers, boxes hub cover 1.00 25.65 Ea, 25.65 U 165103000240 Fixture hangers, canopy 1.00 67.65 Ea. 67.65 U 165103000260 Fixture hangers, connecting block 1.00 21.67 Ea. 21.67 165103000280 U Fixture hangers, cushion hanger 1.00 65.81 Ea. 65.81 U 165103000300 Fixture hangers, box hanger, with 1.00 95.22 Ea. 95.22 mounting strap υ 165103000320 Fixture hangers, box hanger, 1.00 19.39 Ea. 19.39 connecting block U 165103000560 Fixture hangers, flexible, 3/4" diameter, 4.00 88.51 Ea. 354.04 12" long U 165104405510 Incandescent fixture, interior, pendent, 1.00 205.31 Ea. 205.31 round, 100 W, incl lamps, mounting hardware and connections U 165104409000 Interior lighting fixtures, minimum 1.00 229.66 Job 229.66 labor/equip charge U 165856000586 Fluorescent lamp, compact, 26 watt, 0.01 1.876.12 С 18.76 replaces standard 100 watt bulb D50102301240 Branch installation 600 V, including 50.00 L.F. 7.81 A 390.50 EMT conduit and THW wire, 20 A



### by Renewal Fiscal Year

				Subtotal:	1,665.90
				Adjustment Factor:	1.0000
				Total:	1,665.90
LINKED REQUIRE	EMENTS				
Name	Category	Priority	Inspector	Action Date	Cost
				Total	0

All costs in USD.



#### Agency: Administration Location: Capital Complex Fiscal Year: 2029

Asset Name : State Office Building Asset Number : 2

	System:	D5022-Lighting Equipment	Lifetime:	20		
	Name:	Antique Lighting - Solid Bronze Exterior Post Candelabras	Years Remaining:	18 (Observed)		
	Quantity:	8	% Used:	10 (Observed)		
	Unit Cost:	23,584.07	Year Installed:	2008		
	Replacement Cost:	188,673	Date Inspected:	11/08/2010		
	Unit of Measure:	Each	SCI:	0.10		
F	RENEWAL					
	Renewal FY:	2029	Renewal Cost:	235,841		
	% Renew:	125				

#### DESCRIPTION

Original solid cast bronze exterior post type candelabras are installed at each exterior entrance. The candelabras have been retrofitted with nine compact fluorescent lamps (CFL) and plastic globes each. Install date represents approximate date of lighting retrofit.

"Bronze candelabras are 78 years old and it is expected they will last another 100 years under same environment. Observed years remaining to reflect expected years remaining of recently installed lighting retrofit."

Note: Non-Means line item used for bronze exterior post. Unit cost is based on approximate price of \$1000 as shown on original purchase order for similar fixtures at the State Capital and escalated to 2010 dollars with a 3.5% discount factor over 78 years (14.67). Original prices provided by State Capital Historical Society. Actual historical assessed value may vary.

#### SYSTEM COSTS

Unit Cost Basis:

1.00

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	022102001999	Concrete core drilling, includes bit, layout and set up, minimum equipment/labor charge	1.00	278.86	Job	278.86
U	161366009000	Outlet boxes, minimum labor/equipment charge	1.00	172.24	Job	172.24
υ	165103000220	Fixture hangers, boxes hub cover	9.00	25.65	Ea.	230.85
U	165103000260	Fixture hangers, connecting block	9.00	21.67	Ea.	195.03
υ	165203008270	Walkway luminaire, exterior, lantern, incandescent, 300 watt	9.00	619.42	Ea.	5,574.78
υ	165203009000	Exterior fixtures, minimum labor/equipment charge	9.00	183.73	Job	1,653.57
U	165856000586	Fluorescent lamp. compact, 26 watt, replaces standard 100 watt bulb	0.09	1,876.12	С	168.85
A	D50102301240	Branch installation 600 V, including EMT conduit and THW wire, 20 A	50.00	7.81	L.F.	390.50
N	n/a	Solid Bronze Exterior Post Candelabra	1.00	14,919.39	Each	14,919.39



### by Renewal Fiscal Year

Subtotal:	23,584.07
Adjustment Factor:	1.0000
Total:	23,584.07

#### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
Exterior Lighting - Luminaires in Disrepair	Reliability	1- Currently Critical	Elec	11/08/2011	18,841
				Total	18,841

All costs in USD.



#### Agency: Administration Location: Capital Complex Fiscal Year: 2029

Asset Name : State Office Building Asset Number : 2

	System:	D5092-Emergency Light and Power Systems	Lifetime:	20
	Name:	Emergency Generator - 500kW	Years Remaining:	18 (Observed)
	Quantity:	1	% Used:	10 (Observed)
	Unit Cost:	265,525.17	Year Installed:	2008
	Replacement Cost:	265,525	Date Inspected:	11/08/2010
	Unit of Measure:	Each	SCI:	0.00
RENEWAL				
	Renewal FY:	2029	Renewal Cost:	331,906
	% Renew:	125		

#### DESCRIPTION

There is an 500 kW diesel driven generator located outside the adjacent parking garage entrance. The generator is equipped with a 75 gallon day tank and sound proof weatherproof housing. The main storage tank is located in the parking garage and included under that asset. Feeder wiring is routed underground from the generator to the main electrical room in the State Office Building.

#### SYSTEM COSTS

Unit Cos	1 Basis:	
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1.00

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
Е	015906002760W	Rent crane truck mounted, hydraulic, 150 ton capacity	1.00	14,368.86	Ea./week	14,368.86
U	131287006000	Pre-Eng Steel Bldg Access., pre-eng. steel doors, double leaf, glazed, 6' x 7'	2.00	2,217.59	Opng.	4,435.18
U	131287006920	Pre-Eng Steel Bldg Access., insulation, vinyl faced, rated .6 lb density, R19, 6" thick	1,100.00	1.16	S.F.	1,276.00
U	164102001000	Circuit breaker, 3 pole, 600 volt, 800 amp, enclosed (NEMA 1)	1.00	6,991.76	Ea.	6,991.76
А	A10301206800	Slab on grade, 8" thick, heavy industrial, reinforced	500.00	16.31	S.F.	8,155.00
A	D50101200360	Service installation, includes breakers, metering, 20' conduit & wire, 3 phase, 4 wire, 120/208 V, 600 A	1.25	13,060.94	Ea.	16,326.18
A	D50102400240	Switchgear installation, incl switchboard, panels & circuit breaker, 600 A	1.00	19,297.85	Ea.	19,297.85
A	D50902101040	Generator sets, w/battery, charger, muffler and transfer switch, diesel engine with fuel tank 500 kW	500.00	256.98	kW	128,490.00



### by Renewal Fiscal Year

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
A	F10103400520	Special construction, hangar, prefabricated, galvanized roof and walls, electric bifolding doors, deluxe	500.00	22.66	S.F.	11,330.00
A	G40103121400	Electric power feed 800 Amp, 4' deep, 100', including excavation, backfill, concrete & compaction	3.00	18,284.78	Ea.	54,854.34
					Subtotal:	265,525.17
				Adjust	ment Factor:	1.0000
					Total:	265,525.17

#### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
				Total	0

All costs in USD.



by Renewal Fiscal Year

		Agency: Location: Fiscal Year:	Administration Capital Complex 2030	Asset Nar Asset Numb	me: State Office Building per: 2		
	System:		D1013-Lifts	Lifetime:	25		
	Name:		Wheelchair Lift	Years Remaining:	19 (Observed)		
	Quantity	y:	1	% Used:	24 (Observed)		
	Unit Co	st:	14.745.45	Year Installed:	2004		
	Replace	ment Cost:	14,745	Date Inspected:	11/08/2010		
	Unit of I	Measure:	Each	SCI:	0.00		
F	RENEWA Renewal % Renew DESCRIP The con The con SYSTEM Unit Cost	AL FY: TION veying system includ COSTS t Basis:	2030 105 les a wheelchair lift 1.00	Renewal Cost:	15,483		
	Class	Code Label	Description	Quantity	Unit Cost Unit		
	U	144201008000	Elevators/Lifts, residential, wheelchair lift, min	1.50	9,830.30 Ea. Subtotal: Adjustment Factor: Total:		
L	LINKED REQUIREMENTS						

Name	Category	Priority	Inspector	Action Date	Cost
				Total	0

All costs in USD.

Total Cost 14,745.45

14,745.45 1.0000 14,745.45



#### Agency: Administration Location: Capital Complex Fiscal Year: 2030

Asset Name : State Office Building Asset Number : 2

System:	D3050-Terminal and Package Units	Lifetime:	20
Name:	Computer Room Cooling - DX w/Air Cooled Remote Condenser	Years Remaining:	19 (Observed)
Quantity:	3	% Used:	5 (Observed)
Unit Cost:	51,027.25	Year Installed:	2009
Replacement Cost:	153,082	Date Inspected:	11/08/2010
Unit of Measure:	Each	SCI:	0.00
RENEWAL			
Renewal FY:	2030	Renewal Cost:	191,352
% Renew:	125		

#### DESCRIPTION

The HVAC system includes three Liebert computer room cooling units with an air cooled remote condensers.

#### SYSTEM COSTS

Unit Cost Basis:	1.00
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Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	150806007860	Insulation, pipe covering (price copper tube one size less than I.P.S.), polyethylene tubing flexible closed cell foam, UV-resistant, standard temperature, (-90 Deg.F to +212Deg.F), 3/4" wall, 1" iron pipe size	50.00	7.67	L.F.	383.50
A	D20908101280	Copper tubing, hard temper, solder, type K. 1" diameter	50.00	24.43	L.F.	1,221.50
A	D30501850660	Computer room unit, air cooled, includes remote condenser, 15 ton	1.00	49,422.25	Ea.	49,422.25
					Subtotal:	51,027.25
				Adjust	ment Factor:	1.0000
					Total:	51,027.25

#### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
				Total	0



Agency: Administration Location: Capital Complex Fiscal Year: 2031 Asset Name : State Office Building Asset Number : 2

System:	D1011-Passenger Elevators	Lifetime:	35	
Name:	Passenger Elevators - Elevator #5	Years Remaining:	20 (Observed)	
Quantity:	1	% Used:	43 (Observed)	
Unit Cost:	372,216.88	Year Installed:	1995	
Replacement Cost:	372,217	Date Inspected:	11/08/2010	
Unit of Measure:	Each	SCI:	0.42	
RENEWAL				
Renewal FY:	2031	Renewal Cost:	465,271	
% Renew:	125			
ENEWAL Renewal FY:	2031	Renewal Cost:	465,271	

#### DESCRIPTION

Elevators #5 is a geared traction type passenger elevator. The elevator is located on the West side of the building. The elevator is rated at 3,500 lbs maximum load capacity at 350 feet per minute. The elevator provides vertical transportation from the Basement to the Fifth Floor inclusive. The elevator has polished brass doors and trim, faux wood walls and ceiling with halogen lighting, carpet on the floor and all required emergency communications. Install date represents most recent overhaul.

#### SYSTEM COSTS

Unit Cost Basis:

1.00

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	142102001625	Electric Traction Passenger Elevators, base unit, standard finish, 2000 lb, 200 fpm, 4 stop	1.00	127,306.00	Ea	127,306.00
U	142102001700	Electric Traction Passenger Elevators, base unit, standard finish, for 3500 lb capacity, add	1.00	7,645.00	Ea.	7,645.00
U	142102001850	Electric Traction Passenger Elevators, base unit, standard finish, for increased speed, 350 fpm, geared electric, add	1.00	12,430.00	Ea.	12,430.00
U	142102002000	Electric Traction Passenger Elevators, base unit, standard finish, for travel over 40 V.L.F., add	80.00	959.52	V.L.F.	76,761.60
U	142102002025	Electric Traction Passenger Elevators, base unit, standard finish, for number of stops over 4, add	3.00	14,705.93	Stop	44,117.79
U	142702003425	Passenger Elevator Options, cab finishes (based on 3500 lb cab size), carpet flooring	1.00	627.00	Ea.	627.00
U	142702003575	Passenger Elevator Options, cab finishes (based on 3500 lb cab size), stainless steel returns at door	1.00	1,265.00	Ea.	1,265.00
υ	142802003125	Elevator options, passenger, intercom service	1.00	2,048.43	Ea.	2,048.43
All costs in	USD.					





Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	142802003275	Elevator options. passenger, automatic emergency power switching	1.00	3,896.06	Ea.	3,896.06
U	142802003650	Elevator options, passenger, cab finishes (based on 3500 lb cab size), hall finishes, stainless steel frames	7.00	1,540.00	Ea.	10,780.00
U	142802003800	Elevator options, passenger, cab finishes (based on 3500 lb cab size), variable voltage, O.H. gearless machine, min	1.00	84,230.00	Ea.	84.230.00
υ	165508202210	Track lighting, spotlight, MR16 halogen, 50 W	6.00	185.00	Ea.	1,110.00
					Subtotal:	372,216.88
				Adjust	ment Factor:	1.0000
					Total:	372,216.88

#### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
Elevator #5 Controller - Beyond Rated Life	Beyond Useful Life	3- Necessary - Not Yet Critical	Elec	11/08/2015	154,573
				Total	154,573

154,573

All costs in USD.



#### Agency: Administration Location: Capital Complex Fiscal Year: 2031

Asset Name : State Office Building Asset Number : 2

System:	D2010-Plumbing Fixtures	Lifetime:	30	
Name:	Kitchenette - Cabinet, Counter an Sink	id Years Remaining:	20 (Observed)	
Quantity:	10	% Used:	33 (Observed)	
Unit Cost:	2,630.53	Year Installed:	2000	
Replacement Cost:	26,305	Date Inspected:	11/08/2010	
Unit of Measure:	Each	SCI:	0.00	
RENEWAL				
Renewal FY:	2031	Renewal Cost:	32,882	
% Renew:	125			

#### DESCRIPTION

The plumbing fixtures include kitchenette cabinet, counter and sink units. These are typically located in break rooms.

#### SYSTEM COSTS

Unit Cos	at Basis:	1.00				
Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	064101001300	Custom Cabinets, kitchen base cabinets, hardwood, prefinished. 2 top drawers, 2 doors below, 24" deep, 35" high, 48" wide, excl. countertops	1.00	609,84	Ea.	609.84
U	064151000100	Counter tops, stock, plastic laminate, 24" wide, includes backsplash, maximum	4.00	52.09	L.F.	208.36
А	D20104101760	Kitchen sink w/trim, countertop, PE on CI, 30" x 21" single bowl	1.00	1,812.33	Ea.	1,812.33
					Subtotal:	2,630.53
				Adjust	ment Factor:	1.0000
					Total:	2,630.53

#### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
				Total	0



Asset Name : State Office Building Asset Number : 2

Agency:	Administration
Location:	Capital Complex
Fiscal Year:	2031

System:	D5011-High Tension Service and Dist.	Lifetime:	30
Name:	Electrical Service - 13.8kV	Years Remaining:	20 (Observed)
Quantity:	1	% Used:	33 (Observed)
Unit Cost:	222,428.73	Year Installed:	2000
Replacement Cost:	222,429	Date Inspected:	11/08/2010
Unit of Measure:	Each	SCI:	0.04
RENEWAL			
Renewal FY:	2031	Renewal Cost:	278,036
% Renew:	125		

#### DESCRIPTION

The main substation is served at 13.8kV via circuits N1 and N2 from the Capitol Complex medium voltage underground distribution system. There are a total of two feeders serving the substation. Medium voltage equipment includes one 3 gang G&W SF6 insulated switch that serves two individual secondary unit substations (Included under Separate System). The G&W switch is normally operated via remote means using web based capabilities and manually only under emergency situations if required.

#### SYSTEM COSTS

Unit Cost Basis:

1.00

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
Е	015906002700M	Rent crane truck mounted, hydraulic, 80 ton capacity	1.00	37,771.46	Ea./month	37,771.46
U	160608009000	Grounding, minimum labor/equipment charge	10.00	172.24	Job	1,722.40
U	161202200410	Cable splicing, 15 kV, 500 kcmil stranded, URD or similar	6.00	511.52	Ea.	3,069.12
U	161202401400	Cable terminations, indoor, insulation diameter range, 15 kV, 1.540" to 1.900", pad mount	9.00	331.06	Ea.	2,979.54
U	161209009000	Wire, minimum labor/equipment charge	38.00	172.24	Jop	6,545.12
U	161322059990	Conduit, to 15' high, minimum labor/equipment charge	12.00	172.24	Job	2,066.88
U	161367000620	Pull boxes, sheet metal, type SC, 36" W x 36" H x 8" D, NEMA 1	6.00	696.63	Ea.	4,179.78
U	163307600900	Cable lugs, for 2 feeders, 4.8 kV or 13.8 kV	3.00	768.73	Ea.	2,306.19
U	163307601000	Pothead, one 3 conductor or three 1 conductor	5.00	3,449.83	Ea.	17,249.15
U	163307601200	Switchgear, key interlocks	3.00	844.57	Ea.	2,533.71

### by Renewal Fiscal Year



Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	163608002100	Substation equipment, power circuit breakers, air, 13 to 26 kV	1.00	72,317.00	Ea.	72,317.00
U	163608009120	Conversion equipment, battery chargers	1.00	4,509.74	Ea.	4,509.74
U	163608009200	Control batteries	5.00	526.32	K.A.H.	2,631.60
U	164408601840	Switchboards, motor operated main breaker, 1200 - 2000 amp	3.00	5,725.18	Ea.	17,175.54
A	D50101101160	High voltage cable, neutral & conduit included, copper 500 kcmil, 15 kV	100.00	158.49	L.F.	15,849.00
A	G40103121100	Electric power feed 1600 Amp, 4' deep, 100', including excavation, backfill, concrete & compaction	1.00	29,522.50	Ea.	29,522.50
					Subtotal:	222,428.73
				Adjust	ment Factor:	1.0000
					Total:	222,428.73

#### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
Electrical Service – Inadequate Means of	Building Code	1- Currently Critical	Elec	11/08/2011	9,708
Egress from Electrical					
Room					0 700
				Total	9,708



State of Minnesota

Agency: Administration Location: Capital Complex Fiscal Year: 2031

Asset Name : State Office Building Asset Number : 2

System:	D5022-Lighting Equipment	Lifetime:	20
Name:	Interior Lighting - Fluorescent Lighting	Years Remaining:	20 (Observed)
Quantity:	290,000	% Used:	0 (Observed)
Unit Cost:	8.51	Year Installed:	1990
Replacement Cost:	2,467,900	Date Inspected:	11/08/2010
Unit of Measure:	SF	SCI:	0.58
RENEWAL			
Renewal FY:	2031	Renewal Cost:	3,084,875
% Renew:	125	·	

#### DESCRIPTION

Fluorescent type lighting is installed throughout the Basement and in office space throughout the remainder of the building. Fixture types include 1x4 and 2x4 recessed troffers, surface mount fixtures and cove lighting in offices and corridors and industrial fluorescent and strip type fixtures in shops, maintenance areas and other non-public spaces. Fluorescent fixtures have been retrofitted with T8 lamps and electronic ballasts.

"System observed years remaining have been increased based on the requirement(s) created and linked to replace all lamps and ballasts system wide."

#### SYSTEM COSTS

Unit Cos	st Basis:	1,000.00				
Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
A	D50202100540	Fluorescent fixtures recess mounted in ceiling, 2.4 watt per SF, 60 FC, 15 fixtures @ 32 watt per 1000 SF	1,000.00	8.51	S.F.	8,510.00
					Subtotal:	8,510.00
				Adjust	ment Factor:	1.0000
					Total:	8,510.00

#### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
Fluorescent Lighting - Approaching Rated Life	Beyond Useful Life	3- Necessary - Not Yet Critical	Elec	11/08/2015	1,428,637
				Total	1,428,637



#### by Renewal Fiscal Year

#### Agency: Administration Location: Capital Complex Fiscal Year: 2035

Asset Name : State Office Building Asset Number : 2

System:	C1030-Fittings	Lifetime:	25
Name:	Restroom Accessories - Average - 2009	Years Remaining:	24 (Observed)
Quantity:	290,000	% Used:	4 (Observed)
Unit Cost:	0.77	Year Installed:	2009
Replacement Cost:	223,817	Date Inspected:	11/08/2010
Unit of Measure:	SF	SCI:	0.00
RENEWAL			
Renewal FY:	2035	Renewal Cost:	279,771
% Renew:	125		

#### DESCRIPTION

The restroom accessories include mirror, grab bars, paper towel dispenser and disposal, toilet paper holder and soap dispenser.

#### SYSTEM COSTS

Unit Cost Basis:		1,000.00				
Class	G Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	108101000610	Toilet Accessories, dispenser units, towel dispenser & waste receptacle, 18 gallon capacity	0.50	347.85	Ea.	173.93
U	108101001105	Toilet Accessories, grab bars, straight, stainless steel, 42" long	0.50	75.47	Ea.	37.74
U	108101003700	Toilet Accessories, mirror, 48" x 24", with 5" stainless steel shelf & stainless steel 3/4" square frame	0.75	293.95	Ea,	220.46
U	108101004200	Toilet Accessories, sanitary napkin/tampon dispenser recessed	0.25	616.53	Ea.	154.13
U	108101004600	Toilet Accessories, soap dispenser, chrome, surface mounted, liquid	0.75	75.47	Ea.	56.60
U	108101006050	Toilet Accessories, toilet seat cover dispenser, stainless steel, surface mounted	0.75	72.03	Ea.	54.02
U	108101006200	Toilet Accessories, toilet tissue dispenser, stainless steel, surface mounted, double roll	0.75	49.14	Ea.	36.86
υ	108101006290	Toilet Accessories, toilet seat	0.75	50.73	Ea.	38.05
					Subtotal:	771.79
				Adjust	ment Factor:	1.0000

Total: 771.79



### by Renewal Fiscal Year

#### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
				Total	0

All costs in USD.



by Renewal Fiscal Year

#### Agency: Administration Location: Capital Complex Fiscal Year: 2035

Asset Name : State Office Building Asset Number : 2

	System:	C3010-Wall Finishes	Lifetime:	25				
	Name:	Porcelain Tile Walls - 2009	Years Remaining:	24 (Observed)				
	Quantity:	8,763	% Used:	4 (Observed)				
	Unit Cost:	11.72	Year Installed:	2009				
	Replacement Cost:	102,702	Date Inspected:	11/08/2010				
	Unit of Measure:	SF	SCI:	0.00				
1	RENEWAL							
	Renewal FY:	2035	Renewal Cost:	128,378				
	% Renew:	125						

#### DESCRIPTION

Building wall coverings at public toilets include 16-in. x 16-in. thin set porcelain ceramic decorator tiles at above average price. Tile job includes bullnose and other trim.

#### SYSTEM COSTS

Unit Cost Basis: 1,000.00

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	093101002800	Ceramic tile, bullnose trim, thin set, 6" x 4-1/4"	250.00	11.72	L.F.	2,930.00
U	093101003370	Ceramic tile, for color group 3, add	1,000.00	0.51	S.F.	510.00
U	093101005830	Ceramic tile, walls, interior, thin set, 16" x 16"	1,000.00	6.48	S.F.	6,480.00
U	093101007000	Ceramic tile, for epoxy grout, 1/16" joints, 4-1/4" tile, add	1,000.00	1.80	S.F.	1,800.00
					Subtotal:	11,720.00
				Adjust	ment Factor:	1.0000
					Total:	11,720.00

#### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
				Total	0

#### by Renewal Fiscal Year



Agency: Administration Location: Capital Complex Fiscal Year: 2035 Asset Name : State Office Building Asset Number : 2

	System:	C3020-Floor Finishes	Lifetime:	25			
	Name:	Access Computer Room Flooring System - 2009	Years Remaining:	24 (Observed)			
	Quantity:	2,175	% Used:	4 (Observed)			
	Unit Cost:	70.66	Year Installed:	2009			
	Replacement Cost:	153,689	Date Inspected:	11/08/2010			
	Unit of Measure:	SF	SCI:	0.00			
-	RENEWAL						
	Renewal FY:	2035	Renewal Cost:	192,111			
	% Renew:	125					

#### DESCRIPTION

Floor finishes at computer room B46 include raised, access type computer room flooring (plastic laminate finish) with related steps, handrails, guardrails and ramps.

#### SYSTEM COSTS

Unit Cost Basis: 1,000.00

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	102751500400	Access floors, computer room application, aluminum floor panels, no covering, 24" x 24" panels	1,000.00	36.99	S.F.	36,990.00
U	102751500700	Access floors, particle board or steel floor panels, for vinyl floor covering, add	1,000.00	7.37	S.F.	7,370.00
U	102751500910	Access floors, particle board or steel floor panels, for snap on stringer system, add	250.00	2.75	S.F.	687.50
U	102751501050	Access floors, pedestals, 6" to 12"	196.00	22.52	Ea.	4,413.92
U	102751501150	Access floors, air conditioning grilles, 4" x 18"	75.00	141.37	Ea.	10,602.75
U	102751501300	Access floors, approach ramps, maximum	130.00	66.12	S.F.	8,595.60
U	102751501500	Access floors, handrails, aluminum, 2 rail	14.00	142.98	L.F.	2,001.72
					Subtotal:	70,661.49
				Adjust	ment Factor:	1.0000

Total: 70,661.49

#### LINKED REQUIREMENTS

				Total	0
Name	Category	Priority	Inspector	Action Date	Cost
Diate of Minuesota	1938 M			by Renewal	Fiscal Year
State of Minnesota				System Deta	il Report





Agency: Administration Location: Capital Complex Fiscal Year: 2035 Asset Name : State Office Building Asset Number : 2

System:	C3020-Floor Finishes	Lifetime:	25			
Name:	Porcelain Tile Floors - 2009	Years Remaining:	24 (Observed)			
Quantity:	5,800	% Used:	4 (Observed)			
Unit Cost:	18.76	Year Installed:	2009			
Replacement Cost:	108,808	Date Inspected:	11/08/2010			
Unit of Measure:	SF	SCI:	0.00			
KENEWAL						
Renewal FY:	2035	Renewal Cost:	136,010			
% Renew:	125					

#### DESCRIPTION

1

Floor coverings at public toilets include 16-in. x 16-in. thin set porcelain ceramic decorator tiles at above average price.

#### SYSTEM COSTS

Unit Cost Basis:		1,000.00				
Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	093101003370	Ceramic tile, for color group 3, add	1,000.00	0.51	S.F.	510.00
U	093101004300	Ceramic tile, for floors, specialty type, decorator finish, 4-1/4" x 4-1/4"x 1/2"	1,000.00	16.28	S.F.	16,280.00
U	093101004600	Ceramic tile, 1/16" joint, 2" x 2" tile, add for epoxy grout	1,000.00	1.97	S.F.	1,970.00
					Subtotal:	18,760.00
				Adjust	ment Factor:	1.0000
					Total:	18,760.00

#### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
				Total	Û



by Renewal Fiscal Year

#### Agency: Administration Location: Capital Complex Fiscal Year: 2036

Asset Name : State Office Building Asset Number : 2

	System:	A-Substructure	Lifetime:	50				
	Name:	Structural Slab on Grade - Loading Dock - 1985	Years Remaining:	25 (Observed)				
	Quantity:	400	% Used:	50 (Observed)				
	Unit Cost:	9.24	Year Installed:	1985				
	Replacement Cost:	3,696	Date Inspected:	11/08/2010				
	Unit of Measure:	SF	SCI:	0.00				
I	RENEWAL							
	Renewal FY:	2036	Renewal Cost:	231				
	% Renew:	6						

#### DESCRIPTION

The ground floor loading dock includes a light industrial type structural slab on grade.

#### SYSTEM COSTS

Unit Cost Basis:		1,000.00					
Class	Code Label	Description		Quantity	Unit Cost	Unit	Total Cost
A	A10301206760	Slab on grade, 8" thick, lig reinforced	ht industrial,	1,000.00	9.24 S.F.		9,240.00
						Subtotal:	9,240.00
					Adjusti	ment Factor:	1.0000
						Total:	9,240.00
LINKED	REQUIREMENTS						
Name		Category	Priority	Inspector	A	ction Date	Cost

Total



State of Minnesota

Agency: Administration

Location: Capital Complex

Asset Name : State Office Building Asset Number : 2

Fiscal Year: 2036			
System:	A-Substructure	Lifetime:	50
Name:	Structural Slab on Grade - Light Wells	Years Remaining:	25 (Observed)
Quantity:	1,400	% Used:	50 (Observed)
Unit Cost:	6.91	Year Installed:	1932
Replacement Cost:	9,674	Date Inspected:	11/08/2010
Unit of Measure:	SF	SCI:	0.00
RENEWAL			
Renewal FY:	2036	Renewal Cost:	605
70 Kellew.	0		

#### DESCRIPTION

The basement louver wells and ground floor light wells includes a non-industrial type structural slab on grade. System life extended by renovation work.

#### SYSTEM COSTS

Unit Cost Basis:		1,000.00					
Class	Code Label	Description		Quantity	Unit Cost	Unit	Total Cost
A	A10301204480	Slab on grade, 6" thick, no reinforced	n industrial,	1,000.00	6.91 S.F.		6,910.00
						Subtotal:	6,910.00
					Adjustment Factor:		1.0000
						Total:	6,910.00
LINKED REQUIREMENTS							
Name		Category	Priority	Inspector	A	ction Date	Cost
			_			Total	0

All costs in USD.



Asset Name : State Office Building et Number: 2

50

25 (Observed)

50 (Observed)

1932 11/08/2010

0.00

	Location: Fiscal Year:	Capital Complex 2036	Asset
System:		B1015-Exterior Stairs and Fire Escapes	Lifetime:
Name:		Exterior Exit Steps - Granite and Concrete	Years Remaining:

Agency: Administration

2

11,561.18

23,122

Each

#### 1

Quantity:

Unit Cost:

Replacement Cost:

Unit of Measure:

RENEWAL							
Renewal FY:	2036	Renewal Cost:	8,671				
% Renew:	38						

#### DESCRIPTION

Exterior granite and concrete exit steps (8' wide x 7 risers) at E ground floor exits (G42 and G34) with 18 LF of side rail. System life extended by renovation work.

% Used:

SCI:

Year Installed:

Date Inspected:

#### SYSTEM COSTS

Unit Cost Basis: 1.00

Class	Code Label	Description		Quantity	Unit Cost	Unit	Total Cost
U	048503000350	Granite veneer, cut to size, polished, low price, gray or light gray, $1-1/2$ " to 2-1/2" thick		96.00	64.68	S.F.	6,209.28
U	055207000925	Railing, pipe, aluminum, wall rail, dark anodized finish, 1-1/2" dia, shop fabricated		18.00	55.13	L.F.	992.34
A	G20303102560	Stairs; concrete, cast in place, 4' wide, 2 risers		2.00	922.90	Ea.	1,845.80
A	G20303102580	Stairs; concrete, cast in pla 5 risers	ce, 4' wide,	2.00	1,256.88 Ea.		2,513.76
						Subtotal:	11,561.18
					Adjust	ment Factor:	1.0000
						Total:	11,561.18
LINKED	REQUIREMENTS						
Name		Category	Priority	Inspector	A	ction Date	Cost

0

Total



#### by Renewal Fiscal Year

Agency: Administration Location: Capital Complex Fiscal Year: 2036 Asset Name : State Office Building Asset Number : 2

System:	B1015-Exterior Stairs and Fire Escapes	Lifetime:	50
Name:	Exterior Steps - Steel - Loading Dock - 1985	Years Remaining:	25 (Observed)
Quantity:	1	% Used:	50 (Observed)
Unit Cost:	1,638.92	Year Installed:	1985
Replacement Cost:	1,639	Date Inspected:	11/08/2010
Unit of Measure:	Each	SCI:	0.00
RENEWAL			
Renewal FY:	2036	Renewal Cost:	2,049
% Renew:	125		

#### DESCRIPTION

Exterior steel stairs (4R) with railing at loading dock.

#### SYSTEM COSTS

Unit Cost Basis: 1.00

Class	Code Label	Description		Quantity	Unit Cost	Unit	Total Cost
A	C20101100870	Stairs, steel, pan tre pre-assembled, 12 i	airs, steel, pan tread & flat bar rail, 0.25 6,555.68 Flight e-assembled, 12 risers, w/o landing		Flight	1,638.92	
						Subtotal:	1,638.92
					Adjustment Factor:		1.0000
						Total:	1,638.92
LINKED	REQUIREMENTS						
Name		Category	Priority	Inspector	A	ction Date	Cost
						Total	0

All costs in USD.





#### Asset Name : State Office Building Asset Number: 2

Agency:	Administration	
Location:	Capital Complex	
Fiscal Year:	2036	

System:	B1015-Exterior Stairs and Fire Escapes	Lifetime:	50
Name:	Exterior Monumental Steps - Granite and Concrete	Years Remaining:	25 (Observed)
Quantity:	1	% Used:	50 (Observed)
Unit Cost:	71,538.30	Year Installed:	1932
Replacement Cost:	71,538	Date Inspected:	11/08/2010
Unit of Measure:	Each	SCI:	0.00
RENEWAL			
Renewal FY:	2036	Renewal Cost:	26,827
% Renew:	38		

#### DESCRIPTION

Exterior granite and concrete monumental steps (50' wide x 6 risers) at E 1st floor entrance (106) with no rails. System life extended by renovation work.

#### SYSTEM COSTS

Unit Cost Basis: 1.00

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	048503000350	Granite veneer, cut to size, polished, low price, gray or light gray, 1-1/2" to 2-1/2" thick	700.00	64.68	S.F.	45,276.00
A	G20303102600	Stairs: concrete, cast in place, 5' wide, 2 risers	10.00	1,133.76	Ea.	11,337.60
A	G20303102620	Stairs; concrete, cast in place, 5' wide, 5 risers	10.00	1,492.47	Ea.	14,924.70
					Subtotal:	71,538.30
				Adjust	ment Factor:	1.0000
					Total:	71,538.30

#### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
Exterior Stairs - Missing Handrails - Monumental	Building Code	5- Grandfathered Code	Arch	-	4,056
Steps					
				Total	4,056

Total







Agency: Administration Location: Capital Complex Fiscal Year: 2036 Asset Name : State Office Building Asset Number : 2

System:	B2013-Exterior Louvers, Screens, and Fencing	Lifetime:	50
Name:	Metal Wall Louvers - 1985	Years Remaining:	25 (Observed)
Quantity:	694	% Used:	50 (Observed)
Unit Cost:	86.39	Year Installed:	1985
Replacement Cost:	59,955	Date Inspected:	11/08/2010
Unit of Measure:	SF	SCI:	0.00
RENEWAL			
Renewal FY:	2036	Renewal Cost:	74,943
% Renew:	125		

#### DESCRIPTION

Metal louvers at exterior walls at basement HVAC equipment rooms.

#### SYSTEM COSTS

Unit Cost Basis: 1,000.00

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	158506003100	Louver, aluminum, extruded, with screen, mill finish, fixed blade, continuous line, mullion type, stormproof	1,000.00	73.19	S.F.	73.190.00
U	158506005080	Louver, finishes, applied by manufacturer at additional cost, available in colors, duranodic finish, add	1,000.00	13.20	S.F.	13,200.00
		÷			Subtotal:	86,390.00
				Adjust	ment Factor:	1.0000
					Total:	86,390.00
LINKED	REQUIREMENTS					

# Name Category Priority Inspector Action Date Cost


# Agency: Administration Location: Capital Complex Fiscal Year: 2036

Asset Name : State Office Building Asset Number : 2

		and the second	
System:	B30-Roofing	Lifetime:	50
Name:	Terra Cotta and Clay Tile Roofing	Years Remaining:	25 (Observed)
Quantity:	20,198	% Used:	50 (Observed)
Unit Cost:	14.92	Year Installed:	1932
Replacement Cost:	301,310	Date Inspected:	11/08/2010
Unit of Measure:	SF	SCI:	0.00
RENEWAL			
Renewal FY:	2036	Renewal Cost:	376,637
% Renew:	125		

## DESCRIPTION

The roof covering consists of terra cotta or clay tile roof covering at original building roof. System life extended by renovation work. Quantity accounts for 4/12 roof slope.

# SYSTEM COSTS

Unit Cost Basis: 1,000.00

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
υ	073202001140	Clay Tiles, ASTM, Cl167, GR 1, severe weathering, Mission tile, scored finish, unglazed red, 166 pieces per square, incl. accessories	10.00	1,348.33	Sq.	13,483.30
U	073202002350	Clay Tiles, ridge shingles, clay tile, incl. accessories	75.00	16.12	L.F.	1,209.00
U	073202003020	Clay Tiles, #30 felt underlayment	10.00	22.55	Sq.	225.50
					Subtotal:	14,917.80
				Adjust	ment Factor:	1.0000
					Total:	14,917.80

## LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
				Total	0





Agency: Administration Location: Capital Complex Fiscal Year: 2036 Asset Name : State Office Building Asset Number : 2

System:		B30-Roofing	Lifetime:	50
Name:		Terra Cotta and Clay Tile Roofing - 1985	Years Remaining:	25 (Observed)
Quantity	:	8,669	% Used:	50 (Observed)
Unit Cos	it:	14.92	Year Installed:	1985
Replacer	ment Cost:	129,322	Date Inspected:	11/08/2010
Unit of N	Aeasure:	SF	SCI:	0.00
RENEWAL				
Renewal I % Renew:	FY:	2036 125	Renewal Cost:	161,653

# DESCRIPTION

The roof covering consists of terra cotta or clay tile roof covering at original atrium infill spaces plus 8th and 9th floors. Quantity accounts for 4/12 roof slope.

#### SYSTEM COSTS

Unit Cost Basis: 1,000.00

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	073202001140	Clay Tiles, ASTM, C1167, GR 1, severe weathering, Mission tile, scored finish, unglazed red, 166 pieces per square, incl. accessories	10.00	1,348.33	Sq.	13,483.30
U	073202002350	Clay Tiles. ridge shingles, clay tile, incl. accessories	75.00	16.12	L.F.	1,209.00
U	073202003020	Clay Tiles, #30 felt underlayment	10.00	22.55	Sq.	225.50
					Subtotal:	14,917.80
				Adjustment Factor:		1.0000
					Total:	14,917.80
LINKED	REQUIREMENTS					

Name	Category	Priority	Inspector	Action Date	Cost
				Total	0



# Agency: Administration Location: Capital Complex Fiscal Year: 2036

Asset Name : State Office Building Asset Number : 2

System:	C1010-Partitions	Lifetime:	50
Name:	CMU Block Walls - Plain - 1985	Years Remaining:	25 (Observed)
Quantity:	19,915	% Used:	50 (Observed)
Unit Cost:	12.61	Year Installed:	1985
Replacement Cost:	251,128	Date Inspected:	11/08/2010
Unit of Measure:	SF	SCI:	0.00
RENEWAL			
Renewal FY:	2036	Renewal Cost:	156,955
% Renew:	63		

# DESCRIPTION

Interior walls are of 8-in. hollow concrete block, light and regular weight, with no finish at basement and penthouse equipment rooms, etc.

# SYSTEM COSTS

Unit Cos	t Basis:	1,000.00				
Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
A	C10101046000	Concrere block (CMU) partition, light weight, hollow, 8" thick, no finish	1,000.00	12.61	S.F.	12,610.00
					Subtotal:	12,610.00
				Adjustment Factor:		1.0000
					Total:	12,610.00

## LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost	
				Total	0	





State of Minnesota

Asset Name : State Office Building Asset Number : 2

Agency:	Administration
Location:	Capital Complex
Fiscal Year:	2036

System:	C1010-Partitions	Lifetime:	50		
Name:	CMU Block Walls - Facing 1 Side - 1985	Years Remaining:	25 (Observed)		
Quantity:	35,958	% Used:	50 (Observed)		
Unit Cost:	16.85	Year Installed:	1985		
Replacement Cost:	605,892	Date Inspected:	11/08/2010		
Unit of Measure:	SF	SCI:	0.00		
RENEWAL					
Renewal FY: % Renew:	2036 63	Renewal Cost:	378.683		

# DESCRIPTION

The building interior walls are of 8-in. hollow concrete block, light or regular weight, with GWB on one side at stair and elevator towers, etc.

### SYSTEM COSTS

Unit Cos	st Basis:	1,000.00					
Class	Code Label	Description		Quantity	Unit Cost	Unit	Total Cost
A	C10101046200	Concrere block (C weight, hollow, 8" coat, 1 side	MU) partition, light thick, portland - 3	1,000.00	16.85	S.F.	16,850.00
						Subtotal:	16,850.00
					Adjust	ment Factor:	1.0000
						Total:	16,850.00
LINKED	REQUIREMENTS						
Name		Category	Priority	Inspector	Α	ction Date	Cost
_						Total	0



# Agency: Administration Location: Capital Complex Fiscal Year: 2036

Asset Name : State Office Building Asset Number : 2

	System:	C1010-Partitions	Lifetime:	50
	Name:	Plaster Walls - 3 Coats - Ornamental	Years Remaining:	25 (Observed)
	Quantity:	11,064	% Used:	50 (Observed)
	Unit Cost:	15.63	Year Installed:	1932
	Replacement Cost:	172,930	Date Inspected:	11/08/2010
	Unit of Measure:	SF	SCI:	0.00
I	RENEWAL			
	Renewal FY:	2036	Renewal Cost:	108,081
	% Renew:	63		

## DESCRIPTION

The building interior walls are of three coats of ornamental and detailed gypsum plaster on 3.4 lbs ribbed lath on masonry backup at original elevator lobbies, etc. System life extended by renovation work.

# SYSTEM COSTS

Unit Cos	t Basis:	1,000.00					
Class	Code Label	Description		Quantity	Unit Cost	Unit	Total Cost
A	C10101404030	Metal partitions, gypsum plaster, 2 lb diamond lath,	standard, 3 coat 2-1/2" @ 16"OC, 3.4 no opposite faceace	1,500.00	10.42	S.F.	15,630.00
						Subtotal:	15,630.00
					Adjust	ment Factor:	1.0000
						Total:	15,630.00
LINKED	REQUIREMENTS						
Name		Category	Priority	Inspector	А	ction Date	Cost
		-				Total	0



Agency: Administration Location: Capital Complex Fiscal Year: 2036 Asset Name : State Office Building Asset Number : 2

ſ	System:	C1010-Partitions	Lifetime:	50
	Name:	GWB Walls - Standard (Unpainted) - 1985	Years Remaining:	25 (Observed)
	Quantity:	152,129	% Used:	50 (Observed)
	Unit Cost:	5.15	Year Installed:	1985
	Replacement Cost:	783,464	Date Inspected:	11/08/2010
	Unit of Measure:	SF	SCI:	0.00
RENEWAL				
I	Renewal FY:	2036	Renewal Cost:	489,665
1	% Renew:	63		

## DESCRIPTION

State of Minnesota

The building interior includes standard GWB partitions, taped and finished, but not painted, with no insulation.

## SYSTEM COSTS

Unit Cost Basis:		1,000.00					
Class	Code Label	Description		Quantity	Unit Cost	Unit	Total Cost
A	C10101241202	Wood partition, 5/8"fire board face, none base,2 framing,same opposite f	rated gypsum x 4,@ 16" OC ace, 0 insul	1,000.00	5.15	S.F.	5,150.00
						Subtotal:	5,150.00
					Adjust	ment Factor:	1.0000
						Total:	5,150.00
LINKED	REQUIREMENTS						
Name		Category	Priority	Inspector	A	Action Date	Cost
						Total	0





# Agency: Administration Location: Capital Complex Fiscal Year: 2036

Asset Name : State Office Building Asset Number : 2

	System:	C1010-Partitions	Lifetime:	50
	Name:	GWB Partitions On Furring - 1985	Years Remaining:	25 (Observed)
	Quantity:	63,867	% Used:	50 (Observed)
	Unit Cost:	3.95	Year Installed:	1985
	Replacement Cost:	252,275	Date Inspected:	11/08/2010
	Unit of Measure:	SF	SCI:	0.00
RENEWAL				
	Renewal FY:	2036	Renewal Cost:	157,672
	% Renew:	63		

### DESCRIPTION

The building interior includes 5/8-in. GWB partitions on 7/8-in. furring over other substrate, such as CMU (refer to other partition or exterior walls types for substrate).

# SYSTEM COSTS

Unit Cost Basis: 1,000.00

Class	Code Label	Description		Quantity	Unit Cost	Unit	Total Cost
U	092507002150	Gypsum wallboard, on wal resistant, taped & finished finish), 5/8" thick	lls, fire (level 4	1,000.00	1.76	S.F.	1,760.00
U	092701000901	Accessories, Gypsum Boar channel, galvanized steel, a 7/8" deep	rd, furring standard,	750.00	2.92	L.F.	2,190.00
						Subtotal:	3,950.00
					Adjustr	nent Factor:	1.0000
						Total:	3,950.00
LINKED	REQUIREMENTS						
Name		Category	Priority	Inspector	A	ction Date	Cost

Total

0



# by Renewal Fiscal Year

Agency: Administration Location: Capital Complex Fiscal Year: 2036 Asset Name : State Office Building Asset Number : 2

System:	C1017-Interior Windows and Storefronts	Lifetime:	50
Name:	Butt Joint Clerestories - 1985	Years Remaining:	25 (Observed)
Quantity:	1,660	% Used:	50 (Observed)
Unit Cost:	42.21	Year Installed:	1985
Replacement Cost:	70,068	Date Inspected:	11/08/2010
Unit of Measure:	SF	SCI:	0.00
RENEWAL			
Renewal FY:	2036	Renewal Cost:	87,585
% Renew:	125		

## DESCRIPTION

Building interior includes butt joint tempered glazing clerestories at some interior office banks.

## SYSTEM COSTS

DIDIA								
Unit Cos	t Basis:	1,000.00						
Class	Code Label	Description		Quantity	Unit Cost	Unit	Total Cost	
A	C10107105440	Interior glazed ope frame butt glazed, 9' x 4', 2 intermedia	ning, concealed 1/4" tempered glass. ate mullions	27.78	1,519.43	Opng.	42,209.77	
						Subtotal:	42,209.77	
					Adjust	ment Factor:	1.0000	
						Total:	42,209.77	
LINKED	REQUIREMENTS							
Name		Category	Priority	Inspector	A	ction Date	Cost	
						Total	0	

All costs in USD.





# Agency: Administration Location: Capital Complex Fiscal Year: 2036

Asset Name : State Office Building Asset Number : 2

System:	C1017-Interior Windows and Storefronts	Lifetime:	50	
Name:	Bronze Windows - 1985	Years Remaining:	25 (Observed)	
Quantity:	553	% Used:	50 (Observed)	
Unit Cost:	105.95	Year Installed:	1932	
Replacement Cost:	58,590	Date Inspected:	11/08/2010	
Unit of Measure:	SF	SCI:	0.00	
RENEWAL				
Renewal FY:	2036	Renewal Cost:	73,238	
% Renew:	125			

## DESCRIPTION

The building interior includes original construction fixed and operable bronze framed exterior units with tempered or wire glass. These windows were retained, repaired and reglazed during the 1985 renovation.

## SYSTEM COSTS

Unit Cost Basis:		1,000.00				
Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	085201002101	Windows, aluminum sash, custom. grade HC, excl. glazing, max	1,000.00	73.80	S.F.	73,800.00
U	088102601800	Float Glass, tempered, clear, 3/8" thick	1,000.00	32.15	S.F.	32,150.00
					Subtotal:	105,950.00
				Adjust	ment Factor:	1.0000
					Total:	105,950.00

# LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
				Total	0

-



by Renewal Fiscal Year

Agency: Administration Location: Capital Complex Fiscal Year: 2036 Asset Name : State Office Building Asset Number : 2

System:	C1020-Interior Doors	Lifetime:	50	
Name:	Revolving Door - Manual Operation	Years Remaining:	25 (Observed)	
Quantity:	3	% Used:	50 (Observed)	
Unit Cost:	75,442.09	Year Installed:	1932	
Replacement Cost:	226,326	Date Inspected:	11/08/2010	
Unit of Measure:	Each	SCI:	0.00	
RENEWAL				
Renewal FY:	2036	Renewal Cost:	282,908	
% Renew:	125			

# DESCRIPTION

The inxterior doors include original construction, revolving glazed wood and bronze storefront leafs plus glazed transom, ornamental bronze frame and hardware. System life extended by renovation work.

## SYSTEM COSTS

Unit Cost Basis: 1.00

Class	Code Label	Description		Quantity	Unit Cost	Unit	Total Cost
U	084706001101	Doors, revolving, solid bronze, sto units, 6'-6" to 7'-0" dia., 6'-10" to	ock 7'	1.00	75,442.09	Opng,	75,442.09
		high					
						Subtotal:	75,442.09
	,				Adjusti	nent Factor:	1.0000
						Total:	75,442.09
LINKED	REQUIREMENTS						
Name		Category Priori	ity	Inspector	A	ction Date	Cost
-				-		Total	0

All costs in USD.



# Agency: Administration Location: Capital Complex Fiscal Year: 2036

Asset Name : State Office Building Asset Number : 2

System:	C1020-Interior Doors	Lifetime:	50
Name:	Swinging Doors - 3 x 7 HM - Rated - 1985	Years Remaining:	25 (Observed)
Quantity:	15	% Used:	50 (Observed)
Unit Cost:	4,493.67	Year Installed:	1985
Replacement Cost:	67,405	Date Inspected:	11/08/2010
Unit of Measure:	Each	SCI	0.00
RENEWAL			
Renewal FY:	2036	Renewal Cost:	84,256
% Renew:	125		

# DESCRIPTION

Interior doors include rated 3 x 7 steel door and steel frame with hinges, lockset (lever), panic hardware and closer. Includes painted door and painted frame.

# SYSTEM COSTS

Unit Cost Basis: 1.00

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	087101502600	Door hardware, school, single, classroom, ANSI F88, incl. lever	1.00	1,035.58	Door	1,035.58
A	C10201168220	Labeled metal door/metal frame, mineral core, 1.5 hr, 20 ga vision, 3'-0" x 7'-0", welded frame, 8-3/4"	1.20	1,993.89	Ea.	2,392.67
A	C10203100980	Panic devices, narrow stile, touch bar. exit only	1.00	1,065.42	Ea.	1,065.42
					Subtotal:	4,493.67
				Adjust	ment Factor:	1.0000
					Total:	4,493.67

## LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
				Total	0



# Agency: Administration Location: Capital Complex Fiscal Year: 2036

Asset Name : State Office Building Asset Number : 2

System:	C1020-Interior Doors	Lifetime:	50		
Name:	Swinging Doors - 3 x 7 Wd - NR - 1985	Years Remaining:	25 (Observed)		
Quantity:	992	% Used:	50 (Observed)		
Unit Cost:	2,221.55	Year Installed:	1985		
Replacement Cost:	2,203,780	Date Inspected:	11/08/2010		
Unit of Measure:	Each	SCI	0.00		
RENEWAL					
Renewal FY:	2036	Renewal Cost:	2,754,724		
% Renew:	125				

# DESCRIPTION

Interior doors include non-rated 3 x 7 wood door and steel frame with hinges, lockset (lever) and closer. Includes stained door and painted frame.

## SYSTEM COSTS

Unit Cost	Basis:	1.00				
Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	087101502600	Door hardware, school, single, classroom, ANSI F88, incl. lever	1.00	1,035.58	Door	1,035.58
A	C10201226400	Labeled wood door/metal frame, 1 hr/flush, walnut face, 2'-8" x 6'-8", drywall KD frame, 4-7/8"	1.20	988.31	Ea.	1,185.97
					Subtotal:	2,221.55
				Adjust	ment Factor:	1.0000
					Total:	2,221.55
INKED REQUIREMENTS						

Name	Category	Priority	Inspector	Action Date	Cost
				Total	0



## Agency: Administration Location: Capital Complex Fiscal Year: 2036

Asset Name : State Office Building Asset Number : 2

	System:	C1020-Interior Doors	Lifetime:	50		
	Name:	Swinging Doors - 3 x 7 Wd - Rated - 1985	Years Remaining:	25 (Observed)		
	Quantity:	41	% Used:	50 (Observed)		
	Unit Cost:	3,500.15	Year Installed:	1985		
	Replacement Cost:	143,506	Date Inspected:	11/08/2010		
	Unit of Measure:	Each	SCI:	0.00		
I	RENEWAL					
	Renewal FY:	2036	Renewal Cost:	179,383		
	% Renew.	125				

## DESCRIPTION

Interior doors include rated 3 x 7 wood door and steel frame with hinges, lockset (lever), panic hardware and closer. Includes stained door and painted frame.

# SYSTEM COSTS

Unit Cost Basis:	1.00
Child Cobr Dation	

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	087101502600	Door hardware, school, single, classroom, ANSI F88, incl. lever	1.00	1,035.58	Door	1,035.58
A	C10201226420	Labeled wood door/metal frame, 1 hr/flush, walnut face, 2'-8" x 6'-8", butt weld frame, 8-3/4"	1.20	1,165.96	Ea.	1,399.15
A	C10203100980	Panic devices, narrow stile, touch bar, exit only	1.00	1,065.42	Ea.	1,065.42
					Subtotal:	3,500.15
				Adjust	ment Factor:	1.0000
					Total:	3,500.15

## LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
				Total	0



# Agency: Administration Location: Capital Complex Fiscal Year: 2036

Asset Name : State Office Building Asset Number : 2

System:	C1020-Interior Doors	Lifetime:	50			
Name:	Swinging Doors - Pair - 6 x 7 HM - Rated - 1985	Years Remaining:	25 (Observed)			
Quantity:	6	% Used:	50 (Observed)			
Unit Cost:	6,960.22	Year Installed:	1985			
Replacement Cost:	41,761	Date Inspected:	11/08/2010			
Unit of Measure:	Each	SCI:	0.00			
RENEWAL						
Renewal FY:	2036	Renewal Cost:	52,202			
% Renew:	125					

## DESCRIPTION

Interior doors include pr. rated 3 x 7 steel doors and steel frame with hinges, locksets (lever), panic hardware and closers. Includes painted doors and painted frame.

## SYSTEM COSTS

Unit Cost Basis: 1.00

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	087101502600	Door hardware, school, single, classroom, ANSI F88, incl. lever	2.00	1,035.58	Door	2,071.16
A	C10201168180	Labeled metal door/metal frame, mineral core, 1.5 hr, 20 ga full panel, 6'-0" x 7'-0", welded frame, 8-3/4"	1.00	2,758.22	Ea.	2,758.22
А	C10203100980	Panic devices, narrow stile, touch bar, exit only	2.00	1,065.42	Ea.	2,130.84
					Subtotal:	6,960.22
				Adjust	ment Factor:	1.0000
					Total:	6,960.22

#### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
				Total	0



# Agency: Administration Location: Capital Complex Fiscal Year: 2036

Asset Name : State Office Building Asset Number : 2

	System:	C1020-Interior Doors	Lifetime:	50			
Swinging Doors - Pair - 6 x 7 Wd - Name: NR - 1985		Years Remaining:	25 (Observed)				
	Quantity:	23	% Used:	50 (Observed)			
	Unit Cost:	3,932.99	Year Installed:	1985			
	Replacement Cost:	90,459	Date Inspected:	11/08/2010			
	Unit of Measure:	Each	SCI:	0.00			
1	RENEWAL						
	Renewal FY:	2036	Renewal Cost:	113,073			
	% Renew:	125					

## DESCRIPTION

Interior doors include pr. non-rated 3 x 7 wood doors and steel frame with hinges, locksets (lever) and closers. Includes stained doors and painted frame.

# SYSTEM COSTS

Unit Cost Basis:		1.00				
Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	087101502600	Door hardware, school, single, classroom, ANSI F88, incl. lever	2.00	1,035.58	Door	2,071.16
A	C10201226560	Labeled wood door/metal frame, 1 hr/flush, walnut face, 6'-0" x 7'-0", drywall KD frame, 4-7/8"	1.00	1,861.83	Ea.	1,861.83
					Subtotal:	3,932.99
				Adjust	ment Factor:	1.0000
					Total:	3,932.99

## LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
				Total	0



# Agency: Administration Location: Capital Complex Fiscal Year: 2036

Asset Name : State Office Building Asset Number : 2

1.2						
	System:	C1020-Interior Doors	Lifetime:	50		
	Name:	Swinging Doors - Pair - 6 x 7 Wd - Rated - 1985	Years Remaining:	25 (Observed)		
	Quantity:	52	% Used:	50 (Observed)		
	Unit Cost:	6,773.13	Year Installed:	1985		
	Replacement Cost:	352,203	Date Inspected:	11/08/2010		
	Unit of Measure:	Each	SCI:	0.00		
I	RENEWAL					
	Renewal FY: % Renew;	2036 125	Renewal Cost:	440,253		

# DESCRIPTION

Interior doors include pr. rated 3 x 7 wood doors and steel frame with hinges, locksets (lever), panic hardware, closers and electronic holdopens. Includes stained doors and painted frame.

## SYSTEM COSTS

Unit Cost Basis: 1.00

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	087101502600	Door hardware, school, single, classroom, ANSI F88, incl. lever	2.00	1,035.58	Door	2,071.16
U	087101506020	Door hardware, add for fire alarm door holder, electro-magnetic	2.00	304.30	Ea.	608.60
A	C10201228180	Labeled wood door/metal frame, 1-1/2 hr/flush, walnut face, 6'-0" x 7'-0", weld frame, 8-3/4"	1.00	1,962.53	Ea.	1,962.53
Α	C10203100980	Panic devices. narrow stile, touch bar, exit only	2.00	1,065.42	Ea.	2,130.84
					Subtotal:	6,773.13
				Adjust	ment Factor:	1.0000
					Total:	6,773.13

# LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
				Total	0



# Agency: Administration Location: Capital Complex Fiscal Year: 2036

1.00

Asset Name : State Office Building Asset Number : 2

System:	C1020-Interior Doors	Lifetime:	50			
Name:	Bi-Fold Doors - Pair - 6 x 7 V NR - 1985	Vd - Years Remaining:	25 (Observed)			
Quantity:	64	% Used:	50 (Observed)			
Unit Cost:	1,264.30	Year Installed:	1985			
Replacement Cost:	80,915	Date Inspected:	11/08/2010			
Unit of Measure:	Each	SCI:	0.00			
RENEWAL						
Renewal FY:	2036	Renewal Cost:	101,144			
% Renew:	125					

# DESCRIPTION

Interior doors at corridor electrical closets include two (2) pr. non-rated 3 x 7 wood doors and wood frame with bi-fold hinges and lockset at each closet. Includes painted doors and painted frame.

# SYSTEM COSTS Unit Cost Basis:

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
A	C10201205160	Wood door/wood frame, solid core/flush type, birch face, 6'-0" x 7'-0", pine frame, 3-5/8"	1.00	1,060.17	Ea.	1,060.17
A	C10203100100	Hinges, full mortise, low frequency, steel base, 4-1/2" x 4-1/2", USP	6.00	6.43	Ea.	38.58
A	C10203100400	Locksets, heavy duty cylindrical, keyed, single cylinder function	1.00	165.55	Ea.	165.55
					Subtotal:	1,264.30
				Adjust	ment Factor:	1.0000
					Total:	1,264.30

## LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
				Total	0



# Agency: Administration Location: Capital Complex Fiscal Year: 2036

Asset Name : State Office Building Asset Number : 2

- 14								
	System:	C3010-Wall Finishes	Lifetime:	50				
	Name:	Marble Panel Walls	Years Remaining:	25 (Observed)				
	Quantity:	17,525	% Used:	50 (Observed)				
	Unit Cost:	82.65	Year Installed:	1932				
	Replacement Cost:	1,448,441	Date Inspected:	11/08/2010				
	Unit of Measure:	SF	SCI:	0.00				
I	RENEWAL							
	Renewal FY:	2036	Renewal Cost:	1.810,552				
	% Renew:	125						

## DESCRIPTION

Wall finishes include marble panels at original elevator lobbies, monumental stairs and adjacent corridors. System life extended by renovation work.

#### SYSTEM COSTS

Unit Cost Basis:		1,000.00				
Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	048505001500	Marble facing, polished finish, cut to size, 2" thick, average	1,000.00	82.65	S.F. Subtotal:	82,650.00 82,650.00
				Adjust	ment Factor:	1.0000
					Total:	82,650.00

## LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
			And and a set of the s	Total	0



# Agency: Administration Location: Capital Complex Fiscal Year: 2036

Asset Name : State Office Building Asset Number : 2

System:	C3020-Floor Finishes	Lifetime:	50
Name:	Terrazzo Floors - Cast-in-Place	Years Remaining:	25 (Observed)
Quantity:	20,880	% Used:	50 (Observed)
Unit Cost:	36.03	Year Installed:	1932
Replacement Cost:	752,254	Date Inspected:	11/08/2010
Unit of Measure:	SF	SCI:	0.00
RENEWAL			
Renewal FY:	2036	Renewal Cost:	940,318
% Renew:	125		

## DESCRIPTION

Floor finishes include cast-in-place terrazzo and related base at original elevator lobbies and adjacent corridors. System life extended by renovation work.

### SYSTEM COSTS

Unit Cos	st Basis:	1,000.00				
Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	094101000020	Portland cement terrazzo, cast in place, cove base, zinc, 6" high, 16 ga.	250.00	34.13	L.F.	8,532.50
υ	094101000400	Portland cement terrazzo, cast in place, divider strip for floors, brass, 14 ga., l-1/4" deep	500.00	4.15	L.F.	2,075.00
U	094101001900	Portland cement terrazzo, cast in place, floor, not bonded, white cement, mud set, 3" total thickness	1,000.00	25.42	S.F.	25,420.00
					Subtotal:	36,027.50
				Adjust	ment Factor:	1.0000
					Total:	36,027.50

# LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
				Total	0



# Agency: Administration Location: Capital Complex Fiscal Year: 2036

Asset Name : State Office Building Asset Number : 2

	System:	C3020-Floor Finishes	Lifetime:	50
	Name:	Marble Floors	Years Remaining:	25 (Observed)
	Quantity:	5,220	% Used:	50 (Observed)
	Unit Cost:	59.45	Year Installed:	1932
	Replacement Cost:	310,303	Date Inspected:	11/08/2010
	Unit of Measure:	SF	SCI:	0.00
F	RENEWAL			
	Renewal FY:	2036	Renewal Cost:	387,879
	% Renew:	125		

## DESCRIPTION

Floor finishes include marble panels and related base at original elevator lobbies and adjacent corridors. System life extended by renovation work.

# SYSTEM COSTS

Unit Cos	at Basis:	1,000.00				
Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	094101000400	Portland cement terrazzo, cast in place, divider strip for floors, brass, 14 ga., 1-1/4" deep	500.00	4.15	L.F.	2,075.00
U	096351000200	Marble flooring, white Carara, thin set, 12" x 12" x 3/8"	2,000.00	24.76	S.F.	49,520.00
U	096351000300	Marble flooring, thin set, walls, 12" x 12" x 3/8"	250.00	31.40	S.F.	7,850.00
					Subtotal:	59,445.00
				Adjust	ment Factor:	1.0000
					Total:	59,445.00

## LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
				Total	0

All costs in USD.



by Renewal Fiscal Year

# Agency: Administration Location: Capital Complex Fiscal Year: 2036

Asset Name : State Office Building Asset Number : 2

System:	D2030-Sanitary Waste	Lifetime:	50
Name:	Sanitary Waste - Gravity Disch	Years Remaining:	25 (Observed)
Quantity:	290,000	% Used:	50 (Observed)
Unit Cost:	2.21	Year Installed:	1985
Replacement Cost:	642,340	Date Inspected:	11/08/2010
Unit of Measure:	SF	SCI:	0.00
RENEWAL			
Renewal FY:	2036	Renewal Cost:	802,926
% Renew:	125		

# DESCRIPTION

The building includes an average sanitary waste system, of cast iron piping, with gravity discharge to the municipal system.

### SYSTEM COSTS

Unit Cost Basis:		1,000.00				
Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	151508001100	Traps, cast iron, service weight, running P trap, 2", excluding vent	0.50	209.33	Ea.	104.67
υ	151508002080	Traps, cast iron, service weight, running P trap, single hub, 3" pipe size, 3" vent, includes vent	0.50	195.63	Ea.	97.82
А	D20908101060	Pipe cast iron, soil, B & S, no hub, 2" diameter	5.00	30.48	L.F.	152.40
А	D20908101080	Pipe cast iron, soil, B & S, no hub, 3" diameter	10.00	34.84	L.F.	348.40
A	D20908101100	Pipe cast iron, soil, B & S, no hub, 4" diameter	5.00	40.84	L.F.	204.20
А	D20908101140	Pipe cast iron, soil, B & S, no hub, 6" diameter	1.50	55.94	L.F.	83.91
А	D20908101340	Copper tubing, hard temper, solder, type K, 2" diameter	5.00	50.25	L.F.	251.25
A	D20908200970	Cast iron, soil, no hub, 1/4 bend, 2" diameter	25.00	9.63	Ea.	240.75
А	D20908200980	Cast iron, soil, no hub, 1/4 bend, 3" diameter	0.50	13.48	Ea.	6.74
А	D20908200990	Cast iron, soil, no hub, 1/4 bend, 4" diameter	0.25	19.97	Ea.	4.99
А	D20908201010	Cast iron, soil, no hub, 1/4 bend, 6" diameter	0.08	48.40	Ea.	3.87



# by Renewal Fiscal Year

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
А	D20908201090	Cast iron, soil, no hub, sanitary tee, 2" diameter	0.25	13.26	Ea.	3.32
А	D20908201110	Cast iron, soil, no hub, sanitary tee, 3" diameter	0.50	16.50	Ea.	8.25
А	D20908201120	Cast iron, soil, no hub, sanitary tee, 4" diameter	0.25	30.80	Ea.	7.70
А	D20908201140	Cast iron, soil, no hub, sanitary tee, 6" diameter	0.06	74.25	Ea.	4.46
A	D20908201310	Cast iron, soil, no hub, coupling clamp & gasket, 2" diameter	1.00	40.11	Ea.	40.11
А	D20908201320	Cast iron, soil, no hub, coupling clamp & gasket, 3" diameter	2.00	46.75	Ea	93.50
A	D20908201330	Cast iron, soil, no hub, coupling clamp & gasket, 4" diameter	1.00	56.35	Ea.	56.35
A	D20908201350	Cast iron, soil, no hub, coupling clamp & gasket, 6" diameter	0.25	80.41	Ea.	20.10
А	D20908202350	Copper, wrought, solder joints, 45< elbow, 2" diameter	1.00	117.66	Ea	117.66
A	D20908202550	Copper, wrought, solder joints, 90< elbow, 2" diameter	3.00	121.51	Ea.	364.53
					Subtotal:	2,214.98
				Adjust	ment Factor:	1.0000
					Total:	2,214.98

## LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
				Total	0



Agency: Administration Location: Capital Complex Fiscal Year: 2036 Asset Name : State Office Building Asset Number : 2

System:	D2040-Rain Water Drainage	Lifetime:	50
Name:	Roof Drainage - Gravity	Years Remaining;	25 (Observed)
Quantity:	290,000	% Used:	50 (Observed)
Unit Cost:	1.77	Year Installed:	1985
Replacement Cost:	514,140	Date Inspected:	11/08/2010
Unit of Measure:	SF	SCI:	0.00
RENEWAL		×	
Renewal FY:	2036	Renewal Cost:	642,675
% Renew:	125		

## DESCRIPTION

Rain water drainage includes interior piping, roof drains and 4-inch discharge piping by gravity flow to a municipal main.

#### SYSTEM COSTS

Unit Cos	t Basis:	1,000.00				
Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	151503002320	Drain, floor, X-heavy duty, cast iron, 15" diameter anti-tilt grate, 4", 5", 6" and 8" pipe size	0.10	1,253.56	Ea.	125.36
А	D20402106120	Roof drain, steel galv sch 40 threaded, 3" diam piping, 10' high	0.15	2,586.55	Ea.	387.98
A	D20402106200	Roof drain, steel galv sch 40 threaded, 4" diam piping, 10' high	0.15	3,529.51	Ea.	529.43
A	D20908101080	Pipe cast iron, soil, B & S, no hub, 3" diameter	10.00	34.84	L.F.	348.40
A	D20908101100	Pipe cast iron, soil, B & S, no hub, 4" diameter	5.00	40.84	L.F.	204.20
A	D20908200980	Cast iron, soil, no hub, 1/4 bend, 3" diameter	0.50	13.48	Ea.	6.74
A	D20908200990	Cast iron, soil, no hub, 1/4 bend, 4" diameter	0.25	19.97	Ea.	4.99
A	D20908201110	Cast iron, soil, no hub, sanitary tee, 3" diameter	0.50	16.50	Ea.	8.25
А	D20908201120	Cast iron, soil, no hub, sanitary tee, 4" diameter	0.25	30.80	Ea.	7.70
А	D20908201320	Cast iron, soil, no hub, coupling clamp & gasket, 3" diameter	2.00	46.75	Ea.	93.50
A	D20908201330	Cast iron, soil, no hub, coupling clamp & gasket, 4" diameter	1.00	56.35	Ea.	56.35



# by Renewal Fiscal Year

1,772.90	Subtotal:
1.0000	Adjustment Factor:
1,772.90	Total:

# LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
				Total	0

State of Minnesota

# by Renewal Fiscal Year

# Agency: Administration Location: Capital Complex Fiscal Year: 2036

Asset Name : State Office Building Asset Number : 2

System:	E10-Equipment	Lifetime:	50
Name:	Ship Ladder - Roof Access - 1985	Years Remaining:	25 (Observed)
Quantity:	1	% Used:	50 (Observed)
Unit Cost:	4,260.36	Year Installed:	1985
Replacement Cost:	4,260	Date Inspected:	11/08/2010
Unit of Measure:	Each	SCI:	0.00
RENEWAL			
Renewal FY:	2036	Renewal Cost:	4,260
% Renew:	100		

## DESCRIPTION

Steel ship ladder (interior) is installed at HVAC penthouse roof access.

## SYSTEM COSTS

Unit Cost Basis: 1.00

Class	Code Label	Description		Quantity	Unit Cost	Unit	Total Cost
U	055177003900	Stair, industrial ships ladde	er, steel,	12.00	355.03	Riser	4,260.36
		grating treads, 24" wide, ir pipe rail, per riser	nel 2 line				
						Subtotal:	4,260.36
					Adjust	ment Factor:	1.0000
						Total:	4,260.36
LINKED	REQUIREMENTS						
Name		Category	Priority	Inspector	A	ction Date	Cost
						Total	0



Asset Name : State Office Building Asset Number : 2

Agency:	Administration			
Location:	Capital Complex			
Fiscal Year:	2036			

System:	G2040-Site Development	Lifetime:	50
Name:	Retaining Walls - Concrete - 12 Ft Light Wells	Years Remaining:	25 (Observed)
Quantity:	260	% Used:	50 (Observed)
Unit Cost:	647.52	Year Installed:	1932
Replacement Cost:	168,355	Date Inspected:	11/08/2010
Unit of Measure:	LF	SCI:	0.00
RENEWAL			
Renewal FY:	2036	Renewal Cost:	210,444
% Renew:	125		

### DESCRIPTION

Retaining walls at S and E ground floor light wells: 12-ft. high reinforced cast-in-place (CIP) concrete on concrete footings with waterproofing. Granite facing on exposed surfaces. System life extended by renovation work.

# SYSTEM COSTS

Unit Cos	st Basis:	1.00				
Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	048503000350	Granite veneer, cut to size, polished, low price, gray or light gray, 1-1/2" to 2-1/2" thick	2.00	64.68	S.F.	129.36
U	071101000100	Bituminous Asphalt Coating, for foundation, below grade, brushed on, 2 coat	12.00	1.73	S.F.	20.76
A	G20402101800	Concrete retaining wall, reinforced, level backfill, 12' high, 6'-6" base, 14" thick	1.00	497.40	L.F.	497.40
					Subtotal:	647.52
				Adjust	ment Factor:	1.0000
					Total:	647.52

# LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
				Total	0





Agency: Administration Location: Capital Complex Fiscal Year: 2036 Asset Name : State Office Building Asset Number : 2

System:	G2040-Site Development	Lifetime:	50
Name:	Retaining Walls - Concrete - 24 Ft Louver Wells	Years Remaining:	25 (Observed)
Quantity:	160	% Used:	50 (Observed)
Unit Cost:	1,159.56	Year Installed:	1932
Replacement Cost:	185,530	Date Inspected:	11/08/2010
Unit of Measure:	LF	SCI:	0.00
RENEWAL			
Renewal FY:	2036	Renewal Cost:	231,912
% Renew:	125		

# DESCRIPTION

Retaining walls at N basement HVAC louver wells: 24-ft. high reinforced cast-in-place (CIP) concrete on concrete footings with waterproofing. Granite facing on exposed surfaces. System life extended by renovation work.

## SYSTEM COSTS

Unit Cost Basis: 1.00

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	048503000350	Granite veneer, cut to size, polished, low price, gray or light gray, 1-1/2" to 2-1/2" thick	3.00 64.68 S.F.		194.04	
U	071101000100	Bituminous Asphalt Coating, for foundation, below grade, brushed on, 2 coat	20.00	1.73	S.F.	34.60
A	G20402102600	Concrete retaining wall, reinforced, level backfill, 20' high, 10'-5" base, 18" thick	1.00	930.92	L.F.	930.92
					Subtotal:	1.159.56
				Adjust	ment Factor:	1.0000
					Total:	1,159.56
LINKED	REQUIREMENTS					

Name	Category	Priority	Inspector	Action Date	Cost
				Total	0



# Agency: Administration Location: Capital Complex Fiscal Year: 2036

Asset Name : State Office Building Asset Number : 2

System:	G2040-Site Development	Lifetime:	50		
Name:	Retaining Walls - Concrete - 4 Ft Loading Dock - 1985	Years Remaining:	25 (Observed)		
Quantity:	16	% Used:	50 (Observed)		
Unit Cost:	497.40	Year Installed:	1985		
Replacement Cost:	7,958	Date Inspected:	11/08/2010		
Unit of Measure:	LF	SCI:	0.00		
RENEWAL					
Renewal FY:	2036	Renewal Cost:	9.948		
% Renew:	125				

### DESCRIPTION

Retaining walls at ground floor loading dock: 4-ft. high (exposed) reinforced cast-in-place (CIP) concrete on concrete footings.

## SYSTEM COSTS

Unit Cos	t Basis:	1.00				
Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
A	G20402101400	Concrete retaining wall, reinforced, level backfill, 8' high, 4'-3" base, 10" thick	0.00	289.96	L.F.	0.00
A	G20402101800	Concrete retaining wall, reinforced, level backfill, 12' high, 6'-6" base, 14" thick	1.00	497.40	L.F.	497.40
					Subtotal:	497.40
				Adjust	ment Factor:	1.0000
					Total:	497.40

# LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
				Total	0



# Agency: Administration Location: Capital Complex Fiscal Year: 2036

Asset Name : State Office Building Asset Number : 2

System:	G2040-Site Development	Lifetime:	50	
Name:	Retaining Walls - Concrete - 12 Ft Loading Dock - 1985	Years Remaining:	25 (Observed)	
Quantity:	24	% Used:	50 (Observed)	
Unit Cost:	599.26	Year Installed:	1985	
Replacement Cost:	14,382	Date Inspected:	11/08/2010	
Unit of Measure:	LF	SCI:	0.00	
RENEWAL				
Renewal FY:	2036	Renewal Cost:	17,978	
% Renew:	125			

# DESCRIPTION

Retaining wall at loading dock driveway: 12-ft. high reinforced cast-in-place (CIP) concrete on concrete footings with waterproofing and upper guard rail.

# SYSTEM COSTS

Unit Cost Basis:		1.00				
Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	055207000620	Railing, pipe, steel, galvanized, 3 rails, 3'-6" high, posts @ 5' O.C., 1-1/4" dia, shop fabricated	1.00	81.10	L.F.	81.10
U	071101000100	Bituminous Asphalt Coating, for foundation, below grade, brushed on, 2 coat	12.00	1.73	S.F.	20.76
А	G20402101800	Concrete retaining wall, reinforced, level backfill, 12' high, 6'-6" base, 14" thick	1.00	497.40	L.F.	497.40
					Subtotal:	599.26
				Adjust	ment Factor:	1.0000
					Total:	599.26

## LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
				Total	0



by Renewal Fiscal Year

Agency: Administration Location: Capital Complex Fiscal Year: 2036 Asset Name : State Office Building Asset Number : 2

System:	G9013-Pedestrian Tunnels	Lifetime:	50			
Name:	Pedestrian Tunnels - 1985	Years Remaining:	25 (Observed)			
Quantity:	400	% Used:	50 (Observed)			
Unit Cost:	149.69	Year Installed:	1985			
Replacement Cost:	59,877	Date Inspected:	11/08/2010			
Unit of Measure:	SF	SCI:	0.00			
RENEWAL	RENEWAL					
Renewal FY:	2036	Renewal Cost:	7,485			
% Renew:	13					

## DESCRIPTION

Underground pedestrian access tunnel shell assembly to 10 LF beyond building perimeter. Precast and cast-in-place concrete structure, waterproofed. Includes foundations, drainage and roof membrane system. Does not include interior finishes and roof planting. Tunnels run to SOB parking Ramp (W) Capitol (N) and Transportation Building (S) at ground floor.

## SYSTEM COSTS

Unit Cost Basis: 1,000.00

	Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
-	U	034508500650	Precast wall panel, smooth, gray, uninsulated, high rise, 8' x 8' x 4" thick, 3000 psi	1,200.00	47.79	S.F.	57,348.00
	A	A10101103100	Strip footing, concrete, reinforced, load 14.8 KLF, soil bearing capacity 6 KSF, 12" deep x 32" wide	100.00	48.90	L.F.	4,890.00
	A	A10103103000	Foundation underdrain, outside and inside, PVC, 4" diameter	200.00	22.40	L.F.	4,480.00
	A	A10103206800	Foundation dampproofing, asphalt coated board and mastic, 1/2" thick, 12' high	1,200.00	47.44	L.F.	56,928.00
	A	A10301204520	Slab on grade, 6" thick, light industrial, reinforced	1,000.00	8.67	S.F.	8,670.00
	A	B10102290920	Precast concrete plank, 6" thick, 20' span, 100 PSF superimposed load, 150 PSF total load	1,000.00	12.16	S.F.	12,160.00
	A	B30101206500	Roofing, single ply membrane, reinforced, PVC, 60 mils, fully adhered, adhesive	1,000.00	2.86	S.F.	2,860.00
	N	U 034804001450	Precast lintel, to 19' long, 8" high, 12" wide U-Shape	5.00	471.06	Ea.	2,355.30
						Subtotal:	149,691.30
					Adjust	ment Factor:	1 0000



# by Renewal Fiscal Year

 Subtotal:
 149,691.30

 Total:
 149,691.30

# LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
				Total	0



# by Renewal Fiscal Year

# Agency: Administration Location: Capital Complex Fiscal Year: 2039

Asset Name : State Office Building Asset Number : 2

System:	D5092-Emergency Light and Power Systems	Lifetime:	30		
Name:	Emergency Power Distribution	Years Remaining:	28 (Observed)		
Quantity:	1	% Used:	7 (Observed)		
Unit Cost:	467,823.14	Year Installed:	2008		
Replacement Cost:	467,823	Date Inspected:	11/08/2010		
Unit of Measure:	Each	SCI:	0.15		
RENEWAL					
Renewal FY:	2039	Renewal Cost:	584,779		
% Renew:	125				

## DESCRIPTION

Emergency power is provided from a dedicated emergency generator located adjacent to the parking garage. Power is provided underground to emergency power equipment room in the basement. Emergency power is supplied for essential building and life safety systems including security systems, exit and emergency lighting, the fire pump, elevators and various emergency panelboards in dedicated spaces throughout the building. Automatic transfer switches (ATS) and associated equipment is located in the basement. Emergency power is provided at 480Y/277V. Dry type transformers are utilized to step down voltage as required.

### SYSTEM COSTS

Unit Cost Basis:

1.00

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	160608009000	Grounding, minimum labor/equipment charge	50.00	172.24	Job	8,612.00
U	161205001400	Mineral insulated cable, 1 conductor, 600 volt, 4/0	3.00	3,597.06	C.L.F.	10,791.18
U	161209009000	Wire, minimum labor/equipment charge	200.00	172.24	Job	34,448.00
U	161322059990	Conduit, to 15' high, minimum labor/equipment charge	50.00	172.24	Job	8,612.00
U	161367000200	Pull boxes, sheet metal, type SC, 8" W x 8" H x 4" D, NEMA 1	5.00	106.38	Ea.	531.90
U	161367000610	Pull boxes, sheet metal, type SC, 30" W x 30" H x 8" D, NEMA 1	5.00	567.22	Ea.	2,836.10
U	161367000620	Pull boxes, sheet metal, type SC, 36" W x 36" H x 8" D, NEMA 1	5.00	696.63	Ea.	3,483.15
U	162702003500	Transformer. dry-type, ventilated, 3 phase 480 V primary 120/208 V secondary, 45 kVA	5.00	4,620.80	Ea.	23,104.00
U	162702003700	Transformer, dry-type, ventilated, 3 phase 480 V primary 120/208 V secondary, 75 kVA	1.00	6,329,59	Ea.	6,329.59



# by Renewal Fiscal Year

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	162702003900	Transformer, dry-type, 3 phase 480 V primary 120/208 V secondary, 112.5 kVA	1.00	7,874.33	Ea.	7,874.33
U	162706205180	Transformer handling, add to normal labor cost in restricted areas, approximately 500 pounds, 50 kVA	5.00	688.98	Ea	3,444.90
U	162706205190	Transformer handling, add to normal labor cost in restricted areas, approximately 600 pounds, 75 kVA	1.00	765.53	Ea	765.53
U	162706205210	Transformer handling, add to normal labor cost in restricted areas, approximately 800 pounds, 112.5 kVA	1.00	939.51	Ea	939.51
Ŭ	162908600160	Voltage monitor systems, AC voltage remote, with internal modem	4.00	5,227.89	Ea	20,911.56
U	164151000200	Non-automatic transfer switch, enclosed, manual operated, 3 pole, 480 volt, 100 amp	2.00	1,938.53	Ea.	3.877.06
U	164156000300	Automatic transfer switches, enclosed, 3 pole, 480 volt, 100 amp	1.00	3,509.61	Ea.	3,509.61
U	164156000700	Automatic transfer switches, enclosed, 3 pole, 480 volt, 400 amp	1.00	7,958.15	Ea.	7,958.15
U	164156000800	Automatic transfer switches, enclosed, 3 pole, 480 volt, 600 amp	1.00	11,210.71	Ea.	11,210.71
υ	164156001600	Automatic transfer switches, time delay on engine starting	3.00	232.95	Ea	698.85
U	164156001700	Automatic transfer switches, adjustable time delay on retransfer	3.00	232.95	Ea.	698.85
U	164156001800	Automatic transfer switches, shunt trips for customer connections	3.00	417.15	Ea.	1,251.45
U	164156001900	Automatic transfer switches, maintenance select switch	3.00	94.81	Ea.	284.43
U	164156002000	Automatic transfer switches, auxiliary contact when normal fails	3.00	109.43	Ea.	328.29
U	164156002100	Automatic transfer switches, pilot light-emergency	3.00	94.81	Ea.	284.43
U	164156002200	Automatic transfer switches, pilot light-normal	3.00	94.81	Ea.	284.43
U	164156002300	Automatic transfer switches, auxiliary contact-closed on normal	3.00	109.43	Ea.	328.29
U	164156002400	Automatic transfer switches, auxiliary contact-closed on emergency	3.00	109.43	Ea.	328.29
U	164156002500	Automatic transfer switches, frequency relay	3.00	482.16	Ea.	1,446.48



# by Renewal Fiscal Year

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	164407202100	Panelboards, 3 phase 4 wire, main circuit breaker, 120/208 V, 100 amp, 30 circuits, NQOD, incl 20 A 1 pole plug-in breakers	6.00	3,049.73	Ea.	18,298.38
U	164407202250	Panelboards, 3 phase 4 wire, main circuit breaker, 120/208 V, 225 amp, 42 circuits, NQOD, incl 20 A 1 pole plug-in breakers	6.00	4,898.50	Ea.	29,391.00
U	164407202550	Panelboards, 3 phase 4 wire, main circuit breaker, 277/480 V, 100 amp, 30 circuits, NEHB, incl 20 A 1 pole plug-in breakers	6.00	4,603.11	Ea.	27,618.66
Ŭ	164407202700	Panelboards, 3 phase 4 wire, main circuit breaker, 277/480 V, 400 amp, 42 circuits, NEHB, incl 20 A 1 pole plug-in breakers	1.00	8,169.26	Ea	8,169.26
υ	164407202750	Panelboards, 3 phase 4 wire, main circuit breaker, 277/480 V, 600 amp, 42 circuits, NEHB, incl 20 A 1 pole plug-in breakers	1.00	10,723.11	Ea.	10,723.11
U	164408200430	Circuit breaker, 3 pole, 480 V, 125 to 400 amp, LA frame, for feeder section	9.00	3,414.62	Ea	30,731.58
U	164408404600	Switchboards, circuit breaker, mold case, 3 pole, 4 wire, 600 amp	1.00	10,594.39	Ea.	10,594.39
A	D50102300240	Feeder installation 600 V, including RGS conduit and XHHW wire, 100 A	1,500.00	27.19	L.F.	40,785.00
А	D50102300280	Feeder installation 600 V, including RGS conduit and XHHW wire, 200 A	600.00	49.25	L.F.	29,550.00
A	D50102300320	Feeder installation 600 V, including RGS conduit and XHHW wire, 400 A	200.00	98.50	L.F.	19,700.00
A	D50102300360	Feeder installation 600 V, including RGS conduit and XHHW wire, 600 A	100.00	185.10	L.F.	18,510.00
A	D50201650680	Safety switch, 100 A fused, 3 phase, 50 HP 460 V or 60 HP 575 V	12.00	1,341.55	Ea.	16,098.60
A.	D50201650840	Safety switch, 200 A fused, 3 phase, 125 HP 460 V or 150 HP 575 V	2.00	2,020.97	Ea.	4,041.94
A	D50201651000	Safety switch, 400 A fused, 3 phase, 250 HP 460 V or 350 HP 575 V	3.00	4,373.03	Ea.	13,119.09
А	D50201651040	Safety switch, 600 A fused, 3 phase. 400 HP 460 V	1.00	7,034.28	Ea.	7,034.28
A	G40103121400	Electric power feed 800 Amp, 4' deep. 100', including excavation, backfill, concrete & compaction	1.00	18,284.78	Ea.	18,284.78

All costs in USD.



# by Renewal Fiscal Year

Subtotal:	467,823.14
Adjustment Factor:	1.0000
Total:	467,823.14

# LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
Emergency Panelboards - Approaching Rated Life	Beyond Useful Life	3- Necessary - Not Yet Critical	Elec	11/08/2015	71,532
				Total	71,532



# Agency: Administration Location: Capital Complex Fiscal Year: 2041

Asset Name : State Office Building Asset Number : 2

System:	D40-Fire Protection	Lifetime:	30
Name:	Fire Extinguishers - Dry Chem w/Cabinet	Years Remaining:	30 (Observed)
Quantity:	290,000	% Used:	0 (Observed)
Unit Cost:	0.03	Year Installed:	2010
Replacement Cost:	8,796	Date Inspected:	11/08/2010
Unit of Measure:	SF	SCI:	0.00
RENEWAL			
Renewal FY:	2041	Renewal Cost	9,236
% Renew:	105		

## DESCRIPTION

Handheld type dry chemical fire extinguishers are located throughout the building. Includes cabinets.

### SYSTEM COSTS

Unit Cost Basis: 1,000.00

Class	Code Label	Description	Quantity Unit Cost	Unit	Total Cost
U	105252001100	Fire equipment cabinets, portable extinguisher, single, steel box, recessed, D.S. glass in door, steel door & frame, 8" x 12" x 27", excludes equipment	0.09 260.56	Ea.	23.45
U	105253001080	Fire extinguishers, dry chemical, pressurized, standard type, portable, painted, 10 lb	0.09 76.45	Ea.	6.88
				Subtotal:	30.33
			Adjus	stment Factor:	1.0000
				Total:	30.33
LINKED	REQUIREMENTS				
Name		Category Priority	Inspector	Action Date	Cost

0

Total


#### Agency: Administration Location: Capital Complex Fiscal Year: 2046

Asset Name : State Office Building Asset Number : 2

System:	B2010-Exterior Walls	Lifetime:	60
Name:	Bronze Spandrel Panels - High Quality	Years Remaining:	35 (Observed)
Quantity:	694	% Used:	42 (Observed)
Unit Cost:	49.97	Year Installed:	1932
Replacement Cost:	34,679	Date Inspected:	11/08/2010
Unit of Measure:	SF	SCI:	0.00
RENEWAL			
Renewal FY:	2046	Renewal Cost:	43,349
% Renew:	125		

#### DESCRIPTION

The exterior wall construction at 2nd and 3rd floor window spandrels is of high quality embossed decorative bronze panels with masonry backup. System life extended by renovation work.

#### SYSTEM COSTS

Unit Cos	st Basis:	1,000.00				
Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
A	B20101091560	Concrete block (CMU) wall, regular weight, hollow, 12 x 8 x 16, 4500 PSI, styrofoam core fill	1,000.00	19.88	S.F.	19,880.00
A	B30101354150	Formed roofing, zinc-copper alloy, flat seam, 1/4" min slope, .040" thick, 1.67 PSF	1,000.00	30.09	S.F.	30,090.00
					Subtotal:	49,970.00
				Adjust	ment Factor:	1.0000
					Total:	49,970.00
LINKED	REQUIREMENTS					

Name	Category	Priority	Inspector	Action Date	Cost
				Total	0

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#### Agency: Administration Location: Capital Complex Fiscal Year: 2046

1.00

Asset Name : State Office Building Asset Number : 2

System:	D1011-Passenger Elevators	Lifetime:	50
Name:	Passenger Elevators - Elevator #1, #2, #3, #4	Years Remaining:	35 (Observed)
Quantity:	4	% Used:	30 (Observed)
Unit Cost:	595,082.24	Year Installed:	1995
Replacement Cost:	2,380,329	Date Inspected:	11/08/2010
Unit of Measure:	Each	SCI:	0.00
RENEWAL			
Renewal FY:	2046	Renewal Cost:	2,975,411
% Renew:	125		

#### DESCRIPTION

Elevators #1, #2, #3 and #4 are gearless traction type passenger elevators. The elevators are located in the central core of the building. Each elevator is rated at 3,000 lbs maximum load capacity at 625 feet per minute. The elevators provide vertical transportation from the Basement to the Sixth Floor inclusive. The elevators have polished brass doors and trim, wood walls, halogen lights, carpet on the floor and all required emergency communications. Install date represents most recent overhaul.

#### SYSTEM COSTS

Unit Cost Basis:

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	142102001925	Electric Traction Passenger Elevators, base unit, standard finish, for increased speed, 600 fpm, gearless electric, add	1.00	35,970.00	Ea.	35,970.00
U	142102002000	Electric Traction Passenger Elevators, base unit, standard finish, for travel over 40 V.L.F., add	80.00	959.52	V.L.F.	76,761.60
υ	142702003375	Passenger Elevator Options, cab finishes (based on 3500 lb cab size), aluminum eggcrate ceiling	1.00	1,265.00	Ea.	1,265.00
U	142702003425	Passenger Elevator Options, cab finishes (based on 3500 lb cab size). carpet flooring	1.00	627.00	Ea.	627.00
U	142702003575	Passenger Elevator Options, cab finishes (based on 3500 lb cab size), stainless steel returns at door	1.00	1,265.00	Ea.	1,265.00
υ	142802003050	Elevator options, passenger, automatic controls, 4 car group	0.25	33,092.12	Ea.	8,273.03
U	142802003125	Elevator options, passenger, intercom service	1.00	2,048.43	Ea.	2,048.43
U	142802003275	Elevator options, passenger, automatic emergency power switching	1.00	3,896.06	Ea.	3,896.06

# System Detail Report





Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	142802003625	Elevator options, passenger, cab finishes (based on 3500 lb cab size), hall finishes, stainless steel doors	7.00	2,117.50	Ea.	14,822.50
U	142802003650	Elevator options, passenger, cab finishes (based on 3500 lb cab size), hall finishes, stainless steel frames	7.00	1,540.00	Ea.	10,780.00
U	142802004865	Elevator options, hospital, cab finishes (based on 3500 lb cab size), variable voltage, O.H. gearless machine, max	1.00	132,575.71	Ea.	132,575.71
U	165104409000	Interior lighting fixtures, minimum labor/equip charge	2.00	229.66	Job	459.32
A	D10101502000	Traction gearless elevators, passenger, 3000 lb, 10 floors, 200 FPM	0.70	437,626.55	Ea.	306,338.59
					Subtotal:	595,082.24
				Adjust	ment Factor:	1.0000
			J		Total:	595,082.24
LINKED	REQUIREMENTS					

Name	Category	Priority	Inspector	Action Date	Cost
				Total	0





#### Agency: Administration Location: Capital Complex Fiscal Year: 2050

Asset Name : State Office Building Asset Number : 2

System:	C1030-Fittings	Lifetime:	40
Name:	Toilet Partitions - Average - 2009	Years Remaining:	39 (Observed)
Quantity:	290,000	% Used:	3 (Observed)
Unit Cost:	0.81	Year Installed:	2009
Replacement Cost:	233,847	Date Inspected:	11/08/2010
Unit of Measure:	SF	SCI:	0.00
RENEWAL			
Renewal FY:	2050	Renewal Cost:	292,309
% Renew:	125		

#### DESCRIPTION

Restrooms are equipped with standard quality, floor mounted, overhead braced solid phenolic resin partitions.

#### SYSTEM COSTS

Unit Cos	t Basis:	1,000.00					
Class	Code Label	Description		Quantity	Unit Cost	Unit	Total Cost
A	C10301100860	Toilet partitions, cubicless, mounted, headrail braced, p laminate	floor plastic	0.75	1,075.16	Unit	806.37
						Subtotal:	806.37
					Adjust	ment Factor:	1.0000
						Total:	806.37
LINKED	REQUIREMENTS						
Name		Category	Priority	Inspector	A	ction Date	Cost
C		A CALL AND A				Total	0

# System Detail Report



#### by Renewal Fiscal Year

#### Agency: Administration Location: Capital Complex Fiscal Year: 2061

Asset Name : State Office Building Asset Number : 2

System:	A-Substructure	Lifetime:	75	
Name:	Caissons (Drilled Pier) in St Ground	able Years Remaining:	50 (Observed)	
Quantity:	33,914	% Used:	33 (Observed)	
Unit Cost:	9.37	Year Installed:	1932	
Replacement Cost:	317,907	Date Inspected:	11/08/2010	
Unit of Measure:	Each	SCI:	0.00	
RENEWAL				
Renewal FY:	2061	Renewal Cost:	19,869	
% Renew:	6			

#### DESCRIPTION

This substructure includes concrete caissons, 50-ft. deep in wet or stable ground. System life extended by renovation work.

#### SYSTEM COSTS

Unit Cos	at Basis:	1,000.00					
Class	Code Label	Description		Quantity	Unit Cost	Unit	Total Cost
A	A10203105200	Caisson, wet grou concrete, 10 KSF 2' - 6" x 50' - 0"	nd, 3000 PSI bearing, 400K load,	1.60	5,858.69	Ea.	9,373.90
						Subtotal:	9,373.90
					Adjust	ment Factor:	1.0000
						Total:	9,373.90
LINKED	REQUIREMENTS						
Name		Category	Priority	Inspector	A	ction Date	Cost
						Total	0



#### Agency: Administration Location: Capital Complex Fiscal Year: 2061

Asset Name : State Office Building Asset Number : 2

System:	A-Substructure	Lifetime:	75	
Name:	Foundation Wall and Footings - 20 Ft Full Basement	Years Remaining:	50 (Observed)	
Quantity:	810	% Used:	33 (Observed)	
Unit Cost:	695.79	Year Installed:	1932	
Replacement Cost:	563,586	Date Inspected:	11/08/2010	
Unit of Measure:	LF	SCI:	0.00	
RENEWAL				
Renewal FY:	2061	Renewal Cost:	35,224	
% Renew:	6			

#### DESCRIPTION

Full basement wall and foundation with a 20-Ft. height to include strip footing, foundation walls and damp proofing. Also included are the underdrains. System life extended by renovation work.

#### SYSTEM COSTS

Unit Cost Basis:

1.00

Class	Code Label	Description		Quantity	Unit Cost	Unit	Total Cost
U	071101000400	Bituminous Asphalt Coat foundation, below grade, sprayed on, 2 coat	w grade, 20.5 S.F./gal., bat		34.40		
A	A10101104300	Strip footing, concrete, re 25.8 KLF, soil bearing ca 12" deep x 56" wide	inforced, load pacity 6 KSF,	1.00	72.99 L.F.		72.99
A	A10103101650	Foundation underdrain, or corrugated metal, 8" diam	atside only, eter	1.00	1.00 30.67 L.F.		30.67
A	A20201109500	Foundation wall, CIP, 16' crane & bucket788 CY/ PLF, 16"thk	wall height, LF, 38.38	1.25 446.18 L.F.		L.F.	557,73
						Subtotal:	695.79
					Adjust	ment Factor:	1.0000
						Total:	695.79
LINKED	REQUIREMENTS						
Name		Category	Priority	Inspector	A	ction Date	Cost
						Total	0

# System Detail Report



#### by Renewal Fiscal Year

#### Agency: Administration Location: Capital Complex Fiscal Year: 2061

Asset Name : State Office Building Asset Number : 2

	System:	A-Substructure	Lifetime:	75
	Name:	Structural Slab on Grade - Light Industrial - 1985	Years Remaining:	50 (Observed)
	Quantity:	33,914	% Used:	33 (Observed)
	Unit Cost:	9.24	Year Installed:	1985
	Replacement Cost:	313,365	Date Inspected:	11/08/2010
	Unit of Measure:	SF	SCI:	0.08
I	RENEWAL			· · ·
	Renewal FY:	2061	Renewal Cost:	19,585
	% Renew:	6		

#### DESCRIPTION

The building substructure includes a light industrial type structural slab on grade.

#### SYSTEM COSTS

Unit Cost Basis:		1,000.00					
Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost	
A	A10301206760	Slab on grade, 8" thick, light industrial, reinforced	1,000.00	9.24	S.F.	9,240.00	
					Subtotal:	9,240.00	
				Adjust	ment Factor:	1.0000	
					Total:	9,240.00	

#### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
Substructure - Basement Slab Cracks	Reliability	3- Necessary - Not Yet Critical	Arch	11/08/2015	25,151
				Total	25,151







Agency: Administration Location: Capital Complex Fiscal Year: 2061 Asset Name : State Office Building Asset Number : 2

	System:	A-Substructure	Lifetime:	75
	Name:	Grade Beams - Large	Years Remaining:	50 (Observed)
	Quantity:	33.914	% Used:	33 (Observed)
	Unit Cost:	29.32	Year Installed:	1932
	Replacement Cost:	994,443	Date Inspected:	11/08/2010
	Unit of Measure:	SF	SCI:	0.00
1	RENEWAL			
	Renewal FY:	2061	Renewal Cost:	62,153
	% Renew:	6		

#### DESCRIPTION

The substructure includes grade beams with a span of 30-feet and 52-inches deep. System life extended by renovation work.

#### SYSTEM COSTS

Unit Cost Basis:		1,000.00				
Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
A	A10202104640	Grade beam, 30' span. 52" deep, 20" wide, 16 KLF load	126.80	231.25	L.F. Subtotal:	29,322.50 29,322.50
				Adjust	ment Factor:	1.0000
					Total:	29,322.50

#### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
				Total	0

# System Detail Report



by Renewal Fiscal Year

Agency:	Administration
Location:	Capital Complex
Fiscal Year:	2061

Asset Name : State Office Building Asset Number : 2

System:	B10-Superstructure	Lifetime:	75
Name:	Multi-Story - Concrete	Years Remaining:	50 (Observed)
Quantity:	203,000	% Used:	33 (Observed)
Unit Cost:	31.90	Year Installed:	1932
Replacement Cost:	6,474,726	Date Inspected:	11/08/2010
Unit of Measure:	SF	SCI:	0.00
RENEWAL			
Renewal FY:	2061	Renewal Cost:	404,670
% Renew:	6		

#### DESCRIPTION

Multi-story lightweight structure with reinforced cast-in-place concrete construction at original building. System life extended by renovation work.

#### SYSTEM COSTS

Unit Cost Basis: 1,000.00		1,000.00				
Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
A	B10102033400	Cast-in-place concrete column, 24" square, tied, 900K load, 10' story height, 560 lbs/LF, 4000PSI	48.00	201.15	V.L.F.	9,655.20
A	B10102267500	Joist slab, cast-in-place concrete, multi-span, 16" deep rib, 20" column, 35'x35' bay, 75 PSF superimposed load, 172 PSF total load	1,000.00	22.24	S.F.	22,240.00
					Subtotal:	31,895.20
				Adjust	ment Factor:	1.0000
					Total:	31,895.20

#### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
				Total	0



#### Agency: Administration Location: Capital Complex Fiscal Year: 2061

Asset Name : State Office Building Asset Number : 2

System:	B10-Superstructure	Lifetime:	75
Name:	Multi-Story - Steel - 1985	Years Remaining:	50 (Observed)
Quantity:	87,000	% Used:	33 (Observed)
Unit Cost:	33.88	Year Installed:	1985
Replacement Cost:	2,947,950	Date Inspected:	11/08/2010
Unit of Measure:	SF	SCI:	0.00
RENEWAL			
Renewal FY:	2061	Renewal Cost:	184,247
% Renew:	6		

#### DESCRIPTION

Multi-story steel building includes steel columns, beams, floor pans, and roof structure at original atrium infill spaces plus 8th and 9th floors plus rooftop HVAC equipment penthouses.

#### SYSTEM COSTS

Unit Cost Basis: 1,000.00

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
A	B10102083000	Steel column, W8, 100 KIPS, 16' unsupported height, 31 PLF	48.00	41.76	V.L.F.	2,004.48
A	B10102544000	Floor, composite metal deck, 5" slab, 35'x35' bay, 41" total depth, 125 PSF superimposed load, 184 PSF total load	1,000.00	31.88	S.F.	31,880.00
					Subtotal:	33,884.48
				Adjust	ment Factor:	1.0000
					Total:	33,884.48

#### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
				Total	0



#### Agency: Administration Location: Capital Complex Fiscal Year: 2061

Asset Name : State Office Building Asset Number : 2

System:	B10-Superstructure	Lifetime:	75
Name:	Fireproofing - Fiber Encasement - 1985	Years Remaining:	50 (Observed)
Quantity:	87,000	% Used:	33 (Observed)
Unit Cost:	4.65	Year Installed:	1985
Replacement Cost:	404,745	Date Inspected:	11/08/2010
Unit of Measure:	SF	SCI:	0.00
RENEWAL			
Renewal FY:	2061	Renewal Cost:	505.931
% Renew:	125		

#### DESCRIPTION

1-hour fire resistance rated sprayed on fiber encasement fireproofing for structural components at original atrium infill spaces plus 8th and 9th floors plus rooftop HVAC equipment penthouses.

#### SYSTEM COSTS

Unit Cos	st Basis:	1,000.00					
Class	Code Label	Description		Quantity	Unit Cost	Unit	Total Cost
U	078126000400	Sprayed cementitie sprayed mineral fil for fireproofing, be 1-3/8" thick, excl. protection	ous fireproofing, ber or cementitious eams, 1 hour rated, tamping or canvas	620.00	2.04	S.F.	1,264.80
U	078126000500	Sprayed cementition sprayed mineral fill for fireproofing, cond decks, 1" thick, examp protection	ous fireproofing, ber or cementitious orrugated or fluted cl. tamping or canvas	1,000.00	2.63	S.F.	2,630.00
U	078126000700	Sprayed cementitic sprayed mineral fil for fireproofing, co excl. tamping or ca	ous fireproofing, per or cementitious plumns, 1-1/8" thick. Invas protection	288.00	2.63	S.F.	757.44
						Subtotal:	4,652.24
					Adjust	ment Factor:	1.0000
						Total:	4,652.24
LINKED	REQUIREMENTS						
Name		Category	Priority	Inspector	А	ction Date	Cost
						Total	0



#### Agency: Administration Location: Capital Complex Fiscal Year: 2061

Asset Name : State Office Building Asset Number : 2

1.5				
	System:	B1014-Ramps	Lifetime:	75
	Name:	Accessible Ramps - Basement - 1985	Years Romaining:	50 (Observed)
	Quantity:	64	% Used:	33 (Observed)
	Unit Cost:	901.25	Year Installed:	1985
	Replacement Cost:	57,680	Date Inspected:	11/08/2010
	Unit of Measure:	LF	SCI:	0.00
1	RENEWAL			
	Renewal FY:	2061	Renewal Cost:	7,210
	% Renew:	13		

#### DESCRIPTION

Cast-in-place (CIP) concrete handicap access (or equipment access) ramp w/cheek walls & rails both sides, 5' wide. Locations noted: Hearing Room B02, Corridor B09, Corridor B10, Dining Area B11 and HVAC Equip. Rooms B32 and B33.

#### SYSTEM COSTS

Unit Cost	Basis:	1.00
Unit Cost	Dasis.	1.00

Class	Code Label	Description		Quantity	Unit Cost	Unit	Total Cost
U	033102404535	Structural concrete, in plac access ramp (4000 psi), w/ railing both sides, 5' wide, forms(4 uses), reinforcing concrete, placing and finish	e, handicap 6" curb, includes steel, hing	1.00	901.25	L.F.	901.25
						Subtotal:	901.25
					Adjust	nent Factor:	1.0000
						Total:	901.25
LINKED	REQUIREMENTS						
Name		Category	Priority	Inspector	A	ction Date	Cost

0

Total





#### Agency: Administration Location: Capital Complex Fiscal Year: 2061

Asset Name : State Office Building Asset Number : 2

System:	B2010-Exterior Walls	Lifetime:	75	
Name:	Granite Veneer Walls - Deluxe	Years Remaining:	50 (Observed)	
Quantity:	41,652	% Used:	33 (Observed)	
Unit Cost:	162.89	Year Installed:	1932	
Replacement Cost:	6,784,840	Date Inspected:	11/08/2010	
Unit of Measure:	SF	SCI:	0.00	
RENEWAL				
Renewal FY:	2061	Renewal Cost:	424,053	
% Renew:	6			

#### DESCRIPTION

The exterior walls are of high quality, high cost granite veneer with masonry, concrete masonry unit (CMU) or cast-in-place (CIP) concrete backup wall. Includes round columns, quoins, belts and other architectural trim elements. System life extended by renovation work.

#### SYSTEM COSTS

Unit Cos	t Basis:	1,000.00				
Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	048503001900	Granite carving or bas-relief, from templates or plaster molds, maximum	50.00	744.21	C.F.	37,210.50
U	048503004100	Granite soffits, granite, 2" thick, maximum	100.00	253.93	S.F.	25,393.00
A	B20101287300	Stone wall, granite, grey or pink, 4" thick, 8' high, 12" CMU back-up	1,000.00	100.29	S.F.	100,290.00
					Subtotal:	162,893.50
				Adjust	ment Factor:	1.0000
					Total:	162,893.50

#### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
				Total	0



#### Agency: Administration Location: Capital Complex Fiscal Year: 2061

Asset Name : State Office Building Asset Number : 2

System:	B2016-Exterior Soffits	Lifetime:	75	
Name:	Granite Veneer Soffits - Deluxe	Years Remaining:	50 (Observed)	
Quantity:	1,692	% Used:	33 (Observed)	
Unit Cost:	297.87	Year Installed:	1932	
Replacement Cost:	504,001	Date Inspected:	11/08/2010	
Unit of Measure:	SF	SCI:	0.00	
RENEWAL				
Renewal FY:	2061	Renewal Cost:	31,500	
% Renew:	6			

#### DESCRIPTION

The exterior soffits are of high quality, high cost granite veneer with suspension system. Includes dentil moldings, carvings and other architectural trim elements. System life extended by renovation work.

#### SYSTEM COSTS

Unit Cost Basis: 1,000.00

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
υ	048503001900	Granite carving or bas-relief, from templates or plaster molds, maximum	50.00	744.21	C.F.	37,210.50
U	048503004100	Granite soffits, granite, 2" thick, maximum	1,000.00	253.93	S.F.	253,930.00
U	051202201200	Ceiling support, structural framing, lintels or shelf angles for exterior perimeter, hung, shop fabricated, incl galvanizing	eiling support, structural framing, 250.00 26.93 L.F. ntels or shelf angles for exterior erimeter, hung, shop fabricated, incl alvanizing		L.F.	6,732.50
					Subtotal:	297,873.00
				Adjustment Factor:		1.0000
					Total:	297,873.00

#### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
				Total	0

All costs in USD.

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#### Agency: Administration Location: Capital Complex Fiscal Year: 2061

Asset Name : State Office Building Asset Number : 2

System:	C20-Stairs	Lifetime:	75	
Name:	Unenclosed Access Stai Floor	rs - Ground Years Remaining:	50 (Observed)	
Quantity:	2	% Used:	33 (Observed)	
Unit Cost:	17,610.84	Year Installed:	1932	
Replacement Cost:	35,222	Date Inspected:	11/08/2010	
Unit of Measure:	Each	SCI:	0.36	
RENEWAL				
Renewal FY:	2061	Renewal Cost:	13,208	
% Renew:	38			

#### DESCRIPTION

The unenclosed (2 stories - Gnd-1st at G18 and G74) interior access stairs include 20 risers per flight without landing and 1 flight per story and are part of the original construction. Stair construction consists of cast-in-place (CIP) concrete treads and risers with cast terrazzo finish. Approximately 22 LF of wall rail and 48 LF of side rail per flight included in cost estimate. System life extended by renovation work.

#### SYSTEM COSTS

Unit Cost Basis:	1.00
orar coor babier	1.00

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
υ	055207000140	Railing, pipe, aluminum, satin finish, 3 rails, 3'-6" high, posts @ 5' O.C., 1-1/4" dia, shop fabricated	48.00	85.50	L.F.	4,104.00
U	055207000900	Railing, pipe, aluminum, wall rail, satin finish, 1-1/4" dia, shop fabricated	22.00	40.78	L.F.	897.16
A	C20101100590	Stairs, CIP concrete, w/landing, 20 risers, w/o nosing	1.00	6,901.28	Flight	6,901.28
А	C30204101920	Terrazzo precast, non-slip, maximum	120.00	47.57	S.F.	5,708.40
					Subtotal:	17,610.84
				Adjustment Factor:		1.0000
					Total:	17,610.84

#### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
Guardrails -	Building Code	1- Currently Critical	Arch	11/08/2011	12.618
Non-Compliant Heights or					
Spacing - Unenclosed					
Access Stairs					
				Total	12,618



#### Agency: Administration Location: Capital Complex Fiscal Year: 2061

Asset Name : State Office Building Asset Number : 2

	System:	C20-Stairs	Lifetime:	75
	Name:	Enclosed Exit Stairs - Full Height - SW and SE Towers - 1985	Years Remaining:	50 (Observed)
	Quantity:	48	% Used:	33 (Observed)
	Unit Cost:	7,376.30	Year Installed:	1985
	Replacement Cost:	354,063	Date Inspected:	11/08/2010
	Unit of Measure:	Each	SCI:	0.00
RENEWAL				
	Renewal FY:	2061	Renewal Cost:	132,773
	% Renew:	38		

#### DESCRIPTION

The enclosed full height (9 stories - B-7th floors) interior exit stairs (SE and SW stair towers) include 7 risers per flight with landing and 3 flights per story. Stair construction consists of structural steel channels and risers plus steel pan and concrete treads. Approximately 8 LF of center rail plus 8 LF of wall rail per flight included in cost estimate.

#### SYSTEM COSTS

Unit Cost Basis: 1.00

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	055207000580	Railing, pipe, steel, primed, 3 rails, 3'-6" high, posts @ 5' O.C., 1-1/4" dia, shop fabricated	8.00	67.35	L.F.	538.80
U	055207000930	Railing, pipe, steel, wall rail, primed, I-1/4" dia, shop fabricated	8.00	35.00	L.F.	280.00
A	C20101100720	20 Stairs, steel, cement filled metal pan & 0.60 10,929.17 Fli picket rail, 12 risers, with landing		Flight	6,557.50	
					Subtotal:	7.376.30
				Adjustment Factor:		1.0000
					Total:	7,376.30

#### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
				Total	0

All costs in USD.



#### Agency: Administration Location: Capital Complex Fiscal Year: 2061

Asset Name : State Office Building Asset Number : 2

	System:	C20-Stairs	Lifetime:	75	
	Name:	Enclosed Exit Stairs - Partial Height - S Tower - 1985	Years Remaining:	50 (Observed)	
	Quantity:	15	% Used:	33 (Observed)	
	Unit Cost:	7,376.30	Year Installed:	1985	
	Replacement Cost:	110,645	Date Inspected:	11/08/2010	
	Unit of Measure:	Each	SCI:	0.00	
RENEWAL					
	Renewal FY:	2061	Renewal Cost:	41,492	
	% Renew:	38			

#### DESCRIPTION

The enclosed partial height (5 stories - 1st-5th floors) interior exit stairs (S stair tower) includes 7 risers per flight with landing and 3 flights per story. Stair construction consists of structural steel channels and risers plus steel pan and concrete treads. Approximately 8 LF of center rail plus 8 LF of wall rail per flight included in cost estimate.

#### SYSTEM COSTS

Unit Cost Basis: 1.00

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	055207000580	Railing, pipe, steel, primed, 3 rails, 3'-6" high, posts @ 5' O.C., 1-1/4" dia, shop fabricated	8.00	67.35	L.F.	538.80
U	055207000930	Railing, pipe, steel, wall rail, primed, 1-1/4" dia, shop fabricated	8.00	35.00	L.F.	280.00
А	C20101100720	01100720 Stairs, steel, cement filled metal pan & 0.60 10,929.17 Flight   picket rail, 12 risers, with landing 0.60 10,929.17 Flight		Flight	6,557.50	
					Subtotal:	7,376.30
				Adjustment Factor:		1.0000
					Total:	7,376.30

#### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	r Action Date	
				Total	0



#### Agency: Administration Location: Capital Complex Fiscal Year: 2061

Asset Name : State Office Building Asset Number : 2

System:	C20-Stairs	Lifetime:	75	
Name:	Enclosed Access Stairs - 6th Floor - 1985	Years Remaining:	50 (Observed)	
Quantity:	4	% Used:	33 (Observed)	
Unit Cost:	11.909.17	Year Installed:	1985	
Replacement Cost:	47.637	Date Inspected:	11/08/2010	
Unit of Measure:	Each	SCI:	0.00	
ENEWAL				
Renewal FY:	2061	Renewal Cost:	17,864	
% Renew:	38			

#### DESCRIPTION

The enclosed partial height (3 stories - 6th-Rooftop HVAC penthouse) interior access stairs include 12 risers per flight with landing and 2 flights per story. Stair construction consists of structural steel channels and risers plus steel pan and concrete treads. Approximately 28 LF of wall rail per flight included in cost estimate.

#### SYSTEM COSTS

Jnit Cos	Basis:	
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1.00

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	055207000930	Railing, pipe, steel, wall rail, primed, 1-1/4" dia, shop fabricated	28.00	35.00	L.F.	980.00
А	C20101100720	Stairs, steel, cement filled metal pan & picket rail, 12 risers, with landing	1.00	10,929.17	Flight	10,929.17
					Subtotal:	11,909.17
				Adjustment Factor:		1.0000
					Total:	11,909.17

#### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
				Total	0



#### Agency: Administration Location: Capital Complex Fiscal Year: 2061

1.00

Asset Name : State Office Building Asset Number : 2

System:	C20-Stairs	Lifetime:	75			
Name:	Unenclosed Monumental Sta Partial Height - N Tower	airs - Years Remaining:	50 (Observed)			
Quantity:	21	% Used:	33 (Observed)			
Unit Cost:	11,260.05	Year Installed:	1932			
Replacement Co	ost: 236,461	Date Inspected:	11/08/2010			
Unit of Measure	Each	SCI:	0.08			
RENEWAL	RENEWAL					
Renewal FY:	2061	Renewal Cost:	88,673			
% Renew:	38					

#### DESCRIPTION

The partial height (8 stories - B-6th floors) interior unenclosed monumental stairs (N stair tower) includes 7 risers per flight with landing and 3 flights per story and is part of the original construction. Stair construction consists of cast-in-place (CIP) concrete treads and risers with marble finish throughout. Gypsum board soffits throughout. Approximately 12 LF of ornate metal center rail plus 8 LF of ornate metal wall rail per flight included in cost estimate. System life extended by renovation work.

#### SYSTEM COSTS

Unit Cost Basis:

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	055207000965	Railing, pipe, stainless steel, wall rail, mirror polish, 1-1/2" diam., shop fabricated	12.00	240.97	L.F.	2,891.64
U	057207000100	Railing, ornamental, bronze or stainless, 3'-6" high, posts @ 6' O.C., hand-forged, maximum	8.00	286.12	L.F.	2,288.96
U	096351000200	Marble flooring, white Carara, thin set, 12" x 12" x 3/8"	128.00	24.76	S.F.	3,169.28
A	C20101100550	Stairs, CIP concrete, w/landing, 12 risers, w/o nosing	0.60	4,619.35	Flight	2,771.61
A	C30301105700	Gypsum board ceilings, 5/8" fire rated gypsum board, painted and textured finish,1-5/8" metal stud furring, 24" OC support	32.00	4.33	S.F.	138.56
					Subtotal:	11,260.05
				Adjust	ment Factor:	1.0000

#### LINKED REQUIREMENTS

All costs in USD.

11,260.05

Total:



# System Detail Report

### by Renewal Fiscal Year

Name	Category	Priority	Inspector	Action Date	Cost
Guardrails -	Building Code	1- Currently Critical	Arch	11/08/2011	17.777
Non-Compliant Heights -					
Monumental Stairs					

Total 17,777



Agency: Administration Location: Capital Complex Fiscal Year: 2061 Asset Name : State Office Building Asset Number : 2

System:	C20-Stairs	Lifetime:	75		
Name:	Corridor Steps - Ground Floor	Years Remaining:	50 (Observed)		
Quantity:	2	% Used:	33 (Observed)		
Unit Cost:	5,307.11	Year Installed:	1932		
Replacement Cost:	10,614	Date Inspected:	11/08/2010		
Unit of Measure:	Each	SCI:	0.00		
RENEWAL	RENEWAL				
Renewal FY:	2061	Renewal Cost:	3,980		
% Renew:	38				

#### DESCRIPTION

The (1/4 story - Gnd at G34 and G41) interior corridor steps to E exits include 4 risers per flight without landing. Step construction consists of cast-in-place (CIP) concrete treads and risers with cast terrazzo finish. Approximately 12 LF of wall rail per flight included in cost estimate. System life extended by renovation work.

#### SYSTEM COSTS

Unit Cost Basis: 1.00

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost	
U	055207000900	Railing, pipe, aluminum, wall rail, satin finish, 1-1/4" dia, shop fabricated	12.00	40.78	L.F.	489.36	
A	C20101100470	Stairs, CIP concrete, w/o landing, 12 risers, w/o nosing	0.66	3,839.99	Flight	2,534.39	
А	C30204101920	Terrazzo precast, non-slip, maximum	48.00	47.57	S.F.	2,283.36	
					Subtotal:	5,307.11	
				Adjust	ment Factor:	1.0000	
					Total:	5,307.11	
LINKED	LINKED REQUIREMENTS						

Name	Category	Priority	Inspector	Action Date	Cost
				Total	0



Agency: Location: Fiscal Year:	Administration Capital Complex 2061	Asset Name : State Asset Number : 2	e Office Building	
System:	C20-Stairs	Lifetime:	75	
Name:	Access Steps - Ground Floor - 1985	Years Remaining:	50 (Observed)	
Quantity:	4	% Used:	33 (Observed)	
Unit Cost:	1,756.56	Year Installed:	1985	
Replacement Cost:	7,026	Date Inspected:	11/08/2010	
Unit of Measure:	Each	SCI:	0.00	
RENEWAL				
Renewal FY: % Renew:	2061 38	Renewal Cost:	2,635	

#### DESCRIPTION

The (1/4 story - Gnd at G05 and G10) interior access steps include 4 risers per flight without landing. Step construction consists of cast-in-place (CIP) concrete treads and risers. Approximately 12 LF of wall rail per flight included in cost estimate.

#### SYSTEM COSTS

Unit Cost Basis:		1.00				
Clas	s Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	055207000900	Railing, pipe, aluminum, wall rail, satin finish, 1-1/4" dia, shop fabricated	12.00	40.78	L.F.	489.36
А	C20101100470	Stairs, CIP concrete, w/o landing, 12 risers, w/o nosing	0.33	3,839.99	Flight	1,267.20
					Subtotal:	1,756.56
	Adjustment Factor:		ment Factor:	1.0000		
					Total:	1,756.56

#### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
				Total	0



#### Agency: Administration Location: Capital Complex Fiscal Year: 2061

Asset Name : State Office Building Asset Number : 2

	Contraction of the second s		
System:	C20-Stairs	Lifetime:	75
Name:	Access Steps - 2nd Floor - 1985	Years Remaining:	50 (Observed)
Quantity:	2	% Used:	33 (Observed)
Unit Cost:	1,756.56	Year Installed:	1985
Replacement Cost:	3,513	Date Inspected:	11/08/2010
Unit of Measure:	Each	SCI:	0.00
RENEWAL			
Renewal FY:	2061	Renewal Cost:	1,317
% Renew:	38		

#### DESCRIPTION

The (1/4 story - 2nd at 200) interior access steps include 4 risers per flight without landing. Step construction consists of cast-in-place (CIP) concrete treads and risers. Approximately 12 LF of wall rail per flight included in cost estimate.

#### SYSTEM COSTS

Unit Cost Basis: 1.00

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	055207000900	Railing, pipe, aluminum, wall rail, satin finish, 1-1/4" dia, shop fabricated	12.00	40.78	L.F.	489.36
A	C20101100470	Stairs, CIP concrete, w/o landing, 12 risers, w/o nosing	0.33	3,839.99	Flight	1,267.20
					Subtotal:	1,756.56
				Adjust	ment Factor:	1.0000
					Total:	1,756.56

#### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
and the second sec		~		Total	0



#### Agency: Administration Location: Capital Complex Fiscal Year: 2061

Asset Name : State Office Building Asset Number : 2

	System:	C20-Stairs	Lifetime:	75
	Name:	Access Steps - Basement - 1985	Years Remaining:	50 (Observed)
	Quantity:	5	% Used:	33 (Observed)
	Unit Cost:	1,756.56	Year Installed:	1985
	Replacement Cost:	8,783	Date Inspected:	11/08/2010
	Unit of Measure:	Each	SCI:	0.00
I	RENEWAL			
	Renewal FY:	2061	Renewal Cost:	3,294
	% Renew:	38		

#### DESCRIPTION

The (1/4 story - Basement at B01B, B10, B11, B17 and B32) interior access steps include 4 risers per flight without landing. Step construction consists of cast-in-place (CIP) concrete treads and risers. Approximately 12 LF of wall rail per flight included in cost estimate.

#### SYSTEM COSTS

Unit Cos	at Basis:	1.00				
Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	055207000900	Railing, pipe. aluminum, wall rail, satin finish, 1-1/4" dia, shop fabricated	12.00	40.78	L.F.	489.36
А	C20101100470	Stairs, CIP concrete, w/o landing, 12 risers, w/o nosing	0.33	3,839.99	Flight	1,267.20
					Subtotal:	1,756.56
				Adjust	ment Factor:	1.0000
					Total:	1,756.56

#### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
				Total	0



Agency:	Administration
Location:	Capital Complex
Fiscal Year:	2061

Asset Name : State Office Building Asset Number : 2

System: C20-Stairs Lifetime: 75 Years Remaining: 50 (Observed) Name: Entrance Steps - 1st Floor Quantity: 1 % Used: 33 (Observed) Unit Cost: 7,595.86 Year Installed: 1932 7,596 Date Inspected: 11/08/2010 Replacement Cost: Unit of Measure: Each SCI: 0.00 RENEWAL Renewal FY: 2061 Renewal Cost: 2,848 38 % Renew:

#### DESCRIPTION

The (1/4 story - 1st at 106) 8-ft. wide interior entrance steps to E main entrance include 4 risers per flight without landing. Step construction consists of cast-in-place (CIP) concrete treads and risers with marble finish. No rails present. System life extended by renovation work.

#### SYSTEM COSTS

Unit Cos	st Basis:	1.00				
Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	096351000200	Marble flooring, white Carara, thin set, 12" x 12" x 3/8"	100.00	24.76	S.F.	2,476.00
А	C20101100470	Stairs, CIP concrete, w/o landing, 12 risers, w/o nosing	1.33	3,839.99	Flight	5,119.86
					Subtotal:	7,595.86
				Adjust	ment Factor:	1.0000
					Total:	7,595.86

#### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
				Total	0



# **By Asset Name and Priority**

State Office Building (02)



Administration		1
Capital Complex		1
State Office	e Building	t
1- C	urrently Critical	t
	Branch Wiring - Insufficient Outlets - Ground Floor	1
	Branch Wiring - Receptacle in Disrepair - Room G10	3
	Branch Wiring - Outlets Not Installed at HVAC Units	4
	Central AHU - VAV System w/Distribution Renewal	6
	Communication Wiring - Improperly Installed - Corridor 180B	7
	Communication Wiring - Improperly Installed - Room 142F	8
	DDC/Pneumatic System - Hybrid Renewal	9
	Electrical Service - Inadequate Means of Egress from Electrical Room	10
	Emergency Eyewash and Shower Units Renewal	12
	Exhaust System - General Building - In-Line Renewal	13
	Exhaust System - General Building - Rooftop Renewal	14
	Exhaust System - General Building - Wall Exhaust Renewal	15
	Exhaust System - Restroom Fan Renewal	16
	Exit Signs - Not Properly Illuminated	17
	Exterior Lighting - Luminaires in Disrepair	19
	Guardrails - Non-Compliant Heights - Monumental Stairs	21
	Guardrails - Non-Compliant Heights or Spacing - Unenclosed Access Stairs	23
	Heat Exchanger - Liquid/Liquid - Plate and Frame Renewal	25
	Local Area Networks – Unprotected Plumbing Pipes above Equipment – Room 132E	26
	Natural Gas Service to Bldg Renewal	28
	Unit Heaters - Hot Water Renewal	29
	VCT - Average - 1985 Renewal	30
	Water Heater - Elec - 10 Gal - 1985 Renewal	31
	Water Heater - Hot Water Heat Exchanger and Tank Renewal	32
2- Pc	otentially Critical	34
	Access Control System Renewal	34
	Exit Signs Renewal	35
	Security Cameras Renewal	36
	Site Lighting Renewal	37
3- No	ecessary - Not Yet Critical	39
	ACT System - Standard - 1985 Renewal	39
	Aluminum Windows - 1985 Renewal	40
	Automatic Openers - Pair - 1985 Renewal	41
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State of Minnesota

May 10, 2011





	Boiler Steam - Humidification Renewal	42
	Custodial/Utility Sinks Renewal	43
	Door Assembly - 6 x 7 Bronze - Storefront Renewal	44
	Door Assembly - 6 x 7 HM - 1985 Renewal	45
	Elevator #5 Controller - Beyond Rated Life	46
	Emergency Panelboards - Approaching Rated Life	48
	Fluorescent Lighting - Approaching Rated Life	50
	Four Pipe Distribution System w/Pump Renewal	52
	HVAC Equipment - Abandoned	53
	Restroom Fixtures Renewal	55
	Single-Ply EPDM with Pavers on Roof - 1985 Renewal	56
	Skylights - Kalwall Types - 1985 Renewal	57
	Skylights - Monumental - 1985 Renewal	58
	Skylights - Unit Types - 1985 Renewal	59
	Substructure - Basement Slab Cracks	60
	Water Coolers - Wall-Mount Dual-Height Renewal	62
	Water Dist Complete Renewal	63
	Water Heater - Elec - 10 Gal - 2004 Renewal	64
5- Gra	ndfathered Code	65
	Branch Wiring - Outlets at Vending Machines Not GFCI Type - Basement	65
	Branch Wiring - Outlets in Kitchen Not GFCI Type	67
	Exterior Stairs - Missing Handrails - Monumental Steps	69

ii



#### By Asset Name and Priority

Agency: Administration Location: Capital Complex Priority: 1- Currently Critical Asset Name: State Office Building Asset Number: 2

Requirement Name	Branch Wiring - Insufficient Outlets - Ground Floor		
Linked System	Branch Wiring Devices	Inspection Date	11/08/2010
Prime System	Branch Wiring Devices	Finish Date	-
Category	Capacity/Design	Status	Open
Inspector	Elec	Actual Cost	0
Action Date	11/08/2011	Estimated Cost	24,414

#### REQUIREMENT DESCRIPTION

There are an insufficient number of receptacle outlets in many areas of the Ground Floor resulting in widespread use of extension cords and power strips. Specific locations include but are not necessarily limited to Room G13.

#### PHOTOS



Branch Wiring - Insufficient Outlets - Ground Floor

Branch Wiring - Insufficient Outlets - Ground Floor

#### ACTION DESCRIPTION

Provide additional receptacle outlets in areas identified on the Ground Floor as required to eliminate the use of extension cords and power strips. Unit count is based on approximately 25% increase in number of outlets and is for budget purposes only. Actual count may vary. Areas identified include but are not necessarily limited to Room G18.

#### ESTIMATE

Code	Description	Quantity	Unit	Unit Cost	Total Cost
AD50201200920	Receptacles and wall switches, 1000 SF, 14 receptacles	4,000.00	S.F.	3.49	13,960
U092801009000	Gypsum wallboard, repairs, minimum labor/equipment charge	20.00	Job	348.48	6,970
U095109009000	Ceiling Tiles, minimum labor/equipment charge	20.00	Job	174.24	3,485
				Subtotal:	24,414



## By Asset Name and Priority

Adjustment Factor: 1.0000 Total: 24,414



#### By Asset Name and Priority

Agency: Administration Location: Capital Complex Priority: 1- Currently Critical Asset Name: State Office Building Asset Number: 2

Requirement Name	Branch Wiring - Receptacle in Disrepair - Room G10		
Linked System	Branch Wiring Devices	Inspection Date	11/08/2010
Prime System	Branch Wiring Devices	Finish Date	
Category	Life Safety	Status	Open
Inspector	Elec	Actual Cost	0
Action Date	11/08/2011	Estimated Cost	344

#### REQUIREMENT DESCRIPTION

There is a recepticle outlet in Room G10 that is broken.

#### PHOTOS



Branch Wiring - Receptacle in Disrepair - Room G10

Branch Wiring - Receptacle in Disrepair - Room G10

#### ACTION DESCRIPTION

Replace the broken receptacle outlet in Room G10.

#### ESTIMATE

Code	Description	Quantity	Unit	Unit Cost	Total Cost
U160553009000	Electrical demolition, minimum labor/equipment charge	1.00	Job	172.24	172
U161409109000	Wiring devices, minimum labor/equipment charge	1.00	Job	172.24	172
				Subtotal:	344
				Adjustment Factor:	1.0000
				Total:	344



By Asset Name and Priority

Agency: Administration Location: Capital Complex Priority: 1- Currently Critical Asset Name: State Office Building Asset Number: 2

Requirement Name	Branch Wiring – Outlets Not Installed at HVAC Units		
Linked System	Branch Wiring Devices	Inspection Date	11/08/2010
Prime System	Branch Wiring Devices	Finish Date	
Category	Building Code	Status	Open
Inspector	Elec	Actual Cost	0
Action Date	11/08/2011	Estimated Cost	8,592

#### REQUIREMENT DESCRIPTION

Receptacle outlets are not installed in accessible locations or within 25 feet of HVAC units on the roof and around the exterior for use by workers servicing the equipment in violation of NFPA 70 (2005) Article 210.63.

#### PHOTOS



Branch Wiring - Outlets Not Installed at HVAC Units

Branch Wiring - Outlets Not Installed at HVAC Units

#### ACTION DESCRIPTION

Provide receptacle outlets in accessible locations on the roof and within 25 feet of all HVAC equipment for use by workers servicing the equipment. Provide roof penetrations as required. Unit counts for budget purposes only. Actual counts may vary.

#### ESTIMATE

Code	Description	Quantity	Unit	Unit Cost	Total Cost
AD50102301240	Branch installation 600 V, including EMT conduit and THW wire, 20 A	500.00	L.F.	7.81	3,905
AD50201250640	Receptacle duplex G.F.I. 20 A with box, plate, 3/4" EMT & wire	10.00	Ea.	315.32	3,153
U073203004040	Roof tiles, pipe flashing tile w/rubber boot, 100% recycled copper, for 1-1/2" pipe	5.00	Ea.	89.10	446



### By Asset Name and Priority

1

.

Code	Description	Quantity	Unit	Unit Cost	Total Cost
U073203009000	Concrete Tiles, minimum labor/equipment charge	5.00	Job	217.71	1,089
				Subtotal:	8,592
				Adjustment Factor:	1.0000
				Total:	8,592



By Asset Name and Priority

Agency: Administration Location: Capital Complex Priority: 1- Currently Critical Asset Name: State Office Building Asset Number: 2

Requirement Name	Central AHU - VAV System w/Distribution Renewal		
Linked System	Distribution Systems	Inspection Date	11/08/2010
Prime System	Distribution Systems	Finish Date	-
Category	Beyond Useful Life	Status	Open
Inspector	System Renewal	Actual Cost	0
Action Date	11/08/2010	Estimated Cost	4,081,221

#### REQUIREMENT DESCRIPTION

Auto generated renewal requirement for Central AHU - VAV System w/Distribution. System Description: The HVAC system includes central system AHUs with cooling and heating coils, VFD, VAV ducted distribution, diffusers and plenum return. The air handlers are located on the roof, in the penthouse and basement mechanical rooms.

#### PHOTOS



Central AHU - VAV System w/Distribution Renewal Central AHU - VAV System w/Distribution Renewal

#### ACTION DESCRIPTION

Estimated Cost= (System.Replacement Cost \* System.Percent Renew)/100

#### ESTIMATE

Code	Description	Quantity	Unit	Unit Cost	Total Cost
Х-	Sum for Central AHU - VAV System w/Distribution	1.00	Ea.	4,081,220.63	4,081,221
	Renewal				
				Subtotal:	4,081,221
				Adjustment Factor:	1.0000
				Total:	4,081,221

#### All costs in USD.

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#### By Asset Name and Priority

Agency: Administration Location: Capital Complex Priority: 1- Currently Critical Asset Name: State Office Building Asset Number: 2

Requirement Name	Communication Wiring - Improperly Installed - Corridor 180B		
Linked System	Local Area Networks	Inspection Date	11/08/2010
Prime System	Local Area Networks	Finish Date	-
Category	Building Code	Status	Open
Inspector	Elec	Actual Cost	0
Action Date	11/08/2011	Estimated Cost	1,380

#### REQUIREMENT DESCRIPTION

Communications wiring in the corridor outside of Room 180B is taped to the floor in violation of NFPA 70 (2005) Article 800.24.

#### PHOTOS



Communication Wiring - Improperly Installed - Corridor 180B Communication Wiring - Improperly Installed - Corridor 180B

#### ACTION DESCRIPTION

Remove communication wiring from the floor in the Corridor outside of Room 180B and provide proper installation of communication cables.

#### ESTIMATE

Code	Description	Quantity	Unit	Unit Cost	Total Cost
AD50309200102	Internet wiring, 2 data/voice outlets per 1000 S.F.	2.00	M.S.F.	690.24	1,380
				Subtotal:	1,380
			Adj	ustment Factor:	1.0000
				Total:	1,380



#### By Asset Name and Priority

Agency: Administration Location: Capital Complex Priority: 1- Currently Critical Asset Name: State Office Building Asset Number: 2

Requirement Name	Communication Wiring - Improperly Installed - Room 142F		
Linked System	Local Area Networks	Inspection Date	11/08/2010
Prime System	Local Area Networks	Finish Date	
Category	Building Code	Status	Open
Inspector	Elec	Actual Cost	0
Action Date	11/08/2011	Estimated Cost	1,380

#### REQUIREMENT DESCRIPTION

Communications wiring in Room 142F is hanging loosely without any support in violation of NFPA 70 (2005) Article 800.24.

#### PHOTOS



Communication Wiring - Improperly Installed - Room 142F Communication Wiring - Improperly Installed - Room 142F

#### ACTION DESCRIPTION

Remove communication wiring drapped across the walls in Room 142F and provide proper installation of communication cables.

#### ESTIMATE

Code	Description	Quantity	Unit	Unit Cost	Total Cost
AD50309200102	Internet wiring, 2 data/voice outlets per 1000 S.F.	2.00	M.S.F.	690.24	1,380
				Subtotal:	1,380
			Adjustment Factor:		1.0000
				Total:	1,380






Agency: Administration Location: Capital Complex Priority: 1- Currently Critical Asset Name: State Office Building Asset Number: 2

Requirement Name	DDC/Pneumatic System - Hybrid Renewal		
Linked System	Controls and Instrumentation	Inspection Date	11/08/2010
Prime System	Controls and Instrumentation	Finish Date	-
Category	Beyond Useful Life	Status	Open
Inspector	System Renewal	Actual Cost	0
Action Date	11/08/2010	Estimated Cost	1,809,384

### REQUIREMENT DESCRIPTION

Auto generated renewal requirement for DDC/Pneumatic System - Hybrid. System Description: HVAC controls include average DDC system for system optimization, basic pc control, moderate sensor types and quantities. System includes pneumatic activation of control valves and dampers.

## PHOTOS



DDC/Pneumatic System - Hybrid Renewal

DDC/Pneumatic System - Hybrid Renewal

# ACTION DESCRIPTION

Estimated Cost= (System.Replacement Cost \* System.Percent Renew)/100

### ESTIMATE

Code	Description	Quantity	Unit	Unit Cost	Total Cost
X-	Sum for DDC/Pneumatic System - Hybrid Renewal	1.00	Ea.	1,809,384.35	1,809,384
				Subtotal:	1,809,384
				Adjustment Factor:	1.0000
				Total:	1,809.384



Asset Name: State Office Building Asset Number: 2

Agency: Administration Location: Capital Complex Priority: 1- Currently Critical

Requirement Name	Electrical Service - Inadequate Means of Egress		
	from Electrical Room		
Linked System	High Tension Service and Dist.	Inspection Date	11/08/2010
Prime System	High Tension Service and Dist.	Finish Date	-
Category	Building Code	Status	Open
Inspector	Elec	Actual Cost	0
Action Date	11/08/2011	Estimated Cost	9,708

### REQUIREMENT DESCRIPTION

State of Minnesota

The Main Electrical Room B72A contains equipment rated greater than 1200A and greater than 600V. The existing door opens into the room in lieu of in the direction of the means of egress and also lacks panic hardware in violation of NFPA 70 (2005) Article 110.26(C)(2) and 110.33(A).

### PHOTOS



Electrical Service – Inadequate Means of Egress from Electrical Room Electrical Service – Inadequate Means of Egress from Electrical Room

### ACTION DESCRIPTION

Replace the door at Electrical Room B72A such that it opens in the direction of egress and is equipped with panic hardware. Also provide panic hardware on the second door leading into Room B71. Unit counts for budget purposes only. Actual counts may vary.

### ESTIMATE

Code	Description	Quantity	Unit	Unit Cost	Total Cost
AC10201167220	Labeled metal door/metal frame, hollow, 3 hr, 18 ga full panel, 3'-0" x 7'-0", welded frame, 8-3/4"	2.00	Ea.	1,494.20	2,988
RC10131100040	Replace 8" concrete block wall painted	1.00	C.S.F.	1,801.68	1,802
U022203500600	Selective demolition, rubbish handling, dumpster, 6 C.Y., 2 ton capacity, weekly rental, includes one dump per week, cost to be added to demolition cost.	1.00	Week	326.04	326





Code	Description	Quantity	Unit	Unit Cost	Total Cost
U080601109000	Door demolition, minimum labor/equipment charge	3.00	Job	181.64	545
U081102509000	Door frames, minimum labor/equipment charge	3.00	Job	1,058.53	3,176
U087107509000	Door hardware, panic device, minimum labor/equipment charge	3.00	Job	290.62	872
				Subtotal:	9,708
				Adjustment Factor:	1.0000
				Total:	9,708



Agency: Administration Location: Capital Complex Priority: 1- Currently Critical Asset Name: State Office Building Asset Number: 2

Requirement Name	Emergency Eyewash and Shower Units Renewal		
Linked System	Plumbing Fixtures	Inspection Date	11/08/2010
Prime System	Plumbing Fixtures	Finish Date	-
Category	Beyond Useful Life	Status	Open
Inspector	System Renewal	Actual Cost	0
Action Date	11/08/2010	Estimated Cost	7,342

# REQUIREMENT DESCRIPTION

State of Minnesota

Auto generated renewal requirement for Emergency Eyewash and Shower Units. System Description: Plumbing fixtures include emergency safety shower and eyewash units.

### PHOTOS



Emergency Eyewash and Shower Units Renewal

Emergency Eyewash and Shower Units Renewal

# ACTION DESCRIPTION

Estimated Cost= (System.Replacement Cost \* System.Percent Renew)/100

## ESTIMATE

Code	Description	Quantity	Unit	Unit Cost	Total Cost
X-	Sum for Emergency Eyewash and Shower Units Renewal	1.00	Ea.	7,341.60	7,342
				Subtotal:	7,342
				Adjustment Factor:	1.0000
				Total:	7,342



Agency: Administration Location: Capital Complex Priority: 1- Currently Critical Asset Name: State Office Building Asset Number: 2

Requirement Name	Exhaust System - General Building - In-Line Renewal		Y
Linked System	Distribution Systems	Inspection Date	11/08/2010
Prime System	Distribution Systems	Finish Date	
Category	Beyond Useful Life	Status	Open
Inspector	System Renewal	Actual Cost	0
Action Date	11/08/2010	Estimated Cost	55,901

# REQUIREMENT DESCRIPTION

Auto generated renewal requirement for Exhaust System - General Building - In-Line. System Description: The HVAC ventilation system includes duct mounted in-line exhaust fans with ducting.

# PHOTOS



Exhaust System - General Building - In-Line Renewal

Exhaust System - General Building - In-Line Renewal

### ACTION DESCRIPTION

Estimated Cost= (System.Replacement Cost \* System.Percent Renew)/100

### ESTIMATE

Code	Description	Quantity	Unit	Unit Cost	Total Cost
X-	Sum for Exhaust System - General Building - In-Line	1.00	Ea.	55,900.95	55,901
	Renewal				
				Subtotal:	55,901
			Adjust	ment Factor:	1.0000
				Total:	55,901

Agency: Administration Location: Capital Complex Priority: 1- Currently Critical Asset Name: State Office Building Asset Number: 2

Requirement Name	Exhaust System - General Building - Rooftop Renewal		
Linked System	Distribution Systems	Inspection Date	11/08/2010
Prime System	Distribution Systems	Finish Date	-
Category	Beyond Useful Life	Status	Open
Inspector	System Renewal	Actual Cost	0
Action Date	11/08/2010	Estimated Cost	44,446

### REQUIREMENT DESCRIPTION

Auto generated renewal requirement for Exhaust System - General Building - Rooftop. System Description: The HVAC ventilation system includes roof-mounted exhaust fans with ducting.

# PHOTOS



Exhaust System - General Building - Centrifugal Renewal

Exhaust System - General Building - Centrifugal Renewal

# ACTION DESCRIPTION

Estimated Cost= (System.Replacement Cost \* System.Percent Renew)/100

# ESTIMATE

Code	Description	Quantity	Unit	Unit Cost	Total Cost
X-	Sum for Exhaust System - General Building - Rooftop	1.00	Ea.	44,446.13	44,446
	Renewal				
				Subtotal:	44,446
				Adjustment Factor:	1.0000
				Total:	44,446



Asset Name: State Office Building Asset Number: 2

Agency: Administration Location: Capital Complex Priority: 1- Currently Critical

Requirement Name	Exhaust System - General Building - Wall Exhaust Renewal		
Linked System	Distribution Systems	Inspection Date	11/08/2010
Prime System	Distribution Systems	Finish Date	
Category	Beyond Useful Life	Status	Open
Inspector	System Renewal	Actual Cost	0
Action Date	11/08/2010	Estimated Cost	1,189

### REQUIREMENT DESCRIPTION

Auto generated renewal requirement for Exhaust System - General Building - Wall Exhaust. System Description: The HVAC ventilation system includes a wall mounted propeller exhaust fan.

## PHOTOS

State of



Exhaust System - General Building - Wall Exhaust Renewal Exhaust System - General Building - Wall Exhaust Renewal

# ACTION DESCRIPTION

Estimated Cost= (System.Replacement Cost \* System.Percent Renew)/100

# ESTIMATE

Code	Description	Quantity	Unit	Unit Cost	Tota	l Cost
X-	 Sum for Exhaust System - General Building - Wall	1.00	Ea.	1,188.68	17	1,189
	Exhaust Renewal					
				Subtotal:		1,189
				Adjustment Factor:		1.0000
				Total:		1,189



Agency: Administration Location: Capital Complex Priority: 1- Currently Critical Asset Name: State Office Building Asset Number: 2

Requirement Name	Exhaust System - Restroom Fan Renewal		
Linked System	Distribution Systems	Inspection Date	11/08/2010
Prime System	Distribution Systems	Finish Date	
Category	Beyond Useful Life	Status	Open
Inspector	System Renewal	Actual Cost	0
Action Date	11/08/2010	Estimated Cost	16,535

### REQUIREMENT DESCRIPTION

State of Minnesota

Auto generated renewal requirement for Exhaust System - Restroom Fan. System Description: HVAC ventilation system includes centrifugal restroom exhaust fans with ducting.

# PHOTOS



Exhaust System - Restroom w/Roof Fan Renewal

Exhaust System - Restroom w/Roof Fan Renewal

### ACTION DESCRIPTION

Estimated Cost= (System.Replacement Cost \* System.Percent Renew)/100

#### ESTIMATE

Code	Description	Quantity	Unit	Unit Cost	Total Cost
Х-	Sum for Exhaust System - Restroom Fan Renewal	1.00	Ea.	16,535.35	16,535
				Subtotal:	16,535
				Adjustment Factor:	1.0000
				Total:	16,535



State of Minnesota

Agency: Administration Location: Capital Complex Priority: 1- Currently Critical Asset Name: State Office Building Asset Number: 2

Inspector	Elec	Actual Cost	0
Category	Building Code	Status	- Open
Delma Sustan	Emargency Light and Dower Systems	Finish Data	
Linked System	Emergency Light and Power Systems	Inspection Date	11/08/2010
Requirement Name	Exit Signs - Not Properly Illuminated		

## REQUIREMENT DESCRIPTION

Non-illuminated exit signs are installed in Room G28 and Corridor B43 in violation of NFPA 101 (2006) Article 7.10.5.

### PHOTOS



Exit Signs - Not Properly Illuminated

Exit Signs - Not Properly Illuminated

### ACTION DESCRIPTION

Remove the non-illuminated exits signs in Room G28 and Corridor B43 and provide illuminated exit signs

### ESTIMATE

Code	Description	Quantity	Unit	Unit Cost	Total Cost
AD50102301240	Branch installation 600 V, including EMT conduit and THW wire, 20 A	300.00	L.F.	7.81	2,343
E015904000150D	Rent aerial lift to 15'high 1000 lb cap scissor type	1.00	Ea./day	98.03	98
U018323601030	Electrical Facilities Maintenance, distribution systems and equipment, reset breaker or replace fuse	3.00	Ea.	36.65	110
U095109009000	Ceiling Tiles, minimum labor/equipment charge	3.00	Job	174.24	523
U160555005310	Exit light, electrical demolition, remove	3.00	Ea.	28.71	86
U161366009000	Outlet boxes, minimum labor/equipment charge	3.00	Job	172.24	517
All costs in USD.					

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# By Asset Name and Priority

Code	Description	Quantity	Unit	Unit Cost	Total Cost
U165303200260	Exit lighting, L.E.D. w/ battery unit, double face, ceiling or wall mount	3.00	Ea.	320.68	962
				Subtotal:	4,639
				Adjustment Factor:	1.0000
				Total:	4,639



By Asset Name and Priority

Agency: Administration Location: Capital Complex Priority: 1- Currently Critical Asset Name: State Office Building Asset Number: 2

Requirement Name	Exterior Lighting - Luminaires in Disrepair		
Linked System	Lighting Equipment	Inspection Date	11/08/2010
Prime System	Lighting Equipment	Finish Date	-
Category	Reliability	Status	Open
Inspector	Elec	Actual Cost	0
Action Date	11/08/2011	Estimated Cost	18,841

# REQUIREMENT DESCRIPTION

Plastic globes on the exterior antique solid bronze post candelabras at the South Entrance are broken and in disrepair.

# PHOTOS



Exterior Lighting - Luminaires in Disrepair

Exterior Lighting - Luminaires in Disrepair

# ACTION DESCRIPTION

Replace the broken globes and lamps on the exterior antique solid bronze post candelabras at the South Entrance. For appearance purposes, all globes should be replaced at the same time around the perimeter if exact globes are not available. Estimate assumes replacement of all globes. Unit counts for budget purposes only. Actual counts may vary.

# ESTIMATE

Code	Description	Quantity	Unit	Unit Cost	Total Cost
E015904000150D	Rent aerial lift to 15'high 1000 lb cap scissor type	5.00	Ea./day	98.03	490
U018323602520	Electrical Facilities Maintenance, remove and replace or maintain, incandescent fixture	54.00	Ea.	134.26	7,250
U018323602530	Electrical Facilities Maintenance, remove and replace or maintain, lamp, incandescent or fluorescent fixture	54.00	Ea.	16.17	873
U018323602545	Electrical Facilities Maintenance, remove and replace or maintain, replace other lighting parts	54.00	Ea.	85.20	4,601



# By Asset Name and Priority

Code	Description	Quantity	Unit	Unit Cost	Total Cost
U160553009000	Electrical demolition, minimum labor/equipment charge	6.00	Job	172.24	1,033
U160555003160	Walkway luminaire, electrical demolition, remove	54.00	Ea.	85.06	4,593
				Subtotal:	18,841
				Adjustment Factor:	1.0000
				Total:	18,841

Agency: Administration Location: Capital Complex Priority: 1- Currently Critical Asset Name: State Office Building Asset Number: 2

Requirement Name	Guardrails - Non-Compliant Heights - Monumental Stairs		
Linked System	Stairs	Inspection Date	11/08/2010
Prime System	Stairs	Finish Date	
Category	Building Code	Status	Open
Inspector	Arch	Actual Cost	0
Action Date	11/08/2011	Estimated Cost	17,777

### REQUIREMENT DESCRIPTION

According to 2009 IBC Section 1013 code compliant guardrails are required at all vertical drops that exceed 30 inches in height.

1013.1 Where required. Guards shall be located along open-sided walking surfaces, mezzanines, industrial equipment platforms, stairways, ramps and landings that are located more than 30 inches (762 mm) above the floor or grade below. Guards shall be adequate in strength and attachment in accordance with Section 1607.7. Where glass is used to provide a guard or as a portion of the guard system, the guard shall also comply with Section 2407. Guards shall also be located along glazed sides of stairways, ramps and landings that are located more than 30 inches (762 mm) above the floor or grade below where the glazing provided does not meet the strength and attachment requirements in Section 1607.7.

1013.2 Height. Guards shall form a protective barrier not less than 42 inches (1067 mm) high, measured vertically above the leading edge of the tread, adjacent walking surface or adjacent seatboard.

Guardrails facing corridors at all floors at unenclosed monumental stairs do not meet height requirements and present a potential fall hazard. Guardrails are original construction and thus historic in character. Historically sensitive repair is required.

### PHOTOS



Guardrails - Non-Compliant Heights - Monumental Stairs Guardrails - Non-Compliant Heights - Monumental Stairs

ACTION DESCRIPTION

Modify existing non-compliant guardrails to provide new code-compliant guardrails that respect historical character of original units. Recommend providing a new top rail at proper height on existing guardrail units.

Est. 7 guardrail units @ 8 LF each = 56 LF



# By Asset Name and Priority

# ESTIMATE

Code	Description	Quantity	Unit	Unit Cost	Total Cost
LCARPJ	Carpenters	28.00	hour	81.24	2,275
LSSWLJ	Welders, Structural Steel	14.00	hour	105.47	1,477
U055207000965	Railing, pipe, stainless steel, wall rail, mirror polish, 1-1/2" diam., shop fabricated	56.00	L.F.	240.97	13,494
U055207009000	Railing, pipe, steel, shop fabricated, minimum labor/equipment charge	1.00	Job	531.31	531
				Subtotal:	17,777
				Adjustment Factor:	1.0000
				Total:	17,777

By Asset Name and Priority



Agency: Administration Location: Capital Complex Priority: 1- Currently Critical Asset Name: State Office Building Asset Number: 2

Requirement Name	Guardrails - Non-Compliant Heights or Spacing - Unenclosed Access Stairs		
Linked System	Stairs	Inspection Date	11/08/2010
Prime System	Stairs	Finish Date	-
Category	Building Code	Status	Open
Inspector	Arch	Actual Cost	0
Action Date	11/08/2011	Estimated Cost	12,618

### REQUIREMENT DESCRIPTION

According to 2009 IBC Section 1013 code compliant guardrails are required at all vertical drops that exceed 30 inches in height.

1013.1 Where required. Guards shall be located along open-sided walking surfaces, mezzanines, industrial equipment platforms, stairways, ramps and landings that are located more than 30 inches (762 mm) above the floor or grade below. Guards shall be adequate in strength and attachment in accordance with Section 1607.7. Where glass is used to provide a guard or as a portion of the guard system, the guard shall also comply with Section 2407. Guards shall also be located along glazed sides of stairways, ramps and landings that are located more than 30 inches (762 mm) above the floor or grade below where the glazing provided does not meet the strength and attachment requirements in Section 1607.7.

1013.2 Height. Guards shall form a protective barrier not less than 42 inches (1067 mm) high, measured vertically above the leading edge of the tread, adjacent walking surface or adjacent seatboard.

1013.3 Opening limitations. Open guards shall have balusters or ornamental patterns such that a 4-inch-diameter (102 mm) sphere cannot pass through any opening up to a height of 34 inches (864 mm). From a height of 34 inches (864 mm) to 42 inches (1067 mm) above the adjacent walking surfaces, a sphere 8 inches (203 mm) in diameter shall not pass.

Upper guardrails at unenclosed (1st at 142J and 174B) interior access stairs do not meet either height or spacing requirements and present a potential fall hazard. Replacement is required.

### PHOTOS



Guardrails - Non-Compliant Heights or Spacing - Unenclosed Access Stairs

Guardrails - Non-Compliant Heights or Spacing

### ACTION DESCRIPTION



Replace (or modify) existing non-compliant guardrails with new code-compliant units.

Est. 2 guardrail units @ 24 LF each = 48 LF

# ESTIMATE

Code	Description	Quantity	Unit	Unit Cost	Total Cost
LCARPJ	Carpenters	8.00	hour	81.24	650
LCLABJ	Common Building Laborers	4.00	hour	64.82	259
LSSWLJ	Welders, Structural Steel	4.00	hour	105.47	422
U022203300100	Selective demolition, dump charges, typical urban city, building construction materials, includes tipping fees only	0.50	Ton	89.12	45
U022203500600	Selective demolition, rubbish handling, dumpster, 6 C.Y., 2 ton capacity, weekly rental, includes one dump per week, cost to be added to demolition cost.	0.13	Week	326.04	41
U050601100380	Selective metals demolition, manufactured or fabricated specialty item, 121 - 500 lb, remove whole or cut up into smaller pieces, excl shoring, bracing, cutting, loading, hauling, dumping	2.00	Ea.	85.04	170
U055207002010	2-line pipe rail with pickets and attached handrail, aluminum, satin finish, 1-1/2" pipe, 1/2" pickets @ 4-1/2" O.C., 42" high, shop fabricated, straight & level	48.00	L.F.	229.83	11,032
				Subtotal:	12,618
				Adjustment Factor:	1,0000
				Total:	12,618

# By Asset Name and Priority

Agency: Administration Location: Capital Complex Priority: 1- Currently Critical Asset Name: State Office Building Asset Number: 2

Requirement Name	Heat Exchanger - Liquid/Liquid - Plate and Frame Renewal		
Linked System	Distribution Systems	Inspection Date	11/08/2010
Prime System	Distribution Systems	Finish Date	-
Category	Beyond Useful Life	Status	Open
Inspector	System Renewal	Actual Cost	0
Action Date	11/08/2010	Estimated Cost	546,177

### REQUIREMENT DESCRIPTION

Auto generated renewal requirement for Heat Exchanger - Liquid/Liquid - Plate and Frame. System Description: The HVAC system includes two plate and frame, liquid to liquid, heat exchangers. These are used to produce heating hot water from utility supplied hot water.

# PHOTOS



Heat Exchanger - Liquid/Liquid - Plate and Frame Renewal

Heat Exchanger - Liquid/Liquid - Plate and Frame Renewal

# ACTION DESCRIPTION

Estimated Cost= (System.Replacement Cost \* System.Percent Renew)/100

### ESTIMATE

Code	Description	Quantity	Unit	Unit Cost	Total Cost
Х-	Sum for Heat Exchanger - Liquid/Liquid - Plate and	1.00	Ea.	546,177.03	546,177
	Frame Renewal				
				Subtotal:	546,177
				Adjustment Factor:	1.0000
				Total:	546,177

Agency: Administration Location: Capital Complex Priority: 1- Currently Critical Asset Name: State Office Building Asset Number: 2

Requirement Name	Local Area Networks – Unprotected Plumbing Pipes above Equipment – Room 132E		
Linked System	Local Area Networks	Inspection Date	11/08/2010
Prime System	Local Area Networks	Finish Date	-
Category	Building Code	Status	Open
Inspector	Elec	Actual Cost	0
Action Date	11/08/2011	Estimated Cost	1,268

# REQUIREMENT DESCRIPTION

Unprotected plumbing piping is located above the local area network equipment in Room 132E in violation of NFPA 70 (2005) Article 110.26(F)(1)(b). A leak in the piping will cause extensive damage to the data equipment.

# PHOTOS



Local Area Networks – Unprotected Plumbing Pipes above Equipment – Room 132E

Local Area Networks - Unprotected Plumbing Pipes above Equipment - Room 132E

# ACTION DESCRIPTION

Provide a metal drip pan under the plumbing piping in Room 132E to protect the data equipment from potential leaks.

# ESTIMATE

Code	Description	Quantity	Unit	Unit Cost	Total Cost
U076506009950	Sheet metal flashing, minimum labor and equipment charge	2.00	Job	184.17	368
U158101009990	Metal Ductwork, minimum labor/equipment charge	2.00	Job	257.00	514
U158203009900	Duct accessories, minimum labor/equipment charge	2.00	Job	192.75	386
				Subtotal:	1,268
				Adjustment Factor:	1.0000
				Total:	1,268



# By Asset Name and Priority



Agency: Administration Location: Capital Complex Priority: 1- Currently Critical Asset Name: State Office Building Asset Number: 2

Requirement Name	Natural Gas Service to Bldg Renewal		
Linked System	Gas Supply System	Inspection Date	11/08/2010
Prime System	Gas Supply System	Finish Date	
Category	Beyond Useful Life	Status	Open
Inspector	System Renewal	Actual Cost	0
Action Date	11/08/2010	Estimated Cost	2,209

# REQUIREMENT DESCRIPTION

State of Minnesota

Auto generated renewal requirement for Natural Gas Service to Bldg. System Description: The building includes a natural gas supply to the kitchen.

# PHOTOS



Natural Gas Service to Bldg Renewal

Natural Gas Service to Bldg Renewal

### ACTION DESCRIPTION

Estimated Cost= (System.Replacement Cost \* System.Percent Renew)/100

## ESTIMATE

Code	Description	Quantity	Unit	Unit Cost	Total Cost
Х-	Sum for Natural Gas Service to Bldg Renewal	1.00	Ea.	2,209.03	2,209
				Subtotal:	2,209
				Adjustment Factor:	1.0000
				Total:	2,209





Agency:	Administration	
Location:	Capital Complex	A
<b>Priority:</b>	1- Currently Critical	

Asset Name: State Office Building Asset Number: 2

Requirement Name	Unit Heaters - Hot Water Renewal		
Linked System	Terminal and Package Units	Inspection Date	11/08/2010
Prime System	Terminal and Package Units	Finish Date	
Category	Beyond Useful Life	Status	Open
Inspector	System Renewal	Actual Cost	0
Action Date	11/08/2010	Estimated Cost	24,330

### REQUIREMENT DESCRIPTION

Auto generated renewal requirement for Unit Heaters - Hot Water. System Description: Heating is provided by suspended, forced hot water unit heaters. These units are found in mechanical and service areas.

# PHOTOS



Unit Heaters - Hot Water Renewal

Unit Heaters - Hot Water Renewal

### ACTION DESCRIPTION

Estimated Cost= (System.Replacement Cost \* System.Percent Renew)/100

# ESTIMATE

Code	Description	Quantity	Unit	Unit Cost	Total Cost
X-	Sum for Unit Heaters - Hot Water Renewal	1.00	Ea.	24,330.33	24,330
				Subtotal:	24,330
				Adjustment Factor:	1.0000
				Total:	24,330



Agency: Administration Location: Capital Complex Priority: 1- Currently Critical Asset Name: State Office Building Asset Number: 2

Requirement Name	VCT - Average - 1985 Renewal		
Linked System	Floor Finishes	Inspection Date	11/08/2010
Prime System	Floor Finishes	Finish Date	-
Category	Beyond Useful Life	Status	Open
Inspector	System Renewal	Actual Cost	0
Action Date	11/08/2010	Estimated Cost	14,255

### REQUIREMENT DESCRIPTION

State of Minnesota

Auto generated renewal requirement for VCT - Average - 1985. System Description: Floor finishes include areas of standard VCT flooring and related base at ground floor maintenance areas.

### PHOTOS



ACTION DESCRIPTION

Estimated Cost= (System.Replacement Cost \* System.Percent Renew)/100

# ESTIMATE

Code	Description	Quantity	Unit	Unit Cost	Total Cost
Х-	Sum for VCT - Average - 1985 Renewal	1.00	Ea.	14,255.31	14,255
				Subtotal:	14,255
				Adjustment Factor:	1.0000
				Total:	14,255



State of Minnesota

By Asset Name and Priority

Agency:	Administration
Location:	Capital Complex
<b>Priority:</b>	1- Currently Critical

Asset Name: State Office Building Asset Number: 2

Requirement Name	Water Heater - Elec - 10 Gal - 1985 Renewal		
Linked System	Domestic Water Distribution	Inspection Date	11/08/2010
Prime System	Domestic Water Distribution	Finish Date	
Category	Beyond Useful Life	Status	Open
Inspector	System Renewal	Actual Cost	0
Action Date	11/08/2010	Estimated Cost	4,442

### REQUIREMENT DESCRIPTION

Auto generated renewal requirement for Water Heater - Elec - 10 Gal - 1985. System Description: The domestic hot water system is supplemented by 10 gallon electric water heaters located near their point of use, typically in janitorial closets. This system is for the water heater installed in 1985.

# PHOTOS



Water Heater - Elec - 10 Gal - 1985 Renewal

Water Heater - Elec - 10 Gal - 1985 Renewal

# ACTION DESCRIPTION

Estimated Cost= (System.Replacement Cost \* System.Percent Renew)/100

# ESTIMATE

Code	Description	Quantity	Unit	Unit Cost	Total Cost
X-	Sum for Water Heater - Elec - 10 Gal - 1985 Renewal	1.00	Ea.	4,442.26	4,442
				Subtotal:	4,442
				Adjustment Factor:	1.0000
				Total:	4,442



By Asset Name and Priority

Agency: Administration Location: Capital Complex Priority: 1- Currently Critical Asset Name: State Office Building Asset Number: 2

Requirement Name	Water Heater - Hot Water Heat Exchanger and Tank Renewal		
Linked System	Domestic Water Distribution	Inspection Date	11/08/2010
Prime System	Domestic Water Distribution	Finish Date	
Category	Beyond Useful Life	Status	Open
Inspector	System Renewal	Actual Cost	0
Action Date	11/08/2010	Estimated Cost	68,142

## REQUIREMENT DESCRIPTION

Auto generated renewal requirement for Water Heater - Hot Water Heat Exchanger and Tank. System Description: The domestic hot water is produced by a shell and tube heat exchanger that utilizes heated water from District Energy to produce domestic hot water. This system also includes a separate expansion tank.

Note: Hot water heat transfer package not available in RS Means. A similar steam system has been selected for budgetary purposes.

### PHOTOS



Water Heater - Hot Water Heat Exchanger and Tank Renewal Water Heater - Hot Water Heat Exchanger and Tank Renewal



Water Heater - Hot Water Heat Exchanger and Tank Renewal Water Heater - Hot Water Heat Exchanger and Tank Renewal

All costs in USD.

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# ACTION DESCRIPTION

Estimated Cost= (System.Replacement Cost \* System.Percent Renew)/100

### ESTIMATE

Code	Description	Quantity	Unit	Unit Cost	Total Cost
Х-	Sum for Water Heater - Hot Water Heat Exchanger and	1.00	Ea.	68,142.04	68,142
	Tank Renewal				
				Subtotal:	68,142
			Adjust	nent Factor:	1.0000
				Total:	68,142



Agency: Administration Location: Capital Complex Priority: 2- Potentially Critical Asset Name: State Office Building Asset Number: 2

Requirement Name	Access Control System Renewal		
Linked System	Security and Detection Systems	Inspection Date	11/08/2010
Prime System	Security and Detection Systems	Finish Date	
Category	Beyond Useful Life	Status	Open
Inspector	System Renewal	Actual Cost	0
Action Date	11/08/2012	Estimated Cost	232,588

### REQUIREMENT DESCRIPTION

State of Minnesota

Auto generated renewal requirement for Access Control System. System Description: Access control points include card swipes at exterior doors and selected interior office spaces and intrusion detection monitoring via magnetic switches and other electronic monitoring devices on doors and windows. The system is monitored by Capital Security from the security office in the State Capital Building.

# PHOTOS



Access Control System Renewal

Access Control System Renewal

### ACTION DESCRIPTION

Estimated Cost= (System.Replacement Cost \* System.Percent Renew)/100

### ESTIMATE

Code	Description	Quantity	Unit	Unit Cost	Total Cost
Х-	Sum for Access Control System Renewal	1.00	Ea.	232,587.51	232,588
				Subtotal:	232,588
				Adjustment Factor:	1.0000
				Total:	232,588



By Asset Name and Priority

Agency: Administration Location: Capital Complex Priority: 2- Potentially Critical Asset Name: State Office Building Asset Number: 2

Requirement Name	Exit Signs Renewal		
Linked System	Emergency Light and Power Systems	Inspection Date	11/08/2010
Prime System	Emergency Light and Power Systems	Finish Date	-
Category	Beyond Useful Life	Status	Open
Inspector	System Renewal	Actual Cost	0
Action Date	11/08/2012	Estimated Cost	279,816

# REQUIREMENT DESCRIPTION

Auto generated renewal requirement for Exit Signs. System Description: Exit signs are generally older signs that have been retrofitted with LED lamps. Most units do not have emergency battery backup. It is assumed exit signs are connected to emergency power panels. Several signs are not illuminated.

"This system is functional but lamps are starting to burn out in accordance with maintenance personnel and should be upgraded or replaced in the near future as replacement parts become obsolete. The observed years remaining have been adjusted to reflect a slight extended life expectancy of this system."

### PHOTOS



Exit Signs Renewal

Exit Signs Renewal

### ACTION DESCRIPTION

Estimated Cost= (System.Replacement Cost \* System.Percent Renew)/100

### ESTIMATE

Code	Description	Quantity	Unit	Unit Cost	Total Cost
Х-	Sum for Exit Signs Renewal	1.00	Ea.	279,815.56	279,816
				Subtotal:	279,816
				Adjustment Factor:	1.0000
				Total:	279,816



Agency: Administration Location: Capital Complex Priority: 2- Potentially Critical Asset Name: State Office Building Asset Number: 2

Requirement Name	Security Cameras Renewal		
Linked System	Security and Detection Systems	Inspection Date	11/08/2010
Prime System	Security and Detection Systems	Finish Date	-
Category	Beyond Useful Life	Status	Open
Inspector	System Renewal	Actual Cost	0
Action Date	11/08/2012	Estimated Cost	427,971

# REQUIREMENT DESCRIPTION

Auto generated renewal requirement for Security Cameras. System Description: Closed circuit television (CCTV) security cameras are located in the facility and are monitored by Capital Security in the State Capital Building.

# PHOTOS



Security Cameras Renewal

Security Cameras Renewal

# ACTION DESCRIPTION

Estimated Cost= (System.Replacement Cost \* System.Percent Renew)/100

### ESTIMATE

Code	Description	Quantity	Unit	Unit Cost	Total Cost
Х-	Sum for Security Cameras Renewal	1.00	Ea.	427,971.29	427,971
				Subtotal:	427,971
				Adjustment Factor:	1.0000
				Total:	427,971

Asset Name: State Office Building Asset Number: 2

Agency: Administration Location: Capital Complex Priority: 2- Potentially Critical

Requirement Name	Site Lighting Renewal		
Linked System	Site Lighting	Inspection Date	11/08/2010
Prime System	Site Lighting	Finish Date	
Category	Beyond Useful Life	Status	Open
Inspector	System Renewal	Actual Cost	0
Action Date	11/08/2012	Estimated Cost	265,951

### REQUIREMENT DESCRIPTION

State of Minnesota

Auto generated renewal requirement for Site Lighting. System Description: Site lighting includes architectural type steel pole site lighting around the perimeter along sidewalks and roadways. Poles have recently been retrofitted with compact fluorescent lamps (CFL). Luminaires include one compact fluorescent lamp with plastic globe per pole. System includes all feeder wiring and controls.

"Although recently retrofitted with new lamps, several poles have broken lenses or lamps, and steel poles are aged and showing signs of rust damage on bases and risers. Condition does not warrant an immediate need and observed years have been increased slightly to compensate for recent retrofit but poles should be replaced or reconditioned in the near future."

## PHOTOS



Site Lighting Renewal

Site Lighting Renewal

### ACTION DESCRIPTION

Estimated Cost= (System.Replacement Cost \* System.Percent Renew)/100

#### ESTIMATE

Code	Description	Quantity	Unit	Unit Cost	Total Cost
Х-	Sum for Site Lighting Renewal	1.00	Ea.	265,950.53	265,951
				Subtotal:	265,951
				Adjustment Factor:	1.0000
				Total:	265,951



By Asset Name and Priority

Agency: Administration Location: Capital Complex Priority: 3- Necessary - Not Yet Critical

Asset Name: State Office Building Asset Number: 2

Requirement Name	ACT System - Standard - 1985 Renewal		
Linked System	Ceiling Finishes	Inspection Date	11/08/2010
Prime System	Ceiling Finishes	Finish Date	· -
Category	Beyond Useful Life	Status	Open
Inspector	System Renewal	Actual Cost	0
Action Date	11/08/2015	Estimated Cost	359,600

### REQUIREMENT DESCRIPTION

State of Minnesota

Auto generated renewal requirement for ACT System - Standard - 1985. System Description: Standard suspended ACT ceiling system with 2 x 2 regular tiles in 9/16-in. grids. System life extended by Owner's maintenance program.

### PHOTOS



ACT System - Standard - 1985 Renewal ACT System - Standard - 1985 Renewal

# ACTION DESCRIPTION

Estimated Cost= (System.Replacement Cost \* System.Percent Renew)/100

#### ESTIMATE

Code	Description	Quantity	Unit	Unit Cost	Total Cost
X-	Sum for ACT System - Standard - 1985 Renewal	1.00	Ea.	359,600.00	359,600
				Subtotal:	359,600
				Adjustment Factor:	1.0000
				Total:	359,600



By Asset Name and Priority

Agency: Administration Location: Capital Complex Priority: 3- Necessary - Not Yet Critical

Asset Name: State Office Building Asset Number: 2

Requirement Name	Aluminum Windows - 1985 Renewal		
Linked System	Exterior Windows	Inspection Date	11/08/2010
Prime System	Exterior Windows	Finish Date	
Category	Beyond Useful Life	Status	Open
Inspector	System Renewal	Actual Cost	0
Action Date	11/08/2015	Estimated Cost	1,703,517

# REQUIREMENT DESCRIPTION

Auto generated renewal requirement for Aluminum Windows - 1985. System Description: The building includes fixed and operable aluminum framed exterior units with insulating glass.

# PHOTOS



Aluminum Windows - 1985 Renewal

### ACTION DESCRIPTION

Estimated Cost= (System.Replacement Cost \* System.Percent Renew)/100

### ESTIMATE

Code	Description	Quantity	Unit	Unit Cost	Total Cost
Х-	Sum for Aluminum Windows - 1985 Renewal	1.00	Ea.	1,703,517.20	1,703,517
				Subtotal:	1,703,517
				Adjustment Factor:	1.0000
				Total:	1,703,517



Agency: Administration Location: Capital Complex Priority: 3- Necessary - Not Yet Critical Asset Name: State Office Building Asset Number: 2

Requirement Name	Automatic Openers - Pair - 1985 Renewal		
Linked System	Exterior Doors	Inspection Date	11/08/2010
Prime System	Exterior Doors	Finish Date	-
Category	Beyond Useful Life	Status	Open
Inspector	System Renewal	Actual Cost	0
Action Date	11/08/2015	Estimated Cost	24,093

### REQUIREMENT DESCRIPTION

State of Minnesota

Auto generated renewal requirement for Automatic Openers - Pair - 1985. System Description: Door hardware add-ons, automatic openers, commercial, electronic door opener, for single swing doors, pair, per opening, incl. motion sensor, 12V control box, motor, handicap actuator buttons and wiring at north and south elevations.

### PHOTOS



Automatic Openers - Pair - 1985 Renewal

Automatic Openers - Pair - 1985 Renewal

### ACTION DESCRIPTION

Estimated Cost= (System.Replacement Cost \* System.Percent Renew)/100

### ESTIMATE

Code	Description	Quantity	Unit	Unit Cost	Total Cost
Х-	Sum for Automatic Openers - Pair - 1985 Renewal	1.00	Ea.	24,092.83	24,093
				Subtotal:	24,093
				Adjustment Factor:	1.0000
				Total:	24,093

By Asset Name and Priority



Agency: Administration Location: Capital Complex Priority: 3- Necessary - Not Yet Critical Asset Name: State Office Building Asset Number: 2

Requirement Name	Boiler Steam - Humidification Renewal		
Linked System	Heat Generating Systems	Inspection Date	11/08/2010
Prime System	Heat Generating Systems	Finish Date	-
Category	Beyond Useful Life	Status	Open
Inspector	System Renewal	Actual Cost	0
Action Date	11/08/2015	Estimated Cost	103,016

### REQUIREMENT DESCRIPTION

Auto generated renewal requirement for Boiler Steam - Humidification. System Description: The building has two 240kW electric steam boilers used for humidification.

Note - the exact size boiler could not be matched in RS Means. A similar boiler was selected and the quantity adjusted for budgetary purposes.

### PHOTOS



Boiler Steam - Humidification Renewal Boiler Steam - Humidification Renewal

# ACTION DESCRIPTION

Estimated Cost= (System.Replacement Cost \* System.Percent Renew)/100

### ESTIMATE

Code	Description	Quantity	Unit	Unit Cost	Total Cost
Х-	Sum for Boiler Steam - Humidification Renewal	1.00	Ea.	103,016.39	103,016
				Subtotal:	103,016
				Adjustment Factor:	1.0000
				Total:	103,016



Agency: Administration Location: Capital Complex Priority: 3- Necessary - Not Yet Critical

Asset Name: State Office Building Asset Number: 2

Requirement Name	Custodial/Utility Sinks Renewal		
Linked System	Plumbing Fixtures	Inspection Date	11/08/2010
Prime System	Plumbing Fixtures	Finish Date	-
Category	Beyond Useful Life	Status	Open
Inspector	System Renewal	Actual Cost	0
Action Date	11/08/2015	Estimated Cost	35,783

### REQUIREMENT DESCRIPTION

State of Minnesota

Auto generated renewal requirement for Custodial/Utility Sinks. System Description: The plumbing fixtures include floor mounted cast in place custodial/utility sinks. Includes rough-in and faucet. These are located on each floor.

### PHOTOS



Custodial/Utility Sinks Renewal

Custodial/Utility Sinks Renewal

# ACTION DESCRIPTION

Estimated Cost= (System.Replacement Cost \* System.Percent Renew)/100

### ESTIMATE

Code	Description	Quantity	Unit	Unit Cost	Total Cost
Х-	Sum for Custodial/Utility Sinks Renewal	1.00	Ea.	35,783.10	35,783
				Subtotal:	35,783
				Adjustment Factor:	1.0000
				Total:	35,783

By Asset Name and Priority



Asset Name: State Office Building Asset Number: 2

Agency: Administration Location: Capital Complex Priority: 3- Necessary - Not Yet Critical

Requirement Name	Door Assembly - 6 x 7 Bronze - Storefront Renewal	_	
Linked System	Exterior Doors	Inspection Date	11/08/2010
Prime System	Exterior Doors	Finish Date	
Category	Beyond Useful Life	Status	Open
Inspector	System Renewal	Actual Cost	0
Action Date	11/08/2015	Estimated Cost	106,786

### REQUIREMENT DESCRIPTION

Auto generated renewal requirement for Door Assembly - 6 x 7 Bronze - Storefront. System Description: The exterior doors include pr. of original construction, swinging glazed bronze storefront leafs plus glazed transom, ornamental bronze frame, hardware including closers. System life extended by renovation work.

# PHOTOS



Door Assembly - 6 x 7 Bronze - Storefront Renewal

Door Assembly - 6 x 7 Bronze - Storefront Renewal

# ACTION DESCRIPTION

Estimated Cost= (System.Replacement Cost \* System.Percent Renew)/100

### ESTIMATE

Code	Description	Quantity	Unit	Unit Cost	Total Cost
Х-	Sum for Door Assembly - 6 x 7 Bronze - Storefront	1.00	Ea.	106,785.75	106,786
	Renewal				
				Subtotal:	106,786
				Adjustment Factor:	1.0000
				Total:	106,786

#### All costs in USD.

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Agency: Administration Location: Capital Complex Priority: 3- Necessary - Not Yet Critical Asset Name: State Office Building Asset Number: 2

Requirement Name	Door Assembly - 6 x 7 HM - 1985 Renewal		
Linked System	Exterior Doors	Inspection Date	11/08/2010
Prime System	Exterior Doors	Finish Date	-
Category	Beyond Useful Life	Status	Open
Inspector	System Renewal	Actual Cost	0
Action Date	11/08/2015	Estimated Cost	4,950

#### REQUIREMENT DESCRIPTION

Auto generated renewal requirement for Door Assembly - 6 x 7 HM - 1985. System Description: Exterior doors include pr. 3 x 7 steel doors and steel frame with hinges, locksets (lever), exit hardware and closers at loading dock. Includes painted doors and painted frame.

#### PHOTOS



Door Assembly - 6 x 7 HM - 1985 Renewal Door Assembly - 6 x 7 HM - 1985 Renewal

#### ACTION DESCRIPTION

Estimated Cost= (System.Replacement Cost \* System.Percent Renew)/100

#### ESTIMATE

Code	Description	Quantity	Unit	Unit Cost	Total Cost
Х-	Sum for Door Assembly - 6 x 7 HM - 1985 Renewal	1.00	Ea.	4,950.18	4,950
				Subtotal:	4,950
				Adjustment Factor:	1.0000
				Total:	4,950

#### All costs in USD.

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Agency: Administration Location: Capital Complex Priority: 3- Necessary - Not Yet Critical

Asset Name: State Office Building Asset Number: 2

Requirement Name	Elevator #5 Controller - Beyond Rated Life		
Linked System	Passenger Elevators	Inspection Date	11/08/2010
Prime System	Passenger Elevators	Finish Date	-
Category	Beyond Useful Life	Status	Open
Inspector	Elec	Actual Cost	0
Action Date	11/08/2015	Estimated Cost	154,573

#### REQUIREMENT DESCRIPTION

State of Minnesota

The controller for Elevator #5 is aged and at or beyond its rated life. The controller utilizes old relay technology and replacement parts are or will soon be obsolete.

#### PHOTOS



Elevator #5 Controller - Beyond Rated Life

Elevator #5 Controller - Beyond Rated Life

#### ACTION DESCRIPTION

Replace the aged Elevator #5 controller. Unit counts for budget purposes only. Actual counts may vary.

#### ESTIMATE

Code	Description	Quantity	Unit	Unit Cost	Total Cost
U022203500600	Selective demolition, rubbish handling, dumpster, 6 C.Y., 2 ton capacity, weekly rental, includes one dump per week, cost to be added to demolition cost.	4.00	Week	326.04	1,304
U142802003150	Elevator options, passenger, duplex car selective collective	1.00	Ea.	15,556.06	15,556
U142802003800	Elevator options, passenger, cab finishes (based on 3500 lb cab size), variable voltage, O.H. gearless machine, min	1.00	Ea.	84,230.00	84,230
U160553009000	Electrical demolition, minimum labor/equipment charge	10.00	Job	172.24	1,722
All costs in USD.					



#### By Asset Name and Priority

Code	Description	Quantity	Unit	Unit Cost	To	tal Cost
U160553501230	Variable frequency drive, 460 V, for 50 HP motor size. electrical demolition, remove	1.00	Ea.	656.17		656
U160553506050	Isolation panel, 15 kVA, electrical demolition, remove	1.00	Ea.	492.13		492
U160553507100	Automatic voltage regulator, electrical demolition, remove	1.00	Ea.	229.66		230
U161209009000	Wire, minimum labor/equipment charge	40.00	Job	172.24		6,890
U161322059990	Conduit, to 15' high, minimum labor/equipment charge	10.00	Job	172.24		1,722
U161367008320	Cabinet, double door, 72" H x 72" W x 24" D, NEMA 12, floor mounted	1.00	Ea.	3,858.21		3,858
U161367009360	Enclosure panels, 60" x 36", NEMA 12 & 4	1.00	Ea.	299.04		299
U161367009620	Wiring trough, steel, clamp cover, 6" x 6", 60" long, J.I.C.	1.00	Ea.	411.92		412
U162209001190	Variable frequency drives, custom-engineered, 460 volt, 50 HP motor size	1.00	Ea.	11,904.62		11.905
U162706205320	Transformer handling, add to normal labor cost in restricted areas, approximately 5000 pounds, 1000 kVA	2.00	Ea.	4,133.86		8.268
U162801000960	Automatic voltage regulators, standard grade, three phase, 460 V, 118 kVA	1.00	Ea.	17,028.90		17,029
				Subtotal:		154,573
				Adjustment Factor: Total:		1.0000 154.573



Agency: Administration Location: Capital Complex Priority: 3- Necessary - Not Yet Critical Asset Name: State Office Building Asset Number: 2

Requirement Name	Emergency Panelboards - Approaching Rated Life		
Linked System	Emergency Light and Power Systems	Inspection Date	11/08/2010
Prime System	Emergency Light and Power Systems	Finish Date	
Category	Beyond Useful Life	Status	Open
Inspector	Elec	Actual Cost	0
Action Date	11/08/2015	Estimated Cost	71,532

#### REQUIREMENT DESCRIPTION

State of Minnesota

Various emergency panelboards were not replaced with the recent emergency system upgrade and are approaching their rated life in accordance with BOMA (2003) recommendations. Equipment is dated and replacement parts are becoming obsolete. Panelboards observed include but may not necessarily be limited to LV002C, EM-101, EM-301, EM-601 and G014. Replacing these panelboards will bring all emergency power equipment up to date.

#### PHOTOS



Emergency Panelboards - Approaching Rated Life

Emergency Panelboards - Approaching Rated Life

#### ACTION DESCRIPTION

Replace the aged emergency panelboards as indicated including all feeder conduit and wiring back to source as applicable. Panelboards include but may not necessarily be limited to LV002C, EM-101, EM-301, EM-601 and G014. Unit counts for budget purposes only. Actual counts may vary.

#### ESTIMATE

Code	Description	Quantity	Unit	Unit Cost	Total Cost
AD50102300280	Feeder installation 600 V, including RGS conduit and XHHW wire, 200 A	500.00	L.F.	49.25	24,625
AD50201650840	Safety switch, 200 A fused, 3 phase, 125 HP 460 V or 150 HP 575 V	1.00	Ea.	2,020.97	2,021



#### By Asset Name and Priority

Code	Description	Quantity	Unit		Unit Cost	Total Cost
U022203500600	Selective demolition, rubbish handling, dumpster, 6 C.Y., 2 ton capacity, weekly rental, includes one dump per week, cost to be added to demolition cost.	5.00	Week		326.04	1,630
U092801009000	Gypsum wallboard, repairs, minimum labor/equipment charge	5.00	Job		348.48	1,742
U160553000120	Conduit, rigid galvanized steel, 1-1/4" to 2" diameter, electrical demolition, remove conduit to 15' high, incl fittings & hangers	500.00	L.F.		3.44	1,720
U160553001160	Safety switches, 250 or 600 V, 200 amp, electrical demolition, remove, incl disconnection	1.00	Ea.		137.80	138
U160553001260	Panelboards, 4 wire, 120/208 V, 125 amp, to 20 circuits, electrical demolition, remove, incl removal of all breakers, conduit terminations & wire connections	2.00	Ea.		287.07	574
U160553001270	Panelboards, 4 wire, 120/208 V, 200 amp, to 42 circuits, electrical demolition, remove, incl removal of all breakers, conduit terminations & wire connections	3.00	Ea.		574.15	1,722
U160553001680	Pull boxes & cabinets, sheet metal, 24" x 24" x 6", electrical demolition, remove, incl removal of supports and terminations	5.00	Ea.		56.01	280
U160553001940	Wire, THW-THWN-THHN, 4/0, electrical demolition, removed from in place conduit, to 15' high	40.00	C.L.F.		62.63	2,505
U160553009000	Electrical demolition, minimum labor/equipment charge	5.00	Job		172.24	861
U160608009000	Grounding, minimum labor/equipment charge	5.00	Job		172.24	861
U161209009000	Wire, minimum labor/equipment charge	48.00	Job		172.24	8,268
U161322059990	Conduit, to 15' high, minimum labor/equipment charge	12.00	Job		172.24	2,067
U161367009990	Pull boxes & cabinets, minimum labor/equipment charge	5.00	Job		344.49	1,722
U164407202100	Panelboards, 3 phase 4 wire, main circuit breaker, 120/208 V, 100 amp, 30 circuits, NQOD, incl 20 A 1 pole plug-in breakers	2.00	Ea.		3,049.73	6,099
U164407202250	Panelboards, 3 phase 4 wire, main circuit breaker, 120/208 V, 225 amp, 42 circuits, NQOD, incl 20 A 1 pole plug-in breakers	3.00	Ea.		4,898.50	14,696
					Subtotal:	71,532
			A	ldjustn	ent Factor: Total:	1.0000



Agency: Administration Location: Capital Complex Priority: 3- Necessary - Not Yet Critical

Asset Name: State Office Building Asset Number: 2

Requirement Name	Fluorescent Lighting - Approaching Rated Life		
Linked System	Lighting Equipment	Inspection Date	11/08/2010
Prime System	Lighting Equipment	Finish Date	
Category	Beyond Useful Life	Status	Open
Inspector	Elec	Actual Cost	0
Action Date	11/08/2015	Estimated Cost	1,428,637

#### REQUIREMENT DESCRIPTION

State of Minnesota

Fluorescent lamps and ballasts throughout are approaching their rated life in accordance with BOMA (2003) recommendations. Units are replaced individually as they fail but it is recommended all lamps and ballasts be replaced as a group in the near future.

#### PHOTOS



Fluorescent Lighting - Approaching Rated Life

Fluorescent Lighting - Approaching Rated Life

#### ACTION DESCRIPTION

Replace the fluorescent ballasts and lamps building wide. Existing luminaires to remain in place to the extent possible. Estimate assumes 10% replacement of luminaires as required. Hazardous waste costs included for lamp disposal. Unit counts for budget purposes only. Actual counts may vary.

#### ESTIMATE

Code	Description	Quantity	Unit	Unit Cost	Total Cost
E015904000150M	Rent aerial lift to 15'high 1000 lb cap scissor type	6.00	Ea./month	1,247.96	7,488
RD50232600010	Replace fluor. ballast for fluorescent lighting fixture, 80 W	8,000.00	Ea.	129.19	1,033,520
RD50232600020	Replace lamps (2 lamps) fluorescent lighting fixture, 80 W	8,000.00	Ea.	35.46	283,680
RD50232600030	Replace fixture fluorescent lighting fixture, 80 W	400.00	Ea.	236.27	94,508

All costs in USD.

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#### By Asset Name and Priority

Code	Description	Quantity	Unit	Unit Cost	Total Cost
U021103001120	Hazardous waste cleanup/pickup/disposal, solid pickup, bulk material, minimum	5.00	Ton	192.85	964
U022203500600	Selective demolition, rubbish handling, dumpster, 6 C.Y., 2 ton capacity, weekly rental, includes one dump per week, cost to be added to demolition cost.	26.00	Week	326.04	8,477
				Subtotal:	1,428,637
			A	djustment Factor:	1.0000
				Total:	1,428,637



Agency: Administration Location: Capital Complex Priority: 3- Necessary - Not Yet Critical Asset Name: State Office Building Asset Number: 2

Requirement Name	Four Pipe Distribution System w/Pump Renewal		
Linked System	Distribution Systems	Inspection Date	11/08/2010
Prime System	Distribution Systems	Finish Date	-
Category	Beyond Useful Life	Status	Open
Inspector	System Renewal	Actual Cost	0
Action Date	11/08/2015	Estimated Cost	5,698,959

#### REQUIREMENT DESCRIPTION

State of Minnesota

Auto generated renewal requirement for Four Pipe Distribution System w/Pump. System Description: HVAC distribution is provided by a four-pipe distribution system. This system distributes heating hot water and chilled water to perimeter terminal units.

#### PHOTOS



Four Pipe Distribution System w/Pump Renewal

Four Pipe Distribution System w/Pump Renewal

#### ACTION DESCRIPTION

Estimated Cost= (System.Replacement Cost \* System.Percent Renew)/100

#### ESTIMATE

Code	Description	Quantity	Unit	Unit Cost	Total Cost
X-	Sum for Four Pipe Distribution System w/Pump Renewal	1.00	Ea.	5,698,959.47	5,698,959
				Subtotal:	5,698,959
				Adjustment Factor:	1.0000
				Total:	5,698,959



State of Minnesota

Agency: Administration Location: Capital Complex Priority: 3- Necessary - Not Yet Critical Asset Name: State Office Building Asset Number: 2

Requirement Name	HVAC Equipment - Abandoned		
Linked System	Distribution Systems	Inspection Date	11/08/2010
Prime System	Distribution Systems	Finish Date	-
Category	Obsolescence	Status	Open
Inspector	Mech	Actual Cost	0
Action Date	11/08/2015	Estimated Cost	1,915

#### REQUIREMENT DESCRIPTION

There was abanoned HVAC equipment and piping found in a storage room off the main conference room. This equipment should be removed to make room for other equipment.

#### PHOTOS



HVAC Equipment - Abandoned

HVAC Equipment - Abandoned

#### ACTION DESCRIPTION

Remove abandoned pump, piping and tank from the storage room off the main conference room.

#### ESTIMATE

Code	Description	Quantity	Unit	Unit Cost	Total Cost
LCLAMJ	Common Maintenance Laborer	20.00	hour	45.57	911
LCLNRJ	Cleaner	10.00	hour	63.59	636
U150556002000	Pipe, metal pipe, to 1-1/2" diam., selective demolition	20.00	L.F.	3.78	76
U150556002180	Pump, all fractional H.P., selective demolition	1.00	Ea.	113.38	113
U150556003130	Tank/water heater/liquid container, 130 thru 240 gallons, selective demolition	1.00	Ea.	179.01	179
				Subtotal:	1,915

All costs in USD.

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#### By Asset Name and Priority

Adjustment Factor: 1.0000 Total: 1,915

#### By Asset Name and Priority

Agency: Administration Location: Capital Complex Priority: 3- Necessary - Not Yet Critical Asset Name: State Office Building Asset Number: 2

Requirement Name	Restroom Fixtures Renewal		
Linked System	Plumbing Fixtures	Inspection Date	11/08/2010
Prime System	Plumbing Fixtures	Finish Date	-
Category	Beyond Useful Life	Status	Open
Inspector	System Renewal	Actual Cost	0
Action Date	11/08/2015	Estimated Cost	333,376

#### REQUIREMENT DESCRIPTION

State of Minnesota

Auto generated renewal requirement for Restroom Fixtures. System Description: The restroom fixtures include vitreous china urinals, water closets, and lavatories. They also include built-in shower units in the locker room. The fixture selections are for a building with a standard density of high quality fixtures.

#### PHOTOS



Restroom Fixtures Renewal

Restroom Fixtures Renewal

#### ACTION DESCRIPTION

Estimated Cost= (System.Replacement Cost \* System.Percent Renew)/100

#### ESTIMATE

Code	Description	Quantity	Unit	Unit Cost	Total Cost
X-	Sum for Restroom Fixtures Renewal	1.00	Ea.	333,376.35	333,376
				Subtotal:	333,376
				Adjustment Factor:	1.0000
				Total:	333,376



By Asset Name and Priority

Agency: Administration Location: Capital Complex Priority: 3- Necessary - Not Yet Critical Asset Name: State Office Building Asset Number: 2

Requirement Name	Single-Ply EPDM with Pavers on Roof - 1985 Renewal		
Linked System	Roofing	Inspection Date	11/08/2010
Prime System	Roofing	Finish Date	
Category	Beyond Useful Life	Status	Open
Inspector	System Renewal	Actual Cost	0
Action Date	11/08/2015	Estimated Cost	205,487

#### REQUIREMENT DESCRIPTION

Auto generated renewal requirement for Single-Ply EPDM with Pavers on Roof - 1985. System Description: The roof covering includes concrete paver ballast on a plaza which is also the roof of the structure below at 8th and 9th floors. System life extended by Owner's maintenance program.

#### PHOTOS



Single-Ply EPDM with Pavers on Roof - 1985 Renewal

Single-Ply EPDM with Pavers on Roof - 1985 Renewal

#### ACTION DESCRIPTION

Estimated Cost= (System.Replacement Cost \* System.Percent Renew)/100

#### ESTIMATE

Code	Description	Quantity	Unit	Unit Cost	Total Cost
Х-	Sum for Single-Ply EPDM with Pavers on Roof - 1985	1.00	Ea.	205,486.87	205,487
	Renewal				
				Subtotal:	205,487
				Adjustment Factor:	1.0000
				Total:	205,487



Agency: Administration Location: Capital Complex Priority: 3- Necessary - Not Yet Critical Asset Name: State Office Building Asset Number: 2

Requirement Name	Skylights - Kalwall Types - 1985 Renewal		
Linked System	Glazed Roof Openings	Inspection Date	11/08/2010
Prime System	Glazed Roof Openings	Finish Date	-
Category	Beyond Useful Life	Status	Open
Inspector	System Renewal	Actual Cost	0
Action Date	11/08/2015	Estimated Cost	86,638

#### REQUIREMENT DESCRIPTION

State of Minnesota

Auto generated renewal requirement for Skylights - Kalwall Types - 1985. System Description: Sloping unit skylights, insulated curbs, double Kalwall type glazing.

#### PHOTOS



Skylights - Kalwall Types - 1985 Renewal Skylights - Kalwall Types - 1985 Renewal

#### ACTION DESCRIPTION

Estimated Cost= (System.Replacement Cost \* System.Percent Renew)/100

#### ESTIMATE

Code	Description	Quantity	Unit	Unit Cost	Total Cost
X-	Sum for Skylights - Kalwall Types - 1985 Renewal	1.00	Ea.	86,638.16	86,638
				Subtotal:	86,638
				Adjustment Factor:	1.0000
				Total:	86,638





Agency: Administration Location: Capital Complex Priority: 3- Necessary - Not Yet Critical Asset Name: State Office Building Asset Number: 2

Requirement Name	Skylights - Monumental - 1985 Renewal		-
Linked System	Glazed Roof Openings	Inspection Date	11/08/2010
Prime System	Glazed Roof Openings	Finish Date	
Category	Beyond Useful Life	Status	Open
Inspector	System Renewal	Actual Cost	0
Action Date	11/08/2015	Estimated Cost	54,783

#### REQUIREMENT DESCRIPTION

Auto generated renewal requirement for Skylights - Monumental - 1985. System Description: Skylights, fixed frame units with insulating solar glazing at 9th floor (library) atrium. Quantity accounts for 6/12 sloped glazing.

#### PHOTOS



Skylights - Monumental - 1985 Renewal

Skylights - Monumental - 1985 Renewal

#### ACTION DESCRIPTION

Estimated Cost= (System.Replacement Cost \* System.Percent Renew)/100

#### ESTIMATE

Code	De	escription	Quantity	Unit	Unit Cost	Total Cost
Х-	Su	um for Skylights - Monumental - 1985 Renewal	1.00	Ea.	54,782.50	54,783
					Subtotal:	54,783
					Adjustment Factor:	1.0000
					Total:	54,783

Agency: Administration Location: Capital Complex Priority: 3- Necessary - Not Yet Critical Asset Name: State Office Building Asset Number: 2

Requirement Name	Skylights - Unit Types - 1985 Renewal		
Linked System	Glazed Roof Openings	Inspection Date	11/08/2010
Prime System	Glazed Roof Openings	Finish Date	-
Category	Beyond Useful Life	Status	Open
Inspector	System Renewal	Actual Cost	0
Action Date	11/08/2015	Estimated Cost	242,071

#### REQUIREMENT DESCRIPTION

Auto generated renewal requirement for Skylights - Unit Types - 1985. System Description: Sloping unit skylights, flat glass, insulated curbs, double glazing.

#### PHOTOS



Skylights - Unit Types - 1985 Renewal

Skylights - Unit Types - 1985 Renewal

#### ACTION DESCRIPTION

Estimated Cost= (System.Replacement Cost \* System.Percent Renew)/100

#### ESTIMATE

Code	Description	Quantity	Unit	Unit Cost	Total Cost
Х-	Sum for Skylights - Unit Types - 1985 Renewal	1.00	Ea.	242,071.49	242,071
				Subtotal:	242,071
				Adjustment Factor:	1.0000
				Total:	242,071



Agency: Administration Location: Capital Complex Priority: 3- Necessary - Not Yet Critical Asset Name: State Office Building Asset Number: 2

Requirement Name	Substructure - Basement Slab Cracks		
Linked System	Substructure	Inspection Date	11/08/2010
Prime System	Substructure	Finish Date	
Category	Reliability	Status	Open
Inspector	Arch	Actual Cost	0
Action Date	11/08/2015	Estimated Cost	25,151

#### REQUIREMENT DESCRIPTION

State of Minnesota

Exposed concrete floor slab has numerous small cracks in basement HVAC equipment areas. Cracks do not appear to be evidence of slab failure but if left unattended will eventually allow unwanted ground water penetration into HVAC areas.

Locations observed: B71, B32A, B35 and B47. There may be other locations.

Crack repair is recommended.

#### PHOTOS



Substructure - Basement Slab Cracks Substructure - Basement Slab Cracks

#### ACTION DESCRIPTION

Repair concrete floor slab cracks with epoxy grout at locations indicated and as required.

#### ESTIMATE

Code	Description	Quantity	Unit	Unit Cost	Total Cost
LCLABJ	Common Building Laborers	48.00	hour	64.82	3,111
U039303000100	Crack repair, epoxy injection, 1/8" wide, 12" deep, includes chipping, sand blasting and cleaning	200.00	L.F.	44.99	8,998





Code	Description	Quantity	Unit	Unit Cost	Total Cost
U039303000110	Crack repair, epoxy injection, 1/4" wide, 12" deep, includes chipping, sand blasting and cleaning	200.00	L.F.	65.21	13,042
				Subtotal:	25,151
				Adjustment Factor:	1.0000
				Total:	25,151



State of Minnesota

Agency: Administration Location: Capital Complex Priority: 3- Necessary - Not Yet Critical

Asset Name: State Office Building Asset Number: 2

Requirement Name	Water Coolers - Wall-Mount Dual-Height Renewal		
Linked System	Plumbing Fixtures	Inspection Date	11/08/2010
Prime System	Plumbing Fixtures	Finish Date	-
Category	Beyond Useful Life	Status	Open
Inspector	System Renewal	Actual Cost	0
Action Date	11/08/2015	Estimated Cost	41,094

#### REQUIREMENT DESCRIPTION

Auto generated renewal requirement for Water Coolers - Wall-Mount Dual-Height. System Description: Plumbing fixtures include dual-height water coolers.

#### PHOTOS



Water Coolers - Wall-Mount Dual-Height Renewal

Water Coolers - Wall-Mount Dual-Height Renewal

#### ACTION DESCRIPTION

Estimated Cost= (System.Replacement Cost \* System.Percent Renew)/100

#### ESTIMATE

Code	Description	Quantity	Unit	Unit Cost	Total Cost
X-	Sum for Water Coolers - Wall-Mount Dual-Height	1.00	Ea.	41,093.63	41,094
	Renewal				
				Subtotal:	41,094
			Adju	stment Factor:	1.0000
				Total:	41,094



By Asset Name and Priority

Agency: Administration Location: Capital Complex Priority: 3- Necessary - Not Yet Critical Asset Name: State Office Building Asset Number: 2

Requirement Name	Water Dist Complete Renewal		
Linked System	Domestic Water Distribution	Inspection Date	11/08/2010
Prime System	Domestic Water Distribution	Finish Date	0 UL -
Category	Beyond Useful Life	Status	Open
Inspector	System Renewal	Actual Cost	0
Action Date	11/08/2015	Estimated Cost	671,965

#### REQUIREMENT DESCRIPTION

Auto generated renewal requirement for Water Dist Complete. System Description: The building domestic water distribution system includes a three inch main line, water meter, rpz backflow preventer, with rough ins included. This system does not include a water heater.

#### PHOTOS



Water Dist Complete Renewal

Water Dist Complete Renewal

#### ACTION DESCRIPTION

Estimated Cost= (System.Replacement Cost \* System.Percent Renew)/100

#### ESTIMATE

Code	Description	Quantity	Unit	Unit Cost	Total Cost
Х-	Sum for Water Dist Complete Renewal	1.00	Ea.	671,964.59	671,965
				Subtotal:	671,965
				Adjustment Factor:	1.0000
				Total:	671,965





Agency: Administration Location: Capital Complex Priority: 3- Necessary - Not Yet Critical Asset Name: State Office Building Asset Number: 2

Requirement Name	Water Heater - Elec - 10 Gal - 2004 Renewal		
Linked System	Domestic Water Distribution	Inspection Date	11/08/2010
Prime System	Domestic Water Distribution	Finish Date	
Category	Beyond Useful Life	Status	Open
Inspector	System Renewal	Actual Cost	0
Action Date	11/08/2014	Estimated Cost	4,442

#### REQUIREMENT DESCRIPTION

Auto generated renewal requirement for Water Heater - Elec - 10 Gal - 2004. System Description: The domestic hot water system is supplemented by 10 gallon electric water heaters located near their point of use, typically in janitorial closets. This system is for the water heater installed in 2004.

#### PHOTOS



Water Heater - Elec - 10 Gal - 2004 Renewal Water Heater - Elec - 10 Gal - 2004 Renewal

#### ACTION DESCRIPTION

Estimated Cost= (System.Replacement Cost \* System.Percent Renew)/100

#### ESTIMATE

Code	Description	Quantity	Unit	Unit Cost	Total Cost
Х-	Sum for Water Heater - Elec - 10 Gal - 2004 Renewal	1.00	Ea.	4,442.26	4,442
				Subtotal:	4,442
				Adjustment Factor:	1.0000
				Total:	4,442





Agency: Administration Location: Capital Complex Priority: 5- Grandfathered Code Asset Name: State Office Building Asset Number: 2

Requirement Name	Branch Wiring - Outlets at Vending Machines Not		
	OPET Type - Dasement		
Linked System	Branch Wiring Devices	Inspection Date	11/08/2010
Prime System	Branch Wiring Devices	Finish Date	
Category	Grandfathered Code	Status	Open
Inspector	Elec	Actual Cost	0
Action Date	-	Estimated Cost	1,088

#### REQUIREMENT DESCRIPTION

Outlets serving vending machines in the Elevator Lobby B01 and Room B13 are not GFCI type as required by NFPA 70 (2005) Article 422.51.

Note: Vending machines may already have factory installed internal GFCI protection. This could not be determined during site assessment. If field verified, this requirement should be deleted.

#### PHOTOS



Branch Wiring - Outlets at Vending Machines Not GFCI Type - Basement Branch Wiring - Outlets at Vending Machines Not GFCI Type - Basement

#### ACTION DESCRIPTION

Provide GFCI type outlets for vending machines in Elevator Lobby B01 and Room B13. Unit count for budget purposes only, actual count may vary.

#### ESTIMATE

Code	Description	Quantity	Unit	Unit Cost	Total Cost
U018323601030	Electrical Facilities Maintenance, distribution systems and equipment, reset breaker or replace fuse	6.00	Ea.	36.65	220
U018401007040	Moving Equipment, remove and reset, 100' distance, no obstructions, assembly or leveling unless noted, storage cabinet, metal, large	6.00	Ea.	41.49	249

All costs in USD.

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#### By Asset Name and Priority

Code	Description	Quantity	Unit	Unit Cost	Total Cost
U160553001780	Receptacle & switch plates, electrical demolition, remove	6.00	Ea.	2.68	16
U160553001790	Receptacle & switches. 15 to 30 amp, electrical demolition, remove	6.00	Ea.	5.10	31
U160553009000	Electrical demolition, minimum labor/equipment charge	1.00	Job	172.24	172
U161409102482	Duplex receptacle, ground fault interrupting, 20 amp	6.00	Ea.	66.69	400
				Subtotal:	1,088
				Adjustment Factor:	1.0000
				Total:	1,088



By Asset Name and Priority

Agency: Administration Location: Capital Complex Priority: 5- Grandfathered Code Asset Name: State Office Building Asset Number: 2

Requirement Name	Branch Wiring - Outlets in Kitchen Not GFCI Type		
Linked System	Branch Wiring Devices	Inspection Date	11/08/2010
Prime System	Branch Wiring Devices	Finish Date	-
Category	Grandfathered Code	Status	Open
Inspector	Elec	Actual Cost	0
Action Date	•	Estimated Cost	1,283

#### REQUIREMENT DESCRIPTION

Outlets in the Cafeteria kitchen in the Basement are not GFCI type as required by NFPA 70 (2005) Article 210.8.B (2).

#### PHOTOS



Branch Wiring - Outlets in Kitchen Not GFCI Type Branch Wiring - Outlets in Kitchen Not GFCI Type

#### ACTION DESCRIPTION

Provide GFCI type outlets for all outlets in the Cafeteria kitchen. Unit count for budget purposes only, actual count may vary.

#### ESTIMATE

Code	Description	Quantity	Unit	Unit Cost	Total Cost
U018323601030	Electrical Facilities Maintenance, distribution systems and equipment, reset breaker or replace fuse	10.00	Ea.	36.65	367
U160553001780	Receptacle & switch plates, electrical demolition, remove	10.00	Ea.	2.68	27
U160553001790	Receptacle & switches, 15 to 30 amp, electrical demolition, remove	10.00	Ea.	5.10	51
U160553009000	Electrical demolition, minimum labor/equipment charge	1.00	Job	172.24	172
U161409102482	Duplex receptacle, ground fault interrupting, 20 amp	10.00	Ea.	66.69	667

All costs in USD.

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#### By Asset Name and Priority

Subtotal:	1,283
Adjustment Factor:	1.0000
Total:	1,283



Agency: Administration Location: Capital Complex Priority: 5- Grandfathered Code Asset Name: State Office Building Asset Number: 2

Requirement Name	Exterior Stairs - Missing Handrails - Monumental Steps		
Linked System	Exterior Stairs and Fire Escapes	Inspection Date	11/08/2010
Prime System	Exterior Stairs and Fire Escapes	Finish Date	-
Category	Building Code	Status	Open
Inspector	Arch	Actual Cost	0
Action Date		Estimated Cost	4,056

#### REQUIREMENT DESCRIPTION

State of Minnesota

According to 2009 IBC, Section 1003.3.3.6, stairways shall have handrails on each side, or where the width exceeds 88-inches must be equipped with an intermediate rail. Rails must be provided with the required extensions, and meet the handgrip dimensional requirements.

The exterior monumental steps at the East elevation of the building are not equipped with compliant handrails at the required locations.

Handrail installation is required.

#### PHOTOS



#### Exterior Stairs - Missing Handrails - Monumental Steps Exterior Stairs - Missing Handrails

#### ACTION DESCRIPTION

Provide IBC compliant handrails at the indicated locations. Drill mounting pockets into granite steps and grout new guardrails in place.

Est. 3 guardrail units @ 9 LF each = 27 LF

#### ESTIMATE

Code	Description	Quantity	Unit	Unit Cost	Total Cost
LCARPJ	Carpenters	12.00	hour	81.24	975
LSSWLJ	Welders, Structural Steel	6.00	hour	105.47	633
All costs in USD.					

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#### By Asset Name and Priority



Code	Description	Quantity	Unit	Unit Cost	Total Cost
U036104000350	Grout, non-shrink. for column and machine bases, non-metallic, 2" deep	3.00	S.F.	42.17	127
U050903400900	Concrete impact drilling, for anchors, up to 4" D, 1-1/2"" dia, in concrete or brick walls and floors, incl bit & layout, excl anchor	9.00	Ea.	20.52	185
U055207000100	Railing, pipe, aluminum, dark anodized finish, 2 rails, 3'-6" high, posts @ 5' O.C., 1-1/2" dia, shop fabricated	27.00	L.F.	79.15	2,137
				Subtotal:	4,056
				Adjustment Factor:	1.0000
				Total:	4,056



# MINNESOTA STATE OFFICE BUILDING PARKING DECK

FY 2010

# **Table of Contents**

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#### Executive Summary

VFA, Inc. has conducted a detailed Facilities Condition Assessment for the State of Minnesota. This assessment was conducted during November, 2010 and this report will discuss those assets.

The following facility assessment reporting demonstrates the VFA method of facilities analysis and the proprietary software systems that support this analysis. The primary goals of the assessment include:

- Determine the overall existing condition of the Assets.
  - Identify and prioritize the buildings systems and necessary requirements.
  - Recommend actions to be taken for these requirements.
- Determine anticipated Capital Renewal.

Existing condition - The Existing Condition is determined by a Facility Condition Index (FCI) which is calculated by dividing the Current Replacement Value (CRV) of the assets by the identified necessary requirement costs, deferred system renewals and future system renewals. The CRV is determined through unit cost procedure of all components of the building(s) using a nationally accepted database; RSMeans. Requirements are determined by lifecycle analysis using a nationally established and accepted program; Building and Office Management (BOMA). Partial system requirements are determined by field observation and most recent versions of local and national building Codes including but not limited to International Building Council (IBC), National Fire Protection Association (NFPA), National Electric Code (NEC) and the American Disabilities Act (ADA).

Anticipated capital renewal - Projections of the ongoing degradation of the assets components and the costs associated with the renewal or replacement of these components as they reach the end of their useful lives.

#### Initial Project Setup & Building Survey

The VFA Full Condition Assessment methodology is a process where the systems within a building are evaluated for their age, condition and cost. The systems are evaluated individually and the aggregated results enable a data-driven understanding of building condition, system replacement timing and capital expenditure needs over a given period of time.



The process begins with an on-site kick-off meeting with VFA's project team and members of the client facilities team. The participants collaborate to enable the VFA team to learn about specific system issues within each of the buildings to be assessed. The client team has the opportunity to ask additional questions of the VFA team.

Following the kick-off meeting the team conducts a walk-through of each building and infrastructure element to evaluate their systems. The Architect evaluates the exterior systems, interior finishes and overall structure. The Electrical assessor evaluates the main electrical service and distribution, branch circuitry, lighting, emergency power, fire alarm and communications systems. The Mechanical assessor evaluates the heating, ventilating and air conditioning (HVAC), plumbing and fire protections systems.

For each system, specific information is gathered, including date installed, type, capacity, effective age and overall operational condition. The systems are categorized according to the NIST Uniformat II standards. The team records the information while in the field so that it can be referenced in the next phase of the methodology: data entry and cost analysis.

During data entry and cost analysis, the team reviews the information gathered in the field and compiles and formats the data into a building "systems model." This information is recorded in the VFA software, VFA.facility. A separate system record is created for each building system. The system record consists of a description of the system, the date installed, actual or estimated age, expected lifetime, years remaining in lifetime, system quantity / capacity, replacement cost, renewal cost and any recommended requirements identified by field observations. The system costs and requirement costs are generated from VFA's comprehensive software which utilizes the integrated RS Means cost estimating assemblies and line items. The baseline RS Means costs are adjusted for each location by assigning one of the RS Means City Cost Indexes (CCI) to account for localized material and labor rates. System expected lifetimes are based on BOMA lifecycle standards.

System records are based on templates intended to identify the type of construction that comprises each system and provide reasonable estimates for replacement costs, renewal costs and requirement costs for that asset. Once completed, the system records, in aggregate, comprise a system model for each building. The system model in the software enables a datadriven understanding of building condition, system replacement timing and capital requirement expenditure needs over a given period of time. In addition, the system replacement costs are summed to calculate the Current Replacement Value for the building. The Current Replacement



FCI = -

# Assessment Methodology

Value becomes an important component of the building's Facility Condition Index (FCI), a key benchmark indicator which quantifies the condition of the building.

The FCI is calculated by dividing the sum of the near term system renewal costs, and recommended requirements costs, by The Current Replacement Value of the entire building. The near-term renewal costs are the sum of the requirements costs and the system renewal costs for those systems that will reach the end of their useful life during the next fiscal year. The resulting fraction represents the portion of the building's replacement value that needs to be replaced or renewed within the next year and is an indicator of condition. The lower the FCI, the better the overall condition of the building.

1 Year System Renewal Costs & Requirement Costs

Asset Replacement Value



#### Criteria Used To Determine Priorities, Categories and Primary Systems

The requirements were classified in several ways. In addition to detailed specific descriptions, each requirement was assigned to a category, priority, and primary system association. This parallel differentiation allows for multiple queries of the database, facilitating analysis of the data. It is possible, for instance, to query the database for all Priority 1 requirements in the HVAC System, or all Priority 1 and 2 Building Integrity requirements in the Exterior Wall Systems.

#### Priorities

Priorities are assigned to requirements to indicate severity and a time frame in which corrective action should take place. The following list is of the 5 default priorities:

 Priority 1 : Current Year
 Year Offset = 1; Within 12 months

 Projects requiring immediate action to return a facility to normal operation, stop

 accelerated deterioration or correct a cited safety hazard.

<u>Priority 2 : Potentially Critical</u> Situations that, if not corrected expeditiously, will become critical within a year, including intermittent interruptions, rapid deterioration or potential safety hazards.

<u>Priority 3 : Necessary - Not Yet Critical</u> Conditions requiring appropriate attention to preclude predictable deterioration or potential downtime and the associated damage or higher costs if deferred further.

#### Priority 4: Improvements

#### Year Offset =10

Year Offset=10

Items that represent sensible improvements to existing conditions. Items that are not required for the most basic function of a facility and items that will improve overall usability and/or reduce long term maintenance.

#### Priority 5: Grandfathered

# Items that do not conform to existing codes, but are grandfathered in their existing condition. No immediate action is required, although the items will need to be addressed if any significant work is performed on the building. The amount of work that triggers code compliance is typically at least partially at the discretion of the local building official.



#### Requirement Reports

Each Requirement has common components which can be found on each Requirement Detail: They are:

- 1) Requirement Name: A simple description for identifying the issue.
- Requirement ID This is a number formatted as "REQ" followed by a number. This is a tracking code assigned by Facility.
- Linked System Identifies the System to which the Requirement is a portion of.
- Prime System Identifies the System Group to which the Requirement is a portion of.
- 5) Priority Identifies the level of priority the Requirement has been assigned. See listing below for definition of Priorities.
- 6) Inspector Which trade made the determination of the Requirement.
- Action Date Defines the latest date the Requirement should be addressed. It is a mathematical derivation of the Inspection Date and the level of Priority set.
- Inspection Date Identifies what date the Requirement was identified by inspection.
- Finish Date User input date at which the Requirement was resolved and work completed to rectify the issue.
- 10) Status User Input date stating whether issue is resolved and work completed to rectify the issue.
- 11) Actual Cost User Input the actual amount spent to rectify the issue. Typically used to compare original estimate in relation to actual costs.
- 12) Estimated Cost Amount suggested by the system to budget to rectify the issue. Amount does not include soft costs including but not limited to design fees, permit fees, contingencies for protection of surrounding areas, security if required or contractor overhead and profit.
- 13) Requirement Description A short description of the issue.
- 14) Photo Image clarifying and verifying condition.

15) Action Description - A brief description of the action required to correct the issue. Within each requirement is an Estimate base upon RSMeans unit costing. Each estimate includes:

- 1) Code A thirteen digit line item identifier from RSMeans.
- Description RSMeans line item description.
- 3) Quantity and Unit The number and type of unit used to determine quantity of materials and labor to complete the work.
- Unit Cost Cost per the Quantity of work required to complete the work. The unit cost includes cost of material and direct labor to install.
- 5) Total Cost Quantity multiplied by the Unit Cost.



#### **Requirement Categories**

First tier categories are listed below with Second tier categories grouped underneath. Either a First tier category or a Second tier category can be applied to a requirement.

#### **Regulations Compliance**

- Accessibility: Conditions that violate the American Disabilities Act guidelines. (Examples: Non-compliant building entrances, plumbing fixtures, and door hardware).
- Building Code: Conditions that violate Building codes (Examples: Any condition that disregards building, electrical, mechanical, and plumbing codes.)
- Life Safety: Conditions that violate the NFPA 101 Life Safety Code (Example: . Any condition that endangers life in the event of fire, smoke, fumes or panic.)

#### Operations

- Energy: Conditions that adversely affect energy use (Examples: Single pane windows, pipe insulation).
- Maintenance: Components or systems that require routine maintenance. . (Examples: Recalibrate thermostats, clean ducts).
- Security: Conditions that compromise the protection of the asset or its occupants ۰ (Examples: Broken locks, lack of lighting).

#### Functionality

- Mission: Components or systems that do not meet the standards of the . organization (Examples: Non- uniform paint and décor; equipment upgrades to ensure a facility is operational 24/7.)
- Modernization: Conditions that need to be made modern in appearance or function (Example: Outdated furniture).
- Plant Adaptation: Components or systems that must change to fit a new or adapted use (Example: Renovation or restoration of old space).
- Obsolescence: Components or systems that are or are becoming obsolete (Example: Outdated equipment).
- Capacity: Components or systems that do not have the ability to keep up with . demand load (Example: Heating equipment that cannot adequately cover its intended area, overcrowding).

#### Integrity



# Assessment Methodology

- Appearance: Problems with the asset's appearance that are not functional in nature (Examples: Peeling paint, worn carpet).
- Reliability: Components or systems that cannot be depended upon (Example: Equipment that functions correctly but sometimes is unpredictable).
- Beyond Rated Life: A component or system that had exceeded its rated life (Example: A 20 year warranted roof that is 30 years old).

#### Miscellaneous

 Other: Other deficient items not covered in all other categories (Examples: Space utilization, Occupational Health and Safety, and OSHA Facilities and Equipment).

#### Cost Estimating

For each identified requirement, an action was recommended. Utilizing their experiences and good engineering practice, VFA assessors based their recommended actions on an "in kind" replacement with the current technology available. The corrective work was then estimated using 2010 R.S. Means Estimating Data accessed directly by VFA.facility. For work not covered by R.S. Means, a lump sum figure was inserted and described in the text of the requirement.

#### Other Notes:

 Some Renewals have what appears to be a "Type AA" Type W" Renewal. They "Type" refers to the VFA Facility fixture type and not the renewal type.

State Office Building Parking

# State of Minnesota Office **Building Parking Deck**

Saint Paul, Minnesota

# **Background Info**

Year Built	1989
Building Square Feet	140,000 SF
Replacement Value:	\$10,772,000
Date Assessed	November 2010

# Existing Asset Summary

The State Office Building Parking Ramp, Building is located at 454 Rice Street, St. Paul, MN 55155. The building is an approximately 140,400 square foot, three (3) story building was originally constructed in approximately 1989. The facility has a rectangular footprint. It is due west of the State Office Building (SOB) and is directly connected to the SOB at the ground floor by an enclosed pedestrian link.

The facility houses approximately three hundred ninety (390) designated vehicle parking stalls, associated drives, building support spaces plus electrical HVAC equipment spaces for elected officials of the Minnesota State Legislature.

The building's primary occupancy per the 2009 IBC is classified as Group S-2, Storage Low-Hazard and its primary construction type per the 2009 IBC is Type 1B Fully Sprinklered.



State Office Building Parking Deck

# Major Issues

Nearly all mechanical systems, air distribution systems and their associated control systems are beyond their rated useful life, causing higher operating and repair costs and risking shut down in the event of total system failure.

Emergency power and light systems are all beyond rated life and may be inadequate in the event of emergency.

The fire alarm system is well beyond rated life and is operationally critical in the event of an emergency.

Priority Urgency based on Condition

Table 1. Five Year Needs		1 Currently Critical 2 Potentially Critical 3 Necessary 4 Recommended 5 Grandfathered Code	within 1 within 2 within 3- no due d	yr of survey yrs of survey 5 yrs of survey ate ate
Requirement Name	U2CAT - Prime System	Category	Priority	Due Date
VCT - Average Renewal	C3020 - Floor Finishes - VCT - Average	Beyond Useful Life	1	2011
Sump Pump - Submersible - 1/2 HP	D20 - Plumbing - Sump Pump -	Beyond Useful Life	1	2011
Renewal	Submersible - 1/2 HP			
Unit Heaters - Electric Renewal	D3050 - Terminal and Package Units - Unit Heaters - Electric	Beyond Useful Life	1	2011
Electric Controls - Average Renewal	D3060 - Controls and Instrumentation - Electric Controls - Average	Beyond Useful Life	1	2011
Exterior Lighting - HID Canopy Lighting	D5022 - Lighting Equipment - Exterior	Beyond Useful Life	1	2011
Renewal	Lighting - HID Canopy Lighting			
Exterior Pole Lighting - Luminaires in	D5022 - Lighting Equipment - Exterior	Beyond Useful Life	1	2011
Disrepair	Lighting ? Pole Lighting			

Table continued on next page.

Due Date

#### Table 1. F



Requirement Name	U2CAT - Prime System	Category	Priority	Due Date
Fire Alarm System Renewal	D5037 - Fire Alarm Systems - Fire Alarm System	Beyond Useful Life	1	2011
Interior Lighting ? HID Wall Packs Renewal	D5022 - Lighting Equipment - Interior Lighting ? HID Wall Packs	Beyond Useful Life	2	2012
Emergency Lighting Renewal	D5092 - Emergency Light and Power Systems - Emergency Lighting	Beyond Useful Life	2	2012
Exit Signs Renewal	D5092 - Emergency Light and Power Systems - Exit Signs	Beyond Useful Life	2	2012
Parking Lot - Paint Striping (Diagonal) Renewal	G2020 - Parking Lots - Parking Lot - Paint Striping (Diagonal)	Beyond Useful Life	2	2012
Exterior Guard Rails - Failing Paint Finishes	B2015 - Balcony Walls and Handrails - Fall Protection - Metal Guardrails	Appearance	3	2015
Paint Masonry/Epoxy Finish - Economy Renewal	C3010 - Wall Finishes - Paint Masonry/Epoxy Finish - Economy	Beyond Useful Life	3	2015
Pipe Insulation - Deteriorated	D2040 - Rain Water Drainage - Surface Drainage - Gravity	Mission	3	2015
Exhaust System Renewal	D3040 - Distribution Systems - Exhaust System	Beyond Useful Life	3	2015
Exhaust System - Storage Room Renewal	D3040 - Distribution Systems - Exhaust System - Storage Room	Beyond Useful Life	3	2015
Fluorescent Lighting - Aged and Inefficient	D5022 - Lighting Equipment - Interior Lighting - Fluorescent Lighting	Energy	3	2015

#### Table 1. Five Year Needs (cont.)

Figure 2. Capital Asset Management Process Highlighted steps are complete.






by Asset Name

Final



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Administration

Capital Complex

State Office Building Parking Ramp



by Asset Name

Agency: Administration Location: Capital Complex

Asset Name: State Office Building Parking Ramp Asset Number: 2a

### STATISTICS

FCI Cost	st: 343,807	FCI:	0.03	
Total Requirements Cost	st: 382,761	RI:	0.04	
Current Replacement Value 10,8	0,881,515	Size		140,400 SF
Address 1 454	54 Rice Street	Address 2		-
City St. I	. Paul	State/Province/Region		MN

рното



### State Office Building Parking Ramp

### ASSET DESCRIPTION

The State Office Building Parking Ramp, Building No. 2a, is located at 454 Rice Street, St. Paul, MN 55155. This approximately 140,400 SF, three (3) story building was originally constructed in approximately 1989. The facility has a rectangular footprint. It is due west of the State Office Building (SOB) and is directly connected to the SOB at the ground floor by an enclosed pedestrian link.



by Asset Name

The facility houses approximately three hundred ninety (390) designated vehicle parking stalls, associated drives, building support spaces plus electrical HVAC equipment spaces for elected officials of the Minnesota State Legislature.

The building's primary occupancy per the 2009 IBC is classified as Group S-2. Storage Low-Hazard and its primary construction type per the 2009 IBC is Type 1B Fully Sprinklered.

### SYSTEMS DESCRIPTION

A - Substructure - Caissons (Drilled Pier) in Stable Ground

This substructure includes concrete caissons, 50-ft. deep in wet or stable ground.

A - Substructure - Foundation Wall and Footings 16-Ft - Full Basement

Full basement wall and foundation with a 16-Ft, height to include strip footing, foundation walls and damp proofing. Also included are the underdrains.

A - Substructure - Grade Beams - Average

The substructure includes grade beams with a span of 30-feet and 40-inches deep.

A - Substructure - Structural Slab on Grade - Light Industrial

The building substructure includes a light industrial type structural slab on grade. B10 - Superstructure - Multi-Story - Concrete

Multi-story lightweight structure with reinforced cast-in-place concrete construction. B10 - Superstructure - Single-Story - Steel Framed Roof on Bearing Walls

The superstructure is a for single-story steel framed roof on bearing walls at stair towers and covered parking pods. Walls described elsewhere. B2010 - Exterior Walls - Granite Veneer Walls - Deluxe

The exterior walls are of high quality, high cost granite veneer with concrete masonry unit (CMU) or cast-in-place (CIP) concrete backup wall. **B2015 - Balcony Walls and Handrails - Fall Protection - Metal Guardrails** 

Ornate painted cast metal railings around parking deck perimeter and ramps, etc.. B2020 - Exterior Windows - Aluminum Windows

The building includes aluminum framed exterior units with insulating glass at stair towers. B2030 - Exterior Doors - Bi-Fold Gates - Electric Operation

Exterior openings includes pair bi-fold gate doors with electric operators at parking ramp vehicle entrances. B2030 - Exterior Doors - Door Assembly - 3 x 7 HM

Exterior doors include 3 x 7 steel door and steel frame with hinges, lockset (lever), exit hardware and closer. Includes painted door and painted frame at stair towers. B2030 - Exterior Doors - Door Assembly - 3 x 7 Storefront

The exterior doors include swinging glazed aluminum storefront leaf plus glazed transom, aluminum frame, hardware including closer at stair towers. B2030 - Exterior Doors - Door Assembly - 6 x 7 HM

All costs in USD.

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by Asset Name

Exterior doors include pr. 3 x 7 steel doors and steel frame with hinges, locksets (lever), exit hardware and closers. Includes painted doors and painted frame. B30 - Roofing - Single-Ply Membrane - Fully Adhered

The roof covering is of a single-ply fully adhered membrane with insulation at stair towers and covered parking pods. B30 - Roofing - Terra Cotta and Clay Tile Roofing

The roof covering consists of terra cotta or clay tile roof covering at stair towers and covered parking pods. Quantity accounts for 6/12 roof slope. C1010 - Partitions - CMU Block Walls - Plain

Interior walls are of 8-in. hollow concrete block, light and regular weight, with no finish at electric equipment room, stair towers and covered parking pods. C20 - Stairs - Stairs - Average

The interior stairs include 12 risers per flight with landing and 2 flights per story. Approximately 20 LF of side rail plus 14 feet of wall rail per flight included in cost estimate. C3010 - Wall Finishes - Paint Masonry/Epoxy Finish - Economy

Wall finishes include paint on CMU or CIP concrete and minimum hi-build epoxy finish at stair towers and underground parking area walls. C3020 - Floor Finishes - VCT - Average

Floor finishes include areas of standard VCT flooring and related base at stair towers. C3030 - Ceiling Finishes - Plaster Veneer On GWB - 1 Coat

GWB ceiling system, on 8-ft. above floor at stair towers and covered parking pods. Plaster veneer, taped, finished and painted with primer and 2 finish coats. Ceiling on suspension system or fastened to metal furring. D20 - Plumbing - Sump Pump - Submersible - 1/2 HP

The water drainage system includes duplex sump 1/2 HP submersible pumps. Note: available Means cost line items for alarm system selected for budgetary purposes only. D2040 - Rain Water Drainage - Surface Drainage - Gravity

Rain water drainage includes interior piping, roof drains and 4-inch discharge piping by gravity flow to a municipal main. Exposed piping has also been heat traced for freeze protection. D3011 - Oil Supply System - Aboveground Fuel Tank

The asset includes a 500 gallon, double wall, concrete encased fiberglass, aboveground fuel oil storage tank with leak detection. This tank is for the outside emergency generator. This system also includes a fuel oil pump. D3040 - Distribution Systems - Exhaust System

The HVAC ventilation system includes two centrifugal fans for automotive exhaust ventilation. D3040 - Distribution Systems - Exhaust System - Storage Room

The HVAC ventilation system includes two centrifugal fans for building exhaust ventilation. This fan serves the storage area. D3040 - Distribution Systems - Fan Coil System - Electric Cabinet

HVAC system includes ceiling suspended electric fan coil cabinet heaters in the stair towers. D3050 - Terminal and Package Units - Unit Heaters - Electric

Supplemental heating is provided by a suspended electric unit heater. This heater is located in the storage room. D3060 - Controls and Instrumentation - Electric Controls - Average



### by Asset Name

4 of 11

The building has electric wall-mounted thermostats, and a basic local HVAC control system. These controls work specifically with the electric fan coil cabinet heaters and unit heater. The square footage of this system has been adjusted to reflect the limited area that this system covers.

D40 - Fire Protection - Dry Sprinkler System

The fire protection systems include a light hazard, dry fire sprinkler system. Includes air pump, controls and manual discharge. D40 - Fire Protection - Fire Extinguishers - Dry Chem w/Cabinet

Handheld type dry chemical fire extinguishers are located throughout the building, Includes cabinets. D5012 - Low Tension Service and Dist. - Electrical Distribution - Panelboards

Electrical distribution includes several 480Y/277V panelboard(s), with dry type step down transformer(s) serving 208Y/120V panelboard(s) including all feeder conduit and wiring. All equipment is located in the main electrical room on the lower level. The panelboards serve the branch circuit wiring including but not necessarily limited to telecommunication equipment, mechanical equipment, security systems, lighting and general outlets.

D5012 - Low Tension Service and Dist. - Electrical Service - 480Y/277V 225A

The main electrical service is fed from the adjacent State Office Building, Service equipment consists of a 225A main circuit breaker panelboard. The main service voltage is 480Y/277V, 3P, 4W. D5021 - Branch Wiring Devices - Branch Wiring - Equipment and Devices

Branch wiring consists of a minimal number of general purpose outlets and dedicated circuits for specific equipment connections throughout the facility. Other specific equipment connections include but are not necessarily limited to HVAC equipment, small pumps and motors, security systems, lighting and general outlets.

D5022 - Lighting Equipment - Exterior Lighting - HID Canopy Lighting

Recessed HID lighting is installed under the upper level parking canopies. D5022 - Lighting Equipment - Exterior Lighting – Pole Lighting

Exterior lighting includes pole mounted HID luminaires on the upper level.

"System observed years remaining have been increased based on the requirement(s) created and linked to replace the system in whole or in part." D5022 - Lighting Equipment - Exterior Lighting - Wall Mount Lighting

Wall mount fixtures with compact fluorescent lamps are installed on the exterior of the parking garage at each entrance. D5022 - Lighting Equipment - Interior Lighting - Fluorescent Lighting

Fluorescent lighting is installed in the main mechanical/electrical room on the lower level. Lighting is equipped with T12 lamps and magnetic ballasts.

"System observed years remaining have been increased based on the requirement(s) created and linked to replace the system in whole or in part." D5022 - Lighting Equipment - Interior Lighting - HID Low Bay Lighting

Parking areas are illuminated via low bay HID luminaires on Level 1 and Level 2. D5022 - Lighting Equipment - Interior Lighting – HID Wall Packs

HID wall packs are installed in the stairwells and on the upper level. D5032 - Intercommunication and Paging System - Intercom System

All costs in USD.

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by Asset Name

Two way intercom stations are provided on exterior doors, vehicle entrance and exits, and stairwells.

"This system is in better than expected condition for a system of its age due to good maintenance and replacement parts are still available. Based on the criteria, the observed years remaining have been adjusted to reflect the extended life expectancy of this system."

### D5037 - Fire Alarm Systems - Fire Alarm System

There are a minimal number of fire alarm devices in the parking structure. Devices are monitored by the adjacent State Office Building. D5038 - Security and Detection Systems - Access Control System - Automatic Traffic Gates

Automatic traffic gates control entrance and exit from the parking structure. Gates are equipped with card swipes, intercoms and speed pass systems.

"This system is in better than expected condition for a system of its age due to good maintenance and replacement parts are readily available. As such, the observed years remaining have been adjusted to reflect the extended life expectancy of this system."

### D5038 - Security and Detection Systems - Access Control System - Card Access System

Access control points include card swipes at exterior doors and car entrance and exit points.

"This system is in better than expected condition for a system of its age due to good maintenance and replacement parts are readily available. As such, the observed years remaining have been adjusted to reflect the extended life expectancy of this system."

### D5038 - Security and Detection Systems - Security Cameras

Closed Circuit Television (CCTV) security cameras are located in the parking structure. Cameras are monitored by Capital Security in the State Capital Security office.

"This system is in better than expected condition for a system of its age due to good maintenance and replacement parts are readily available. As such, the observed years remaining have been adjusted to reflect the extended life expectancy of this system."

### D5092 - Emergency Light and Power Systems - Emergency Lighting

There are a minimal number of emergency battery units in the stairwells.

### D5092 - Emergency Light and Power Systems - Emergency Power Distribution - Panelboards

Emergency power is provided from the adjacent State office Building. Emergency power is supplied for essential and life safety systems including security systems, exit and emergency lighting. Dry type transformers are utilized to step up voltage from normal power, and step down emergency power to building voltage.

### D5092 - Emergency Light and Power Systems - Exit Signs

Exit signs are a combination of incandescent and LED type signs. Most units do not have emergency battery backup. It is assumed exit signs are connected to emergency power panels. G2020 - Parking Lots - Parking Lot - Paint Striping (Diagonal)

Paint striping per vehicle stall. Includes budget allowance for handicap accessible parking symbols and other signage.



ASSET REPLACEMENT VALUE

# Asset Snapshot Report

### by Asset Name

				Year	Next Renewal		
Uniformat	System Name	Lifetime	% Renew	Installed	Year	<b>Renewal</b> Cost	Replacement Value
A-Substructure	Caissons (Drilled Pier) in Stable Ground	75	6	1989	2065	27,419	438,699
A-Substructure	Foundation Wall and Footings 16-Ft - Full Basement	75	6	1989	2065	31,827	509,232
A-Substructure	Grade Beams - Average	75	6	1989	2065	44,770	716,322
A-Substructure	Structural Slab on Grade - Light Industrial	75	6	1989	2065	27,027	432.432
B10-Superstructure	Multi-Story - Concrete	75	6	1989	2065	289,708	4,635,334
B10-Superstructure	Single-Story - Steel Framed Roof on Bearing Walls	75	6	1989	2065	2.418	38,691
B2010-Exterior Walls	Granite Veneer Walls - Deluxe	75	6	1989	2065	61,417	982,675
B2015-Balcony Walls and Handrails	Fall Protection - Metal Guardrails	50	110	1989	2040	223,358	203.053
B2020-Exterior Windows	Aluminum Windows	30	125	1989	2020	72,887	58,310
B2030-Exterior Doors	Bi-Fold Gates - Electric Operation	30	125	1989	2020	19,200	15.360
B2030-Exterior Doors	Door Assembly - 3 x 7 HM	30	125	1989	2020	17,967	14,374
B2030-Exterior Doors	Door Assembly - 3 x 7 Storefront	30	125	1989	2020	10,343	8.274
B2030-Exterior Doors	Door Assembly - 6 x 7 HM	30	125	1989	2020	4,950	3,960
B30-Roofing	Single-Ply Membrane - Fully Adhered	25	125	1989	2017	24,522	19,617
B30-Roofing	Terra Cotta and Clay Tile Roofing	50	125	1989	2040	42,951	34,361
C1010-Partitions	CMU Block Walls - Plain	50	63	1989	2040	62,530	100,048
C20-Stairs	Stairs - Average	75	38	1989	2065	21,077	56,204

All costs in USD.

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State of Minnesota							by Asset Nam
Uniformat	System Name	Lifetime	% Renew	Year Installed	Next Renewal Year	Renewal Cost	Replacement Value
	Paint Masonry/Epoxy Finish -						9
C3010-Wall Finishes	Economy	15	125	2000	2016	97,287	77,830
C3020-Floor Finishes	VCT - Average	10	125	1989	2011	2,763	2,210
C3030-Ceiling Finishes	Plaster Veneer On GWB - 1 Coat	30	125	1989	2020	63,759	51,007
D20-Plumbing	Sump Pump - Submersible - 1/2 HP	12	112	1989	2011	3,161	2,823
D2040-Rain Water Drainage	Surface Drainage - Gravity	50	125	1989	2040	332,749	266,199
D3011-Oil Supply System	Aboveground Fuel Tank	. 30	125	1989	2020	36,830	29,464
D3040-Distribution Systems	Exhaust System	25	125	1989	2015	107,002	85,602
D3040-Distribution Systems	Exhaust System - Storage Room	25	125	1989	2015	474	379
D3040-Distribution Systems	Fan Coil System - Electric Cabinet	30	125	1989	2020	17,335	13,868
D3050-Terminal and Package Units	Unit Heaters - Electric	15	112	1989	2011	5,830	5,205
D3060-Controls and Instrumentation	Electric Controls - Average	20	125	1989	2011	3,429	2,743
D40-Fire Protection	Dry Sprinkler System	35	125	1989	2025	1,509,456	1,207,564
D40-Fire Protection	Fire Extinguishers - Dry Chem w/Cabinet	30	105	2010	2041	4,471	4,258
D5012-Low Tension Service and Dist.	Electrical Distribution - Panelboards	30	125	1989	2020	27.790	22.232
D5012-Low Tension Service and Dist.	Electrical Service - 480Y/277V 225A	30	125	1989	2020	28,009	22,408
D5021-Branch Wiring Devices	Branch Wiring - Equipment and Devices	30	125	1989	2020	10,016	8.013
D5022-Lighting Equipment	Exterior Lighting - HID Canopy Lighting	20	125	1989	2011	25,584	20,467
D5022-Lighting Equipment	Exterior Lighting - Pole Lighting	20	125	1989	2031	104,377	83,501



by Asset Name

Uniformat	System Name	Lifetime	% Renew	Year Installed	Next Renewal Year	Renewal Cost	Replacement Value
D5022-Lighting Equipment	Exterior Lighting – Wall Mount Lighting	20	125	2000	2021	10,521	8,417
D5022-Lighting Equipment	Interior Lighting - Fluorescent Lighting	20	125	1989	2031	5,600	4,480
D5022-Lighting Equipment	Interior Lighting - HID Low Bay Lighting	20	125	2000	2021	412,500	330,000
D5022-Lighting Equipment	Interior Lighting – HID Wall Packs	20	125	1989	2013	20,880	16,704
D5032-Intercommunication and Paging System	Intercom System	15	125	2000	2021	12,201	9,761
D5037-Fire Alarm Systems	Fire Alarm System	10	125	1989	2012	14,995	11,996
D5038-Security and Detection Systems	Access Control System - Automatic Traffic Gates	15	125	2005	2021	142,511	114,008
D5038-Security and Detection Systems	Access Control System - Card Access System	10	125	2005	2021	34,254	27,403
D5038-Security and Detection Systems	Security Cameras	10	125	2005	2021	139,431	111,544
D5092-Emergency Light and Power Systems	Emergency Lighting	10	125	1989	2013	6,790	5,432
D5092-Emergency Light and Power Systems	Emergency Power Distribution - Panelboards	30	125	2008	2039	42,966	34,373
D5092-Emergency Light and Power Systems	Exit Signs	10	125	1989	2013	20,351	16,281
G2020-Parking Lots	Parking Lot - Paint Striping (Diagonal)	10	125	2000	2013	22,997	18,398
						Subtotal	10,881,515

**Total Replacement Value** 

10,881,515

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All costs in USD.



REQUIREMENTS AND RENEWALS

by Asset Name







					by Asset Name
Requirement Name / Renewals	Prime System	Category	Priority	Action Date	Cost
Electric Controls - Average Renewal	D3060-Controls and Instrumentation	Beyond Useful Life	1- Currently Critical	11/08/2010	3,429
Exterior Lighting - HID Canopy Lighting Renewal	D5022-Lighting Equipment	Beyond Useful Life	1- Currently Critical	11/08/2010	25,584
Sump Pump - Submersible - 1/2 HP Renewal	D20-Plumbing	Beyond Useful Life	1- Currently Critical	11/08/2010	3,161
Unit Heaters - Electric Renewal	D3050-Terminal and Package Units	Beyond Useful Life	1- Currently Critical	11/08/2010	5,830
VCT - Average Renewal	C3020-Floor Finishes	Beyond Useful Life	1- Currently Critical	11/08/2010	2,763
				2010 Subtotal	40,767
Exterior Pole Lighting - Luminaires in Disrepair	D5022-Lighting Equipment	Beyond Useful Life	1- Currently Critical	11/08/2011	10.754
Fire Alarm System Renewal	D5037-Fire Alarm Systems	Beyond Useful Life	1- Currently Critical	11/08/2011	14,995
				2011 Subtotal	25,749
Emergency Lighting Renewal	D5092-Emergency Light and Power Systems	Beyond Useful Life	2- Potentially Critical	11/08/2012	6,790
Exit Signs Renewal	D5092-Emergency Light and Power Systems	Beyond Useful Life	2- Potentially Critical	11/08/2012	20,351
Interior Lighting – HID Wall Packs Renewal	D5022-Lighting Equipment	Beyond Useful Life	2- Potentially Critical	11/08/2012	20.880
Parking Lot - Paint Striping (Diagonal) Renewal	G2020-Parking Lots	Beyond Useful Life	2- Potentially Critical	11/08/2012	22,997
				2012 Subtotal	71,018
Exhaust System - Storage Room Renewal	D3040-Distribution Systems	Beyond Useful Life	3- Necessary - Not Yet Critical	11/08/2014	474
Exhaust System Renewal	D3040-Distribution Systems	Beyond Useful Life	3- Necessary - Not Yet Critical	11/08/2014	107,002
				2014 Subtotal	107,476
Exterior Guard Rails - Failing Paint Finishes	B2015-Balcony Walls and Handrails	Арреагапсе	3- Necessary - Not Yet Critical	11/08/2015	35,052
costs in USD.					

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	1000 000 000 000 000					by Asset Name
ŀ	Requirement Name / Renewals	Prime System	Category	Priority	Action Date	Cost
H I	Fluorescent Lighting - Aged and inefficient	D5022-Lighting Equipment	Energy	3- Necessary - Not Yet Critical	11/08/2015	1,510
I F	?aint Masonry/Epoxy Finish - Economy Renewal	C3010-Wall Finishes	Beyond Useful Life	3- Necessary - Not Yet Critical	11/08/2015	97,287
ł	Pipe Insulation - Deteriorated	D2040-Rain Water Drainage	Mission	3- Necessary - Not Yet Critical	11/08/2015	3,903
					2015 Subtotal	137,752



# by Renewal Fiscal Year

Final





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Administration		1
Capital Complex		1
State Office	Building Parking Ramp	l
2011		1
	C3020-Floor Finishes	1
	D20-Plumbing	3
	D3050-Terminal and Package Units	5
	D3060-Controls and Instrumentation	7
	D5022-Lighting Equipment	9
2012		11
	D5037-Fire Alarm Systems	11
2013		13
	D5022-Lighting Equipment	13
	D5092-Emergency Light and Power Systems	15
	D5092-Emergency Light and Power Systems	17
	G2020-Parking Lots	19
2015		21
	D3040-Distribution Systems	21
	D3040-Distribution Systems	23
2016		25
	C3010-Wall Finishes	25
2017		27
	B30-Roofing	27
2020		28
	B2020-Exterior Windows	28
	B2030-Exterior Doors	29
	B2030-Exterior Doors	30
	B2030-Exterior Doors	31
	B2030-Exterior Doors	32
	C3030-Ceiling Finishes	33
	D3011-Oil Supply System	34
	D3040-Distribution Systems	35
	D5012-Low Tension Service and Dist.	36
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	D5021-Branch Wiring Devices	40
2021		41
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State of Minnesota



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	B2010-Exterior Walls	66
	C20-Stairs	67

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### by Renewal Fiscal Year

Agency: Administration Location: Capital Complex Fiscal Year: 2011 Asset Name : State Office Building Parking Ramp Asset Number : 2a

System:	C3020-Floor Finishes	Lifetime:	10	
Name:	VCT - Average	Years Remaining:	0 (Observed)	
Quantity:	562	% Used:	100 (Observed)	
Unit Cost:	3.93	Year Installed:	1989	
Replacement Cost:	2,210	Date Inspected:	11/08/2010	
Unit of Measure:	SF	SCI:	1.25	
RENEWAL				
Renewal FY:	2011	Renewal Cost:	2,763	
% Renew:	125			

### DESCRIPTION

Floor finishes include areas of standard VCT flooring and related base at stair towers.

### SYSTEM COSTS

Unit Cost Basis: 1,000.00

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	096512001150	Cove base, rubber or vinyl, standard colors. 4" h, 0.080" thick	250.00	3.13	L.F.	782.50
А	C30204101600	Vinyl, composition tile, maximum	1,000.00	3.15	S.F.	3,150.00
					Subtotal:	3,932.50
				Adjust	ment Factor:	1.0000
					Total:	3,932.50

### LINKED REQUIREMENTS

	Name	Category	Priority	Inspector	Action Date	Cost
	VCT - Average Renewal	Beyond Useful Life	1- Currently Critical	System Renewal	11/08/2010	2,763
					Total	2,763
1	inked Photos					



### by Renewal Fiscal Year



- VCT Average Renewal
- VCT Average Renewal





Agency: Administration Location: Capital Complex Fiscal Year: 2011 Asset Name : State Office Building Parking Ramp Asset Number : 2a

System:	D20-Plumbing	Lifetime:	12
Name:	Sump Pump - Submersible - 1/2 HP	Years Remaining:	0 (Observed)
Quantity:	2	% Used:	100 (Observed)
Unit Cost:	1,411.36	Year Installed:	1989
Replacement Cost:	2,823	Date Inspected:	11/08/2010
Unit of Measure:	Each	SCI:	1.12
RENEWAL			· · · · · · · · · · · · · · · · · · ·
Renewal FY:	2011	Renewal Cost:	3,161
0. Danauu			

### DESCRIPTION

The water drainage system includes duplex sump 1/2 HP submersible pumps. Note: available Means cost line items for alarm system selected for budgetary purposes only.

### SYSTEM COSTS

Unit Cost Basis: 1.00

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	154408003300	Pump, sewage ejector, system accessories, for alarm horn and lights. 115 V mercury switch, add	1.00	261.71	Ea.	261.71
U	154409407560	Pump, submersible sump, automatic, cast iron, 1/2 H.P., 1-1/4" discharge	1.00	407.90	Ea,	407.90
A	D20908101300	Copper tubing, hard temper, solder, type K, 1-1/4" diameter	25.00	29.67	L.F.	741.75
					Subtotal:	1,411.36
				Adjust	ment Factor:	1.0000
					Total:	1,411.36

### LINKED REQUIREMENTS

	Name	Category	Priority	Inspector	Action Date	Cost
	Sump Pump - Submersible - 1/2 HP Renewal	Beyond Useful Life	1- Currently Critical	System Renewal	11/08/2010	3,161
I	inked Photos				Total	3,161







Sump Pump - Submersible - 1/2 HP Renewal Sump Pump - Submersible - 1/2 HP Renewal



### by Renewal Fiscal Year

Agency: Administration Location: Capital Complex Fiscal Year: 2011 Asset Name : State Office Building Parking Ramp Asset Number : 2a

System:	D3050-Terminal and Package Units	Lifetime:	15
Name:	Unit Heaters - Electric	Years Remaining:	0 (Observed)
Quantity:	1	% Used:	100 (Observed)
Unit Cost:	5,205.08	Year Installed:	1989
Replacement Cost:	5,205	Date Inspected:	11/08/2010
Unit of Measure:	Each	SCI:	1.12
RENEWAL			
Renewal FY:	2011	Renewal Cost:	5,830
% Renew:	112		

### DESCRIPTION

Supplemental heating is provided by a suspended electric unit heater. This heater is located in the storage room.

### SYSTEM COSTS

Unit Cost Basis:		1.00				
Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	157602509020	Electric heating, cabinet unit heaters, ceiling mount, 208 to 480 volt, three pole, 13.5 kW	1.00	3,240.31	Ea.	3,240.31
А	D50201450520	Motor installation, three phase, 200 V, 1-1/2 HP motor size	1.00	1,964.77	Ea.	1,964.77
					Subtotal:	5,205.08
				Adjust	ment Factor:	1.0000
					Total:	5,205.08

### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
Unit Heaters - Electric Renewal	Beyond Useful Life	1- Currently Critical	System Renewal	11/08/2010	5,830
				Total	5,830

Linked Photos



by Renewal Fiscal Year



Unit Heaters - Electric Renewal

Unit Heaters - Electric Renewal



### by Renewal Fiscal Year

Agency: Administration Location: Capital Complex Fiscal Year: 2011 Asset Name : State Office Building Parking Ramp Asset Number : 2a

System:	D3060-Controls and Instrumentation	Lifetime:	20
Name:	Electric Controls - Average	Years Remaining:	0 (Observed)
Quantity:	2,000	% Used:	100 (Observed)
Unit Cost:	1.37	Year Installed:	1989
Replacement Cost:	2,743	Date Inspected:	11/08/2010
Unit of Measure:	SF	SCI:	1.25
RENEWAL			
Renewal FY:	2011	Renewal Cost:	3,429
% Renew:	125		

### DESCRIPTION

The building has electric wall-mounted thermostats, and a basic local HVAC control system. These controls work specifically with the electric fan coil cabinet heaters and unit heater. The square footage of this system has been adjusted to reflect the limited area that this system covers.

### SYSTEM COSTS

Unit Cos	t Basis:	1,000.00				
Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	138382000890	Control Components, controller, receiver, electric, temperature controller	0.20	561.05	Ea.	112.21
U	138382003460	Control Components, relays, selector, 3 point	0.20	229.29	Ea	45.86
U	138382003680	Control Components, sensor, electric operated, temperature	0.20	168.89	Ea	33.78
U	138382003720	Control Components, switches, min position, electrical	0.20	200.34	Ea.	40.07
U	138382005100	Control Components, thermostats, locking cover	0.40	55.64	Ea.	22.26
U	138382005200	Control Components, thermostats. automatic, clock, 24 hour	0.40	237.23	Ea.	94.89
U	138382006110	Control Components, valves, motorized zone, sweat connections, 3/4" CxC	0.40	211.79	Ea	84.72
U	138382006150	Control Components, valves, motorized zone, sweat connections, with end switch, 2 wire, 3/4" CxC	0.40	221.69	Ea.	88.68
U	138382009610	Control Components, electronic system, misc. components, electric motor damper actuator	0.40	748.05	Ea.	299.22



### by Renewal Fiscal Year

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	138382009620	Control Components, electronic system, misc. components, damper position indicator	0.40	191.44	Ea.	76.58
U	138382009701	Control Components, electronic system, misc. components, modulating step controller, 2-5 steps	0.20	1,015.60	Ea.	203.12
U	138382009760	Control Components, electronic system, misc. components, step down transformer	0.20	240.37	Ea.	48.07
U	161207500600	Thermostat cable, jacket non-plenum, twisted, #18-4 conductor	1.00	137.96	C.L.F.	137.96
N	U 138382009670	Control Components, electronic system, misc. components, alarm unit with two adjustable points	0.20	420.76	Ea.	84.15
					Subtotal:	1,371.57
				Adjust	ment Factor:	1.0000
					Total:	1,371.57

### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
Electric Controls - Average Renewal	Beyond Useful Life	1- Currently Critical	System Renewal	11/08/2010	3,429
				Total	3,429

### Linked Photos



Electric Controls - Average Renewal

Electric Controls - Average Renewal





Agency: Administration Location: Capital Complex Fiscal Year: 2011 Asset Name : State Office Building Parking Ramp Asset Number : 2a

System:	D5022-Lighting Equipment	Lifetime:	20
Name:	Exterior Lighting - HID Canopy Lighting	Years Remaining:	0 (Observed)
Quantity:	12	% Used:	100 (Observed)
Unit Cost:	1,705.58	Year Installed:	1989
Replacement Cost:	20,467	Date Inspected:	11/08/2010
Unit of Measure:	Each	SCI:	1.25
RENEWAL			
Renewal FY:	2011	Renewal Cost:	25,584
% Renew:	125		

### DESCRIPTION

Recessed HID lighting is installed under the upper level parking canopies.

### SYSTEM COSTS

Unit Cost Basis: 1.00

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	164202000500	Lighting contactors, 3 pole, electrically held, 600 volt, 200 amp, NEMA 1	0.25	3,282.14	Ea.	820.54
U	165104300780	High pressure sodium fixture, interior, recessed, square, 100 W, incl lamps, and mounting hardware	1.00	689.79	Ea.	689.79
А	D50102301240	Branch installation 600 V, including EMT conduit and THW wire, 20 A	25.00	7.81	L.F.	195.25
					Subtotal:	1,705.58
				Adjust	ment Factor:	1.0000
					Total:	1,705.58

### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
Exterior Lighting - HID Canopy Lighting Renewal	Beyond Useful Life	1- Currently Critical	System Renewal	11/08/2010	25,584
				Total	25,584

Linked Photos





D5022 - Exterior Lighting - HID Canopy Lighting D5022 - Exterior Lighting - HID Canopy Lighting



### by Renewal Fiscal Year

Agency: Administration Location: Capital Complex Fiscal Year: 2012 Asset Name : State Office Building Parking Ramp Asset Number : 2a

System:	D5037-Fire Alarm Systems	Lifetime:	10
Name:	Fire Alarm System	Years Remaining:	1 (Observed)
Quantity:	1	% Used:	90 (Observed)
Unit Cost:	11,995.62	Year Installed:	1989
Replacement Cost:	11,996	Date Inspected:	11/08/2010
Unit of Measure:	Each	SCI:	1.25
RENEWAL	1 		
Renewal FY:	2012	Renewal Cost:	14,995
% Renew:	125		

### DESCRIPTION

There are a minimal number of fire alarm devices in the parking structure. Devices are monitored by the adjacent State Office Building.

### SYSTEM COSTS

Unit Cost Basis:		1.00					
Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost	
A	D50309100450	Communication and alarm systems, fire detection, addressable, 12 detectors, includes outlets, boxes, conduit and wire	1.00	11,995.62 Ea.		11,995.62	
				Subtotal:		11,995.62	
				Adjust	ment Factor:	1.0000	
					Total:	11,995.62	

### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
Fire Alarm System Renewal	Beyond Useful Life	1- Currently Critical	System Renewal	11/08/2011	14,995
				Total	14,995

Linked Photos



### by Renewal Fiscal Year



D5037 - Fire Alarm System

D5037 - Fire Alarm System



### by Renewal Fiscal Year

Agency: Administration Location: Capital Complex Fiscal Year: 2013 Asset Name : State Office Building Parking Ramp Asset Number : 2a

System:	D5022-Lighting Equipment	Lifetime:	20
Name:	Interior Lighting - HID Wall Packs	Years Remaining:	2 (Observed)
Quantity:	15	% Used:	90 (Observed)
Unit Cost:	1,113.59	Year Installed:	1989
Replacement Cost:	16,704	Date Inspected:	11/08/2010
Unit of Measure:	Each	SCI:	1.25
RENEWAL			
Renewal FY:	2013	Renewal Cost;	20,880
% Renew:	125		

### DESCRIPTION

HID wall packs are installed in the stairwells and on the upper level.

### SYSTEM COSTS

Unit Cost Basis:		1.00				
Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	161366009000	Outlet boxes, minimum labor/equipment charge	1.00	172.24	Job	172.24
υ	165203001170	High pressure sodium fixture, exterior, wall pack, 150 Watt, incl lamps	1.00	444.20	Ea.	444.20
U	165802000300	Photoelectric control. S.P.S.T., 208 V/277 V	1.00	106.65	Ea.	106.65
A	D50102301240	Branch installation 600 V, including EMT conduit and THW wire, 20 A	50.00	7.81	L.F.	390.50
					Subtotal:	1,113.59
				Adjust	ment Factor:	1.0000
					Total:	1,113.59

### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
Interior Lighting – HID Wall Packs Renewal	Beyond Useful Life	2- Potentially Critical	System Renewal	11/08/2012	20,880
				Total	20,880

Linked Photos



### by Renewal Fiscal Year



D5022 - Interior Lighting – HID Wall Packs D5022 - Interior Lighting – HID Wall Packs



### by Renewal Fiscal Year

Agency: Administration Location: Capital Complex Fiscal Year: 2013

1.00

Asset Name : State Office Building Parking Ramp Asset Number : 2a

System:	D5092-Emergency Light and Power Systems	Lifetime:	10	
Name:	Exit Signs	Years Remaining:	2 (Observed)	
Quantity:	15	% Used:	80 (Observed)	
Unit Cost:	1,085.41	Year Installed:	1989	
Replacement Cost:	16,281	Date Inspected:	11/08/2010	
Unit of Measure:	SF	SCI:	1.25	
RENEWAL				
Renewal FY:	2013	Renewal Cost:	20,351	
% Renew:	125			

### DESCRIPTION

Exit signs are a combination of incandescent and LED type signs. Most units do not have emergency battery backup. It is assumed exit signs are connected to emergency power panels.

### SYSTEM COSTS

Unit Cost Basis:

	Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
-	U	161366009000	Outlet boxes, minimum labor/equipment charge	1.00	172.24	Job	172.24
	U	165303200080	Exit lighting, incandescent, single face, ceiling or wall mount	1.00	132.17	Ea.	132.17
	A	D50102301240	Branch installation 600 V, including EMT conduit and THW wire, 20 A	100.00	7.81	L.F.	781.00
						Subtotal:	1,085.41
					Adjust	ment Factor:	1.0000
						Total:	1,085.41

### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
Exit Signs Renewal	Beyond Useful Life	2- Potentially Critical	System Renewal	11/08/2012	20,351
				Total	20,351

Linked Photos



### by Renewal Fiscal Year



D5092 - Exit Signs D5092 - Exit Signs



Agency: Administration Location: Capital Complex Fiscal Year: 2013 Asset Name : State Office Building Parking Ramp Asset Number : 2a

	System:	D5092-Emergency Light and Power Systems	Lifetime:	10
	Name:	Emergency Lighting	Years Remaining:	2 (Observed)
	Quantity:	4	% Used:	80 (Observed)
	Unit Cost:	1,358.00	Year Installed:	1989
	Replacement Cost:	5,432	Date Inspected:	11/08/2010
	Unit of Measure:	Each	SCI:	1.25
Ē	RENEWAL			
	Renewal FY:	2013	Renewal Cost:	6,790
	% Renew:	125		

### DESCRIPTION

There are a minimal number of emergency battery units in the stairwells.

1.00

### SYSTEM COSTS

Unit Cost Basis:

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
υ	161366009000	Outlet boxes, minimum labor/equipment charge	1.00	172.24	Jop	172.24
U	165303200700	Emergency lighting units, nickel cadmium battery operated, twin sealed beam light, 25 W, 6 V each	1.00	795.26	Ea.	795.26
А	D50102301240	Branch installation 600 V, including EMT conduit and THW wire, 20 A	50.00	7.81	L.F.	390.50
					Subtotal:	1,358.00
				Adjust	ment Factor:	1.0000
					Total:	1,358.00

### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
Emergency Lighting Renewal	Beyond Useful Life	2- Potentially Critical	System Renewal	11/08/2012	6,790
				Total	6,790

Linked Photos







D5092 - Emergency Lighting D5092 - Emergency Lighting

Agency: Administration Location: Capital Complex Fiscal Year: 2013

1.00

Asset Name : State Office Building Parking Ramp Asset Number : 2a

	System:	G2020-Parking Lots	Lifetime:	10			
and the second se	Name:	Parking Lot - Paint Striping (Diagonal)	Years Remaining:	2 (Observed)			
	Quantity:	390	% Used:	80 (Observed)			
	Unit Cost:	47.17	Year Installed:	2000			
	Replacement Cost:	18,398	Date Inspected:	11/08/2010			
	Unit of Measure:	Each	SCI:	1.25			
RENEWAL							
	Renewal FY:	2013	Renewal Cost:	22,997			
	% Renew:	125					

### DESCRIPTION

Paint striping per vehicle stall. Includes budget allowance for handicap accessible parking symbols and other signage.

### SYSTEM COSTS

Unit Cost Basis:

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	027603000203 Painted pavement markings, acrylic waterborne, white or yellow, parking striping		25.00	0.50	L.F.	12.50
U	027605001100	Pavement markings, pavement marking letter, 6"	3.00	10.80	Ea.	32.40
U	027605001200	Pavement markings, handicap symbol	0.05	45.47	Ea.	2.27
		×			Subtotal:	47.17
				Adjustment Factor:		1.0000
					Total:	47.17

### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
Parking Lot - Paint Striping (Diagonal)	Beyond Useful Life	2- Potentially Critical	System Renewal	11/08/2012	22,997
Renewal				Total	22.007
Linked Photos				Total	22,997

### by Renewal Fiscal Year



State of Minnesota

Parking Lot - Paint Striping (Diagonal) Renewal Parking Lot - Paint Striping (Diagonal) Renewal


### by Renewal Fiscal Year

Agency: Administration Location: Capital Complex Fiscal Year: 2015 Asset Name : State Office Building Parking Ramp Asset Number : 2a

System:	D3040-Distribution Systems	Lifetime:	25
Name:	Exhaust System	Years Remaining:	4 (Observed)
Quantity:	2	% Used:	84 (Observed)
Unit Cost:	42,800.78	Year Installed:	1989
Replacement Cost:	85,602	Date Inspected:	11/08/2010
Unit of Measure:	Each	SCI:	1.25
RENEWAL			
Renewal FY:	2015	Renewal Cost:	107,002
% Renew:	125		

### DESCRIPTION

The HVAC ventilation system includes two centrifugal fans for automotive exhaust ventilation.

### SYSTEM COSTS

Unit Cos	t Basis:	1.00				
Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	158101000140	Metal Ductwork, fabricated rectangular, 1000 to 2000 lb., aluminum alloy 3003-H14, includes fittings, joints, supports and allowance for a flexible connection, excludes insulation	200.00	20.31	Lb.	4,062.00
A	D30402301030	Utility fan set system, belt drive, 5000 CFM	1.00	38,738.78	Ea.	38,738.78
					Subtotal:	42,800.78
				Adjust	ment Factor:	1.0000
					Total:	42,800.78

### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
Exhaust System Renewal	Beyond Useful Life	3- Necessary - Not Yet Critical	System Renewal	11/08/2014	107,002
Linked Photos				Total	107,002



### by Renewal Fiscal Year



Exhaust System Renewal

### Exhaust System Renewal



### by Renewal Fiscal Year

Agency: Administration Location: Capital Complex Fiscal Year: 2015 Asset Name : State Office Building Parking Ramp Asset Number : 2a

System:	D3040-Distribution Systems	Lifetime:	25
Name:	Exhaust System - Storage Room	Years Remaining:	4 (Observed)
Quantity:	1	% Used:	84 (Observed)
Unit Cost:	379.13	Year Installed:	1989
Replacement Cost:	379	Date Inspected:	11/08/2010
Unit of Measure:	Each	SCI:	1.25
RENEWAL			
Renewal FY:	2015	Renewal Cost:	474
% Renew:	125		

### DESCRIPTION

The HVAC ventilation system includes two centrifugal fans for building exhaust ventilation. This fan serves the storage area.

### SYSTEM COSTS

Unit Cos	st Basis:	1.00				
Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	158301002040	Fans, blower, direct drive with motor, complete ., .5" S.P., 1385 CFM, 1/4 H.P.	1.00	379.13	Ea.	379.13
					Subtotal:	379.13
				Adjust	ment Factor:	1.0000
					Total:	379 13

### LINKED REQUIREMENTS

Name		Category	Priority	Inspector	Action Date	Cost
Exhaust System Room Renewal	- Storage	Beyond Useful Life	3- Necessary - Not Yet Critical	System Renewal	11/08/2014	474
					Total	474

### Linked Photos



### by Renewal Fiscal Year



Exhaust System - Storage Room Renewal Exhaust System - Storage Room Renewal



### System Detail Report

### by Renewal Fiscal Year

Agency: Administration Location: Capital Complex Fiscal Year: 2016 Asset Name : State Office Building Parking Ramp Asset Number : 2a

System:	C3010-Wall Finishes	Lifetime:	15
Name:	Paint Masonry/Epoxy Finish - Economy	Years Remaining:	5 (Observed)
Quantity:	21,265	% Used:	67 (Observed)
Unit Cost:	3.66	Year Installed:	2000
Replacement Cost:	77,830	Date Inspected:	11/08/2010
Unit of Measure:	SF	SCI:	1.25
RENEWAL			
Renewal FY:	2016	Renewal Cost:	97,287
% Renew:	125		

### DESCRIPTION

Wall finishes include paint on CMU or CIP concrete and minimum hi-build epoxy finish at stair towers and underground parking area walls.

#### SYSTEM COSTS

Unit Cos	t Basis:	1,000.00				
Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
A	C30102300320	Painting, masonry or concrete, latex. brushwork, primer & 2 coats	1,000.00	2.01	S.F.	2,010.00
А	C30102300340	Painting, masonry or concrete, latex, brushwork, addition for block filler	1,000.00	1.65 S.F.		1,650.00
					Subtotal:	3,660.00
			Adjustment Factor:		ment Factor:	1.0000
					Total:	3,660.00

### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
Paint Masonry/Epoxy Finish - Economy Renewal	Beyond Useful Life	3- Necessary - Not Yet Critical	System Renewal	11/08/2015	97,287
				Total	97,287

### Linked Photos





State of Minnesota

Paint Masonry/Epoxy Finish - Economy Renewal Paint Masonry/Epoxy Finish - Economy Renewal



Agency: Administration Location: Capital Complex Fiscal Year: 2017 Asset Name : State Office Building Parking Ramp Asset Number : 2a

System:	B30-Roofing	Lifetime:	25
Name:	Single-Ply Membrane - Fully Adhered	Years Remaining:	6 (Observed)
Quantity:	2,141	% Used:	76 (Observed)
Unit Cost:	9.16	Year Installed:	1989
Replacement Cost:	19,617	Date Inspected:	11/08/2010
Unit of Measure:	SF	SCI:	0.00
RENEWAL			
Renewal FY:	2017	Renewal Cost:	24,522
% Renew:	125		

### DESCRIPTION

State of Minnesota

The roof covering is of a single-ply fully adhered membrane with insulation at stair towers and covered parking pods.

### SYSTEM COSTS

Unit Cos	t Basis:	1,000.00				
Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
N	A B30103201200	Insulation, rigid, roof deck, foamglass, tapered for drainage	250.00	2,48	S.F.	620.00
А	B30101203300	Roofing, single ply membrane, EPDM, 60 mils, fully adhered	1,000.00	2.67	S.F.	2,670.00
A	B30103201840	Insulation, rigid, roof deck, extruded polystyrene, 15 PSI compressive strength, 3" thick, R15	1,000.00	2.06	S.F.	2,060.00
А	B30104201500	Roof edges, aluminum, duranodic. .050" thick, 8" face	126.00	30.26	L.F.	3,812.76
					Subtotal:	9,162.76
				Adjust	ment Factor:	1.0000
					Total:	9,162.76

#### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
				Total	0



### by Renewal Fiscal Year

Agency: Administration Location: Capital Complex Fiscal Year: 2020

Asset Name : State Office Building Parking Ramp Asset Number : 2a

System:	B2020-Exterior Windows	Lifetime:	30
Name:	Aluminum Windows	Years Remaining:	9 (Observed)
Quantity:	790	% Used:	70 (Observed)
Unit Cost:	73.81	Year Installed:	1989
Replacement Cost:	58,310	Date Inspected:	11/08/2010
Unit of Measure:	SF	SCI:	0.00
RENEWAL			
Renewal FY:	2020	Renewal Cost:	72,887
% Renew:	125		

### DESCRIPTION

The building includes aluminum framed exterior units with insulating glass at stair towers.

### SYSTEM COSTS

Unit Cos	at Basis:	1,000.00				
Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	085201002000	Windows, aluminum sash, custom, grade HC, excl. glazing, min	1,000.00	47.60	S.F.	47,600.00
U	088104600100	Insulating Glass, 2 lites, tinted, 1/8" float, 1/2" thick, under 15 SF	1,000.00	26.21	S.F.	26,210.00
					Subtotal:	73,810.00
				Adjust	ment Factor:	1.0000
					Total:	73,810.00
LINKED	REOUTREMENTS					

Name	Category	Priority Inspector		Action Date	Cost
7				Total	0



Agency: Administration Location: Capital Complex Fiscal Year: 2020

1.00

Asset Name : State Office Building Parking Ramp Asset Number : 2a

System:	B2030-Exterior Doors	Lifetime:	30
Name:	Door Assembly - 3 x 7 HM	Years Remaining:	9 (Observed)
Quantity:	7	% Used:	70 (Observed)
Unit Cost:	2,053.36	Year Installed:	1989
Replacement Cost:	14,374	Date Inspected:	11/08/2010
Unit of Measure:	Each	SCI:	0.00
RENEWAL			
Renewal FY:	2020	Renewal Cost:	17.967
% Renew:	125		

### DESCRIPTION

Exterior doors include 3 x 7 steel door and steel frame with hinges, lockset (lever), exit hardware and closer. Includes painted door and painted frame at stair towers.

### SYSTEM COSTS

Unit Cost Basis:

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	087106500500	Door hardware, lockset, standard duty, cylindrical, with sectional trim, lever handled, keyed, single cylinder function	1.00	232.34	Ea.	232.34
A	B20302203450	Door, steel 18 gauge, hollow metal, 1 door with frame, no label, 3'-0" x 7'-0" opening	1.00	1,821.02	Opng.	1,821.02
					Subtotal:	2,053.36
				Adjust	ment Factor:	1.0000
					Total:	2,053.36

### LINKED REQUIREMENTS

Name	Category	Priority	Inspect	or Action Date	Cost
				Total	0

### by Renewal Fiscal Year

Agency: Administration Location: Capital Complex Fiscal Year: 2020

1.00

Asset Name : State Office Building Parking Ramp Asset Number : 2a

	System:	B2030-Exterior Doors	Lifetime:	30
	Name:	Door Assembly - 6 x 7 HM	Years Remaining:	9 (Observed)
	Quantity:	1	% Used:	70 (Observed)
	Unit Cost:	3,960.14	Year Installed:	1989
	Replacement Cost:	3.960	Date Inspected:	11/08/2010
	Unit of Measure:	Each	SCI:	0.00
I	RENEWAL			
	Renewal FY:	2020	Renewal Cost:	4,950
	% Renew:	125		

### DESCRIPTION

Exterior doors include pr. 3 x 7 steel doors and steel frame with hinges, locksets (lever), exit hardware and closers. Includes painted doors and painted frame.

### SYSTEM COSTS

Unit Cost Basis:

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	087106500500	Door hardware, lockset, standard duty, cylindrical, with sectional trim, lever handled, keyed, single cylinder function	2.00	232.34	Ea.	464.68
A	B20302203700	Door, steel 18 gauge, hollow metal, 2 doors with frame, no label, 6'-0" x 7'-0" opening	1.00	3,495.46	Opng.	3,495.46
					Subtotal:	3,960.14
				Adjust	ment Factor:	1.0000
					Total:	3,960.14

### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
				Total	0



### by Renewal Fiscal Year

Agency: Administration Location: Capital Complex Fiscal Year: 2020 Asset Name : State Office Building Parking Ramp Asset Number : 2a

System:	B2030-Exterior Doors	Lifetime:	30
Name:	Door Assembly - 3 x 7 Storefront	Years Remaining:	9 (Observed)
Quantity:	2	% Used:	70 (Observed)
Unit Cost:	4,137.22	Year Installed:	1989
Replacement Cost:	8,274	Date Inspected:	11/08/2010
Unit of Measure:	Each	SCI:	0.00
RENEWAL			
Renewal FY:	2020	Renewal Cost;	10,343
% Renew:	125		

### DESCRIPTION

The exterior doors include swinging glazed aluminum storefront leaf plus glazed transom, aluminum frame, hardware including closer at stair towers.

### SYSTEM COSTS

Unit Cos	st Basis:	1.00					
Class	Code Label	Description		Quantity	Unit Cost	Unit	Total Cost
A	B20301107000	Door, aluminum a wide stile, hardwa opening	& glass, with transom, are, 3'-0" x 10'-0"	1.00	4,137.22	Opng.	4,137.22
						Subtotal:	4,137.22
					Adjust	ment Factor:	1.0000
						Total:	4,137.22
LINKED	REQUIREMENTS						
Name		Category	Priority	Inspector	A	Action Date	Cost
						Total	0





State of Minnesota

Agency: Administration Location: Capital Complex Fiscal Year: 2020 Asset Name : State Office Building Parking Ramp Asset Number : 2a

System:	B2030-Exterior Doors	Lifetime:	30
Name:	Bi-Fold Gates - Electric Operation	Years Remaining:	9 (Observed)
Quantity:	2	% Used:	70 (Observed)
Unit Cost:	7,680.10	Year Installed:	1989
Replacement Cost:	15,360	Date Inspected:	11/08/2010
Unit of Measure:	Each	SCI:	0.00
RENEWAL			
Renewal FY:	2020	Renewal Cost:	19,200
% Renew:	125		

### DESCRIPTION

Exterior openings includes pair bi-fold gate doors with electric operators at parking ramp vehicle entrances.

### SYSTEM COSTS

Unit Cos	t Basis:	1.00				
Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
A	B20302205050	Door, steel, overhead, rolling, electric operator, 8'-0" x 8'-0" opening	2.00	3,840.05	Opng.	7,680.10
					Subtotal:	7,680.10
				Adjust	ment Factor:	1.0000
					Total:	7,680.10

### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
				Total	0



### by Renewal Fiscal Year

Agency: Administration Location: Capital Complex Fiscal Year: 2020 Asset Name : State Office Building Parking Ramp Asset Number : 2a

System:	C3030-Ceiling Finishes	Lifetime:	30
Name:	Plaster Veneer On GWB - 1 Coat	Years Remaining:	9 (Observed)
Quantity:	7,371	% Used:	70 (Observed)
Unit Cost:	6.92	Year Installed:	1989
Replacement Cost:	51,007	Date Inspected:	11/08/2010
Unit of Measure:	SF	SCI:	0.00
RENEWAL			
Renewal FY:	2020	Renewal Cost:	63,759
% Renew:	125		

### DESCRIPTION

GWB ceiling system, on 8-ft above floor at stair towers and covered parking pods. Plaster veneer, taped, finished and painted with primer and 2 finish coats. Ceiling on suspension system or fastened to metal furring.

### SYSTEM COSTS

Unit Cost Basis: 1,000.00

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	092109000012	Thin coat plaster, 1 coat veneer, excl. lath	1,000.00	0.97	S.F.	970.00
A	C30301105300	Gypsum board ceilings, 5/8" fire rated gypsum board, painted and textured finish.1" x 3" wood, 16" OC furring, concrete support	1,000.00	5.95	S.F.	5,950.00
					Subtotal:	6,920.00
				Adjust	ment Factor:	1.0000
					Total:	6,920.00
LINKED	REQUIREMENTS					
Name		Category Priority	Inspector	A	ction Date	Cost
					Total	0





Agency: Administration Location: Capital Complex Fiscal Year: 2020 Asset Name : State Office Building Parking Ramp Asset Number : 2a

	System:	D3011-Oil Supply System	Lifetime:	30
	Name:	Aboveground Fuel Tank	Years Remaining:	9 (Observed)
	Quantity:	1	% Used:	70 (Observed)
	Unit Cost:	29,463.63	Year Installed:	1989
	Replacement Cost:	29,464	Date Inspected:	11/08/2010
	Unit of Measure:	Each	SCI	0.00
F	RENEWAL			
	Renewal FY:	2020	Renewal Cost:	36,830
	% Renew:	125		

#### DESCRIPTION

The asset includes a 500 gallon, double wall, concrete encased fiberglass, aboveground fuel oil storage tank with leak detection. This tank is for the outside emergency generator. This system also includes a fuel oil pump.

### SYSTEM COSTS

Unit Cos	at Basis:	1.00					
Class	Code Label	Description	Quantity	Unit Cost	Unit	x	Total Cost
U	151904901840	Fuel oil specialties, fuel oil pump, 1/3 H.P., 80 GPH	1.00	1,187.65	Ea		1,187.65
А	G30603101010	Storage tank, fuel, underground, double wall fiberglass, 600 gallon	1.00	28,275.98	Ea.		28,275.98
					Subte	otal:	29,463.63
				Adjust	ment Fac	tor:	1.0000
					Т	otal:	29,463.63

### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
				Total	0



### Agency: Administration Location: Capital Complex Fiscal Year: 2020

Asset Name : State Office Building Parking Ramp Asset Number : 2a

System:	D3040-Distribution Systems	Lifetime:	30
Name:	Fan Coil System - Electric Cabinet	Years Remaining:	9 (Observed)
Quantity:	6	% Used:	70 (Observed)
Unit Cost:	2,311.27	Year Installed:	1989
Replacement Cost:	13,868	Date Inspected:	11/08/2010
Unit of Measure:	Each	SCI:	0.00
RENEWAL			
Renewal FY:	2020	Renewal Cost:	17,335
% Renew:	125		

### DESCRIPTION

HVAC system includes ceiling suspended electric fan coil cabinet heaters in the stair towers.

### SYSTEM COSTS

Unit Cos	t Basis:	1.00					
Class	Code Label	Description		Quantity	Unit Cost	Unit	Total Cost
U	157602507960	Electric heating, cabinet co heater, 240 volt, 4000 watt	nvector . 3' long	1.00	2,311.27	Ea.	2,311.27
						Subtotal:	2,311.27
					Adjustr	nent Factor:	1.0000
						Total:	2,311.27
LINKED	REQUIREMENTS						
Name		Category	Priority	Inspector	A	ction Date	Cost

All costs in USD.

0

Total



### by Renewal Fiscal Year

Agency: Administration Location: Capital Complex Fiscal Year: 2020

1.00

Asset Name : State Office Building Parking Ramp Asset Number : 2a

System:	D5012-Low Tension Service and Dist.	Lifetime:	30
Name:	Electrical Service - 480Y/277V 225A	Years Remaining:	9 (Observed)
Quantity:	1	% Used:	70 (Observed)
Unit Cost:	22,407.54	Year Installed:	1989
Replacement Cost:	22,408	Date Inspected:	11/08/2010
Unit of Measure:	Each	SCI:	0.00
RENEWAL			
Renewal FY:	2020	Renewal Cost:	28,009
% Renew:	125		

#### DESCRIPTION

The main electrical service is fed from the adjacent State Office Building. Service equipment consists of a 225A main circuit breaker panelboard. The main service voltage is 480Y/277V, 3P, 4W.

### SYSTEM COSTS

Unit Cost Basis:

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	160608009000	Grounding, minimum labor/equipment charge	1.00	172.24	Job	172.24
U	161209009000	Wire, minimum labor/equipment charge	4.00	172.24	Job	688.96
U	161322059990	Conduit, to 15' high, minimum labor/equipment charge	1.00	172.24	Job	172.24
υ	164407202650	Panelboards, 3 phase 4 wire, main circuit breaker, 277/480 V, 225 amp, 42 circuits, NEHB, incl 20 A 1 pole plug-in breakers	1.00	6,767.54	Ea.	6,767.54
А	D50101200280	Service installation, includes breakers, metering, 20' conduit & wire, 3 phase, 4 wire, 120/208 V, 200 A	1.25	3,805.25	Ea.	4,756.56
А	D50102300280	Feeder installation 600 V, including RGS conduit and XHHW wire, 200 A	200.00	49.25	L.F.	9,850.00
					Subtotal:	22,407.54
				Adjust	ment Factor:	1.0000
					Total:	22,407.54

#### LINKED REQUIREMENTS

#### All costs in USD.

Course of Million and	

### by Renewal Fiscal Year

Name	Category	Priority	rity Inspector Action Date		Cost
				Total	0





Agency: Administration Location: Capital Complex Fiscal Year: 2020 Asset Name : State Office Building Parking Ramp Asset Number : 2a

System:	D5012-Low Tension Service and Dist.	Lifetime:	30
Name:	Electrical Distribution - Panelboards	Years Remaining:	9 (Observed)
Quantity:	1	% Used:	70 (Observed)
Unit Cost:	22,231.77	Year Installed:	1989
Replacement Cost:	22,232	Date Inspected:	11/08/2010
Unit of Measure:	Each	SCI:	0.00
RENEWAL			
Renewal FY:	2020	Renewal Cost:	27,790
% Renew:	125		

#### DESCRIPTION

Electrical distribution includes several 480Y/277V panelboard(s), with dry type step down transformer(s) serving 208Y/120V panelboard(s) including all feeder conduit and wiring. All equipment is located in the main electrical room on the lower level. The panelboards serve the branch circuit wiring including but not necessarily limited to telecommunication equipment, mechanical equipment, security systems, lighting and general outlets.

#### SYSTEM COSTS

Unit Cost Basis:

1.00

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	160608009000	Grounding, minimum labor/equipment charge	4.00	172.24	Job	688.96
υ	161209009000	Wire, minimum labor/equipment charge	24.00	172.24	Job	4,133.76
U	161322059990	Conduit, to 15' high, minimum labor/equipment charge	6.00	172.24	Job	1,033.44
υ	161367000200	Pull boxes, sheet metal, type SC, 8" W x 8" H x 4" D, NEMA 1	1_00	106.38	Ea.	106.38
U	162702003300	Transformer, dry-type, ventilated, 3 phase 480 V primary 120/208 V secondary, 30 kVA	1.00	3,941.85	Ea.	3,941.85
U	162706205170	Transformer handling, add to normal labor cost in restricted areas, approximately 400 pounds, 37.5 kVA	1.00	599.11	Ea.	599.11
U	164407202100	Panelboards, 3 phase 4 wire, main circuit breaker, 120/208 V. 100 amp, 30 circuits, NQOD, incl 20 A 1 pole plug-in breakers	1.00	3,049.73	Ea,	3,049.73
U	164407202650	Panelboards, 3 phase 4 wire, main circuit breaker, 277/480 V, 225 amp, 42 circuits, NEHB, incl 20 A 1 pole plug-in breakers	1.00	6,767.54	Ea.	6,767.54



### by Renewal Fiscal Year

Class	Code Label	Description		(	Quantity	Unit Cost	Unit	Total Cost
A	D50102300240	Feeder installation 600 V. RGS conduit and XHHW	including wire, 100 A		25.00	27.19	L.F.	679.75
A	D50102300280	Feeder installation 600 V, RGS conduit and XHHW	including wire, 200 A		25.00	49.25 L.F.		1,231.25
							Subtotal:	22,231.77
						Adjust	ment Factor:	1.0000
							Total:	22,231.77
LINKED	REQUIREMENTS							
Name		Category	Priority	×.	Inspector	А	ction Date	Cost
							Total	0



### by Renewal Fiscal Year

Agency: Administration Location: Capital Complex Fiscal Year: 2020 Asset Name : State Office Building Parking Ramp Asset Number : 2a

System:	D5021-Branch Wiring Devices	Lifetime:	30
Name:	Branch Wiring - Equipment and Devices	Years Remaining:	9 (Observed)
Quantity:	2,000	% Used:	70 (Observed)
Unit Cost:	4.01	Year Installed:	1989
Replacement Cost:	8.013	Date Inspected:	11/08/2010
Unit of Measure:	SF	SCI:	0.00
RENEWAL			
Renewal FY:	2020	Renewal Cost:	10,016
% Renew:	125		

### DESCRIPTION

Branch wiring consists of a minimal number of general purpose outlets and dedicated circuits for specific equipment connections throughout the facility. Other specific equipment connections include but are not necessarily limited to HVAC equipment, small pumps and motors, security systems, lighting and general outlets.

### SYSTEM COSTS

Unit Cost Basis:

1,000.00

Class	Code Label	Description		Quantity	Unit Cost Unit		Total Cost
A	D50201200920	Receptacles and wall s SF, 14 receptacles	witches, 1000	1,000.00	3.49	S.F.	3,490.00
А	D50201200960	Receptacles and wall s SF, 2 switches	Receptacles and wall switches, 1000 SF, 2 switches		0.51	S.F.	510.00
А	D50201550360	Motor feeder systems, three phase, feed to 200 V 3 HP, 230 V 5 HP, 460 V 10 HP, 575 V 10 HP		0.20	11.03	L.F.	2.21
А	D50201650440	Safety switch, 60 A fused, 3 phase, 15 HP 200 V or 15 HP 230 V		0.01	726.02	Ea.	3.63
А	D50201700320	Motor connections, thr 200/230/460/575 V, up	ee phase, to 5 HP	0.01 116.72 Ea.		Ea.	0.58
						Subtotal:	4,006.42
					Adjust	ment Factor:	1.0000
	,					Total:	4,006.42
LINKED	REQUIREMENTS						
Name		Category	Priority	Inspector	A	ction Date	Cost
						Total	0





### Agency: Administration Location: Capital Complex Fiscal Year: 2021

Asset Name : State Office Building Parking Ramp Asset Number : 2a

System:	D5022-Lighting Equipment	Lifetime:	20
Name:	Exterior Lighting – Wall Mount Lighting	Years Remaining:	10 (Observed)
Quantity:	4	% Used:	50 (Observed)
Unit Cost:	2,104.25	Year Installed:	2000
Replacement Cost:	8,417	Date Inspected:	11/08/2010
Unit of Measure:	Each	SCI:	0.00
RENEWAL			
Renewal FY:	2021	Renewal Cost:	10,521
% Renew:	125		

### DESCRIPTION

Wall mount fixtures with compact fluorescent lamps are installed on the exterior of the parking garage at each entrance.

### SYSTEM COSTS

Unit Cos	st Basis:	1.00				
Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	164202000500	Lighting contactors, 3 pole, electrically held, 600 volt, 200 amp, NEMA 1	0.25	3,282.14	Ea.	820.54
υ	165203008000	Walkway luminaire, exterior, sphere 14" opal, incandescent, 200 watt	1.00	502.71	Ea.	502.71
A	D50102301240	Branch installation 600 V, including EMT conduit and THW wire, 20 A	100.00	7.81 L.F,		781.00
					Subtotal:	2,104.25
				Adjust	ment Factor:	1.0000
					Total:	2,104.25
LINKED	REQUIREMENTS					

Name	Category	Priority	Inspector	Action Date	Cost
				Total	0



Asset Name : State Office Building Parking Ramp Asset Number : 2a

Fiscal Year:	2021			
System:	D5022-Lighting Equipment	Lifetime:	20	
	Interior Lighting - HID Low Bay			
Name:	Lighting	Years Remaining:	10 (Observed)	
Quantity:	100,000	% Used:	50 (Observed)	
Unit Cost:	3.30	Year Installed:	2000	
Replacement Cost:	330,000	Date Inspected:	11/08/2010	
Unit of Measure:	SF	SCI:	0.00	
RENEWAL				
Renewal FY:	2021	Renewal Cost:	412,500	
% Renew:	125			
DESCRIPTION				
Parking areas are illuminated	via low bay HID luminaires on Level 1 ar	nd Level 2.		
SYSTEM COSTS				

Unit Cost Basis:	1,000.00
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State of Minnesota

Agency: Administration

Location: Capital Complex

Class	Code Label	Description		Quantity	Unit Cost	Unit	Total Cost
A	D50202340240	HID fixture, 30' above watt/SF, type E, 37 FC 1000 SF	work plane, 1 , 1 fixtures per	1,000.00	3.30	S.F.	3,300.00
						Subtotal:	3,300.00
					Adjust	ment Factor:	1.0000
						Total:	3,300.00
LINKED	REQUIREMENTS						
Name		Category	Priority	Inspector	A	Action Date	Cost
						Total	0

All costs in USD.





Agency: Administration Location: Capital Complex Fiscal Year: 2021 Asset Name : State Office Building Parking Ramp Asset Number : 2a

System:	D5032-Intercommunication and Paging System	Lifetime:	15			
Name:	Intercom System	Years Remaining:	10 (Observed)			
Quantity:	1	% Used:	33 (Observed)			
Unit Cost:	9,760.63	Year Installed:	2000			
Replacement Cost:	9,761	Date Inspected:	11/08/2010			
Unit of Measure:	Each	SCI:	0.00			
RENEWAL						
Renewal FY:	2021	Renewal Cost:	12,201			
% Renew:	125					

### DESCRIPTION

Two way intercom stations are provided on exterior doors, vehicle entrance and exits, and stairwells.

"This system is in better than expected condition for a system of its age due to good maintenance and replacement parts are still available. Based on the criteria, the observed years remaining have been adjusted to reflect the extended life expectancy of this system."

#### SYSTEM COSTS

Unit Cos	st Basis:	1.00					
Class	Code Label	Description		Quantity	Unit Cost	Unit	Total Cost
A	D50309100480	Communication and alar includes outlets, boxes. o wire, intercom systems,	rm systems, conduit and 6 stations	1.00	9,760.63	Ea.	9,760.63
						Subtotal:	9,760.63
					Adjust	ment Factor:	1.0000
						Total:	9,760.63
LINKED	REQUIREMENTS						
Name		Category	Priority	Inspector	A	ction Date	Cost
						Total	0



### by Renewal Fiscal Year

Agency: Administration Location: Capital Complex Fiscal Year: 2021 Asset Name : State Office Building Parking Ramp Asset Number : 2a

	System:	D5038-Security and Detection Systems	Lifetime:	10
	Name:	Security Cameras	Years Remaining:	10 (Observed)
	Quantity:	1	% Used:	0 (Observed)
	Unit Cost:	111,544.45	Year Installed:	2005
	Replacement Cost:	111,544	Date Inspected:	11/08/2010
	Unit of Measure:	Each	SCI:	0.00
I	RENEWAL			
	Renewal FY:	2021	Renewal Cost:	139,431
	% Renew:	125		

#### DESCRIPTION

Closed Circuit Television (CCTV) security cameras are located in the parking structure. Cameras are monitored by Capital Security in the State Capital Security office.

"This system is in better than expected condition for a system of its age due to good maintenance and replacement parts are readily available. As such, the observed years remaining have been adjusted to reflect the extended life expectancy of this system."

### SYSTEM COSTS

Unit Cost Basis:

1.00

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	161322055020	Electric metallic tubing (EMT), 3/4" diameter, to 15' high, incl 2 terminations, 2 field bend elbows, 11 beam clamps, and 11 couplings per 100 LF	5,000.00	6.38	L.F.	31,900.00
U	168107503550	Coaxial connectors, BNC plug for, RG A/U #59 cable	10.00	21.28	Ea.	212.80
U	168107503610	Coaxial connectors, BNC jack for, RG A/U #59 cable	10.00	21.55	Ea.	215.50
U	168107503960	Coaxial cable, fire rated, 75 ohm, RG A/U #59 cable	50.00	217.23	C,L.F.	10,861.50
U	168506002400	Closed circuit television system (CCTV), industrial quality, one station (camera & monitor)	1.00	3,455.43	Total	3,455.43
U	168506002600	Closed circuit television system (CCTV), industrial quality, for additional camera stations, add	9.00	2,042.95	Ea.	18,386.55
U	168506002610	Closed circuit television system (CCTV), industrial quality, for low light, add	2.00	1,690.81	Ea.	3,381.62



### by Renewal Fiscal Year

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	168506002800	Closed circuit television system (CCTV), industrial quality, for weatherproof camera station, add	2.00	1,640.57	Ea.	3,281.14
U	168506003000	Closed circuit television system (CCTV), industrial quality, for pan and tilt, add	2.00	3,374.17	Ea	6,748.34
U	168506003400	Closed circuit television system (CCTV), industrial quality, for zoom lens - remote control, add, max	2.00	9,933.46	Ea	19,866.92
U	168506003410	Closed circuit television system (CCTV), industrial quality, for automatic iris for low light, add	5.00	2,646.93	Ea.	13,234.65
					Subtotal:	111,544.45
			Adjustment Factor:		ment Factor:	1.0000
					Total:	111,544.45
U U U	168506003000 168506003400 168506003410	Closed circuit television system (CCTV), industrial quality, for pan and tilt, add Closed circuit television system (CCTV), industrial quality, for zoom lens - remote control, add, max Closed circuit television system (CCTV), industrial quality, for automatic iris for low light, add	2.00 2.00 5.00	3,374.17 9,933.46 2,646.93 <b>Adjust</b>	Ea. Ea. Subtotal: ment Factor: Total:	6,748.34 19,866.92 13,234.65 111,544.45 1.0000 111,544.45

### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
				Total	0



### by Renewal Fiscal Year

Agency: Administration Location: Capital Complex Fiscal Year: 2021 Asset Name : State Office Building Parking Ramp Asset Number : 2a

System:	D5038-Security and Detection Systems	Lifetime:	15
Name:	Access Control System - Automatic Traffic Gates	Years Remaining:	10 (Observed)
Quantity:	2	% Used:	33 (Observed)
Unit Cost:	57,004.21	Year Installed:	2005
Replacement Cost:	114.008	Date Inspected:	11/08/2010
Unit of Measure:	Each	SCI:	0.00
RENEWAL			
Renewal FY:	2021	Renewal Cost:	142,511
% Renew:	125		

#### DESCRIPTION

Automatic traffic gates control entrance and exit from the parking structure. Gates are equipped with card swipes, intercoms and speed pass systems.

"This system is in better than expected condition for a system of its age due to good maintenance and replacement parts are readily avalable. As such, the observed years remaining have been adjusted to reflect the extended life expectancy of this system."

#### SYSTEM COSTS

Unit Cost Basis:

1.00

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	111566005020	Parking gates, barrier gate with programmable controller, industrial	1.00	5,637.75	Ea.	5,637.75
U	111566005100	Parking control equipment, card reader	1.00	2,392.68	Ea.	2,392.68
U	111566005500	Parking gates, exit verifier	1.00	20,460.74	Ea.	20,460.74
U	111566005700	Parking gates, full sign, 4" letters	1.00	1,677.68	Ea.	1,677.68
U	111566005950	Parking gates, vehicle detector, microprocessor based	1.00	654.62	Ea.	654.62
U	111566006000	Parking control equipment, parking control software, min	1.00	26,180.74	Ea.	26.180.74
					Subtotal:	57,004.21
				Adjust	ment Factor:	1.0000
					Total:	57,004.21

### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
				Total	0





Agency: Administration Location: Capital Complex Fiscal Year: 2021 Asset Name : State Office Building Parking Ramp Asset Number : 2a

	System:	D5038-Security and Detection Systems	Lifetime:	10		
	Name:	Access Control System - Card Access System	Years Remaining:	10 (Observed)		
	Quantity:	5	% Used:	0 (Observed)		
	Unit Cost:	5,480.58	Year Installed:	2005		
	Replacement Cost:	27,403	Date Inspected:	11/08/2010		
	Unit of Measure:	Each	SCI:	0.00		
I	RENEWAL					
	Renewal FY:	2021	Renewal Cost:	34,254		
	% Renew:	125				

### DESCRIPTION

Access control points include card swipes at exterior doors and car entrance and exit points.

"This system is in better than expected condition for a system of its age due to good maintenance and replacement parts are readily available. As such, the observed years remaining have been adjusted to reflect the extended life expectancy of this system."

#### SYSTEM COSTS

Unit Cost Basis:

1.00

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
υ	137103000080	Access Control, card type, 3 time zones, card key, max	1.00	2,695.00	Ea.	2,695.00
U	137103000160	Access Control, card key, for each door, max, add	1.00	2,200.00	Ea.	2,200.00
U	137200651010	Detection Systems, card reader, proximity type, excl. wires & conduit	1.00	585.58	Ea.	585.58
					Subtotal:	5,480.58
			Adjustment Factor:		ment Factor:	1.0000
					Total:	5,480.58

#### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
				Total	0



Agency: Administration Location: Capital Complex Fiscal Year: 2025 Asset Name : State Office Building Parking Ramp Asset Number : 2a

System:	D40-Fire Protection	Lifetime:	35
Name:	Dry Sprinkler System	Years Remaining:	14 (Observed)
Quantity:	140,400	% Used:	60 (Observed)
Unit Cost:	8.60	Year Installed:	1989
Replacement Cost:	1,207,564	Date Inspected:	11/08/2010
Unit of Measure:	SF	SCI:	0.00
RENEWAL			
Renewal FY:	2025	Renewal Cost:	1,509,456
% Renew:	125		

### DESCRIPTION

The fire protection systems include a light hazard, dry fire sprinkler system. Includes air pump, controls and manual discharge.

#### SYSTEM COSTS

Unit Cos	t Basis:	1,000.00					
Class	Code Label	Description		Quantity	Unit Cost	Unit	Total Cost
U	139304000920	Sprinkler System Co compressor for dry p automatic, complete capacity, 2 HP	omponents, air pipe system, , 790 gal system	0.01	1,514.54	Ea.	15.15
U	139304000960	Sprinkler System Co pressure maintenanc	omponents, air ce control	0.01	327.41	Ea.	3,27
U	139304002000	Sprinkler System Co emergency, manual, pneumatic system	omponents, release, for hydraulic or	0.01	246.71	Ea.	2.47
А	D40103100600	Dry pipe sprinkler s hazard, 1 floor, 500	ystems, steel, light 0 SF	1,000.00	5.08	S.F.	5,080.00
А	D40103100720	Dry pipe sprinkler s hazard, each additio	ystems, steel, light nal floor, 5000 SF	1,000.00	3.50	S.F.	3,500.00
						Subtotal:	8,600.89
					Adjust	ment Factor:	1.0000
						Total:	8,600.89
LINKED	REQUIREMENTS						
Name		Category	Priority	Inspector	A	ction Date	Cost
						Total	0

All costs in USD.





Agency: Administration Location: Capital Complex Fiscal Year: 2031 Asset Name : State Office Building Parking Ramp Asset Number : 2a

System:	D5022-Lighting Equipment	Lifetime:	20
Name:	Exterior Lighting - Pole Lighting	Years Remaining:	20 (Observed)
Quantity:	8	% Used:	0 (Observed)
Unit Cost:	10,437.68	Year Installed:	1989
Replacement Cost:	83,501	Date Inspected:	11/08/2010
Unit of Measure:	Each	SCI:	0.13
RENEWAL			
Renewal FY:	2031	Renewal Cost:	104,377
% Renew:	125		

### DESCRIPTION

State of Minnesota

Exterior lighting includes pole mounted HID luminaires on the upper level.

"System observed years remaining have been increased based on the requirement(s) created and linked to replace the system in whole or in part."

### SYSTEM COSTS

Unit Cost	Basis:	1.00

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
Е	015906002400D	Rent crane truck mounted, hydraulic, 12 ton capacity	1.00	1,072.07	Ea./day	1,072.07
υ	033102400740	Structural concrete, in place, column (4000 psi), square, max reinforcing, 12" x 12", includes forms(4 uses), reinforcing steel, concrete, placing and finishing	1.00	2,903.75	С.Ү.	2,903.75
U	164202000500	Lighting contactors, 3 pole, electrically held, 600 volt, 200 amp, NEMA 1	0.13	3,282.14	Ea.	410.27
U	165203004600	Light poles, anchor base, galvanized steel, 20' high, excl concrete bases	1.00	1,911.02	Ea.	1,911.02
υ	165203005400	Light poles, galvanized steel, bracket arms, 1 arm, excl concrete bases	1.00	276.82	Ea.	276.82
U	165203008050	Walkway luminaire, exterior, sphere 16" clear, high pressure sodium, 100 Watt	1.00	961.02	Ea.	961.02
U	165203009000	Exterior fixtures, minimum labor/equipment charge	1.00	183.73	Job	183.73
А	D50102300240	Feeder installation 600 V, including RGS conduit and XHHW wire, 100 A	100.00	27.19	L.F.	2.719.00
					Subtotal:	10,437.68

All costs in USD.

1.0000

Adjustment Factor:



### by Renewal Fiscal Year

Subtotal:	10,437.68
Total:	10,437.68

### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
Exterior Pole Lighting - Luminaires in Disrepair	Beyond Useful Life	1- Currently Critical	Elec	11/08/2011	10,754
				Total	10,754



### Agency: Administration Location: Capital Complex Fiscal Year: 2031

Asset Name : State Office Building Parking Ramp Asset Number : 2a

System:	D5022-Lighting Equipment	Lifetime:	20
Name:	Interior Lighting - Fluorescent Lighting	Years Remaining:	20 (Observed)
Quantity:	400	% Used:	0 (Observed)
Unit Cost:	11.20	Year Installed:	1989
Replacement Cost:	4,480	Date Inspected:	11/08/2010
Unit of Measure:	SF	SCI:	0.34
RENEWAL			
Renewal FY:	2031	Renewal Cost:	5.600
% Renew:	125		

### DESCRIPTION

Fluorescent lighting is installed in the main mechanical/electrical room on the lower level. Lighting is equipped with T12 lamps and magnetic ballasts.

"System observed years remaining have been increased based on the requirement(s) created and linked to replace the system in whole or in part."

### SYSTEM COSTS

Unit Cost Basis:	1.00
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Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
A	D50202081600	Fluorescent fixtures, type D, 8 fixtures per 400 SF	1.00	11.20	S.F.	11.20
					Subtotal:	11.20
				Adjust	ment Factor:	1.0000
					Total:	11.20

#### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
Fluorescent Lighting - Aged and Inefficient	Energy	3- Necessary - Not Yet Critical	Elec	11/08/2015	1,510
				Total	1,510





Agency: Administration Location: Capital Complex Fiscal Year: 2039 Asset Name : State Office Building Parking Ramp Asset Number : 2a

System:	D5092-Emergency Light and Power Systems	Lifetime:	30
Name:	Emergency Power Distribution - Panelboards	Years Remaining:	28 (Observed)
Quantity:	1	% Used:	7 (Observed)
Unit Cost:	34,373.10	Year Installed:	2008
Replacement Cost:	34,373	Date Inspected:	11/08/2010
Unit of Measure:	Each	SCI:	0.00
RENEWAL			
Renewal FY:	2039	Renewal Cost:	42,966
% Renew:	125		

#### DESCRIPTION

Emergency power is provided from the adjacent State office Building. Emergency power is supplied for essential and life safety systems including security systems, exit and emergency lighting. Dry type transformers are utilized to step up voltage from normal power, and step down emergency power to building voltage.

### SYSTEM COSTS

Unit Cost Basis:

1.00

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	160608009000	Grounding, minimum labor/equipment charge	4.00	172.24	Job	688.96
U	161209009000	Wire, minimum labor/equipment charge	40.00	172.24	Job	6,889.60
U	161322059990	Conduit, to 15' high, minimum labor/equipment charge	10.00	172.24	Job	1,722.40
U	161367000200	Pull boxes, sheet metal, type SC, 8" W x 8" H x 4" D, NEMA 1	1.00	106.38	Ea.	106.38
U,	162702002310	Transformer, dry-type, ventilated. 3 phase 480 V primary 120/208 V secondary. 3 kVA	1.00	1,680.38	Ea.	1,680.38
U	162702003500	Transformer, dry-type, ventilated, 3 phase 480 V primary 120/208 V secondary, 45 kVA	1.00	4,620.80	Ea.	4,620.80
U	162706205150	Transformer handling, add to normal labor cost in restricted areas, approximately 200 pounds, 15 kVA	1.00	510.35	Ea.	510.35
U	162706205180	Transformer handling, add to normal labor cost in restricted areas, approximately 500 pounds, 50 kVA	1.00	688.98	Ea.	688.98

All costs in USD.



### by Renewal Fiscal Year

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	164407202100	Panelboards, 3 phase 4 wire, main circuit breaker, 120/208 V, 100 amp, 30 circuits, NQOD, incl 20 A 1 pole plug-in breakers	1.00	3,049.73	Ea.	3.049.73
U	164407202550	Panelboards, 3 phase 4 wire, main circuit breaker, 277/480 V, 100 amp, 30 circuits, NEHB, incl 20 A 1 pole plug-in breakers	1.00	4,603.11	Ea,	4,603.11
A	D50101200240	Service installation, includes breakers, metering, 20' conduit & wire, 3 phase, 4 wire, 120/208 V, 100 A	1.25	2,426.29	Ea	3,032.86
A	D50102300240	Feeder installation 600 V, including RGS conduit and XHHW wire, 100 A	200.00	27.19	L.F.	5,438.00
A	D50201650680	Safety switch, 100 A fused, 3 phase, 50 HP 460 V or 60 HP 575 V	00.1	1,341.55	Ea.	1,341.55
					Subtotal:	34,373.10
				Adjust	ment Factor:	1.0000
					Total:	34,373.10

### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
				Total	0



### by Renewal Fiscal Year

Agency: Administration Location: Capital Complex Fiscal Year: 2040 Asset Name : State Office Building Parking Ramp Asset Number : 2a

System:	B2015-Balcony Walls and Handrails	Lifetime:	50
Name:	Fall Protection - Metal Guardrails	Years Remaining:	29 (Observed)
Quantity:	1,584	% Used:	42 (Observed)
Unit Cost:	128.19	Year Installed:	1989
Replacement Cost:	203,053	Date Inspected:	11/08/2010
Unit of Measure:	LF	SCI:	0.00
RENEWAL			
Renewal FY:	2040	Renewal Cost:	223,358
% Renew:	110		

#### DESCRIPTION

Ornate painted cast metal railings around parking deck perimeter and ramps, etc..

### SYSTEM COSTS

Unit Cos	t Basis:	1,000.00				
Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
Ŭ	057207000560	Railing, ornamental, steel, 3'-6" high, posts @ 6' O.C., panelized, maximum	1,000.00	128.19	L.F.	128,190.00
					Subtotal:	128,190.00
				Adjust	ment Factor:	1.0000
					Total:	128,190.00

#### LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
Exterior Guard Rails - Failing Paint Finishes	Appearance	3- Necessary - Not Yeı Critical	Arch	11/08/2015	35,052
				Total	35,052

Asset Name : State Office Building Parking Ramp Asset Number : 2a

System:	B30-Roofing	Lifetime:	50
Name:	Terra Cotta and Clay Tile Roofing	Years Remaining:	29 (Observed)
Quantity:	5,402	% Used:	42 (Observed)
Unit Cost:	6.36	Year Installed:	1989
Replacement Cost:	34,361	Date Inspected:	11/08/2010
Unit of Measure:	SF	SCI:	0.00
RENEWAL			
Renewal FY:	2040	Renewal Cost:	42,951
% Renew:	125		

### DESCRIPTION

The roof covering consists of terra cotta or clay tile roof covering at stair towers and covered parking pods. Quantity accounts for 6/12 roof slope.

### SYSTEM COSTS

Unit Cost Basis:		00.000,1					
Class	Code Label	Description		Quantity	Unit Cost	Unit	Total Cost
U	073202000200	Clay Tiles, ASTM, C1167 severe weathering, Lanai c tile, 158 pieces per square, accessories	. GR 1, r Classic incl.	10.00	636.07 Sq.		6,360.70
						Subtotal:	6,360.70
					Adjusti	nent Factor:	1.0000
						Total:	6,360.70
LINKED	REQUIREMENTS						
Name		Category	Priority	Inspector	A	ction Date	Cost

Total

0

All costs in USD.



Agency: Administration

Location: Capital Complex

Fiscal Year: 2040



### by Renewal Fiscal Year

Agency: Administration Location: Capital Complex Fiscal Year: 2040 Asset Name : State Office Building Parking Ramp Asset Number : 2a

System:	C1010-Partitions	Lifetime:	50
Name:	CMU Block Walls - Plain	Years Remaining:	29 (Observed)
Quantity:	7,934	% Used:	42 (Observed)
Unit Cost:	12.61	Year Installed:	1989
Replacement Cost:	100.048	Date Inspected:	11/08/2010
Unit of Measure:	SF	SCI:	0.00
RENEWAL			
Renewal FY:	2040	Renewal Cost:	62,530
% Renew:	63		

### DESCRIPTION

Interior walls are of 8-in. hollow concrete block, light and regular weight, with no finish at electric equipment room, stair towers and covered parking pods.

#### SYSTEM COSTS

Unit Cos	t Basis:	1,000.00					
Class	Code Label	Description		Quantity	Unit Cost	Unit	Total Cost
А	C10101046000	Concrere block (C weight, hollow, 8'	MU) partition, light thick, no finish	1,000.00	12.61	S.F.	12,610.00
						Subtotal:	12,610.00
					Adjust	ment Factor:	1.0000
						Total:	12,610.00
LINKED	REQUIREMENTS						
Name		Category	Priority	Inspector	A	Action Date	Cost
						Total	0


Agency: Administration Location: Capital Complex Fiscal Year: 2040 Asset Name : State Office Building Parking Ramp Asset Number : 2a

System:	D2040-Rain Water Drainage	Lifetime:	50
Name:	Surface Drainage - Gravity	Years Remaining:	29 (Observed)
Quantity:	140,400	% Used:	42 (Observed)
Unit Cost:	1.90	Year Installed:	1989
Replacement Cost:	266,199	Date Inspected:	11/08/2010
Unit of Measure:	SF	SCI:	0.00
RENEWAL			
Renewal FY:	2040	Renewal Cost:	332,749
% Renew:	125		

# DESCRIPTION

State of Minnesota

Rain water drainage includes interior piping, roof drains and 4-inch discharge piping by gravity flow to a municipal main. Exposed piping has also been heat traced for freeze protection.

# SYSTEM COSTS

Unit Cost Basis: 1,000.00

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	151503002320	Drain, floor, X-heavy duty, cast iron, 15" diameter anti-tilt grate, 4", 5", 6" and 8" pipe size	0.10	1,253.56	Ea.	125.36
U	157602504060	Electric heating, heat trace system, 400 degree, 208 V, 5 watts per L.F.	13.00	9.47	L.F.	123.11
A	D20402106120	Roof drain, steel galv sch 40 threaded, 3" diam piping, 10' high	0.15	2,586.55	Ea.	387.98
A	D20402106200	Roof drain, steel galv sch 40 threaded, 4" diam piping, 10' high	0.15	3,529.51	Ea.	529.43
А	D20908101080	Pipe cast iron, soil, B & S, no hub, 3" diameter	10.00	34.84	L.F.	348.40
А	D20908101100	Pipe cast iron, soil, B & S, no hub, 4" diameter	5.00	40.84	L.F.	204.20
A	D20908200980	Cast iron, soil, no hub, 1/4 bend, 3" diameter	0.50	13.48	Ea.	6.74
A	D20908200990	Cast iron, soil, no hub, 1/4 bend, 4" diameter	0.25	19.97	Ea.	4.99
А	D20908201110	Cast iron, soil, no hub, sanitary tee, 3" diameter	0.50	16.50	Ea.	8.25
А	D20908201120	Cast iron, soil, no hub, sanitary tee, 4" diameter	0.25	30.80	Ea.	7.70
A	D20908201320	Cast iron, soil, no hub, coupling clamp & gasket, 3" diameter	2.00	46.75	Ea.	93.50



# by Renewal Fiscal Year

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
А	D20908201330	Cast iron, soil, no hub, coupling clamp & gasket, 4" diameter	1.00	56.35	Ea.	56.35
					Subtotal:	1,896.01
	2			Adjust	ment Factor:	1.0000
					Total:	1,896.01

# LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
Pipe Insulation - Deteriorated	Mission	3- Necessary - Not Yet Critical	Mech	11/08/2015	3,903
				Total	3,903



# by Renewal Fiscal Year

Agency: Administration Location: Capital Complex Fiscal Year: 2041 Asset Name : State Office Building Parking Ramp Asset Number : 2a

System:	D40-Fire Protection	Lifetime:	30	
Name:	Fire Extinguishers - Dry Cher w/Cabinet	m Years Remaining:	30 (Observed)	
Quantity:	140,400	% Used:	0 (Observed)	
Unit Cost:	0.03	Year Installed:	2010	
Replacement Cost:	4,258	Date Inspected:	11/08/2010	
Unit of Measure:	SF	SCI:	0.00	
RENEWAL				
Renewal FY:	2041	Renewal Cost:	4.471	
% Renew:	105			

## DESCRIPTION

Handheld type dry chemical fire extinguishers are located throughout the building. Includes cabinets.

# SYSTEM COSTS

Unit Cost Basis:	1,000.00	

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	105252001100	Fire equipment cabinets, portable extinguisher, single, steel box, recessed, D.S. glass in door, steel door & frame, 8" x 12" x 27", excludes equipment	0.09	260.56	Ea.	23.45
U	105253001080	Fire extinguishers, dry chemical, pressurized, standard type, portable, painted, 10 lb	0.09	76.45	Ea.	6.88
					Subtotal:	30.33
				Adjust	ment Factor:	1.0000
					Total:	30.33

# LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
				Total	0

All costs in USD.





Agency: Administration Location: Capital Complex Fiscal Year: 2065 Asset Name : State Office Building Parking Ramp Asset Number : 2a

	System:	A-Substructure	Lifetime:	75
	Name:	Caissons (Drilled Pier) in Stable Ground	Years Remaining:	54 (Observed)
	Quantity:	46,800	% Used:	28 (Observed)
	Unit Cost:	9.37	Year Installed:	1989
	Replacement Cost:	438,699	Date Inspecied:	11/08/2010
	Unit of Measure:	Each	SC1:	0.00
RENEWAL				
	Renewal FY:	2065	Renewal Cost:	27,419
	% Renew:	6		

#### DESCRIPTION

This substructure includes concrete caissons, 50-ft. deep in wet or stable ground.

## SYSTEM COSTS

Unit Cos	t Basis:	1,000.00					
Class	Code Label	Description		Quantity	Unit Cost	Unit	Total Cost
A	A10203105200	Caisson, wet ground, 300 concrete, 10 KSF bearing 2' - 6" x 50' - 0"	0 PSI , 400K load,	1.60	5,858.69	Ea.	9,373.90
						Subtotal:	9,373.90
					Adjust	ment Factor:	1.0000
						Total:	9,373.90
LINKED	REQUIREMENTS						
Name		Category	Priority	Inspector	A	ction Date	Cost
						Total	0





Agency: Administration Location: Capital Complex Fiscal Year: 2065

1.00

Asset Name : State Office Building Parking Ramp Asset Number : 2a

	System:	A-Substructure	Lifetime:	75
	Name:	Foundation Wall and Footings 16-Ft - Full Basement	Years Remaining:	54 (Observed)
	Quantity:	882	% Used:	28 (Observed)
	Unit Cost:	577.36	Year Installed:	1989
	Replacement Cost:	509,232	Date Inspected:	11/08/2010
	Unit of Measure:	LF	SCI:	0.00
RENEWAL				
	Renewal FY:	2065	Renewal Cost:	31,827
	% Renew:	6		

# DESCRIPTION

Full basement wall and foundation with a 16-Ft. height to include strip footing, foundation walls and damp proofing. Also included are the underdrains.

# SYSTEM COSTS

Unit Cost B	asis:
-------------	-------

Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	071101000400	Bituminous Asphalt Coating, for foundation, below grade, 20.5 S.F./gal., sprayed on, 2 coat	16.00	1.72	S.F.	27.52
A	A10101104300	Strip footing, concrete, reinforced, load 25.8 KLF, soil bearing capacity 6 KSF, 12" deep x 56" wide	1.00	72.99	L.F.	72.99
A	A10103101650	Foundation underdrain, outside only, corrugated metal, 8" diameter	1.00	30.67	L.F.	30.67
A	A20201109500	Foundation wall, CIP, 16' wall height, crane & bucket ,,788 CY/LF, 38.38 PLF, 16"thk	1.00	446.18	L.F.	446.18
					Subtotal:	577.36
				Adjust	ment Factor:	1.0000
					Total:	577.36

# LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
				Total	0





Agency: Administration Location: Capital Complex Fiscal Year: 2065 Asset Name : State Office Building Parking Ramp Asset Number : 2a

	System:	A-Substructure	Lifetime:	75	
	Name:	Grade Beams - Average	Years Remaining:	54 (Observed)	
	Quantity:	46,800	% Used:	28 (Observed)	
	Unit Cost:	15.31	Year Installed:	1989	
	Replacement Cost:	716,322	Date Inspected:	11/08/2010	
	Unit of Measure:	SF	SCI:	0.00	
RENEWAL					
	Renewal FY:	2065	Renewal Cost:	44,770	
	% Renew:	6			

# DESCRIPTION

The substructure includes grade beams with a span of 30-feet and 40-inches deep.

# SYSTEM COSTS

Unit Co	st Basis:	1,000.00				
Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
A	A10202104580	Grade beam, 30' span, 40" deep, 12" wide, 4 KLF load	126.80	120.71	L.F.	15,306.03
					Subtotal:	15,306.03
				Adjust	ment Factor:	1.0000
					Total:	15,306.03

# LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
			1	Total	0



Agency: Administration Location: Capital Complex Fiscal Year: 2065 Asset Name : State Office Building Parking Ramp Asset Number : 2a

System:	A-Substructure	Lifetime:	75	
Name:	Structural Slab on Grade - Industrial	Light Years Remaining:	54 (Observed)	
Quantity:	46,800	% Used:	28 (Observed)	
Unit Cost:	9.24	Year Installed:	1989	
Replacement Cost:	432,432	Date Inspected:	11/08/2010	
Unit of Measure:	SF	SCI:	0.00	
RENEWAL				
Renewal FY:	2065	Renewal Cost:	27.027	
% Renew:	6			

# DESCRIPTION

State of Minnesota

The building substructure includes a light industrial type structural slab on grade.

# SYSTEM COSTS

Unit Cost Basis: 1,000.00

Class	Code Label	Description		Quantity	Unit Cost	Unit	Total Cost
A	A10301206760	Slab on grade, 8" thick, ligh reinforced	nt industrial,	1,000.00	9.24	S.F.	9,240.00
						Subtotal:	9,240.00
					Adjust	ment Factor:	1.0000
						Total:	9,240.00
LINKED	REQUIREMENTS						
Name		Category	Priority	Inspector	A	ction Date	Cost
						Total	0



Agency: Administration Location: Capital Complex Fiscal Year: 2065 Asset Name : State Office Building Parking Ramp Asset Number : 2a

	System:	B10-Superstructure	Lifetime:	75
	Name:	Multi-Story - Concrete	Years Remaining:	54 (Observed)
	Quantity:	140,400	% Used:	28 (Observed)
	Unit Cost:	33.02	Year Installed:	1989
	Replacement Cost:	4,635,334	Date Inspected:	11/08/2010
	Unit of Measure:	SF	SCI:	0.00
1	RENEWAL	-		
	Renewal FY:	2065	Renewal Cost:	289,708
	% Renew:	6		

#### DESCRIPTION

Multi-story lightweight structure with reinforced cast-in-place concrete construction.

## SYSTEM COSTS

Unit Cost Basis:		1,000.00				
Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
A	B10102033400	Cast-in-place concrete column, 24" square, tied, 900K load, 10' story height, 560 lbs/LF, 4000PS1	48.00	201.15	V.L.F.	9,655.20
A	B10102266700	Joist slab, cast-in-place concrete, multi-span, 16" deep rib, 24" column, 30'x30' bay, 200 PSF superimposed load, 297 PSF total load	1,000.00	23.36	S.F.	23,360.00
					Subtotal:	33,015.20
				Adjust	ment Factor:	1.0000
		<i>x</i>			Total:	33,015.20

# LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
				Total	0



# by Renewal Fiscal Year

Agency: Administration Location: Capital Complex Fiscal Year: 2065 Asset Name : State Office Building Parking Ramp Asset Number : 2a

System:	B10-Superstructure	Lifetime:	75
Name:	Single-Story - Steel Framed Roof on Bearing Walls	Years Remaining:	54 (Observed)
Quantity:	6,984	% Used:	28 (Observed)
Unit Cost:	5.54	Year Installed:	1989
Replacement Cost:	38,691	Date Inspected	11/08/2010
Unit of Measure:	SF	SCI	0.00
RENEWAL			
Renewal FY:	2065	Renewal Cost:	2.418
% Renew:	6		

## DESCRIPTION

The superstructure is a for single-story steel framed roof on bearing walls at stair towers and covered parking pods. Walls described elsewhere.

# SYSTEM COSTS

Unit Cost Basis:		1,000.00				
Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
A	B10201202250	Roof, steel joists, joist girder, 1.5" 22 ga metal deck, on columns/bearing wall, 30'x30' bay, 40 PSF superimposed load, 21.5" deep. 60 PSF total load	1,000.00	5.14	S.F.	5,140.00
A	B10201202300	Roof, steel joists, joist girder, 1.5" 22 ga metal deck, on columns/bearing wall, 30'x30' bay, 40 PSF superimposed load, 21.5" deep, 60 PSF total load, add for column	1,000.00	0.40	S.F.	400.00
					Subtotal:	5,540.00
				Adjust	ment Factor:	1.0000
					Total:	5,540.00

# LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
				Total	0



by Renewal Fiscal Year

# Agency: Administration Location: Capital Complex Fiscal Year: 2065

Asset Name : State Office Building Parking Ramp Asset Number : 2a

System:	B2010-Exterior Walls	Lifetime:	75
Name:	Granite Veneer Walls - Deluxe	Years Remaining:	54 (Observed)
Quantity:	8,029	% Used:	28 (Observed)
Unit Cost:	122.39	Year Installed:	1989
Replacement Cost:	982,675	Date Inspected:	11/08/2010
Unit of Measure:	SF	SCI:	0.00
RENEWAL			
Renewal FY:	2065	Renewal Cost:	61,417
% Renew:	6		

# DESCRIPTION

The exterior walls are of high quality, high cost granite veneer with concrete masonry unit (CMU) or cast-in-place (CIP) concrete backup wall.

## SYSTEM COSTS

Unit Cos	t Basis:	1,000.00				
Class	Code Label	Description	Quantity	Unit Cost	Unit	Total Cost
U	048503001900	Granite carving or bas-relief, from templates or plaster molds, maximum	20.00	744.21	C.F.	14,884.20
U	048503004100	Granite soffits, granite, 2" thick, maximum	50.00	253.93	S.F.	12,696.50
А	B20101287200	Stone wall, granite, grey or pink. 4" thick, 8' high, 8" CMU back-up	1,000.00	94.81	S.F.	94,810.00
					Subtotal:	122,390.70
				Adjust	ment Factor:	1.0000
					Total:	122,390.70

# LINKED REQUIREMENTS

Name	Category	Priority	Inspector	Action Date	Cost
				Total	0

Agency: Administration Location: Capital Complex Fiscal Year: 2065 Asset Name : State Office Building Parking Ramp Asset Number : 2a

System:	C20-Stairs	Lifetime:	75
Name:	Stairs - Average	Years Remaining:	54 (Observed)
Quantity:	4	% Used:	28 (Observed)
Unit Cost:	14,051.01	Year Installed:	1989
Replacement Cost:	56,204	Date Inspected:	11/08/2010
Unit of Measure:	Each	SCI:	0.00
RENEWAL			
Renewal FY:	2065	Renewal Cost:	21,077
% Renew:	38		

# DESCRIPTION

The interior stairs include 12 risers per flight with landing and 2 flights per story. Approximately 20 LF of side rail plus 14 feet of wall rail per flight included in cost estimate.

# SYSTEM COSTS

Unit Cost Basis: 1.00

Class	Code Label	Description		Quantity	Unit Cost	Unit	Total Cost
U	055207000940	Railing, pipe, steel, wall ra 1-1/2" dia, shop fabricated	il, primed,	14.00	39.86	L.F.	558.04
U	057207000560	Railing, ornamental, steel, posts @ 6' O.C., panelized,	3'-6" high, maximum	20.00	128.19	L.F.	2,563.80
А	C20101100720	Stairs, steel, cement filled picket rail, 12 risers, with l	metal pan & anding	1.00	10,929.17	Flight	10,929.17
						Subtotal:	. 14,051,01
					Adjust	nent Factor:	1.0000
						Total:	14.051.01
LINKED	REQUIREMENTS						
Name		Category	Priority	Inspector	A	ction Date	Cost

Total

All costs in USD.

0



# **By Asset Name and Priority**

State Office Building - Parking Deck (02a)

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State of Minnesota

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# By Asset Name and Priority

Agency: Administration Location: Capital Complex Priority: 1- Currently Critical Asset Name: State Office Building Parking Ramp Asset Number: 2a

Requirement Name	Electric Controls - Average Renewal		
Linked System	Controls and Instrumentation	Inspection Date	11/08/2010
Prime System	Controls and Instrumentation	Finish Date	-
Category	Beyond Useful Life	Status	Open
Inspector	System Renewal	Actual Cost	0
Action Date	11/08/2010	Estimated Cost	3,429

# REQUIREMENT DESCRIPTION

Auto generated renewal requirement for Electric Controls - Average. System Description: The building has electric wall-mounted thermostats, and a basic local HVAC control system. These controls work specifically with the electric fan coil cabinet heaters and unit heater. The square footage of this system has been adjusted to reflect the limited area that this system covers.

#### PHOTOS



Electric Controls - Average Renewal Electric Controls - Average Renewal

# ACTION DESCRIPTION

Estimated Cost= (System.Replacement Cost \* System.Percent Renew)/100

#### ESTIMATE

Code	Description	Quantity	Unit	Unit Cost	Total Cost
X-	Sum for Electric Controls - Average Renewal	1.00	Ea.	3,428.89	3,429
				Subtotal:	3,429
				Adjustment Factor:	1.0000
				Total:	3,429



# By Asset Name and Priority

State of Minnesota

Agency: Administration Location: Capital Complex Priority: 1- Currently Critical

Asset Name: State Office Building Parking Ramp Asset Number: 2a

Provide the second seco			
Requirement Name	Exterior Lighting - HID Canopy Lighting Renewal		
Linked System	Lighting Equipment	Inspection Date	11/08/2010
Prime System	Lighting Equipment	Finish Date	-
Category	Beyond Useful Life	Status	Open
Inspector	System Renewal	Actual Cost	0
Action Date	11/08/2010	Estimated Cost	25,584

## REQUIREMENT DESCRIPTION

Auto generated renewal requirement for Exterior Lighting - HID Canopy Lighting. System Description: Recessed HID lighting is installed under the upper level parking canopies.

# PHOTOS



Exterior Lighting - HID Canopy Lighting Renewal

# ACTION DESCRIPTION

Estimated Cost= (System.Replacement Cost \* System.Percent Renew)/100

## ESTIMATE

Code		Description	Quantity	Unit	Unit Cost	Total Cost
Х-	1. · · · ·	Sum for Exterior Lighting - HID Canopy Lighting	1.00	Ea.	25,583.63	25,584
		Renewal				
					Subtotal:	25,584
				Adjus	iment Factor:	1.0000
					Total:	25 584



# By Asset Name and Priority

State of Minnesota

Agency: Administration Location: Capital Complex Priority: 1- Currently Critical Asset Name: State Office Building Parking Ramp Asset Number: 2a

Requirement Name	Exterior Pole Lighting - Luminaires in Disrepair		
Linked System	Lighting Equipment	Inspection Date	11/08/2010
Prime System	Lighting Equipment	Finish Date	
Category	Beyond Useful Life	Status	Open
Inspector	Elec	Actual Cost	0
Action Date	11/08/2011	Estimated Cost	10,754

# REQUIREMENT DESCRIPTION

Pole mounted luminaires on the upper level are in disrepair with many globes broken.

# PHOTOS



Exterior Pole Lighting - Luminaires in Disrepair

Exterior Pole Lighting - Luminaires in Disrepair

#### ACTION DESCRIPTION

Replace the pole mounted fixtures on the upper level. Existing poles, controls and wiring to remain.

#### ESTIMATE

Code	Description	Quantity	Unit	Unit Cost	Total Cost
E015904000160W	Rent aerial lift to 25'high 2000 lb cap scissor type	1.00	Ea,/week	426.81	427
U022203500600	Selective demolition, rubbish handling, dumpster, 6 C.Y., 2 ton capacity, weekly rental, includes one dump per week, cost to be added to demolition cost.	1.00	Week	326.04	326
U160553002720	Mercury wall pack, exterior, 250 Watt, electrical demolition, remove	8.00	Ea.	55.12	441
U160553009000	Electrical demolition, minimum labor/equipment charge	8.00	Job	172.24	1,378

All costs in USD.

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# By Asset Name and Priority

Code	Description	Quantity	Unit	Unit Cost	Total Cost
U160555000120	Fixture hanger, 3/4" diameter, electrical demolition, remove	8.00	Ea.	22.97	184
U160555005040	Ballast, high intensity discharge fixture. electrical demolition, remove	8.00	Ea.	28.71	230
U160555006030	High intensity discharge lamp, up to 400 W, electrical demolition, remove	8.00	Ea.	10.13	81
U165203008050	Walkway luminaire, exterior, sphere 16" clear, high pressure sodium, 100 Watt	8.00	Ea	961.02	7,688
				Subtotal:	10,754
				Adjustment Factor:	1.0000
				Total:	10,754



# By Asset Name and Priority

Agency: Administration Location: Capital Complex Priority: 1- Currently Critical Asset Name: State Office Building Parking Ramp Asset Number: 2a

Requirement Name	Fire Alarm System Renewal		
Linked System	Fire Alarm Systems	Inspection Date	11/08/2010
Prime System	Fire Alarm Systems	Finish Date	-
Category	Beyond Useful Life	Status	Open
Inspector	System Renewal	Actual Cost	0
Action Date	11/08/2011	Estimated Cost	14,995

## REQUIREMENT DESCRIPTION

Auto generated renewal requirement for Fire Alarm System. System Description: There are a minimal number of fire alarm devices in the parking structure. Devices are monitored by the adjacent State Office Building.

# PHOTOS



Fire Alarm System Renewal

Fire Alarm System Renewal

# ACTION DESCRIPTION

Estimated Cost= (System.Replacement Cost \* System.Percent Renew)/100

#### ESTIMATE

Code	Description	Quantity	Unit	Unit Cost	Total Cost
X-	Sum for Fire Alarm System Renewal	1.00	Ea.	14,994.53	14,995
				Subtotal:	14,995
				Adjustment Factor:	1.0000
				Total:	14,995



# By Asset Name and Priority

Agency: Administration Location: Capital Complex Priority: 1- Currently Critical Asset Name: State Office Building Parking Ramp Asset Number: 2a

Requirement Name	Sump Pump - Submersible - 1/2 HP Renewal	1 N1	
Linked System	Plumbing	Inspection Date	11/08/2010
Prime System	Plumbing	Finish Date	-
Category	Beyond Useful Life	Status	Open
Inspector	System Renewal	Actual Cost	0
Action Date	11/08/2010	Estimated Cost	3,161

# REQUIREMENT DESCRIPTION

Auto generated renewal requirement for Sump Pump - Submersible - 1/2 HP. System Description: The water drainage system includes duplex sump 1/2 HP submersible pumps. Note: available Means cost line items for alarm system selected for budgetary purposes only.

# PHOTOS



Sump Pump - Submersible - 1/2 HP Renewal

Sump Pump - Submersible - 1/2 HP Renewal

# ACTION DESCRIPTION

Estimated Cost= (System.Replacement Cost \* System.Percent Renew)/100

#### ESTIMATE

Code	Description	Quantity	Unit	Unit Cost	Total Cost
X-	Sum for Sump Pump - Submersible - 1/2 HP Renewal	1.00	Ea.	3,161.45	3,161
				Subtotal:	3,161
				Adjustment Factor:	1.0000
				Total:	3,161



# By Asset Name and Priority

Agency: Administration Location: Capital Complex Priority: 1- Currently Critical Asset Name: State Office Building Parking Ramp Asset Number: 2a

Requirement Name	Unit Heaters - Electric Renewal		
Linked System	Terminal and Package Units	Inspection Date	11/08/2010
Prime System	Terminal and Package Units	Finish Date	
Category	Beyond Useful Life	Status	Open
Inspector	System Renewal	Actual Cost	0
Action Date	11/08/2010	Estimated Cost	5,830

## REQUIREMENT DESCRIPTION

State of Minnesota

Auto generated renewal requirement for Unit Heaters - Electric. System Description: Supplemental heating is provided by a suspended electric unit heater. This heater is located in the storage room.

# PHOTOS



Unit Heaters - Electric Renewal

Unit Heaters - Electric Renewal

# ACTION DESCRIPTION

Estimated Cost= (System.Replacement Cost \* System.Percent Renew)/100

#### ESTIMATE

Code	Description	Quantity	Unit	Unit Cost	Total Cost
Х-	Sum for Unit Heaters - Electric Renewal	1.00	Ea.	5,829.69	5,830
				Subtotal:	5,830
				Adjustment Factor:	1.0000
				Total:	5,830



# By Asset Name and Priority

Agency: Administration Location: Capital Complex Priority: 1- Currently Critical Asset Name: State Office Building Parking Ramp Asset Number: 2a

Requirement Name	VCT - Average Renewal		
Linked System	Floor Finishes	Inspection Date	11/08/2010
Prime System	Floor Finishes	Finish Date	-
Category	Beyond Useful Life	Status	Open
Inspector	System Renewal	Actual Cost	0
Action Date	11/08/2010	Estimated Cost	2,763

## REQUIREMENT DESCRIPTION

Auto generated renewal requirement for VCT - Average. System Description: Floor finishes include areas of standard VCT flooring and related base at stair towers.

# PHOTOS



VCT - Average Renewal

VCT - Average Renewal

## ACTION DESCRIPTION

Estimated Cost= (System.Replacement Cost \* System.Percent Renew)/100

# ESTIMATE

Code	Description	Quantity	Unit	Unit Cost	Total Cost
Х-	Sum for VCT - Average Renewal	1.00	Ea.	2,762.58	2,763
				Subtotal:	2,763
				Adjustment Factor:	1.0000
				Total:	2,763



# By Asset Name and Priority

Agency: Administration Location: Capital Complex Priority: 2- Potentially Critical Asset Name: State Office Building Parking Ramp Asset Number: 2a

Requirement Name	Emergency Lighting Renewal		
Linked System	Emergency Light and Power Systems	Inspection Date	11/08/2010
Prime System	Emergency Light and Power Systems	Finish Date	
Category	Beyond Useful Life	Status	Open
Inspector	System Renewal	Actual Cost	0
Action Date	11/08/2012	Estimated Cost	6,790

# REQUIREMENT DESCRIPTION

State of Minnesota

Auto generated renewal requirement for Emergency Lighting. System Description: There are a minimal number of emergency battery units in the stairwells.

### PHOTOS



Emergency Lighting Renewal

Emergency Lighting Renewal

# ACTION DESCRIPTION

Estimated Cost= (System.Replacement Cost \* System.Percent Renew)/100

## ESTIMATE

Code	Description	Quantity	Unit	Unit Cost	Total Cost
Х-	Sum for Emergency Lighting Renewal	1.00	Ea.	6,790.00	6,790
				Subtotal:	6,790
				Adjustment Factor:	1.0000
				Total:	6,790



# By Asset Name and Priority

Agency: Administration Location: Capital Complex Priority: 2- Potentially Critical Asset Name: State Office Building Parking Ramp Asset Number: 2a

Requirement Name	Exit Signs Renewal		
Linked System	Emergency Light and Power Systems	Inspection Date	11/08/2010
Prime System	Emergency Light and Power Systems	Finish Date	
Category	Beyond Useful Life	Status	Open
Inspector	System Renewal	Actual Cost	0
Action Date	11/08/2012	Estimated Cost	20,351

# REQUIREMENT DESCRIPTION

Auto generated renewal requirement for Exit Signs. System Description: Exit signs are a combination of incandescent and LED type signs. Most units do not have emergency battery backup. It is assumed exit signs are connected to emergency power panels.

## PHOTOS



Exit Signs Renewal

Exit Signs Renewal

# ACTION DESCRIPTION

Estimated Cost= (System.Replacement Cost \* System.Percent Renew)/100

#### ESTIMATE

Code	Description	Quantity	Unit	Unit Cost	Total Cost
Х-	Sum for Exit Signs Renewal	1.00	Ea.	20,351.44	20,351
				Subtotal:	20,351
				Adjustment Factor:	1.0000
				Total:	20,351



By Asset Name and Priority



Agency: Administration Location: Capital Complex Priority: 2- Potentially Critical Asset Name: State Office Building Parking Ramp Asset Number: 2a

Requirement Name	Interior Lighting - HID Wall Packs Renewal		
Linked System	Lighting Equipment	Inspection Date	11/08/2010
Prime System	Lighting Equipment	Finish Date	-
Category	Beyond Useful Life	Status	Open
Inspector	System Renewal	Actual Cost	0
Action Date	11/08/2012	Estimated Cost	20,880

#### REQUIREMENT DESCRIPTION

Auto generated renewal requirement for Interior Lighting - HID Wall Packs. System Description: HID wall packs are installed in the stairwells and on the upper level.

#### PHOTOS



Interior Lighting - HID Wall Packs Renewal

Interior Lighting - HID Wall Packs Renewal

# ACTION DESCRIPTION

Estimated Cost= (System.Replacement Cost \* System.Percent Renew)/100

# ESTIMATE

Code	Description	Quantity	Unit	Unit Cost	Total Cost
X-	Sum for Interior Lighting - HID Wall Packs Renewal	1.00	Ea.	20,879.81	20,880
				Subtotal:	20,880
				Adjustment Factor:	1.0000
				Total:	20,880

All costs in USD.

# By Asset Name and Priority

Agency: Administration Location: Capital Complex Priority: 2- Potentially Critical

Asset Name: State Office Building Parking Ramp Asset Number: 2a

Requirement Name	Parking Lot - Paint Striping (Diagonal) Renewal	-	
Linked System	Parking Lots	Inspection Date	11/08/2010
Prime System	Parking Lots	Finish Date	-
Category	Beyond Useful Life	Status	Open
Inspector	System Renewal	Actual Cost	0
Action Date	11/08/2012	Estimated Cost	22,997

## REQUIREMENT DESCRIPTION

State of Minnesota

Auto generated renewal requirement for Parking Lot - Paint Striping (Diagonal). System Description: Paint striping per vehicle stall. Includes budget allowance for handicap accessible parking symbols and other signage.

# PHOTOS



ACTION DESCRIPTION

Estimated Cost= (System.Replacement Cost \* System.Percent Renew)/100

#### ESTIMATE

Code	Description	Quantity	Unit	Unit Cost	Total Cost
X-	Sum for Parking Lot - Paint Striping (Diagonal) Renewal	1.00	Ea.	22,997.08	22,997
				Subtotal:	22,997
				Adjustment Factor:	1.0000
				Total:	22,997



By Asset Name and Priority

Agency: Administration Location: Capital Complex Priority: 3- Necessary - Not Yet Critical

Asset Name: State Office Building Parking Ramp Asset Number: 2a

Requirement Name	Exhaust System - Storage Room Renewal		
Linked System	Distribution Systems	Inspection Date	11/08/2010
Prime System	Distribution Systems	Finish Date	
Category	Beyond Useful Life	Status	Open
Inspector	System Renewal	Actual Cost	0
Action Date	11/08/2014	Estimated Cost	474

# REQUIREMENT DESCRIPTION

State of Minnesota

Auto generated renewal requirement for Exhaust System - Storage Room. System Description: The HVAC ventilation system includes two centrifugal fans for building exhaust ventilation. This fan serves the storage area.

## PHOTOS



Exhaust System - Storage Room Renewal

Exhaust System - Storage Room Renewal

# ACTION DESCRIPTION

Estimated Cost= (System.Replacement Cost \* System.Percent Renew)/100

#### ESTIMATE

Code	Description	Quantity	Unit	Unit Cost	Total Cost
X-	Sum for Exhaust System - Storage Room Renewal	1.00	Ea.	473.91	474
				Subtotal:	474
				Adjustment Factor:	1.0000
				Total:	474



State of Minnesota

Agency: Administration Location: Capital Complex Priority: 3- Necessary - Not Yet Critical Asset Name: State Office Building Parking Ramp Asset Number: 2a

Requirement Name	Exhaust System Renewal		
Linked System	Distribution Systems	Inspection Date	11/08/2010
Prime System	Distribution Systems	Finish Date	-
Category	Beyond Useful Life	Status	Open
Inspector	System Renewal	Actual Cost	0
Action Date	11/08/2014	Estimated Cost	107,002

#### REQUIREMENT DESCRIPTION

Auto generated renewal requirement for Exhaust System. System Description: The HVAC ventilation system includes two centrifugal fans for automotive exhaust ventilation.

# PHOTOS



Exhaust System Renewal

Exhaust System Renewal

## ACTION DESCRIPTION

Estimated Cost= (System.Replacement Cost \* System.Percent Renew)/100

#### ESTIMATE

Code	Description	Quantity	Unit	Unit Cost	Total Cost
Х-	Sum for Exhaust System Renewal	1.00	Ea.	107,001.95	107,002
				Subtotal:	107,002
				Adjustment Factor:	1.0000
				Total:	107,002

By Asset Name and Priority

Agency: Administration Location: Capital Complex Priority: 3- Necessary - Not Yet Critical

Asset Name: State Office Building Parking Ramp Asset Number: 2a

Requirement Name	Exterior Guard Rails - Failing Paint Finishes		
Linked System	Balcony Walls and Handrails	Inspection Date	11/08/2010
Prime System	Balcony Walls and Handrails	Finish Date	-
Category	Appearance	Status	Open
Inspector	Arch	Actual Cost	0
Action Date	11/08/2015	Estimated Cost	35,052

## REQUIREMENT DESCRIPTION

State of Minnesota

Painted metal guardrails around perimeter of parking deck, access ramps, etc. have peeling and flaking paint finishes. Rails are generally in good shape and recoating will extend the life of the system.

## PHOTOS



Exterior Guard Rails - Failing Paint Finishes

Exterior Guard Rails - Failing Paint Finishes

#### ACTION DESCRIPTION

Prep surfaces and recoat metal railings. Additional manhours included for miscellaneous railing adjustment and repairs.

#### ESTIMATE

Code	Description	Quantity	Unit	Unit Cost	Total Cost
LCARPJ	Carpenters	20.00	hour	81.24	1,625
LCLABJ	Common Building Laborers	80.00	hour	64.82	5,186
LPORDJ	Painters, Ordinary	160.00	hour	68.51	10,962
U099106200190	Paints & Coatings, misc. exterior, wrought iron railings, brushwork, zinc chromate, primer, 60" high, 1" rail, 1/2" sq. verticals, 6" O.C.	1,500.00	L.F.	5.03	7,545



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# By Asset Name and Priority

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State of Minnesota

Code	Description	Quantity	Unit	Unit Cost	Total Cost
U099106200200	Paints & Coatings, misc. exterior, wrought iron railings, brushwork, zinc chromate, 1 finish coat, 60" high, 1" rail, 1/2" sq. verticals, 6" O.C.	1,500.00	L.F.	4.59	6,885
U099909000750	Surface Preparation. exterior. siding, wire brush. aluminum, light	3,000.00	S.F.	0.95	2,850
				Subtotal:	35,052
				Adjustment Factor:	1.0000
				Total:	35,052



Agency: Administration Location: Capital Complex Priority: 3- Necessary - Not Yet Critical Asset Name: State Office Building Parking Ramp Asset Number: 2a

Requirement Name	Fluorescent Lighting - Aged and Inefficient		
Linked System	Lighting Equipment	Inspection Date	11/08/2010
Prime System	Lighting Equipment	Finish Date	
Category	Energy	Status	Open
Inspector	Elec	Actual Cost	0
Action Date	11/08/2015	Estimated Cost	1,510

## REQUIREMENT DESCRIPTION

State of Minnesota

Fluorescent lighting in the electrical/mechanical room on the lower level utilizes aged and inefficient T12 lamps and magnetic ballasts.

## PHOTOS



Fluorescent Lighting - Aged and Inefficient

Fluorescent Lighting - Aged and Inefficient

## ACTION DESCRIPTION

Replace the inefficient T12 lamps and magnetic ballasts in the lower level electrical/mechanical room with energy efficient T8 lamps and electronic ballasts. Hazardous waste costs included for lamp disposal.

#### ESTIMATE

Code	Description	Quantity	Unit	Unit Cost	Total Cost
RD50232600010	Replace fluor. ballast for fluorescent lighting fixture, 80 W	8.00	Ea.	129.19	1,034
RD50232600020	Replace lamps (2 lamps) fluorescent lighting fixture, 80 W	8.00	Ea.	35.46	284
U021103001120	Hazardous waste cleanup/pickup/disposal, solid pickup, bulk material, minimum	1.00	Ton	192.85	193
				Subtotal:	1,510
				Adjustment Factor:	1.0000

All costs in USD.

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By Asset Name and Priority

Total: 1,510



State of Minnesota

Agency: Administration Location: Capital Complex Priority: 3- Necessary - Not Yet Critical Asset Name: State Office Building Parking Ramp Asset Number: 2a

Requirement Name	Paint Masonry/Epoxy Finish - Economy Renewal		
Linked System	Wall Finishes	Inspection Date	11/08/2010
Prime System	Wall Finishes	Finish Date	-
Category	Beyond Useful Life	Status	Open
Inspector	System Renewal	Actual Cost	0
Action Date	11/08/2015	Estimated Cost	97,287

#### REQUIREMENT DESCRIPTION

Auto generated renewal requirement for Paint Masonry/Epoxy Finish - Economy. System Description: Wall finishes include paint on CMU or CIP concrete and minimum hi-build epoxy finish at stair towers and underground parking area walls.

#### PHOTOS



Paint Masonry/Epoxy Finish - Economy Renewal

Paint Masonry/Epoxy Finish - Economy Renewal

# ACTION DESCRIPTION

Estimated Cost= (System.Replacement Cost \* System.Percent Renew)/100

#### ESTIMATE

Code	Description	Quantity	Unit	Unit Cost	Total Cost
Х-	Sum for Paint Masonry/Epoxy Finish - Economy Renewal	1.00	Ea.	97,287.38	97,287
				Subtotal:	97,287
				Adjustment Factor:	1.0000
				Total:	97,287



# By Asset Name and Priority

Agency: Administration Location: Capital Complex Priority: 3- Necessary - Not Yet Critical Asset Name: State Office Building Parking Ramp Asset Number: 2a

Requirement Name	Pipe Insulation - Deteriorated		
Linked System	Rain Water Drainage	Inspection Date	11/08/2010
Prime System	Rain Water Drainage	Finish Date	
Category	Mission	Status	Open
Inspector	Mech	Actual Cost	0
Action Date	11/08/2015	Estimated Cost	3,903

# REQUIREMENT DESCRIPTION

Some of the pipe insulation on the rain water drainage lines is missing or damaged. This piping should be re-insulated to prevent freezing and pipe damage.

## PHOTOS



Pipe Insulation - Deteriorated

Pipe Insulation - Deteriorated

## ACTION DESCRIPTION

Replace the missing or damaged drain pipe insulation.

## ESTIMATE

Code	Description	Quantity	Unit	Unit Cost	Total Cost
LCLAMJ	Common Maintenance Laborer	40.00	hour	45.57	1,823
U150806006940	Insulation, pipe covering (price copper tube one size less than I.P.S.), fiberglass with all service jacket, 1" wall, 4" iron pipe size	100.00	L.F.	10.72	1,072
U150806006960	Insulation, pipe covering (price copper tube one size less than I.P.S.), fiberglass with all service jacket, 1" wall, 6" iron pipe size	50.00	L.F.	13.27	664



Total:

# y Asset Name and Priority

Total Cost

344

3.903 1.0000

3,903

				By Asset Name
Code	Description	Quantity	Unit	Unit Cost
U150806006980	Insulation, pipe covering (price copper tube one size less than I.P.S.), fiberglass with all service jacket, 1" wall, 8" iron pipe size	20.00	L.F.	17.22
				Subtotal:
				Adjustment Factor:

All costs in USD.

State of Minnesota

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MN State Office Building & Parking Deck Preservation, Restoration and Repairs Predesign

FINAL DRAFT

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# MINNESOTA HISTORICAL SOCIETY Minnesota State Archives

# ADMINISTRATION DEPARTMENT Plant Management Division

# An Inventory of Its State Office Building Drawings

# OVERVIEW OF THE RECORDS

Agency:	Minnesota. Dept. of Administration. Division of Plant Management.
Series Title:	State office building drawings.
Dates:	1931-1984.
Quantity:	5.85 cu. ft. (4 boxes and 1 partial box).
Location:	See Detailed Description section for box locations.

# SCOPE AND CONTENTS OF THE RECORDS

Architectural and engineering plans and drawings, in various media (linen tracings, bluelines, blueprints, sepias, blacklines, and paper prints), for the construction and subsequent electrical, mechanical, and remodeling work done on the State Office Building, located on Park Street west of the state Capitol building in St. Paul. C. H. Johnston was the initial architect on the building.

# ARRANGEMENT OF THE RECORDS

The drawings are arranged by project; in approximate chronological order.

# **INDEX TERMS**

This collection is indexed under the following headings in the catalog of the Minnesota Historical Society. Researchers desiring materials about related topics, persons or places should search the catalog using these headings.

**Topics:** 

Public buildings-Minnesota.

# **Persons:**

Johnston, Clarence H. (Clarence Howard), 1859-1936.
**Places:** 

Saint Paul (Minn.)—Public buildings.

### **Organizations:**

State Office Building (Saint Paul, Minn.).

#### **Types of Documents:**

Architectural drawings. Blackline prints. Blueline prints. Blueprints. Engineering drawings. Sepia prints.

# ADMINISTRATIVE INFORMATION

#### **Preferred Citation:**

[Indicate the cited item and folder/roll title here]. Minnesota. Dept. of Administration. Division of Plant Management. State Office Building Drawings. Minnesota Historical Society. State Archives.

See the Chicago Manual of Style for additional examples.

### **Accession Information:**

Accession number(s): 987-36; 987-98; 989-157

## **Processing Information:**

Catalog ID No.: 1713923

# DETAILED DESCRIPTION OF THE COLLECTION

Note to Researchers: To request materials, please note the location shown below.

Location	Folder	
111.H.5.3B	1	Specification of Material and Labor to Be Furnished and Performed in Erection of the Minnesota State Office Building, September 1931. 1 volume in folder. C. H. Johnston, Architect.
	2	<ul> <li>Miscellaneous bid instructions, 1931. 5 items in 1 folder.</li> <li>Proposal blank, [undated].</li> <li>Bulletin No. 1, October 31, 1931.</li> <li>Instructions to Builders, November 2, 1931.</li> <li>Bulletin No. 2, November 9, 1931.</li> <li>Bulletin No. 3, November 13, 1931.</li> </ul>

Location 112.C.4.1	Roll

Order No. 3174.
Drawing No. 1, Plot plan, September 1931. Linen tracing.
Drawing No. 2, Stair details and tunnel, September 1931. Linen tracing.
Drawing No. 3, East elevation, September 1931. Linen tracing.
Drawing No. 4, North elevation, September 1931. Linen tracing.
Drawing No. 5, West elevation, September 1931. Linen tracing.
Drawing No. 6, South elevation, September 1931. Linen tracing.
Drawing No. 7, Section and elevation drawings, September 1931. Linen tracing.
Drawing No. 8, Basement floor plan, September 1931. Linen tracing.
Drawing No. 9, Ground floor plan, September 1931. Linen tracing.
Drawing No. 10, First floor plan, September 1931. Linen tracing.
Drawing No. 11, Second floor plan, September 1931. Linen tracing.
Drawing No. 12, Third floor plan, September 1931. Linen tracing.
Drawing No. 13, Fourth floor plan, September 1931. Linen tracing.
Drawing No. 14, Fifth floor plan, September 1931. Linen tracing.
Drawing No. 15, Sixth floor plan, September 1931. Linen tracing.
Drawing No. 16, Roof and penthouse plans, September 1931. Linen tracing.
Drawing No. 17, Entrance details, September 1931. Linen tracing.

Location	Roll	
112.C.4.1	1	Drawing No. 18, Entrance details, September 1931. Linen tracing.
		Drawing No. 19, Spandrel sections, pier plan, September 1931. Linen tracing.
		Drawing No. 20, Lobby and entrance details, September 1931. Linen tracing.
		Drawing No. 21, Auditorium details, September 1931. Linen tracing.
		Drawing No. 22, Elevators, September 1931. Linen tracing.
		Drawing No. 23, Column and footing schedules, September 1931. Linen tracing.
		Drawing No. 24, Beam framing and details, September 1931. Linen tracing.
		Drawing No. 25, Wall elevations, September 1931. Blueprint.
112.C.4.1	2	Order No. 3174. Blueprint or blueline copies of linen tracings in Roll 1.
		Drawing No. 1, Plot plan, September 1931. Blueprint.
		Drawing No. 2, Stair details and tunnel, September 1931. Blueprint.
		Drawing No. 3, East elevation, September 1931. Blueline.
		Drawing No. 4, North elevation, September 1931. Blueprint.
		Drawing No. 5, West elevation, September 1931. Blueprint.
		Drawing No. 6, South elevation, September 1931. Blueline.
		Drawing No. 7, Section and elevation drawings, September 1931. Blueprint.
		Drawing No. 8, Basement floor plan, September 1931. Blueprint.
		Drawing No. 9, Ground floor plan, September 1931. Blueprint.

Roll	
2	Drawing No. 10, First floor plan, September 1931. Blueprint.
	Drawing No. 11, Second floor plan, September 1931. Blueprint.
	Drawing No. 12, Third floor plan, September 1931. Blueprint.
	Drawing No. 13, Fourth floor plan, September 1931. Blueprint.
	Drawing No. 14, Fifth floor plan, September 1931. 2 copies. Blueprint.
	Drawing No. 15, Sixth floor plan, September 1931. Blueprint.
	Drawing No. 16, Roof and penthouse plans, September 1931. Blueprint.
	Drawing No. 17, Entrance details, September 1931. Blueprint.
	Drawing No. 18, Entrance details, September 1931. Blueprint.
	Drawing No. 19, Spandrel sections, pier plan, September 1931. Blueprint.
	Drawing No. 20, Lobby and entrance details, September 1931. Blueprint.
	Drawing No. 21, Auditorium details, September 1931. Blueprint.
	Drawing No. 22, Elevators, September 1931. Blueprint.
	Drawing No. 23, Column and footing schedules, September 1931. Blueprint.
	Drawing No. 24, Beam framing and details, September 1931. Blueprint.
	Drawing No. 25, Wall elevations, September 1931. Blueprint.

Location

112.C.4.1

Location	Roll	
112.C.4.1	3	Order No. 3174. All sepia prints.
		Drawing No. 8, Basement floor plan, September 1931, revised August 1972.
		Drawing No. 10, First floor plan, September 1931, revised August 1972.
		Drawing No. 11, Second floor plan, September 1931, revised August 1972.
		Drawing No. 14, Fifth floor plan, September 1931, revised March 8, 1932.
		Drawing No. 15, Sixth floor plan, September 1931.
112.C.4.1	4	Miscellaneous electrical, mechanical prints: Pillsbury Engineering Company. All linen blueprints.
		<ul> <li>Order No. 3762-14B, Fifth floor revisions, May 22, 1932.</li> <li>Order No. 3762-15B, Under floor duct revisions (2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup>, 5<sup>th</sup> floors), June 10, 1932.</li> <li>Order No. 3762-16B, Second floor revisions, July 5, 1932.</li> <li>Order No. 3762-17B, Fifth floor revisions, July 7, 1932.</li> <li>Order No. 3762-18B, Ground floor revisions (void, not installed), July 8, 1932.</li> <li>Order No. 3762-20B, Fifth floor revisions, July 8, 1932.</li> <li>Order No. 3762-20B, Sixth floor revisions, July 16, 1932.</li> <li>Order No. 3762-21B, Ground and first floor revisions, July 20, 1932.</li> <li>Order No. 3762-22B, Basement revisions, July 20, 1932.</li> <li>Order No. 3762-23B, Second floor revisions, July 26, 1932.</li> <li>Order No. 3762-24B, Ground floor revisions, August 1, 1932.</li> <li>Order No. 3762-25B, Ground floor revisions, August 1, 1932.</li> </ul>
		Order No. 3762-26B, Ground floor revisions, August 1, 1932. Order No. 3762-27B, Fifth floor revisions, September 16, 1932.
112.C.4.1	5	Miscellaneous electrical prints. All blueprints.
		<ul> <li>Drawing No. 1, Basement floor plan, October 20, 1931.</li> <li>Drawing No. 1-A, Basement floor plan, sprinklers and electric connections, October 20, 1931.</li> <li>Drawing No. 2, Ground floor plan, October 20, 1931.</li> <li>Drawing No. 2-A, Ground floor plan, under floor duct, October 20, 1931.</li> <li>Drawing No. 3, First floor plan, October 20, 1931.</li> </ul>

Location	Roll	
112.C.4.1	5	Drawing No. 3-A, First floor plan, under floor duct, October 20, 1931.
		Drawing No. 4, Second floor plan, October 20, 1931. Drawing No. 4-A, Second floor plan, under floor duct, October 20, 1931.
		Drawing No. 5, Third floor plan, October 20, 1931. Drawing No. 6, Fourth floor plan, October 20, 1931.
		Drawing No. 7, Fifth floor plan, October 20, 1931.
		Drawing No. 8, Sixth floor plan, October 20, 1931. Drawing No. 8-A, Sixth floor plan, under floor duct, October 20, 1931.
		Drawing No. 9, Roof and penthouse plan, October 20, 1931. Drawing No. 10, West half of Capitol, new tunnel, tunnel details, October 20, 1931. 2 copies.
		Drawing No. 11, Plot plan, east half of Capitol tunnel to power plant, October 20, 1931. 2 copies.
		Drawing No. 12, Basement and first floor plan of power plant, October 20, 1931.
		Drawing No. 13, Plumbing and heating details, October 20, 1931. Drawing No. 14, Heating riser diagram, October 20, 1931.
		1931. 2 copies.
112.C.4.1	6	Electrical work by Commonwealth. All bluelines.
		Drawing No. 1, Sub-basement plan, January 3, 1932. Drawing No. 2, Ground floor plan, January 11, 1932, last revised July 23, 1932.
		Drawing No. 2-A, Ground floor plan, under floor duct, January 11, 1932.
		Drawing No. 3, First floor plan, January 11, 1932, last revised July 23, 1932.
		Drawing No. 3-A, First floor plan, under floor duct, January 19, 1932, last revised July 23, 1932.
		Drawing No. 4, Second floor plan, January 25, 1932, last revised July 26, 1932.
		Drawing No. 4-A, Second floor plan, under floor duct, May 5, 1932. Drawing No. 5, Third floor plan, February 1, 1932, last revised June
		29, 1932.
		Drawing No. 5-A, Third floor plan, under floor duct, May 13, 1932, last revised June 11, 1932.

Location	Roll	
112.C.4.1	6	Drawing No. 6, Fourth floor plan, March 14, 1932, last revised April 5, 1932.
		Drawing No. 6-A, Fourth floor plan, under floor duct, May 18, 1932. Drawing No. 7, Fifth floor plan, April 12, 1932, last revised July 11, 1932.
		Drawing No. 7-A, Fifth floor plan, under floor duct, [?], last revised July 11, 1932.
		Drawing No. 8, Sixth floor plan, April 16, 1932, last revised July 21, 1932.
		Drawing No. 8-A, Sixth floor plan, under floor duct, April 19, 1932. Drawing No. 9, Roof plan and penthouse, April 22, 1932.
112.C.4.2	7	Electrical work by Commonwealth. All linen blueprints.
		Drawing No. 1, Sub-basement plan, January 3, 1932. Drawing No. 2, Ground floor plan, January 11, 1932, last revised July 23, 1932.
		Drawing No. 2-A, Ground floor plan, under floor duct, January 11, 1932.
		Drawing No. 3, First floor plan, January 11, 1932, last revised July 23, 1932.
		Drawing No. 3-A, First floor plan, under floor duct, January 19, 1932, last revised July 23, 1932.
		Drawing No. 4, Second floor plan, January 25, 1932, last revised July 26, 1932.
		Drawing No. 4-A, Second floor plan, under floor duct, May 5, 1932. Drawing No. 5, Third floor plan, February 1, 1932, last revised June 29, 1932.
		Drawing No. 5-A, Third floor plan, under floor duct, May 13, 1932, last revised June 11, 1932.
		Drawing No. 6, Fourth floor plan, March 14, 1932, last revised April 5, 1932.
		Drawing No. 6-A, Fourth floor plan, under floor duct, May 18, 1932.
		Drawing No. 7, Fifth floor plan, April 12, 1932, last revised July 11, 1932.
		Drawing No. 7-A, Fifth floor plan, under floor duct, [?], last revised July 11, 1932.
		Drawing No. 8, Sixth floor plan, April 16, 1932, last revised July 21, 1932.
		Drawing No. 8-A, Sixth floor plan, under floor duct, April 19, 1932. Drawing No. 9, Roof plan and penthouse, April 22, 1932.

Location	Roll	
112.C.4.4	7A	Rehabilitating power plant, conversion DC to AC, Capitol group of buildings, G. M. Orr Engineering. All paper prints.
		<ul> <li>Drawing No. 0-1, Riser diagram, April 8, 1954.</li> <li>Drawing No. 0-2, Basement electrical, April 8, 1954.</li> <li>Drawing No. 0-3, Basement switchboard room, April 8, 1954.</li> <li>Drawing No. 0-4, Ground floor electrical, April 8, 1954.</li> <li>Drawing No. 0-5, First floor electrical, April 8, 1954.</li> <li>Drawing No. 0-6, Second floor electrical, April 8, 1954.</li> <li>Drawing No. 0-7, Third floor electrical, April 8, 1954.</li> <li>Drawing No. 0-8, Fourth floor electrical, April 8, 1954.</li> <li>Drawing No. 0-9, Fifth floor electrical, April 8, 1954.</li> <li>Drawing No. 0-10, Sixth floor electrical, April 8, 1954.</li> <li>Drawing No. 0-11, Penthouse electrical, April 8, 1954.</li> <li>Drawing No. 0-13, Motor replacement and load center data, April 8, 1954.</li> <li>Job 324, Electrical remodeling, G. M. Orr Engineering Co. All blueprints.</li> </ul>
		Drawing No. 6, Basement floor and ground floor, [ca. 1954]. Drawing No. 7, First floor and second floor, [ca. 1954]. Drawing No. 8, Third floor and fourth floor, [ca. 1954]. Drawing No. 9, Fifth floor and sixth floor, [ca. 1954].
112.C.4.2	8	State Project No. 2338, New lighting fixtures, rooms 206 and 207, March 8, 1956. Blueprint.
		State Project No. 2409, Rebuilding of loading ramp, west side of State Office Building, August 10, 1956. Blueprint.
		State Project No. 2361, New air conditioning system, room 537, May 16, 1956. Blueprint.
		State Project No. 2485, Repair sidewalk and waterproof tunnel, February 28, 1957, last revised March 29, 1957. Blueprint.
		Fan for barber shop, [1960]. Blueprint.
		State Project No. 3238, Remodeling public examiners office, June 16, 1960. Blueprint.

Location	Roll	
112.C.4.2	8	Remodeling third floor, April 22, 1960. Blueline.
112.C.4.2	9	State Project No. 3231, Ellerbe & Co., Architects and Engineers. Drawing No. A-1, Basement floor plan, [undated]. Blueline.
		Basement floor plan, copy, no dimensions or PR11, August 1977. Sepia.
		Drawing No. A-1, Basement floor plan, October 20, 1960, last revised February 12, 1962. Sepia.
		Drawing No. A-2, Ground floor plan, October 20, 1960, last revised February 12, 1962. Sepia.
		Ground floor plan, copy, no dimensions, etc., August 1977. Sepia.
		Drawing No. A-3, First floor plan, October 20, 1960, last revised February 12, 1962. Sepia.
		First floor plan, copy, no dimensions, etc., September 1977. Sepia.
		Drawing No. A-3, First floor plan, October 20, 1960. Blueline.
		Drawing No. A-4, Second floor plan, October 20, 1960, last revised February 12, 1962. Sepia.
		Second floor plan, copy, no dimensions, etc., September 1977. Sepia.
		Drawing No. A-4, Second floor plan, October 20, 1960. Blueline.
		Drawing No. A-5, Third floor plan, October 20, 1960, last revised February 12, 1962. Sepia.
		Third floor plan, copy, no dimensions, etc., October 1977. Sepia.
		Drawing No. A-5, Third floor plan, October 20, 1960. Blueline.

Location	Roll	
112.C.4.2	9	Drawing No. A-6, Fourth floor plan, October 20, 1960, last revised February 12, 1962. Sepia.
		Fourth floor plan, copy, no dimensions, etc., October 1977. Sepia.
		Drawing No. A-6, Fourth floor plan, October 20, 1960. Blueline.
		Drawing No. A-7, Fifth floor plan, October 20, 1960, last revised February 12, 1962. Sepia.
		Fifth floor plan, copy, no dimensions, etc., October 1977. Sepia.
		Drawing No. A-7, Fifth floor plan, October 20, 1960. Blueline.
		Drawing No. A-8, Sixth floor plan, October 20, 1960, last revised February 12, 1962. Sepia.
		Sixth floor plan, copy, no dimensions, etc., October 1977. Sepia.
		Drawing No. A-8, Sixth floor plan, [1960]. Blueline.
		Drawing No. A-9, Exterior and stair details, October 20, 1960, last revised February 12, 1962. Sepia.
		Drawing No. A-9, Exterior and stair details, October 20, 1960. Blueline.
		Drawing No. A-10, Miscellaneous details, October 20, 1960, last revised February 12, 1962. Sepia.
		Drawing No. A-10, Miscellaneous details, October 20, 1960. Blueline.
		Drawing No. A-11, Signs, October 20, 1960, last revised February 12, 1962. Sepia.
		Drawing No. A-11, Signs, October 20, 1960. Blueline.

Location	Roll	
112.C.4.2	9	Drawing No. S-1, Stair plan and details, October 20, 1960, last revised February 12, 1962. Sepia.
		Drawing No. S-1, Stair plan and details, October 20, 1960. Blueline.
112.C.4.2	10	State Project No. 3231, Ellerbe & Co., Architects and Engineers. All blueline unless otherwise noted.
		<ul> <li>Drawing No. A-1, Basement floor plan, October 20, 1960.</li> <li>Drawing No. A-2, Ground floor plan, October 20, 1960.</li> <li>Drawing No. A-3, First floor plan, October 20, 1960.</li> <li>Drawing No. A-4, Second floor plan, October 20, 1960.</li> <li>Drawing No. A-5, Third floor plan, October 20, 1960.</li> <li>Drawing No. A-6, Fourth floor plan, October 20, 1960.</li> <li>Drawing No. A-7, Fifth floor plan, October 20, 1960.</li> <li>Drawing No. A-8, Sixth floor plan, October 20, 1960.</li> <li>Drawing No. A-9, Exterior and stair details, October 20, 1960.</li> <li>Drawing No. A-10, Miscellaneous details, October 20, 1960.</li> <li>Drawing No. S-1, Stair plan and details, October 20, 1960.</li> <li>Drawing No. E-1, Electrical basement floor plan, October 20, 1960.</li> <li>Drawing No. E-102, Electrical-modification no. 9, part first floor plan, March 6, 1961.</li> <li>Sepia.</li> </ul>
		Drawing No. E-3, Electrical first floor plan, October 20, 1960. Drawing No. E-4, Electrical second floor plan, October 20, 1960. Drawing No. E-5, Electrical third floor plan, October 20, 1960. Drawing No. E-6, Electrical fourth floor plan, October 20, 1960. Drawing No. E-7, Electrical fifth floor plan, October 20, 1960. Drawing No. E-8, Electrical sixth floor plan, October 20, 1960.
		1960. Drawing No. E-10, Under floor duct, first floor plan, October 20, 1960.
		Drawing No. E-11, Under floor duct, second floor plan, October 20, 1960.
		Drawing No. E-12, Under floor duct, fourth floor plan, October 20, 1960.
		Drawing No. E-13, Under floor duct, fifth floor plan, October 20, 1960.

Location	Roll	
112.C.4.2	10	<ul> <li>Drawing No. E-14, Under floor duct, sixth floor plan, October 20, 1960.</li> <li>Drawing No. E-15, Electrical details, October 20, 1960.</li> <li>Drawing No. M-1, Fourth floor mechanical plan, October 20, 1960.</li> <li>Drawing No. M-2, Fifth floor mechanical plan, October 20, 1960.</li> <li>Drawing No. M-3, Sixth floor mechanical plan, October 20, 1960.</li> <li>Drawing No. M-4, Roof plan, October 20, 1960.</li> <li>Drawing No. M-5, Laboratory equipment and services layout, January 12, 1961.</li> <li>Drawing No. M-6, Laboratory equipment and services layout, January 12, 1961.</li> </ul>
112.C.4.2	11.	<ul> <li>January 12, 1961.</li> <li>State Project No. 2471, Thorshov and Cerny, Inc., Architects. All blacklines.</li> <li>Drawing No. A-1, Title sheet (A-1 - A-53, E-1 - E-19, M-1 - M-32, S-1 - S-28), January 20, 1958.</li> <li>Drawing No. A-2, Plot plans and soil borings, January 20, 1958.</li> <li>Drawing No. A-3, Door and frame schedules, January 20, 1958.</li> <li>Drawing No. A-4, Door and frame type schedule, January 20, 1958.</li> <li>Drawing No. A-5, 1/16 key plans sub-basement and basement, January 20, 1958.</li> <li>Drawing No. A-6, 1/16 key plans first floor and second floor, January 20, 1958.</li> <li>Drawing No. A-6, 1/16 key plans third floor and fourth floor, January 20, 1958.</li> <li>Drawing No. A-7, 1/16 key plans fifth floor, roof and roof structures, January 20, 1958.</li> <li>Drawing No. A-9, 1/8 sub-basement plan, January 20, 1958.</li> <li>Drawing No. A-9, 1/8 basement plan, north, January 20, 1958.</li> <li>Drawing No. A-11, 1/8 basement plan, south, January 20, 1958.</li> <li>Drawing No. A-12, 1/8 plan first floor, north, January 20, 1958.</li> <li>Drawing No. A-13, 1/8 plan first floor, south, January 20, 1958.</li> <li>Drawing No. A-14, 1/8 plan second floor, north, January 20, 1958.</li> <li>Drawing No. A-15, 1/8 plan third floor, south, January 20, 1958.</li> </ul>
		Drawing No. A-18, 1/8 plan fourth floor, north, January 20, 1958. Drawing No. A-19, 1/8 plan fourth floor, south, January 20, 1958. Drawing No. A-29, 1/8 plan fifth floor, north, January 20, 1958. Drawing No. A-21, 1/8 plan fifth floor, south, January 20, 1958.

Location	Roll	
112.C.4.2	11	Drawing No. A-22, 1/8 plan roof structures and details, January 20, 1958.
		Drawing No. A-23, North and east elevations, details, January 20, 1958.
		Drawing No. A-24, South and west elevations, details, January 20, 1958.
		Drawing No. A-25, <sup>1</sup> / <sub>4</sub> longitudinal section and fire door details, January 20, 1958.
		Drawing No. A-26, <sup>1</sup> / <sub>4</sub> transverse section and exterior wall detail, January 20, 1958.
		Drawing No. A-27, 1/4 stair sections and details, January 20, 1958.
112.C.4.3	12	Drawing No. A-28, Reflected ceiling plan, north and south basement, January 20, 1958.
		Drawing No. A-29, Reflected ceiling plan, first floor and details, January 20, 1958.
		Drawing No. A-30, Reflected ceiling plan, typical second floor above, January 20, 1958.
		Drawing No. A-31, Plan of first floor lobby and details, January 20, 1958.
		Drawing No. A-32, Entrance lobby elevations and details, January 20, 1958.
		Drawing No. A-33, Entrance canopy and lobby stair details, January 20, 1958.
		Drawing No. A-34, Exterior building and stone stair details, January 20, 1958.
		Drawing No. A-35, Window wall panel details, January 20, 1958. Drawing No. A-36, Miscellaneous and expansion joint details, January 20, 1958.
		Drawing No. A-37, Miscellaneous interior details, January 20, 1958.
		Drawing No. A-38, Miscellaneous interior details, January 20, 1958.
		Drawing No. A-39, Loading area details, January 20, 1958.
		Drawing No. A-40, North conveyor plans, sections, and details,
		Drawing No. A-41, South conveyor plans, sections, and details, January 20, 1958
		Drawing No. A-42, Core plans, units A and B, January 20, 1958. Drawing No. A-43, Core plans, units C and D, January 20, 1958. Drawing No. A-44, Elevator sections and details January 20, 1958.
		[Missing: Drawing No. A-45]
		Drawing No. A-46, Cafeteria and kitchen plans, January 20, 1958.

Location	Roll	
112.C.4.3	12	<ul> <li>Drawing No. A-47, Cafeteria and kitchen elevations, January 20, 1958.</li> <li>Drawing No. A-48, Cafeteria and kitchen snack bar details, January 20, 1958.</li> <li>Drawing No. A-49, Laboratory plans and elevations, January 20, 1958.</li> </ul>
		<ul> <li>Drawing No. A-50, Laboratory plans and elevations, equipment schedule, January 20, 1958.</li> <li>Drawing No. A-51, Demountable partitions and typical office details, January 20, 1958.</li> <li>Drawing No. A-52, Reception area typical details, January 20, 1958.</li> <li>Drawing No. A-53, Tunnel plans and details, January 20, 1958.</li> </ul>
112.C.4.3	13	State Project No. 2471, Thorshov and Cerny, Inc., Architects. All paper prints.
		<ul> <li>Drawing No. M-1, Plot plan, January 20, 1958.</li> <li>Drawing No. M-3, Sub-basement plan, January 20, 1958.</li> <li>Drawing No. M-5, Basement plan, north, January 20, 1958.</li> <li>Drawing No. M-6, Basement plan, south, heating and air conditioning, January 20, 1958.</li> <li>Drawing No. M-7, Basement plan, south, plumbing, January 20, 1958.</li> </ul>
		<ul> <li>Drawing No. M-8, First floor plan, north, January 20, 1958.</li> <li>Drawing No. M-9, First floor plan, south, January 20, 1958.</li> <li>Drawing No. M-10, Second floor plan, north, January 20, 1958.</li> <li>Drawing No. M-11, Second floor plan, south, January 20, 1958.</li> <li>Drawing No. M-12, Third floor plan, north, January 20, 1958.</li> <li>Drawing No. M-13, Third floor plan, south, January 20, 1958.</li> <li>Drawing No. M-14, Fourth floor plan, north, January 20, 1958.</li> <li>Drawing No. M-15, Fourth floor plan, south, January 20, 1958.</li> <li>Drawing No. M-16, Fifth floor plan, north, January 20, 1958.</li> <li>Drawing No. M-17, Fifth floor plan, south, January 20, 1958.</li> <li>Drawing No. M-18, Roof and roof structures plan, north, January 20, 1958.</li> </ul>
		Drawing No. M-19, Roof and roof structures plan, south, January 20, 1958.
		Drawing No. M-20, Tunnel plan details, January 20, 1958. Drawing No. M-21, Sub-basement mechanical room, south, January 20, 1958.
		Drawing No. M-22, Basement mechanical room, January 20, 1958. Drawing No. M-23, Duct shaft, sections, January 20, 1958. Drawing No. M-24, Ventilating details, January 20, 1958.

Location	Roll	
112.C.4.3	13	<ul> <li>Drawing No. M-25, Refrigeration and air conditioning piping diagrams, January 20, 1958.</li> <li>Drawing No. M-26, Induction unit details, January 20, 1958.</li> <li>Drawing No. M-27, Heating system details, January 20, 1958.</li> <li>Drawing No. M-28, Core toilet room plumbing, January 20, 1958.</li> <li>Drawing No. M-29, Laboratory plumbing, January 20, 1958.</li> <li>Drawing No. M-30, Waste and vent piping diagrams, January 20, 1958.</li> <li>Drawing No. M-31, Water piping diagrams, January 20, 1958.</li> <li>Drawing No. M-32, Miscellaneous plumbing details, January 20, 1958.</li> </ul>
112.C.4.3	14	Job No. 7650, Minnesota Fence and Iron Works. All paper prints.
		<ul> <li>Drawing No. 3, Trench cover, January 13, 1961.</li> <li>Drawing No. 4, Bracket detail, January 13, 1961.</li> <li>Drawing No. 5, Glass block detail, January 16, 1961.</li> <li>Drawing No. 6, Scupper, January 20, 1961.</li> <li>Drawing No. 7, Pipe rail detail, January 21, 1961.</li> <li>Drawing No. 1, Steel stair C, January 4, 1961, last revised January 26, 1961.</li> <li>Drawing No. 1-A, Steel stair C details, January 9, 1961, last revised January 27, 1961.</li> <li>Drawing No. 2, Steel stair B, January 11, 1961.</li> <li>Drawing No. 2-A, Steel stair B details, January 12, 1961, last revised January 27, 1961.</li> </ul>
112.C.4.3	15	<ul> <li>State Project 3506, Electrical remodeling, business development, first floor.</li> <li>All paper prints.</li> <li>Drawing No. 1, First floor plan, April 16, 1962.</li> <li>Drawing No. 2, Under floor duct system, April 16, 1962.</li> <li>Tolz, Kind, Duvall, Anderson, and Associates [TKDA], Engineers, Planners and Architects.</li> <li>All paper prints.</li> </ul>
		<ul> <li>Drawing No. A-1, Floor plans and schedules, January 29, 1968.</li> <li>Drawing No. A-2, Basement plan and details, January 29, 1968.</li> <li>Drawing No. E-1, Lighting, January 29, 1968.</li> <li>Drawing No. E-2, Power, January 29, 1968.</li> <li>Drawing No. M-1, Basement plan and details, plumbing, January 29, 1968.</li> <li>Drawing No. M-2, Ground and first floor plans and details,</li> </ul>

Drawing No. M-2, Ground and first floor plans and plumbing and ventilation, January 29, 1968.

Location	Roll	
112.C.4.3	15	Anderson Iron Works. All paper prints.
		Drawing No. 2, Columns and grills, April 2, 1968. Drawing No. 1, Door frame detail, March 28, 1968. 2 copies. Drawing No. 1, Door schedule, March 28, 1968. Drawing No. 1, Trim for door frame, March 29, 1968. YA series bulletin board detail, March 22, 1968. Brooklyn Industries, Inc. All paper prints.
		Drawing No. 1, Wall casing, corridor near reading room, March 26, 1968.
		Drawing No. 2, Panels, mulls, jambs, March 26, 1968. Drawing No. 3, Bookcase detail, moldings, schedules, March 26, 1968.
		Reflected ceiling plan, cafeteria, [?]. Ellerbe & Co.
		All paper prints.
		Fifth floor, [?]. Lab equipment and service layout, [?]. State Project No. 3497, State Architect and Engineer Division. All paper prints.
		<ul><li>Drawing No. 1, New wood partitions and cabinet work, business development, first floor plan, [?].</li><li>Drawing No. 2, New wood partitions and cabinet work, business development, sections, details, [?].</li></ul>
112.C.4.3	16	State Project 211201, Environmental Engineering Inc., Electrical work for air conditioning. All paper prints.
		<ul> <li>Drawing No. E-1, Diagrams and schedules, August 4, 1971, revised December 3, 1971.</li> <li>Drawing No. E-2, Basement plan, August 4, 1971.</li> <li>Drawing No. E-3, Ground floor plan, August 4, 1971.</li> <li>Drawing No. E-4, First floor plan, August 4, 1971, revised December 3, 1971.</li> <li>Drawing No. E-5, Second floor plan, August 4, 1971, revised December 3, 1971.</li> <li>Drawing No. E-6, Third floor plan, August 4, 1971.</li> <li>Drawing No. E-7, Fourth floor plan, August 4, 1971, revised December 3, 1971.</li> <li>Drawing No. E-7, Fourth floor plan, August 4, 1971, revised December 3, 1971.</li> <li>Drawing No. E-8, Fifth floor plan, August 4, 1971, revised December 3, 1971.</li> <li>Drawing No. E-8, Fifth floor plan, August 4, 1971, revised December 3, 1971.</li> </ul>
		Notes, field trip, June 9, 1972.

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Location	Roll	
112.C.4.4	17	West court waterproofing. All paper prints.
		Drawing No. A-1, TKDA part first floor plan, September 15, 1972. Drawing No. R-1, Cowin & Co., Inc., reinforcement for joists, slab and lintels, July 14, 1972.
		Drawing No. 1, Trussbilt, hollow metal door and frame schedule, July 19, 1972.
		Drawing No. 2, Trussbilt, hollow metal door and frame schedule, July 19, 1972.
		Drawing No. 3, Trussbilt, hollow metal door and frame schedule, July 19, 1972.
		Legislative offices.
		All paper prints.
		Drawing No. 1, Kloster-Madsen, Inc., millwork and wood doors, August 7, 1972.
		Drawing A-2R, TKDA, part first floor plan, May 10, 1972, revised October 18, 1972.
		Drawing A-2, TKDA, part first floor plan, May 10, 1972, revised June 28, 1972.
		Drawing A-3R, TKDA, door and room finish schedules, details, May 10, 1972, revised June 28, 1972.
		Drawing A-3, TKDA, door and room finish schedules, details, May 10, 1972.
		Drawing A-4, TKDA, details and reflected ceiling plan, September 20, 1972.
		Drawing D5-3, TKDA, schedule (plus material color schedule), October 18, 1972.
		Drawing A-1DS, TKDA, decoration schedule, part ground floor plan, May 10, 1972.
		Drawing A-2DS, TKDA, decoration schedule, part first floor plan, May 10, 1972, revised October 18, 1972.
		Drawing No. 1, Cold Spring Granite Co., loading dock details, August 14, 1972.
		Miscellaneous legislative office plans. All paper prints.
		Drawing No. F-1, TKDA, ground floor furniture plan, May 8, 1972. Drawing No. F-1, TKDA, ground floor furniture plan (with revised room numbers), May 8, 1972.
		Drawing No. F-1, TKDA, ground floor furniture plan, May 8, 1972, revised August 23, 1972.

Location	Roll	
112.C.4.4	17	<ul> <li>Drawing No. F-2, TKDA, first floor furniture plan, May 8, 1972, revised August 24, 1972.</li> <li>Drawing No. F-2, TKDA, first floor furniture plan (with revised room numbers), May 8, 1972, revised August 24, 1972.</li> <li>Drawing No. 1, Star Iron Works, structural framing above room 28, August 2, 1972.</li> <li>Drawing No. 2, Star Iron Works, miscellaneous items, August 2, 1972.</li> <li>Drawing No. A-1, TKDA, part ground floor plan, May 10, 1972.</li> <li>Drawing No. E-1, TKDA, part ground floor plan, May 10, 1972.</li> <li>Drawing No. E-1, TKDA, part ground floor plan, lighting, May 10, 1972, revised September 27, 1972.</li> <li>Drawing No. E-2, TKDA, part first floor plan, lighting, May 10, 1972.</li> <li>Drawing No. E-3, TKDA, part ground floor plan, power, signal, and communications, May 10, 1972.</li> <li>Drawing No. E-4, TKDA, part ground floor plan, power, signal, and communications, May 10, 1972.</li> <li>Drawing No. S-1, TKDA, structural plans and details, May 10, 1972, revised September 20, 1972.</li> <li>Drawing No. A-1, TKDA, part first floor plans, May 10, 1972, revised September 20, 1972.</li> <li>Drawing No. A-3, TKDA, part ground floor plans, May 10, 1972, revised September 20, 1972.</li> <li>Drawing No. A-3, TKDA, details and reflected ceiling plan, September 20, 1972.</li> <li>Drawing No. A-4, TKDA, mechanical work, May 10, 1972, revised September 20, 1972.</li> </ul>
112.C.4.4	18	<ul> <li>Miscellaneous legislative office plans. All paper prints unless otherwise noted.</li> <li>Drawing No. 1, Architectural and Engineering Division, Minnesota, dust collector, feed grinding room, sixth floor, room 616, elevation plan, December 5, 1973.</li> <li>Drawing No. 6131, Mikro plan, sliding door detail, sample mill, January 1972. Photocopy.</li> <li>Drawing No. 1, Architectural and Engineering Division, Minnesota, legislative lunch room, room 322, December 20, 1973. Photocopy.</li> </ul>

Location	Roll	
112.C.4.4	18	Drawing No. A-1, TKDA, ground floor plan, September 13, 1973. Drawing No. A-2, TKDA, second floor plan, September 13, 1973. Drawing No. A-3, TKDA, third floor plan, September 13, 1973. Drawing No. A-4, TKDA, schedules and details, September 13, 1973.
		Drawing No. A-5, TKDA, ground floor, reflected ceiling plan, September 13, 1973.
		Drawing No. A-6, TKDA, second floor, reflected ceiling plan, September 13, 1973.
		Drawing No. A-7, TKDA, third floor, reflected ceiling plan, September 13, 1973.
		Drawing No. M-1, TKDA, partial basement plan, September 13, 1973.
		Drawing No. M-2, TKDA, partial ground floor plan, September 13, 1973.
		Drawing No. M-3, TKDA, second floor plan, September 13, 1973. Drawing No. M-4, TKDA, third floor plan, September 13, 1973. Drawing No. M-5, TKDA, enlarged basement plans, September 13, 1973.
		Drawing No. M-6, TKDA, details, September 13, 1973. Drawing No. E-1, TKDA, part basement plans, symbols and details, September 13, 1973
		Drawing No. E-2, TKDA, ground floor plan, lighting, September 13, 1973.
		Drawing No. E-3, TKDA, second floor plan, lighting, September 13, 1973.
		Drawing No. E-4, TKDA, third floor plan, lighting, September 13, 1973.
		Drawing No. E-5, TKDA, ground floor plan, power and signals, September 13, 1973.
		Drawing No. E-6, TKDA, second floor plan, power and signals, September 13, 1973.
		Drawing No. E-7, TKDA, third floor plan, power and signals, September 13, 1973.
		Drawing No. E-8, TKDA, details, schedules, notes, September 13, 1973.
		Elevators, remodelings. All paper prints.
		Drawing No. 1, TKDA, plan and section, December 17, 1973. Drawing No. 2, TKDA, partial basement plan and details, December 17, 1973.
		Drawing No. 3, TKDA, riser diagrams, December 17, 1973. Drawing No. 4, TKDA, mechanical plans and details, December 17, 1973.

Location	Roll	
112.C.4.4	19	Attorney General's office. All bluelines.
		<ul> <li>Drawing No. 1, Architectural and Engineering Division, Minnesota, remodeling room 160, [?].</li> <li>Drawing No. A-G.2, Rafferty, Rafferty, Mikutowski, Lundgren &amp; Associates, Architectural and Engineering, ground floor plan,</li> </ul>

January 31, 1984, revised September 12, 1984.