



Experience in Other States:

Part of the Capitol Restoration Collaborative, Schooley Caldwell Associates, has been involved in the design of three other comprehensive state capitol restoration projects involving the need for additional space. – Ohio, Kansas and Utah. The Ohio Statehouse Restoration project was essentially completed ten years ago (with on-going asset preservation work to the present) while the Kansas and Utah projects are currently under construction. These projects are comprehensive, but their scopes and circumstances vary widely, so an “apples to apples” comparison of costs is not really possible. It is, however, relevant to note the magnitude of investment that these states are making in their historic capitol buildings.

Ohio: National Historic Landmark built between 1839 and 1861, with additions in 1901 (above ground Annex, now Senate Building) and 1964 (underground parking garage, 1,200 cars); 10 acre urban site. Phased project beginning in 1989 and continuing to 1998 with completion of the Ohio Veterans Plaza. The entire building was never closed during construction, but the Senate met in alternative chambers within the complex and the House met off-site in an adjacent building during construction.

Project included: restoration, accessibility, life safety code improvements, security upgrades, mechanical/electrical/technology systems, an above-ground addition, service and security entrances, rehabilitation and re-roofing of the garage, furnishings, site redevelopment, etc.

- **Total cost in 1996 dollars:** \$120 million (approximately \$190 million in 2007 dollars).
- **Schedule:** 9 Years.
- **Design Architects/engineers:** – Schooley Caldwell Associates. Architect/engineer of Record – Schooley Caldwell Associates.

Kansas: Built in phases between 1868 and 1903, 20 acre site adjacent to downtown Topeka. The project is being completed in small phases so that the Legislature never has to meet in alternate quarters (this accounts for the construction time frame and for considerable additional costs). The underground garage is complete, and the East wing (including the restored Senate chamber, was re-dedicated this past Spring.

Project includes: restoration, accessibility, life safety code improvements, security upgrades, mechanical/electrical/technology systems, a modest underground addition that opens up an entire floor for new uses, service and security entrances, a new underground parking garage for 600 cars, furnishings, etc

- **Total cost:** is estimated to be \$162 million (site redevelopment is not included in this figure).
- **Schedule:** 8 Years. Phased project beginning in 2002 and projected to be complete in 2010.
- **Architect of Record:** – Treanor Architects, Topeka. Architectural Design Consultants – Schooley Caldwell Associates. Engineer of Record – Schooley Caldwell Associates.

Utah: Built in between 1912 and 1915, large hillside site adjacent to downtown Salt Lake City. The overall project includes two new buildings (designed by others, and attached underground) and an outdoor connecting plaza that provide needed additional office space and service. This capitol restoration is not being done in phases, as the seismic reinforcement involves a very extensive structural re-building. The separate East and West Buildings, were completed in advance, and provide swing space for the capitol restoration.

Our project includes: an extensive base isolation seismic upgrade and stiffening of the original capitol structure and dome, as well as restoration, accessibility, life safety code improvements, security upgrades, mechanical/electrical/technology systems, a modest underground “plinth” addition that makes up for basement space lost to the base isolation system, etc.

- **Total cost:** is estimated to be \$210 million (approximately \$70 million of this is for the seismic upgrade).
- **Schedule:** 3 Years. Construction began in 2005 and is scheduled to be completed before the legislative session in 2008.
- **Architectural Design Team:** Capitol Restoration Group: An Association of VCBO Architects (Salt Lake City), MJSA Architects (Salt Lake City) and Schooley Caldwell Associates.



Statement on Schedule and Budget for the Minnesota State Capitol Restoration

The Capitol Restoration Collaborative is currently in the process of developing a cost model to set the budget for this important project. Although we are currently circulating an initial design concept (only), we understand that everyone wants to know how much it will cost. At the same time, we are at the very beginning of the design project, and we are still trying to verify the actual space and facilities needs of the State for the capitol facility. To date we have been unable to meet with the Senate, Capitol Security and MNHS Tenant groups. This will, of course, impact the size and scope of the project. It is imperative that we create the cost model from accurate information so that the number we announce has credibility.

To that end, we are consulting our own extensive cost data files, we have a cost consultant CPMI as part of our team, and we are consulting with several local contractors/construction managers with experience building comparable projects (M.A. Mortenson and McGough). We hope to have the cost model developed by August. We DO know, however, that the investment will be in the “three-figure” range of millions of dollars, like the other capitols we have worked with and that the first phase will likely be the largest investment phase in order to facilitate the construction of the underground mechanical and electrical vaults, and the new underground expansion space. This will then provide the swing space required to begin work on the existing building.

Our discussions with Tenants and key project contacts have informed us that development of a concept design plan must necessarily include two additional items: (a) a practical, phased schedule and (b) a swing space plan. The schedule must include acknowledgement of the legislative appropriations process and the swing space plan must address on-going operations of anyone who is temporarily displaced. The design team understands this and is at the beginning stages of answering these important questions. We have funding to continue design activities into next year, at which point we are hoping for additional, off-year bond funding to keep the momentum going. With the current rate of inflation – especially in the construction industry (9.4% last year alone, according the Turner Cost Index) – it is to the State’s advantage to begin construction as soon as possible. The design team and CAAP Board staff are working with the Department of Administration and the State Architect’s Office to explore creative options for project delivery that may expedite the process and deliver cost controls.



MINNESOTA STATE CAPITOL BONDING REQUEST

Project At A Glance

The Department of Administration requests the following funding:

- \$130 million for step 1 of the Capitol Building renovation (including new accessible building entry and visitor lobby space, 500-seat multi-purpose room, offices, new tunnel connection, underground mechanical and electrical vault space, media production spaces, secure underground drop-off and parking, and secure loading dock facilities) and securing early purchase agreements for critical building equipment/components.
- \$130 million for step 2 of the restoration of the East, West and North wings, and the Rotunda of the Capitol Building (including a comprehensive rehabilitation of all mechanical, security, fire/smoke alarm and life-safety systems, and upgrades for the electrical system, technology, offices, hearing rooms).

Project Description

The Minnesota State Capitol Predesign Study, completed in June 2001 and confirmed in the 2006 Predesign Update, concluded that **the Capitol Building lacks modern building infrastructure, and is deficient in security requirements and code compliance.** The Capitol does not contain sufficient space to support the basic needs of the public and its current tenants. There is a **critical need to restore the Minnesota Capitol Building and prepare it for the next 100 years.**

This project proposes a comprehensive rehabilitation of the building infrastructure and building security, and provides for code-compliant upgrades and needed visitor services. This request addresses these needs with a solution that will provide additional space that is required to support critical government functions; a comprehensive approach to infrastructure rehabilitation, required code improvements and enhanced security requirements; and visitor facilities that can accommodate the large volume of Capitol visitors.

In order for the Minnesota Capitol Building to effectively serve the citizens for another 100 years, the state **must commit to funding this Minnesota Legacy project.** This proposed solution provides additional space by creating greater efficiencies in the use of current space; utilizes “found” existing unused space; and includes a modest building expansion for mechanical space vaults, additional office space, and secured visitor services. The proposed project delivery method and schedule offer the greatest investment value to the state, a minimum level of risk, and an organized construction process that solves current building deficiencies and prepares the Capitol Building for its next 100 years of use.

Most of the nation’s Capitols are of similar age and face the same issue – **existing mechanical systems are obsolete and well past their useful life.** The Minnesota Capitol’s HVAC (heating, ventilation and air conditioning) systems do not provide an adequate number of fresh-air exchanges. In addition, balancing air for heating, cooling, and humidity is inconsistent and inadequate throughout the building. This proposal calls for replacing these systems in their



entirety. Lighting components are also failing at a rate that is cost-prohibitive compared to the cost of replacing this infrastructure.

Since 9/11, there is a heightened emphasis on security for building tenants, the public and the building itself. The Capitol, Minnesota's most public of state buildings, is no exception. **Security improvements must be made for the building, its occupants, and visitors.** The infrastructure and technology within the building, which provides the linkage for all state services, is extremely vulnerable. The Minnesota Capitol Restoration project will address secure mechanical, electrical, and data/telecomm infrastructure; development of a stand-off zone surrounding the building; identification of a shelter-in-place refuge; and creation of secure material handling facilities.

The 2006 Predesign Study identified critical deficiencies and future needs of the building's infrastructure, handicapped adaptability and code compliance. **Code deficiencies that must be addressed** include life-safety, exiting, fire/smoke alarm, fire sprinklers, fresh air requirements and rest-room quantity.

After consultations with local construction industry representatives and consultants, the Department of Administration **recommends extending project funding over two biennia (2007 and 2009).** This two-step process will achieve optimal cost efficiency. The 2001 Predesign Study proposed phasing the interior restoration one wing at a time as a way to reduce disruptions for tenants and the public. On the downside, this approach would significantly increase the project's exposure to escalating construction costs, currently at about 7.7 percent per year. Further analysis points to the more cost-efficient two-step process:

- Step 1 - Build expansion space and pre-purchase materials.
- Step 2 - Restore East and North wings, followed by the West Wing and the Rotunda.

Impact on Agency Operating Budgets (Facilities Notes)

The design team, working with the Department of Administration, CAAPB, local estimators and the construction industry, reviewed the concept plans and developed an estimated project budget and schedule. The 2006 Predesign Study estimate concluded that the full comprehensive scope of this project was approximately \$198 million (in 2007 dollars), which if extended out with construction starting in 2008 through mid-point of 2012 (with escalation factored in) totals \$260 Million.

The Schematic Design will address how to accomplish the restoration efficiently, with minimal disruption, while achieving the greatest value for the dollar. Cost and time efficiencies would be achieved by completing as much of the project at one time as possible. Other states have proven that aggressive sequencing reduces costs. In fact, states that have attempted to break down their Capitol project programs into small phases have experienced dramatically increased budgets. Staggered construction over many more years loses virtually any cost efficiencies while increasing "construction fatigue" for both occupants and the public. This results in increased costs and jeopardizes team continuity.

The cost of this project would increase lease rates in FY 2010 and would affect state agency and in-lieu of rent appropriations. The department is in the process of calculating the impact of the project on the square-foot lease rate.



Previous Appropriations for this Project

In 2000, \$300,000 was appropriated for the Capitol Building Predesign. In 2005, appropriations were \$1.2 million for schematic design for the full interior restoration of the Capitol, and \$1.17 million for restoration of the paint, plaster, and other surfaces of the public corridors of the third floor. In 2006, \$2.4 million was appropriated for continued design efforts, waterproofing of the exterior dome and repainting of interior surfaces affected by water damage.

Overall funding appropriated for the Capitol Building over the past two decades totals just over \$47 million, half of which was committed to the exterior, stabilization and for security needs.

Other Considerations

This budget request is based on the current conceptual cost estimate and the conceptual design option. **The cost numbers will be verified at numerous times** throughout the project process. A “Construction Manager at Risk” (CM) project delivery method is recommended for the Capitol restoration project. With this delivery method, the CM provides a Guaranteed Maximum Price (GMP) prior to initiating construction. This will provide the state a guaranteed cost for the project while minimizing risk. The CM will provide an updated cost estimate at 50% of schematic design and again at the end of schematic design. The GMP will be provided at the end of design development, which is scheduled to occur in the Fall of 2007. Construction is scheduled to begin in the Spring of 2008. This will allow the construction process to move forward as efficiently as possible and to mitigate the cost of price escalation, which can add approximately 7.7% of the project cost per year. Each step of construction can move forward smoothly and the state can seek cost advantage through the early pre-purchasing of materials.

Continued operation of the Minnesota Capitol in its current condition is a constant **threat to the building’s integrity and life**. Other states have acknowledged their state capitol buildings’ needs for major restoration projects. The cost of these projects has ranged from \$70 million to over \$200 million. Texas addressed restoration needs of their historic capitol and also expanded into an annex, spending \$287 million while vacating the building during construction. Other examples of Capitol project costs (with cost escalated to comparable mid point construction) include;

- Kansas underway @ \$162 million (\$230 million)
- Michigan completed 1992 @ \$58 million (\$200 million)
- Ohio completed 1996 @ \$129 million (\$330 million)
- Texas completed 1993 @ \$200 million (\$566 million)
- Utah underway @ \$210 million (\$285 million)
- Virginia underway @ \$83 million (\$130 million)
- Wisconsin completed 2001 @ \$145 million (\$266 million)

This historic building is a matter of pride in the hearts and minds of Minnesotans.

Thousands of citizens participated in the 2005 Centennial Celebration events. The Centennial also noted the public’s response to the visible deterioration of the building. While private sector support of the 2005 celebration activities was over \$2 million, corporations and foundations also sent a clear message to organizers: Future private funding would follow the lead of the Governor



Minnesota State Capitol – Interior Restoration and Asset Preservation Work

and legislature in committing to the completion of the Capitol Building's restoration. Private funding is highly dependent on how significant the state's commitment is to the full restoration program.

The Capitol Building is in critical need of repair and comprehensive rehabilitation. A plan exists to make these comprehensive repairs; address visitor access and amenities; attend to code deficiencies, inadequate fresh air and scarce restroom facilities; correct exiting deficiencies; and provide the additional space required for a functional government business. **Failure to move forward now will cost the state significantly more**, first, through continued deterioration and, second, through further cost escalation for restoration. If unaddressed, the condition will affect how the people of the State participate in the government of their State.



Minnesota State Capitol – Interior Restoration and Asset Preservation Work

State of Minnesota
Capitol Campus Expansion & Renovation
St. Paul, Minnesota

CPMI



Conceptual Cost Estimate Budget Forecast

DRAFT

Building Recap

HGA Comm # : 0476-028-00

Date: 10-Oct-06

	Construction Total		Expansion & Infrastructure		Renovation Of Exist. Capitol
			157,730 GSF		269,380 GSF
Construction Costs					
Existing Conditions (Misc. Cut/Patch/Demo)	\$4,040,700	\$0	\$0	\$15	\$4,040,700
Site Work	\$5,750,000	\$36	\$5,750,000	\$0	\$0
Site Lighting	\$500,000	\$3	\$500,000	\$0	\$0
Front Entry @ South Elev. (Strn. Removal/Replacement)	\$1,500,000	\$10	\$1,500,000	\$0	\$0
Utility Relocation/Temporary	\$1,000,000	\$6	\$1,000,000	\$0	\$0
Substructure	\$5,520,000	\$35	\$5,520,000	\$0	\$0
Shoring/Underpinning	\$1,050,000	\$7	\$1,050,000	\$0	\$0
Structure	\$6,309,000	\$40	\$6,309,000	\$0	\$0
Raise Exist. Mech. Penthouses	\$1,000,000	\$0	\$0	\$4	\$1,000,000
Capital Dome Tension Ring Reinforcement (Allowance)	\$1,000,000	\$0	\$0	\$4	\$1,000,000
East Wing 1st Floor Struct. Remodel	\$750,000	\$0	\$0	\$3	\$750,000
Exterior Enclosure	\$3,400,700	\$14	\$2,200,000	\$4	\$1,200,700
Interiors @ Exist. Capitol	\$20,203,500	\$0	\$0	\$75	\$20,203,500
Interior Historic Painting	(\$1,000,000)	\$0	\$0		(\$1,000,000)
Interiors Lower Level/First Level	\$9,463,800	\$60	\$9,463,800	\$0	\$0
Equipment / Furnishings	\$2,052,000	\$3	\$552,000	\$6	\$1,500,000
Elevators	\$1,300,000	\$1	\$100,000	\$4	\$1,200,000
Mechanical (M,P&Fire)	\$30,157,635	\$55	\$8,607,635	\$80	\$21,550,000
Electrical	\$19,524,660	\$42	\$6,624,660	\$48	\$12,900,000
Data / Telecommunications / Equip. / Cabling	\$3,416,880	\$8	\$1,261,840	\$8	\$2,155,040
Security	\$2,023,900	\$6	\$946,380	\$4	\$1,077,520
Lightning Protection	\$300,000	\$0	\$0	\$1	\$300,000
Total	\$119,262,775	\$326	\$51,385,315	\$252	\$67,877,460
General Conditions 7%	\$8,348,394		\$3,596,972		\$4,751,422
Design Contingency 15%	\$19,141,675		\$8,247,343		\$10,894,332
Contractor Fee 4%	\$5,870,114		\$2,529,185		\$3,340,929
Construction Cost Total	\$152,622,958	\$417	\$65,758,815	\$322	\$86,864,143
Owner's Costs 23.5% @ Expansion & 27.5% @ Reno	\$39,340,961		\$15,453,322		\$23,887,639
Phasing Premium @ Exist. Capitol Bldg. - 4% & @ Expansion - 1%	\$5,242,193		\$812,121		\$4,430,071
Sub Total - June 06	\$197,206,112	\$520	\$82,024,258	\$428	\$115,181,854
Escalation - Expansion Mid Point of Construction July 2009 @ 19.6%. - Reno Mid Point of Construction July 2012 @ 39.9%	\$62,034,314		\$16,076,755		\$45,957,560
Project Construction Total W/Escal.	\$259,240,426	\$622	\$98,101,013	\$598	\$161,139,413

Clarifications/Qualifications

- Moving costs are by others.
- 90% of exist. furniture will be coming from each office moving into the renovated spaces. Cost reduction is included in soft costs above.
- No hazardous material removal is included in the costs above.
- Escalation factors were figured using the Building Project Inflation Schedule established by CPMI for the Minnesota Department of Finance.
- General Conditions have been figured for the expansion at 7% and for the renovation at 7%.
- The design and construction contingency was figured at 15% for both expansion and renovation which at this level of documentation is industry standard.
- Owner cost budgets are a % using past project experience. The owner will need to adjust this budget based on their needs for the project.
- The cost budget above includes escalation for a designated time schedule, if this project gets broken down into smaller projects the escalation and phasing could be effected and will need to be adjusted.
- CPMI, McGough, Metropolitan Mechanical, Hunt Electric and HGA collaboratively generated the costs for this budget.
- This estimate of costs is for budget purposes only.
- Estimate excludes \$1,000,000.00 previously allocated for Interior Dome repainting.
- Owner Cost include:
 Design Fees: 13%
 Project Management: 3%
 FF&E: 3.5%
 Contingency: Expansion @ 4%, Renovation @ 8%
- Phasing Premium is an allowance for temporary construction required for safety, security and efficiency.

