Section 1.1.1 Introduction

Forward

Minnesota State Capitol: Challenge for the design team.

"Of the many times I have walked among the halls of the Capitol building, one of the more endearing moments continues to be seeing the eyes of youth as they first step into the building and look up into the grand rotunda and watching their expressions as they take in the splendor of Cass Gilbert's centerpiece. For many of these youth — it may be the only time that they visit the capitol building, although they will see it in photographs and on news pieces for most of their lives.

Within this central rotunda, Cass Gilbert and his architectural, artisan, engineering and construction team have brought together the finest offering of architectural design and detailing, careful proportion and framing, symbolism and intent, the finest artwork of the era, marble varieties from around the world, and skillful construction of a magnificent building. I doubt that this is all lost on the youth of Minnesota.

Further tours of the halls and chambers of this Capitol reveal even more consideration of the beauty and aesthetic wrapped around the business of Government of the State. Each floor and room offer the visitor a sense of awe and pride that this building represents the state of Minnesota and its citizens as it moved from a territory to Statehood prominence. The State Capitol Board of Commissioners wanted a building that would announce to the rest of the country — Minnesota is no longer a wilderness outpost — it was now a modern, civilized society. The Capitol was to be a point of pride to a youthful state.

The Minnesota State Capitol building is not a "one-visit" building. It requires numerous visits to fully reveal itself to the visitor. The richness of artwork, sculpture, detailing and materials cannot be fully comprehended at one time. Cass Gilbert must have intended for this repeated experience. One is always welcome to the People's House and will always find something new to experience.

With all of this and the legacy of Cass Gilbert's team in mind, a design team embarking upon the repair and restoration of the Minnesota State Capitol, should do so with a great sense of responsibility to stewardship and to providing an ongoing sense of awe to many more youth in the generations to come. All repairs and updates should keep Cass Gilbert's original vision intact. All work must ensure that any interventions are minimized, reversible and mindfully executed — much as Cass Gilbert did originally. The design team needs to understand that this building was indeed a state of the art building, ahead of its time and plan for the time ahead and do likewise. It must accommodate the modernized functions of the business of government while looking ahead (by looking back as well) to anticipate the future needs and changes that this building will have to adapt to.

For those that came before us, for those who are here now and for those that are yet to experience this magnificent Capitol building – the State embarks upon leading this building into the next 100 years with a strong sense of responsibility for one of America's treasured examples of democracy."

Michael J Bjornberg AIA CID NCAARB Historic Architect, Team Leader, Historic Structures Report

Minnesota State Capitol Restoration

Preserving our past. Preparing our future.

Architectural Integrity. Building Functionality. Life Safety

Section 1.1.1 Introduction Historic Structures Report



Member; Preservation Alliance of Minnesota, Cass Gilbert Society, National Trust for Historic Preservation, Minnesota Historical Society

Preface

"Although I had been vaguely aware that the Minnesota State Capitol was considered to be one of my great-grandfather Cass Gilbert's architectural masterpieces, I was truly amazed when I got my first glimpse of it, and nothing could have prepared me for the astonishment I experienced as I walked into it for the first time in April 2004. Members of the Cass Gilbert Society had met me at the airport and were escorting me on a tour of his work in Saint Paul. We were going to the most important first. The sun was shining directly onto the south façade as we approached the Capitol with its pleasing form, huge dome and gleaming whiteness creating a picture of perfection.

Once inside the Capitol building, I was literally moved to tears of joy and wonder. The enormity of the spaces, the majesty of the design, the beauty of the ornament and the art, and the intricacy of the details were just too much to take in. With obvious pride, Carolyn Kompelien, then Capitol Historic Site Manager and Curator, showed me all over the building, and with deepening concern pointed out place after place where it had been neglected, damaged and badly needed repair. In fact, it needed a complete overhaul. She was worried about the frescos and the surfaces, and about the issues lurking behind the walls. I left overwhelmed by its scale and beauty, and by the enormity of the problems of restoring, renovating and, indeed, of saving it. It was obvious that its condition was anything but perfection.

Since that first memorable tour, I have returned many times to meet with the curators to hear their concerns. I have also met with members of the Governor's staff to learn their points of view, and with legislative leaders to listen to their enthusiasm for, or their objections to allocating the money needed for repairs. Each time I visited, I saw more problems, more band-aids and more peeling paint.

Each time I also learned more about the cherished place in their hearts that those who work in it hold for this building. I witnessed true appreciation and love for it by those who visit, or pass it daily, and even by children who tour the building and learn about it in school, or maybe just know it as their State Capitol. A woman once chased me down the hall calling after me to stop just so she could meet a Gilbert relative. State Supreme Court Justice Anderson shared that he never walks up the stairs to the court without pausing to admire the building he works in. He said it reminds him to be grateful for the privilege and honor of being there. I believe it was John Ruskin who said, "great buildings remind us of who and where we are."

By any measure — architectural, engineering, artistic or historic - the Minnesota State Capitol is a great building. It is part of our cultural heritage, and it is a national treasure. Now, at over 107 years old, like so many other Gilbert buildings across the country, its time has finally come for a comprehensive renovation.

The lore in my father's family was that Cass Gilbert's motto was "do it right or don't bother so that later you could say that no effort was spared." It is my profound wish that everyone who is involved in any aspect of this project would take that motto to heart throughout every step of the process. I will be watching with great personal interest and will be eager to return to Saint Paul to see the completed results, and to welcome one of Cass Gilbert's most important works, and one of my favorite buildings, to its next one hundred years."

Helen Post Curry, Cass Gilbert's Great-Granddaughter New Canaan, CT November 2012

The Minnesota State Capitol

January 31, 2014

Historic Structures Report 0476-061-00



Section Number Section Title **Historic Structures Report**

Minnesota State Capitol Restoration Preserving our past. Preparing our future.

Architectural Integrity. Building Functionality. Life Safety

Minnesota State Capitol Restoration Preserving our past. Preparing our future.

Architectural Integrity. Building Functionality. Life Safety

1.1.2 Description and Scope Historic Structures Report



Section 1.1.2 Description and Scope of the Historic Structures Document.

Summary:

The Minnesota State Capitol, despite its great importance to the history of the State of Minnesota, has never been comprehensively surveyed or studied prior to the 2012 Renovation. The many projects that have occurred have been undertaken at a variety of times, and by a variety of users. The purpose of this HSR document is to create a usable description of the Capitol, what it is and how it came to be. It is also intended to be a guide for not only the present renovation work, but as a guide and a framework that can be used by future designers and decision makers.

Scope:

Unlike the standard Historic Structures Report, this document is intended to be a living document, that can be updated by the caretakers of the Capitol as time goes on. It is a continuous, technical record of changes to the physical form of the Capitol.

The Historic Structures Report can be thought of as a guide, summary and outline of all the materials that exist pertaining to the physical structure of the Capitol. It incorporates information from many sources: Drawings from Architect Cass Gilbert, records from construction correspondence, the drawings from subsequent projects, records retained by the Minnesota Historical Society, field observations, and others. These primary sources are in the Appendix. The Historical Structures report itself is a secondary source who's purpose is to summarize and allow easier reference to the primary sources.

Sources:

The Historic Structures Report incorporates information from many sources:

Original Construction Documents from Architect Cass Gilbert,

Records from construction correspondence,

Historical Memoirs and recollections,

Documents from subsequent projects,

Records retained by the Minnesota Historical Society (MHS) and the New York Historical Society (NYHS). Field observations,

ricid observations,

Scholarly works

As many as possible of these primary sources are included in the Appendix. Other information may still be found at the original location of the documents in question. One issue of significance to the researcher is the location of Cass Gilbert's records. After winning the commission for the Minnesota State Capitol, Gilbert quickly rose in prominence and moved to New York, where he remained for the remainder of his career. This move took place in 1898, so a great deal of the work done during construction was done by him in New York, including multiple revisions for the purpose of reducing cost. The vast majority of these documents, including dozens of boxes of hundreds of drawings and letters, are retained by the New York Historical Society, and are not accessible to the casual researcher or design professional. The Minnesota Historical Society, and especially its Capitol Site office have attempted to collect all material available on the Capitol and its history. Since many of the latest versions of the original documents are located in New York, care should be taken to compare information from the MHS to actual field observations. The indexes of both the MHS and NYHS are included in the Appendix. Other sources of information are retained by the government agencies involved in the maintenance of the Capitol, including the Minnesota Department of Administration, Capitol Plant Management, Real Estate and Construction Services, and the Capitol Area Architectural and Planning Board.

How to Use this Document:

The Historic Structures Report contains three parts, plus the Appendix. Each part is organized in a different way, so researchers may find the information desired in the way that is most convenient to them.

Volume 1 contains historic data, organized in chronological order. It provides an overview of how the Capitol was constructed, how it changed over time, and what it's condition was at the time of this study. For a researcher interested in finding sources in the Appendix, the most useful section will be the Comprehensive List of Programmatic Changes, Projects and Studies, found at the end of Section 1.2.3 Development History, which lists changes chronologically, identifies the parties responsible, and gives the location of supporting documents.

Volume 2 contains information on the building and the site organized by space or room number. Each space has a brief description, an assessment of its current condition, and a detailed list of physical changes that have taken place to that space. This is useful for Capitol caretakers or building professionals seeking to make specific changes to a part of the Capitol, so as to find out what has happened in a particular room.



Section 1.1.2 Description and Scope Historic Structures Report

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Volume 3 is organized according to Specification Division number. It contains summaries of original conditions and changes that have taken place to the Capitol with regard to a specific material or component. Each section includes references to previous projects and information on the subject and their location. This is meant to allow Capitol caretakers or specialists to find information related to their specific task easily.

Volume 4 is the Appendix itself. It contains all information that could be collected and reproduced, along with a bibliographic list of all sources.

Adding to the Historic Structures Report:

As a living document, the Historic Structures Report is intended to be updated over time. When a project or other change is initiated in the Capitol, those responsible must fill out the attached form, with information that will allow each section to be updated appropriately for the change. Information required includes:

Date the changes were completed.

Persons authorizing the change.

Persons responsible for the change (i.e. Architect, Artist, Contractor)

Area affected, by room number or site area.

Specification divisions included in the work. (i.e. 4 Masonry, 9 Finishes)

Description of the work. (submit in print and Word or .txt format)

Location of record documents. A copy of the record documents, in approved format, should be included with the submission for placement in the Appendix. Approved format: Hard Copy Full sized Print-outs and/or PDF files, plus BIM model, CAD drawings, _______, on archival DVD.

A copy of each form should be filed with the master copy of the Historic Structures Report. Periodically, the Capitol caretakers should update the Historic Structures Report to include further changes. This should be done any time a project large enough to legally require a Historic Structures Report for approval. By continuously updating this document, the Capitol caretakers can not only maintain a guide and record for their activities, but also to have a satisfactory record constantly on hand to fulfill regulatory requirements.

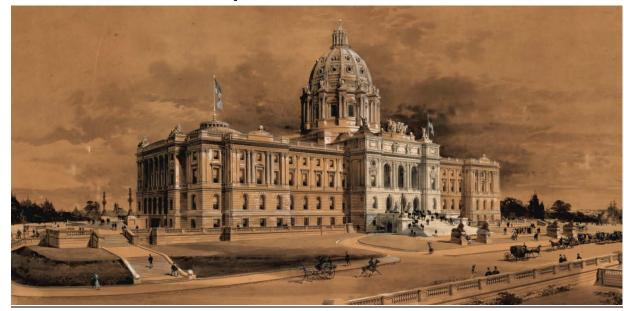
The organization responsible for maintaining the master copy of this document and change forms is the Minnesota Historic Society, Capitol Site.

Historic Structures Report 0476-061-00

January 31, 2014

The Minnesota State Capitol

Section 1.2.1 State Capitols Overview



Cass Gilbert's competition drawing for the Capitol, 1895

The Minnesota State Capitol has entered its second century of service to the people of the state. It has accomplished precisely what the builders and the generation of citizens who approved it wished for. Built for the ages in an architectural language learned from the past of the broader world, it houses in symbolic magnificence the day-to-day work of legislation and management of Minnesota government. Standing before it today, one can wonder if any other generation, even today's, would venture to build so grand a monument. Yet, it was built with vigor and optimism and stands today, stirring through architectural poetry the strongest sentiments of respect and pride for the state it represents.

The Historic Structure Report is tailored to provide an understanding of the building, with an eye on the past as well as the future. Such a study is the second major step in the building history of the Minnesota State Capitol, paving the way for the building's return to life. Joined with the symbolic - the Capitol projects its practical use for government. The symbol is strong, but the functional context is no longer physically strong. This report will assure the understanding of the Capitol's priceless heritage as the state plans for repair and improvement of the structure's facility to serve the work of modern government.

Minnesota State Capitol Restoration

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Section 1.2.1 State Capitols Overview Historic Structures Report



Historical Context for State Capitols





United States Capitol circa 1821

United States Capitol current

No classic architectural form exists for statehouses. In fact, a statehouse, if abandoned by the legislature, would be nearly useless for anything else. The statehouse form has evolved through American history and the tradition of use. Amazingly, the forms came together early, about the time the nation was born. It is a uniquely American building form that, with the spread of democracy, can now be found in capitals all over the world.

Reviewing all the state capitols of the USA as a building type, two points are clear: First, whatever the buildings may look like architecturally, they are all linked by historical inspiration; Second, State Capitol Buildings vary in style of architecture. The kinship lays in the basic character of the buildings – on the outside, upward thrusting domes or towers, decorative frontispieces as porticoes or greatly ornamented entrances; on the inside, the large central space that separates the two houses of legislature. There are variations, such as the placement of the chambers at the Minnesota Capitol, which as by tradition flank the rotunda but do not balance it, as in most other capitols.

The design characteristics that are found in all state capitols were introduced in Colonial America in several statehouses. Each element represented an addition to an existing building and was called for specifically by the lower houses of legislature, where the sparks of liberty ignited. Moreover, they were ordered by the legislatures either in defiance of British authority or as practical means to accommodate the expanding role of the democratic legislatures. In particular there was the tower added to the statehouse in Philadelphia, which we know as Independence Hall, funded on the day the legislature refused to fund the French and Indian War. There were also the balanced houses of legislature common to all colonial capitols, most of them enlarged and given priority by the time of the American Revolution. At Annapolis, the wooden dome introduced to capitols in the 1780s provided not only the large dome, but the dramatic inner rotunda.

These 18th century architectural or building ideas, "symbols of democracy," were united in 1810 in the capitol of Pennsylvania, built at Harrisburg. There was a central structure with dome, balanced wings outside, and a central rotunda with houses of legislature opening from it. Other states were following similar plans at the same time. Oddly enough, our National Capitol, completed in 1821, was patterned on statehouses already possessing this vernacular. It was not the unique invention of an architect or builder.



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It was not until the Civil War, when the National Capitol was enlarged and the great iron dome added to it, that the monumental dome became the premier capitol characteristic. The great dome in Washington began simply as an architectural device that became necessary to right the building after the addition of the large House and Senate wings in the 1850s. President Millard Fillmore insisted that in enlarging the U.S. Capitol, the original 1821 building must be preserved. Some kind of a large vertical "thrust" was needed to balance the horizontal heaviness the wings had given the building. But the old building could not support such an addition of masonry. The problem was solved by adding the huge dome made of lightweight iron. As the colossal addition rose in the first years of the Civil War, Lincoln was advised to stop construction to save money. He responded: "If people see the dome go on, then they will know that the Union will go on." The rising dome, seen by hundreds of thousands of soldiers passing through Washington during the war, became a symbol of Union.

As early as 1864, California scrapped a plan for its new capitol and was inspired to begin building a capitol at Sacramento with a dome in imitation of the new one in Washington. Kansas followed in 1866; then the other states where new capitols were built (and that was most of them) followed one by one. As time went on, the style the dome would take mattered less than the fact that a tall dome be included in any design.

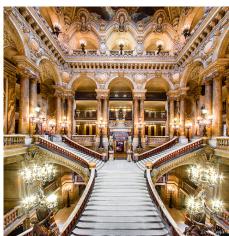
The historical elements that descended from the first American capitols are present in the Minnesota Capitol, not the least of which is the great dome that symbolizes Union.



California State Capitol

Beaux-Arts Architecture and the Capitol





Paris Opera House

As a matter of architectural style, the Minnesota Capitol is usually described as "Beaux-Arts." This is a modern term never used a century ago. In America, it nearly always means the architecture of ancient Rome, as interpreted during the Renaissance in Europe. The Beaux-Arts moniker comes from the mid-19th century Ecole des Beaux-Arts in Paris – the French government's fine arts academy – where architectural students were instructed by being immersed in the best architecture of the past as a means of learning the subject and preparing them to use their knowledge in creating an ever better modern architecture. The Beaux-Arts was, in our view, more like a trade school than an architectural studio. Professors were practicing architects. Theory came only from discussions with them and their criticism. For most of the time students measured old monumental buildings and drew them in pencil and ink.

It was natural that with so much understanding of ancient and Renaissance buildings, the modern architecture the Beaux-Arts created would reflect them. Every advance in building technology was incorporated in the work at the Beaux-Arts. The past was interpreted. Perhaps the most flamboyant expression of the Beaux-Arts idea is the Paris Opera, built in the 1860s during the reign of Emperor Napoleon III. An outstanding example in America is the Library of Congress. These were not copies of anything past, but modern buildings taking their designs from the best architecture of the ages. Beaux-Arts design is not restricted to neoclassicism; indeed, neoclassicism is only one theme – Ancient Egypt could as well have been a theme.

The Minnesota Capitol follows the Renaissance theme, in part because the nation fell in love with that architecture at the World's Columbian Exposition in 1893. America's best known architects in Chicago and New York collaborated on the fair, and most of them studied at the Beaux-Arts. Their theme for the grand midway was the Renaissance. It was a dreamscape in white plaster, with colonnades, balustrade terraces, statues, domes and reflecting lagoons, all illuminated in nightly splendor by electric light, the whole creation showing the latest in modern technology. There were few public buildings in America after the fair that did not in some way

acknowledge the Renaissance neoclassicism we call "Beaux-Arts." It was seen in court houses, residences, train stations and, of course, state capitols.



Library of Congress



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Section 1.2.1 State Capitols Overview Historic Structures Report



The Minnesota Capitol





First Minnesota State Capitol ca. 1853

Second Minnesota State Capitol ca. 1892

The first state capitol designed incorporating Renaissance neoclassicism actually preceded the World's Fair by two years. In 1891 McKim, Mead & White of New York presented to the Rhode Island legislature a project in white marble in the Renaissance style they had promoted in the design of the Boston Public Library a few years before. The legislature approved the capitol plan in 1892. Minnesota's Capitol was to follow as the second and more elaborate.

The first Capitol building in St. Paul was destroyed by fire in 1881 and replaced with a brick and stone round arched structure with a central tower. In the year of the Chicago Fair the legislature approved the concept of a new and permanent capitol building for Minnesota and set out standards for its design. They selected two architects of note, Henry Ives Cobb of Chicago and Edmund M. Wheelwright, architect of the city of Boston, to guide them through the competition process. Following the latest idea of designing public buildings, they wished to have architects nationwide compete for the design. Advertisements were placed in Chicago and Boston newspapers, as well as many newspapers in Minnesota.

In 1893, a less welcomed event than the Chicago Fair was a national panic. The bottom literally fell out of the American economy a few months after the fair opened. Building projects were halted; unfinished structures dotted the downtowns of many cities. Architects desperate to survive combed the country for work. In St. Paul, the legislature's competition deadline of October 15, 1894 (the month the panic began) saw fifty-six packages of drawings received as entries from far and wide, checked in by the Capitol Commission. The two-person jury selected five finalists, but these finalists were not made public. Controversy threatened heretofore favorable opinion, notably complaints of local architects, including Cass Gilbert who was not a competitor. Gilbert argued on behalf of the AIA (American Institute of Architects) that the initial appropriation of \$2,000,000 was too small a sum to build a Capitol building that would meet the needs of the State of Minnesota.



Section 1.2.1 State Capitols Overview Historic Structures Report

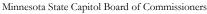
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Cass Gilbert, a friend of the Commission Vice President, Channing Seabury, had his ear. A new competition was held in 1895, Gilbert was one of five finalists. After much political wrangling, Gilbert was given the job and made supervising architect of the work. The process was highly questionable, and subject to much discussion and complaint among the other finalists, but Seabury and Gilbert prevailed and built the Minnesota Capitol. It was to be his springboard to national fame as one of the leading architects of the era. Indeed, the Minnesota Capitol is an index of his rise and sophistication.







Cass Gilbert ca. 1897

The Capitol Cass Gilbert Built



Rhode Island State Capitol



Minnesota State Capitol

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The Minnesota State Capitol

As it turned out, the capitols of Rhode Island and Minnesota were built and completed in the same window of time – the eleven years between 1895 and 1906. In Providence, the McKim, Mead & White Statehouse was an unusual building that included a rotunda filled with marble stairs and a rather congested plan. St Paul's Capitol followed more visibly the traditional capitol form, essentially a rectangular structure with a monumental dome. Though different, one is reminiscent of the other in adherence to the Renaissance architectural theme. Minnesota's Capitol was by far the largest of the era and is more elaborate in spatial shape and ornamentation.

Gilbert's inspiration for the dome was that on St. Peter's in Rome, yet slightly more pointed. The dome, though supported by a modern steel superstructure, was entirely of marble, which makes it unique in state capitols. Extensive statuary was incorporated in the design, most notably the fierce four horses drawing a cart guided by human figures at the base of the dome. The quadriga was coated in gold leaf, as demanded by Gilbert, so that it would shine like the sun in the surrounding whiteness of the exterior. The richness of the carved ornamentation of walls and cornices is striking, the excellence of architectural carving unmatched in any capitol. In some ways, with its embellishments yet the simplicity of its forms, the Capitol seems monolithic on its steep hill overlooking St. Paul and Minneapolis.

Within the white walls, the Capitol presents a surprise in the use of vivid color in paint and marble.. Gold leaf accents what are essentially Pompeian colors – earth tones of red, blue and green. Dramatic spaces are enhanced by columns and entablatures, grand stairs and groin-vaulted corridors. The admission of natural light is carefully controlled in the design and supplemented by electric light in various chandeliers and torchieres, so the long corridors and arcades are shadowed and painted judiciously with light, giving them the sense one has when viewing the old Roman drawings of Piranesi. If the exterior is a statement of the power and honor of the state, then the interior is romance from one end to another; the effects of light and space provide endless scenes of architectural beauty. Here, monument meets functioning public building harmoniously.







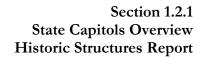


Minnesota State Capitol (Various Photos)

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Beaux-Arts Capitols in the United States





Pennsylvania State Capitol (exterior)

Utah State Capitol (exterior)





Pennsylvania State Capitol (Interior)

Utah State Capitol (Interior)

Sixteen capitols were built between 1891 and 1932 in the American States.

They are, in order of construction, Providence, Rhode Island (1891-1905); St. Paul, Minnesota (1896-1906); Helena, Montana (1898-1902); Phoenix, Arizona (1899-1900); Little Rock, Arkansas (1900-1917); Jackson, Mississippi (1901-1903); Harrisburg, Pennsylvania (1903-1909); Frankfort, Kentucky (1906-1912); Madison, Wisconsin (1906-1917); Pierre, South Dakota (1907-1912); Salt Lake, Utah (1912-1916); Boise, Idaho (1912-



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1919); Olympia, Washington (1912-1923); Jefferson City, Missouri (1913-1918); Oklahoma City, Oklahoma (1914-1917; dome built, 2002); and Charleston, West Virginia (1924-1932).

Understanding that all state capitols are near perfect in their state contexts, the one that stands out architecturally is Minnesota's at St. Paul. To the Beaux-Arts capitol building was introduced a level of colorful ornamentation inherited from the gilded age just previous to its construction, although in style confined very much to the neoclassical ideals of the World's Fair. More than ornament, the Minnesota Capitol brought to state capitols extensive use of the fine arts. Gilbert brought to his capitol commission some of the outstanding artists of the day.

No other capitols of the Beaux-Arts period rival the building at St. Paul as highly sophisticated monuments. The superb proportions of Minnesota's exterior do not approach the over-scale of other capitols, where bigness seems often to have satisfied the wish for monumentality. Minnesota's form is proportional to the hilltop, demanding no greater presence than what harmonizes with the site. Projections from the central block are carefully calculated not to violate the building's overall form. The white marble of the exterior, rather more frosted with carving than covered with carving, is in contrast to the depth and richness of the interior. One can study the facades of he building and see that the sculptural detail is mere "trim" for the capitol's domination power lies in the superbly proportioned form of he mass.

The Minnesota Capitol influenced most of the later Beaux-Arts capitols, notably Pennsylvania at Harrisburg, where the art program almost overwhelms the large scale of the building itself, a tremendous pile wholly lacking the restraint Gilbert achieved in Minnesota. No other capitol of the time, not even Rhode Island or the Greek cross-shaped Wisconsin Capitol, achieves the restraint one finds in the Minnesota Capitol. Perhaps Utah comes closest, although a wholly different concept, in the superb device of the monolithic, translucent colonnade – simplicity raised to heroics.

The influence of Minnesota's Capitol lies in a general awe of the building. None wished to copy it, for all capitols should be "original," but the records of the various building commissions in the other "Beaux-Arts" capitol states show that this building was held high as a model from which to learn. The last of the Beaux-Arts capitols, designed by Cass Gilbert and his son Cass Gilbert Jr., was West Virginia's, where one can find elements from the Minnesota Capitol, yet a design pared down more by the Art Moderne mode of the 1920s than the ornamental splendors of the Chicago World's Fair.





Wisconsin State Capitol

West Virginia State Capito

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The Minnesota State Capitol

Past and Present



Minnesota State Capitol

As one contemplates the repair and improvement of a century-old monument like the Minnesota Capitol, it is tempting to wonder what our generation would build, if the hill upon which it stands today were bare. With probable certainty, one can doubt a building like this one would ever be built again.

Palaces built in Europe over long centuries symbolized the kings who embodied the sovereignty of the state. In America, sovereignty belongs to the citizens. Our state capitols represent that sovereignty at the grassroots. To celebrate it, a state that ordinarily espouses thrifty habits and traditions could nurture soaring aspirations in marble. Such exuberance and craftsmanship is the characteristic of capitol-builders and was certainly characteristic of those who crowned the St. Paul hill with this building.

With the Minnesota Capitol, as with all capitols, the architecture of the building is one generation's interpretation of how the management of the sovereign people might be appropriately housed. In the instance of Minnesota, the housing is splendid, the architectural apex of its period. While the structure may call for some repair, the spirit that gave it birth is alive and healthy and, in the meaning it projects, as modern as today.

~ William Seale

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The Need for a New Capitol

The first building built specifically to house the Minnesota State Government was at the intersection of 10th Street and Cedar Street in Saint Paul. It was a modest two story building with a small dome. Destroyed by fire in 1881, it was replaced by the second Capitol, designed by Leroy Buffington, on the same site.

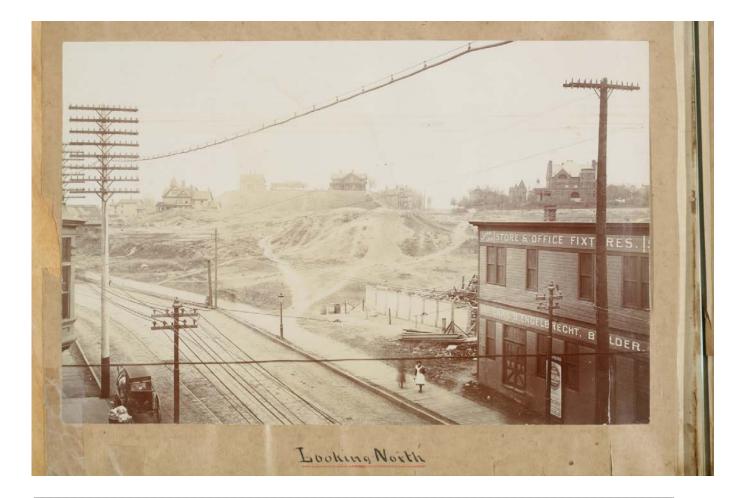
Over the years, the shortcomings of the second Minnesota Capitol became increasingly apparent. Shortage of space, lack of fireproofing, and the presence of dry rot made the building ever more unsuitable for its function. Furthermore, increasing State pride and competition in wake of the Columbian Exhibition of 1889 led to demand for ever more grand and imposing public buildings. Construction of a new Capitol was initiated in 1893 with the passage of chapter two and three of the general laws of that year, with a budget of ten thousand dollars a year for preliminary design, with a hundred and thirty dollars a year for construction, starting 1895. With this, the State Capitol Commission was established that would see the building through to completion.



Formation of the Board of Commissioners

This commission was made up of several prominent citizens, representing different regions of the state. Henry Wilson Lamberton was a banker from Winona. James McHench was a farmer from Martin County. Edgar Weaver sold farming tools and equipment in Mankato. George A DuToit was a banker and agricultural entrepreneur from Chaska. John DaLaittre of Minneapolis was a manufacturer and banker. Major Charles W. Graves of Duluth was a shipper and a diplomat. From Fergus Falls came Eben E. Corliss,

an attorney. Finally, as President of the Commission, was Channing Seabury, owner of a wholesale grocery firm, from Saint Paul. He would lead the commission and issue its reports until it was dissolved after completion of the Capitol. It is remarkable that none of these men were builders or artists by trade, but all of them men of business. Nevertheless, the importance of the commission and Channing Seabury in the construction of the Capitol cannot be understated: To this commission fell responsibility for site selection, managing the competitions to produce an architect, overseeing programming and design, issuing proposal requests for the various contracts in the construction and judging the responses, with the help of the architect, and in all ways overseeing the progress and expenditures of construction. Even more importantly, they were the body that advocated to the legislature for the cause of the Capitol, at times requesting more funds, at other times asking that laws governing the construction be amended to aid in procurement or to ease onerous responsibilities, all in the interest of swift and sure completion of the Capitol. Despite the fact that the budget of the Capitol increased more than twofold during construction, it was completed with very little in waste, change orders, or 'extras' as they were called.



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Site Selection

The first task of the Commission was to select a site. The legislature had stipulated that the new capitol should be in Saint Paul, and no more than three quarters of a mile from the previous one.² Other sites considered were adjoining the current Capitol, in downtown Saint Paul, and 'Bass Hill.' These sites were considered and rejected, as they were all much smaller than the site selected, and were more built up, increasing the cost of acquisition.³ The site selected, called at the time "Wabasha Hill" was deemed "sufficiently elevated...yet not too high to be easy of approach. It is surrounded on all sides by paved streets, under which are sewers and water mains. It front's South and the ground gently rises so that the basement of the new building will be as well lighted as the upper stories."⁴

Additional advantages included frontage on University Avenue, at the time the most important road between Minneapolis and Saint Paul, the lack of development of the site, relative to the others, due to the recent grading down of the hill. In short, the City of Saint Paul had done the important infrastructure improvements to the site necessary for development, but little development had occurred, both due to the shortness of time, and the economic depression of 1893. The property of 7.8 acres was acquired at a cost of 285,000 dollars, after the buildings belonging to people who wanted more money were condemned by the State.

Design and Architect Selection

With the site in hand, it was time to determine a plan and select an architect, which Seabury called "a matter of great perplexity and labor." A design competition was held, with submissions opened on October 9, 1893. Fifty-six submissions were received, with two prominent architects, M. Wheelwright of Boston and Henry Ives Cobb of Chicago advising the commission on selection. No decision would be made by the publication of the first of the Capitol Commission's reports, on January 1, 1895. The fifty six submissions were all rejected. The Commission requested that the legislature change some of the conditions laid down on the contracts, so perhaps to reduce the 'perplexity' which was plaguing the process. The recommended legislation passed on March 9, 1895, resulting in another competition. Once again, Mr. Wheelwright helped the commission judge the forty one entries, with the result that Cass Gilbert was selected as the architect on October 30, 1895.

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Cass Gilbert's summary of his plan for the Capitol was included with the Second Commissioner's report. It included the dimensions of the building:

Width not including steps, 228 foot three inches north to south

Width of east and west wings, 120 feet

Average width of north wing, 106 feet six inches

Height of Dome, 220 feet

Average height of outside wall from terrace level, 69 feet

Average depth of outside walls (footings), 14 feet

Rotunda, 60 feet in diameter

Senate chamber, 55 feet square and 55 feet high

Supreme Court, 'somewhat smaller' than Senate and 47 feet high

House of Representatives, 77 feet wide, and 106 feet wide at the gallery. Total height, 50 feet

Total volume, 5,060,955 cubic feet.

Basement story is 12 feet clear height

First story is 17 feet clear height.

Second story is 16 feet.

Third story is 12 feet clear.⁷

He went on to describe the general layout of the building, which would remain more or less the same upon completion. The sub-basement provides space for piping and machinery (we now call this the Basement). Basement (now called Ground Floor) to contain state historical society, board of health, dairy commissioner, etc. Elevators start here.

First floor contains governor, secretary of state, attorney general, state treasurer, auditor, etc. Second floor is devoted to the Chambers and their support spaces: offices, meeting rooms, and the law library.

Third floor is to house additional meeting rooms and law library spaces.

With these dimensions finalized, the commission went through a cost estimating exercise, comparing Gilbert's plans to comparable buildings, including the Iowa State Capitol, Pittsburg Court House, Rhode Island Capitol and the Minneapolis Court House. With the Capitol volume calculated at 5,060,955 cubic feet. (Previous Capitol was 1,561,026 cubic feet), the estimated cost 29.1 cents per cubic foot or 1,472,664 dollars total. This was well under the authorized 2 million dollar budget, but this reflected the artificially low prices then available during the Depression of 1893. ⁸

² Citation needed

³ Seabury, First Biennial Report of the Minnesota Board of State Capitol Commissioners. January 1st 1895.. Pioneer Press company, state printers. Pg 3.

⁴ Ibid. 4

⁵ Timberlake, Jr., Richard H. (1997). "Panic of 1893". In Glasner, David; Cooley, Thomas F., eds. Business Cycles and Depressions: an Encyclopedia. New York: Garland Publishing. pp. 516–18.

⁶ Seabury, Second Biennial Report of the Minnesota Board of State Capitol Commissioners. January 1st 1897. Pioneer Press company, state printers

⁷ Gilbert, Architect's Report appended to Second Biennial Report of the Minnesota Board of State Capitol Commissioners. January 1st 1897. Pioneer Press company, state printers. Pg 19.

⁸ Seabury, Second Biennial Report of the Minnesota Board of State Capitol Commissioners. January 1st 1897. Pioneer Press company, state printers. Pg 5.



Construction Commences

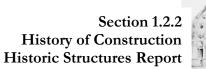
Construction began on May 6, 1896, with George J Grant selected for excavation and foundations. The first foundation stone was laid on June 23 of the same year. The foundation construction went very quickly, with the entirety completed by November 24.

Universal Construction of Chicago was selected to erect the steel structure of the ground floor on October of the same year, with construction completed by the time the Second Report was submitted, on January 1, 1897. Gilbert noted that it was done thirty percent below estimate, due to very low costs of steel.⁹

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Commission Urges Haste

At this point, construction stopped, with the 130,000 dollars a year allowance expended. Both Seabury and Gilbert urged at length that this system be abandoned, and funds granted in such a way so as to allow them freedom to take advantage of the historically low prices then available. The site acquisition, excavation, foundation and steelwork already completed had exhausted the funding available through 1897.

To prick the legislature in action, Seabury included in his report a number of letters from various professionals attesting to the inadequacy and unsafeness of the current Capitol, in order to make them see the benefits of completing the new Capitol quickly, rather than at the ten or more years the schedule of 130,000 dollars expended a year would have dictated. A few excerpts from these letters:

J.W Stevens, Architect, explained the danger of fire from the combustible partitions, wood roof trusses and floor joists. Fire proofing was later added in some, not all areas, but the fire proofing material caused decay in the wood. He concluded: "while fire is liable at any time, it may never occur, but, if once started, I am of the opinion that it would be difficult, if not impossible, to save the building from total destruction." 10

Harry W. Jones, Architect, concurs with his colleague about the vulnerability to fire, and dry rot caused by the fireproofing. He is even more emphatic in his conclusion: "My observation of its present condition, together with my knowledge of its mode of construction, has led me to believe for some time that the life of the officials, and public property, is being seriously jeopardized."¹¹

Tams Bixby, the governor's private secretary, complains on lack of proper offices and shortage of secure vault space. "[The State's] property is improperly secured. Labor commissioner's office is 'a mere closet, now quite filled by one table and some books." Railroad, capitol commission, board of health and others rent space elsewhere. The objects most precious to the people of Minnesota, "the battleflags of the Minnesota Regiments in the war of 1861 are kept in the main corridor of the first floor, partly for exhibition, and partly in the hope that in case of fire they might be seized and carried out to a place of safety." 12

These and other testimonials were combined with the Commission's urgings to complete the Capitol more quickly. The legislature responded favorably to this request, passing chapter 96 of the General laws of 1897, authorizing the Commission to issue bonds. However, the delay in requesting and passing this measure meant that the summer of 1897 was effectively lost to construction, though bids were solicited and contracts entered into.

⁹ Ibid. Pg 6

¹⁰ J.W. Stevens, in letter appended to Second Biennial Report of the Minnesota Board of State Capitol Commissioners. January 1st 1897. Pioneer Press company, state printers. Pg 11.

¹¹ Harry W. Jones, in letter appended to Second Biennial Report of the Minnesota Board of State Capitol Commissioners. January 1st 1897. Pioneer Press company, state printers. Pg 11.

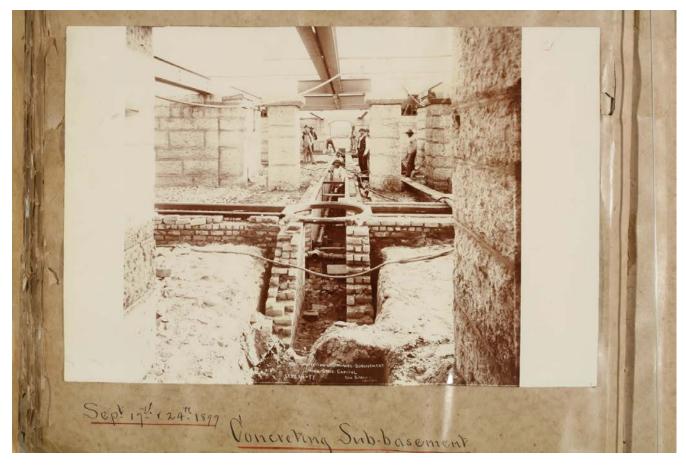
¹² Bixby, , in letter appended to Second Biennial Report of the Minnesota Board of State Capitol Commissioners. January 1st 1897. Pioneer Press company, state printers. Pg 11



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The one substantial piece of work completed in 1897 was the basement floor slab, by Lauer Brothers and Miller of St Paul.



The Stone Dispute

The year 1897 was in some ways dominated by the largest public dispute that the construction of the Capitol involved, that of the sort of stone that the building would be clad. When Cass Gilbert proposed using Georgia Marble for the cladding of Minnesota's Capitol, it provoked an outcry among some Minnesotans, both because they felt their Capitol should be built entirely of Minnesotan stone, to protect in state stone quarrying and cutting jobs, and some lingering bitterness from the Civil War against the former Confederate State. This movement was led largely by the union stoneworkers, who passed a resolution condemning the use of non-Minnesota stone.¹³ This was followed by a number of newspaper articles, including "Home

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Grown Stone," and "That Capitol Stone" in the Minneapolis Journal of August 3, 1897, and "No Georgia Marble" on August 28. Nevertheless, the issue was already settled by then.

The Commission, after intense lobbying by Minnesota quarry owners, conducted an exhaustive survey of Minnesota Stone, including one alleged marble quarry, (which turned out not to be marble)¹⁴ and consulting with disinterested experts, including Professor Crosby of MIT, the Smithsonian Society, and the United States Geological Survey, the Commission concluded that the only native Minnesota stone suitable for the sort of exterior application needed was granite. In comparing Minnesota Granite to Georgia Marble, the commission weighed both aesthetic and financial considerations. In support of their decision to use the Georgia Marble, the commission cites the opinion of various architects and builders who "were unanimous and unhesitating in advising us to use the lightest colored stone we could find that was otherwise suitable, because a somber or dark colored material was not suited to such a large, and necessarily long, building as this one." They go on to call the marble "a white stone, handsomely clouded with blue colorings," and in every way an attractive stone.

However, it seems obvious that the commission felt that the other issue, that of cost, was the deciding one. Granite is a much harder stone, and therefore the cost of quarrying, dressing, carving and laying it are much higher. The commission cites that the lowest bid for granite in lieu of marble was 31,000 dollars higher than the marble, and that everyone was skeptical that it could be done for so little.¹⁶

With this in mind, the contract for the masonry walls was issued to the Butler-Ryan company on August 31. The protestors were mollified by the agreement to use Granite on the Ground floor and terraces, with Minnesota brick and stone to be used on the interior, and all dressing and carving of the marble to be done in Minnesota. The commission estimated that the cost of quarrying and shipping the Georgia Marble comprised less than 5% of the total budget. The workers of Bricklayers Local 1 must have been satisfied by this, as it was them who would go on to do the masonry work of the Capitol.

Construction, Design Continues to Develop

Cass Gilbert went on a trip to Europe (at his own expense) at this time to study the newest innovations in mechanical systems and technology, as well as the fine arts during the winter of 1897.

¹⁶ Ibid. Pg 5

¹³ Bricklayers Local 1 Meeting Minutes Page 195, 6/23/1897

¹⁴ Citation needed.

¹⁵ Seabury, Third Biennial Report of the Minnesota Board of State Capitol Commissioners. January 1st 1899. Pioneer Press company, state printers. Pg 4-5.

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With disputes settled, the major contract awarded, and funding in place, work proceeded rapidly in 1898. The cornerstone was laid by former Governor Alexander Ramsey on July 27 of that year. The Basement level and first floor exterior walls and major interior walls were all completed that year. However, the Third Commissioners report ends with another request for funds, noting that in the present arrangement there will be a shortfall, and in any case, there won't be any money for the interior finishes, priority having been given to the exterior enclosure of sufficient size to house the government, with finishes to be added later. 17

The entire commission went on a fact finding trip with Cass Gilbert to Providence, Rhode Island, Albany, New York City, Philadelphia and Boston to study similar buildings. These buildings include: the Rhode Island State House (being constructed at the same time by Gilbert's former colleagues, the firm of McKim, Mead and White), the New York State Capitol, Saint Patrick's Church (NYC), His Grace Church (NYC), Low Library (Columbia University), Metropolitan Life Building (NYC), US Customs House (NYC), Cathedral Church of St John the Divine (NYC), Independence Hall, the Philadelphia City Hall, the Boston Public Library, and the Boston Statehouse.

¹⁷ Ibid. Pg 11.



With the stonework proceeding, it was time to finalize the design of the dome. Three options were considered: painted cast iron, terra cotta, and brick interior with marble exterior all discussed, with the last being the most expensive option. In this case, the commission, with the full support of Cass Gilbert, chose the third option. Even though cost consideration repeatedly caused them to revise other elements of the building to reduce expense, they did not do so in the case of the dome. This was entirely within the philosophy of the commission as previously stated; to complete the exterior of the building in size and quality deemed necessary for the future growth and needs of the State of Minnesota, and, if necessary, defer interior furnishings to a later date. 18

In 1899, work proceeded without interruption, with the superstructure of the Capitol nearly completed by 1900, and the work on the dome begun. The contract for the dome had been bid separately, but it had also been won by Butler-Ryan, who possibly had an advantage due to the large stone shop they had set up onsite

18 Ibid.

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to provide for their other work. This seemed to please the commission, which went on to say that Butler-Ryan's work "to be of a high order of construction, not excelled anywhere." ¹⁹



Public Outreach and Input

Public outreach at this time included display of plaster models of the dome and of six allegorical sculptures to be completed for the exterior by Daniel Chester French, noted sculptor from New York. The commission also noted how they had been approached by various veteran's groups about the possibility of creating monuments commemorating their sacrifices. The commission reminded the legislature that, however much they would like to, they had no funds for such a project, and suggested that the main approach to the Capitol might be converted into a 'memorial approach' which would be both pleasing and

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different from the typical monuments of the day, which often took the form of statues on top of pillars acting as a focal point.²⁰

Budget Crisis and Impact on Interior Finishes

The main issue of the Fourth Report of 1901 was in the interior finishes, a matter that had been darkly hinted at in the previous report. The depression of 1893 was now far behind, and the report notes a 'strong advance' in costs ever since 1896, with supporting citation of the United States Treasury Secretary's report to Congress that several public buildings then underway that "cannot be completed within the authorized cost because of the rise in prices of building materials and other costs." He then cited several building projects where the revised evidence of costs of construction varied from ten percent in a building 'very nearly completed' to some that exceeded double the initial estimate. With this and other examples enumerated in detail, the Commission justified their strategy of completing the enclosure of the building and deferring all costs non-essential to that purpose. They also explained what they estimated they could achieve with the present level of funding:

"hardwood floors throughout [including public spaces]...tin or other cheap final roofing...plain plaster finish in vestibules...fire proof vault doors in executive and administrative offices only...cheapest possible floor construction and partitions and furrings [non fireproof]...rotunda left empty, without gallery, columns or stone facings, and with a [plain] plaster finish...[grand] staircase hall left empty, with plain plaster walls...the senate, house of representatives, and supreme court room must be left with plain plastered walls...boilers and ventilating plant to be located in the basement, and an iron smokestack run through flues which are designed for ventilation, and the use of tubular boilers, with a ventilating system which is inferior to the latest improvements...a much cheaper material [than granite for the exterior stairs] which will inevitably have to be replaced in a few years." 22

With these dire warnings, the commission then urgently requested an additional million dollars to adequately fit out the interior of the building. In exchange, they promised that the Capitol could be completed and ready for occupation in 1903.

Once again, the legislature came through, passing Chapter 168 of the Laws of 1901, authorizing an additional 1,050,000 dollars to the Capitol. However, this was hardly the end of the Capitol's financial troubles, as prices continued to increase, exceeding even their pre-depression levels. The commission felt it necessary to reject a number of bids and ask for another series of revisions from Cass Gilbert to reduce costs. For example, the lowest bid for fireproofing was eighty percent higher than estimated, and the higher bids greater than doubled it. This, and other similar bids, was deemed "most disheartening." However, the

¹⁹ Seabury, Fourth Biennial Report of the Minnesota Board of State Capitol Commissioners. January 1st 1901. Pioneer Press company, state printers. Pg 7

²⁰ Ibid. Pg 8

²¹ Ibid. Pg 11

²² Ibid. Pg 14-15

contract for the roof was awarded, even though it was much higher than hoped, because of the imperative to enclose and protect work already completed. ²³



'Labors More Complicated and Trying'

In January of 1902, work was interrupted by a labor strike, where stonemasons went on strike, allegedly to protest a non-union blacksmith on the job site. ²⁴ This continued for ten weeks. ²⁵

Another change that came about at this time was the location of the physical plant building for the Capitol. The site previously acquired was found to be too small, and a larger site acquired. This is the Roberts and Cedar Street location, where the plant still resides, though most of the original building is gone. By 1903,

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the plant had been completed, and the Capitol could be heated, allowing interior work to continue year round. ²⁶

The commission noted that it was in danger of wearing out its reputation with contractors, by soliciting bids and then rejecting them all, fearing it would lead to fewer applicants. For this reason they let a number of contracts that were somewhat higher than estimated, including metal furring and lathing, plastering, and ornamental ironwork.

The rise in prices was called unprecedented. The Capitol in Iowa, which the commissioners frequently used as a point of comparison, was completed twenty years previously, with an average wage for skilled labor of 2.50-3.00 dollars for a ten hour work day. The 1901 prices for the same worker for an eight hour day was now 3.60-5.00 dollars.²⁷ This is a curious statement, as the eight hour day wouldn't be officially enacted until 1937. This can be viewed as another indication of the power of Union labor in Minnesota at the time.

The program of the building had also increased in size since 1893. Space that had been put aside for future expansion was already being filled, and government departments were expecting changes to take place to accommodate their growth during construction.

In order to soften the blow of the request for more funds that was obviously coming, the commissioners once again had Cass Gilbert revise his drawings for greater cost savings. The most notable change at this time was the use of Kasota Stone for the interior finish of the walls. Technological advances had allowed this stone to be cut thinly and polished enough to use it as a marble-like material, and the savings associated with it were in excess of 300,000 dollars. It also provided the benefit of using a Minnesota stone for the interiors, which had been promised at the time of the dispute over the exterior stone.²⁸

Nevertheless, the commission once again had to request an additional amount of funding, 1,500,000 dollars to complete the interior of the building. They were quite confident, however, that this would be all that was needed under the present program, as they had many bids already in hand. Detailed break down of costs were provided with the report.

The legislature again approved the funding, passing an act on April 3, 1903. The commission then proceeded to hasten the work, noting that: "As the building has approached completion our labors have been more complicated and trying." Thus it could be said at this point at the project, the commissioners had learned a great deal about the process of construction.

A number of smaller contracts that come about late in the construction process were approved at this time:

²³ Seabury, Fifth Biennial Report of the Minnesota Board of State Capitol Commissioners. January 1st 1903. Pioneer Press company, state printers. Pg 5.

²⁴ Minneapolis Tribune: August 4: 1902, "Last Marble Laid."

²⁵ Gilbert, letter appended to Fifth Biennial Report of the Minnesota Board of State Capitol Commissioners. January 1st 1903. Pioneer Press company, state printers.. Pg 16

²⁶ Seabury, Fifth Biennial Report of the Minnesota Board of State Capitol Commissioners. January 1st 1903. Pioneer Press company, state printers.. Pg 5

²⁷ Ibid. Pg 7

²⁸ Ibid. Pg 8

²⁹ Seabury, Sixth Biennial Report of the Minnesota Board of State Capitol Commissioners. January 1st 1905. Pioneer Press company, state printers. Pg 4



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Diebold safe and lock company, for safe doors Van Dorn Iron works for shelves etc Otis Elevator company for elevators Herter Brothers for furniture A Schuneman "and others" for carpets and draperies. Mitchell Vance Co for electric light fixtures. (50k) Sterling Bronze company for electric light fixtures. (18k) Winslow Bros for mechanical grilles Otis elevator for "Electric sidewalk lifts"³⁰

The major artwork for the building was contracted at this time. Artists: John La Farge, D.C. French, Edward Simmons, E. H. Blashfield, E.E. Garnsey, F.D. Millett, Douglas Volk, H.O. Walker and Kenyon Cox.

Changes to the Site and Surrounding Area

Additional property was also acquired at this time, on the southeast part of the site. This area was previously occupied by houses. Again, the State resorted to condemnation of buildings in order to acquire all the properties, after "long negotiations." With that, work on grading the site could be completed, along with seeding and planting completed by spring of 1905. Roadways and sidewalks had not been completed by 1905, and were scheduled for 1906. Temporary wood sidewalks were erected.

Other related work around the site was also completed or underway at the time. The City of Saint Paul initiated, at its own expense, projects that improved the situation of the Capitol. Park Avenue was widened and straightened, which caused the Capitol site to increase slightly on that side, an addition that incurred no cost, due to the exchange of the unused plant site property for it. The City also undertook to create a park on the west end of the Capitol. This is now called Leif Eriksson Park, but had not been named or completed by 1905. Finally, a proposal was put before the City Council to straighten Wabasha Avenue, so as to provide a symmetrical approach to the Capitol. This had not been decided upon at the time, though would eventually be approved. ³²

The Completion of the Capitol

With the issuance of its sixth report, the Board of State Capitol Commissioners declared that as of January 1, 1905, the Capitol was ready to be occupied, though some work remained to be done, namely on the

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interior art, east and west entrance stairs, tree planting and the aforementioned roads and sidewalks. They also urged the legislature to make provision for the permanent care of the Capitol.³³

The final report of the Commission, issued January 1, 1907 concludes the work of the Board of State Capitol Commissioners. They note that everything left unfinished at the time of the previous report had been completed, with only a few artistic and landscaping issues remaining outstanding.

Of significance is the follow up to their previous request for permanent care of the Capitol. The legislature authorized sixty thousand dollars a year, and the commission created a staff and budget they believed sufficient to the purpose of maintenance, but added two additional requests; that an additional ten thousand dollars for contingencies should be allotted, and that a non-partisan body should be set up with full authority to make decisions regarding expenditure of these funds. ³⁴

The balance of the report contains thanks to all those who contributed to the project: The legislature, who consistently supported the commission by approving the funds requested, the staff members who supported the Commission, including Frank E. Hanson, secretary, and John Boland, site superintendant, the contractors and artists, too "numerous that time and space forbid," but most of all, to architect Cass Gilbert, "[whose] great artistic talent, combined with a thorough practical knowledge of architecture in all its phases...added to his unswerving integrity, has been to us, through all these years, our mainstay and reliance. To him also are the citizens of Minnesota indebted to an extent that will be more and more understood and appreciated as the years go by."

The Minnesota State Capitol was, on its completion, greatly loved by the citizens of Minnesota and by visitors from other states. "Criticisms are seldom heard, but expressions of delight and satisfaction are almost universal."³⁷

Photographic Credits:

Construction Photos by Haas Brothers of Saint Paul. Used by permission of MN CAAP Board. Note: There seems to be some disagreement between the dates listed on the photographs, and the state of project completion in the narrative, which come from the Commissioner's Reports.

³⁰ Ibid

³¹ Ibid. Pg 5

²² TI 1 D 40 4

³² Ibid. Pg 10-11.

³³ Ibid. Pg 12.

³⁴ Seabury, Seventh Biennial Report of the Minnesota Board of State Capitol Commissioners. January 1st 1907. This report carries no printer's mark. Pg 9.

³⁵ Ibid. Pg 10. No complete list of contractors seems to exist.

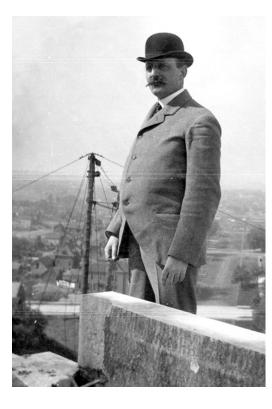
³⁶ Ibid.

³⁷ Ibid. Pg 11

List of Capitol Builders.

Architect Cass Gilbert. 1859-1934.

Cass Gilbert was only thirty-six years old when he won the Minnesota State Capitol design competition, but he had already made an impression on Minnesota architectural practice, both in his work building homes, churches, railroad depots and commercial buildings, as well as his involvement in professional organizations and as a founder of the Minnesota chapter of the American Institute of Architects. 38 Born in Zanesville, Ohio he moved to Saint Paul at the age of eight. He became an apprentice to architect Abraham Radcliffe in 1876, and attended the Massachusetts Institute of Technology from 1878-1879.³⁹ After a tour of Europe, he worked for the firm of McKim, Mead and White, perhaps America's best known architectural firm for classically inspired public buildings, from 1880-1883. He then returned to Saint Paul to found his own practice with a former MIT classmate James Knox Taylor. The Minnesota State Capitol was his first major public commission, and it catapulted him to national prominence. He would go on to design capitols for Arkansas, West Virginia, and also the Woolworth Building in New York and the United States Supreme Court in Washington DC.



Structural Engineer Gunvald Aus. 1851-1950.

Born in Norway, he came to the United States in 1883, and took to work designing bridges for railroads. Together with Cass Gilbert, he designed the structures for both the Minnesota State Capitol and the Woolworth Building, at the time the tallest building in the world. He returned to Norway in 1915. 40

Structural Engineer Rafael Guastavino Moreno. 1841-1908.

Born in Valencia, Spain, he trained at the Escola Expecial de Mestres d'Obres in Barcelona, graduating in 1872 as 'Master Builder.' He came to the United States in 1881. He introduced and popularized the method of construction known in the United States as Guastavino Vaulting, which is a technique of constructing very strong vaults out of relatively thin tiled surfaces with no centering. This was a development of an ancient building method common in Catalonia and known in the Mediterranean. His

³⁸ O'Sullivan, Thomas, <u>Cass Gilbert: Life and Work, Architect of the Public Domain</u>. Barbara S. Christen and Steven Flanders, ed. Norton, W. W. & Company, Inc. 2001. Pg 9

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first major work in the United States, was the Boston Public Library in 1895. His vaulting methods became very popular, and are used in the dome and the ground floor of the Minnesota State Capitol.

Commissioner Channing Seabury

While officially only Vice President of the Board of Commissioners, Channing Seabury was the defacto head of the Board, as the titular President, whoever was Governor at the time, generally let the commission go about its business without intervention. A Saint Paul resident and businessman, Seabury was foremost in the Commission's efforts of management and lobbying for funds.

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The Butler-Ryan Company. Saint Paul, Minnesota.

Founded by brothers William and Walter Butler in 1886, and merging with Mike Ryan in 1894, this company was a prominent builder, incorporating the latest of technologies, including a steam hoist for setting heavy stones rapidly, and large stone turning lathe for carving decorative elements. The Butlers were also local union organizers, and exclusively used union labor. 41

Universal Construction Company. Chicago, Illinois.

Fabricated and installed the structural iron and steelwork for the ground floor. Records are lacking on whether they also did the remainder of the structural steel and ironwork.

Flour City Ornamental Ironworks. Minneapolis, Minnesota.

This company is responsible for most of the ornamental ironwork in the Capitol. Stairs, railings, and the now gone decorative fronts to the Elevators were all provided by Flour City Ornamental Ironworks.

George J. Grant. Saint Paul, Minnesota.

Responsible for excavation and foundations. This included both concrete and masonry, in sandstone, granite, limestone and brick.

Bricklayers Local #1

At the end of the nineteenth century, most construction companies did not keep large numbers of employees. The standard practice was to hire laborers on a day by day basis. This was done through the local labor Unions. Workers receive their daily work at the Union headquarters, where foremen from the construction company would come and arrange for the number of workers for that day. The bricklayers

The Minnesota State Capitol January 31, 2014 Historic Structures Report 0476-061-00

³⁹ Murphy, Patricia Ann, "Architectural Education and Career." <u>Cass Gilbert: Life and Work, Architect of the Public Domain</u>. Barbara S. Christen and Steven Flanders, ed. Norton, W. W. & Company, Inc. 2001. Pg 28

⁴⁰ Citation needed. Saga in Steel and Concrete – Norwegian Engineers in America (Kenneth Bjork. Northfield, Minnesota: Norwegian-American Historical Association. 1947

⁴¹ Haley, Martin. "Building for the future: The story of the Walter Butler Companies"



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also laid, but did not cut, stone.⁴² Other unions would have been involved, as use of non union labor anywhere on the site could lead to strikes, as it did in 1902.

FA Purdy and Will J. Hutcheson. Chicago, Illinois.

Sculpture firm that produced the exterior column capitals and most other exterior decorative stonework.⁴³

Historic Structures Report 0476-061-00

January 31, 2014

The Minnesota State Capitol

⁴² Minnesota Historical Society. "Who Built the Capitol". 2012. ⁴³ "Minnesota's State Capitol." 2005. Pg 53.



Minnesota State Capitol
Drawings Revised 1903
Cass Gilbert, Architect



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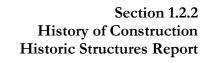
Foundation Plan

Version 1

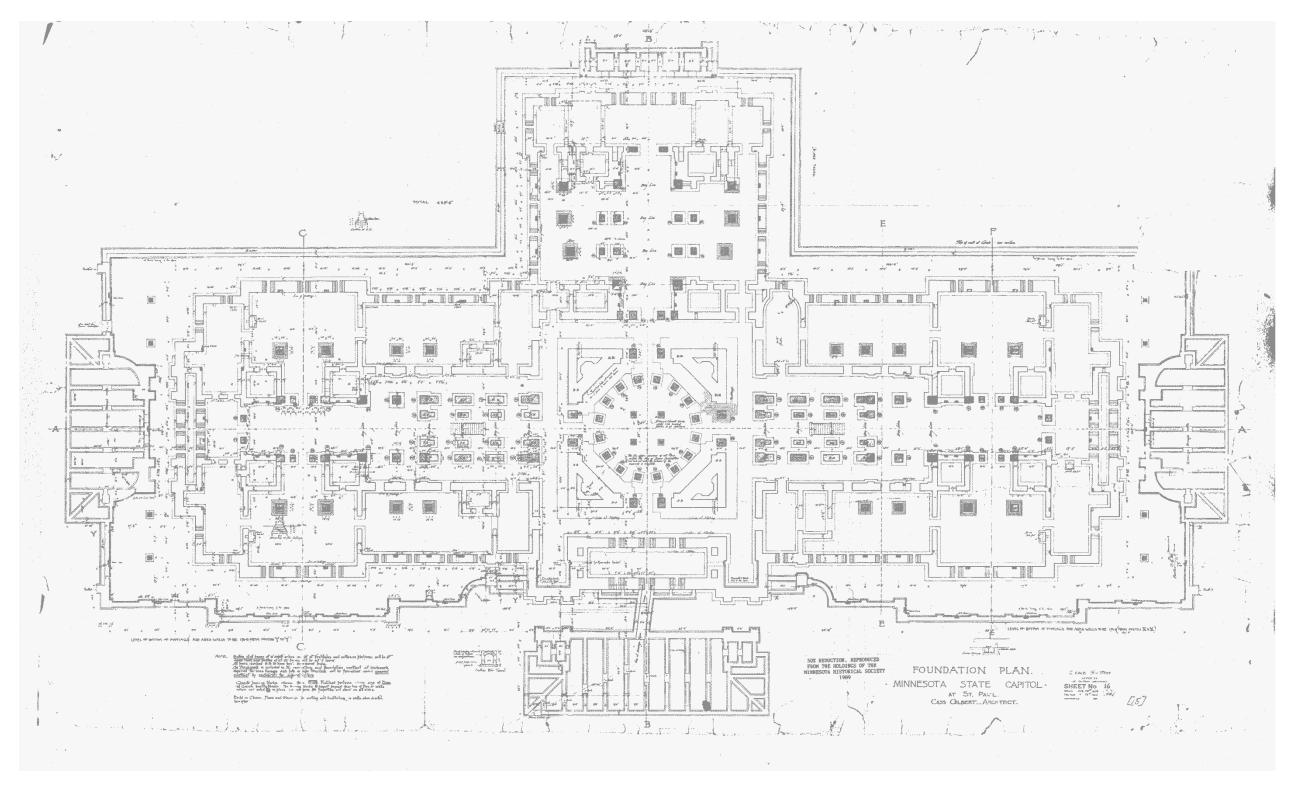
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Ground Floor Plan

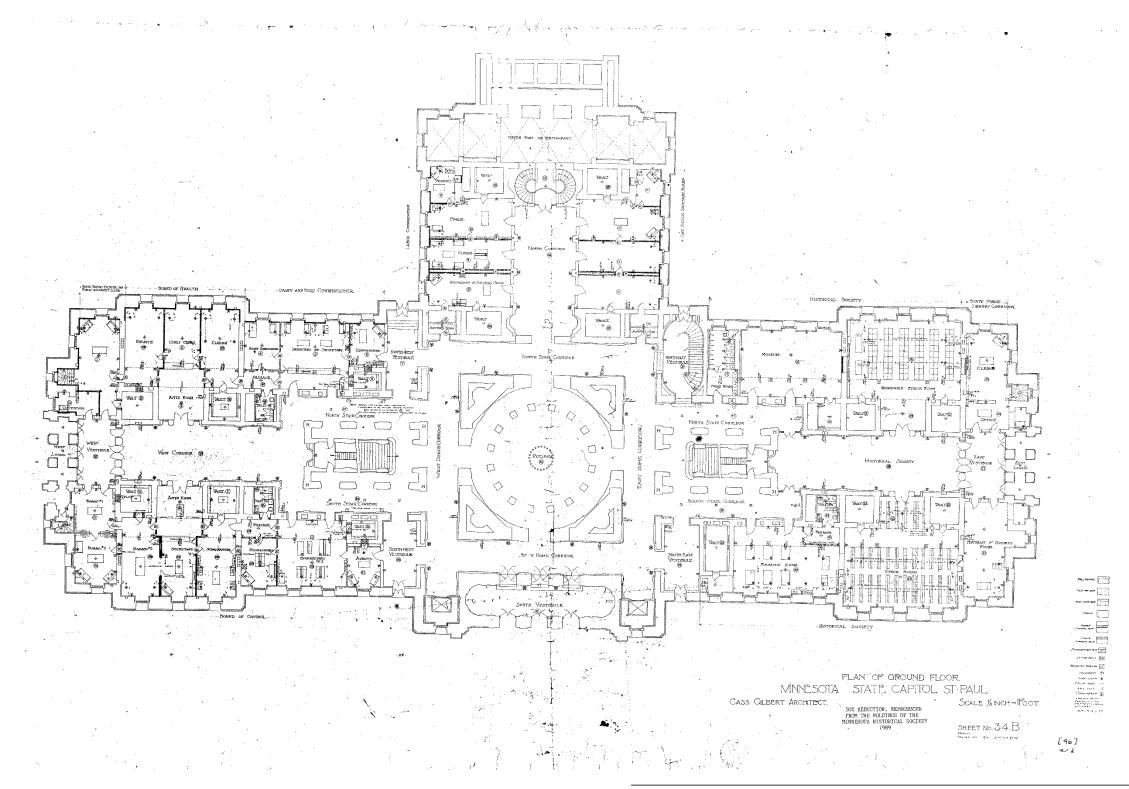
Version 2

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Section 1.2.2





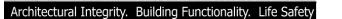
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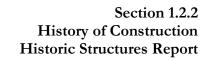
Architectural Integrity. Building Functionality. Life Safety

First Floor Plan

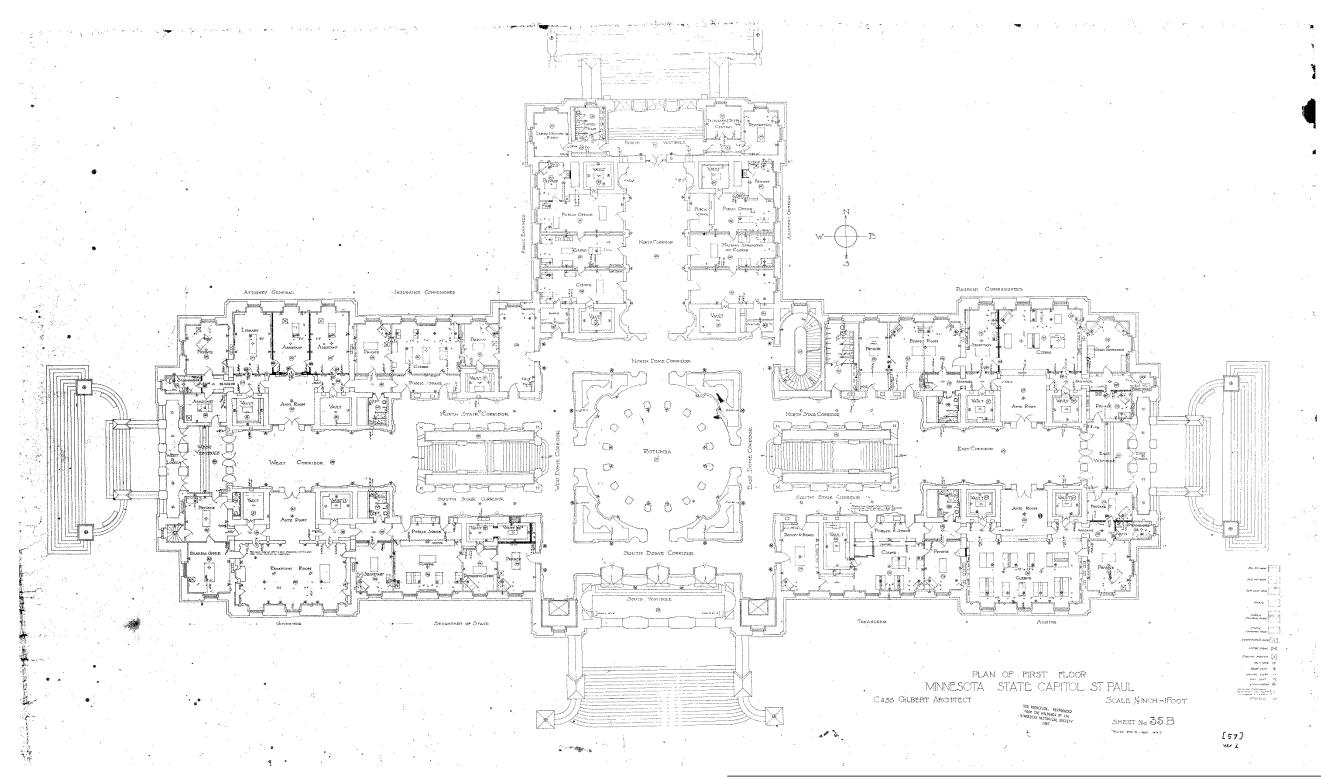
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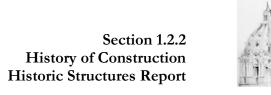
Architectural Integrity. Building Functionality. Life Safety

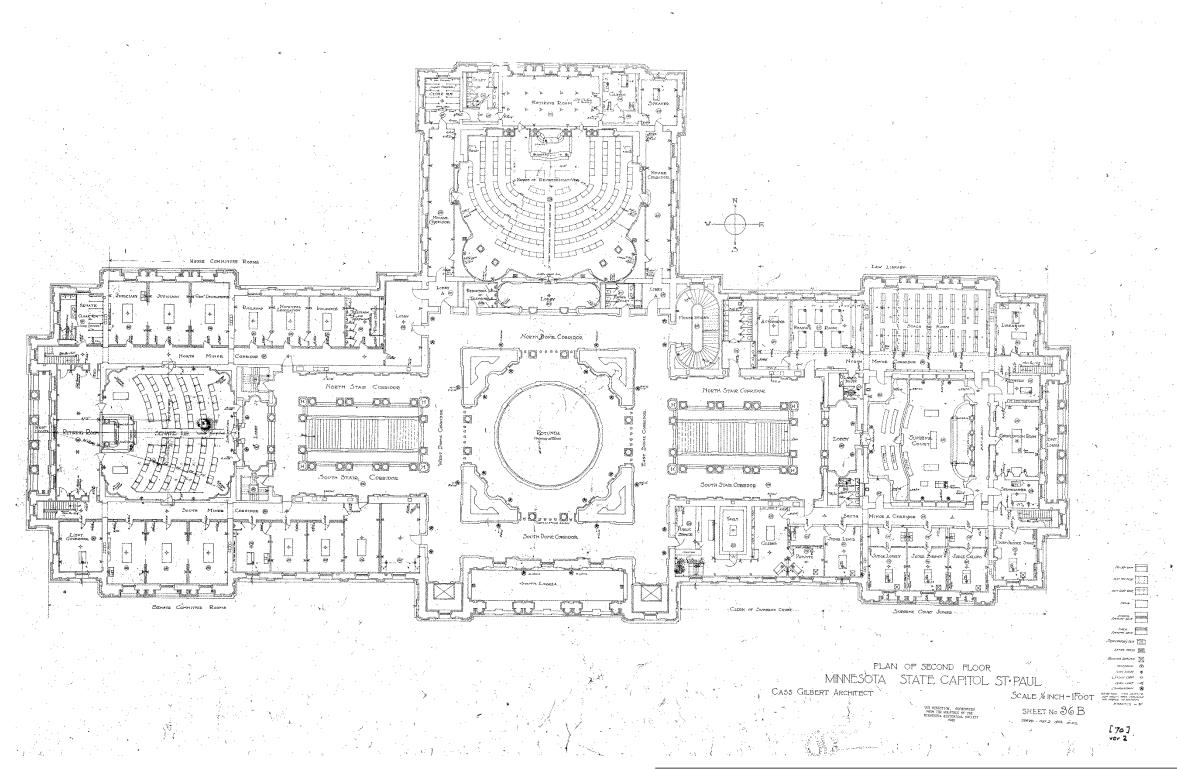
Second Floor Plan

Version 2

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Third Floor Plan

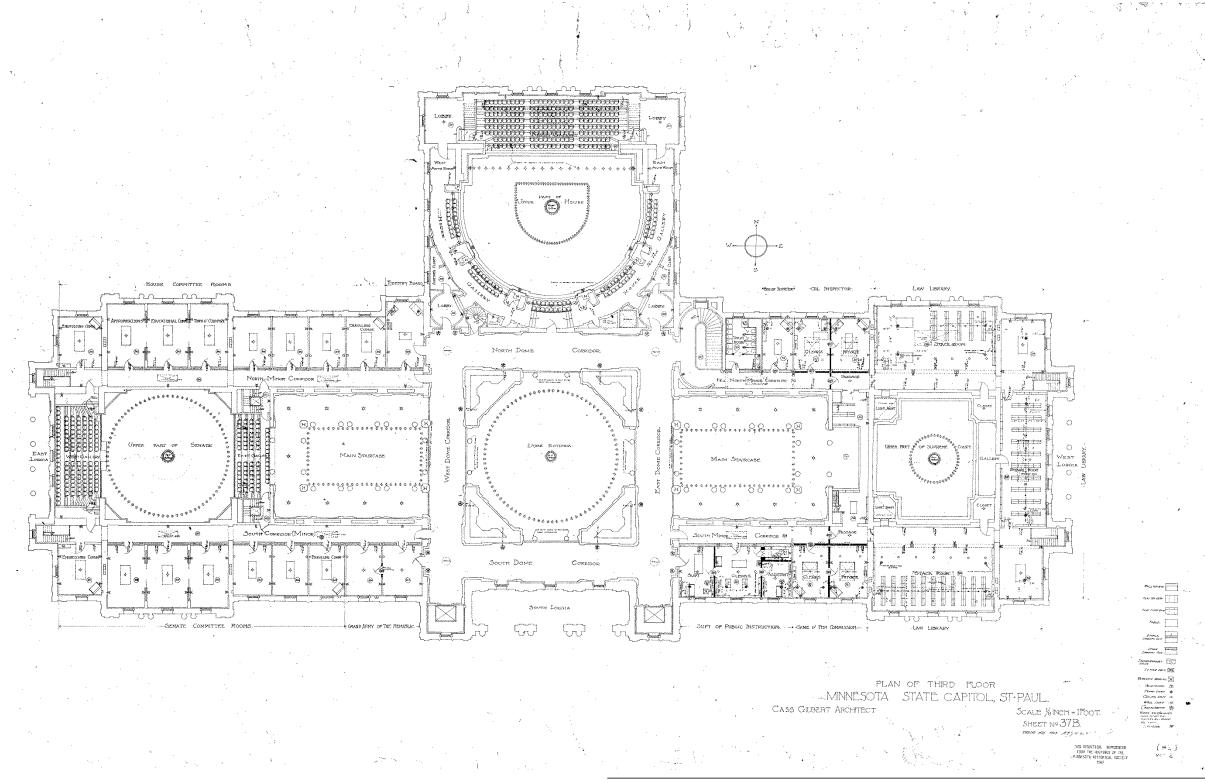
Version 2

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Section 1.2.2 **History of Construction** Historic Structures Report







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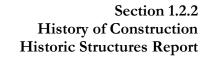
Architectural Integrity. Building Functionality. Life Safety

Roof Plan

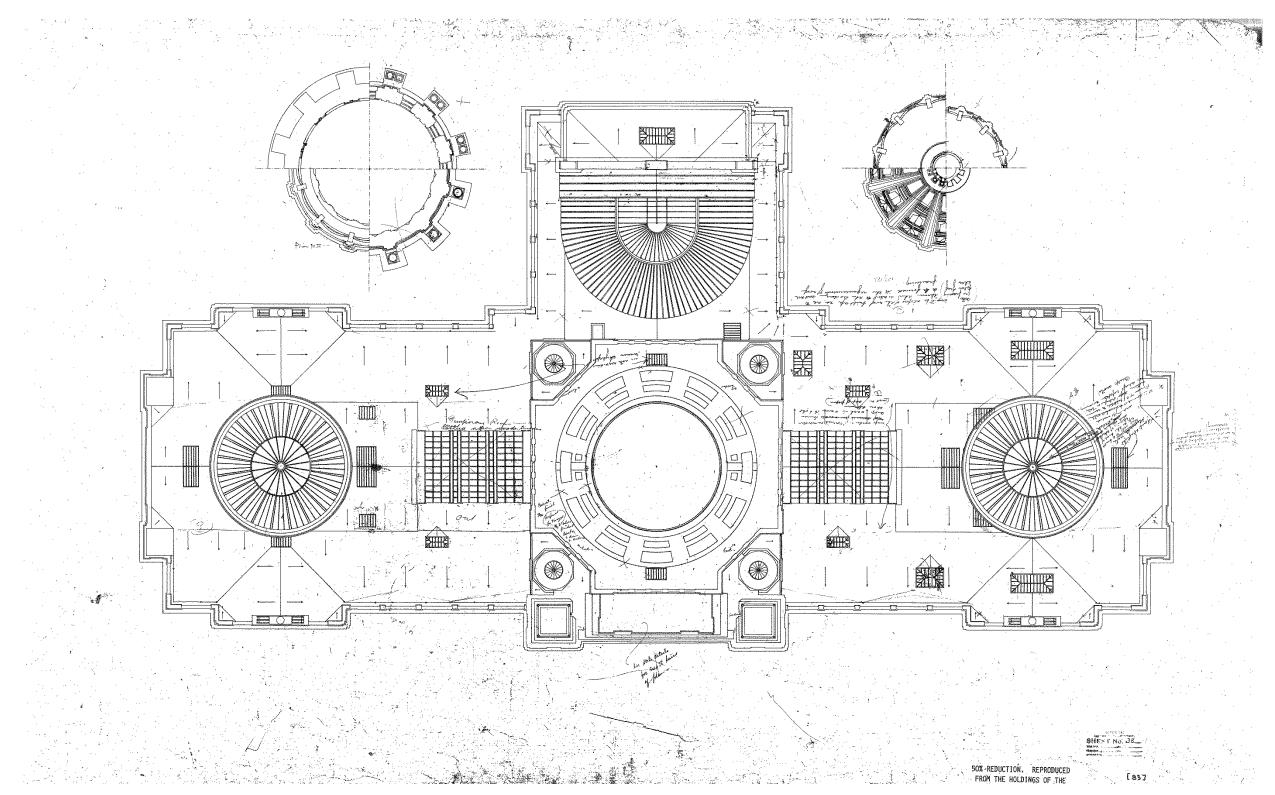
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South Elevation

Version 3

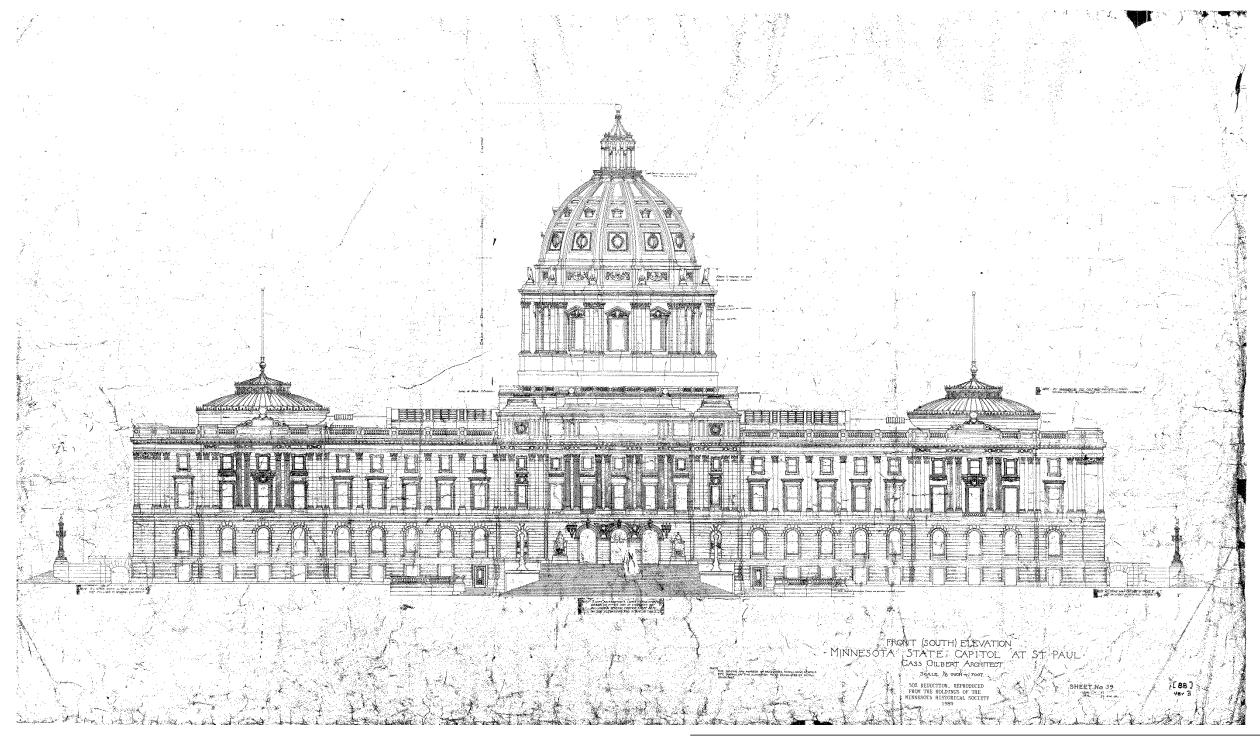
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Section 1.2.2 History of Construction Historic Structures Report







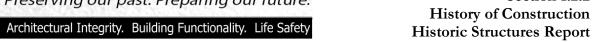
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North Elevation

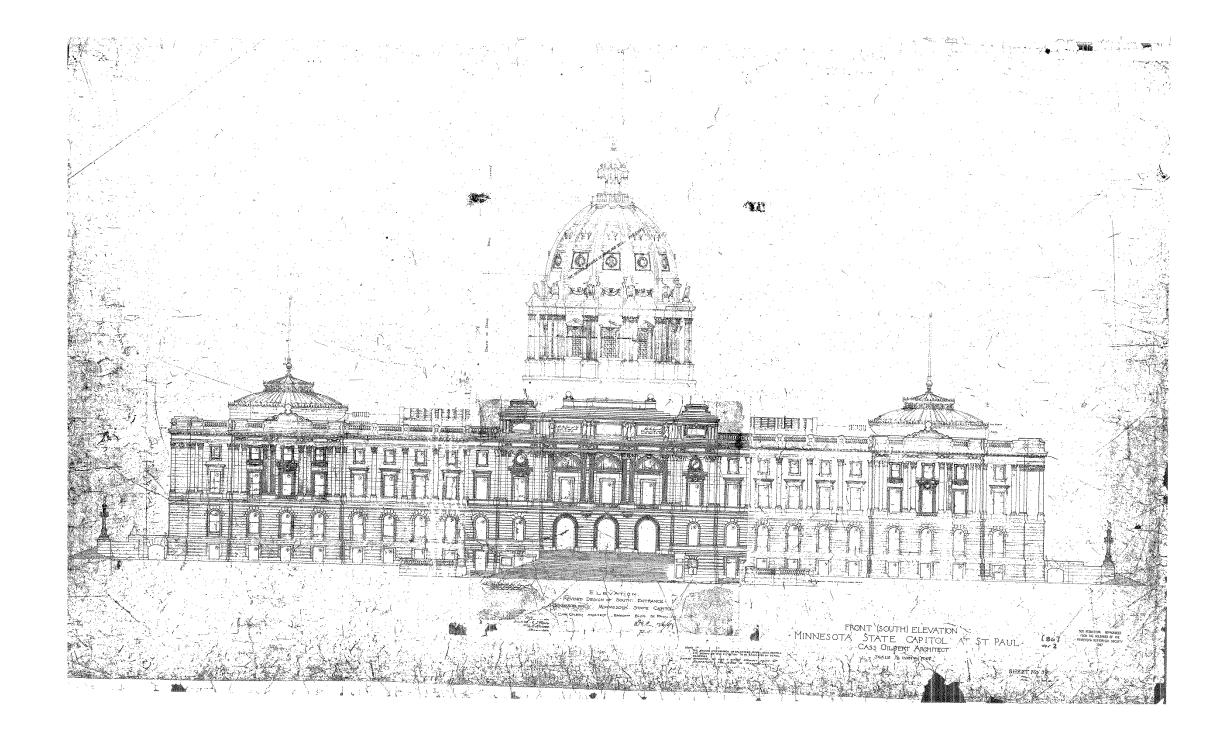
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Section 1.2.2





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Architectural Integrity. Building Functionality. Life Safety

East Elevation

Version 2

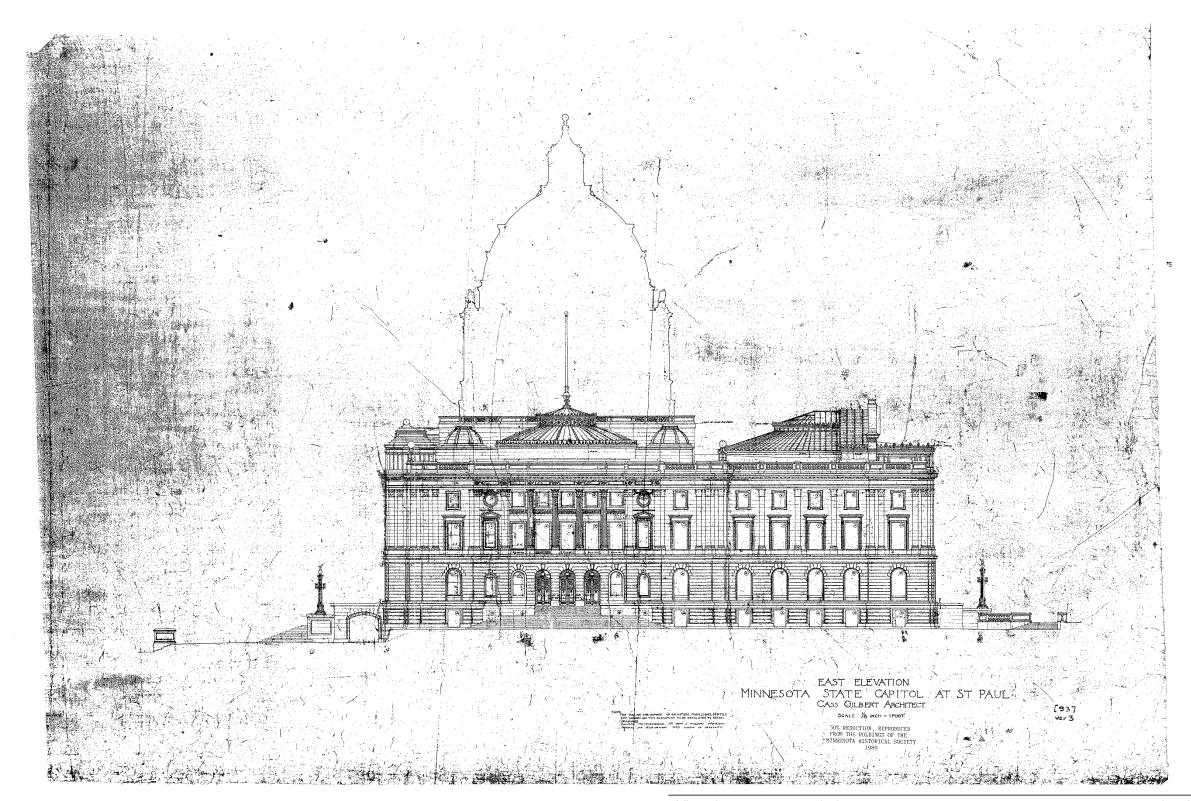
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Section 1.2.2 History of Construction Historic Structures Report







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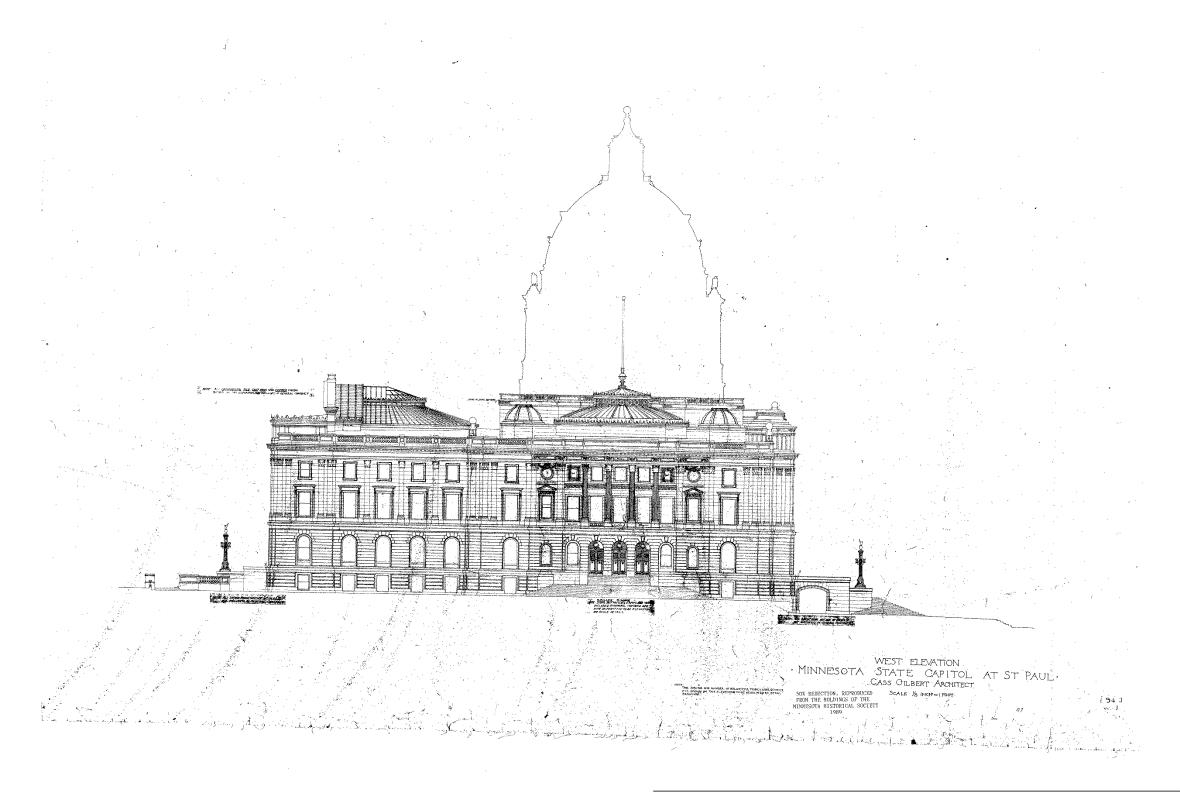
West Elevation

Version 1

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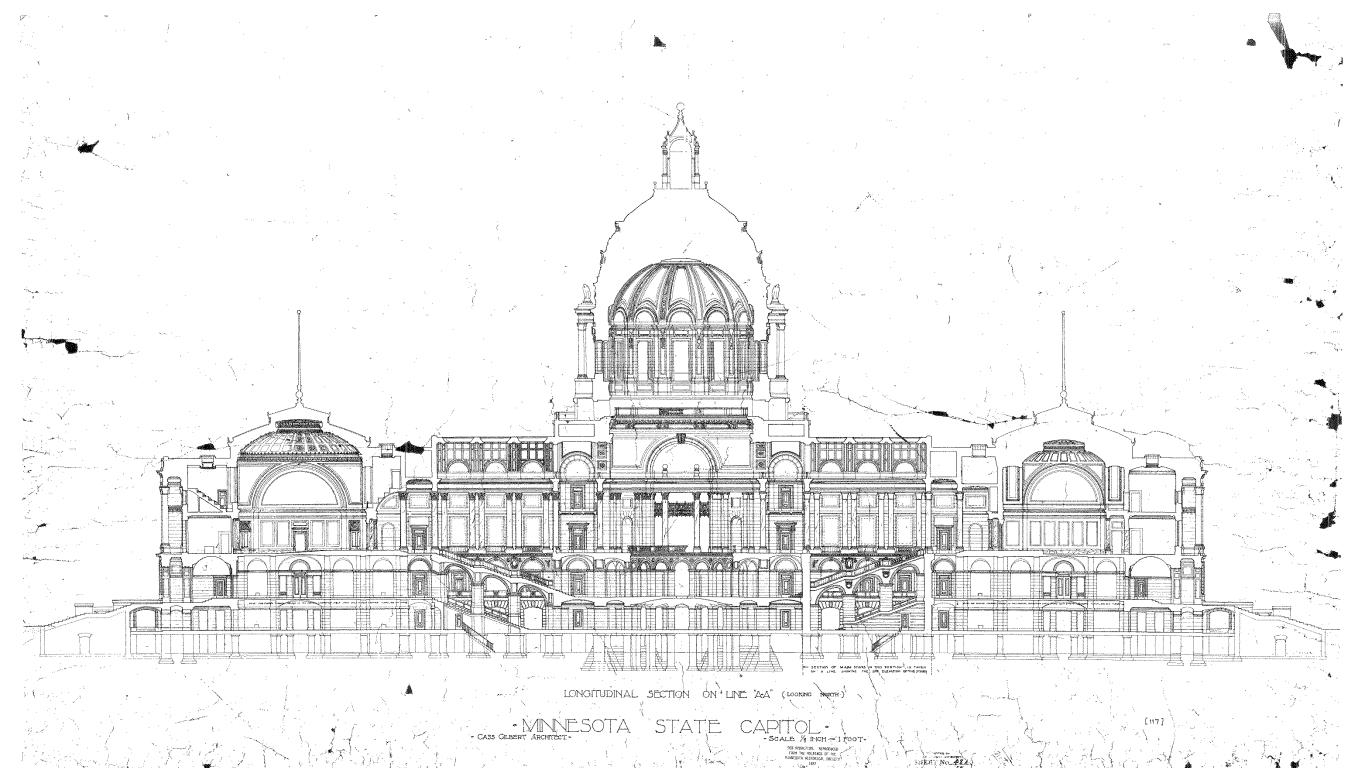
Longitudinal Section

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Section 1.2.2 History of Construction Historic Structures Report





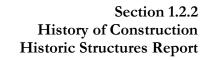


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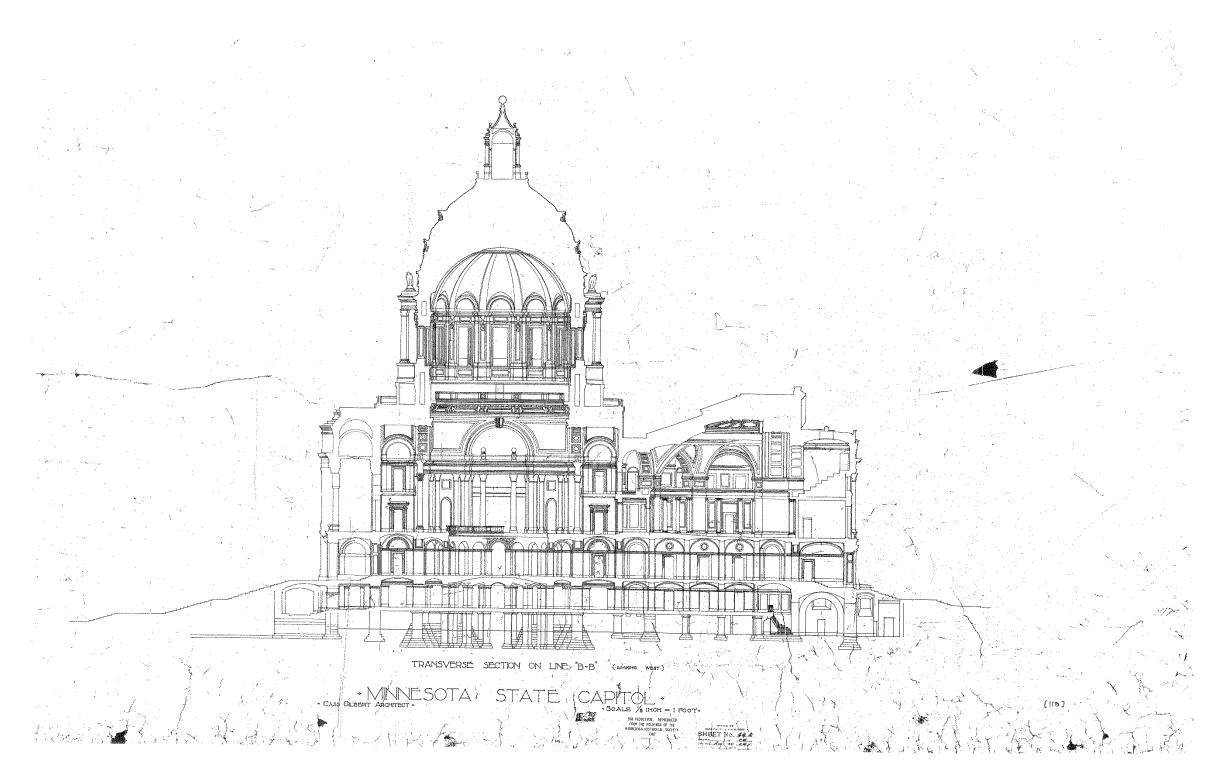
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Cross Section

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Section 1.2.3 Development History Historic Structures Report



Section 1.2.3 Development History

There have been many renovation projects in the Minnesota State Capitol over its one hundred year history. It was originally built to house virtually every state agency. As the State Government expanded, different departments gradually departed the Capitol to newly opened office buildings. These relocations were followed by campaigns of renovations as their former Capitol spaces were converted to new use.

The Capitol as Originally Constructed

Overview:

The Capitol was constructed to house all the central Administrative, Executive, Judicial and Legislative functions of the state. As built, it was occupied by a wide variety of stakeholders, the largest being the Supreme Court, the House of Representatives, the Senate, the Governor's Office, and the Minnesota Historical Society.

What is now called the Basement was unfinished at the time of construction. The only occupiable space at this time was the restaurant, or 'rathskeller,' in the north end of the North Wing, and a central corridor with its access stairs beneath the grand stairs in the East and West Wing.

The floors above are all designed around an inverted T-shaped Ceremonial Space that includes the Rotunda at its center, with grand stairs to the east and west rising to the Supreme Court and Senate respectively, with the House Chambers to the North facing the main entrance to the south. Offices and support spaces cluster around each Chamber and within the length of each wing.

The Ground Floor is distinctive in having an extensive Guastavino vaulting system in its public spaces. It had a lower level of finishes than the other levels, with flat, undecorated plaster in all non public areas. Its layout is similar to the other floors.

The First Floor has the Governor's Office, Anteroom and Reception Room that are decorated and preserved to a high standard. Other executive offices, such as the Secretary of State, State Auditor and Treasurer, had their offices on this floor, each with a public lobby and a service counter.

The chambers of the House, Senate, and Supreme Court are on the Second Floor. Each of these chambers has its associated retiring room, and each is distinctively and richly decorated in their own way. Surrounding the various chambers were the offices, meeting rooms and other functions that supported each branch. Unlike on the first floor, none of these had elaborate public lobbies.

The Third Floor has many office spaces that are or were originally skylit. Aside from offices and the law library, the floor also has the Public Gallery Spaces for the Senate, House, and Supreme Court. The central ceremonial space is much reduced on this level.

Design and Construction Standards:

The construction standards of the original building were very high, especially in the Chambers, Governor's Offices, and Ceremonial Public Spaces. Such was the care given to the whole of the project that even remote mechanical spaces were designed and built with a quality of design and finish that is not evident in such spaces today. The care, quality, and beauty of virtually every original space show the great importance that the people of Minnesota and architect Cass Gilbert placed on the Capitol and its role as a 'Temple to Democracy.'

While design standards are very high throughout the Capitol, finish standards do vary according to the relative primacy of each space. The three chambers of the House, Senate and Supreme Court, along with the Governor's Reception room show the very highest standards. Each of these spaces is unique but thematically linked. One example is the use of columns for each Chamber with different stone selections and capital styles.

The public spaces throughout the building are also very grand. The standard finishes of these spaces are a Kasota Limestone walls over a green marble base with plaster vaults with decorative paint on the ceilings on the First and Third Floor. The ceiling on the Ground Floor is the structural Guastavino tile vaults. The floors are limestone, with marble medallions and inlays of precious stone. The ground floor is plain, with more ornament on the first floor, the greatest amount on the second, in the corridors surrounding the grand stairs and rotunda. The third floor has a relatively simple border on the floors of its public spaces. Decorative stone columns with painted plaster capitals and marble rail supports complete the impression of tasteful opulence. On all floors, plaster panels alternate with stone; these originally served to locate the cast brass candelabra (also called torcheres) that illuminated the space. Ventilation is accomplished through decorative grilles. These grilles are bronze in the public spaces, and are painted cast iron elsewhere. The vast majority of public circulation space is built to these standards. It is important to note that these spaces are filled with art objects and objects of historical impact. These will only be treated within the context of changes to the Capitol's physical fabric.

Beyond the public circulation spaces, Gilbert planned a series of what he called 'Minor Corridors;' spaces that where accessed from the major circulation system and served to mediate between them and the small private spaces that they access. These Minor Corridors, on the Second and Third Floors have a tiled floor and marble base. Walls were plaster with vaulted ceiling. On the Third Floor these Minor Corridors also had skylights.

Not every office space was accessed from the Minor Corridors. Major offices on the First Floor, originally belonging to important officers like the Secretary of State were treated at a higher standard than other spaces. Each had a reception area with a marble floor while the office spaces had pine floor with oak base and trim, plaster walls and plaster ceiling with decorative beams. These offices were all located along the main East/West Corridor (eight total), while the offices in the North Wing were similar but lacked the marble reception areas and decorative plasterwork. This would become the standard level of finish for offices and support spaces on other floors.



Section 1.2.3
Development History
Historic Structures Report

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Some unique spaces in the original design include the offices of the Chief Justice and House Speaker as well as the Post Office Lobby all on the Second Floor and the restaurant or 'Rathskeller' on the Basement Level.

The chambers have identical sliding pocket doors ten feet high, with ornate carved floral patterns. Each chamber also has a bronze gate that allows the chamber to be viewed while not in session. Other doors throughout the Capitol are built to the same high standard, but vary in character. Double swinging glazed doors open from the vestibules to the main public spaces. Copper clad glazed doors face south at the main entrance. Monumental wood doors open to each of the secondary entrances. Three paneled oak doors serve office spaces. Doors into the main corridors on the first through third floors are framed with marble, at the ground floors, with plaster. Doors in office areas are framed with often elaborate oak frames.

The structural systems of the Minnesota State Capitol primarily consist of load-bearing brick and stone masonry walls and piers supporting steel-framed floor and roof systems. Floor systems generally consist of brick and tile masonry arches and vaults spanning to steel framing. Roof systems are a combination of clay book tile supported by steel framing and steel-framed domes over the chamber spaces. The main dome is a marble and brick structure, reinforced with embedded steel elements. The lantern structure atop the dome is independently supported on a steel frame inside the shell of the outer dome.

The structure of the main dome is comprised of three distinct components: the outer marble and masonry dome, the middle dome supporting the lantern, and the inner dome forming the ceiling of the rotunda. The outer dome is marble with hollow brick back-up and embedded steel tension bands. A large trussed tension ring resists thrust at the base of the dome. The middle "dome" is actually a conical steel structure supporting the steel-framed lantern of the dome. It is constructed from steel column ribs that connect to the tension ring at the base of the outer dome. Space between the columns is infilled with shallow brick arches. The inner dome is of Guastavino construction.

Overall Impact of All Renovations:

The majority of changes that have taken place within the Capitol have not fundamentally altered the character of its spaces. In general, public space has remained public space, office space has remained office space, and while tenants have changed, the spaces have not been fundamentally altered. The exceptions to this generalization are the spaces that have had their use and character fundamentally altered and have the highest priority for renovation. These spaces include the following: The former Minnesota Historical Society Offices of the East Wing Ground Floor with its hall and large semi-public spaces, the large hearing room in the formerly public Ground Floor Rotunda 'crypt,' the Ground Floor East Entry converted into a

mechanical room and conference room, the Third Floor House Gallery converted into offices and formerly skylit law library reading rooms converted into offices with acoustic ceilings.

A wider impact of the various alterations that the Capitol has undergone is the consistent erosion of the architectural hierarchy as designed by architect Cass Gilbert. In his original design, there was a clear continuity of architectural finishes and spatial relationships that aided in the organization and understanding of the spaces. The multitude of small changes, as well as the larger scale renovations as they occurred, were damaging to the overall order. While the primary spaces remained largely unaffected, secondary spaces suffered greatly as the features that distinguished one level of office or support space from another as originally designed were removed or obscured. One of the better examples of this is the Minor Corridors in which had their original tile floor pattern covered over with carpeting and their vaulted ceilings covered with acoustic tile. In the more sensitive cases, a matching carpet was used (Second Floor Senate Hallway) but in other places, such as the Third Floor Southeast Corridor, there is no differentiation between the corridor and adjacent open office spaces. The distinctiveness of the space and its historic character have been lost. It is a similar situation in the First Floor Office Suites which Cass Gilbert set apart from the others by giving each a public reception area with a marble floor and a ceiling with plaster beams. In every case except for the Governor's and Attorney General's office, the difference in flooring is concealed by carpeting, and the ceiling is covered with acoustic tile.

Another way in which the architectural character has been eroded is by the strong contrast between original and new elements. In the original building, doors and wood trim were unifying elements throughout the building with all doors except those to the chambers being similar throughout. As alterations took place, more and more different types of doors were introduced, again causing a loss of character and sense of place. Inconsistent window treatment is a less widespread but nevertheless serious problem.

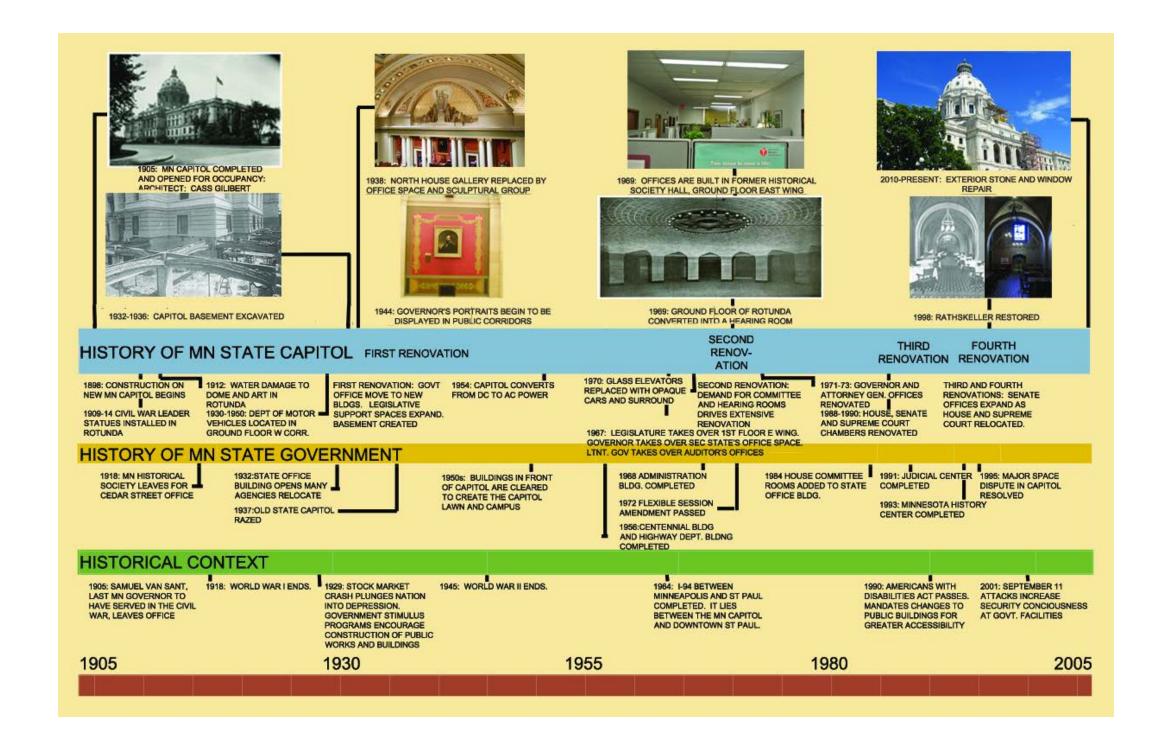
Lesser alterations, by their ad hoc nature detract from the overall architectural integrity in many different ways. Attempts to improve lighting led to obtrusive uplights added to public spaces in ways that were not consistent, and served to damage decorative painting at ceilings. ADA upgrades, such as drinking fountains, phone booths, and ramps, were installed in historically sensitive places, when in many cases, they could be installed in less sensitive areas without compromising their function.

A more complicated issue is one where historical restoration comes into conflict with a longstanding tradition of the building users. One example is the gradual change to the interior lighting program starting in 1944 with the tradition of adding portraits of the State Governors. The ideal place for these portraits were the same plaster panels within the main corridor spaces that were previously the location of illumination torcheres. These were gradually reduced in number and moved in an attempt to free up wall space for the ever increasing number of portraits. This caused a deterioration in the lighting quality of the public spaces, and doubtless contributed to the installation of indirect up lights in 1974. These lights, doubtless selected in part for their smaller effect on the portraits and other art and artifacts present, caused deterioration to the decorative paintings on the corridor ceilings. A solution is required that will be sensitive to both the historic design intent and the now historic custom of portraiture.

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Section 1.2.3 Development History Historic Structures Report

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Minnesota State Capitol
Plan Development as of 1954
From
DC to AC Power Conversion
G.M Orr Engineering



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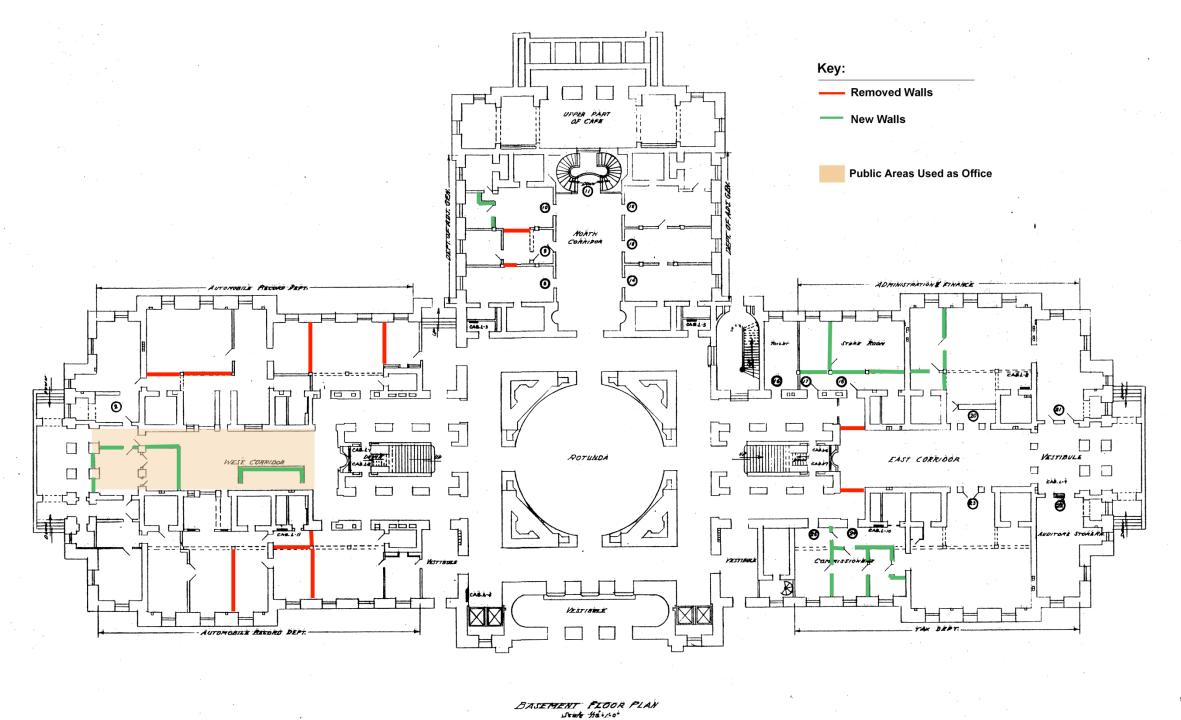
Ground Floor Plan

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Section 1.2.2 History of Construction Historic Structures Report







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Architectural Integrity. Building Functionality. Life Safety

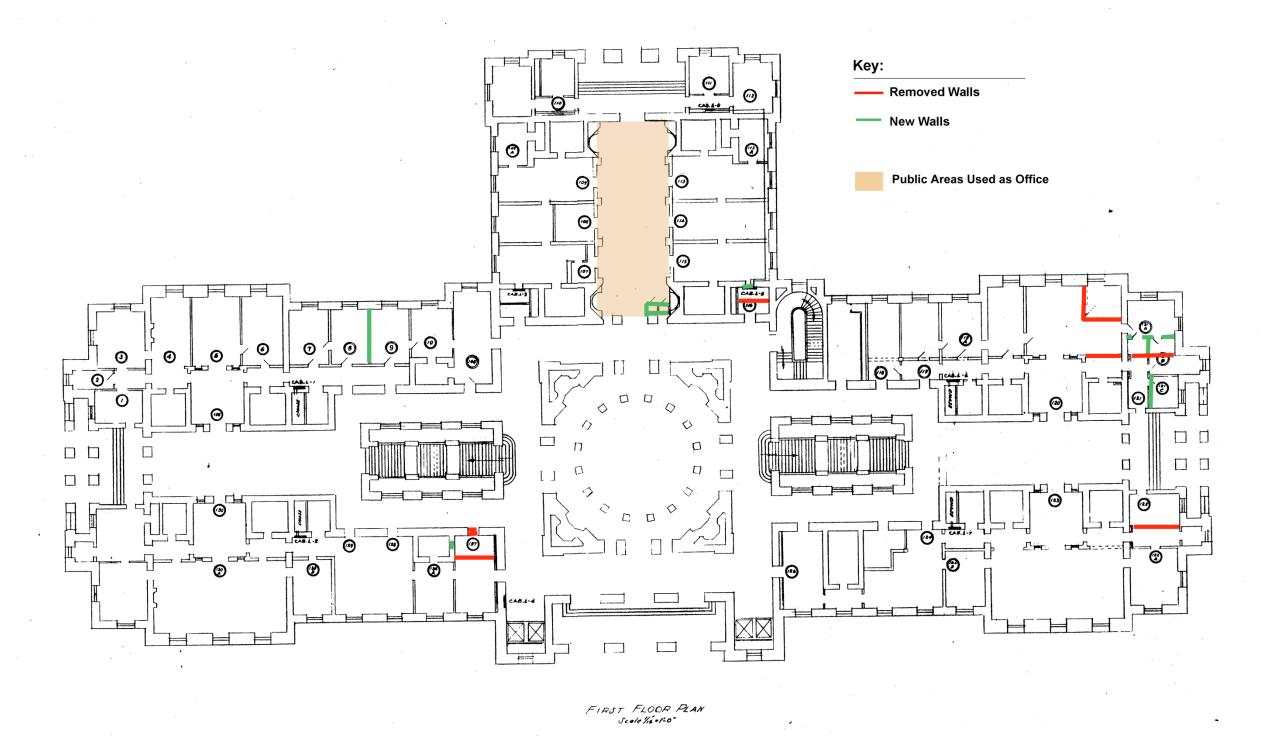
First Floor Plan

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Section 1.2.2 History of Construction Historic Structures Report





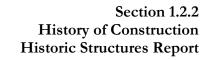


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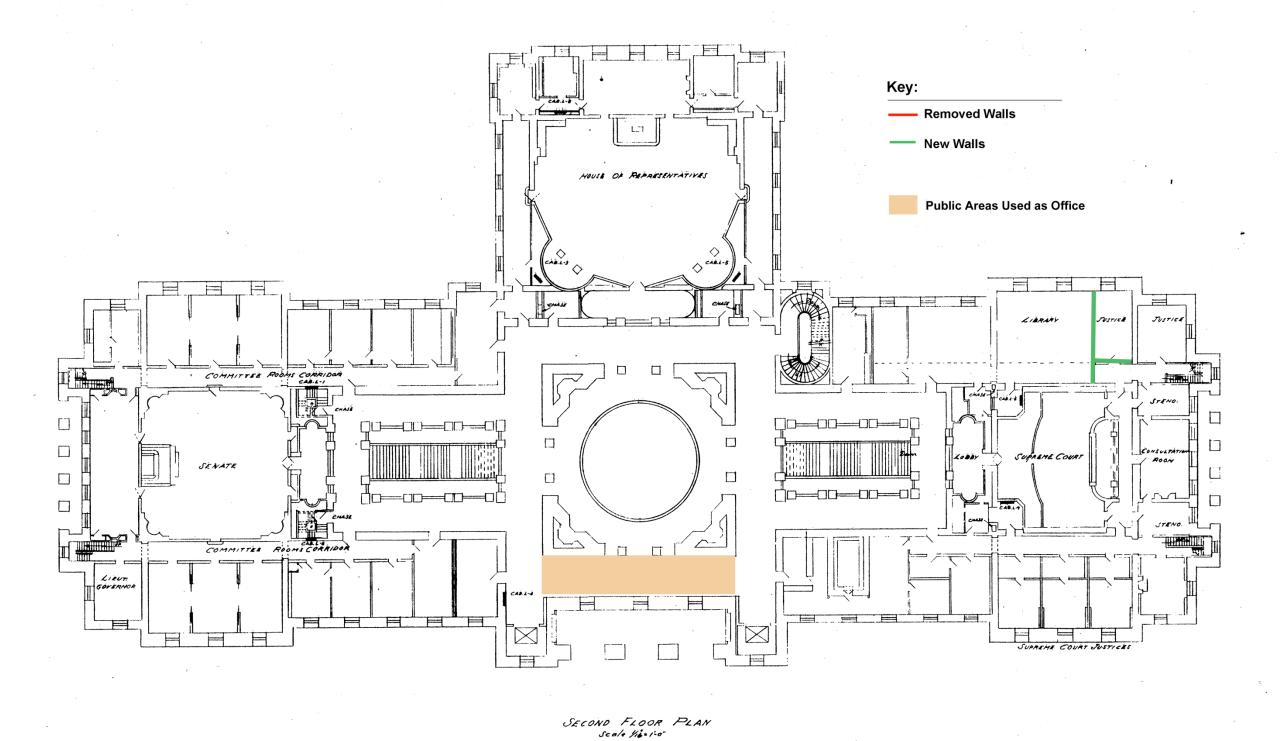
Architectural Integrity. Building Functionality. Life Safety

Second Floor Plan

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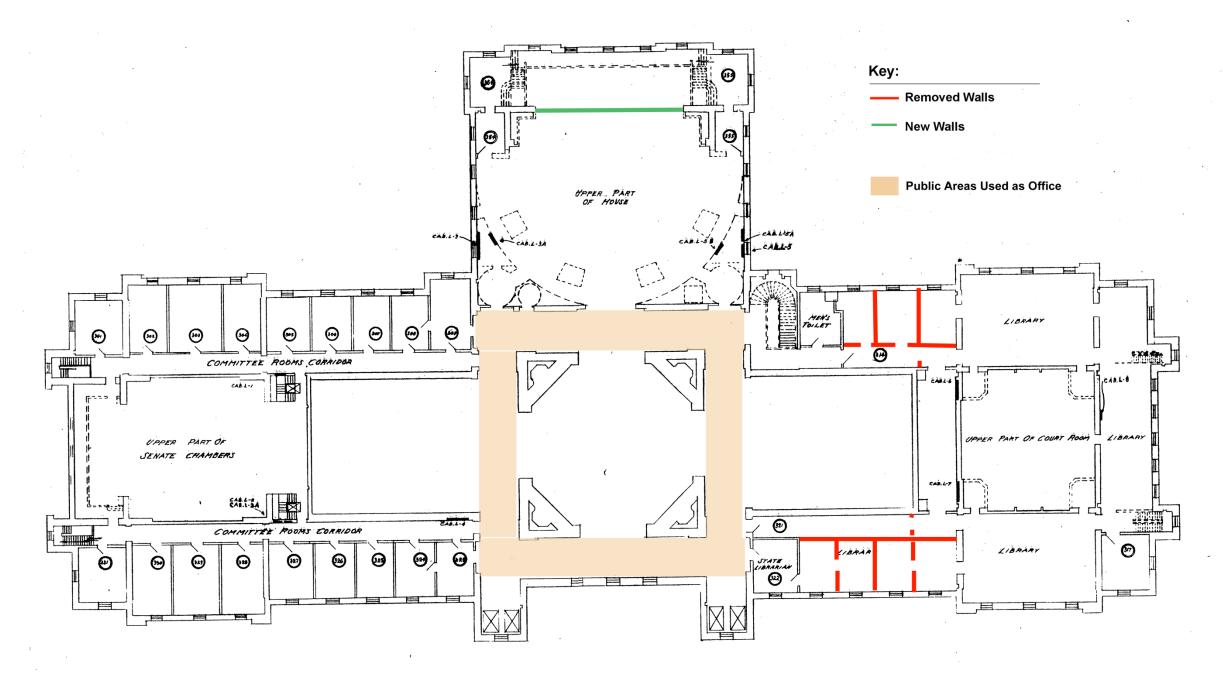
Third Floor Plan

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Section 1.2.2 History of Construction Historic Structures Report





THIRD FLOOR PLAN Scale Vis 1:0



Minnesota State Capitol Plan Development as of 1972 From Capitol Remodelling Phase I, II, and III Toltz, King, Duvall, Anderson and Associates

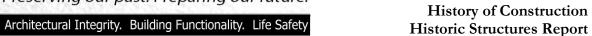


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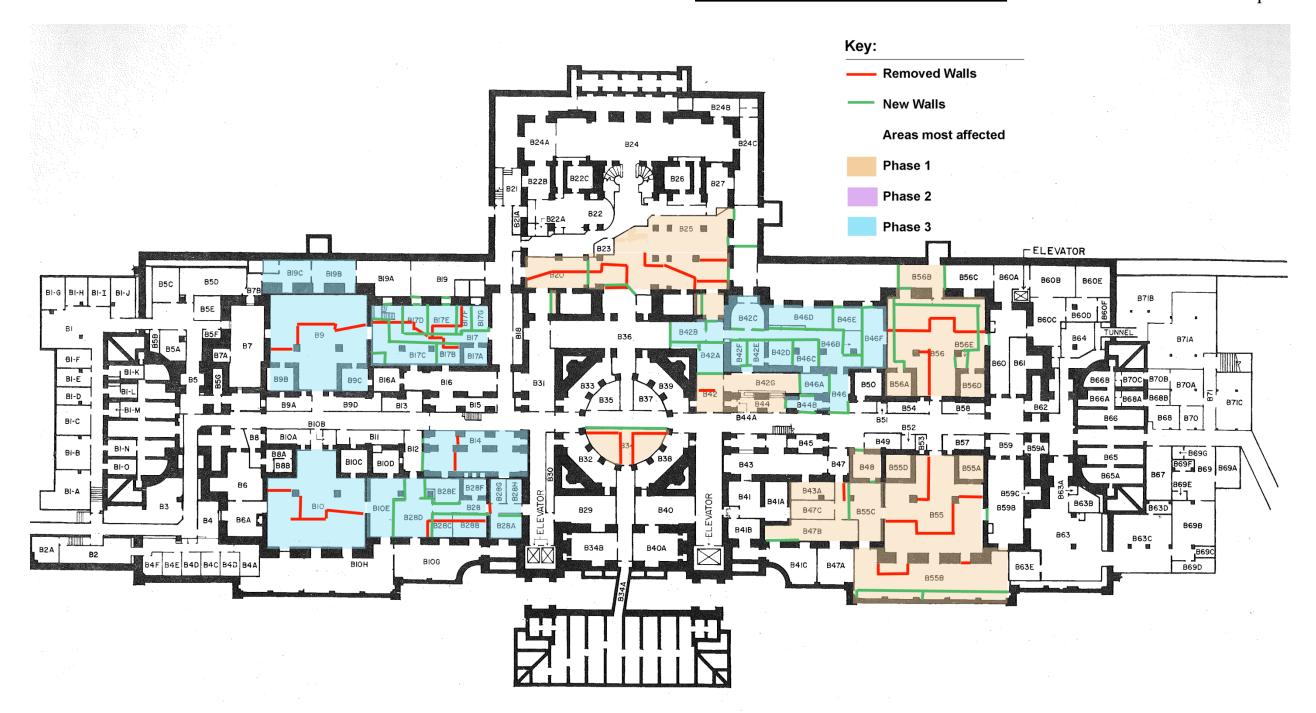
Basement Plan

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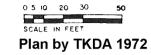




Section 1.2.2









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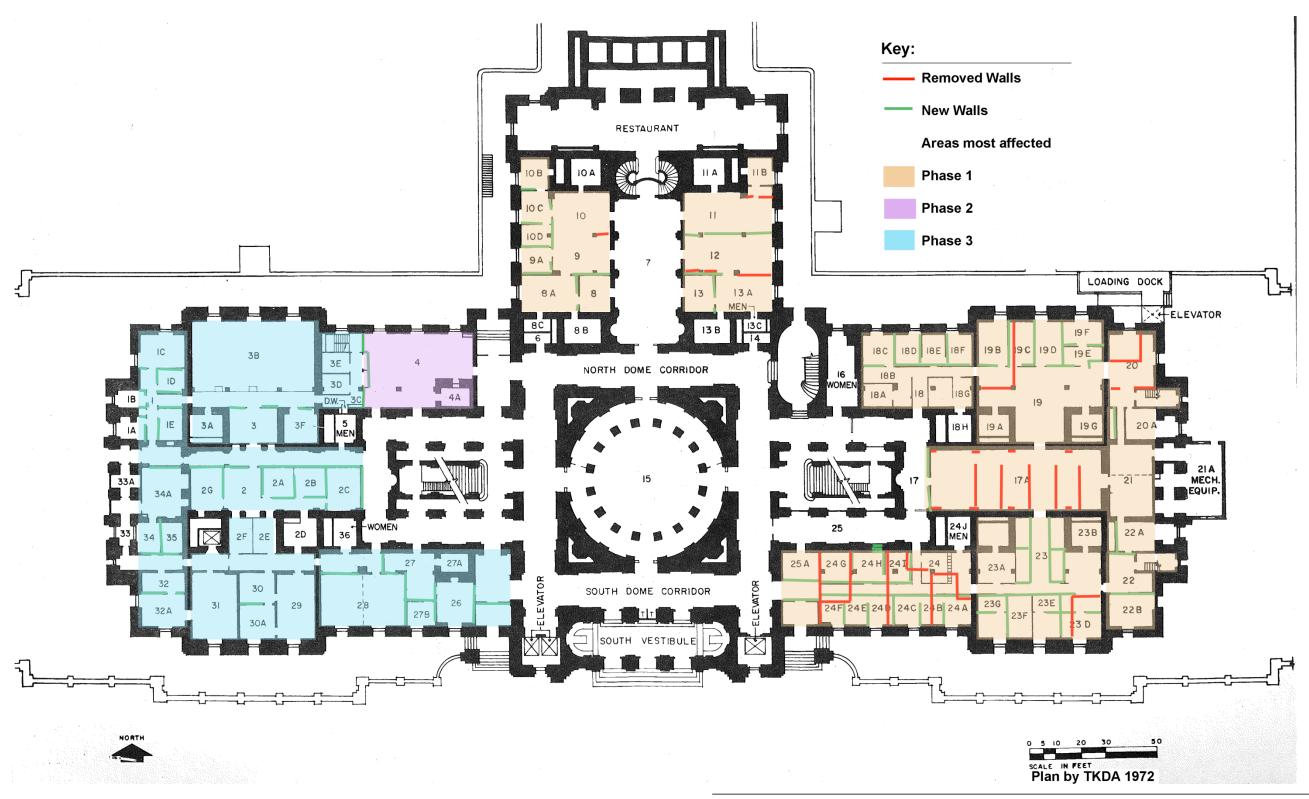
Architectural Integrity. Building Functionality. Life Safety

Ground Floor Plan

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Section 1.2.2 **History of Construction** Architectural Integrity. Building Functionality. Life Safety Historic Structures Report







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Architectural Integrity. Building Functionality. Life Safety

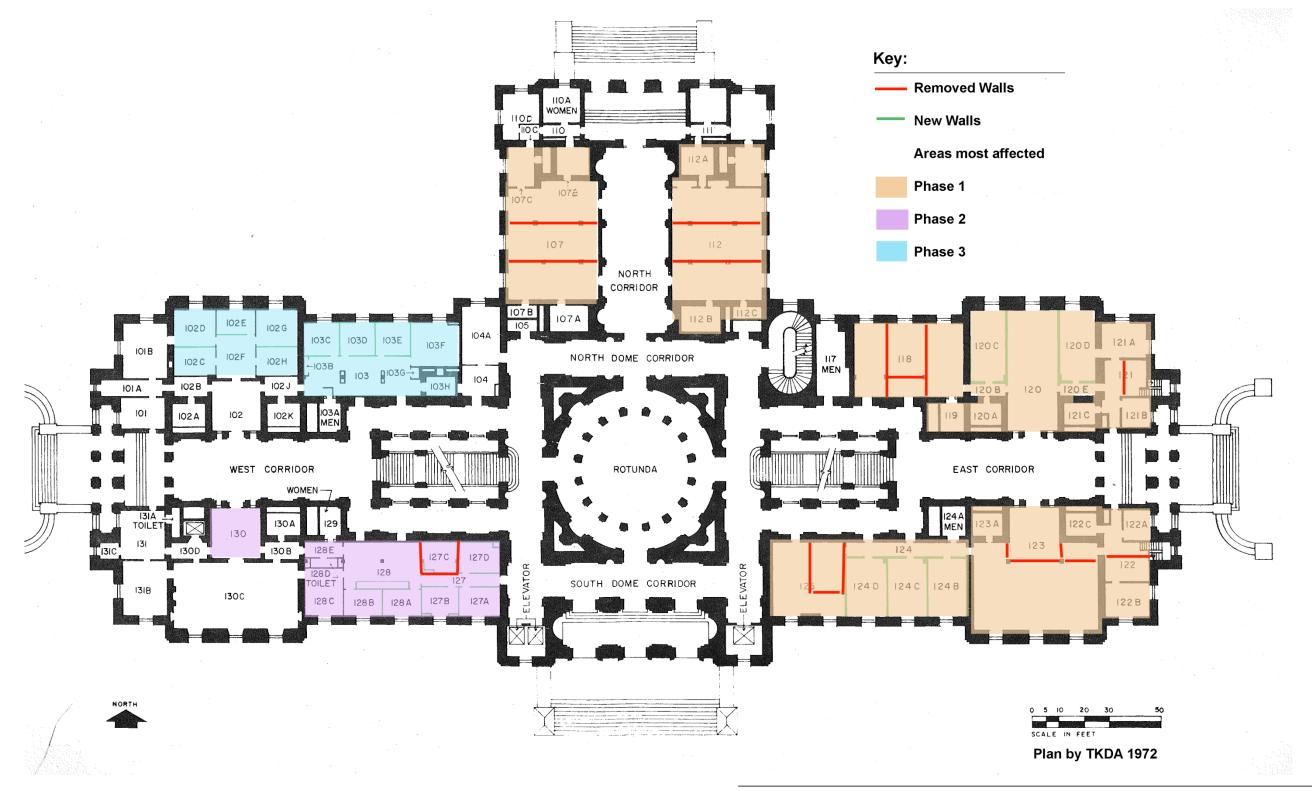
First Floor Plan

Preserving our past. Preparing our future.

Architectural Integrity. Building Functionality. Life Safety

Section 1.2.2 History of Construction Historic Structures Report







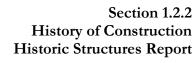
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Architectural Integrity. Building Functionality. Life Safety

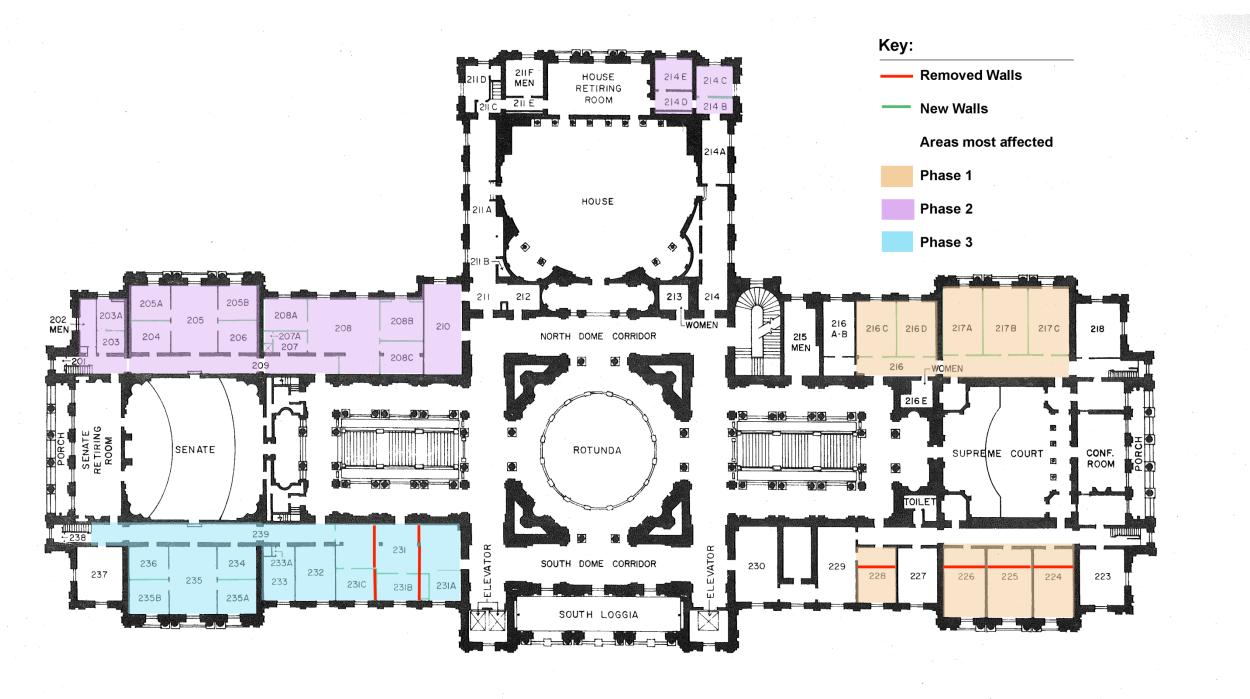
Second Floor Plan

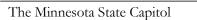
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SCALE IN FEET

Plan by TKDA 1972



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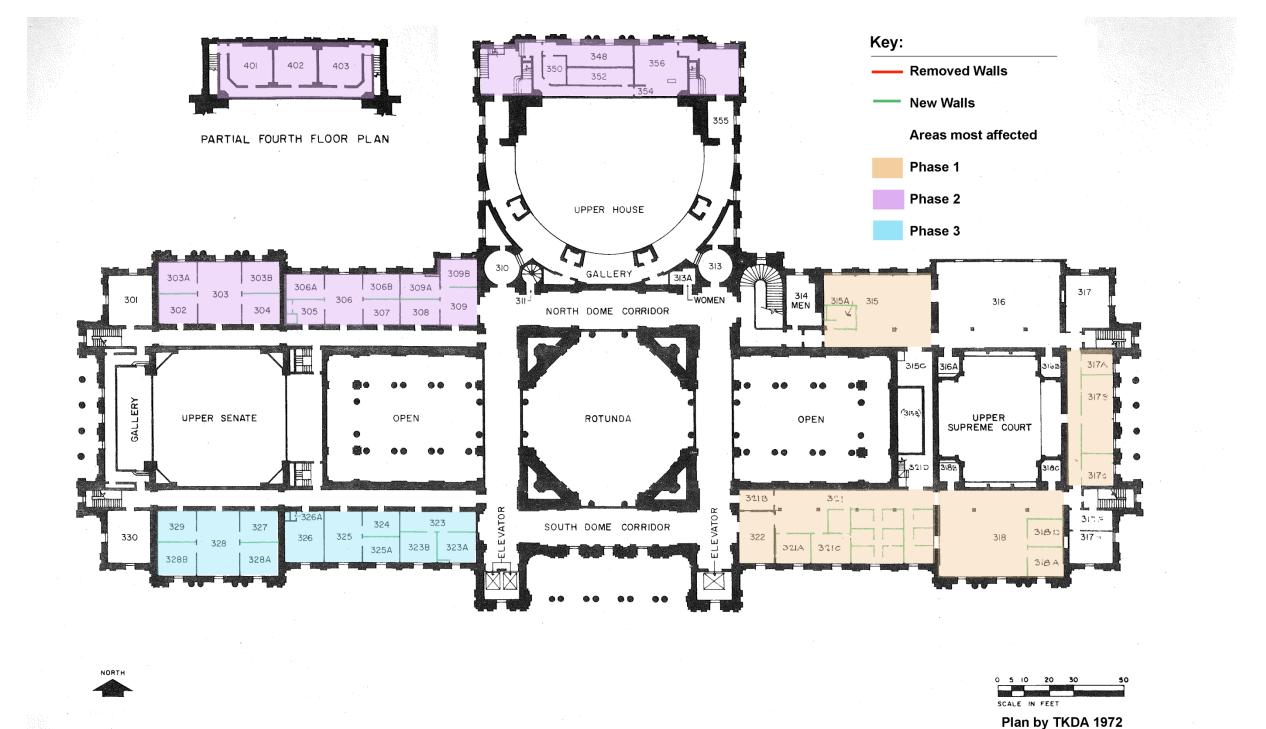
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Third Floor Plan

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Minnesota State Capitol Plan Development as of 2010 From HGA Architects Planners Engineers



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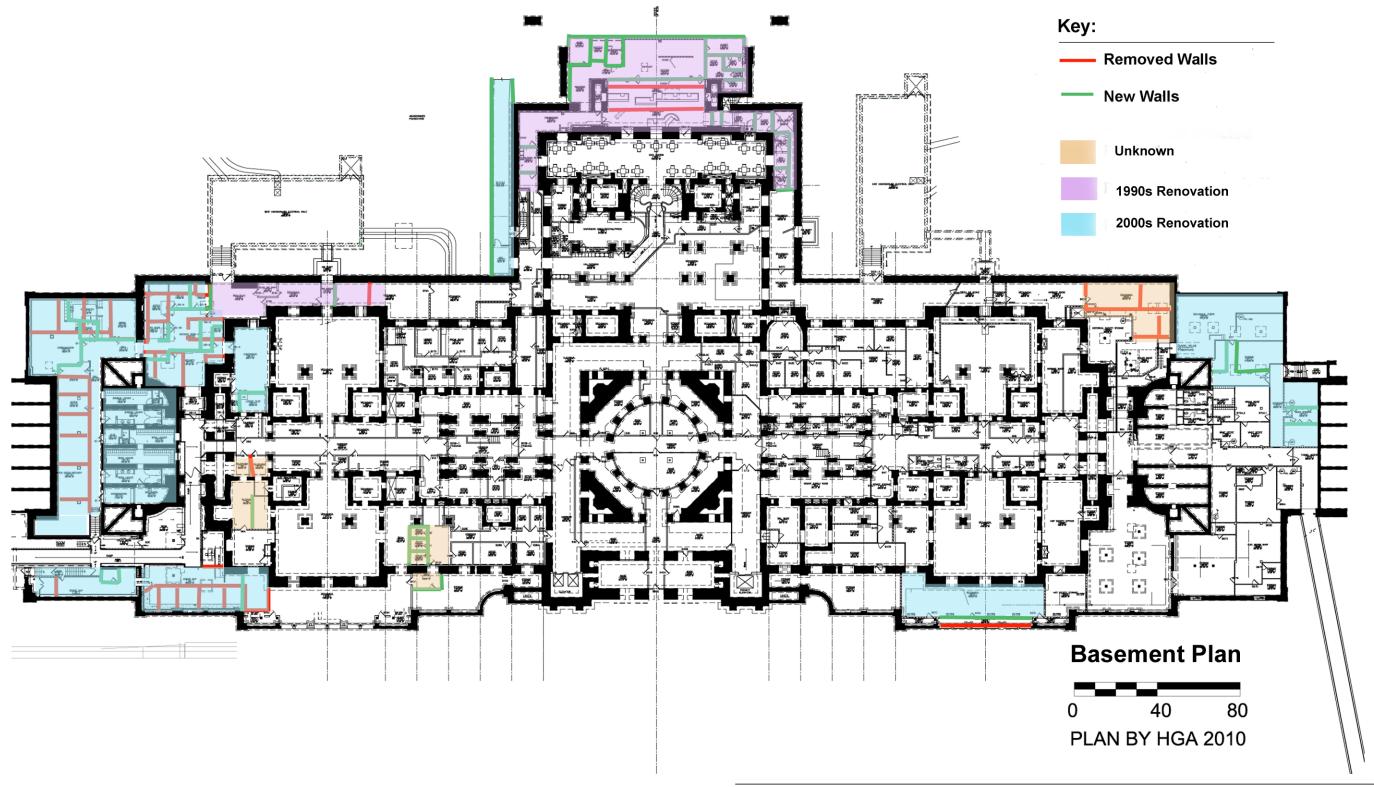
Basement Plan

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Architectural Integrity. Building Functionality. Life Safety

Ground Floor Plan

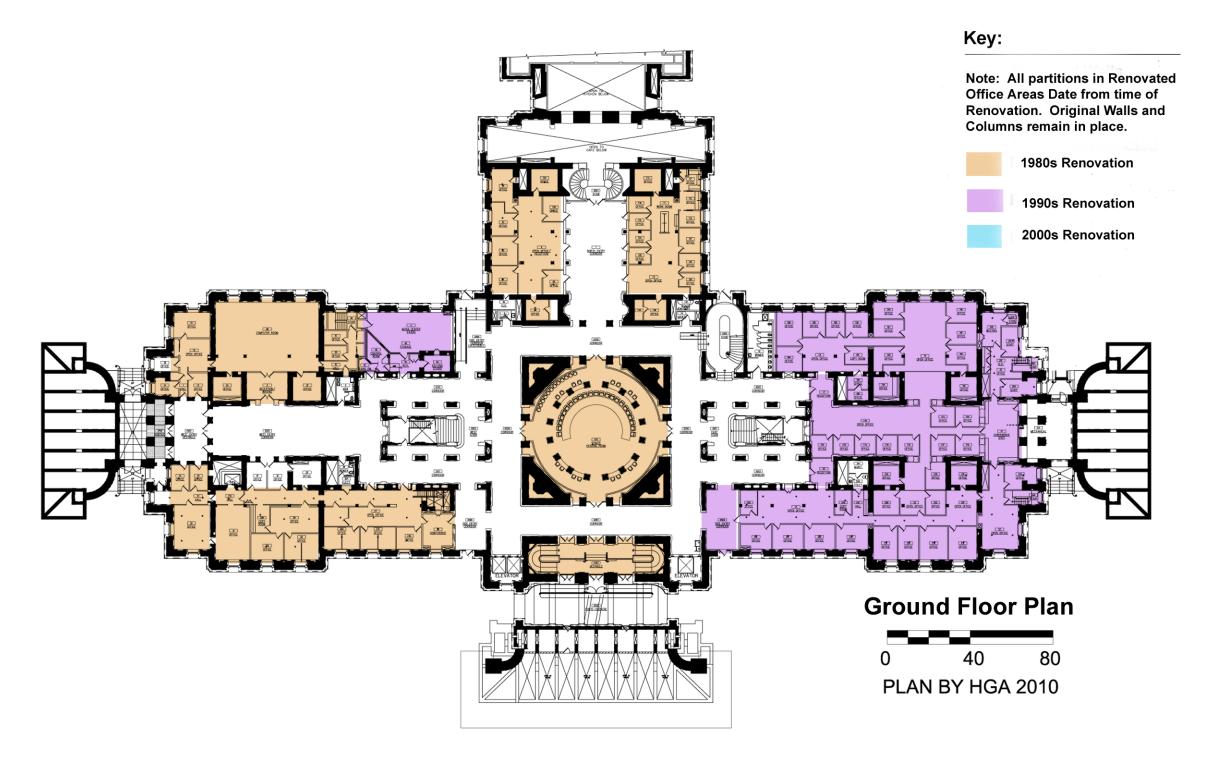
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Section 1.2.2 History of Construction Historic Structures Report







Minnesota State Capitol Restoration Preserving our past. Preparing our future.

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First Floor Plan

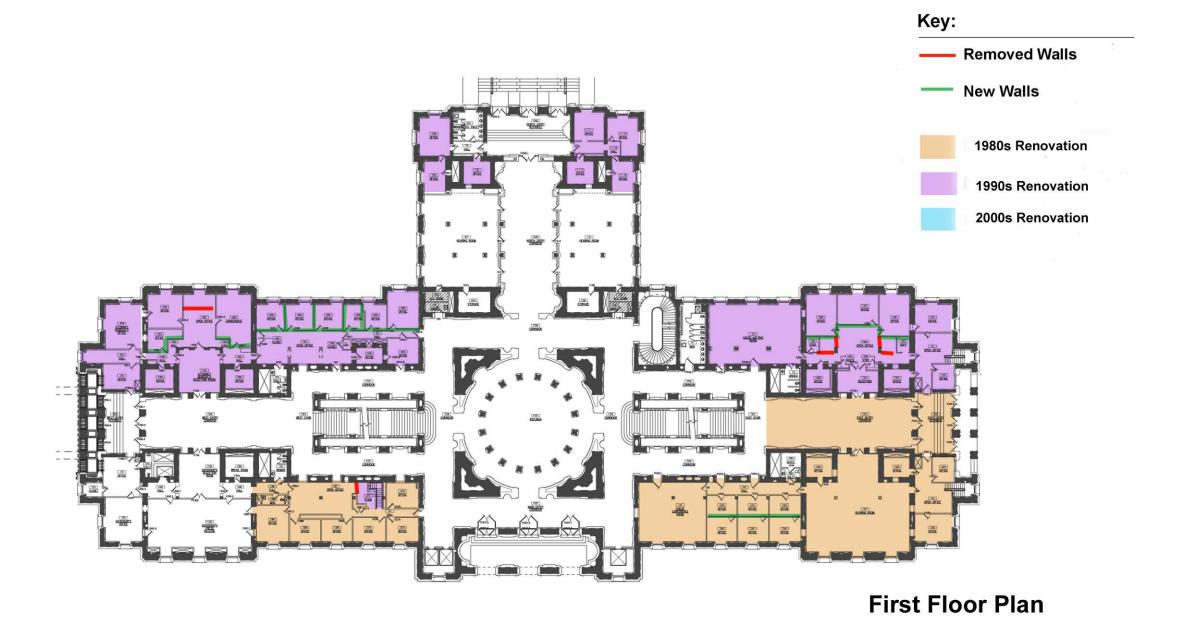
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PLAN BY HGA 2010

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Second Floor Plan

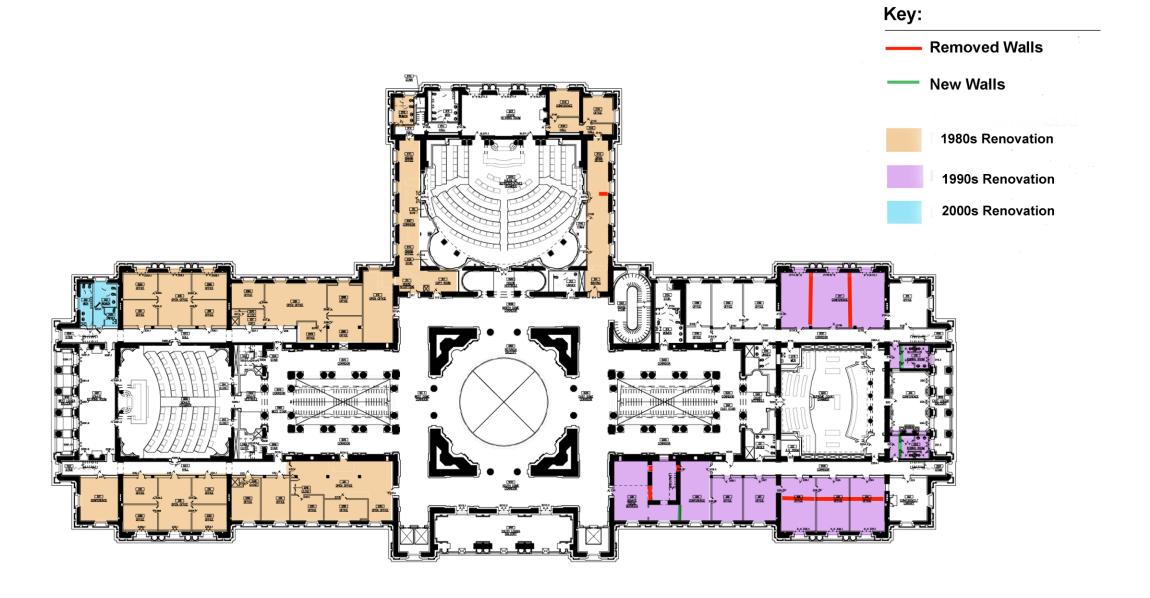
Minnesota State Capitol Restoration

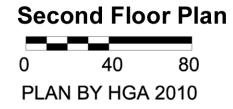
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Section 1.2.2 History of Construction Historic Structures Report









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Third Floor Plan

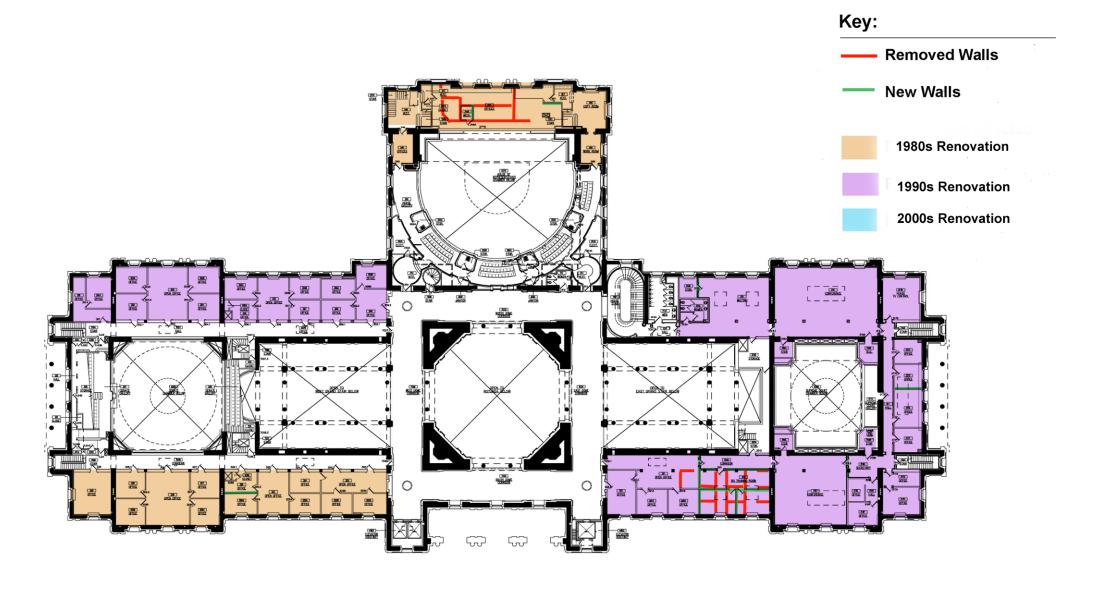
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Narrative of Development and Use

Construction and Use changes through the Capitol's history:

This narrative relates the general history of the Capitol's space usage and the major campaigns of renovations that have taken place over a century of use. It is not meant to be a comprehensive summary of all changes, as documentation before the 1950s is scarce and imprecise. Instead, it relates the large scale moves in a broader context, focusing on major building campaigns associated with important changes of use. Other important changes are described under the specific space in which it occurred. See the detailed timeline after the narrative summary to find specific projects and resources.

First Renovation: 1930-1954.

No drawings of changes to the Capitol from 1905-1954 are preserved. Some changes are known from the Minnesota Historical Society's written records. In 1954, the Capitol was converted from DC power to AC, and a set of drawings of this project was preserved. These plans are not detailed, but show the general configuration of rooms at the time.

The first major campaign in the Capitol took place in the 1930s as the opening of the State Office building prompted the relocation of several departments. Work in the sub-basement was completed at this time as demand for support space within the Capitol increased. The Capitol had a 'cellar' before these changes, but grants from the federal government allowed the floor level to be lowered by about twenty inches to make the floor space on the basement habitable. Temporary offices belonging to the Department of Transportation were added in formerly public circulation spaces with in the East and West Ground Floor Corridor and Vestibule. These would be removed later. Another major public space that was affected at this time was the North Public Gallery overlooking the House chamber, which was blocked off, with the area behind converted to office space.

<u>Methods</u>: The construction of the renovations was largely up to the same standards as the original construction, with the exception of the temporary construction, which has since been removed.

Impact: The removal of state agencies caused a general reassignment of office space within the Capitol. The most impact of these was the removal of the Minnesota Historical Society, which was the largest agency in terms of use of space, with the entirety of the Ground Floor East Wing assigned to it. The Minnesota Historical Society, much more than the other agencies, that included, among other things, military quartermasters and the dairy commissioner, was more frequently used by the public. As such, it had its own entrance and used the East Corridor as an exhibit space. In this renovation, these semi-public spaces became entirely private offices, and the former semi-public Corridor became fully public. The temporary changes to the West Ground Floor Corridor for additional offices left behind a certain amount of damage to the Corridor that can still be seen today.

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Office reassignments in other parts of the Capitol had little impact to the overall historic character of the building; as office spaces remained offices, with only a change of tenant.

Second Renovation: 1968-1972

The next major round of changes took place in the late sixties and early seventies as many Executive Offices were removed to satellite offices. Most House offices also left at this time with only direct operational support remaining. Much of the Judiciary spaces were dominated by law library stacks and reading rooms. This prompted many of the larger open office spaces being subdivided to provide for ever growing demand for private offices for senators. The work occurred in three phases: Phase 1 affected the East wing and the North wing on the basement, ground and first floors. Phase 2 made alterations around the Rotunda, including temporary press offices in the second floor south dome corridor, added coat checks to the South Ground Floor entrance, changes to the west wing similar to what occurred in the East wing in phase 1 and additional office conversions in the Basement. Phase 3 renovated the south half of the west wing on the basement, ground and first floors and the House offices on the third and fourth floor of the north wing.

The following changes were effected in the building fabric: Phase 1.

- Fire proof vaults removed to allow more office space: Some vaults removed entirely, (East wing, Ground and first floor south of main corridor and west of committee room) others had their steel doors removed and were converted into locker rooms without altering their walls.
- Replacement of mechanical air handling units in the basement.
- Removal of a small elevator that served office suite 24 (ground floor) a stair in what was now office 231, and stairs in vaults 19A and 19C.
- Removal of 'tile pilasters' in the East Ground Floor Corridor. It is unknown whether this means that they were Guastavino tile like the ceiling or the more standard clay wall tile that is standard in the building.
- South ground floor vestibules were partitioned such that a small vestibule was formed at the south end of the room, with a new cabinet unit heater. The remainder of the vestibule was converted to office space.
- Addition of stairs at the west end of the minor corridors, running from the ground to the first floor. Stairs from the second floor to the third floor remain unchanged
- Addition of mechanical shafts in what used to be vaults.

Phase 2

- Removal of mail room and telephone booths from Second Floor House offices (210). Mail room relocated to B42G. Telephone switchboard added to room B25.
- Conversion of senate meeting rooms on second floor to offices.
- Installation of pneumatic tube and power shelving to senate office areas.

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Phase 3

- Continued remodeling of West Wing, especially Governor's and Attorney General's suites.
- Removal of walls to form duct spaces.
- Addition of stair from Basement to Ground floor in what is now called corridor 3C.
- Removal of skylights over former north house gallery.
- Addition of offices in the Ground Floor West Corridor

<u>Methods</u>: There were a great number of temporary constructions put up at this time, many of which have been subsequently removed. Historic flooring, ceilings, doors and skylights were removed or covered. Some of the historic doors were marked to be relocated, but many frames and openings were lost.

<u>Impact</u>: With the Judiciary moved during this period, the building floor area has become dominated by the Senate. Of the physical changes made during this time, the cabinet unit heaters, mechanical shafts, the access stairs from the Ground floor level to the second floor at the west end of the minor corridors and the stairs between the Basement and Ground Floors remain, while temporary offices and other changes have been reversed.

Third Renovation: 1985-1990

The final major round of changes occurred in the 1980s and 1990s. Most of the currently existing offices date from this time. Most of the temporary work done in the previous renovations were undone by this time. Computer, AV and systems rooms were installed. The large committee room in the basement level under the rotunda is the most visible change made. What ADA improvements (from 1996 onwards) have been made to the building, including accessible entrances, were done at this time. Restoration of the public spaces by removing offices from former vestibules and public corridors commenced at this time, though not every former public space was restored. The legislative chambers were also restored at this time, with acoustic panels and technology upgrades installed.

Methods. Virtually all offices added in this phase follow the same pattern: Carpet, gypsum board walls, plain wood doors with plain wood or hollow metal frames, ACT ceilings. There is an important difference between the standards of the work done in the eighties vs. nineties; the later Senate offices have a coffered ACT ceiling with a important inset with wall mounted indirect light while the older offices have a more conventional grid with lay in 2x4 lighting. Where new walls meet historic trim, there is evidence that the new wall boards were scribed to fit around them. Bases are increasingly converted to house electrical and data services.

<u>Impact</u>. Probably the greatest alteration to the historic fabric happened in this period; areas like the basement rotunda "crypt" and the former historical society hall were converted into office or committee spaces. The installation of acoustic ceilings in third floor areas led to several of the original skylights becoming non-functional at this time. The skylights that are now non-functional are in Southeast Wing. By contrast, the skylights in the Northeast Wing are still functional.

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Latest Series of Renovations: 1991-present

With the departure of the Supreme Court office and support spaces in 1991, the last major shift in use before the present. The Supreme Court Law Libraries on the Third Floor were converted into offices and a large hearing room. Former Justice's offices on the second floor became senatorial offices. The Supreme court retained control of its Chambers and Consulting room. In the same period, the Attorney General's office was again renovated as well as the Kitchen and Cafeteria spaces in the Basement.

Another renovation that affected the entire building was the replacement of nearly every doorknob in the building with ADA compliant lever handles.

Methods: The office renovations were of similar standard seen elsewhere in other office renovations. The renovation of the Supreme Court Chamber was done using historically correct methods including paint analysis, reliance on original drawings, etc.

Impact: The restoration of the Supreme Court chambers was an important project that updated the Chamber for future use while repairing problems caused by age and wear. The renovation of the support spaces on the South and East sides of the Chamber, however, greatly diminished their architectural character by carpeting over the floor finishes, covering the skylights, and reducing the level of interior detailing. By contrast, the conversion of the North Law Library into a hearing room was done with much greater sensitivity, though it still blurred the distinction of spaces present in the original design.

Other Changes of Significance:

<u>Chamber Restorations</u>:

The Supreme Court Chambers were renovated in 1974. This was largely a maintenance project, with woodwork and furniture repaired and refinished. Additional benches were added in front of the rail. Acoustic panels were inserted into existing coffers in the ceiling and in existing niches in the walls. The Justice's Bench was extended to hold two additional Justices (this had previously happened in 1929. Originally, there were only five Justices) Bookshelves separating the Justice's seating area from the corridor behind were installed. Doors connecting the consultation room to the two adjacent rooms, now Robing Rooms and bookcases installed in their place. Acoustical ceilings were also installed in the two adjacent hallways. The Law Libraries were also converted to offices at this time. See the general narrative above. It is also worth noting that a shaft was cut in the floors of the Storage Rooms to the north and southwest of the Chamber for a future elevator which was not installed. This opening was covered with a 'temporary' floor and may be reused for mechanical purposes. If this is not necessary, the temporary floor should be replaced.

The Senate Chambers were renovated in 1988. This was primarily a restoration where interventions and deteriorations were restored to the original conditions. Paint analysis also occurred as part of the

restoration. Communication jacks were also added to the member's desks. It is important to note that water damage and cracking of plaster ceilings was done at this time. Bi-fold doors were added to the phone booths. Originally, these were single leaf.

The House Chambers underwent several large renovations. The first was in 1936-38, when the North Gallery was removed and converted into office space, the area walled off, and the large sculptural group added to the resulting surface.

In 1969, the floor was removed and trenched for PA system. The entire chamber was carpeted at this time. (later to be recarpeted). Chairs were replaced, lighting was considerably increased, some glass in skylight replaced with plastic.

The most recent renovation took place in 1989. The floor of the Chamber had a new topping poured with the entire floor now continuously sloped, the Representative's desks were refinished, acoustic panels were replaced, ADA upgrades were made to the gallery spaces, and the Third and Fourth Floor offices were reconfigured. Partitions were removed from the corridors to either side of the Chamber as well as the attached Room 210.

Public Circulation Spaces:

Rotunda:

Aside from a constant addition of art objects, commemorative plaques and artifacts, the main Rotunda has undergone few changes. The most important being the 1958 addition of an information desk, which was later moved to the South Rotunda Corridor, an electrical upgrade in 2003 which removed much obsolete wiring but left some exposed electrical equipment that can still be seen today, and the addition of some visible security cameras hanging from the decorative beam at the Second Floor East and West Wings in 2008.

Ongoing repairs and restoration to the inner dome, artwork and chandelier will solve the water infiltration issues, but restoration of the art and entire plaster surfaces were not included in the 2012 Dome Repair Project.

Rotunda Corridors and Elevators:

Overflow offices for the Senate were temporarily located on the Second Floor Rotunda Corridor. There was also temporary library space in the North Corridor Third Floor. These were later removed.

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The Rotunda Elevators were replaced in 1970 with non-glazed, plain cars, doors and surround. This had the effect of closing off of two windows per floor that previously lit the rotunda corridors making the lighting situation in these spaces even worse.

Indirect lighting was added throughout the Public Circulation spaces in 1974. These supplemented but did not replace the original floor mounted torcheres and wall mounted light fixtures. Lighting is still inadequate in virtually all these spaces.

In 1994, a brass ADA drinking water fountains were added on the Ground, First, Second and Third Floor of the North Rotunda Corridor. The fountain on the Third Floor replaced a non ADA fountain added in 1961. Two ADA phone booths were installed at each floor at the South Rotunda Corridor.

Third Floor Plaster Restoration

Considerable damage to the decorative plaster ceilings of the third floor, caused by water leaking from the roof, was repaired, with extensive work cataloguing the various paint layers. This effort ran from 2004-2007. See also Appendix 1 for information on roof leakage and associated damage.

Exterior Stone Restoration

See Appendix 2 for report on Exterior Stone. Restoration efforts are currently underway.

Narrative of changes by level:

Basement. (Early documents call this the "Sub-Basement.")

This level was added in 1932, and, except for the restaurant or "Rathskellar" area, which was part of the original construction. High-quality spaces added at this time included separate Dining Rooms for the Governor and Supreme Court as well as a hallway to connect them to the Restaurant. These replaced the Kitchen areas that were just to the South of the Restaurant with the Kitchen being relocated into a new underground expansion to the North of the restaurant.

Beyond these rooms, the Basement's use has been entirely utilitarian, with mechanical spaces and overflow offices being the primary use of space. Materials and finishes vary with the dominant elements being the stone foundations, themselves, with brick, tile, plaster, gypsum board or concrete masonry infill.

The Rathskeller, or Restaurant is the only space in the Basement that was part of the original design. Its murals, with their German mottoes, were painted over due to anti-German sentiment during the First World War and the Prohibition movement. The murals were restored in 1999.

The Basement was expanded in the last renovation with the addition of two large underground electrical vaults on either side of the North Wing. The kitchen and food services area were expanded when the North Terrace was reconstructed in 1990. There was some office reconfiguration and renewal of finishes at this time as well, but nothing of great impact, as most walls at this level are the Capitol's foundation walls.

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Ground Floor:

This level has undergone extensive changes through its history. The East Wing was occupied by the Historical Society; separated from the public areas with doors in the same location as exist today. The Southwest Wing housed offices of the Board of Control and the Dairy and Food Commission.

The first round of changes, beginning not long after the Capitol was completed, with the Minnesota Historical Society moving out, in 1918. Its offices were quickly occupied by other departments. The thirties, saw the unfinished areas finished out and subdivided as offices, and their spaces being further subdivided into smaller offices. Temporary office divisions were added in the West Corridor and Vestibule.

The second major campaign of building, from 1969-1972, continued the trend of subdivision; rooms already subdivided previously were further subdivided. For example, the large room previously housing the Board of Health, in the Southwest Wing, had been divided into two rooms in the first renovation, now became five. This is typical throughout with only the areas now housing the computer room and media center remaining undivided at this time. More offices were added to the South side of the West Corridor and Vestibule reducing the corridor itself to a narrow hall. A new wall was added to the West end of the East Corridor isolating it from the public spaces. The former breezeway entrance on the East side was converted into a mechanical room, and the former Vestibule became a Conference Room. Temporary offices were added to the East Stair Corridor.

The most recent renovation period, taking place starting in the mid nineteen-eighties and proceeding into the 1990s, was prompted by the removal of the Supreme Court Offices and the subsequent absorption of its space by the Senate. At the Basement Level, office configurations throughout were changed to reflect the differing design philosophies of the time: small, private offices surrounding large open offices became the norm, though many spaces remained a confused jumble of smaller rooms. The 'temporary' offices that once occupied the West Corridor were finally removed in this period, and the Corridor and Vestibule restored to their original condition. The Senate Media Services studio was put in place leaving the adjacent Computer Room the only room on the floor still un-subdivided. The area beneath the Rotunda was closed off to form a large Committee Room. The North Wing had their offices reconfigured. Ramps were added adjacent to the oval stair, North West side entry Corridor and the South entry Vestibule. The North Wing had its offices renovated according to the current pattern with finish upgrades as standard in Senate offices with no substantial difference to the public spaces. New doors were installed where the Historical Society's doors were previously located. The entire former East Corridor was turned into offices with a suspended ceiling concealing the Guastavino tile vaulting. This was done starting in 1985, and the materials contrast with those installed in the Southeast Office areas in the mid nineteen-nineties.

First Floor:

The first floor did not change much during the first round of renovations. In total, seven rooms were subdivided. These were the large open office spaces belonging to the Secretary of State, Treasurer, Railroad Commissioner, Auditor and Attorney General. All rooms that were originally open offices, and became

subdivided to provide private offices, with the exception of the Governor's Reception Room and other high finish spaces.

Greater changes came to pass during the second renovation. Rooms that were already subdivided into offices became increasingly subdivided, especially in the West Wing. In the North and East Wing, several partitions were removed to form large Hearing Rooms, two each in the North and East Wing. It is important to note that none of the four Hearing Rooms are original, though the one in the Southeast Wing was originally an open office. New stairs to the Second Floor were installed in the East Wing to either side of the Loggia. The public areas were largely unchanged.

The only important changes to take place in the 1980s and 1990s on the First Floor were additional office changes of the same pattern as seen on the Ground Floor with open offices surrounded by private perimeter offices and large offices being sub-divided into two or more smaller ones. Stairs to the Ground Floor were added to the Southwest Wing and Northwest Wing to provide access to overflow office spaces for the Governor's





and Attorney General's suites. The two existing stairs in the East Wing were extended from the Second to the First Floor.

Second Floor:

The Second Floor changed little in the first round of changes. The Stack Room of the Supreme Court Law library was subdivided. Stairs to the new offices on the Third Floor were installed in the Northwest corner of the North Wing replacing the Cloak Room. The former Speaker's Office in the opposite corner was subdivided to allow a pass-through corridor.

In the second renovation, the Law Library and other Supreme Court spaces were removed and relocated to the Judicial building, and the areas they once occupied converted into offices. Supreme Court Justice offices in the Southeast Wing that had been divided into inner and outer offices were combined into a single office.

The Senate Committee Rooms in the Southwest Wing were converted into offices at this time as they had been replaced with larger Committee Rooms on the First Floor. The corridors to the East and West of the House Chamber were also converted to office space. No partitions were added as a result of this change, and the artwork in the ceiling vaults remain in place. Stenographer's and Reporter's Offices to either side of the Supreme Court were converted into Toilet Rooms. The Post Office was moved to the Basement at this time, and its former space was briefly used as a Coffee Shop before being paneled and used as additional office space in support of the House Chamber.

The final round of renovations were fairly minimal. The former offices mentioned above next to the Supreme Court were converted into a Server Room (North) and AV Room (South). The former Committee Rooms in the Southwest Wing were subdivided into Senate Offices in the same way as elsewhere in the building.

Third Floor:

The only major change to the Third Floor during the first renovation was the conversion of the North most House Gallery. This area, once open to below, was closed off from the House Chamber to create new office spaces. The new wall separating the chamber from these offices was adorned with statuary on the Chamber side. An access stair was added to the northwest corner as mentioned above. The new offices also connect with the remaining House Galleries to the east and west. The offices are a two level affair, with a second stair to the fourth level on the east side of the Gallery. The fourth level space is occupied by conference rooms, while the third floor is subdivided into smaller offices.

The second renovation saw the perimeter offices in the West Wing subdivided into smaller offices in the same pattern as seen elsewhere in the building. The law libraries surrounding the Supreme Court Chamber on this level were also removed at this time and the far east portion was subdivided into offices. The other two areas to the north and south remained open spaces at this time. The areas above the retiring rooms mentioned above, former light wells, were closed off and converted into storage spaces and a restroom.

The third renovation completed the process of office subdivision. The only large open spaces remaining on this level was the north part of the former law library, which is now a conference room with its original skylight, and the south conference room, which had its skylight covered. Skylights in Northwest Wing and Southeast Wing covered by ACT ceiling.

Summary of Current conditions of the Capitol Building as of 2013.

The Capitol building is currently undergoing a comprehensive repair and replacement project of its exterior stone, a complete restoration of its windows and exterior French doors, and its roof. Repeated studies and interventions have taken place to solve the water infiltration problem in the dome.

Spatially, the Capitol is suffering from a lack of coordination and comprehensive planning. Over the years, ad hoc renovation projects have left the Capitol's spaces with a lack of consistency in their finishes, size, and

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general spatial quality. This is especially apparent in offices; some offices might be a small room in the basement with a ceiling 7' high. Another office might be a large and well lit room, divided down the middle with systems furniture to create two office spaces. The Capitol also suffers from a simpler spatial problem; there simply is not enough of it to fulfill modern expectations. Signage and wayfinding is a problem.

The Capitol's historic finishes are generally in good shape, but age and wear has taken its toll. Plaster surfaces on all levels have suffered from chips and staining. Water infiltration has also taken a toll on the plaster, in often unexpected places.

The Capitol's interior stone is generally in excellent condition, with damage occurring rarely, and in small amounts. Corners in high traffic areas are particularly vulnerable. Patching and a thorough cleaning may be required in some areas.

Insensitive renovations have destroyed, damaged or covered up historic fabric in many locations. Ceilings are hung from plaster or guastavino tiled ceilings, with damage from their hangers. Stone or tile floors are covered over with carpet. Temporary offices and other functions have repeatedly been added and removed to public spaces in the ground, second and third floors.

All doors requiring public access have all had their hardware replaced to comply with current standards. While the design of the new hardware is sensitive to the historical character of the Capitol, the application has a few practical problems: First, the latchbolt of the new hardware is longer than the original, causing it to mark the wood trim, this is a problem in dozens of doors. Second, the lever is heavier than the spring mechanism in the latch is designed to handle, causing levers to sag and latching to occasionally malfunction. The doors themselves are frequently scratched, chipped and stained from a century of use, especially where they are used by people with carts. Where they have not been subject to abuse, however, doors and hardware remain in good condition.

Restrooms have been changed many times, and are now inadequate to the current use loads of the building. Original fixtures are all gone, with few records left behind to indicate what they originally were.

The building's mechanical systems are reaching the end of their useful lives and need to be upgraded. Several projects over the years have added many new mechanical grilles in historically sensitive spaces. Some of these have been sensitively designed and detailed, some have not.

Lighting in the Capitol, especially in the public areas, is very insufficient. Historic lighting fixtures were not adequate, so uplights were installed. Even with these lights, the public spaces are still very dark, and the lights have damaged some of the decorative painting. A new solution is needed for lighting in the public spaces. The office spaces have better lighting, but at the cost of lay in ceilings and inappropriate fixtures.

The Capitol has struggled to cope with modern security and life safety concerns. Currently, the entire capitol from basement to ground floor is completely open to one another, and to the tunnel that connects

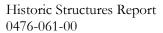


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the Capitol to other buildings. Security cameras that have been installed to provide needed protection are obtrusive to the Capitol's historic character.



Detailed Chronological Listing of Programmatic Changes, Projects and Studies

All known Capitol alterations, studies, restoration and programmatic changes are listed here, along with a brief summary and aid to finding documentation, if any exists. Due to the complexity of the Capitol's user groups, it is possible that there have been small scale alterations over time that are not listed.

Note that dates may vary slightly according to different sources. In some projects, this is due to some sources citing the year a project was funded, or drawings issued, or work completed. This report used the date of construction drawings issued, when available.

Programmatic Changes:

1905

Capitol opens, housing the Constitutional Officers, Legislature, Supreme Court, and the following groups and agencies.

Ground Floor:

Board of Health

Dairy and Food Commissioner

Labor Commissioner

Livestock Sanitation Board

Minnesota Historical Society

Board of Control

State Public Library Commission

Sec of the Soldier's Home

First Floor:

State Auditor (room 123)

State Treasurer (125)

Secretary of State (128)

Governor's Office (130)

Attorney General (102)

Adjutant General

Railroad Commissioner

Insurance Examiner

Second Floor:

Supreme Court

Law Library

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House of Representatives

Senate

Committee Rooms

Third Floor:

Superintendant of Public Instruction

Game and Fish Commissioner

Boiler Inspector

Oil Inspector

Law Library

Forestry Board

Committee Rooms

<u> 1918</u>

Minnesota Historical Society moves out of East Ground Floor Offices. Senate offices move into vacated space.

1932

State Office Building opens causing most government departments to move out of the Capitol. Vacated space is consumed by more House, Senate, and Executive Offices.

1930-1958

The Department of Motor Vehicles is located in the West Ground Floor Corridor and adjacent spaces.

<u> 1944</u>

Governor's portraits added to the First Floor Corridors. This tradition continues today, with governor's portraits now on walls on both the first and ground floors. In many cases, the original torchere lighting devices have been displaced to accommodate this.

<u>1956</u>

Highway Department building completed. Related offices leave the Capitol for the new building.

1958

Centennial Building opened. This provides more office space.

1967-68

Administration Building completed. Executive offices, State Treasurer, State Auditor and Department of Administration move out of Capitol.

Governor's office absorbs former Secretary of State offices. Lieutenant Governor takes over State Auditor's office. (105)

Legislature takes over East Wing First Floor.

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By this time, virtually all executive and administrative departments, except for the Governor, Lt. Governor and Attorney General, have left the Capitol.

<u>1975</u>

House and Senate Minority members relocate offices to the State Office Building; Senate Majority members each receive offices in the Capitol.

<u>1984</u>

Former House Committee Rooms turned over to Senate as new rooms added to State Office Building.

<u>1991</u>

Supreme Court vacates for the new Judicial Center. Former Court spaces (excepting Chamber, Retiring, and Robing Rooms) are given over to Senate and Governor's Office functions.

<u>1995</u>

Disputes between stakeholders are resolved and remodeling of offices continues. Senate offices are upgraded in turn to similar standards of finish.

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Minnesota State Capitol Floor Area Usage as of 2010 From Minnesota Department of Administration



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Basement Plan

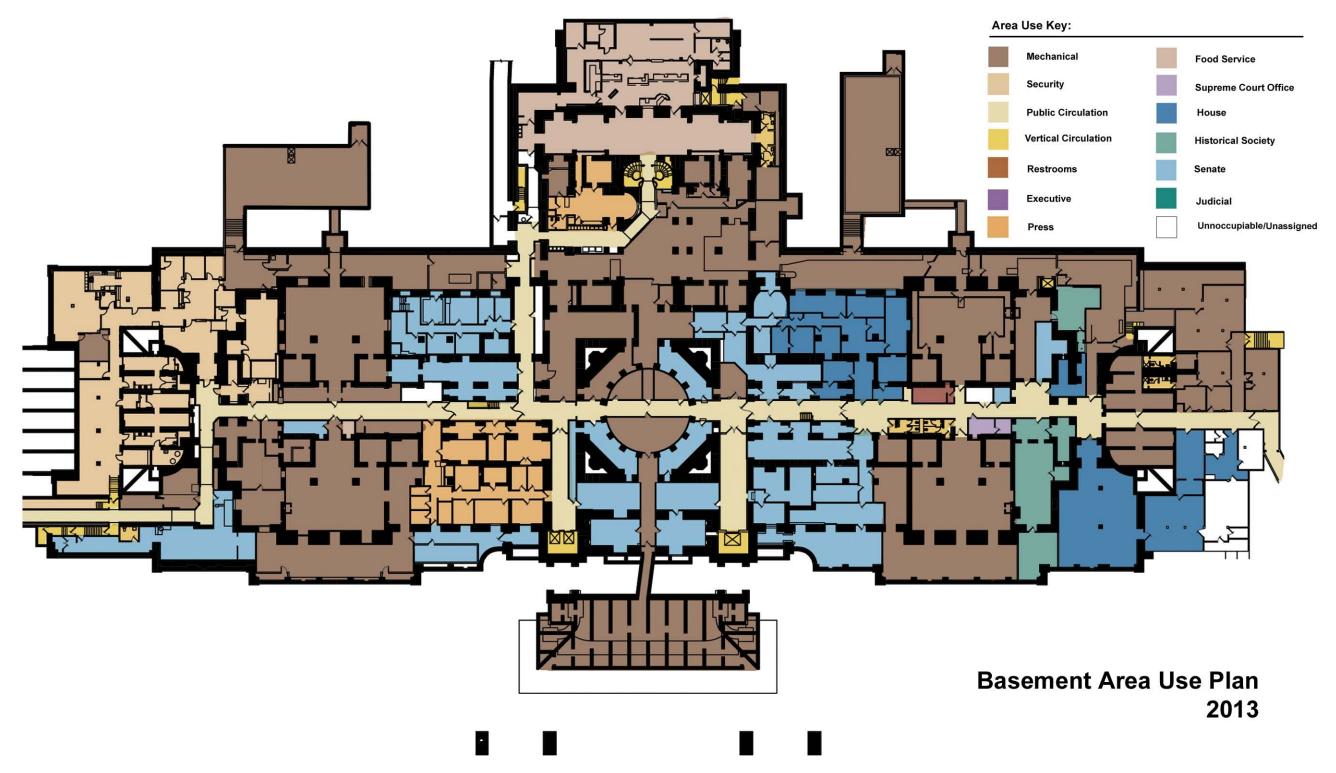
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Ground Floor Plan

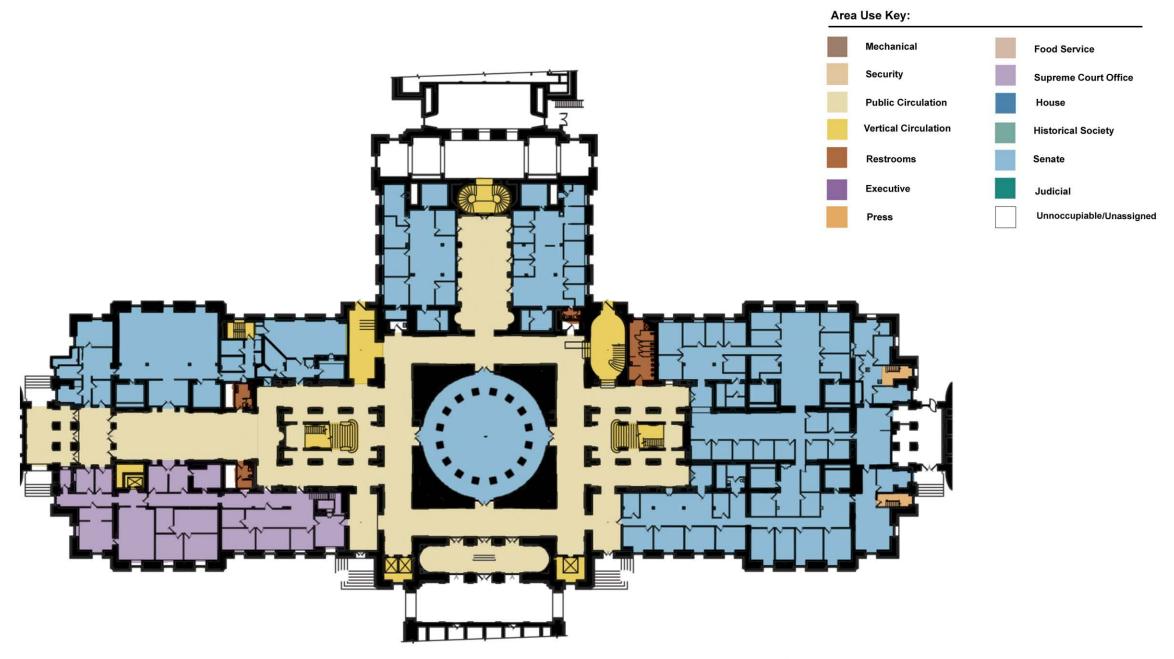
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Ground Floor Area Use Plan 2013



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First Floor Plan

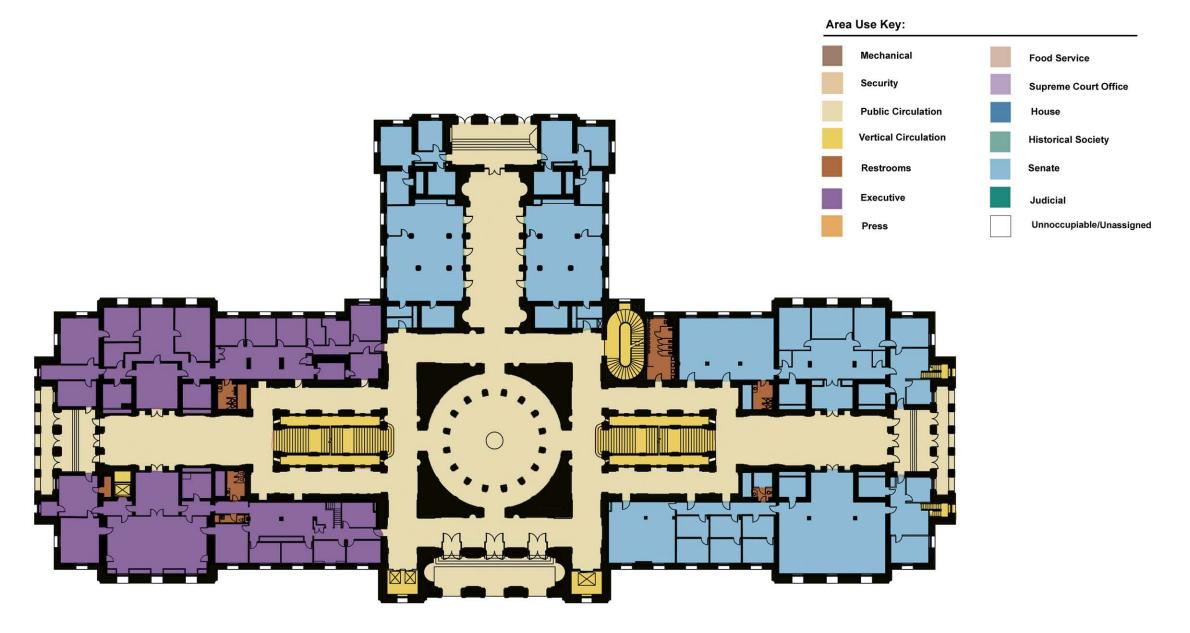
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First Floor Area Use Plan 2013



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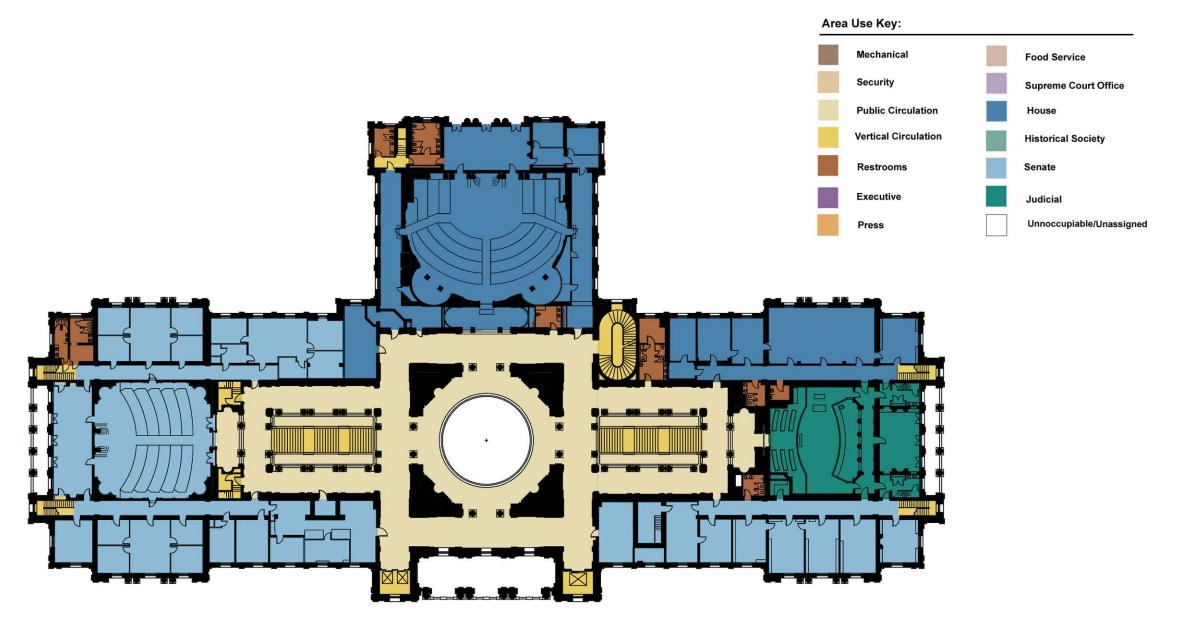
Second Floor Plan

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Second Floor Area Use Plan 2013



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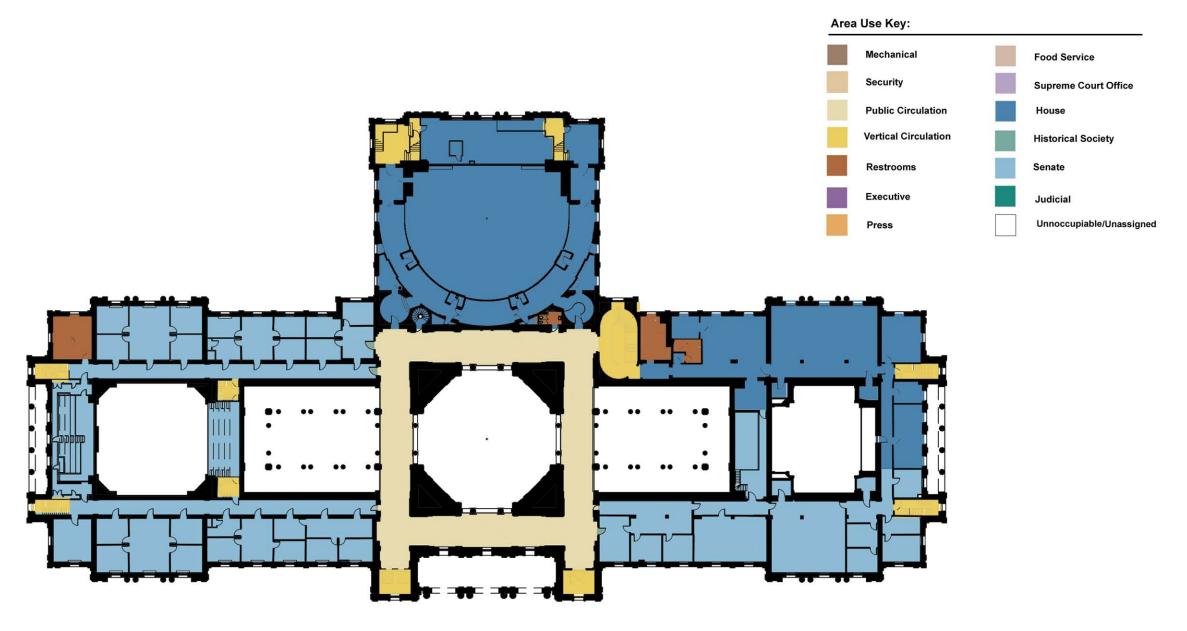
Third Floor Plan

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Third Floor Area Use Plan 2013

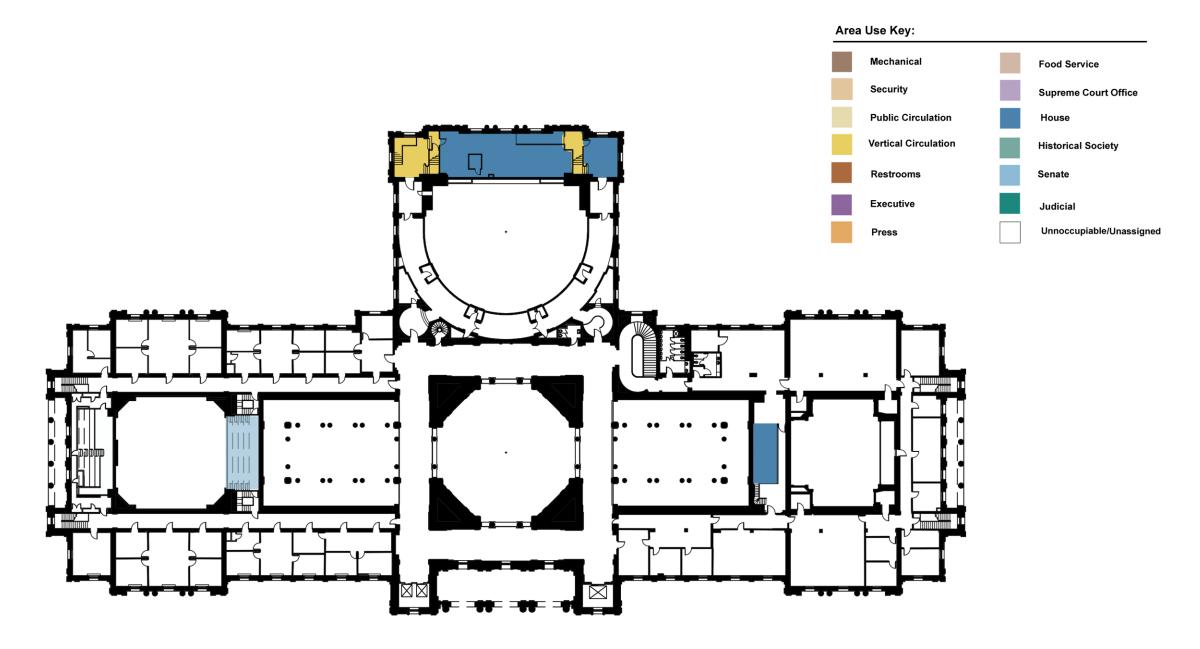


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Fourth Floor Plan





Fourth Floor Area Use Plan 2013



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Projects:

<u>1907</u>

Project: Original conduit wiring system for electric lighting.

W.I. Gray and Company.

Drawings: See Plant Management Archives.

The original conduit installed at this time was cast iron. It would have been removed or modified in later electrical renovations.

1932

Project: Supreme Court Ceiling

Contractor Unknown No drawings available.

Acoustical tiles added to the interior of the dome of the Supreme Court Chamber. Gilded and coffered domes covered. ¹

South East Terrace Reconstruction

C.H. Johnston

No drawings available.

Project: WPA Projects

L.A Johnson, Capitol Custodian.

No drawings available.

The WPA Projects were a number of maintenance and improvement projects meant to put people back to work during the Depression.

Maintenance included repainting, resurfacing marble floors, plumbing, repointing, roof repair and washing. Additions and remodeling include electronic voting for the Chambers, addition of weatherstripping and storm windows, remodeling of the restaurant into a cafeteria, and most significantly, the lowering of the floor under the basement, the excavation under the terraces, and the finishing of all resultant spaces. The Basement Level was also connected by tunnel to the State Office Building, and eventually other governmental buildings, and creating more spaces to be used for offices, storage and mechanical functions. The Governor's and Justice's Dining Rooms are also created at this time. ²

1936-1938

Project: Removal of the House Gallery.

No drawings available.

¹ State Capitol Historic Site, "Alterations Study," A study of the alterations to the Minnesota State Capitol, 1986-Present, Capitol Historic Site, Minnesota Historical Society.

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The House of Representatives North Public Gallery is removed and replaced with two levels of office spaces. Stairs for access installed in former Cloakroom at the Northwest Corner of the House Chamber. Large sculpture group "Minnesota, Sprit of Government" installed. Carlo Brioschi artist.³

1943

Project: Dome Caulking

No drawings available.

An early attempt to halt water infiltration of the dome.⁴

1946

Project: Reroofing.

H.H. Witte

No drawings available.

In addition to a complete reroofing of non coppered areas, the skylights above the elevator shafts were removed.⁵

<u> 1954</u>

Project: Capitol converted from DC to AC power.

G.M. Orr Engineering.

Plans in Appendix. See diagrams.

This project also included wiring for telephones. Note that this is the first project after the initial construction where drawings are preserved.

Project: Pothead Project:

Kinney Electrical.

These were early electric unit heaters which were added.

Project: Reroofing. No drawings available

Tiling at quadriga walkway removed, along with waterproofing. Slab cleaned and new material reinstalled.

1957

Project: North East Terrace A. J. Nelson, (State Architect)

1.107

² Ibid.

³ Ibid.

⁴ Ibid.

⁵ Specifications for Re-roofing Tile Decks at the State Capitol, St. Paul, Project No. 2045, C.P. Erickson, architect. May 28, 1954. ⁶ State Capitol Historic Site, "Alterations Study," A study of the alterations to the Minnesota State Capitol, 1986-Present, Capitol Historic Site, Minnesota Historical Society. Note that the alterations study says that the elevator skylights were removed in this project, instead of the previous 1946 reroofing.



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Only one drawing remains, see Plant Management archives.

The North East Terrace is repaved, insulated, parts of it are reconstructed, and a new ventilator added.

Project: North Wing Reroofing.

No drawings available.

Roof on north wing gets 'new deck,' presumably tile and waterproofing as in previous reroofing.

Project: Electrical upgrades to lighting and wiring.

State Architects Office.

See Plant Management archives.

<u> 1964:</u>

Project: Elevator installation.

Thorsen & Thorshov.

See Plant Management archives.

Freight Elevator added to North East Terrace.

1968

Project: House of Representatives Remodelling.

Toltz, King, Duvall, Anderson and Associates. (TKDA)

Floor replaced, carpet added, desks modified, chairs replaced, tapestries installed,

No drawings available.

1968-1970

Project: Capitol Remodelling: Phase I, II, III.

Toltz, King, Duvall, Anderson and Associates. (TKDA)

Drawings in appendix. See diagrams.

Extensive office remodeling. TKDA Engineering. Wood floor in most office areas removed and replaced with a concrete topping and carpet. Heavy demand for committee and hearing rooms caused them to be created on every floor above the sub-basement. Demand for office space also increased with every House member being allocated one. Offices are built in the former Historical Society Corridor and support spaces. Senate members are housed in the Second Floor of the Rotunda adjacent to the Loggia Balcony. Transformer vault areas are added to the north of the Capitol. Exterior and interior lighting upgrades.

1970

Project: Elevator Cab replacement

Thorsen & Thorshov, Inc.

⁷ Ibid.

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See appendix for drawings.

Glass elevator cabs removed and replaced with opaque cars, doors and surround

Project: Roof Repairs.

Ettel and Franz Co.

No drawings available.

Work continues on North and South areas of roof. Some areas of copper roofs and copper gutters replaced at this time.8

<u>1973</u>

Project: Interior Lighting Thorsen & Thorshov, Inc. See Plant Management archives.

Project: Redecoration of the Supreme Court spaces:

Thorsen & Thorshov, Inc.

See appendix for drawings.

Sound and recording systems added, murals restored, plaster repainted, justice's bench modified to hold nine justices. Acoustic ceiling removed from skylights. Consultation chamber also remodeled, including doors to adjacent spaces removed and covered with bookcases. Carpet and draperies replaced in both rooms.

Project: Capitol Window Replacement and Renovation Work

Rieke, Carroll, Muller Associates.

See appendix for drawings.

Original wood windows removed and replaced with aluminum units.

Project: Exterior Masonry Conservation.

Brooks Cavin

See Appendix for drawings.

Masonry is cleaned and areas that were cracking reinforced. Broken angel sculpture from above main south entrance is replaced, other sculptures (of the virtues) removed, with portions restored and replaced.

Project: Toilet room remodelling

Toltz, King, Duvall, Anderson and Associates. (TKDA)

Fixtures replaced, some original light fixtures removed, stone header strips added, stall doors repaired/replaced.

⁸ Ibid.

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1977

Project: Signage improvements.

Interdesign Inc.

See State Architect's Office for drawings.

1979

Project: Fire Alarm

Environmental Engineering

See State Architect's Office for drawings.

Fire Alarms and sound system upgraded.

1981

Project: Reroofing.

Sessing Architects See Appendix for drawings.

Replacement of membrane roof and flashing throughout flat areas. Copper roof and skylights unaffected.

<u> 1983</u>

Project: Fire Protection NewMech Companies See Appendix for drawings. Basement Sprinkler added.

Project: Glazing Replacement Department of Administration

See Appendix for drawings.

Glazing removed from doors and sidelights and replaced with safety glass. Does not affect most historic doors. Changes throughout Basement level adjacent to Tunnel Corridor.

1985

Project: East Stair Corridor and Vestibule Restoration

Miller Dunwiddie and Associates

See Appendix for drawings.

The South East vestibule on the ground floor and the adjacent corridor which had been used for offices were restored to their original condition.

Project: Remodel of State Capitol Rafferty Rafferty & Associates.

See Appendix for drawings.

The ground floor Rotunda Crypt Hearing room was renovated.

1986

Project: Restoration of the Dome and Lantern.

Miller Dunwiddie and Associates

See Appendix for drawings.

Restoration of the Lantern, including flooring, doors, waterproofing, deteriorated masonry, plaster, drainage, stairs and structure.

1987

Project: Media Services Alterations

Miller Dunwiddie and Associates

See Appendix for drawings.

Media center and television studio installed in the north side of the East Wing on the Ground floor.

Project: Senate Office Renovation

Miller Dunwiddie and Associates

See Appendix for drawings.

Upgrade to the Senate Offices. Areas affected: Ground floor, South East Wing, South West Wing; First Floor, South East Wing, West Wing, North and South; Second Floor and Third Floor, West Wing, North and South. Finish upgrades, Casework, Cove lighting, acoustic ceilings are installed.

1988

Project: Restoration of the Senate Chambers.

Miller Dunwiddie and Associates

See Appendix for drawings, paint analysis.

Major restoration of the Senate Chamber including dome, skylight, paint restoration, refurbishment of desks, ADA accessibility, carpet replacement, lighting.⁹

Project: Roof Stairs Repaired

Original granite stair treads removed. The structure beneath was repaired, a new waterproofing membrane added and the original treads reset.

<u> 198</u>

Project: Restoration of the House Chambers.

Miller Dunwiddie and Associates

See Appendix for drawings.

House of Representatives Chambers and support spaces renovated. Work includes office upgrades, dome, skylight, paint restoration, new flooring, ADA accessibility, carpet replacement, lighting and expansion of the rostrum.

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⁹ State Capitol Historic Site, "Alterations Study," A study of the alterations to the Minnesota State Capitol, 1986-Present, Capitol Historic Site, Minnesota Historical Society.



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Project: North Wing Senate Remodelling

Miller Dunwiddie and Associates

See Appendix for drawings.

Upgrades are made to the finishes of the Senate offices on the Ground floor of the North Wing, in line with other Senate office renovations. Work also completed on the Basement level, in the former Governor's dining room.

Project: Chiller Replacement

Gausman & Moore

See Appendix for drawings

Project: Asbestos Abatement

State of Minnesota No drawings available.

1990

Project: Supreme Court Restoration Miller Dunwiddie and Associates See Appendix for drawings

Supreme Court Chambers and supporting areas renovated. Work includes conversion of former clerk's offices to the current Robing Rooms, installation of new mechanical, paint restoration, restoration of the chamber dome and skylight, new curtains and carpet, AV equipment, mechanical trench, restoration of the former Chief Justice's office (now used as a conference room). On the third floor, Library areas are converted to offices.

Project: Downspout Replacement Miller Dunwiddie and Associates

See State Architect's Office for drawings.

Project: NW Terrace Replacement Miller Dunwiddie and Associates

See State Architect's Office for drawings.

The North West Terrace was restored, insulated and repaved at this time, as other Terrace areas had in the past.

1992

Project: Accessibility Modifications Miller Dunwiddie and Associates See State Architect's Office for drawings.

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New ramps are installed at the north, west and south entrances and vestibules on the ground floor, providing access from the north parking lots and south porte corchere. Project includes ramps, lighting, stone flooring, door and hardware modifications.

1993

Project: Fire Management System Renovation Miller Dunwiddie and Associates

See State Architect's Office for drawings.

Project: Sewer Separation

Amberger Associates

See Appendix for drawings.

This project separated the Capitol's Storm and Sanitary Sewer connections. Extensive piping work on the Basement level.

<u>1994</u>

Project:Capitol Complex Energy and Retrofit

Ellerbe Becket

This project saw improvements and replacement of ballasts in the Capitol's light fixtures.

Project: Roof Rehabilitation

Miller Dunwiddie and Associates

See Appendix for drawings.

This project saw the replacement of all roofing materials and the reglazing of most skylights. Skylights above the grand stairs had new skylights installed above the existing skylights. Other skylights had their glazing removed and replaced with modern double glazed skylights. Copper roofing was removed and replaced, both as standing seam and soldered seam systems. Decorative features from the ridges of the chamber domes were restored and replaced. All membrane roof, insulation, and pavers were removed and replaced. The Quadriga sculpture was also removed and extensively restored. It was returned to its original location the following year.

1995

Project: Attorney General Office Renovation

Miller Dunwiddie and Associates

See Appendix for drawings.

The Attorney General's suite was renovated. Woodwork in the Anteroom was restored, a corridor was added to bypass the anteroom, new acoustic ceilings were installed in the office spaces.

Project: Exterior Plaza

Miller Dunwiddie and Associates

See Appendix for drawings.

The South steps, plaza, and porte corchere were repaired at this time, with new structural support beams beneath the upper landing along with repaying on the loggia balconies on all sides of the Capitol.

Project: Office Renovation Miller Dunwiddie and Associates See Appendix for drawings.

This project added a stair from the Governor's suite on the first floor to the offices on the ground floor. It also renovated the offices on the North side of the East wing on the first, second, and third floor.

<u>1997</u>

Project: Elevator Renovation. Miller Dunwiddie and Associates See Appendix for drawings.

This upgraded the public elevators for ADA accessibility.

Project: Senate Voice and Data cabling upgrade

LKPB Engineers

See Appendix for drawings.

Project: Exterior Renovations Miller Dunwiddie and Associates See Appendix for drawings.

This project consisted of three parts: First the reconstruction of the North-east Terrace. Second, tuckpointing and stone repair at all of the exterior stairs. Third, replacement of stone at the dome lantern. This project includes incidental lighting and mechanical work in areas affected by the terrace reconstruction.

1998

Project: Cafeteria/Kitchen Renovation and North Terrace Reconstruction and Northwest Terrace Reconstruction

Miller Dunwiddie and Associates

See Appendix for drawings.

This large project saw the reconstruction of the North Terrace and Stairs of the Capitol, and all spaces beneath them, as well as areas further west. The kitchen was expanded, allowing serving lines to be moved out of the main restaurant/cafeteria space. The restaurant/cafeteria was restored, with the removal of several layers of paint to expose original murals, which were then restored. New light fixtures, furniture and trim to match original were installed. New ADA restrooms, dishwashing, and trash handling spaces were added to the perimeter spaces that surround the restaurant/cafeteria. The corridor that connects the cafeteria/restaurant with the remainder of the basement was widened and refinished, with a vending area added.

On the exterior, the concrete structure of the stairs was replaced, with the original granite paving restored on the new structure, with new waterproofing and insulation. The North west terrace, from the West edge of the building to the North wing, was removed and reconstructed, with new structure, waterproofing,

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insulation, and paving. Terrace areas beyond the West edge of the building were repaved and rewaterproofed, but the structure remained. This work included the West stair landing and all areas between it and the reconstructed area.

2000

Project: ADA Hardware and Accesibility improvements.

Miller Dunwiddie and Associates

See Appendix for drawings, project manual.

This project saw the replacement of most of the original hardware that remained in the Capitol with ADA compliant hardware. To accomplish this, a lever was designed based on a pull handle on the First floor main entrance. Replica escutcheon plates were cast, and the lever replaced knobs at every door that had to be operable. Original knobs remain in place in doors serving closets and other non-essential spaces. Those knobs and escutcheons that were removed are retained by the Minnesota Historical Society. In addition, a number of doors received door operators, causing modifications to their frames. The doors on ground floor south vestibules were also replaced at this time, from narrow double doors to one large ADA compliant leaf and a fixed panel.

Project: Security Operation Center added to Basement.

Miller Dunwiddie and Associates

See Appendix for drawings.

The Security Operation Center occupies the Northwest corner of the basement, beneath the Northwest Terrace, and southwards to beneath the West Stairs. The Center includes offices, conference room, public counter, locker rooms, and an area for making photo IDs.

Project: South Terrace Reconstruction and Masonry Repointing.

Miller Dunwiddie and Associates

See Appendix for drawings.

This project saw the last of the original terrace be replaced. There were three phases: Phase one was the Southeast Terrace, Phase two was the Southwest, and Phase three was the Masonry Repointing. The Terrace replacements were similar to previous projects: Deteriorated structure and paving were removed and replaced, with new waterproofing and insulation. Granite removed during construction was replaced in its original location, as were railings, light fixtures and other site accessories. The Masonry Repointing phase was very extensive, including the roof, dome, loggia ceilings, all elevations.

2002

Project: HVAC System Cleaning. Industrial Hygiene Services Corporation See Appendix for drawings. All ducts cleaned and fans serviced.

2003



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Project: Senate Duplicating Center Relocation

Miller Dunwiddie and Associates

See Appendix for drawings.

The Senate Duplicating Center was relocated from the basement Northwest of the rotunda to beneath the Southwest terrace, just south of the tunnel to the State Office Building.

<u>2004</u>

Project: Water Intrusion Repair Miller Dunwiddie and Associates

Repairs were made on and around the dome to prevent water infiltration. Steel stair and catwalk between the inner and outer dome replaced. Caulking, patching, window repairs etc.

See Appendix for drawings.

2005

Project: Heating System Upgrade

LKPB Engineering

See Appendix for drawings.

This project altered the cabinet unit heaters below the windows on all floors.

<u>2007</u>

Project: State Capitol ADA Upgrade HGA Architects Engineers and Planners

See Appendix for drawings

A unisex restroom was added to the second floor Senate area in the Northwest corner.

Project: Security at Retiring Room Doors HGA Architect Engineers and Planners

See Appendix for drawings

2010

Project: State Capitol AHU #26 Replacement

HGA Architects Engineers and Planners

See Appendix for drawings

A roof top air handler was replaced. This affected the roof, a mechanical room in the Basement North west terrace area, and the media center directly above it.

Project: State Capitol Dome Repair Work

HGA Architects Engineers and Planners and Schooley Caldwell Associates

See Appendix for drawings

To stop water infiltration through the lantern walkway and middle dome that was damaging the plaster below, new waterproofing was installed above and within the dome, a new rain leader was installed, plaster

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was repaired, structural reinforcement was installed, and masonry restored. The chandelier in the Rotunda was also cleaned and rewired at this time.

2012

Project: University Avenue Tunnel at Capitol Complex.

CNA Consulting Engineers.

See Appendix for drawings.

This project added a second pedestrian tunnel alongside the existing tunnel on the north side of the Capitol. The existing tunnel leads to the Admin building. (there is also an existing service tunnel) The new tunnel is wider and ADA accessible, and leads to a small building to the North of University Avenue, which provides a freight and loading dock port as well as a pedestrian entry. This project was built in anticipation of the Central Corridor Light Rail project, to provide a safe way for pedestrians to cross over to the Capitol. The new tunnel connects to the Capitol in the same place as the old one.

Project: State Capitol Drum Window Replacement

HGA Architects Engineers and Planners and Schooley Caldwell Associates

See Appendix for drawings

The twelve drum windows beneath the dome of the Rotunda were replaced.

Project: State Capitol Window Replacement

HGA Architects Engineers and Planners and Schooley Caldwell Associates

See Appendix for drawings

This project saw the aluminum windows that had replaced the original wood windows removed and replaced with wood windows matching the originals. These were fabricated based on original drawings and two windows in the Attorney General's office that had not been replaced.

Project: State Capitol French Door Replacement

HGA Architects Engineers and Planners

See Appendix for drawings

This project restored the French doors at the loggias of the Capitol.

Project: State Capitol West Plaza and Stair Repair

HGA Architects Engineers and Planners

See Appendix for drawings

This project repaired damage caused by water infiltration from the West Stairs to the west wall of the Security Suite directly below them. The plaza directly above the wall was repaired, rewaterproofed and had its drains repaired, while the wall itself was repaired, protected and covered with a new CMU face.

Project: State Capitol Exterior Stone Repair

HGA Architects Engineers and Planners and Wiss, Janey, Elstner and Associates

See Appendix for drawings

This is a comprehensive repair and replacement of Georgia Marble exterior stones that have become damaged or worn over the years.

Project: State Capitol Roof Replacement HGA Architects Engineers and Planners and Schooley Caldwell Associates See Appendix for drawings This replaces the membrane roofing.

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Studies:

A number of studies have been carried out on the Capitol. These include:

<u> 1984</u>

Study: Minnesota State Capitol: A Preservation and Planning Study for Public and Ceremonial Areas. Miller Dunwiddie and Associates.

Not included.

This study was incorporated into the later report "Minnesota State Capitol: A Comprehensive Preservation Plan and Implementation Strategy."

1988

Study: Minnesota State Capitol: A Comprehensive Preservation Plan and Implementation Strategy. Miller Dunwiddie and Associates.

Includes an inventory of historic materials, an assessment of the different building systems, and a strategy for the full restoration of the building.

See Appendix

<u>1989</u>

Study: Attention to Detail; 1905 Furniture of the Minnesota State Capitol

Minnesota Historical Society; State Capitol Historic Site

See Appendix

Contains original drawing and description of each piece of moveable furniture from 1905, and the original versus current count of each type.

<u>1993</u>

Study: ADA compliance

Miller Dunwiddie and Associates

Not included

This study preceded the various ADA compliance projects that occurred later.

1994

Study: "Minnesota State Capitol, Saint Paul Minnesota, Furnishing Plan Report."

Joan Ulrich. Minnesota Historical Society; Capitol Historic Site

See Appendix.

This study includes original furniture plans, studies on original lighting, carpeting, window treatment, and other furnishing related items.

200

Study: State Capitol Predesign Miller Dunwiddie and Associates

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See Appendix

This was a predesign for a renovation and restoration project that was never realized.

Study: Evaluation of the Chilled Water Distribution System

Unknown

2003

Study: Humidity Study.

Miller Dunwiddie and Associates, William B Rose and Associates.

See Appendix for Study and drawings.

Ongoing signs of water damage provoke a series of studies and interventions. Third Floor plaster vaulting and decorative paint restored. The report concluded that water damage observed on the inside of the dome were not caused by condensation, with normal humidity being measured throughout. Therefore, the source of the water damage was determined to be roof leakage. The precise number and location of the leaks was not determined at this time.¹⁰

2005

Study: The Minnesota State Capitol Third Floor Corridor Condition Report

Conrad Schmitt Studios Inc.

See Appendix

The condition of the plaster and decorative painting on the third floor dome corridors was investigated, both for deterioration and changes to decoration over the years.

2006

Study: Minnesota State Capitol Predesign

HGA Architects Engineers and Planners and Schooley Caldwell Associates

See Appendix

2009

Study: Pedestrian Tunnel Study

HGA Architects Engineers and Planners

See Appendix

This was a study of the pedestrian tunnels beneath the Capitol Complex. Accessibility, structural integrity, usefulness and potential expansion were all evaluated.

Study: Water Infiltration Report

HGA Architects Engineers and Planners and Schooley Caldwell Associates

See Appendix

¹⁰ William B. Rose, "Monitoring at Minnesota State Capitol, Final Report" 2003. William B Rose & Associates, Inc.

Another study into the recurring problem of water infiltration into the dome.

<u>2010</u>

Study: Minnesota State Capitol Dome: Additional Column and Drum Window Investigation HGA Architects Engineers and Planners and Schooley Caldwell Associates See Appendix

Study of columns in the dome to determine whether the water infiltration had damaged them. Report recommended reinforcing all 24 columns.

Cornice Condition Assessment HGA Architects Engineers and Planners and Schooley Caldwell Associates See Appendix

<u>2011</u>

Comprehensive Stone Assessment Wiss, Janey, Elstner and Associates and HGA Architects Engineers and Planners See Appendix This report was prepared for the 2013 Exterior Stone Repair Project

Minnesota State Capitol Roof Review HGA Architects Engineers and Planners and Schooley Caldwell Associates See Appendix This report was prepared for the 2013 Roof Replacement Project

Hot water and Heating Study HGA Architects, Engineers and Planners See Appendix

2013

Study: Predesign Report

HGA Architects Engineers and Planners, Schooley Caldwell Associates and Luken Architecture

See Appendix

This is the predesign for the 2014 restoration project.

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Section 1.2.4 tment and Work Recommendations Historic Structures Report



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Treatment Recommendations:

The Minnesota State Capitol was designed with a hierarchy of spaces and purposes. Over time, remodeling and other interventions have eroded the once clear spatial hierarchy that once existed. Any future intervention should work towards reestablishing the spatial and aesthetic order intended and making use of the potential for flexibility that was implicit in the original design.

The different spaces in the Capitol were evaluated and grouped into one of four categories corresponding to four levels of treatment. These four levels of treatment are as follows.

Zone One:

- Primary Circulation Spaces, Chambers, most important offices, along with exterior walls, statuary, windows and doors.
- Spaces, materials and finishes to be preserved where they still exist, restored where they have been damaged or removed.
- Requires the highest level of attention to historic fabric.
- Minimum flexibility for changes of use.

Some spaces in the Capitol have remained constant in use and unchanged in general character during the life of the building. Included are the important public corridors and rotunda spaces on all floors, the House, Senate and Supreme Court Chambers, the Governor's Reception Room and Ceremonial Offices for Constitutional Officers. It also included significant features on the Capitol Roof, including public observation areas, skylights, and sculptures-these elements are highly visible and greatly define the character of the Capitol from the exterior. On the Basement level, only the Rathskeller and Governor's and Justices Offices have this designation. These are the spaces that define the character of the Capitol to the greatest extent. These areas should be preserved. Preservation includes configuration, use, finishes, historic lighting, and all other elements that are original to the building. Restoration will occur in rare cases where intrusive additions, generally technological in nature, or where there has been damage by time and the elements have occurred. New building systems should be carefully planned to not adversely affect the original fabric and spatial configuration.

Space use in the Zone One is primarily in accordance with the original use. Little deviation from this use exists in the building today. Temporary uses such as food service carts and media connections should be careful planned to preserve the original configuration and finishes.

Actions necessary in Zone One preservation areas include:

- Repairs to damage due to general wear.
- Code Compliance in accordance with Minnesota's Conservation Code.
- Improvements to building systems without impact to character of spaces

Zone Two:

- Secondary Circulation spaces, important offices, support spaces and outdoor terraces.
- Spaces to be restored to original character.
- Volume and character of historic space must be respected.
- Some flexibility for changes in use, compatible with the original character of the spaces.
- Major Systems use not allowed.
- Changes must be reversible.

Architect Cass Gilbert differentiated these spaces from the major spaces of Zone One by a change in finishes and through spatial separation. In addition, these spaces have also been more severely altered than the Zone One spaces. Spaces included in Zone Two were public or semi-public spaces that had an order of finish and treatment that was between that found in the public spaces and the more utilitarian spaces. Included are the important minor public corridors, existing exit stair paths, elevators and significant meeting rooms. The exterior terraces are also considered to be part of this zone. Careful planning, design and construction activities should preserve and restore these spaces. Changes in use are to be compatible with the original character of the spaces, and these spaces are not allowed to be broken up and wholly or partially used for utilitarian needs. Repairs to historic fabric in Zone Two should follow same standards as in Zone One.

Zone Three:

- Least important finished spaces in original design.
- Any historic fabric present is to be preserved.
- Spaces to be rehabilitated.
- High degree of flexibility

Zone Three Spaces are those that were designed as secondary spaces, have been significantly altered so as to entirely lose their original fabric and character, or both. Spaces in this zone were changed early in the life of the building, some even by Cass Gilbert, who complained during construction that he was having to make changes to the plans in order to accommodate entire departments that didn't exist at the beginning of the construction. Most of these were offices who's occupants have changed many times in the Capitol's history. Original historic finishes in these areas have been lost or covered with newer finishes. Any new finishes in these areas should be compatible in character and design with the original finishes in the building. Zone Three allows some allowance for changes to configuration to accommodate new building systems and functions.

Some Zone Three spaces have been designated as such with regard to finishes, but Zone Two with regard to lighting and configuration. See elevation diagram below. In practice, this only means that the light fixtures selected for the spaces will match the other Zone Two spaces, and that there will be no internal

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partitions where none originally existed, so to present a unified appearance on the exterior. They will be considered Zone Three spaces in all other respects.

Zone Four:

- Found spaces, and spaces considered utilitarian in original design.
- Occupied spaces to be upgraded to finishes suitable to Capitol.
- Greatest flexibility for change.

Zone Four includes reclaimed spaces in the Basement Level, the Attic, and spaces that were utilitarian service or storage spaces within the original design. Spaces under the Terrace and exterior stairs are included in this zone. On other floors, these spaces were originally shafts and storage closets. These spaces can be flexibly employed for any functional use necessary. Spaces that are to be constantly occupied, as for offices and support staff functions, should have access to natural light and be provided with building systems services equal to other areas in the Capitol.

Work Recommendations

In performing the work, it is of the greatest importance to adhere to the codes and standards governing the rehabilitation of historic buildings, including the Secretary of the Interior's Standards, the Minnesota Conservation Code, and the guidelines and imperatives put forth by the Minnesota Capitol Preservation Commission. The Commission named three priorities that should guide all restoration efforts. These priorities are:

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None of these three priorities are considered to be more important than the other two. The Capitol Preservation Commission will be overseeing the work, along with the State Historic Preservation Office (SHPO).

In addition to these codes and guidelines, other applicable codes and standards include the 2006 International Building Code as adopted with provisions by the State of Minnesota, the Minnesota Accessibility Code, the Americans with Disabilities Act, the Minnesota Elevator Code, the National Fire Protection Association (NFPA) Fire Code, as well as all city and local codes.

The Owner is undertaking a separate survey of hazardous materials concurrently with the present restoration project. All hazardous materials will be dealt with as appropriate according to Federal standards. The results of the hazardous materials survey will be appended to this report.

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Preservation

Preservation is defined as taking measures to preserve existing historic fabric in place, with minimal repairs. In general, any original materials encountered in the Capitol are to be preserved. In Zone One spaces, most materials visible are original, so Preservation is the chief activity in Zone One. Zone Two spaces frequently have some original material to be preserved.

This approach is most appropriate in Zone One spaces, where there is little damage or deterioration. In the few cases where there is greater damage, for example the extensive water damage to the plaster in the Rotunda, a Restoration approach will be adopted.

In general, changes to Zone One spaces for code compliance or building systems should be minimal; designers should use other spaces where such changes are more appropriate to serve the Zone One spaces. Where such changes are unavoidable, as is the case with improvements to lighting, such interventions are to be integrated with existing fixtures and features as much as possible to minimize their visual impact. Existing bronze fixtures can have their lighting increased, and additional lighting can be concealed in cornices and within the existing laylights. Signage or other informational displays as required by use or code must be as appropriate to the historic nature of the spaces as possible. Fire sprinklers systems should be concealed as much as possible.

Restoration

The Restoration will involve the following types of work:

- General wear and deferred maintenance, as above.
- Undo or improve previous historically inappropriate renovations or modifications.
- Code compliance.
- Improvements to building systems.

Where there have been historically inappropriate renovations, these features will be removed and the historic fabric will be restored as appropriate to return these spaces to their previous character. This is mostly true of Zone Two spaces, where historic finishes may have been covered over with carpet or acoustic ceilings, or where large spaces have been subdivided into smaller ones. This will require a greater amount of repair to historic fabric, as damage from anchorage points etc. will all have to be repaired. In cases where historic elements have been removed, such as with a number of doorways where the door and frame have been removed and a blank off wall installed, the original element should be replaced, either with a salvaged original from elsewhere, or with a replica. In other cases, the existence of historic finishes beneath later additions could not be verified without destructive investigation. Such materials are assumed to exist in certain areas. If they have been removed, the classification of the room may have to be revaluated.

As with Preservation above, areas undergoing Restoration should not undergo major changes to their form and layout. Spaces restored should match the original character as closely as possible. Any alterations would have to be reversible and designed to have no impact on historic fabric.

Rehabilitation

Areas to be Rehabilitated are those who's historic finishes and materials are almost entirely lost due to previous renovations. These spaces will serve the other spaces by being the place where new elements required for code compliance or building services can be placed. Historic fabric and finishes, where present, are to be retained where possible, but restoration to their historic character is not contemplated.

Finishes will be compatible with the original standards of the building. Acoustical tile ceilings will not be used. Gypsum board may be used in place of plaster where appropriate. Doors, hardware, lighting and wood trim will be aesthetically compatible but distinct from the materials and profiles of the original building. For example, a light fixture might have the same general form but a more simple profile, while a door might be of the same cut, species and finish, but have a different panel detailing.

In many areas, the original wood floors have been removed and replaced with carpet over a concrete substrate. Restoring the wood floors to these areas would be prohibitively expensive, so all existing carpet will be replaced with a historically compatible carpet pattern, in rolled stock rather than tile.

Casework and furnishings should match the original standards, as documented in the 'Attention to Detail' publication. (see appendix)

Repair

The Space Inventory identifies many areas where repairs are necessary. Repair work will take place in all Zones, but especially in Zone Two, as part of the Restoration work. In all cases, repair of existing fabric is preferred. Replacement in kind should only take place if the item is so badly deteriorated so as not to be reparable. This is true in all Zones. Repair of routine wear, reversing damage and similar damage will include, but not be limited to:

- Plaster repair, especially in areas at ground level and where exposed to water damage. This also includes decorative plaster, such as the column capitals that are exposed to traffic on the third floor.
- Stone repair, especially at stone bases and corners exposed to traffic. Stone damage is not extensive. Few, if any stone elements are damaged to the extent that they need replacement.
- Decorative painting restoration, especially in areas exposed to water damage. This is most visible in the first floor vestibules. The third floor decorative plaster has already been extensively restored.
- Wood repair, especially to doors and areas of trim exposed to traffic. Any replacement components must match original in species, cut, and finish. Typical existing wood trim is quarter sawn oak.
- Restoration of Artwork, where appropriate.
- Tile Restoration, both for the Guastavino structural tile, and decorative floor tile.

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Skylight Restoration; there are many skylights that have been covered over. Other skylights require repair. Likely repairs will include glass replacement, restoration or reconstruction of metal frames and restoration or reconstruction of plaster surrounds.

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Minnesota State Capitol Restoration Treatment Zones

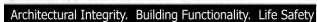


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Basement Plan

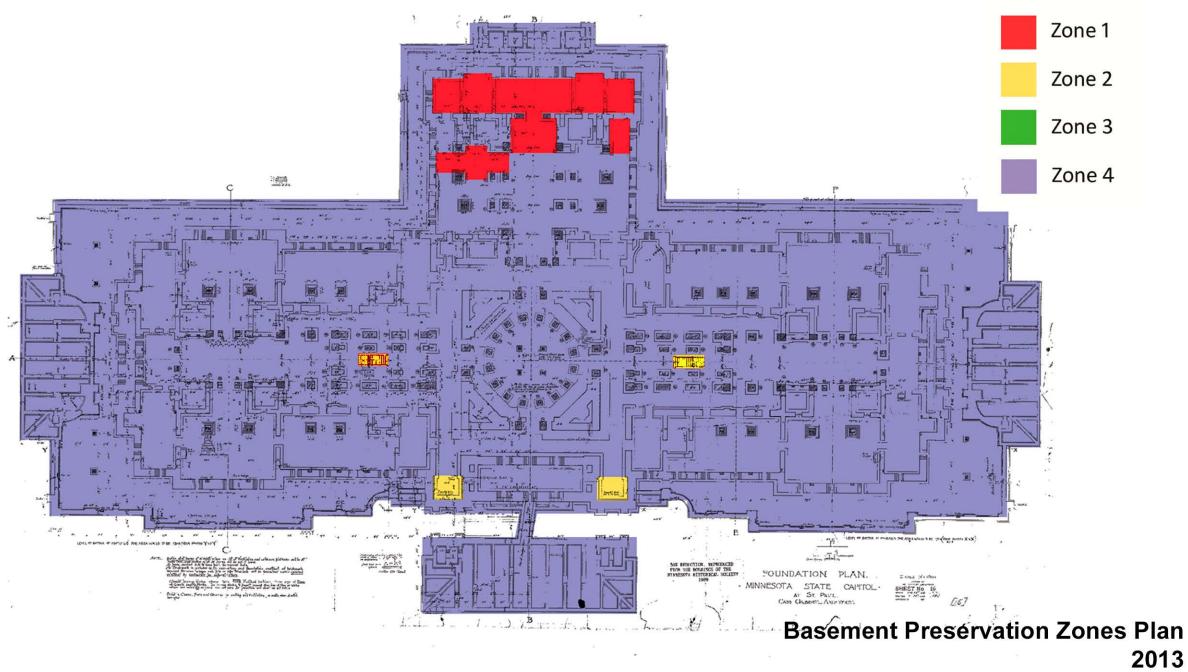
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Preservation Zones Key





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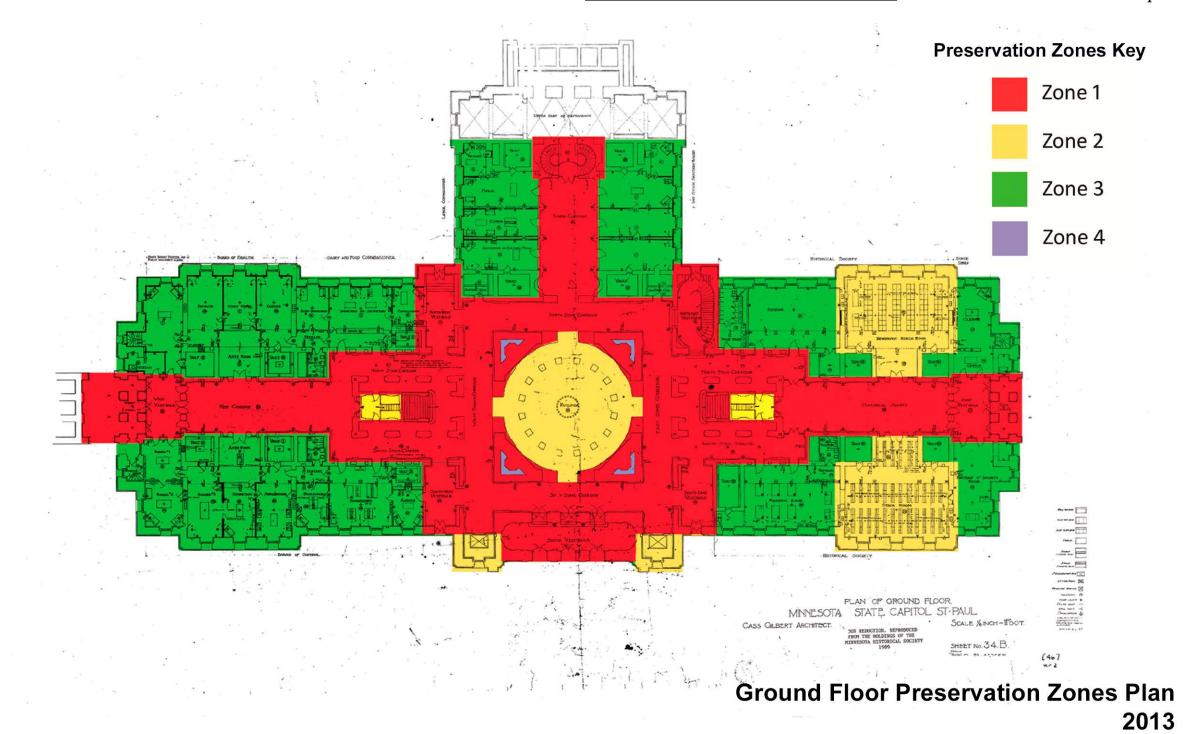
Ground Floor Plan

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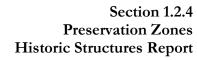
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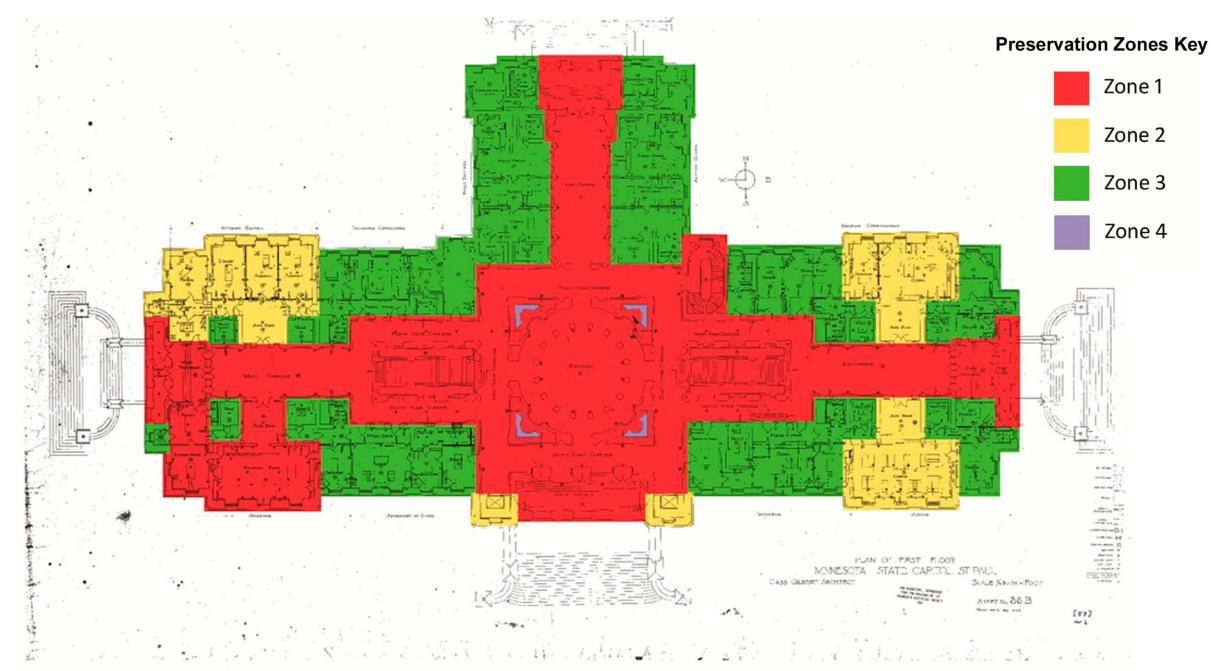
First Floor Plan

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First Floor Preservation Zones Plan 2013



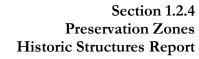
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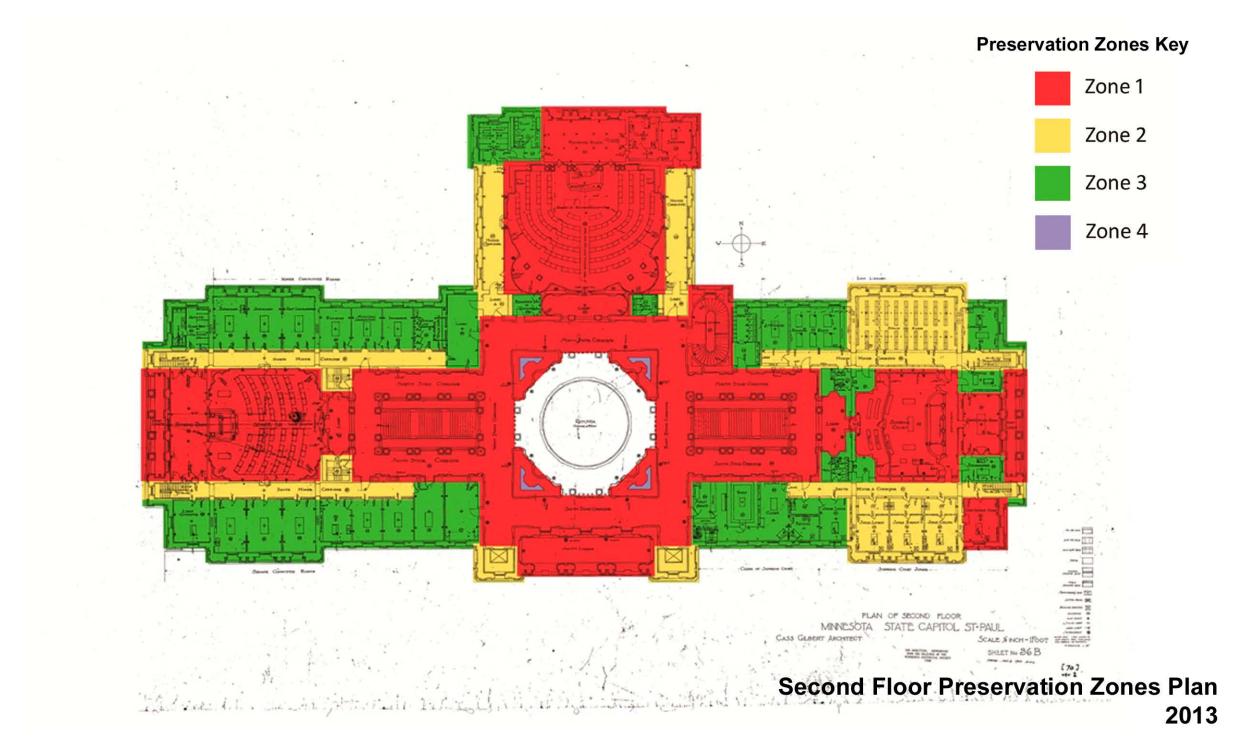
Second Floor Plan

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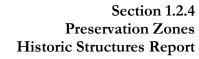
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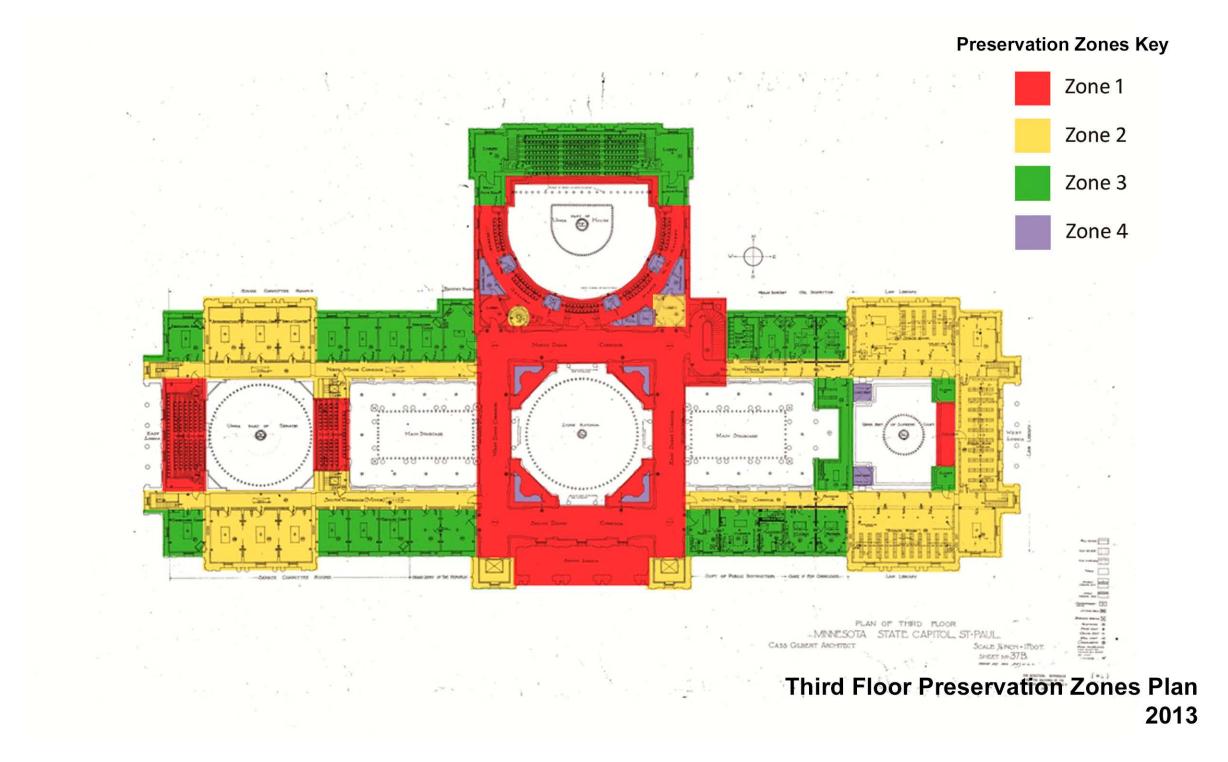
Third Floor Plan

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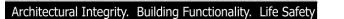


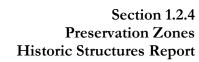
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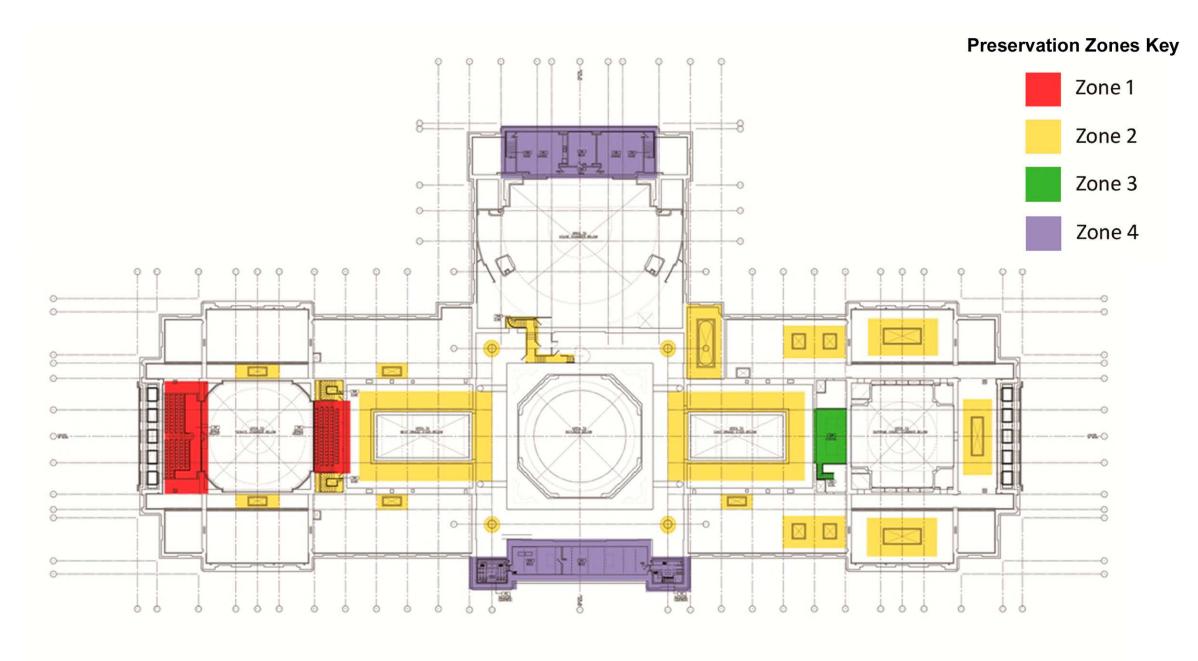
Fourth Floor Plan

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Fourth Floor Preservation Zones Plan 2013



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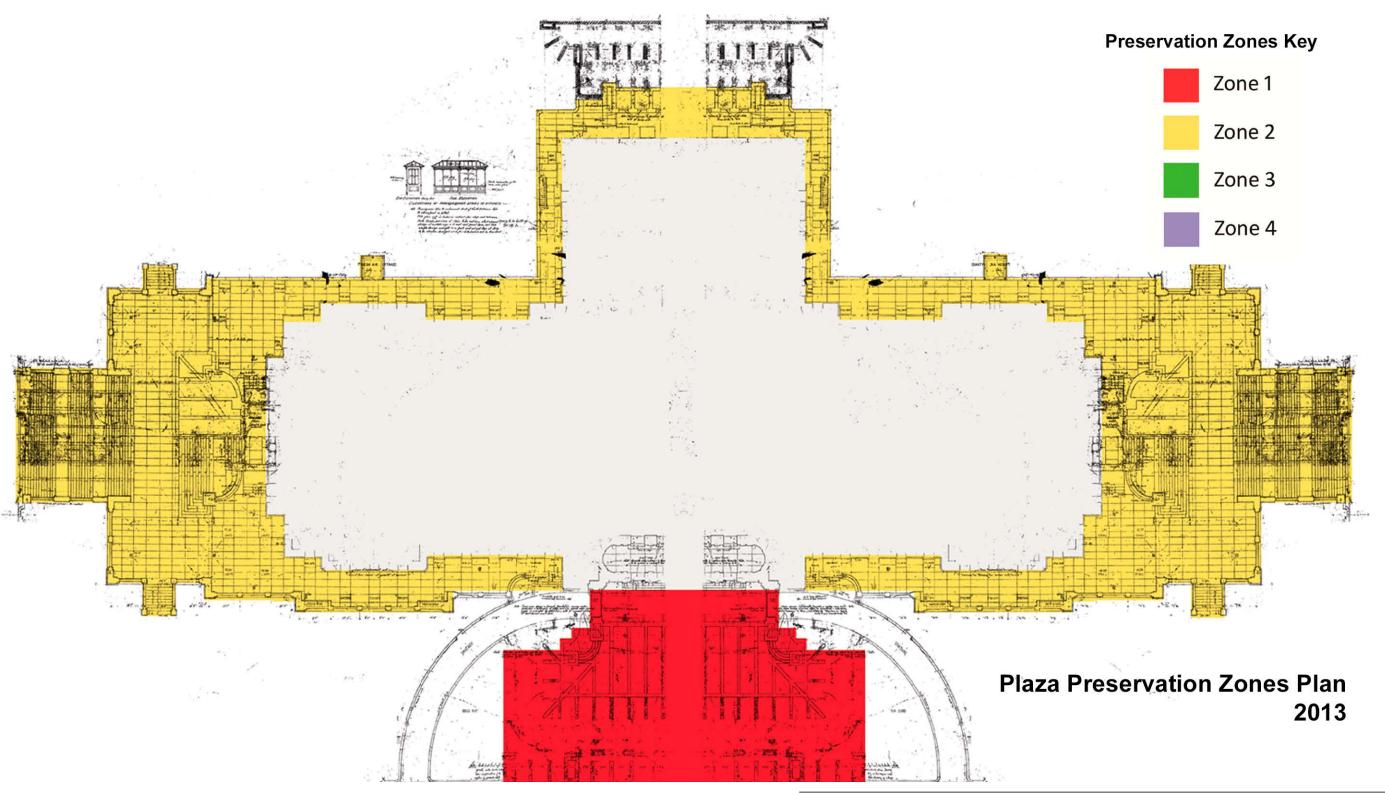
Plaza Plan

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Elevations

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