

TEMPLATE
For Preparing the PREDESIGN DOCUMENT
Capital Budget Projects

TITLE & GRAPHIC PAGE

Enter the title of the project and a graphic (sketch, logo, photo)

Submit the predesign document under a signed cover letter from the State Agency receiving the project or the local government entity that receives the appropriation. See the last page of this template for a sample letter.

NOVEMBER 2015 [enter current date of completion of document]

CERTIFICATION SIGNATURES

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

I hereby certify that this report was prepared by me or under my direct supervision and that I am a duly registered _____ ARCHITECT or ENGINEER (select one) _____ under the laws of the state of Minnesota

Date: _____ Registration Number _____

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INTRODUCTION

This template is an outline for the project proposer to use in preparing the final predesign document and it follows the format of the “*Predesign Manual for Capital Budget Projects*” The project preparer should consult with the Manual for more specific information on the requirements.

Focus on describing the project accurately; do not include any “wish list” information; include only the facts about what is to be designed and built. Avoid including meeting minutes or other information that does not add clarity or detail to the scope, cost information, and schedule of the project being proposed. If you wish to include long narratives on how the project came about; include them in the “Project Background Narrative” section.

The final predesign document will be the document used to convey instructions to the future design team. State Agencies will use the predesign document costs to seek legislative funding, advertising for design services, negotiating a design contract, and it will serve as the instructions to a future architect and engineer(s) to design and prepare construction documents.

Questions regarding this document may be directed to Mr. Eric Radel at the Department of Administration at 651-201-2380; email: eric.radel@state.mn.us

[Delete The above from your final submittal document- it is for informational purposes only]

Enter this in your introduction :

This predesign document has been prepared for the following purposes :

- Identifying all project needs and costs to serve as the basis for funding requests.
- To be the source for future decision making during the development of the project by serving as the road map for future development.
- Provide agency management with the information they need so as to effectively communicate project details to legislators and stakeholders.
- Communicate essential project objectives with factual data before the actual design process commences or other decisions are made.
- Explore alternatives that had not been previously considered.
- Identify potential cost savings.
- Identify and minimize of risks associated with the project.
- Analysis of the best construction delivery method.
- Analysis of funding alternatives best suited for the project.
- Provide a basis for a Request For Proposal (RFP) for design services and in negotiating the future design contract.
- Provides instructions to the future architectural and engineering design firms and provide them the foundation on which to base their design.

SECTION 1 Predesign Summary

Enter specific information on the project that is to be built; if there are multiple phases repeat information and the costs for each phase. Below is an example of required information. [delete these sentences in your final document]

SECTION 1.A Project (Executive) Summary Statement

PROJECT TITLE: MARINE EDUCATION CENTER **Location:** MN Zoo-Apple Valley

SCOPE [Enter a narrative of the scope of the work- do not include non-essential information that does not describe what the scope consists of [delete this sentence in your final document]

This project is to support the mission of the Zoo to "strengthen the bond between people and the living earth," according to the Zoo's mission statement.

The improved facility will include a new building that will contain a new pool for six dolphins along with isolation and neonatal pools, two regular and three wet classrooms, an indoor dolphin theater with a 1,500 person seating capacity, eight shark exhibits, and a reception area for 300 people with adjacent catering kitchen for revenue generating events.

COSTS [Enter the costs [delete this sentence in your final document]

New space (new construction):
46,000 gsf Estimated construction Cost: \$15.00 million

Remodeled space:
4,200-5,700 gsf Estimated construction cost: \$2.500 million

Total Estimated construction cost: \$17.500 million
Estimated Total Project Cost: \$20.50 million (all costs associated with the project)

FUNDING SOURCE(S) [Enter the funding sources] [delete this sentence in your final document]

State Funding Request: \$9.00 million
Sources for Remainder of Funding:
Friends of the Zoo: \$1.500 million
Federal Grant: \$10.00 million

OPERATING COSTS [Enter operating costs] [delete this sentence in your final document]

An anticipated \$847,000 in increased operating expenses will be funded by the Zoo's Special Revenue Fund upon project completion in FY 2024.

SCHEDULE [Enter milestone schedule dates] [delete this sentence in your final document]

Funding: Estimated July 2020
Site Acquisition: July 2020 to January 2021 (7 months)
Design: January 2021 to November 2021 (11 months)
Bidding & Award: March 2022 to May 2022 (3 months)
Construction: June 2022 to September 2023 15 months)
Occupancy: December 2023

Complete the **Building/Project Data Sheet – Section 1.B** and/or the **Building Audit Sheet – Section 1c**, and insert behind the Summary Statement.

SECTION 1.B

PROJECT DATA SHEET - New Building (or New Work)

(include behind the Project Summary Narrative)

Name of Project:

Agency/Organization:

Project/Building Location:

Building Occupancy Type:

Primary Space Types:

Type of Construction:

Building Size

Number of Stories:

Square Feet per Floor:

Total Square Feet:

Space Efficiency: Usable v. Circulation/Mechanical etc.

Office Space: Gross Sq. Ft. per person:

Typical Work Station Size:

Site Size: Number of Acres:

Parking: (Enter information on new parking or replacement of existing; if not included indicate N/A)

Type (surface or structured):

Number of Stalls:

Area of Parking:

Total Cost of Structure:

Cost per stall:

Parking Structure SF:

Roofing Type:

Exterior Wall Type:

Interior Wall Type:

Structural System Type:

Mechanical System Type:

Fire Protection Description:

Electrical System Type:

Technology Systems:

Life Expectancy of New Work:

Costs: (Enter costs that are included in the project; if not included indicate N/A)

Total Project Cost:

Furniture, Fixtures, Equipment, Signage:

Predesign Cost:

Relocation Cost: (not bondable)

Design Cost (including B3 sustainability):

Phasing Cost:

Site Acquisition Cost:

Technology Cost:

Site Improvements Cost:

Commissioning (req'd for B3):

Parking Structure Cost:

Building Cost:

Hazardous Materials Abatement Cost:

Surface Parking Cost:

State Funding amount:

Other Funding Source(s) Amount(s):

NOTE: Cost Estimates are based upon the information above

SECTION 1.C

PROJECT DATA SHEET –Existing Building/Project Data

(include behind the Project Summary Narrative)

Enter information on the existing building or physical asset and the proposed remodeled/renovated.

Name of Project:

Agency/Organization:

Building Location:

Building Occupancy Type	<u>Existing</u>	<u>Remodeled</u>
Primary Space Types:		
Type of Construction:		

Building Size

Number of Stories:	Number of Stories to be remodeled:
Square Feet per Floor:	Square Foot of Remodeling:
Total Square Feet:	Total Square Feet of Remodeling:
Space Efficiency: Usable v. Circulation/Mechanical etc.	
Office Space: Gross Sq. Ft. per person:	Typical Work Station Size:

Site Size: Number of Acres/ square feet

Parking: (Enter both existing and new work)

Type (surface or structured):	Number of Stalls:	
Area of Parking:	Total Cost of Structure:	Cost per stall:
Parking Structure SF:		

Roofing Type: (Enter both existing and new work)

Exterior Wall Type (s):

Interior Wall Type(s):

Structural System Type:

Hazardous Material Removal:

Mechanical System Type:

Fire Protection Type:

Electrical System Type:

Technology Systems:

Costs: (Enter costs that are included in the remodeling; if not included indicate N/A)

Total Project Cost:	Furniture, Fixtures, Equipment, Signage:
Predesign Cost:	Relocation Cost: (not bondable)
Design Cost (including B3 sustainability):	Phasing Cost:
Site Acquisition Cost:	Technology Cost:
Site Improvements Cost:	Commissioning (req'd for B3):
Parking Structure Cost:	
Building Cost:	
Hazardous Materials Abatement Cost:	
Surface Parking Cost:	
State Funding amount:	Other Funding Source(s) Amount(s):

NOTE: Cost Estimates are based upon the information above

SECTION 2

BASIS FOR NEED – PROJECT BACKGROUND NARRATIVE

MISSION

Project Owner's Mission Statement:

For State Agencies, their mission is often grounded in the legislative authority in statute(s). This section should summarize the statute authority or rule and reference the "long version" of the statute in an appendix to this document. Focus on the legislative/mandated authority in statute or ordinance that supports or demands the development of the project either directly or in the form of the creation of programs requiring physical accommodations.

STRATEGIC PLAN

Summary of how the requesting agency's/organization's strategic plan serves its mission. (What is the strategic plan for efficiently providing the service or meeting the need of the organization).

OPERATIONAL PLAN

Summarize the project owner's (agency/organization) operational program to be supported by the project. This is an opportunity to indicate the effect of expanding programs, sentencing guidelines, or other directives creating the need to provide appropriate facilities. The program should clearly identify the basic elements of what is, what will be done, how, to whom, by whom, with what in terms of resources, and the results anticipated. This summary should not record physical facility requirements.

ALTERNATIVE ANALYSIS

Before building new space, the requesting Agency or Organization provides an analysis that results in identifying the physical needs for the project.

The analysis and planning process should define alternative ways that were considered to meet the project's operational program requirements. Alternatives may include using existing space, adapting existing space, new construction, or leasing space. Collocation with other agencies for projects outside of the metropolitan area must also be considered and a determination made and explained. When alternatives have been defined, conduct an analysis and summary of alternatives to meet the project's operational program and service delivery requirements. A preferred alternative should be selected that maximizes program suitability and **minimizes first cost and life of the program costs**. Include clear explanation of the thought process and criteria used to select the preferred alternative. The nature and breadth of participation by user groups within the organization should be clearly indicated. Collocating with another agency is a required alternative for projects outside of the metropolitan area.

When analyzing its space inventory, the requesting agency should answer two questions:

- Is existing space available to meet the program requirements? If the answer is yes, then reusing existing space is an alternative way to satisfy the program requirements.
- Is existing space, worthy of reinvestment, available for adaptation to meet the program requirement? If the answer is yes, then adapting existing space should also be considered an alternative way to satisfy the program.

FACILITY CONDITION ASSESSMENT (FCA) The predesign submittal shall include the FCA and identify the upgrades or replacements being included in the project and costs.

Insert the FCA in an Appendix to the predesign and reference it in this narrative.

Additionally, if the project involves remodeling of an existing facility, you will need to estimate the costs of the HAZARDOUS MATERIAL survey, design, monitoring and abatement.

SECTION 2.A

Sample of BASIS FOR NEED – PROJECT BACKGROUND NARRATIVE

This section of the predesign submittal describes and justifies the need for the project. A project must be justified based on carrying out the mission, strategic plan, and operational program. During the predesign process, the agency undertaking predesign will need to gather and summarize their MISSION, STRATEGIC PLAN, and OPERATIONAL PLAN to demonstrate the connection and need of their proposed project. This information should then be incorporated into the predesign submittal document. An example is below.

[delete the above your final document]

EXAMPLE

(this is hypothetical for the purpose of demonstrating the appropriate information to be provided)

The mission of Minnesota Zoo is *to connect people, animals, and the natural world*. Modern exhibits provide exciting experiences with animals and their habitats introducing guests to species from around the globe. Education programs engage audiences at the Zoo, throughout the region, and around world. Conservation programs protect endangered species and preserve critical ecosystems.

The current demographics and operations of the Minnesota Zoo are:

Animal species: 504 Individual animals: 2,961

Births at the Zoo: 246

23 Species Survival Plan (SSP) species

Members Households 44,233

Guests: 1,355,260

Education program participants: 331,680

Zoomobile participants: 43,570

Volunteers: 1,000

Total operating expense: \$18.7 million

The Strategic Plan for the Minnesota Zoo (the project proposer is to [attach full plan in the appendix and reference it here] includes collaboration with National and World organizations for determining exhibits, education, research pertaining to wildlife and their habitat.

The Operational Plan for this project(the project proposer is founded in its activities as a member of the Association of Zoos and Aquarium's (AZA's) Species Survival Plan (SSP) Program. The Minnesota Zoo participates in the AZA mission: to help ensure the survival of wildlife species.

The Minnesota Zoo's Species Survival Plan, or SSP, began in 1981 as a cooperative population management and conservation program for selected species at North American zoos and aquariums. Each SSP manages the breeding of a species to maintain a healthy, self-sustaining captive population, both genetically diverse and demographically stable. SSPs include other conservation activities including research, education, reintroduction, and field projects. Currently, there are 113 SSPs covering 181 species.

The Minnesota Legislature authorized the creation and operation of the Minnesota Zoo in the following statutes:

85A.01, 85A.001 through 85A.05

Basis For Need

Based on current revenue analysis and survey of visitors to the zoo, the most popular exhibits are related to the Species Survival Plan (SSP) and in particular the Aquarium Exhibit. And, last year the American Zoo

Association notified zoos with SSP programs that they have matching grants available for facility expansions related to endangered species.

The Minnesota Zoo has applied for and received approval for a 1:1 matching grant from the AZA. This grant becomes available when the grantee provides sufficient documentation that they have secured their portion of the grant. This project will consist of the expansion of the Aquarium Exhibit. The Zoo's financial analysis (See Appendix) indicates that the increased revenue from this proposed project will fund the ongoing operations of the additional operating cost incurred by the expansion.

Alternative Analysis

Before building new space, the requesting Agency or Organization provides an analysis that results in identifying the physical needs for the project.

The analysis and planning process should define alternative ways that were considered to meet the project's operational program requirements. Alternatives may include using existing space, adapting existing space, new construction, or leasing space. Collocation with other agencies for projects outside of the metropolitan area must also be considered and a determination made and explained. When alternatives have been defined, conduct an analysis and summary of alternatives to meet the project's operational program and service delivery requirements. A preferred alternative should be selected that maximizes program suitability and minimizes first cost and life of the program costs. Include clear explanation of the thought process and criteria used to select the preferred alternative. The nature and breadth of participation by user groups within the organization should be clearly indicated. Collocating with another agency is a required alternative for projects outside of the metropolitan area.

When surveying its space inventory, the requesting agency should answer two questions:

- Is existing space available to meet the program requirements? If the answer is yes, then reusing existing space is an alternative way to satisfy the program requirements.
- Is existing space, worthy of reinvestment, available for adaptation to meet the program requirement? If the answer is yes, then adapting existing space should also be considered an alternative way to satisfy the program.

[insert information following the topics in bold font and delete the above your final document]

SECTION 3 AGENCY/ORGANIZATION PLANNING

Agency planning is to precede predesign and be documented and incorporated into the predesign submittal document. This Section of information is used as backup documents to support and inform other Sections of the Predesign. If Agency/Organization planning assistance is needed, this needs to be identified early on so that these services can be procured prior to or as part of the Predesign activities.

Along with the information from Section 2, Agency planning includes:

Comprehensive/Master Plan: Review of area, neighborhood, or campus master plans or other plans that may affect the project: Project decisions should be made with the requirements of existing plans in mind. These plans may include campus or area master plans or other plans prepared and enforced by local levels of government; or masterplans previously prepared by the Agency.

Site Selection: If site selection is needed for the project, the Agency will need to provide identification of potential sites and definition of site selection criteria. Though alternative sites should be identified and selection criteria proposed before predesign, actual site selection may occur before predesign, during predesign, or as late as schematic design based upon funding, site control and environmental review.

Historic Documentation: If the project is located within a historic district or involves disposal of buildings that are on the National Register of Historic Places, provide all documentation and correspondence for inclusion into the predesign document.

Disposal of State-Owned Buildings: If the project involves the disposal or demolition of a State-owned building, the Agency must obtain legislative authority for the disposal or demolition. Contact the Department of Administration's Real Estate and Construction Services for assistance.

Stakeholders: Provide a list and narrative regarding the stakeholders involved and affected by the project (i.e. other agencies, organizations, and entities).

Impacts: The Agency is to provide a narrative of the impacts the project will have on:

1. Their Operations
2. Their Operational Budget
3. Facility and staff (i.e. include the functional impacts that the facility will need to accommodate during design, construction, relocation, occupancy).

All documents related to the topics above should be referenced in the Predesign document under this Section and placed in the appendix..

SECTION 4 PROJECT DESCRIPTION

4.A ARCHITECTURAL/ENGINEERING (A/E) PROGRAM

PREDESIGN REQUIRMENTS FOR THE A/E PROGRAM:

The A/E Program provided in the predesign submittal is to include:

- A detailed space program using a table of space names and sizes.
- Space Needs Inventory data sheets for individual rooms (See Appendix 4a template form)
- Adjacency Diagrams showing the activity and functional relationships among the spaces.
- A listing of Furniture/Fixtures/Equipment/signage (FF&E) needs.
- Narrative descriptions of the major Architectural, Civil, Structural, Mechanical, Electrical, and Specialty systems that are part of the proposed project.
- Projects for new and remodeling of state agency offices are to follow the state's "Space Guidelines". Current space guidelines are available online at <http://mn.gov/admin/business/vendor-info/construction-projects/Guidelines/design.jsp>
- Include the space program in the format of a table with the name of each space along with the square foot area required of each room, each floor and total square feet.

Alternatives/Options

- Show space adjacencies. Develop three options, in bubble diagram format on the site, that will satisfy the program; evaluate each option and select the preferred one. Provide explicit reasons for selecting the preferred option.

4.B PRECEDENT STUDIES

1. Visit and investigate at least two project facilities that are similar to the project that is being proposed in this predesign. Include the following:
 - Brief description and location of the project
 - Significance of the project
 - Description of the successful design features, systems, or elements that will be incorporated into the proposed project.
 - When using terms such as "cutting edge", or "at the fore-front" describe what makes those facilities "cutting edge" and specifically what will be incorporated into the proposed project to make it "cutting edge".

4.C TECHNOLOGY PLAN

1. This section of the predesign is for the purpose of identifying and documenting the technology requirements for the project. Provide summary information technology and telecommuting plans to be incorporated into the project. Cost-effective information technology investments and telecommuting plans should be provided that would enable an agency to reduce its need for office space, provide more services electronically, and centralize or decentralize its services.

For State agency projects, the predesign preparer shall prepare a Technology Plan using the

“*Technology Guidelines - Building Infrastructure Best Practices for State Owned Buildings*” (located at <http://mn.gov/admin/images/RECS-CS-AppendixB.pdf>) The preparer shall work in coordination with the user agency and MN.IT to identify and document the technology needs for the project. And when completed, the Technology Plan is to be reviewed by MN.IT and a letter from MN.IT approving the technology plan is to be included in this section. If needed, the predesign team may need to meet with MN.IT prior to finalizing the plan.

4.C.1 TELECOMMUTING PLAN

1. Minnesota Statute 16B.335 Subd. 5 requires Agency requests for construction and remodeling funds shall include money for cost-effective information technology investments that would enable an agency to reduce its need for office space, provide more of its services electronically, and decentralize its operations.
Opportunities for combining technology with telecommuting are to be explored. State agency projects are to include an analysis of providing telecommuting for employees as a potential for reducing requirements for physical space. Provide the telecommuting plan with the technology plan to MN.IT for their review.

4.D SUSTAINABILITY, ENERGY CONSERVATION, AND CARBON EMISSIONS

1. This section is to include instructions to the design team on the sustainability and energy efficiency. Specific information is to be included on each of the following:

Sustainability and Energy Efficiency

- Sustainability and High Performance. Include a summary of sustainable design and construction goals in accordance with the “*The State of Minnesota Sustainable Building Guidelines*” (available at www.csbr.umn.edu/b3/index.html). Minnesota Statute § 16B.325 requires that the State’s Sustainable Building Guidelines be applied.

Alternative and Renewable Energy

The following are state statutes having requirements for providing alternative and renewable energy sources. The predesign submittal must contain the information noted.

- 16B.32 ENERGY USE. Subdivision 1. Alternative energy sources.
New construction or a renovation of 50 percent or more of an existing building or its energy systems must include designs which use active and passive solar energy systems, earth sheltered construction, and other alternative energy sources where feasible.
Subdivision 2: A state agency that prepares a predesign for a new building must consider meeting at least two percent of the energy needs of the building from renewable sources located on the building site. For purposes of this subdivision, "renewable sources" are limited to wind and the sun. The predesign must include an explicit cost and price analysis of complying with the two-percent requirement compared with the present and future costs of energy supplied by a public utility from a location away from the building site and the present and future costs of controlling carbon emissions. If the analysis concludes that the building should not meet at least two percent of its energy needs from renewable sources located on the building site, the analysis must provide explicit reasons why not. The building may not receive further state appropriations for design or construction unless at least two percent of its energy needs are designed to be met from renewable

sources, unless the commissioner finds that the reasons given by the agency for not meeting the two-percent requirement were supported by evidence in the record.

Solar

Enter information

Enter Cost/Benefit calculation:

Summary: Provide a summary of why/why not a PV Solar system will/will not be incorporated into the project.

Wind

Enter information

Enter Cost/Benefit calculation:

Summary: Provide a summary of why/why not a wind generation system will/will not be incorporated into the project.

- **16B.323 SOLAR ENERGY IN STATE BUILDINGS**

A project for the construction or major renovation of a state building, after the completion of a cost-benefit analysis, may include installation of "Made in Minnesota" solar energy systems of 40 kilowatts capacity on, adjacent, or in proximity to the state building (a state building is defined as one that receives state bond proceed funding). The cost of the solar system must not exceed 5% of the appropriation.

40 KW Photovoltaic Solar System

Enter information

Enter Cost/Benefit calculation:

Summary: Provide a summary of why/why not a PV Solar system will/will not be incorporated into the project.

- **16B.326 HEATING AND COOLING SYSTEMS; STATE-FUNDED BUILDINGS**

The project proposer must include a study for geothermal and solar thermal applications as possible uses for heating or cooling for all building projects subject to a predesign review ...that receive any state funding for replacement of heating or cooling systems. When practicable, geothermal and solar thermal heating and cooling systems must be considered when designing, planning, or letting bids for necessary replacement or initial installation of cooling or heating systems in new or existing buildings that are constructed or maintained with state funds. The predesign must include a written plan for compliance with this section from a project proposer.

Definition: "solar thermal" means a flat plate or evacuated tube with a fixed orientation that collects the sun's radiant energy and transfers it to a storage medium for distribution as energy for heating and cooling.

Geothermal (16B.326)

Enter information

Enter Cost/Benefit calculation:

Provide a summary of why/why not a geothermal system will/will not be incorporated into the project.

Solarthermal (16B.326)

Enter information

Enter Cost/Benefit calculation:

Summary: Provide a summary of why/why not a solarthermal system will/will not be incorporated into the project.

4.E OPERATIONS AND MAINTENANCE REQUIREMENTS

1. This section is for the purpose of providing instructions to the design team from those who will be operating the building. The agency building operators should be involved in design meetings and their input included in this section.

The predesign preparer will also need to include the following:

- The impact of the project on the agency/organization operations and budget
 - Documenting and incorporating maintenance requirements (special equipment needed to service the building lighting and equipment)
2. Include changes in staffing levels, anticipated expenses for salaries, operations, maintenance, and utilities as a result of the project. These estimates should be amounts that are anticipated over present levels of funding. The predesign should indicate whether the maintenance and operational services are expected to be performed by agency staff or private sector vendors.

4.F STATUTE REQUIREMENTS

1. Appendix 4c at the end of Section 4 contains a table of statute requirements for capital projects that receive state funding. Insert this table into your final document and enter a short description on how the project will address each one. Amend the table as needed to convey your information.

4.G SPECIALTY REQUIREMENTS

1. This Section is for unique requirements related to the project. Project Costs are to take into consideration the special requirements. List these requirements in Section 4G of the body of the predesign and then reference that they are bound in an Appendix. Examples of Specialty Requirements include:
 - Department of Health licensing requirements / rules / legislation for Supportive Living Facilities.
 - Laboratory Certification Requirements (i.e. Contamination/ Biohazard Level design requirements).
 - Data Center Tier Level design requirements
 - Correctional Facility Design Standards
 - Acoustical design requirements
 - Humidification controlled environments (Museum, wood instrument storage, etc)
 - Historical Design /National Register of Historical Places. (Archeological Site Surveys, coordination with State Historical Preservation Office (SHPO)
 - Environmental (National Environmental Preservation Act-NEPA, or State Environmental Assessments and/or Environmental Impact Statements).
 - Federal design standards requirements.
2. In addition to project specific requirements, all State Owned/State Agency projects have the following Specialty requirements: Unless noted otherwise, these documents can be found at: <http://mn.gov/admin/government/real-estate/manuals-guidelines-forms/index.jsp>

- State’s “*Design Guidelines*”
 - State’s “*Space Guidelines*”
 - “*Minnesota Sustainable Building Guidelines*” (also known as B3 Guidelines which include the Sustainable Building-SB2030 energy conservation requirements).
 - “*Guide to Minnesota Environmental Review Rules*” for site. <http://www.eqb.state.mn.us/program.html?Id=18107>
 - “*Building Infrastructure Guidelines for State Owned Buildings*” Include a Technology Plan for the project.
 - “*Building Air Quality – A Guide for Building Owners, Facility Managers and Agency Contacts*”.
 - “*Criteria For Locating State Offices and Agencies*”.
 - “*Contractors/Vendors Guidelines Related To Buildings and Parking Facilities*” For Projects located on the Capitol Complex.
 - “*Plant Management Preferred Equipment List*” for projects located on the Capital Complex.
 - “*Contractor Security Requirements*” for projects located within a Minnesota Correctional Facility. (Available from the correctional facility).
 - Security & Vulnerability Assessments - Unless an agency has security expertise, a qualified security consultant should be retained during the predesign process and work in coordination with the predesign team.
 - Demolition of State buildings: Legislative Authority is required if the project involves the disposal of a State owned building.
 - Other specialty requirements that are unique to a specific project are to be identified and incorporated into the predesign and estimated costs.
3. Furniture, Fixtures, and Equipment (FF&E). The new building will need to be equipped with furniture and other non-construction related elements. The agency will need to consider office furniture, office equipment, computers, wall hangings/art (See percent for art in State Buildings), plants, files, signage, directories, video conferencing equipment, conference room projection, etc. The predesign is to include costs for all built-in and movable equipment and fixtures.
 4. Exterior landscaping and site amenities. Include all costs for landscaping and site amenities that will be part of the project.
 - a. Landscape design fees and amenities (plants, trees, bushes, benches, bike racks).
 - b. Exterior lighting design and construction (parking areas and building areas).
 - c. Exterior signage (design and signage).
 5. Finally, if the project includes relocation of existing tenants; these costs need to be included in the total project cost. Costs to be considered are:
 - a. Move Consultant (Company that will organize the tenant for the move and assist with bidding)
 - b. Move vendor (company that will do the moving)
 - c. Swing space lease costs (if tenant relocations are needed during construction).

Note: Relocation costs are not bondable. The State Agency will need to develop a general fund request for relocation costs.

4.H PROJECT PROCUREMENT AND DELIVERY

1. This section describes the proposed method for delivering the project. Options for delivery include: Design-Bid-Build (Low-Bid), Design-Bid-Build (Best Value), Construction Manager at Risk, or

Design-Build.

2. The recommended Project Delivery Method is to be accompanied by the reasons it will serve to deliver the project as distinguished from other options.
3. The project cost plan and estimates are to include the costs associated with the recommended delivery method.
4. For public projects, the predesign shall also contain instructions to future design teams regarding product specifications based on the State's guidelines. All product specifications are to be written to allow multiple manufacturers and suppliers to competitively bid the products. No single product or single source shall be specified unless formal prior justification and approval are received.

4.I PROJECT DESIGN SERVICES AND ADDITIONAL OWNER COSTS

1. This section is for determining the design services required to deliver the project along with additional services the owner/State will need to provide.
2. Carefully consider all of the design services and other owner soft costs that will be needed. The attached Appendix 6 has a comprehensive list of possible design and soft costs that should be considered for the proposed project.
3. Complete the attached Appendix 6 and insert it in the final predesign document.
4. Include these costs in the project budget and financial spreadsheets in Section 6.

4.J QUALITY CONTROL PLAN

1. Provide the quality control plan outline and a listing of quality control measures that will be incorporated into the project delivery process for the project. Along with code required testing, State Agency projects for new construction, additions and major renovations, are to include the following quality control measures in the project AND project budget:
 - a. Building Envelope Commissioning (design review commissioning and commissioning and inspections during construction).
 - b. HVAC and Electrical Systems Commissioning (Design review commissioning and construction commissioning and inspections during construction).
 - c. Building Envelope Analysis using WUFI software (performed by envelope commissioning agent). <https://wufi.de/en/> Performed during the design phase of the project.
 - d. Specify mock-ups of envelope component systems and pre-installation conferences.
 - e. Specify submittal of a quality control plan by the contractor and subcontractors.
 - f. MN Sustainable Building Guidelines (B3) with SB2030 energy efficient design
 - g. Building Information Modeling (BIM) for clash detection.
 - h. BIM interface with Archibus.

Section 4 APPENDICES FOLLOW THIS SECTION

APPENDIX 4a – Space Needs Inventory Form

APPENDIX 4b – Programming Methodology with Participatory Design

APPENDIX 4c – Applicable Statutes for State Funded Projects

SECTION 4 - APPENDIX 4a

SPACE NEEDS INVENTORY

- ROOM/SPACE NAME ▶
- SQUARE FOOT AREA ▶
- SPACE STANDARD:
- SPACE STANDARD AREA:
- NUMBER OF OCCUPANTS** ▶

FUNCTION

(Describe the activities that will occur in this space)
(Describe the user's objectives for this space)

ADJACENCIES

(Describe the spaces that need to be adjacent to this area)

FURNITURE, FIXTURES & EQUIPMENT

(Describe the equipment and furnishings that will be needed)

ARCHITECTURAL FINISHES

FLOOR:

WALLS:

WALLS:

WALL BASE:

CEILING:

CEILING HEIGHT:

LIGHTING:

SPECIAL CRITERIA:

MECHANICAL/HVAC/PIPING REQUIREMENTS:

ELECTRICAL REQUIREMENTS:

TECHNOLOGY REQUIREMENTS:

ROOM LAYOUT DIAGRAM

(Provide a conceptual layout of the room with furnishings and equipment)

ADJACENCY LAYOUT DIAGRAM

(Provide a conceptual diagram showing all room adjacencies for the building spaces)

SECTION 4 - APPENDIX 4b PROGRAMMING METHODOLOGY with PARTICIPATORY DESIGN

Note: This is one example of a methodology to use during predesign. You may use any methodology and research to achieve the program. The intent is to facilitate space programming to be a team oriented, discovery process leading to a more functional, efficient and habitable design.

A. Goal Setting

1. Organize a programming team.

- The programming team would be made up of the designer and user group representatives. A typical user group would consist of individuals from each department of the organization. (the user group representatives are not the same group as the building committee).
- Obtain the mission statement of the organization, a strategic plan, and operational plan.
- Obtain an organizational chart for the organization.
- Obtain the State's *Space Guidelines*.

Crucial Step in the Process: When developing a space program the team and users must focus on job function related needs in conjunction with the State's *Space Guidelines* versus developing a "wish list" of space needs. The guidelines are available at <http://mn.gov/admin/business/vendor-info/construction-projects/Guidelines/design.jsp> . Final approval of the space program will be made by the Department of Administration staff; thus, periodic consultation with the Department of Administration needs to occur during the programming phase of predesign.

2. Chose a Goal Setting methodology

- This is where input from the users is gathered. And where the logic foundation for future decisions is based.
- Organize a workshop, have the user group bring a brainstorm list of goal statements. Discuss goal statements with participants and eliminate any multiple Statements. And then prioritize goals.
- These goals should not be detailed items, but should be comprehensive in nature. Something that would have a system wide affect or application. i.e. Our image should be conveyed as a strong, creative force in our industry. Or, we move workstations every 6 months, so the new environment should be a flexible one to accommodate this.
- Prioritize and produce a final list of six goals to achieve. Balance these against the organization's mission statement, strategic plan and operational plan.
- The program team should then formally submit the project goals to the higher echelon of the organization for approval.
- Include the goal setting documentation in the Predesign Document.

B. Inventory of space

1. Identify each "unit" in the organization.

The designer shall create a space needs inventory form. (See attached example).

- Record the activities performed by each unit and the equipment and space needed to carry out the activity. Include days & times this activity is performed in the space (i.e. time can be important if, for instance, with a code compliance office or sales office where the occupants are out of the office for much of the time.)
- On the inventory form, indicate internal and external interactions that take place.
- Have the user groups list desired objectives for the space. (or develop a questionnaire). i.e. view to exterior, more privacy when in meetings, and closeness to a printer.

2. Evaluate

- Using the completed inventory form and the list of desired objectives, schedule a workshop to discuss and evaluate the requirements for each functional "unit".
- The designer, using a kits of 1/4" scale models of typical spaces and equipment, will facilitate the workshop in modeling and evaluating various options.
- Summarize conceptual approaches and options resulting from the evaluation.

C. Define & Develop relationships

1. The designer should at this point facilitate two research studies such as:

- Social Mapping
- Behavioral Mapping

Document this research and include in the Predesign Document.

2. Bubble Diagram.

In a workshop, have the participants discuss and diagram relationships of the activities. Include this in the Predesign Document

3. Activity matrix.

After diagramming and determining desired relationships between activities, the designer will develop a matrix showing the relationships.

D. Synthesis

1. Synthesize the information from the mission statement, strategic plan, operational plan, project goals, research, questionnaires, activities inventory, and workshops to develop a program and potentials for design.
2. Include the space program in the format of a table with the name of each space along with the square foot area required.
3. Develop three options, in bubble diagram format on the site, that will satisfy the program; evaluate each option and select the preferred one. Provide explicit reasons for selecting the preferred option.

E. Approval

1. For State Agency projects, obtain approval of the space program from the Department of Administration prior to publishing the final predesign document.

SECTION 4 - APPENDIX 4c

APPLICABILITY OF STATUTES FOR PROJECTS RECEIVING STATE FUNDING

STATUTE	RECIPIENT		
	State Agency	Higher Ed	Local Governments
1. §16B.241 Coordinated Facility Planning	YES (required)	NO (not required)	NO (not required)
2. §16B.32, Subd 1 Alternative Energy Sources if renovating 50 percent or more of an existing building or its energy systems	YES	NO	NO
3. §16B.32, Subd 1a Renewable Energy Sources - 2% of energy use Solar or Wind-predesign must include analysis	YES	NO	NO
4. §16B.32, Subd 2 Energy Conservation Goals	YES	YES	NO
5. §16B.323 Solar Energy in State Buildings. Up to 5% of appropriation to be used on Solar energy system when doing substantial reconfiguration or replacement of energy systems	YES	YES	YES
6. §16B.325: §16B.325: Apply Sustainable Guidelines (B3-MSBG) (http://www.b3mn.org/guidelines/index.html) §216B.241 Sustainable Building 2030 requirements Contact/support: http://www.b3mn.org/guidelines/index.html	YES New Bldgs, Addns & Major Renovations	YES New Bldgs, Addns & Major Renovations	YES
7. §16B.326 Written plan w/predesign to consider providing Geothermal & Solar Energy Heating & Cooling Systems on new or replacement HVAC systems	YES	YES	YES
8. §16B.327 Recycle 50% of Construction & Demolition Waste (B3-MSBG requires 75%)	YES See #6,B3	YES See #6, B3	NO- comply with B3's 75%
9. §16B.33 State Designer Selection Board	YES	YES	NO
10. §16B.335, Subd 1, Notification to House & Senate Committees	YES	YES	YES
11. §16B.335, Subd 3 Predesign Submittal See Statute for exempted projects	YES	YES	YES
12. §16B.335, Subd 4 Energy Conservation Standards (Energy Code - MN Rules 1322/1323 http://www.doli.state.mn.us/CCLD/Codes.asp	YES	YES	YES
13. §16B.335, Subd 5 & 6 Review & letter by MN.IT	YES	NO	NO
14. §16B.335, Subd. 3c. Consider the use of MINNCOR products www.minncor.com	YES	YES	YES
15. §16B.35 % for Art When considered in original legislative request; & when constn is \$500K or greater	YES	YES	YES
16. §177.42-44 Prevailing Wage Rates- Contractor must pay prevailing wages https://www.revisor.mn.gov/statutes/?id=177	YES	YES	YES
17. Laws 2014, Chapt 294, Sec 22 and Chapt 295, Sec 21 AMERICAN-MADE STEEL.	YES-2014 approp funds used	YES-if 2014 approp funds used	YES-if 2014 approp funds used
18. §16A.633 Jobs Reporting.. Must report to legislature on jobs created or retained as a result of capital project funding by the state.	YES	YES	YES
19. §363A.44 Laws 2014, Chapt 239, Sec 6 Equal Pay (Women's Economic Security Act). Equal Pay Certificate from MDHR required on contracts over \$500K (prime and subs)agency of the state, the Metropolitan Council, or an agency subject to section 473.143, subdivision 1,	YES	NO	NO
20. 16C.285 Laws 2014, Chapt 253, Responsible Contractor	YES	YES	YES
21. §16A.695 Use / Grant Agreement	NO	NO	YES
22. Appropriation Language	See appropriation	See appropriation	See appropriation

REFERENCE: Link to State Statutes: <https://www.revisor.leg.state.mn.us/pubs>

SECTION 5 SITE ANALYSIS AND SELECTION

5.1 CRITERIA FOR LOCATING STATE OFFICES AND AGENCIES

1. For State Agency projects, the Predesign submittal is required to contain an analysis of location(s) using criteria developed by the Department of Administration for locating state offices and agencies using the “*Criteria for Locating State Offices and Agencies*” (available at <http://mn.gov/admin/business/vendor-info/construction-projects/Guidelines/predesign.jsp>)
2. The agency and their consultant shall be expected to consider and review numerous site options, then recommend, present and include three site options in the final Predesign document for potential development of the project. The three options are to include financial data and cost estimates for development and building of the project on each site.
 - The agency and their consultant shall work with the Department of Administration’s Division of Real Estate Management to determine potential sites for consideration.
3. Each of the three site options shall have sub-options based on funding strategies:
 - When the proposed project will be large scale, the consultant shall provide financial expertise, experienced in large scale construction funding, to work with the MN Management & Budget Agency to determine cost saving options and delivery methods for funding the construction.
 - The financial options for funding the project are to be integrated in the predesign document and presented with the consultant’s formal submittals.
 - Project cost estimates shall be presented in the State’s Capital Budget format.
4. Issues for each site option, along with photographs shall be maintained . The feasibility of development and construction of the project on each of the three site options shall be presented and integrated into the predesign document. Site selection studies and criteria shall include (but not be limited to):
 - Access by the public client
 - Access by employees
 - Available Transportation
 - Environmental Impact
 - Sustainability
 - Site developmental costs relating to site utilities/infrastructure
 - Parking requirements / costs (Number of stalls/surface parking/structured parking)
 - Phased Development
5. Provide cost estimates for both surface and structured parking for each site being considered.

Local Government Projects:

Costs for three options is not required. Provide a brief description of the site options that were analyzed, the criteria used and why a preferred option was selected. Present the preferred option and its associated costs.

6. Where a site is located and how it functions can impact an organization’s operations and ongoing operational costs. For example: If an organization requires regular shipments and receipts of a product; where and how those shipments/receipts are accommodated on site will affect your operations and your operating costs. Thus, selecting a site for should be accomplished by

identifying needs criteria.

The predesign activities include development of selection criteria, analysis of sites that fit the criteria, and recommendation of a preferred site or sites. Initial criteria include:

- Verify specific site restrictions with municipal zoning ordinances. i.e. park ratios, setbacks, rights-of-ways, need for retention ponds,
- Site is adequate based on coverage of the building, parking and other impervious areas
- Vehicle access, parking, circulation, and delivery on the site meet the needs of the operation.
- Utilities servicing the site along with their capacities are adequate
- Who does the facility serve, where do they commute from and where they will park
- Where staff commute from and where they will park
- Site is serviced by public transportation
- Where shipments and receipts are made
- Surrounding disturbances that may impact operations.
- Environmental conditions – Is hazardous abatement/contaminated soil clean-up needed?
- Is an Environmental Assessment or Environmental Impact Assessment needed?
- Traffic study
- Historical/Archeological requirements.
- Security criteria

7. Sustainable sites criteria. (See requirements under The B3 State of Minnesota Sustainable Building Guidelines (B3-MSBG) at <http://www.b3mn.org/guidelines/index.html>)

Criteria need to consider sustainable strategies for the site of the proposed project.

These include:

- Construction Activity pollution prevention
- Brownfield development
- Storm water design
- Light pollution reduction
- Bird protection
- Community, Habitat, Transportation, Open Space,
- When local/site energy systems have been analyzed and selected, the site criteria may include location of photovoltaic solar panels, wind generators, geothermal systems.

8. Site Amenities and Signage

The predesign is to identify anticipated site infrastructure improvements and site amenities and signage and include their associated costs. Phase I and II Environmental site assessments should be requested prior to purchasing or building to determine the need and cost of soils mitigation.

9. Security

Depending upon the State Agency's needs and operations, a security/vulnerability assessment for site and building may be needed to establish the security criteria for site selection. This should be accomplished along with associated costs to implement.

10. Site infrastructure, zoning and codes

All available information regarding the existing or proposed site is to be included in the predesign submittal including: Existing Conditions Assessment, Hazmat Investigation, Topographic Analysis, Geotechnical/soils Environmental Studies and Reports, etc. Investigate the site utility infrastructure needs to determine if the existing utilities have the capacity or will meet the current codes to support the proposed project. Verify zoning

requirements. When the predesign team has developed the proposed size and location of the project, it is recommended that the predesign team meet with code and zoning officials to obtain information and requirements.

SECTION 6 FINANCIAL INFORMATION

6.1 CAPITAL EXPENDITURES

The Predesign Submittal for a proposed project must include ALL COSTS associated with the project.

Provide a project budget using the *Project Cost Form* in Appendix 6a and the *Construction Costs Form* in Appendix 6b (Appendix 6a and 6b forms are located at the end of this Section). In the *Construction Costs Form* in Appendix 6b, indicate the construction types (new/remodel/renewal).

The total project cost includes all direct and associated costs for all activities and phases, including design, surveys, testing, construction, loose equipment, furniture and fixtures, commissioning, move-in, temporary relocations, environmental site analysis, and contingencies. A qualified cost consultant, cost engineer or a professional consulting firm should be a part of the predesign team for preparation of costs and working with agency staff in developing the total project cost estimate. The construction cost estimate must pull together the program requirements, site conditions, and reasonable project/facility design assumptions.

- Project Delivery Method (Construction Management, Design-Build, Design-Bid Build)
- Owner's Project Representative
- Specialty design consultants and systems. (Security, Acoustics, Food Service, Lab etc.)
- Site/Land Acquisition and development (roads, curbs, parking, lighting, landscaping, site amenities, site signage, and zoning requirements such as setbacks, parking/sf ratios)
- Furniture, Fixtures, Equipment (including interior signage)
- Percent for Art
- Site Surveys & Geotechnical Investigations (Investigate property and include easements).
- Site Environmental Assessments (Phase I and II Environmental Site Assessments)
- Sustainability Design and energy modeling. See Minnesota Sustainable Building Guidelines (B3)- (Add'l service by design team)
- Commissioning (HVAC, electrical, building envelope) Including design review.
Note: Systems commissioning required by MN Sustainable Building Guidelines (B3)
- Building Information Modeling (required on new or major remodeling of state buildings)
- Sewer/Water Access Charges (SAC & WAC)
- Building Permits and Inspections costs
- Deconstruction/salvage as part of demolition
- Insurance costs to be borne by the contractor and owner.
- Phasing (or interrupted schedules) or schedules requiring overtime
- Temporary Utilities and Facilities
- Facility and site restrictions or conditions that effect costs. Investigate whether the site has sufficient utility infrastructure sizing to accommodate the new project.
- Cold Weather Construction
- Facility Security Requirements (affects cost and schedule)
- Financing Costs
- Facility Condition Assessment (renovations)
- Hazardous Material removal (asbestos, lead paint, mold, PCBs, etc).

Site infrastructure, codes and zoning

Utility infrastructure needs can be costly and it is important to include infrastructure, zoning and code upgrade costs in the total project budget. When the proposed project will be a major renovation or an addition, investigate the site utility infrastructure needs to determine if the existing utilities have the capacity or will meet the current codes to support the proposed project. Verify zoning requirements for building and site.

When the predesign team has developed the proposed size and location of the project, it is recommended that the

predesign team meet with code and zoning officials to obtain information and requirements.

Existing Facilities Analysis

When the project involves renovation of an existing facility, the agency/organization shall conduct a FACILITY CONDITION ASSESSMENT (FCA) to assist in determining the replacement and upgrade needs of the existing building and all of its systems (structural, mechanical, electrical, civil systems). The predesign submittal shall then include the FCA and identify the upgrades or replacements being included in the project and costs.

Insert the FCA in an Appendix to the predesign and reference it in this narrative.

[insert information following the topics in bold font and delete the above your final document]

Hazardous Material (Remodelings)

When the project involves renovation or remodeling of an existing facility, any asbestos, lead paint or other hazardous building materials will need to be identified and removal costs included. This can have a significant impact on the overall project budget and it is encouraged that an initial non-destructive survey be undertaken to identify materials and their removal costs.

[insert information following the topics in bold font and delete the above your final document]

Site Soils

Conduct Phase I and II Environmental Site Assessments. For new structures on existing owned or property to be acquired, there should be a query into the history of the site to determine soil bearing conditions and whether there is a history of contaminated soils. Removal and replacement of unsuitable soils can have a significant impact on the overall project budget and it is encouraged to do some initial investigation to identify soil abatement and replacement with their associated costs.

[insert information following the topics in bold font and delete the above your final document]

See 6.5 Risk Mitigation below for additional costs to be considered

Large projects will require owner's project management costs. Since agencies are not staffed to oversee project development and construction, having an individual or company represent the State and perform the day-to-day activities required of a project will be needed. Costs will vary from two to five percent of the construction cost depending upon the level of service desired.

Relocation costs, if applicable, need to be covered in the predesign also. These costs are funded from the general fund and not bond sales. Information regarding the Chart of Accounts will be presented when the Capital Budget Instructions are prepared and forwarded to the agencies in advance of each bonding cycle.

Actual cost histories adjusted for program variations that support the proposed budget are to be included and the source of these costs should be provided as well. Prior to each bonding session and during the Capital Budget Process, an inflation table will be posted on the Department of Minnesota Management and Budget (MMB) web site at: <http://mn.gov/mmb/budget/budget-instructions/capbud2014sess/index.jsp>

Cost planning is based on the principle that new project budget ranges should be derived from analysis of historical data for similar projects. If the proposed project costs do not follow historical cost patterns, then the reasons should be determined and explained in the proposed project budget.

6.2 ONGOING OPERATING EXPENDITURES

1. Along with the initial capital cost of a project, the ongoing operational costs must also be considered and then compared with current levels of funding for operations, maintenance and staffing.
2. The Predesign Submittal must include a breakdown of ongoing operating costs that will be incurred as a result of the project. The *State Operating Costs Form* – Section 6 -Appendix 6c (located at the end of this Section) is to be included. Also indicate the source of funding for the operating costs.
 - Estimate of project impact on the requesting agency's operating budgets (for state agencies): An estimate of project effects on operating budgets including staffing levels and corresponding salaries and building repair, replacement, utilities, and maintenance should be included. This information should follow the format of information supplied in the *State Operating Costs Form* - Appendix 6c, located at the end of this Section. Particular attention should be paid to whether the maintenance and operational services are expected to be performed by agency personnel or will be contracted out to private vendors.
 - Summary of proposed operating revenues and expenditures (nonstate agencies and grants): A five-year estimate of operating budgets that identifies major categories of expenditures and identifies associated revenue sources. If revenue sources include fee generated revenue, a full description of these fees and the assumptions used in making the projections and their justifications should be provided. Potential revenue sources and amounts should also be discussed in this section. All revenue sources (parking decks, dormitories, student centers, cafeterias, etc.) should be listed individually and totaled to show the offset of operational expenses.
 - This section should end with a narrative that illustrates a comparison of costs that are anticipated over or under present levels of funding for operations and maintenance and staffing.
3. Although an outside consultant might prepare this section with information provided by the agency, the agency/organization should review the presentation in detail.

6.3 LIFE EXPECTANCY

This section is used to analyze the costs and life expectancy of primary building components. Provide an estimate the life cycle (life expectancy in years) and cost of the proposed project and major elements. (Walls, Foundation, Roof, Structural System, Mechanical System, Electrical System)

And include a cost comparison analysis of at least 2 to 3 options on those major elements. i.e. Steel vs Concrete vs Precast Structural System

Identify the selected elements that are to be used and that are in the cost plan.

If the project involves abandoning an existing building and building a new one, this section should also include a comparison of the cost to renovate the existing building vs building new.

6.4 COMPARATIVE FINANCIAL ANALYSIS

Any financial studies or analysis to determine whether new space should be leased, leased to purchase, or owned by the State will need to be funded by the agency from sources other than the bonding bill. If the outcome of the study results in a state-owned facility, the predesign (funded by bond proceeds) can then be undertaken.

The predesign document will then contain the analysis showing long term cost comparisons.

6.5 RISK MITIGATION

Identify and assign budget contingencies to risks associated with the project. For State Agency projects

involving new construction, additions and major renovations, are to include the following project quality control plan AND project budget:

- a. Building Envelope Commissioning (Design reviews and construction commissioning and inspections during construction).
- b. HVAC and Electrical Systems Commissioning (Design reviews and construction commissioning and inspections during construction).
- c. MN Sustainable Building Guidelines (B3)
- d. Building Information Modeling (BIM) with interface of equipment with Archibus.

Identify all potential site related risks:

- Ownership of the site (property liens, deed, etc)
- Zoning ordinances. Design standards and setback requirements, parking/sf ratios, exterior lighting, green space or natural amenities that need to be preserved or given special treatment.
- Easements, both existing and what will be required for new development
- Acquisition issues, including timing
- Stakeholders- local/community and whether community stakeholder meetings are a part of the process
- Location, description and dimensions, including soil type, climate and topography
- Potential issues with the surrounding neighborhood or facilities.
- Vibration, or other monitoring during construction
- Utility infrastructure capacity, extension or relocation issues
- Environmental regulations and site mitigation, including history of possible contamination
- Wetlands and shoreline impacts, including a wetlands delineation and the need to fill wetlands
- Shoreline jurisdiction issues
- Requirements for the State Environmental Policy Act and National Environmental Policy Act
- Environmental Worksheet and Impact statement requirement (and schedule impact).
- Other regulatory requirements, such as State licensing requirements or U.S. Army Corps of Engineers or Department of Natural Resources permits
- Site access issues, Parking and access issues improvements required local road impacts and parking demand.
- Impact on surroundings and existing development with construction lay-down areas and phasing
- Historical and/or archaeological considerations
- Site compatibility with sustainability requirements and possible costs

Identify risks associated with the design and construction of the building:

- Building codes
- Bidding climate
- Labor/trades availability
- Labor/trade bargaining agreements
- Availability and delivery lead time of materials or components; or shortages of.
- Impact if construction is not completed by a critical date. i.e. if operations are moving from a leased location into the new construction and leases have an expiration date near the completion date.

The predesign is to include the risks and the associated plan for mitigating each of the risks along with contingency amounts included in the project budget.

**SECTION 6 - APPENDIX 6
WORKSHEET FOR DESIGN AND OWNER COSTS**

Item	Scope of Work	Fee/Cost
X	Basic Services -Architectural	
	Civil	
	Landscape	
	Structural	
	MEP (Mechanical, Electrical, Plumbing)	
	Hazardous Material survey, design, air monitoring, abatement	
	Additional Services (See Section 4.J Quality Control Plan)	
	1. Specialty Design Security design Food Service Technology Fire Protection Full time site observation Historical Other	
	2. Interior & Furniture, Fixtures & Equipment (FF&E) bid package(s)	
	3. Minnesota Sustainable Building Guidelines & SB2030	
	4. Building Information Modeling (BIM)	
	5. Move/Occupancy Consultant & Moving company	
	6. Environmental Assessment Worksheet-Impact of selected site	
	7. Presentation model of building	
	8. Presentation Sketches of building	
	9. Presentations to Legislature, Agency Management, others	
	10. Exterior utility costs	
	OWNER COSTS (See Section 4.J Quality Control Plan)	
	1. Owner's Project Representative (1 – 2% of construction)	
	2. CM at Risk Preconstruction Fees (0.5% of construction)	
	3. Other State Project Management Costs (0.75% of construction)	
	4. Construction costs auditor – (for CM-Risk & Design Build)	
	5. Building Abatement Design and Removal (Renovation & Demo)	
	6. Topographic (ALTA) Survey of selected site	
	7. Geotechnical Investigation of selected site	
	8. Phase I and II Environmental Site Assessment (for contaminants)	
	9. Environmental Assessment Worksheet-Impact Statement (if required)	
	10. HVAC and Electrical Systems Commissioning (B3 Requirement)	
	11. Building Envelope Commissioning	
	12. Construction Testing and curtainwall testing services	
	13. Permit Costs	
	14. Sewer Access Cost (SAC) and Water Access Cost (WAC)	
	15. Wetlands Delineation and (Design & Mitigation)	
	16. Utility Service Upgrades (Water, sewer, gas, electric) & Const'n	
	17. Traffic Studies	
	18. Historic Structures Report (Historic Preservation Consultant fee)	

SECTION 6 - APPENDIX 6a

**PROJECT COST FORM
Fiscal Years 2018-2023
Dollars in Thousands (\$137,500 = \$138 thousand)**

TOTAL PROJECT COSTS All Years and All Funding Sources	Project Costs All Prior Years	Project Costs FY 2018-19	Project Costs FY 2020-21	Project Costs FY 2022-23	Project Costs All Years	Project Start (Month/ Year)	Project Finish (Month/ Year)
1. Property Acquisition							
Land, Land and Easements, Options							
Buildings and Land							
Other Costs							
SUBTOTAL							
2. Predesign							
SUBTOTAL							
3. Design Fees							
Schematic							
Design Development							
Contract Documents							
Construction Administration							
Other Costs							
SUBTOTAL							
4. Project Management							
State Staff Project Management							
Non-State Project Management							
Other Costs							
SUBTOTAL							
5. Construction Costs							
Site & Building Preparation							
Demolition/Decommissioning							
Construction							
Infrastructure/Roads/Utilities							
Hazardous Material Abatement							
Construction Contingency							
Other Costs							
SUBTOTAL							
6. Art							
SUBTOTAL							
7. Occupancy							
Furniture, Fixtures and Equipment							
Telecommunications (voice & data)							
Security Equipment							
Commissioning							
Other Costs (i.e. relocation)							
SUBTOTAL							
8. Inflation							
Midpoint of Construction						Midpoint Date:	
Inflation Multiplier							
Inflation Cost							
SUBTOTAL							
9. Other							
SUBTOTAL							
GRAND TOTAL							

SECTION 6 - APPENDIX 6c

CAPITAL BUDGET REQUEST

OPERATING COSTS FORM (This form can be edited as needed or other format can be used)

CHANGES IN STATE OPERATING COSTS	Current Cost	Projected Cost (Without Inflation)			
	F.Y 2016	F.Y. 2017-18	F.Y. 2019-20	F.Y. 2021-22	F.Y. 2023-24
Compensation (Program and Building Operation)					
Other Program Related Expenses					
Building Operating Expenses					
State-Owned Lease Expenses					
Nonstate-Owned Leased Expenses					
Other Expenses: (specify):					
Revenue Offsets					
TOTAL					
No. of FTE* Personnel					

*FTE= Full Time Equivalent

NARRATIVE: Insert a narrative that illustrates the impact of the proposed project, by comparing costs that are anticipated over or under present levels of funding for operations and maintenance and staffing.

SECTION 7 SCHEDULE

7.1 SCHEDULE INFORMATION

Proposed project schedule: Predesign should include a realistic schedule for all stages of the project. Site selection and acquisition, required government actions and proceedings at all levels, designer selection, design approvals, construction, occupancy/relocation, and commencement of operations (commissioning) should all be included (if applicable). Pay special attention to environmental approvals, phasing and associated costs.

Proposed funding sequence: The schedule should include a funding sequence for the project that reconciles the agency's needs with the alternate year capital budget cycle if the project will receive funds from more than one appropriation cycle. And the schedule shall include relocation time and sequencing.

The schedule should include owner related functions also such as:

- a. Identify and purchase land
- b. Develop land to provided needed utility services.
- b. Environmental Assessments or Impact Statements
- c. Owner required shut-downs
- d. Regulatory reviews (Codes, Health Dept, Environmental, Planning Commissions, etc).
- e. Secured access by contractors (work within a secure facility will extend the construction schedule due to entry/exit inspections, tool inventories, and security functions which typically reduce actual hours worked per day).
- f. Owner review of documents
- g. Commissioning
- h. Move/relocation

7.2 SCHEDULE INFORMATION REQUIREMENTS

A summary of milestone dates are to be provided:

Funding received
Design Completion Date
Bidding/Award of Construction
Construction Start Date
Midpoint of Construction (see Project Cost Form and Inflation table)
Construction Completion Date
Move in dates

The predesign document may also contain a bar chart (such as a Gantt chart) schedule with all milestone events related to the project.



PREDESIGN CHECKLIST

1. Minnesota Statute §16B.335 Subdivision 3 requires submittal of a Predesign Document to the Commissioner of Administration on proposed projects that have a construction cost of \$750,000 or greater (\$1,500,000 for a local government project) when State money (of any amount) is used on the project.
2. When an appropriation is made for a major construction project, Minnesota Statute §16B.335 Subdivision 1 further requires that you not prepare final plans (construction documents) until you present the program plan and cost estimates for all elements necessary to complete the project to the chair of the Senate Finance Committee and the and the Chair of the House Ways and Means Committee and they have made their recommendations and the Chair of the House Capital Investment Committee is notified.

COMPLETE THE CHECKLIST AND ATTACH AT BACK OF DOCUMENT

PREDESIGN CHECKLIST - continued

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

Complete N/A

- | | | |
|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | 1. Review the Contents of a <i>Predesign Submittal</i> in the State's <i>Predesign Manual</i> . weblink: http://mn.gov/admin/government/construction-projects/manuals-guidelines-forms/index.jsp |
| <input type="checkbox"/> | <input type="checkbox"/> | 2. Structure the format of your Predesign submittal to contain the Components of Predesign. Include component tabs to readily identify and access each component. The components are: <ul style="list-style-type: none">a. Predesign Summary Statementb. Basis for Need – Project Backgroundc. Agency/Organization Planningd. Project Description<ul style="list-style-type: none">1. Architectural/Engineering Program2. Precedent Studies3. Technology Plan4. Sustainability, Energy Conservation, and Carbon Emissions5. Operations and Maintenance Requirements6. Statute Requirements7. Specialty Requirements8. Project Procurement and Delivery9. Quality Control Plane. Site Analysis and Selectionf. Financial Informationg. Schedule Information |
| <input type="checkbox"/> | <input type="checkbox"/> | 3. <i>Section 1 – Predesign Summary Statement.</i> Work with the user agency to develop the executive summary. Be brief, with a two or three paragraph scope description of the project. Below the description include costs, funding sources and schedule. |
| <input type="checkbox"/> | <input type="checkbox"/> | 4. <i>Section 1 Predesign Summary Statement:</i> Complete the " <i>Building/Project Data Sheet</i> " to tabulate the pertinent data upon which the cost estimates are based. Include this sheet as a second page to the Section 1 – Predesign Summary Statement. |
| <input type="checkbox"/> | <input type="checkbox"/> | 5. <i>Section 1 Predesign Summary Statement:</i> If the project involves remodeling of an existing building, use the " <i>Building Audit Sheet</i> " to perform an audit/survey of the building's major components, systems and their conditions. Use and amend the " <i>Building/Project Data Sheet</i> " to indicate the scope of work for the proposed project. Insert behind the Summary Statement. |
| <input type="checkbox"/> | <input type="checkbox"/> | 6. <i>Section 2 Basis For Need-Project Background:</i> Gather the Section 3 planning information from the Agency/Organization and synthesize it into the format shown in the example. Detailing the Mission, Strategic Plan, Operational Plan and Basis for Need for the project. At the back of this include any additional background information on the project from your work with the agency. |
| <input type="checkbox"/> | <input type="checkbox"/> | 7. <i>Section 2 Basis For Need-Project Background:</i> Verify that the scope of the predesign complies with the language of the appropriation. (For projects that |

PREDESIGN CHECKLIST - continued

Complete N/A

have already received a legislative appropriation).

- 8. Section 3 Agency/Organization Planning:** This Section supports the *Basis for Need–Project Background*. Obtain the following from the user agency/organization:
 - a. Planning documents such as org charts, mission statement,
 - b. Strategic plan, and
 - c. Operational plan for the project.This information would include any supporting data, analysis or studies which support the proposed project and demonstrates the need for the project by linking it to the agency’s mission, strategic and operational plans; which, in turn were used to prepare Section 2.
- 9. Section 3 Agency/Organization Planning:** Included a list and narrative regarding the stakeholders involved and affected by the project (i.e. other agencies, organizations, and entities). Also include issues that remain to be resolved among stakeholders along with budget and schedule impacts upon the project.
- 10. Section 3 Agency/Organization Planning:** Impacts on Operations, Budget and Facility Staff are detailed.
- 11. Section 4.A Architectural /Engineering Program:** (For State Agency projects) Obtain and coordinate space planning standards with the Department of Administration. Then, include a review sign-off from The Department of Administration’s Real Estate and Construction Services Division. Focus on job related functional needs and the State’s *Space Guidelines* when developing the square foot areas of spaces. (Space Guidelines are located at <http://mn.gov/admin/government/construction-projects/>).
- 12. Section 4.A Architectural/Engineering Program.** Work with the user/owner to develop the space program. Employ a participatory programming methodology similar to the example) to analyze operations and activities.
 - a. Your methodology should consider Post-Occupancy Evaluation (POE).
- 13. Section 4.A Architectural/Engineering Program.:** Complete the *Space Needs Inventory* sheet for each room of the project. Include these sheets in the predesign document. The Space Needs sheet should also identify special Mechanical or Electrical needs or upgrades for the space. For instance, you would state the need for special humidification for wood instrument storage in a music classroom.
- 14. Section 4.A Architectural/Engineering Program.:** Prepare and include a detailed architectural space program with a Table of Spaces and their respective areas (square footages) with a total of assignable and gross square feet.
- 15. Section 4.A Architectural/Engineering Program.:** Provide adjacency diagrams of all spaces and a diagrammatic/conceptual layout of spaces. Superimpose these diagrams onto the Site Plan to show building/site fit and site relationships.

PREDESIGN CHECKLIST - continued

Complete N/A

- 16. Section 4.A Architectural/Engineering Program.:** On state agency projects, identify potential MINNCOR Industries www.minncor.com and Minnesota State Industries products <http://stateindustries.org> for the project.
- 17. Section 4.A Architectural/Engineering Program. (for State Agency Projects):** If applicable to the agency, work with the user agency to incorporate a *Telecommuting Plan* for this project. Include the *Telecommuting Plan* with the Predesign submittal document. Obtain review & response letter from MN.IT.
- 18. Section 4.A Architectural/Engineering Program.** Develop the Furniture, Fixtures and Equipment (FF&E) needs and include the associated costs as a line item in the project cost estimate. Consider Interior/Exterior Signage Exterior landscaping and fixtures, Telecommunication devices, Security Camera System, Lockers, Trash compactor, Window washing equipment, phasing costs, and Moving costs. (Note: moving costs are not bondable).
- 19. Section 4.B Precedent Studies:** Research the project. Visit similar building types and include *precedent* projects into the predesign document and how the precedent affects the proposed project. Include information on the facilities (name, location, size, design features) ; Then indicate any features that will be incorporated into the proposed project. Special attention should be paid to design features that result in efficiency of program operations and ability to reduce long term operating costs.
- 20. Section 4.C Technology Program (for State Agency Projects):** Identify and document the technology needs for the project. Develop a Technology Plan for the project using the State's Technology agency (MN.IT) guidelines (“*Building Infrastructure Guidelines for State Owned Buildings*”) located at: <http://mn.gov/admin/government/construction-projects/>. Technology plan is to be reviewed by MN.IT.
- 21. Section 4.C Technology Plan (for State Agency Projects):** Forward the Technology Plan to MN.IT (The State’s Information Technology Agency) for review; and obtain a written letter from MN.IT. Incorporate any changes requested by MN.IT.
- 22. Section 4.D Sustainability, Energy Conservation and Carbon Emissions:** In accordance with Minnesota Statute §16B.235 identify Sustainable and High Performance goals for the project using “*The State of Minnesota Sustainable Building Guidelines*” at <http://www.b3mn.org/guidelines/index.html> . Include a summary table of goals & strategies. Also include the B3-MSBG project submittal report for the Predesign Phase that is generated by use of the B3-MSBG Tracking Tool at <http://www.b3mn.org/guidelines/index.html> . This requirement applies when the project is new building, addition, or major renovation. See the Applicability rules at the B3-MSBG website.
- 23. Section 4.D Sustainability, Energy Conservation and Carbon Emissions:** Include a table of strategies to comply with Sustainable Building (SB) 2030 requirements. For SB2030 requirements, see: <http://www.mn2030.umn.edu>

PREDESIGN CHECKLIST - continued

Complete N/A

- 24.** For the *Section 4.D Sustainability, Energy Conservation and Carbon Emissions*: In accordance with MN Statute § 16B.32, a identify alternative energy uses and associated systems. This applies to a new building or for a renovation of 50 percent or more of an existing building or its energy systems. Anticipate future designs which use active and passive solar energy systems, earth sheltered construction, and other alternative energy sources where feasible.
- 25.** *Section 4.D Sustainability, Energy Conservation and Carbon Emissions*
When the project is for a State Agency, provide a cost-benefit analysis for
 - a) including alternative energy (wind and/or solar) sources to provide 2% of the proposed building’s energy consumption. An example of an analysis is located at:<http://mn.gov/admin/business/vendor-info/construction-projects/Guidelines/predesign.jsp>
 - b) a 40 Kw “Made in Minnesota” photovoltaic solar system
- 26.** *Section 4.D Sustainability, Energy Conservation and Carbon Emissions*: For compliance with MN Statute 16B.326, provide a written plan in the predesign to consider providing Geothermal and Solar Energy Heating & Cooling Systems on new or replacement HVAC systems. An example of an analysis is located at the weblink above.
- 27.** *Section 4.D Sustainability, Energy Conservation and Carbon Emissions*: Include a narrative in the predesign that the project specifications are to include requirements for the contractor to submit a “Waste Management and Recycling Program Plan” for both demolition and construction.
- 28.** *Section 4.D Sustainability, Energy Conservation and Carbon Emissions*: Estimated yearly energy consumption and associated costs are included.
- 29.** *Section 4.E Operations and Maintenance Requirements*: Conduct information gathering and program meetings with operations and maintenance staff. Document and include these needs into the predesign.
- 30.** *Section 4.E Operations and Maintenance Requirements*: For Projects located on the Capitol Complex, obtain “*Plant Management Preferred Equipment List*”, “*Capitol Complex Guidelines*”, and “*Signage Guidelines*”. (available at <http://mn.gov/admin/government/construction-projects/manuals-guidelines-forms/index.jsp>). Include these documents in the Predesign document as instructions for the future design team.
- 31.** *Section 4.F Statute Requirements*: See Appendix 4c for statute requirements related to all projects receiving any amount of state funding. Enter information on how the project will comply with each statute and include in the final predesign document.
- 32.** *Section 4.F Statute Requirements*,: Review the table of statutes contained in

PREDESIGN CHECKLIST - continued

Complete N/A

this manual. Identify the statutory requirements for the project. These are to be included in the final Pre-design Document.

- 33. Section 4.F Statute Requirements:** Include any design requirements or other mandated requirements.
 - a. The statute that gives authority for the operational program
 - b. Licensing requirements. (i.e. Department of Health or other authority)
 - c. Design requirements (i.e.. American Correctional Association standards).
 - d. Operating Standards (required State, Federal, & Industry standards)
 - e. Federal Statutes/Laws/Requirements.
 - f. Significant Building Code or land use/ zoning requirements.

- 34. Section 4.G Specialty Requirements:** Review the need to conduct a security and/or vulnerability assessment for the project. Include the study in the pre-design document along with associated costs.

- 35. Section 4.G Specialty Requirements:** Include any unique requirements that are applicable to the specific project. i.e. performance requirements, unique testing requirements, environmental reports, assessments, impact statements, facility condition audits that may have been done, hazardous materials surveys, unique construction, restrictions.

- 36. Section 4.G Specialty Requirements:** For renovations and demolitions, verify if the building or structure or amenity is on the register of historic places and/or within a historic district. Meet with the State Historic Preservation Office (SHPO) to determine requirements. Include all SHPO requirements in the pre-design as well as all specialty consultants (historic preservationist, archeologist) required for the future design team.

- 37. Section 4.H Project Procurement and Delivery:** Provide a written statement and recommendation of the proposed construction delivery method to be used on the project. Include the reasons for this selection. Options include: Design-Bid-Build, Best Value, Construction Manager at Risk, Design-Build.

- 38. Section 4.I- Project Design Services and other Owner Costs:** Provide a listing of all costs that will be incurred in order to build the project.

- 39. Section 4.J- Quality Control Plan:** Provide a listing of all quality control services and costs that are needed and will be incurred in order to building the project.

- 40. Section 5 Site Analysis and Selection:** Provide a narrative on why the preferred site was selected for the project based on the locations that best meet pre-identified site criteria. For State-owned buildings/State Agency projects, coordinate this effort with the Department of Administration, Real Estate and Construction Services.

- 41. Section 5 Site Analysis and Selection:** When locating or relocating or when proposing a new building or renovation, the Pre-design Document must include an

PREDESIGN CHECKLIST - continued

Complete N/A

analysis of the agency's location(s) using "*Criteria for Locating State Offices and Agencies*" located at: <http://mn.gov/admin/government/construction-projects/>

- 42. Section 5 Site Analysis and Selection:** If the proposed project is a new building that will be in a campus setting (i.e. school, university, prison, extended care); review location options on the campus in regards to efficient operation and programs provided on the campus. (i.e. Agency masterplanning of a campus should occur in order to give direction as to future growth and organization - Note: Masterplanning is not a bondable activity).

- 43. Section 5 Site Analysis and Selection:** Verify if the project will be required to undergo a State Environmental Review. To determine this, go to: <http://www.eqb.state.mn.us/EnvRevGuidanceDocuments.htm>. If required the predesign will need to include all applicable information and direction to the future design team to provide assistance to the owner and responsible government unit in conducting an environmental assessment (EAW) and environmental impact statement (EIS).
Note: If the project includes federal dollars, determine the need to complete an Environmental Assessment in accordance with the National Environmental Protection Act (NEPA).
Include all applicable guidelines for EAWs and EISs into the predesign submittal document if available; if not include costs for these in the project budget. Identify required timelines in the project schedule.

- 44. Section 6 Financial Information:** Compile the project costs using the Department of Minnesota Management and Budget's *Capital Budget Request* spreadsheet form (this form is included in this manual). Complete this form and include it in the submitted Predesign document.

- 45. Section 6 Financial Information:** Compile the projected operating costs using the *State Operating Costs* form (this form is included in this manual). Other formats/forms are also acceptable.

- 46. Section 6 Financial Information,** review the Project Delivery Method (single prime, multiple prime, design/build)for impact on the *Cost Plan* for the project.

- 47. Section 6 Financial Information,** include design fees for special consultants in the project costs (i.e. food service, acoustical, security, etc.).

- 48. Section 6 Financial Information,** verify existing utility infrastructures for adequate capacity needed to support the proposed building/facility or renovation. Incorporate costs for upgrades into the budget.

- 49. Section 6 Financial Information:** If applicable and/or desired, include percent for Art in the project cost. Statute 16B.35 Subdivision 1 applies [up to 1% of the appropriation can be allocated to art in public buildings – Detention facilities and non-public buildings are exempt.]

PREDESIGN CHECKLIST - continued

Complete N/A

- | | | |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | 50. Section 6 Financial Information: Assist the user agency in identifying and incorporating contingency phasing and funding plans into the predesign to anticipate questions during legislative hearings. |
| <input type="checkbox"/> | <input type="checkbox"/> | 51. Section 6 Financial Information: When the proposed project is for an existing correctional facility, obtain the contractor security requirements for the facility and include appropriate cost and schedule adjustments. (Working in a secure facility will add approximately 15-20% cost to the project). |
| <input type="checkbox"/> | <input type="checkbox"/> | 52. Section 6 Financial Information: On major building projects, use the predesign to develop an options based strategy for the agency to use in approaching the governor and legislature when requesting funding. The predesign should anticipate possible questions by presenting options for varying scopes and costs. Examples are:
1) It may make sense to break out options (and costs) to spread the funding rover several capital bonding sessions.
2) Phasing of the project |
| <input type="checkbox"/> | <input type="checkbox"/> | 53. Section 6 Financial Information: For renovations, a Facility Condition Assessment has been conducted on the existing building and associated upgrade costs are included in the estimate. |
| <input type="checkbox"/> | <input type="checkbox"/> | 54. Section 6 Financial Information: Conduct an industrial hygiene investigation to determine if there are any hazardous material/asbestos abatement clean-up costs, fuel tank removal and/or contaminated soils clean-up costs for the proposed project or site. |
| <input type="checkbox"/> | <input type="checkbox"/> | 55. Section 6 Financial Information: Provide the Life Expectancy of the major building components and building as a whole and included in the predesign document. Show comparison costs of varying construction systems/components and their life span. Indicate the selected system that was used to prepare the cost estimates. |
| <input type="checkbox"/> | <input type="checkbox"/> | 56. Section 6 Financial Information: (For State Agency projects) State's Design Guidelines were reviewed and associated costs accounted for. |
| <input type="checkbox"/> | <input type="checkbox"/> | 57. Section 7 Schedule Information: Include a schedule narrative and bar chart in the submittal document. Include time for hazardous material abatement, site clean-up, fuel tank removal and soils replacement costs, project schedule phasing time, relocation/move time, and any potential long-lead material deliveries. |
| <input type="checkbox"/> | <input type="checkbox"/> | 58. Section 7 Schedule Information: Include a quality control/coordination review of the construction documents by a third party. Include the cost cost of this in the design budget. Indicate a minimum of 2 months in the schedule for this review. |
| <input type="checkbox"/> | <input type="checkbox"/> | 59. For State Agency projects: Complete the Technology Checklist. Insert the MN.IT letter indicating they have reviewed and approved the Technology and |

PREDESIGN CHECKLIST - continued

Complete N/A

Telecommuting Plans.

- 60.** This predesign document contains all the necessary requirements and costs for:
 - a.** The owner to confidently pursue funding based on the cost estimates contained.
 - b.** The owner to advertise for design services and structure their contract with a design firm as to the design scope of work and fee; and,
 - c.** The future design team for all project requirements in order to carry out the proposed design.
 - d.** All owner costs required to deliver the proposed project.

- 61.** Include the SIGNATURE sheet, with signature of the ARCHITECT (see page 1).

PREDESIGN CHECKLIST – continued
TECHNOLOGY & TELECOMMUNICATIONS

Complete N/A

- | | | |
|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | 1. Obtain a copy of MN.IT’s “ <i>Building Infrastructure Guidelines For State-Owned Buildings</i> ” and review the requirements for costs to be included in the project. For future design use, should the project be funded, include the Technology Plan and guidelines in the predesign submittal. |
| <input type="checkbox"/> | <input type="checkbox"/> | 2. In coordination with MN.IT, determine the need for and develop a Technology & Telecommunications Plan for the project. Form and convene a Predesign meeting to determine the agency’s technology needs, goals, timelines and objectives. The Predesign Team will consist of, but will not be limited to: <ul style="list-style-type: none"><input type="checkbox"/> Agency/customer<input type="checkbox"/> Real Estate and Construction Services’ (RECS) Project Manager<input type="checkbox"/> Telecommunications Analyst (S)/Designer (if required for predesign) Note: The State’s (RECS) Project Manager will provide the MN.IT contact name. |
| <input type="checkbox"/> | <input type="checkbox"/> | 3. For remodeling projects, verify existing technology infrastructures for adequate capacity. Include upgrade costs in the Cost Estimate. |
| <input type="checkbox"/> | <input type="checkbox"/> | 4. Identify the user agency’s short and long range plans for technology needs. |
| <input type="checkbox"/> | <input type="checkbox"/> | 5. Identify if the project is or will be a single building or campus configuration. |
| <input type="checkbox"/> | <input type="checkbox"/> | 6. Identify existing distribution rooms and their capacity. |
| <input type="checkbox"/> | <input type="checkbox"/> | 7. Identify requirements for new distribution rooms. |
| <input type="checkbox"/> | <input type="checkbox"/> | 8. Identify Fiber Optic requirements, existing locations, new fiber lines. |
| <input type="checkbox"/> | <input type="checkbox"/> | 9. Identify copper-wiring requirements, existing and new. |
| <input type="checkbox"/> | <input type="checkbox"/> | 10. If information technology work is to be within an existing building, identify existing conditions; i.e. floor & ceiling heights & conditions, piping and duct conditions, water problems, feeder cable limitations, equipment room limitations. |
| <input type="checkbox"/> | <input type="checkbox"/> | 11. Identify existing telecommunications infrastructure service to the building. |
| <input type="checkbox"/> | <input type="checkbox"/> | 12. Identify types of existing cable trays and requirements for new cable trays. |
| <input type="checkbox"/> | <input type="checkbox"/> | 13. For projects in existing buildings, identify available communications “pairs” coming into the building. |
| <input type="checkbox"/> | <input type="checkbox"/> | 14. Identify MPOP (Main Point of Presence), APOP (Alternate Point of Presence), Internet Point of Presence locations and needs. |
| <input type="checkbox"/> | <input type="checkbox"/> | 15. Forward a copy of the project Technology Plan and Telecommuting Plan to MN.IT. |
| <input type="checkbox"/> | <input type="checkbox"/> | 16. Obtain a written letter from MN.IT indicating acceptance of the Technology |

PREDESIGN CHECKLIST – continued
TECHNOLOGY & TELECOMMUNICATIONS

Complete N/A

Plan and Telecommuting Plan for the project. Incorporate MN.IT’s letter into the Predesign Document.

- 17.** Incorporate any changes into the Technology Plan as requested by MN.IT (resulting from review of agency’s technology plan for the project).

- 18.** Verify existing utility infrastructures for adequate capacity and cost upgrades needed to support the proposed building/facility or renovation.

PREDESIGN CHECKLIST

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

CONSULTANT SIGNATURE:

Signature: _____

Name of Project: _____

Printed Name: _____

Agency: _____

Title: _____

Facility: _____

Company: _____

State Project No. _____

SAMPLE PREDESIGN SUBMITTAL COVER LETTER

LETTERHEAD
of Agency or Organization

[insert date]

Commissioner **[insert name of Commissioner of Administration]**
c/o Eric Radel
Real Estate and Construction Services
309 Administration Building
50 Sherburne Ave
St. Paul, MN 55155

Dear Commissioner **[insert name]**,

RE: Predesign Submittal for **[insert “a new”]** or **[“the remodeling of”]** **[insert name]** building

In accordance with Minnesota Statutes §16B.335, Subdivision 3, enclosed you will find the Predesign submittal document for the **[insert name of project, building & location]**. This predesign outlines the **[insert name of agency/political subdivision]** ‘s capital budget request for the **[insert year]** state legislative session.

This project consists of the **[new construction of]** or **[remodeling of]** **[insert number of square feet]** of space to support **[insert operational plan/goal]**. The total project cost is estimated to be **[insert amount]**. This proposal seeks **[insert “full funding”]** or **[“matching funds”]** in the amount of **[insert amount]**.

Sincerely,

[insert Commissioner/Authority Name]
[or head of political subdivision or other approving authority]

Enclosure

cc: