Predesign Manual
for
Capital Budget Projects

Third Edition - January 2005

SIGNATURES

Due to the complexities involved in major capital undertakings, State Agencies and local government units that are undertaking or sponsoring a Predesign are encouraged to retain the experience of an Architectural Design firm to assist in the process.
When the final predesign document is submitted to the Commissioner of Administration, the signature of the licensed architect 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_____ under the laws of the state of

Minnesota

_____

Date: _____ Registration Number _____

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INTRODUCTION

Determining the need for a predesign submittal

When a State Agency or Local Government Unit (county, city, school district) is seeking funding from the state legislature for a capital improvement project, Predesign is the planning tool to identify the, need, scope, costs and schedule.

Predesign is an integral part of the state's Capital Budget System process.
During the Predesign process, the state agency or local governmental unit undertaking the predesign will need to work with the Department of Finance during the Capital Budget process.
The Department of Finance posts their Capital Budget User Instructions on their website at: http://www.budget.state.mn.us/budget/capital/index.shtml . At this website you will find two instruction manuals; one for use by State Agencies and one for use by Local Governments.

As the initial step, prior to undertaking a predesign, you need to determine if your project is exempt from the predesign requirement. Minnesota Statute §16B.335, in Appendix E, provides the requirement. In general, if you are:

1) A state agency : Predesign is required if the *construction cost* is greater than $750,000. (Also see Appendix D for designer selection requirement).

2) A local government unit: If <u>any amount</u> of state funding is to be used, predesign is required if the *construction cost* is greater than $1,500,000.

For state agencies, the Department of Administration's State Architect's Office (SAO) will assist in preparing a Request For Proposal (RFP) to obtain the services of an architectural/consultant firm. SAO will prepare predesign contracts and will give direction and monitor the work of the firm under the contract. To download the Predesign Manual and find your agency's contact at SAO go to: www.sao.admin.state.mn.us

Finally, you and your predesign consultant should keep in mind that, if you are successful in obtaining funding for your project, the predesign document, including the project costs identified in the predesign, will be used in the site acquisition process, life-cycle cost analysis and other comparisons, and by a future architect and engineer(s) to design and prepare construction documents for bidding.

Questions regarding this document may be directed to the Department of Administration, State Architect's Office at (651) 297-2245 (Mr. Gordon Christofferson).

SUMMARY

Predesign is the activity that follows and is based upon the mission, strategic and operational plans of an agency. And it precedes the design and construction stages. Predesign is the most important step in the process of achieving success with your capital project because it is the phase of work that identifies the goals to determine how a facility will function to serve your operations. And then identifies the cost of all elements related to the project. All future decisions and direction are founded in the predesign.

The main premise of predesign is to communicate essential project objectives with factual data before the actual design process commences or other decisions are made.

Predesign tests project feasibility by examining and answering the following questions:

- What need does the proposed facility and site fill as defined by the requesting agency's long-term mission and strategic plan?
- Once the agency has developed the operational plan that flows from the strategic plan, how does the proposed facility meet that operational plan?
- What are the capital costs of the project?
- What is the proposed project schedule when the funding sequence schedule for legislative action on capital budgets is considered?

The final predesign document will then serve you by: 1) speaking with knowledge about the project when seeking funding and 2) having the project scope and parameters identified so that when funding is received you can move forward with the subsequent site decisions, design and construction.

Predesign is typically calculated at or less than one-half of one percent of the total overall estimated project cost and the project scope is well defined before the majority of capital funds are requested, appropriated, and committed.

The following section of this manual lists the components of predesign; these components are to comprise the body of a Predesign document and are addressed in detail within this manual. Additionally, the final Predesign document shall be structured with each component labeled and tabbed.

SECTION 1. COMPONENTS OF PREDESIGN

Briefly, an outline of the components of predesign are:

1. **A Predesign Summary Statement:**

    - A paragraph that clearly summarizes the scope of work, the cost plan, and the anticipated project schedule. (See Appendix K)
    - A *"Building Project Data Sheet"* (in Appendix N of this manual) to communicate the scope and major elements of the project and to serve as an information brief. The Building Project Data Sheet will also provide a basis for the cost estimate.
      For existing building remodelings, also include the *"Building Audit"* Sheet in Appendix N.

2. **Project Background Narrative:**

    - Restatement of the statutory requirements that drive the project's operational program.
    - Summary of the agency's own approved operational program for the project.
    - Summary of the agency's needs analysis and planning process.

3. **Financial Information - Capital Expenditures:**

    - Proposed project cost plan.
    - Operating budget impact.

4. **Financial Information - Ongoing Operating Expenditures:**

    - Estimate of project impact on the requesting agency's operating budgets (state agencies).
    - Summary of proposed operating revenues and expenditures (nonstate agencies and grants).

5. **Schedule Information:**

    - Proposed project schedule.
    - Proposed funding sequence if applicable.

6. **Project Description:**

    - Architectural/engineering program.

Section 1– Components of Predesign - continued

7. **Specialty Requirements:**

- This component identifies specialty systems or design guidelines that will apply to your project. Potential specialty items may be laboratory, acoustical, security or technology requirements.
  State Buildings are required to incorporate information and costs for state requirements into the Predesign Document. Specialty requirements such as design guidelines, building air quality, technology, environmental rules, electrical standards, sustainability and high performance, alternative energy systems will be required on all state buildings. (Guidelines or criteria on these specialties are referenced in this document and can be obtained by going to the SAO website: www.sao.admin.state.mn.us)

See Appendix for a checklist of information to be addressed during predesign activities and submitted with the final Predesign document.

Components of Predesign- in More Detail

Considered individually and in more detail, the components of predesign are: (Note: Format and Tab the Predesign Submittal with these components.)

1.1 PREDESIGN SUMMARY STATEMENT (see examples in Appendix)

- The Summary Statement will be composed of a project name and usually a four sentence (or less) project description. The predesign summary statement is a description that will stay with the project through its completion and occupancy. This statement could serve as the introductory paragraph to both the appropriation language and the project description section of the Capital Budget Request Forms. (See the Appendix for cost forms). The description detail should be expanded as appropriate for each subsequent appropriation request. See Appendix for examples of appropriation language.
- Below the Summary Statement paragraphs include a table with the following information: 1) Total Project Square Foot area, 2) Total Construction Cost and the cost per square foot, 3) Total Project Cost, 4) Site information and 5) Total project schedule indicating milestone dates. (see sample statements in the appendix).
- If phasing of the project is being considered, indicate costs and schedules for each phase.
- If matching funds are being requested; indicate the amount of state funding that is being requested.
- If site selection and costs are relevant, include a cost breakdown of these along with the area of the site.
- Behind the Summary Statement include the "*Building/Project Data Sheet"* and/or the *"Building Audit Sheet"* (See Appendix) which is a summary description of the proposed building or remodeling.

Section 1 – Components of Predesign - continued

1.2 PROJECT BACKGROUND NARRATIVE

- Restatement of the statutory requirements that drive the operational program: This listing should focus on the legislation that supports or demands the development of the project either directly or in the form of the creation of programs requiring physical accommodations and not simply indicate the appropriation that provided funding for predesign. This is an opportunity to indicate the effect of expanding programs, sentencing guidelines, or other directives creating the need to provide appropriate facilities.

- Summary of the requesting agency's own approved strategic plan and operational program for the project: The requesting agency should provide the operational program to be supported by the project. 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 and not record physical facility requirements.

- Summary of the requesting agency's needs analysis and planning process for the project: The requesting agency's needs 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, performing 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 (see Appendix for *"Criteria for Locating State Offices and Agencies"*).

  When alternatives have been defined, a preferred alternative should be selected that maximizes program suitability and **minimizes first cost and life cycle 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.

1.3 FINANCIAL INFORMATION - CAPITAL EXPENDITURES:

1. Proposed project cost plan:

- A budget using a chart of accounts with categories identified in Sections 3.3 and 3.4 and using the formats shown in Appendix G and H should be provided. Costs indicated in Appendix G should be divided into various construction types (new/remodel/renewal) according to categories indicated in Section 3.5. The source of these costs should be clearly identified. An example of inflation factors required in the Appendix G spreadsheet are found in Appendix I; these are periodically updated; current inflation factors can be found at www.budget.state.mn.us/budget/capital/index
- Actual cost histories, adjusted for program variations, that support the proposed budget should be included if available.

1.4 FINANCIAL INFORMATION - ONGOING OPERATING EXPENDITURES

- 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, and maintenance should be included. This information should follow the format of information supplied in the capital budget request forms (see Appendix).

- 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.

1.5 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 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.

1.6 PROJECT DESCRIPTION

- Architectural/Engineering (A/E) program: At least a summary level architectural/ engineering program should be included. Current conditions, adjacencies, special spatial issues, and user needs should be noted where appropriate. (See Appendix for programming methodology and space needs inventory data sheets).

- Summary of 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 (see Appendix). A notification letter, from the Office of Technology (OT) of the Department of Administration, that such plans are or are not required shall be included.

Section 1 – Components of Predesign

1.6 Project Description – continued

Architectural/Engineering (A/E) Program Definitions

1. Types of Programs:

    - The Architectural/Engineering program ("A/E program") compiles instructions to the design professionals. The nature and extent of the instructions required are specific to the project.

    - Projects that have been built heretofore should not require an original program if the previous work is still applicable. The existing A/E program can be used to direct the design professionals.

    - On the other hand, unique projects by definition require new instructions to guide the design professionals. If the project is unique but simple and not costly, the a/e program can probably be completed with the predesign work.

    - At the other end of the spectrum, however, if the project is unique, complex, and relatively costly, then the A/E program should be generally described during the predesign stage and the details added during schematic design. In this case, the capital budget request should include funding for the detailed a/e program with the design work but should be developed with the constraints established in predesign.

    - The processes utilized to establish the program shall strive to include methodologies (see participatory programming in Appendix) that establish the greatest client consensus possible using established state space guidelines. These should be clearly documented as a part of the program document.

2. Components of an Architectural/Engineering Program: (Use the "*Programming Methodology for Participatory Design"* and *"Space Needs Inventory"* in the Appendix of this Manual).

    - Summary of how the project will meet the requirements of the requesting agency's strategic plan and operational program for the project.

Architectural/Engineering (A/E) Program Definitions– continued

- Summary of existing applicable master plans or other area wide (urban design, architectural, or engineering) plans pertaining to the project.

- Definition of needs.

- The a/e program should define human and operational needs to be met by the project.

- Needs are derived from the operational program, programming interaction with potential users, new or existing research, and standards for architectural/engineering practice. The processes for deriving these needs should be clearly identified and explained.

- An analysis of collocation opportunities with other agencies.

- Site selection criteria and site selection recommendations. Agencies must include an analysis of location(s) using the *"Criteria for Locating State Offices and Agencies"* (See Appendix).

- If site selection has not been performed before predesign, then selection criteria should be developed and site selection recommendations may be made during the predesign period. Final Site Selection will be dependent upon control of site and environmental review.

- If schematic design of alternative solutions is both desired and highly dependent on site characteristics, then final site selection may occur during schematic design and only the selection criteria identified as part of predesign.

- Audit of existing building's physical condition.

- If the project involves modification of an existing building, the conditions to be changed should be recorded. For example, if an existing building needs modifications to meet code requirements for its intended use, then the required improvements should be listed.

- If the proposed project is different from similar, well-understood building types, the differences should be highlighted. For example, if administrative offices are proposed to have an unusually high potential for internal layout change, the type of changes expected should be defined.

Architectural/Engineering (A/E) Program Definitions– continued

- Design standards, guidelines, and performance characteristics for site and building systems.

- The performance characteristics of physical components of the project should be described. For example, with respect to heating, ventilation, and air conditioning performance: the inside summer and winter temperatures to be maintained, the acceptable relative humidity range, and the outside fresh air ventilation rate should all be defined.

- Individual space requirements.

- Size and characteristics of required spaces and rooms should be tabulated.

- Space and room adjacency requirements should be recorded.

- Special characteristics of rooms should be recorded.

- Extracts from the project budget and schedule that may apply to the work by design professionals.

- Bibliography of applicable codes, standards, cited research, and other publications referenced in the program. Current issues as applicable building codes, sun charts, and building air quality guidelines are assumed.

1.7 SPECIALTY REQUIREMENTS

1. The costs and schedules that are incorporated into the predesign document are to consider the following (available at www.sao.admin.state.mn.us):
    - The State's *"Design Guidelines"*
    - The State's *"Space Guidelines"*
    - *"Guide to Minnesota Environmental Review Rules"* for site selection .
    - Summary of technology to be incorporated into the project. (Along with the specific plan for technology, include the State's "*Building Infrastructure Guidelines for State Owned Buildings"* in the appendix of the predesign document. Additionally, a letter from the State's Office of Technology, indicating that they have reviewed your technology plan, must be published with the Predesign Document. Summarize the technology plans to be incorporated into the project.

Section 1 – Components of Predesign

1.7 Specialty Requirements – continued

- Summary of Building Environmental Quality design initiatives in accordance with *"Building Air Quality – A Guide for Building Owners, Facility Managers and Agency Contacts"*.

- Locating State Offices and Agencies (See Appendix): Predesigns for State Office facilities shall address and incorporate *"Criteria For Locating State Offices and Agencies"*.

- 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)
  In accordance with Minnesota Statute §16B.235 (See Appendix), design MUST EXCEED EXISTING ENERGY CODES BY 30 PERCENT for new buildings funded from the bond proceeds fund AFTER January 1, 2004.

- Alternative Energy Sources
  In accordance with MN Statute § 16B.32 (See Appendix) Identify and include alternative energy sources and associated costs that will be incorporated into the design).

Note: 1) The manuals and documents (in italic font), identified above, are available on the SAO website (www.sao.admin.state.mn.us) and are to be bound into the final Predesign Document .
2) Associated costs for the above specialty requirements are to be incorporated into the Project Cost Plan estimates.

SECTION 2. CONTEXT FOR PREDESIGN

2.1 WHAT COMES BEFORE PREDESIGN

Agency planning precedes predesign: Agency planning that precedes predesign is not bondable because it is not project specific. After agency planning, the project process has three bondable stages (see Figure 1):

- Predesign (including Site Selection).
- Design.
- Construction.

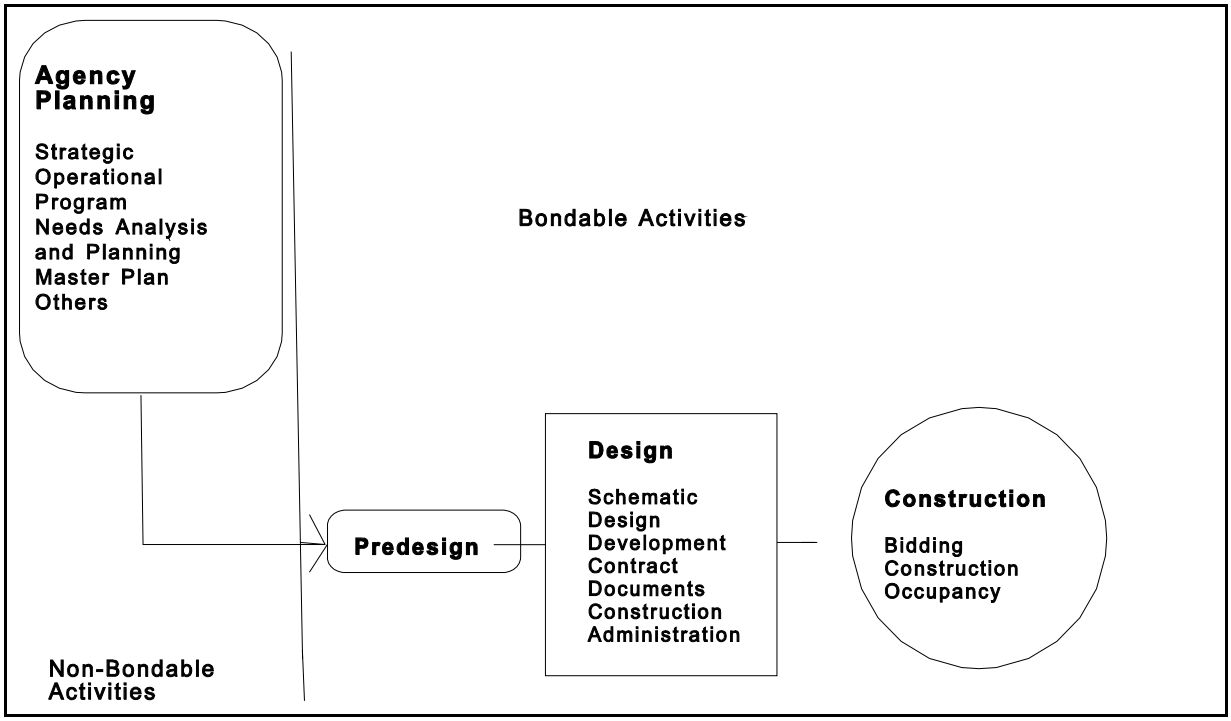

Figure 1: Project Stages

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.

Section 2 – Context For Predesign

2.1 What Comes Before Predesign – continued

Agency planning is to precede predesign and be documented and incorporated into the predesign submittal document. Agency planning includes:

- Agency strategic planning: Agencies are required in their capital requests to define the long-term needs that drive capital budget requests. Long-term needs should relate to the agency's total need for capital appropriations in the six-year cycle under consideration.

- Project operational programming: The project operational program springs from the requesting agency's strategic planning and defines in functional and organizational terms what the facility must do. The agency should anticipate future changes in the present operation for changes to be accommodated in altered or new facilities. However, the program does not record physical facility requirements; the program describes what activities the proposed facility will support.

- Needs analysis and planning: During the needs analysis and planning process, the requesting agency estimates the amount and type of space required to satisfy the operational program requirement. It also surveys its inventory of existing space to identify alternative ways to meet its requirements.

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

  a. 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.
  b. 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.

  In addition to using or adapting existing space, other alternatives such as leasing space or new construction should be considered. Collocating with another agency is a required alternative for projects outside of the metropolitan area.

  When alternative methods for satisfying the operational program requirements have been determined, a preferred alternative should be selected. Primary selection criteria are program suitability, lowest first cost, and lowest life cycle cost.

- 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.

Section 2 – Context For Predesign

2.1 What Comes Before Predesign – continued

- Identification of 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.

- Designation of applicable information technology: Before predesign be-gins, both the type of information technology to be incorporated into the project and the telecommuting plan for the facility should be defined. The desired results of these plans should be determined. For example, questions such as: "What is the effect of telecommuting on the size of full-time, on-site staff?" should be answered.

2.2 DESIGN STAGE DEFINITION

Design follows predesign. Predesign defines the design problem to be solved. Design solves the problem. The deliverables of the three stages of the design process are described below:

1. Schematic design:

   The results of this stage are:

   - a site layout that satisfies the requirements of existing codes and ordinances and the physical attributes of the site.

   - an organization of the space list into two-dimensional plans and three-dimensional stacking diagrams conforming to codes and the requirements of the architectural/engineering program.

   - alternative schemes and a recommended preferred alternative that depict the general relationships of spaces and the relationship of the building(s) to the site.

   The deliverables of the schematic design stage are:

   - diagrammatic site plan.
   - diagrammatic plan layout.
   - diagrammatic building elevations.
   - diagrammatic longitudinal and transverse sections.
   - outline specifications describing all physical systems including mechanical and electrical systems.
   - updated project cost plan.

- electrical systems.
- mechanical systems

2. Design Development:

   The results of this stage are:

   - a site plan that satisfies the requirements of existing codes and ordinances and the physical attributes of the site.
   - building plans, elevations, and sections defining all two- and three-dimensional relationships.
   - building plans, elevations, and sections depicting basic material and physical system selections.

   The deliverables of the design development stage are:

   - site plans drawn to scale.
   - plans, elevations, sections, and details drawn to scale depicting all physical systems.
   - perspective drawings or models as required to explain the proposed design.
   - revised outline specifications describing all physical systems including mechanical and electrical systems.
   - updated project cost plan.

3. Contract documents:

   The results of this stage are drawing and specifications suitable to be contract documents for the project.

   The deliverables of the construction document stage are:

   - certified, detailed drawings and specifications sufficient to bid, buy, and construct the project.

- certified drawings and specifications that the local code officials will issue a building permit.

- detailed cost estimate demonstrating that the work defined by the contract documents can be performed within the project budget.

4. Construction administration:

   - Monitoring of the construction progress, payments and schedule
   - Verifying that the specified products are being installed (shop drawing review)
   - Providing contractors with interpretation of construction documents.

5. Post-Construction Phase

   - Receive all documentation
   - Review of completed construction prior to 1 year warranty expiration
   - Conduct post-occupancy evaluation (if funding is approved in the appropriation).

2.3 WHAT SIGNALS THE END OF PREDESIGN

The boundary between predesign and design is marked by the completion of instructions to design professionals (the architects and engineers) in a form sufficient to support commencement of schematic design. These instructions are the architectural/engineering program. A complete definition of the architectural/engineering program is found in Section 1.6.

2.4 WHAT IS THE RELATIONSHIP OF PREDESIGN TO THE FIRST MAJOR FUNDING

From the view point of the requesting agency, the question is: "What is the earliest time that it makes sense to ask for capital funding for a project?" From the view point of the Legislature, the question is: "When can we understand the proposed project well enough so that an informed decision by the governor and legislature can be made?"

A capital budget request can be made before predesign or it can be deferred until predesign is complete. Not all projects with completed predesign will be funded for design and construction. Nevertheless, the results of predesign provide essential information to elected officials while minimizing cost to the requesting agency. This information forms the basis for a decision whether a project should receive additional funding for design and construction. Therefore, it is not logical to expect the Legislature to fund all three project stages at one time.

2.5 WHAT IS THE ROLE OF PREDESIGN AS DEFINED BY THE LAW

Minnesota Statute §16B.335, Subdivision 3, (see Appendix) requires the results of predesign to be submitted to the Department of Administration before commencing design. The Department of Administration will review the results and make a recommendation to the appropriate chair of the Senate Finance Committee and the chair of the House Ways and Means Committee with a copy to the chair of the House Capital Investment Committee.

The Department of Administration will examine the predesign results for completeness before performing its review. Completion of the project's operational program by the requesting agency will be a prerequisite for consideration and a favorable recommendation by the Department of Administration.

2.6 WHAT IS THE ROLE OF PREDESIGN AFTER FUNDING IS OR IS NOT RECEIVED

Should the Governor recommend the project to the legislature for funding and should the project receive funding, Minnesota Statute §16B.33, Subdivision 3 (see Appendix) requires that the State Designer Selection Board select the primary designer for the project when the estimated construction cost is greater than $2,000,000 or for a planning project with estimated fees of $200,000 or greater. The originating agency must make a written request to the Commissioner of Administration, who will forward the request to the Board.

If the project does not receive funding and the requesting agency intends to request funding for the project in the next capital bonding session, the predesign should be retained, updated and resubmitted to the Commissioner of Administration.

SECTION 3. COST PLANNING IS A KEY ELEMENT OF PREDESIGN

3.1 BASIS FOR COST PLANNING

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.

3.2 COST PLANNING VERSUS COST ESTIMATING

Cost planning is different from cost estimating. Cost planning occurs very early in the planning process before designs have been prepared. Cost planning relies on historical data and predicts all costs to be attributed to the project. It answers the question: "Within what range will the project budget fall after the project is fully designed?"

Cost estimating starts after the design work has begun, usually during the design development stage. Cost estimating is based on measuring material quantities actually shown in the design and deals with construction costs. It measures only the project actually described in the drawings and specifications. Estimating answers the question: "What is the estimated cost of the building as described in these plans and specifications?"

3.3 COST PLAN CHART OF ACCOUNTS

The project's cost plan should contain all project costs for a funding request. The capital budget chart of accounts recommended for use during predesign is as follows:

1. Property Acquisition.
2. Predesign Fees.
3. Design Fees.
4. Project Management.
5. Construction Costs.
6. One Percent for Art (if applicable).
7. Occupancy.
8. Inflation.
9. Other.

Relocation costs are included in item #9 and 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. (See “Capital Budgets” on the Department of Finance website: www.finance.state.mn.us)

(See spreadsheets in the Appendix and include with your submittal. The cost spreadsheets are from the Department of Finance’s *Capital Budget System User Manual*).

Section 3 – Cost Planning Is A Key Element of Predesign

3.4 CAPITAL BUDGET CHART OF ACCOUNTS

All costs are to be quoted as of June 1 of the odd year prior to the even year that the Governor and Legislature will consider the request.

1. Property Acquisition:
   - Land, Land Easements, Options.
   - Land and Building.

2. Predesign Fees.

3. Design:
   - Schematic Design.
   - Design Development.
   - Contract Documents.
   - Construction Administration.

4. Project Management:
   - State Staff Project Management.
   - Non-State staff Construction management.
   - Commissioning
   - Other Costs.

5. Construction Costs:
   - Site and building preparation.
   - Demolition/decommissioning.
   - Construction (see project detail in capital budget forms in Appendix).
   - Infrastructure/roads/utilities.
   - Hazardous material abatement.
   - Construction contingency (unforeseeable issues only).
   - Other Costs.

6. One Percent for Art (if applicable). Note: The Department of Corrections is exempt from this requirement. See Appendix.

7. Relocation Expenses (funded from the General Fund)

8. Occupancy:
   - Furniture fixtures and equipment (not otherwise included in item 5).
   - Telecommunications (voice & data).
   - Security Equipment.
   - Commissioning.
   - Other (explain).

Section 3 – Cost Planning Is A Key Element of Predesign

3.4 Capital Budget Chart of Accounts – continued

9. Inflation (Items 1-7):
   - Midpoint of construction (date).
   - Department of Finance Multiplier (percent).
   - Inflation cost.

Preparation of the Cost Plan and Chart of Accounts must be accurate; it is the basis for determining the amount of funding to be appropriated by the legislature. The full range of costs for the project must be considered. Additional costs may include:

- Project Delivery Method Costs
- Owner's Project Representative Costs
- Construction Management Costs
- Specialty consultants and systems. (Security, Acoustics, Food Service, Lab etc.)
- Facility restrictions or conditions that effect costs
- Environmental Impact Study (and associated legal fees when expected)
- Site Surveys & Geotechnical Investigations
- Wetlands mitigation
- Soils correction or cleanup replacement
- Hazardous Material removal (asbestos, lead paint, mold, PCBs, etc).
- Utility connection fee
- 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
- Phasing Costs
- Temporary Utilities and Facilities
- Sustainability Costs (See requirements contained in this manual)
- Cold Weather Construction
- Financing Costs

Life Cycle Costing (LCC):
A brief Life Cycle Cost Analysis, combined with Sustainable Design goals, shall accompany the Cost Plan. A resource guide and examples of LCC is www.eere.energy.gov/femp/program/lifecycle.cfm
The Life Cycle Cost is to address the level of quality of the building and its major systems:

- Site/Utility Systems
- Building Envelope
- Structural System
- Mechanical System
- Electrical System

In the LCC Analysis, provide life expectancies of new buildings: 30 year, 40 year, 60 year and above 60 years.

3.5 CAPITAL BUDGET REQUEST CONSTRUCTION TYPE OF SPACE LISTING

- Monumental office buildings
- Office buildings
- Correctional/detention facilities
- Nursing or long-term care facilities
- Medical clinics and facilities
- Hospitals
- Residential/Community based healthcare facilities
- K-12 Educational facilities
- Higher education facilities teaching/classroom, etc.
- Laboratories
- Teaching/laboratories
- Computer facilities
- Library facilities
- Auditorium
- Cafeteria/kitchen/food service
- Warehouse
- Parking structures
- Maintenance facilities
- Heating/cooling plants
- Utility infrastructure facilities

SECTION 4. MOST USEFUL APPLICATIONS OF PREDESIGN

Predesign is most useful for projects with the following characteristics:

- Unique projects (one-of-a-kind, or first-of-a-kind).
- Complex projects (projects containing many interactive parts or systems).
- Relatively costly projects.
- Projects with unusually aggressive or complicated schedules (phased construction or fast track construction).

All capital projects benefit by the clarity and condensation resulting from predesign. And, predesign for relatively simple and low cost projects can easily be accomplished with relatively little time, money, and effort.

Agencies are encouraged to use the Predesign Manual as a structured process to consider and discover all costs related to a project.

SECTION 5. EXTENT OF ARCHITECTURAL/ENGINEERING PROGRAM IN PREDESIGN

The architectural/engineering program ("A/E program") compiles instructions to the design professionals. The nature and extent of the instructions required are specific to the project. Projects that have been built heretofore should not require an original program if the previous work is still applicable. The existing A/E program can be used to direct the design professionals.

On the other hand, unique projects by definition require new instructions to guide the design professionals. If the project is unique but simple and not costly, the a/e program can probably be completed with the predesign work.

At the other end of the spectrum, however, if the project is unique, complex, and relatively costly, then the A/E program should be generally described during the predesign stage and the details added during schematic design. In this case, the capital budget request should include funding for the detailed a/e program with the design work, but should be developed with the constraints established in predesign.

The processes utilized to establish the program should strive to include methodologies that are participatory in nature and strive to establish the greatest client consensus possible. These should be clearly documented as a part of the program document and based upon the State's *Space Guidelines*. Projects for new and remodeling of offices are to follow the state's *"Space Guidelines"* located at www.sao.admin.state.mn.us

A detailed space program shall be developed which provides a table of space names, sizes, adjacencies, functional needs and furniture/equipment/signage (FF&E) needs.

The Predesign Checklist in the Appendix of this manual is intended to serve the agency and their consultant in compiling the needed predesign information and for preparing the submittal document. The Appendix includes a "*Building/Project Data Sheet"* and *"Space Needs Inventory"* which will need to be part of the predesign document. Also included is *"Programming Methodology for Participatory Design"* which is a suggested guide for organizing and preparing the A/E program.

SECTION 6. EXECUTION OF PREDESIGN

6.1 WHO PERFORMS PREDESIGN

Due to the complexity of issues, elements and systems that make up a modern building, it is recommended that an agency retain qualified architectural and engineering consultants to perform the bulk of the predesign. A multidiscipline team should be considered where the project is particularly complex.
The agency proposing the project will be responsible for providing information on their statutory requirements, strategic plan, operational program and anticipated changes in their operating costs.

6.2 COST OF PREDESIGN

For most projects, the target cost for predesign should be one-quarter to one-half of one percent of the combined project design and construction costs. The smaller amount (0.25 percent) applies to large projects (costing more than $3,000,000 to $5,000,000) and the larger amount (0.50 percent) applies to small projects (costing less than $1,000,000 to $2,000,000) or unusual projects. In occasional circumstances higher percentages have been observed due to the relative size and complexity of the anticipated project. Achieving these cost ranges is highly dependent on the agency completing its agency strategic and operational planning before undertaking predesign.

6.3 HOW PREDESIGN IS PAID FOR

Predesign presently qualifies for funding by capital appropriation in the bonding bill. If the agency is unable to await a capital appropriation, then the agency may perform the predesign using its own operating funds.

Grant recipients who are required to provide matches for state funds are encouraged to include the cost of predesign within their match portion.

6.4 RESULTS OF PREDESIGN

The main result of predesign is a clear definition of a project plan that, if implemented, will meet all project objectives. The project plan is a reconciliation of the agency's operational needs with project financial planning, scheduling, and the requirements of the capital budget legislative process.

Should funding be received for the proposed project, use of the predesign document will continue as the basis for designer selection (see Appendix D for statute requirement on designer selection), terms of the contract with a designer and for the ultimate design and construction of the building.

APPENDIX

TO

The State of Minnesota
PREDESIGN MANUAL
FOR CAPITAL BUDGET PROJECTS

APPENDIX

A: Minnesota Statutes §16A.695 - Property purchased with State Bond Proceeds
B: Minnesota Statutes §16B.241 - Coordinated Facility Planning
C: Minnesota Statutes §16B.32 - Alternative Energy Sources
Minnesota Statutes §16B.325 - Energy Conservation Goals & Sustainable Building Guidelines
D: Minnesota Statutes §16B.33 - Designer Selection Board Requirement
E: Minnesota Statutes §16B.335 - Predesign Requirement
F: Minnesota Statutes §16B.35 - Art in State Buildings
G: Capital Budget Request - Project Costs Form
H: Capital Budget Request - Construction Cost Detail Form
I: Inflation Factor Table
J: Operating Costs Form
K: Examples of Suggested Appropriation Language
L: Sample Evolution of Predesign Summary Statements
M: Site Selection Requirements & Criteria for Locating State Offices and Agencies
N: Sustainability & High Performance Guidelines
O: Technology & Telecommunications Requirements
P: Building Security Guidelines
Q: *Building Project/Data Sheet* and *Building Audit Sheet* Forms
R: Programming Methodology for Participatory Design
S: *Space Needs Inventory* Form
T: Predesign Checklist
U: Sample Predesign Submittal Cover Letter
V: Sample Legislative Notification Letter
W: Glossary

APPENDIX A

MINNESOTA STATUTES §16A.695

§16A.695 PROPERTY PURCHASED WITH STATE BOND PROCEEDS

Subdivision 1 **Definitions.** (a) The definitions in this subdivision apply to this section.

(b) "State bond financed property" means property acquired or bettered in whole or in part with the proceeds of state general obligation bonds authorized to be issued under article XI, section 5, clause (a), of the Minnesota Constitution.

(c) "public officer or agency" means a state officer or agency, the University of Minnesota, the Minnesota historical society, and any county, home rule charter or statutory city, school district, special purpose district, or other public entity, or any officer or employee thereof.

(d) "Fair market value" means, with respect to the sale of state bond financed property, the price that would be paid by a willing and qualified buyer to a willing and qualified seller as determined by an appraisal of the property, or the price bid by a purchaser under a public bid procedure after reasonable public notice.

(e) "Outstanding state bonds" means the dollar amount certified by the commissioner, upon the request of a public officer or agency, to be the principal amount of state bonds, including any refunding bonds, issued with respect to the state bond financed property, less the principal amount of state bonds paid or defeased before the date of the request.

Subd. 2. **Leases and management contracts.** (a) A public officer or agency that is authorized by law to lease or enter into a management contract with respect to state bond financed property shall comply with this subdivision.

(b) The lease or management contract may be entered into for the express purpose of carrying out a governmental program established or authorized by law and established by official action of the contracting public officer or agency, in accordance with orders of the commissioner intended to ensure the legality and tax-exempt status of bonds issued to finance the property, and with the approval of the commissioner. A lease or management contract, including any renewals that are solely at the option of the lessee, must be for a term substantially less than the useful life of the property, but may allow renewal beyond that term upon a determination by the lessor that the use continues to carry out the governmental program. A lease or management contract must be terminable by the contracting public officer or agency if the other contracting party defaults under the contract or if the governmental program is terminated or changed, and must provide for program oversight by the contracting public officer or agency. Money received by the public officer or agency under the lease or management contract that is not needed to pay and not authorized to be used to

pay operating costs of the property, or to pay the principal, interest, redemption premiums, and other expenses when due on debt related to the property other than state bonds, must be:

(1) paid to the commissioner in the same proportion as the state bond financing is to the total public debt financing for the property, excluding debt issued by a unit of government for which it has no financial liability;

(2) deposited in the state bond fund: and

(3) used to pay or redeem or defease bonds issued to finance the property in accordance with the commissioner's order authorizing their issuance.

The money paid to the commissioner is appropriated for this purpose.

(c) With the approval of the commissioner, a lease or management contract between a city and a nonprofit corporation under section 471.191, subdivision 1, need not require the lessee to pay rentals sufficient to pay the principal, interest, redemption premiums, and other expenses when due with respect to state bonds issued to acquire and better the facilities.

Subd. 3. **Sale of property.** A public officer or agency shall not sell any state bind financed property unless the public officer or agency determines by official action that the property is no longer usable or needed by the public officer or agency to carry out the governmental program for which it was acquired or constructed, the sale is made as authorized by law, the sale is made for fair market value, and the sale is approved by the commissioner. If any state bonds issued to purchase or better the state bond financed property that is sold remain outstanding on the date of sale, the net proceeds of sale must be applied as follows:

(1) if the state bond financed property was acquired and bettered solely with state bond proceeds, the net proceeds of sale must be paid to the commissioner, deposited in the state bond fund, and used to pay or redeem or defease the outstanding state bonds in accordance with the commissioner's order authorizing their issuance, and the proceeds are appropriated for this purpose; or

(2) if the state bond financed property was acquired or bettered partly with state bond proceeds and partly with other money, the net proceeds of sale must be used: first, to pay to the state the amount of state bond proceeds used to acquire or better the property: second, to pay in full any outstanding public or private debt incurred to acquire or better the property; and third, any excess over the amount needed for those purposes must be divided in proportion to the shares contributed to the acquisition or betterment of the property and paid to the interested public and private entities, other than any private lender already paid in full, and the proceeds are appropriated for this purpose. When all of the net proceeds of the sale have been applied as provided in this subdivision, this section no longer applies to the property.

Subd. 3a. **Involuntary sale of property.** Notwithstanding subdivision 3, this subdivision applies to the sale of state bond financed property by a lender that has provided money to acquire or better
the property. Purchase by the lender in a foreclosure sale, acceptance of a deed in lieu of foreclosure, or enforcement of a security interest in personal property, by the lender, is not a sale. Following purchase by the lender, the lender shall not operate the property in a manner inconsistent with the governmental program established as provided in subdivision 2, paragraph (b). The lender shall exercise its best efforts to sell the property by the lender. A sale by the lender must be made as authorized by law and must be made for fair market value.

Subd. 4. **Relation to other laws.** This section applies to all state bond financed property unless otherwise provided by law.

Subd. 5. **Program funding.** Recipients of grants from money appropriated from the bond proceeds fund must demonstrate to the commissioner of the agency making the grant that the recipient has the ability and a plan to fund the program intended for the facility. A private nonprofit organization that leases or manages a facility acquired or bettered with grant money appropriated from the bond proceeds fund must demonstrate to the commissioner of the agency making the grant that the organization has the ability and a plan to fund the program intended for the facility.

History: 1994 c 643 s 36; 1Sp1995 c 2 Art 1 s 19-22; 1996 c 463 s 32

APPENDIX B

MINNESOTA STATUTES §16B.241

Sec. 40. [16B.241] COORDINATED FACILITY PLANNING. The commissioner of administration shall develop a coordinated facility planning process for offices located outside the metropolitan area for the following agencies: the departments of health, agriculture, and natural resources; the pollution control agency; and the board of water and soil resources. Any proposals for consolidation or construction of facilities for these agencies that are included in budget documents submitted to the legislature under section 16A.11 must first be considered as part of the planning process required by this section.

APPENDIX C

MINNESOTA STATUTES §16B.32 Subdivision 1

Alternative energy sources. Plans prepared by the commissioner for a new building or for 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.

MINNESOTA STATUTES §16B.325

SUBDIVISION 2. ENERGY CONSERVATION GOALS
Sec. 2. [16B.325] SUSTAINABLE BUILDING GUIDELINES.

The department of administration and the department of commerce, with the assistance of other agencies, shall develop sustainable building design guidelines for all new state buildings by January 15, 2003. The primary objectives of these guidelines are to ensure that <u>all new state buildings initially exceed existing energy code, as established in Minnesota Rules, chapter 7676, by at least 30 percent.</u> The guidelines must focus on achieving the lowest possible lifetime cost for new buildings and allow for changes in the guidelines that encourage continual energy conservation improvements in new buildings. The design guidelines must establish sustainability guidelines that include air quality and lighting standards and that create and maintain a healthy environment and facilitate productivity improvements; specify ways to reduce material costs; and must consider the long-term operating costs of the building, including the use of renewable energy sources and distributed electric energy generation that uses a renewable source or natural gas or a fuel that is as clean or cleaner than natural gas. In developing the guidelines, the departments shall use an open process, including providing the opportunity for public comment. The guidelines established under this section are mandatory for all new buildings receiving funding from the bond proceeds fund after January 1, 2004.

APPENDIX D

MINNESOTA STATUTES §16B.33

DESIGNER SELECTION BOARD REQUIREMENT

MINNESOTA STATUTES §16B.33

Subd. 3. Agencies must request designer. (a) Application.
Upon undertaking a project with an estimated cost greater than $2,000,000 or a planning project with estimated fees greater than $200,000, every user agency, except the Capitol Area Architectural and Planning Board, shall submit a written request for a primary designer for its project to the commissioner, who shall forward the request to the board. The University of Minnesota and the Minnesota State Colleges and Universities shall follow the process in subdivision 3a to select designers for their projects. The written request must include a description of the project, the estimated cost of completing the project, a description of any special requirements or unique features of the proposed project, and other information which will assist the board in carrying out its duties and responsibilities set forth in this section.

***NOTE: Special Session 2004 Statute Change**

Prior to the 2004 law change, the first sentence of MN Statute §16B.33, Subdivision 3, read:

"Upon undertaking a project with an estimated cost greater than $750,000 or a planning project with estimated fees greater than $60,000, every user agency, except the capitol area architectural and planning board, shall submit a written request for a primary designer for its project to the commissioner, who shall forward the request to the board.

APPENDIX E

MINNESOTA STATUTES §16B.335

16B.335 REVIEW OF PLANS AND PROJECTS.

Subdivision 1. **CONSTRUCTION AND MAJOR REMODELING.** The commissioner, or any other recipient to whom an appropriation is made to acquire or better public lands or buildings or other public improvements of a capital nature, must not prepare final plans and specifications for any construction, major remodeling, or land acquisition in anticipation of which the appropriation was made until the agency that will use the project has presented the program plan and cost estimates for all elements necessary to complete the project to the chair of the senate finance committee and the chair of house ways and means committee and the chairs have made their recommendations, and the chair of the house capital investment committee is notified. "Construction or major remodeling" means construction of a new building or substantial alteration of the exterior dimensions or interior configuration of an existing building. The presentation must note any significant changes in the work that will be done, or in its cost, since the appropriation for the project was enacted or from the predesign submittal. The program plans and estimates must be presented for review at least two weeks before a recommendation is needed. The recommendations are advisory only. Failure or refusal to make a recommendation is considered a negative recommendation. The chairs of the senate finance committee, and the house ways and means committee must also be notified whenever there is a substantial change in a construction or major remodeling project, or in its cost.

(b) Capital Projects exempt from the requirements of this section include demolition or decommissioning of state assets, hazardous material projects, utility infrastructure projects, environmental testing, parking lots, exterior lighting, fencing, highway rest areas, truck stations, storage facilities not consisting primarily of offices or heated work areas, roads, bridges, trails, pathways, campgrounds, athletic fields, dams, floodwater retention systems, water access sites, harbors, sewer separation projects, water and waste water facilities, port development projects for which the commissioner of transportation has entered into an assistance agreement under section 457A.04, ice centers, <u>a local government project with a construction cost of less than $1,500,000,</u> or any other capital project with a <u>construction cost of less than $750,000.</u>

Subdivision 2. **Other Projects.** All other capital projects for which a specific appropriation is made must not proceed until the recipient undertaking the project has notified the chair of the senate finance committee, the chair of the house capital investment committee, and the chair of the house ways and means committee that the work is ready to begin. Notice is not required for capital projects needed to comply with the Americans with Disabilities Act or funded by an agency's operating budget or by a capital asset preservation and replacement account under section §16A.632, or a higher education capital asset preservation and renewal account under section §135A.046.

Subdivision 3. **Predesign Requirement.** A recipient to whom an appropriation is made for a project subject to review under subdivision 1 or notice under subdivision 2 shall prepare a predesign package and submit it to the commissioner for review and recommendation before proceeding with design activities. The commissioner must complete the review and recommendation within ten working days after receiving it. Failure to review and recommend within the ten days is considered a positive recommendation. The predesign package must be sufficient to define the scope, cost, and schedule of the project and must demonstrate that the project has been analyzed according to appropriate space needs standards.

The definition in paragraphs (a) and (b) apply to this section.

(a) "Predesign" means the stage in the development of a project during which the purpose, scope, cost, and schedule of the complete project are defined and instructions to design professionals are produced.

(b) "Design" means the stage in the development of a project during which schematic, design development, and contract documents are produced.

Subdivision 4. **Energy Conservation.** A recipient to whom a direct appropriation is made for a capital improvement project shall ensure that the project complies with the applicable energy conservation standards contained in law, including sections 216C.19 to 216C.21, and rules adopted thereunder. The recipient may use the energy planning and intervention and energy technologies units of the department of public service to obtain information and technical assistance on energy conservation and alternative energy development relating to the planning and construction of the capital improvement project.

Subdivision 5. **Information Technology.** 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. The information policy office must review and approve the information technology portion of construction and major remodeling program plans before the plans are submitted to the chairs of the senate finance committee and the house of representatives ways and means committee for their recommendations as required by subdivision 1.

Subdivision 6. **Information Technology Review Precondition**. No state agency or department shall propose and the legislature shall not consider building or relocation projects without reviewing implications of utilizing information technology on space utilization.

History: 1989 c 300 art1 s27; 1990 c591 art 6 s 1; 1990 c 610 art 1 s 42; 1992 c 513 art 4 s 23; 1993 c 4 s11; 1994 c 643 s 42-45; 1Sp1995 c 2 art 1 s 24-26; 1996 c 463 s 35; 1997 c 159 art 2 s 5; 1997 c 202 art 3 s 35; 1997 c 246 s 11; 1998 c 404 s 34; 1999 c 86 art 1 s 9

APPENDIX F

MINNESOTA STATUTES §16B.35

ART IN STATE BUILDINGS

Subdivision 1. [PERCENT OF APPROPRIATIONS FOR ART.] An appropriation for the construction or alteration of any state building may contain an amount not to exceed the lesser of $100,000 or one percent of the total appropriation for the building for the acquisition of works of art, excluding landscaping, which may be an integral part of the building or its grounds, attached to the building or grounds or capable of being displayed in other state buildings. If the appropriation for works of art is limited by the $100,000 cap in this section, the appropriation for the construction or alteration of the building must be reduced to reflect the reduced amount that will be spent on works of art. Money used for this purpose is available only for the acquisition of works of art to be exhibited in areas of a building or its grounds accessible, on a regular basis, to members of the public. No more than ten percent of the total amount available each fiscal year under this subdivision may be used for administrative expenses, either by the commissioner of administration or by any other entity to whom the commissioner delegates administrative authority. For the purposes of this section "state building" means a building the construction or alteration of which is paid for wholly or in part by the state.

Subd. 1a. **Not in prisons.** Notwithstanding subdivision 1, no part of a state appropriation may be used to acquire or install works of art in a state correctional facility.

Subd. 1b. **Exception.** A prohibition on using state appropriations to pay for art in correctional facilities does not apply to art produced through programming in correctional facilities.

Subd. 2. **Exempt buildings.** A building for which the appropriation is less than $500,000 for construction or alteration or a building for which the commissioner of administration has determined that this section is inappropriate is exempt from the requirements of this section.

Subd. 3. **Unused funds.** If an amount made available under subdivision 1 is not expended for works of art for the building, the unexpended portion is available to the Minnesota board of the arts for the commission or purchase of works of art for state buildings existing or for which an appropriation was made prior to June 15, 1983, and is not available to pay construction costs of the building.

Subd. 4. **Campuses.** Art for a building on a public college or university campus shall be selected by the campus, in consultation with the arts board. Consideration of the artwork of faculty and students on that campus is encouraged.

Subd. 5. **Contractor's bond not required.** Sections 574.26 to 574.32 do not apply to this section.

APPENDIX G

CAPITAL BUDGET REQUEST
CONSTRUCTION COSTS FORM

CONSTRUCTION TYPE OF SPACE	EXISTING	NEW CONSTRUCTION			REMODELED			RENEWAL (Asset Preservation)			TOTAL COST (in $000)
List Major Type of Space (Office, Lab, Ramp, etc.)	Gross Sq. Feet	Gross Sq. Feet	Cost (in $000)	Cost Per Sq. Foot (in $)	Gross Sq. Feet	Cost (in $000)	Cost Per Sq. Foot (in $)	Gross Sq. Feet	Cost (in $000)	Cost Per Sq. Foot (in $)	
TOTAL											

This Form is for Reporting and Analysis of *Construction Costs* only
No other cost items from the Project Cost Form should be included on this form.

APPENDIX H

AGENCY CAPITAL BUDGET REQUEST
Fiscal Years 2004-2009
Dollars in Thousands ($137,500 = $138 thousand)

PROJECT COST FORM

TOTAL PROJECT COSTS All Years and All Funding Sources	**Project Costs** All Prior Years	**Project Costs** FY 2004-05	**Project Costs** FY 2006-07	**Project Costs** FY 2008-09	**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							

APPENDIX I

INFLATION FACTOR TABLE

Inflation factors and costs frequently change and the table is no longer published as part of the Predesign Manual. A new table will be posted on the Department of Finance's web site during the Capital Budget Process. The table will be included in the Department of Finance's *"Capital Budget Instructions"* (instructions are published the year preceding a capital budget legislative session).

For Current/Updated TABLE, Go to www.budget.state.mn.us/budget/capital/index or www.finance.state.mn.us

Include the costs for inflation on LINE 8 of the Project Cost Form in Appendix H.

APPENDIX J

CAPITAL BUDGET REQUEST
STATE OPERATING COSTS FORM

CHANGES IN STATE OPERATING COSTS	Current Cost	Projected Cost (Without Inflation)			
	F.Y 2004-05	F.Y. 2006-07	F.Y. 2008-09	F.Y. 2010-11	F.Y. 2012-13
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 Equivalant

APPENDIX K

Examples of Suggested Appropriation Language for Different Stages of Capital Projects

1. An appropriation for predesign only might read:

This appropriation is for the execution of predesign only. The agency will be expected to make submittals for M.S. §16B.335, Subdivision 3. $300,000

The predesign will develop a report establishing the needs for a new Marine Education Center at the Minnesota Zoo to assist it in "strengthening the bond between people and the living earth."

The project will focus on creating a facility that will support the education of the public about marine environments. Increases in operating expenses brought about by this project will be borne by the Zoo's Special Revenue Fund.
(additional language as required)

2. An appropriation for design only following the execution of predesign might read:

This appropriation is for the execution of all design stages for the Minnesota Marine Education Center Building. $1,950,000
The agency will be expected to make submittals for M.S. §16B.335, Subd. 1.

(additional language as required)

3. An appropriation for construction only following the execution of predesign and design might read:

This appropriation is for the execution of the construction for the Minnesota Marine Education Center Building. Funding for the Predesign and Design was appropriated in the Laws of 2004, Chapter 301, Section 8, Subdivision 1. $20,500,000

(additional language as required)

4. An appropriation for both design and construction following the execution of predesign might read:

This appropriation is for the execution of design and construction stages. The agency will be expected to make submittals for M.S. §16B.335, Subdivision 1. $22,500,000

(additional language as required)

APPENDIX L

Sample Evolution of Predesign Summary Statements

Sample 1. MARINE EDUCATION CENTER:

- At the beginning of a project, predesign should frame a project without the constraints of cost or scale. A summary statement for a predesign (only) capital budget request might appear in this manner:

  The 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 project will focus on creating a facility that will support the education of the public about marine environments. Increases in operating expenses brought about by this project will be borne by the Zoo's Special Revenue Fund.

- At the completion of predesign, there should be a range of costs associated with scope of work and a general time frame for the project. A summary statement for a capital budget request that has completed predesign might appear in this manner:

  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 existing 191,000 gsf facility will be expanded by remodeling and new construction. The changed facility will include new pools for six dolphins, regular and wet classrooms, an indoor dolphin theater, shark exhibits, and a reception area for revenue-generating events. An anticipated $800,000 in increased operating expenses will be supported by the Zoo's Special Revenue Fund.

  New space: 42,500-46,000 gsf
  Remodeled space: 4,200-5,700 gsf
  Anticipated project cost range: $18.425 million-$20.575 million
  Anticipated substantial completion and occupancy: Mid 2009

- At the time a project is ready to go to bid, specific numbers should identify project size, cost goals, and delivery date. A summary statement for a capital budget request that has completed predesign and design might appear in this manner:

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 existing 191,000 gsf facility will be expanded by remodeling and new

construction. The improved facility will include new pools 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. An anticipated $847,000 in increased operating expenses will be provided by the Zoo's Special Revenue Fund upon project completion in FY 1997.

New space: 45,900 gsf
Remodeled space: 5,510 gsf
Estimated project cost: $20.500 million
Estimated construction cost: $17.500 million
Estimated substantial completion and occupancy: August 2009

Sample 2. HUMANITIES COMMISSION HEADQUARTERS:

- At the beginning of a project, predesign should frame a project without the constraints of cost or scale. A summary statement for a predesign (only) capital budget request might appear in this manner:

  The project will enable the commission to "reward and encourage exemplary learning methodologies within the state of Minnesota," according to the Humanities Commission's mission statement. The project will focus on the revitalization of an historic hospital building donated to the commission by the city of St. Paul. Approximately one-half of the construction costs will be requested for capital funding by the state of Minnesota.

- At the completion of predesign, there should be a range of costs associated with scope of work and a general time frame for the project. A summary statement for a capital budget request that has completed predesign might appear in this manner:

  This project will enable the commission to "reward and encourage exemplary learning methodologies within the state of Minnesota," according to the Humanities Commission's mission statement.

  The hospital has been evaluated for structural matters and found to be in need of no improvements. The existing structure offers an excellent fit between the programmatic needs of the commission and the general layout of each of the two existing floors. It is

felt that there is no need to add to the facility. The upper floor will house the administrative offices, dining room, and classrooms, while the lower floor will serve as the housing component for the programs offered.

Cost for the construction will be divided between a request for capital funds from the Legislature and private sources. The increased operating expenses of the facility are estimated to be $150,000 that will be covered by the com-mission in its operating budget.

Remodeled space: 22,000 gsf
Anticipated project cost range: $2.54 million
Anticipated substantial completion and occupancy: Mid 2010

- At the time a project is ready to go to bid, specific numbers should identify project size, cost goals, and delivery date. A summary statement for a capital budget request that has completed predesign and design might appear in this manner:

  This project will enable the commission to "reward and encourage exemplary learning methodologies within the state of Minnesota," according to the Humanities Commission's mission statement.

  The upper floor will house the administrative suite of three offices, reception room, and conference room. A dining room with capacity for 125 people and kitchen will be located centrally to serve as a focus for inter-action. Five classrooms, that will accommodate 15 students each, will be located in the eastern wing of the main floor. The lower floor will serve as the housing component, consisting of 45 single rooms with a central lounge and laundry facility.

  The entire facility will meet all applicable codes and incorporate new mechanical and electrical systems. The anticipated operating cost increase, beyond current levels, is estimated to be $110,000 in FY 1994-95 and $280,000 in FY 1996-97.

  Remodeled space: 22,000 gsf
  Estimated project cost: $2.500 million
  Estimated substantial completion and occupancy: February 2010

- For the purpose of providing a general summary of the proposed building or project, complete the **Building/Project Data Sheet** and/or the **Building Audit Sheet** and insert behind the Summary Statement.

APPENDIX M

SITE SELECTION REQUIREMENTS AND CRITERIA FOR LOCATING STATE OFFICES AND AGENCIES

1) 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 www.sao.admin.state.mn.us)

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.
    a) 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:
    a) 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 Department of Finance to determine cost saving options and delivery methods for funding the construction.
    b) The financial options for funding the project are to be integrated in the predesign document and presented with the consultant's formal submittals.
    c) 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):
    (a) Access by the public client
    (b) Access by employees
    (c) Available Transportation
    (d) Environmental Impact
    (e) Sustainability
    (f) Site developmental costs relating to site utilities/infrastructure
    (g) Parking requirements / costs (Number of stalls/surface parking/structured parking)
    (h) Phased Development

5) When appropriate, provide cost estimates for both surface and structured parking for each site being considered.

Appendix N

SUSTAINABILITY GUIDELINES & HIGH PERFORMANCE BUILDINGS

SUSTAINABILITY: Using resources in a way and at a rate that allows people to meet their needs, while allowing future generations to meet their needs.

GENERAL INFORMATION:

1.1 For new building design, comply with *The State of Minnesota Sustainable Building Guidelines* http://www.csbr.umn.edu/b3/index.html to identify and implement sustainable goals and strategies. In accordance with MN Statute §16B.325, all new State buildings, funded on January 1, 2004 and later must comply with *The State of Minnesota Sustainable Building Guidelines* and exceed the Energy Code by thirty (30) percent.

1.2 For remodeling and renovation of existing buildings, comply with the *SAO Sustainability Design Guidelines for Consultants.* (See SAO website www.sao.admin.state.mn.us for all guidelines)

1.3 **Alternative energy sources.** Designs must comply with MN Statute §16B.32 Energy use. Subdivision 1. Alternative energy sources. Plans prepared by the commissioner for a new building or for 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.

The built environment has a profound impact on our natural environment, economy, health and productivity.

In the United States, buildings account for:

- 36% of total energy use……..65% of electricity consumption
- 30% of greenhouse gas emissions
- 30% of raw materials use……30% of waste output/136 million tons annually
- 12% of potable water consumption

Environmental benefits:

- Enhance and protect ecosystems and biodiversity
- Improve air and water quality
- Reduce solid waste
- Conserve natural resources

Economic benefits:

- Reduce operating costs
- Enhance asset value and profits
- Improve employee productivity and satisfaction
- Optimize life-cycle economic performance

Health and community benefits:

- Improve air, thermal and acoustic environments
- Enhance occupant comfort and health
- Minimize strain on local infrastructure
- Contribute to overall quality of life

More industry statistics are available at http://www.usgbc.org/Resources/research.asp

Breakthroughs in building science, technology and operations are available to designers, builders and owners who want to build green and maximize both economic and environmental performance.

Information source: US Green Building Council

Appendix N - SUSTAINABILITY & HIGH PERFORMANCE GUIDELINES – continued

GENERAL CRITERIA:

- For new buildings and major renovations, identify sustainable & high performance goals and related costs for the project using *"The State of Minnesota Sustainable Building Guidelines"* at www.csbr.umn.edu/b3/index.html . Include the summary table in the guidelines to identify sustainable goals.

- **Minimize Lifetime Costs:** Include goals & strategies to minimize lifetime costs to present and future taxpayers state-owned, leased and financed buildings.

- **Create healthy, productive work environments:** Provide precedents of successful design goals and identify achievable goals & strategies to be employed on the project.

- **More Accessible Government:** See Site Selection Requirements and Criteria for Locating State Offices and Agencies in the Appendix using *"Criteria for Locating State Offices and Agencies"*

- **Pollution Prevention:** Include goals & strategies to eliminate or minimize the use of persistent toxic chemicals in building materials and prevent or reduce other forms of waste and emissions that, if allowed to systematically build up in the environment, degrade Minnesota's air, water, land and other natural resources.

- **Optimize & document building performance:** Include performance goals for the building's systems along with suggested training plans to guide the owner in the operation and maintenance of the building's systems.

- **Healthy, natural systems:** Include goals to preserve, conserve or enhance the natural landscape and habitat on-site.

- **Life Cycle Costs:** Include recommended design strategies based upon full life of materials including life-cycle assessment (LCA) and life-cycle cost (LCC) factors, (also consider operating costs).

  Life Cycle Cost: first costs plus all future costs (operating, maintenance, repair and replacement costs and functional-use costs) minus salvage value (i.e., value of an asset at the end of economic life or study period).

- **Energy Modeling:** Include energy modeling options (such as XCEL Energy's Energy Assets Program) for the building that are to be conducted during the future design phases.

Appendix N - SUSTAINABILITY & HIGH PERFORMANCE GUIDELINES – continued

- **Paybacks:** Due to differences among high performance goals & strategies in regards to costs, paybacks and ease of implementation, break the goals & strategies down into categories that reflect the differences. Suggested categories:
    - Strategies with no increased first costs
    - Strategies with paybacks in less than 10 years
    - Strategies with 10 year paybacks
    - Strategies with paybacks beyond 10 years
- Construction and operation of buildings result in high levels of energy and resource usage. Great care must be taken therefore when creating "sustainable" projects.
- Consultants shall design buildings to use resources in a way and at a rate that does not jeopardize the needs of future generations.
- Design decisions must balance economic, environmental and community needs.
- Sustainability may increase <u>or</u> reduce costs. Time and effort is required to make informed sustainable design decisions.
- Design decisions must be well documented since issues, suppliers, resources and product choices change frequently.
- Consultants shall use building components that are produced using reliable sustainable technology, avoiding untested systems, materials, and processes.

APPENDIX O

TECHNOLOGY & TELECOMMUNICATIONS REQUIREMENTS

1.0 General Information

1.0.1 State agencies contact the State Architect's Office to assist in preparing a Predesign Document for capital improvements in order to request funding, via the Governor, from the legislature. Predesign can be funded by the agency or included in a Capital Budget Request to the legislature. Identifying the scope of work and costs during predesign is important since it will be the basis for the funding that is received from the legislature.

1.0.2 To request a predesign for new construction or remodeling, the user agency submits a Project Initiation Form to the State Architect's Office. After assigning a Project Manager, SAO will forward a copy of the Project Initiation Form to InterTechnologies Group to inform them of the predesign and the name of the SAO Project Manager.

1.0.3 Since it is unknown whether funding will be received for construction, typically the contract with the architectural firm preparing the predesign will end when the predesign document is delivered. If the project receives funding from the legislature, competitive proposals will be solicited and another firm may be selected for the actual design.

2.1 - Predesign

2.1.1 – Predesign Team:

A letter from the State's Office of Technology (OT) must be contained in the predesign document. The OT letter will indicate the need for and acceptance of an agency's Management Technology Plan for the building.
For those projects required by statute to have a technology plan, the consultant and SAO Project Manager will notify InterTechnologies Group – who will convene a Predesign meeting to determine the agencies needs, goals, timelines and objectives. The Predesign Team will consist of, but will not be limited to:

- Agency/customer
- State Architect's Office
- Telecommunications Analyst (S) from InterTechnologies Group

2.1.2 – Project Plan – (See Checklist):

After receiving a copy of the SAO Project Initiation Form and determining the need for a Management Technology Plan, the InterTechnologies Group Telecommunications Analyst (*ITG-TA*) - will prepare a project plan.
See the Checklist in Appendix O for telecommunications information and costs that are to be included in the predesign submittal.

2.1.3 – Management Technology Plan:

Minnesota statutes §Section 16B.335,subd (5) and (6) and Minnesota Statues, Section 16E.05, Sub (3) also require state agencies to prepare information technology and telecommuting plans where proposing capital investments in office space. Office space requests include a new building (new construction or acquisition of an existing building), renovation/remodeling and/or relocations. The Minnesota Office of Technology (OT) is required to review and approve these plans.

***ITG-TA and SAO-PM* -** will require all state agencies that, by State Statute, must use State Approved Contract Vendors to participate in developing a Technology Plan that will be included in the Pre-Design phase of the project. The purpose of this plan is to define the agency long-range plans, present and future needs, scope of project, cost level and scheduled integration into the statewide network.

ITG and SAO will request state agencies that by State Statute are not required to use State Approved Contract Vendors to participate in developing a Technology Plan that will be included in the Pre-Design phase of the project. The purpose of this plan is to define the agency long-range plans, present and future needs, scope of project, costs, and scheduled integration into the statewide network.

Because each project has a unique character, *SAO-PM* and the *ITG-TA* will address the Management Technology Plan content to determine which technology requirements apply.

APPENDIX P

BUILDING SECURITY GUIDELINES

1. The major components of security are: Access Control, Surveillance and Response.

2. Like all other aspects of building design, defining the security requirement before design begins is critical to the final operational success of the building.

3. In the predesign stage, agencies must first determine the need to conduct a "Security Assessment" to determine the appropriate level of protection (and associated costs) that will be needed for a particular facility or building. The components of a Security Assessment are:
   a) Asset Analysis (defines the nature, location, value and users of the facility).
   b) Threat Analysis (defines the symbolic value and potential for a threat).
   c) Vulnerability Analysis (defines what there is about a building that can be exploited to carry out a threat).
   d) Risk Analysis (defines, via the Asset, Threat and Vulnerability analysis, the risk level and appropriate countermeasures that can be taken to reduce vulnerability).

4. 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. Sources for finding a security consultant are:
   a) Referrals
   b) American Society for Industrial Security (ASIS) - Security Industry Buyers Guide www.securitymanagement.com
   c) SDM-Security Buyers Guide www.securitymagazine.com
   d) Advertise via Request For Qualifications (RFQ)

5. Security considerations for Correctional Facility design is based upon the accreditation requirements of the American Correctional Association (ACA). Their website is:
   www.aca.org
   Designers selected by the state for Correctional Facility predesigns and designs are required to have past experience and expertise with ACA design standards.

6. When the predesign is being conducted for work inside an existing correctional facility, the predesign cost estimate and schedule must take into account the security measures that contractors will be subjected to while performing work. (i.e. tool inventory, gate checks, etc) Each Minnesota Correctional Facility has contractor security requirements that can be made available to the predesign team.

Appendix Q

Building/Project Data Sheet

(include behind the Project Summary Narrative)

Name of Project:
Agency:

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:
Type (surface or structured):
Area of Parking:
Number of Stalls:

Roofing Type:

Exterior Wall Type:

Interior Wall Type:

Structural System Type:
Mechanical System Type:
Fire Protection Description:
Electrical System Type:
Technology Systems:

Costs:
Total Project Cost:
Predesign Cost:
Site Acquisition Cost:
Site Improvements Cost:
Building Cost:
Parking Cost:
Furniture, Fixtures, Equipment Signage Cost:
Relocation Cost:
Phasing Cost:
Technology Cost
Hazardous Materials Abatement Cost:

NOTE: Cost Estimates are based upon the information above.

Appendix Q

Building Audit Sheet

(include behind the Project Summary Narrative)

Name of Project:

Agency:

Building Location:

Building Occupancy Type (Existing):
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/ square feet

Parking:
Type (surface or structured):
Area of Parking:
Number of Stalls:

Roofing Type & Condition:

Exterior Wall Type (s) & Condition:

Interior Wall Type(s):

Structural System Type & Condition:

Hazardous Material Removal & Cost

Mechanical System Type & Condition:

Fire Protection Type & Condition:

Electrical System Type & Condition:

Technology Systems & Conditions:

Appendix R

PROGRAMMING METHODOLOGY
for
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.
   a. 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).
   b. Obtain the mission statement of the organization, a strategic plan, and operational plan.
   c. Obtain an organizational chart for the organization.
   d. Obtain the State's *Space Guidelines.*

   Crucial Step in the Process: When developing a space program the team and users must <u>focus on job function related needs in conjunction with the State's *Space Guidelines*</u> versus developing a "wish list" of space needs. Final approval of the space program will be made by the Department of Administration's Real Estate Management (REM), thus, periodic consultation with REM needs to occur during the programming phase of predesign.

2. Chose a Goal Setting methodology
   a. This is where input from the users is gathered. And where the logic foundation for future decisions is based.
   b. 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.
   c. 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.
   d. Prioritize and produce a final list of six goals to achieve. Balance these against the organization's mission statement, strategic plan and operational plan.
   e. 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).
      a. 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.)
      c. On the inventory form, indicate internal and external interactions that take place.
      e. 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
      a. Using the completed inventory form and the list of desired objectives, schedule a workshop to discuss and evaluate the requirements for each functional "unit".
      b. 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.
      c. 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:
      a. Social Mapping
      b. 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.

E. Approval
   1. Obtain approval of the space program from the Department of Administration prior to publishing the final predesign document.

Appendix S

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

APPENDIX T

PREDESIGN CHECKLIST

PREAMBLE

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.

3. Predesign is a tool with a two-fold purpose:
   a. To validate your proposed project by linking it to your strategic plan and operational program. (i.e. Rather than just thinking or believing that a need for your project exists; the predesign document needs to convey supporting data and information that justifies the need).

   b. To ensure a comprehensive identification of the scope and cost of your proposed project. (i.e. Rather that just identifying a construction cost for your project, predesign prompts a more thorough look at additional costs, such as moving/relocation, signage, furniture, equipment, hazardous material abatement, and soft costs that will be required for your project).

4. A Predesign document tells the story of:
   b. What - The name, scope and cost of the project
   c. Where - The site and context
   d. When - The schedule
   e. Why - Validation of need
   f. How - Funding

5. The items in this checklist are a summary of the State's *Predesign Manual* (available at the State Architect's Office (SAO) website www.sao.admin.state.mn.us)

6. Complete the checklist and submit with your final predesign document.

APPENDIX T - PREDESIGN CHECKLIST - continued

Fill out this checklist, sign, and submit with the predesign document.

Complete	N/A	
☐	☐	**1.** Review the requirements contained in the State's *Predesign Manual*. The *Predesign Manual* is available on the SAO website at www.sao.admin.state.mn.us
☐	☐	**2.** Structure the format of your Predesign submittal to contain the seven *Components of Predesign*. Include component tabs to readily identify and access each component. The six components are: a. Predesign Summary Statement b. Project Background Narrative c. Financial Information- capital expenditures d. Financial Information- ongoing operating expenditures e. Schedule Information f. Project description (scope with site and space program) g. Specialty Items
☐	☐	**3.** Work with the user agency to develop a *Summary Statement.* The summary statement is a brief, two paragraph, description of the project; similar to the executive summary of a business plan. Below the description, provide a tabulation of the total square footage, total construction cost and total project cost. **For "local governmental units/political subdivisions", indicate the amount of state funding that is being requested.**
☐	☐	**4.** For the *Summary Statement*: Complete the "*Building/Project Data Sheet*" to tabulate the pertinent data upon which the cost estimates are based. Include this sheet as a second page to the Summary Statement.
☐	☐	**5.** For the *Summary Statement*: When the project involves remodeling of an existing building, use the "*Building Audit Sheet* " to perform an audit/survey of the building's major components, systems and their conditions. Use and amend the "*Building/Project Data Sheet*" to indicate the scope of work for the proposed project. Insert behind the Summary Statement.
☐	☐	**6.** For the *Project Background Narrative:* Obtain a list of the *Statutory Requirements* from the user agency. These are to be included in the final Predesign Document. a. The Legal Citation of the Law that appropriated the funding b. The statute that gives authority for the operational program that this Predesign is being undertaken for. c. Licensing requirements. (i.e. Department of Health). d. Operating Standards (required State, Federal, & Industry standards) e. Federal Statutes/Laws/Requirements. f. Significant Building Code or land use requirements.
☐	☐	**7.** For the *Project Background Narrative:* **Verify that the scope of the predesign complies with the language of the appropriation.** (For projects that have already received a legislative appropriation).
☐	☐	**8.** For the *Project Background Narrative:* Research the project. Visit similar building types and include *precedent* projects into the predesign document and how the precedent effects the proposed project.
☐	☐	**9.** For the *Project Background Narrative:* Work with the agency to include supporting data, analysis or studies which support the proposed project and demonstrate the need for the project by linking it to the agency's mission, strategic and operational plans.

Appendix T - PREDESIGN CHECKLIST - continued

Complete	N/A	
☐	☐	**10.** For *Financial Information*: For compiling project costs, use the Department of Finance's *Capital Budget Request* spreadsheet form. Include this in the submitted Predesign document.
☐	☐	**11.** Include, from user/owner, a copy of their *Financial Information* on the impact that the proposed project will have on their operating budget.
☐	☐	**12.** For *Financial Information*, review the Project Delivery Method (single prime, multiple prime, design/build)for impact on the *Cost Plan* for the project.
☐	☐	**13.** For *Financial Information,* include design fees for special consultants in the project costs (i.e. food service, acoustical, security, etc.).
☐	☐	**14.** For *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.
☐	☐	**15.** Work with the user/owner to identify special Mechanical or Electrical needs or upgrades.
☐	☐	**16.** For *Financial Information*, include hazardous material abatement costs in the estimated cost of construction for renovation/remodels of existing buildings.
☐	☐	**17.** For *Financial Information* on State Agency Projects: Include percent for Art in the project cost. See Appendix.
☐	☐	**18.** For *Financial Information*: Assist the user agency in identifying and incorporating contingency phasing and funding plans into the predesign to anticipate questions during legislative hearings. Depending upon the specifics of your project
☐	☐	**19.** For *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 request out, over several capital bonding sessions. 2) Options for private funding or lease with option to own. 3) Phasing of the project. 4) Options for a mix of private and public funding.
☐	☐	**20.** For *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.
☐	☐	**21.** For *Financial Information*: Determine if there are any abatement clean-up costs, fuel tank removal and soils replacement costs for the proposed site.
☐	☐	**22.** For *Schedule Information*: Develop a total project schedule (annotated bar chart) and include in the submittal document. Include time for hazardous material abatement, phasing time, relocation/move time and any potential long-lead material deliveries.

Appendix T - PREDESIGN CHECKLIST - continued

Complete	N/A	
☐	☐	**23.** For *Schedule Information*: Include a quality control/coordination review and cost in the design budget. Indicate a minimum of 1 month in the schedule for this review.
☐	☐	**24.** For *Schedule Information*: Include abatement clean-up, fuel tank removal and soils replacement costs in the overall project schedule.
☐	☐	**25.** For the *Project Description:* If a site has not been chosen for the proposed project, carry out a site recommendation process. For State-owned buildings/ State Agency projects, coordinate this effort with the Department of Administration's Division of Real Estate Management.
☐	☐	**26.** For the *Project Description:* If you are proposing a new building that will be in a campus setting (i.e. school, university, prison, extended care housing); review location options on the campus in regards to efficient operation and programs provided on the campus. (i.e. masterplanning of a campus should occur in order to give direction as to future growth and organization -Note: Masterplanning is not a bondable activity).
☐	☐	**27.** For the *Project Description* for State Agency Projects: Complete items contained in the Technology and Telecommunications Checklist. (Checklist is included in this Appendix). Include in the project description section of the predesign submittal.
☐	☐	**28.** For the *Project Description* for State Agency Projects: When locating or relocating or when proposing a new building, the Predesign Document must include an analysis of the agency's location(s) using *"Criteria for Locating State Offices and Agencies"* located in the Appendix.
☐	☐	**29.** For the *Project Description:* In accordance with Minnesota laws, rules and guidelines, provide assistance to the owner and responsible government unit in conducting environmental review to determine how a project will affect its surroundings and ways to lessen or avoid significant impacts. The goal is to ensure that major development projects leave the environment as intact as possible. Note: If the project includes federal dollars, complete an Environmental Assessment in accordance with the National Environmental Protection Act (NEPA).
☐	☐	**30.** For the *Architectural Program:* Beyond construction cost, determine the full project cost. Do you need FF&E (Furniture, Fixtures & Equipment)? Files?, Interior/Exterior Signage? Exterior landscaping and fixtures? Telecommunication devices? Security Camera System? Lockers? Trash compactor? Window washing equipment? Moving and phasing costs?
☐	☐	**31.** Work with the user/owner to develop the *Architectural Program.* Employ a participatory programming methodology (similar to the attached) to analyze operations and activities to discover a more efficient and habitable environment. a. Your methodology should consider Post-Occupancy Evaluation (POE). (How well this particular building and its systems serve the client's operation).
☐	☐	**32.** For the *Architectural Program:* Complete the Space *Needs Inventory* sheet for each room of the project. Include these sheets in the predesign document. (See attached *Space Needs Inventory* sheet).

Appendix T - PREDESIGN CHECKLIST - continued

Complete	N/A	
☐	☐	**33.** For the *Architectural Program:* Obtain and coordinate space planning standards with the State's Real Estate Management Division of the Department of Administration. **Focus on job related functional needs and the State's *Space Guidelines* when developing the square foot areas of spaces.**
☐	☐	**34.** For the *Architectural Program:* Provide adjacency diagrams of all spaces and a diagrammatic layout of spaces.
☐	☐	**35.** For the *Architectural Program:* On state agency projects, coordinate cost planning for products, furniture systems, fixtures, cabinet work with MINNCOR Industries.
☐	☐	**36.** For the *Architectural Program* for State Agency Projects: If applicable to the agency, work with the user agency to develop a *Telecommuting Plan* for this project. Include a summary of the *Telecommuting Plan* with the Predesign submittal document
☐	☐	**37.** For the *Architectural Program* for State Agency Projects: Include the written letter from the State's Office of Technology regarding the Technology Plan for the proposed project. Include Intertechnology's' "*Building Infrastructure Guidelines for State Owned Buildings"* into the Predesign Document.
☐	☐	**38.** For *Specialty Items:* 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 www.csbr.umn.edu/b3/index.html and the high performance requirements in the Appendix) a. Include a summary table of goals & strategies for the project with life cycle costs. b. Include a table of recycled materials that will be used in the construction of the project. c. Include estimated cost in the project *Cost Plan*/Budget.
☐	☐	**39.** For *Specialty Items:* Sustainability: Include a table of energy design initiatives to exceed the State Energy Code by 30%. (For projects receiving funding from fiscal year 2004 bond appropriations).
☐	☐	**40.** For *Specialty Items:* A Life Cycle Cost Analysis has been performed and included in the predesign document. The analysis addresses the building and its major components. See Sustainability guidelines.
☐	☐	**41.** For *Specialty Items:* In accordance with MN Statute § 16B.32, identify alternative energy uses and associated systems. This applies to a new building or for a renovation of 50 percent or more of an existing building or its energy systems. Anticipate future designs which use active and passive solar energy systems, earth sheltered construction, and other alternative energy sources where feasible.
☐	☐	**42.** For *Specialty Items:* Review the need to conduct a "Security Assessment" for the project to determine security costs.
☐	☐	**43.** Include a SIGNATURE sheet, with the signature of the ARCHITECT who prepared the document. Also, if the project contains civil, mechanical, electrical or structural statements and evaluations, the appropriate ENGINEER must provide a certification signature page.

PREDESIGN CHECKLIST
for TECHNOLOGY & TELECOMMUNICATIONS

Complete	N/A	
☐	☐	**1.** Obtain a copy of InterTechnologies Group "*Building Infrastructure Guidelines For State-Owned Buildings"* and review the requirements for costs to be included in the project. For future design use, should the project be funded, include the Technology Plan and guidelines in the predesign submittal. The technology guidelines are available in the appendix of the state's *Design Guidelines* at the SAO website www.sao.admin.state.mn.us
☐	☐	**2.** Coordinate with InterTechnologies Group-Telecommunications Analyst (ITG-TA) to form and convene a Predesign meeting to determine the agencies needs, goals, timelines and objectives. The Predesign Team will consist of, but will not be limited to: • Agency/customer • State Architect's Project Manager • Telecommunications Analyst (S) Note: The SAO Project Manager will provide the ITG-TA contact name.
☐	☐	**3.** In coordination with the State's InterTechnologies Group determine the need for and develop a Technology & Telecommunications Plan for the project.
☐	☐	**4.** For remodeling projects, verify existing technology infrastructures for adequate capacity. Include upgrade costs in the Cost Estimate.
☐	☐	**5.** Identify the user agency's short and long range plans for technology needs.
☐	☐	**6.** Identify if the project is or will be a single building or campus configuration.
☐	☐	**7.** Identify existing distribution rooms and their capacity.
☐	☐	**8.** Identify requirements for new distribution rooms.
☐	☐	**9.** Identify Fiber Optic requirements, existing locations, new fiber lines.
☐	☐	**10.** Identify copper-wiring requirements, existing and new.
☐	☐	**11.** If telecommunications work is to be within an existing building, identify existing conditions; i.e. Floor & ceiling heights & conditions, piping and duct conditions, water problems, feeder cable limitations, equipment room limitations.
☐	☐	**12.** Identify existing telecommunications infrastructure service to the building.
☐	☐	**13.** Identify types of existing cable trays and requirements for new cable trays.
☐	☐	**14.** For projects in existing buildings, identify available communications "pairs" coming into the building.
☐	☐	**15.** Identify IPOP, APOP and MPOP needs.
☐	☐	**16.** Forward a copy of the project Technology Plan to the State's Office of Technology.

Appendix T - PREDESIGN CHECKLIST – continued
TECHNOLOGY & TELECOMMUNICATIONS

Complete	N/A	
☐	☐	**17.** Incorporate any changes into the Technology Plan as requested by the Office of Technology (resulting from review of agency's technology plan for the project).
☐	☐	**18.** Obtain a written letter from the Office of Technology indicating acceptance of the Technology Plan for the project. Incorporate the Office of Technology's letter into the Predesign Document.
☐	☐	**19.** Verify existing utility infrastructures for adequate capacity and cost upgrades needed to support the proposed building/facility or renovation.
☐	☐	**20.** Project requires a Management Technology Plan . (Checklist for Technology & Telecommunications is included in this Appendix).
☐	☐	**21.** See Appendix R for sample of predesign submittal cover letter.

PREDESIGN CHECKLIST

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

CONSULTANT SIGNATURE:

Signature: _____ Name of Project: _____

Printed Name:_____ Agency:_____

Title: _____ Facility: _____

Company: _____ SAO Project No. _____

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

APPENDIX U

SAMPLE PREDESIGN SUBMITTAL COVER LETTER

LETTERHEAD
of Agency or Organization

[insert date]

Commissioner **[insert name]**
Department of Administration
200 Administration Building
50 Sherburne Avenue
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]. This proposal seeks [insert "full funding"] or **["matching funds"]** in the amount of **[insert amount]**.

Sincerely,

[insert Commissioner Name]
[or head of political subdivision]

Enclosure

cc: **[insert copy to names if desired]**

APPENDIX V

SAMPLE LEGISLATIVE NOTIFICATION LETTER

LETTERHEAD
of the Organization Receiving Funding

[insert date]

The Honorable [insert name]
Senate Finance Committee
Minnesota State Senate
[insert room number] State Capitol Building
Saint Paul, MN 55155

The Honorable [insert name]
House Ways and Means Committee
Minnesota House of Representatives
[insert room number] State Office Building
Saint Paul, MN 55155

Dear Senator [name] and Representative [name]:

The Legislature in the Laws of 2002, Chapter 393, section 24, subsection 4 appropriated $3,070,000 for the Minnesota Correctional Facility - Shakopee:

> "To design, construct, renovate, furnish and equip the Independent Living Center (ILC) into a 48-bed general population living unit; increase space in the kitchen, serving, and eating areas; increase space in the visitation area; and modify the staff control station in the segregation unit to provide adequate space for updated technical equipment and more room for staff."

In accordance with M.S. §16B.335, subd. 1, the program plan and cost estimates for all elements necessary to complete the project are enclosed for your review and recommendation to move forward with construction documents, bidding, and construction. The estimated construction cost is $2,286,611.

Should you have any questions regarding this project, please contact [insert name of contact person] [insert title] at [insert phone number].

Very truly yours,

[insert name]
[insert title]

Attachment (2002 Capital Budget Request, Program and Construction Estimate)

cc: Representative [insert name], House Capital Investment Committee
Other individuals as needed

APPENDIX W

GLOSSARY

Agency Strategic Plan: A projection of agency facility needs based on trends, policies, and standards that define the need.

Architectural/engineering program: A written statement setting forth design objectives, constraints and criteria for a project, including space requirements and relationships, flexibility and expandability, special equipment and systems, and site requirements, if applicable.

Building Operating Expenses: Costs related to the operations of the physical building such as maintenance, utilities, security, repair and alteration, and any other costs associated with the building operations. (This cost information includes but is not limited to the following MAPS codes 2A20, 2A30, 2A90, 2B0, 2D10, 2D20, 2D90, 2J00, 2K00, 2K30, 2K60, 2K70, 2K80, 2K90, 2M00, 2M50, 2S00, 2S20, 2S90.)

Changes in State Operating Costs: Serves in the capacity of a facilities note that seeks determination of the project's impact on the agency's operating budget over a six-year period. This requirement is mandated by state statutes (M.S. 16A.105, sec. 5, subd. 5). Both direct and indirect costs should be identified for the current and future biennia including, but not limited to, staffing costs, program/service costs, and increased building operation and utility expenses. These costs should reflect the agency budget associated with the request.

Commissioning: Is a basic four-part processing verifying: the review of the project program through design and construction, the interaction and training process for facility personnel, the correction of project deficiencies, and the recordation of warranties and guarantees.

Compensation (Program & Building Operations): Refers to all the direct and indirect program and building operations staffing costs associated with this request. (This cost information includes but is not limited to the following MAPS codes 1A0-1E0.)

Construction: The total cost or estimated cost to the Owner of all elements of the project designed or specified by the architect. It does not include the compensation of the architect and the architect's consultants, the cost of land, rights-of-way, financing, or other costs which remain the responsibility of the owner.

Construction Contingency: An amount of money set aside for unforeseen conditions in a construction project. The amount can vary from 2% to 3% in new construction to 5% to 10% in projects of a remodeling nature based on project size and complexity. Differences in localized costs, design contingencies, or other items should be factored into the general construction cost.

Construction Management: Management services provided to an owner of a project during the design and/or construction stage by a person or entity possessing requisite training experience. These services may include advice on the time and cost consequences of design and construction decisions, scheduling, cost control, coordination of contract negotiations and awards, timely purchasing of critical materials and long-lead items, and coordination of construction activities.

Contract Administration: The duties and responsibilities of the architect and owners representative (state) during the construction stage.

Contract Documents: The agreement between the owner and contractor, conditions of the contract (general, supplementary, and others), drawings, specifications, and addenda issued prior to execution of the contract, other documents listed in the agreement and modifications issued after execution of the contract.

Department of Finance Multiplier: Referenced in the most current Department of Finance Biennial Capital Budget Instructions.

Demolition/Decommissioning: Cost for razing a facility or removing from service permanently. Hazardous material abatement associated with this action shall be itemized separately under the Hazardous Material Abatement category but included in the total cost of the project budget.

Design: The stage in the development of a project during which schematic, design development, and contract documents are produced.

Design Development: The stage of the architect's services in which the architect prepares from the approved schematic design studies the design development documents, for submission to the owner for the owner's approval.

Design Fees: These design services include normal architectural, structural, mechanical and electrical engineering services that cover the schematic, design development, contract documents, bidding, and construction administration stages of a construction project. Reimbursable items, additional services and specialty consultants should be added.

F.T.E. Personnel: The number of full time equivalent employees/students associated with this request.

Furniture, Fixtures and Equipment (FF&E): Items not normally considered permanently attached to the structure but are considered a bondable cost and not part of the construction costs. Office systems furniture is an example.

Hazardous Material Abatement: Any costs associated with the encapsulation and/or abatement of hazardous materials in structures associated with the construction project.

Inflation: The rate that cost of construction increases over the duration of the project calculated to the mid point of construction.

Infrastructure/Roads/Utilities: Costs for the construction or enhancements to infrastructure/roads/ grounds/utilities beyond the site perimeter.

Life cycle costing: Life-cycle costing is a method of calculating the total cost of ownership over the life span of the asset. Initial cost and all subsequent expected costs of significance are included in the calculations as well as disposal value and any other quantifiable benefits to be derived.

Nonstate-Owned Lease Expenses: All the costs related to a commercially leased facility. This would include the lease (rental) cost, tenant (leasehold) improvements, security, and any other costs associated with an agency leasing a commercial facility. (This cost information includes but is not limited to the following MAPS codes 2A00, 2A20, 2A30, 2A40, 2B0.)

Needs analysis: Includes estimates of amount and type of space needed, survey of existing space, investigating ways to utilize existing space as an alternative to new construction, investigating other alternatives to new construction, and identifying the selection criteria for the preferred alternative.

Occupancy: The purpose for which a building, or part thereof, is used or intended to be used (Uniform Building Code).

One Percent for Art: An allocation of one percent of the construction costs only (MS 16B.35). Allocations may be exempted or reduced depending on the project.

Operational program: The operational function of a facility described in terms of services provided, products delivered, activities performed, resources needed, and results expected.

Other (specify): Other cost related to the project not accounted for in the previous categories.

Other Program Related Expenses (other than compensation costs): (This cost information includes but is not limited to the following MAPS codes 2C0, 2D00, 2D30-2D90, 2E0, 2F0, 2G0, 2H0, 2J0, 2K00, 2K30, 2K60, 2K70, 2K80, 2L0, 2M0, 2N0, 2P0, 2Q0, 2R0, 2S0, 4A0, 4B0, 4C0, 5D0, 6A0, 6B0, 6C0, 6D0.)

Predesign: The stage in the development of a project during which the purpose, scope, cost, and schedule of the complete project are defined and instructions to design professionals are produced.

Predesign Fees: The fees consumed in the preparation of the predesign document that can range from $^{1}/_{4}$% to $1^{1}/_{4}$% of a construction amount depending on the scale and complexity of the project.

Project Management: Is the process of planning, scheduling, and controlling the critical aspects of the Owner's program. The quality, budget, and deadlines are protected through the use of agency staff (Owner Administration) and/or outsourcing (Construction Management).

Property Acquisition: The use of funds to acquire land, easements, options, or land with buildings or other improvements.

Remodeling (Adaption)(Alterations): Expenditures required to adapt the physical plant as required to the evolving needs of the institution and to changing standards.

Renewal: Expenditures required to keep the physical plant in reliable operating condition for its present use.(SCUP)

Revenue Offsets: New or additional revenues that are a direct result of the project's construction/ renovation. (This revenue information includes but is not limited to user fees and increased gate receipts.)

Schematic Design: Drawings and other documents illustrating the scale and relationship of project components.

Security Equipment: Specialty equipment usually supplied by a separate contract from those of construction or FF&E.

Site and Building Preparation: Work performed within the perimeter of the land parcel but beyond five feet from the existing structure or new construction that would include infrastructure/ roads/and utilities.

State-Owned Lease Expenses: The rents paid for leases of spaces in buildings under the custodial control of the Department of Administration. Rates for leasing space in these buildings are set by the Department of Administration, Plant Management Division and approved by the Department of Finance. (This cost information includes but is not limited to the following MAPS codes 2A10.)

State Staff Project Management: Costs an agency charges to a construction project to cover internal personnel administrative management.

Telecommunications (voice & data): Specialty equipment supplied by a separate contract from those of construction or FF&E.

NOTES: "Owner" refers to the State of Minnesota. Some deficiencies are adapted from the American Institute of Architects, the Society of State College and University Planning.