The Durability of State Government Facilities

The performance of materials used to construct buildings and the technical systems that are hidden within the framework or buried in the ground around a building, can either assist or hinder the effectiveness of its occupants. Likewise, the choices made about materials, construction delivery, and even how a building is financed can all have an impact on a building's performance and longevity which, in turn, affects the occupants.

TECHNICAL PERFORMANCE

Principle #6 establishes the state's intent to construct buildings and infrastructure systems that meet the highest standards of the industry. The benefits of energy conservation, occupant health and productivity, and reduced maintenance far outweigh the incremental cost increase. In today's world of sophisticated technology and ever-rising energy costs, high performance buildings and integrated building systems are no longer luxuries but essential components.

FINANCIAL PERFORMANCE

Principle #7 and its supporting policies set forth the manner in which state government will protect its citizens' capital investments. Sound economic principles will guide the decision-making process as to when and where to buy or lease, and long-range asset management plans will ensure positive financial positions for the full life of each structure.

PRINCIPLE SIX

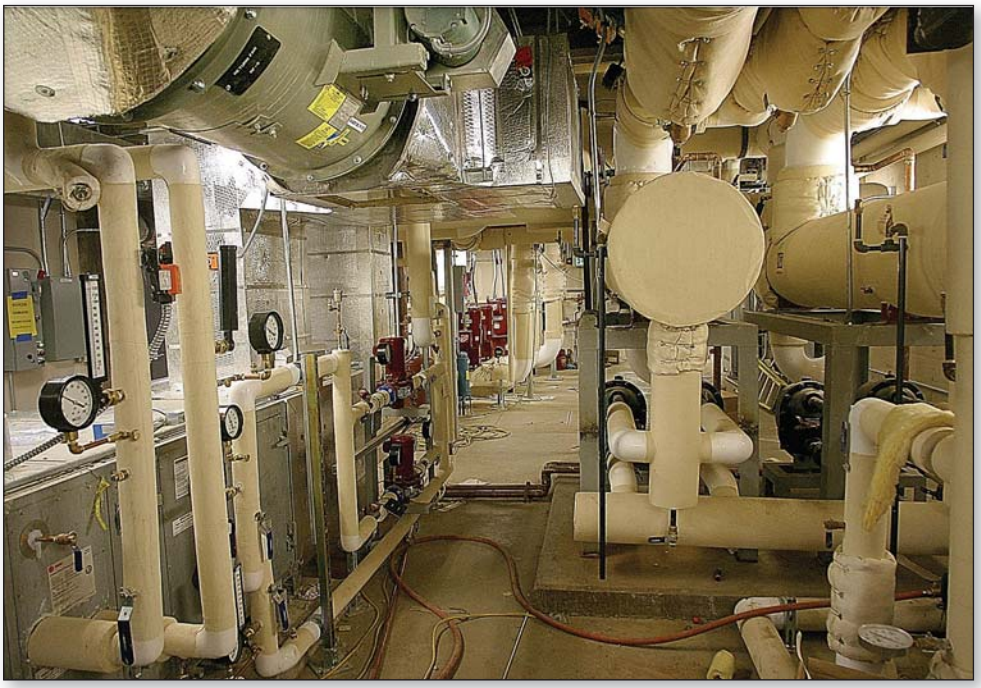
6 Technical Performance

Reliable infrastructure systems, both inside and outside of state buildings, are essential to ensuring service continuity and public safety.

The materials and equipment used in state buildings should be of the highest quality and best technology to preclude interruption of vital public services.

Mechanical and electrical systems within buildings provide us with heat in the winter, air conditioning in the summer, light when it is needed, and communications with each other. Utility systems in the ground and strung across poles between buildings are the supply lines that tie the buildings together. It is this interior and exterior infrastructure of pipes, wires and ducts that creates the modern operating network of facilities. These systems provide human comfort, safety, and healthy places to work. They also connect us together locally, nationally, and globally.

Dick Milligan



Heating and cooling equipment installed at the west end of the Legislative Building

Policy 6.1 - High-Performance Buildings

The state shall utilize high-performance standards in the design, construction and major rehabilitation of facilities that are larger than 5,000 gross square feet (GSF) in size, whether owned or leased, and that the state plans to occupy for ten years or more.

Background

Some of the owned and leased buildings occupied by the state are aging rapidly or becoming functionally obsolete. Currently, the state has to vacate (and incur the significant cost of frequent moves), or spend substantial funds to upgrade existing buildings. State agencies, state employees, local governments and the public continue to express concerns that some state office buildings are of low quality, have a poor work environment, and detract from the image of the community.

Rather than view buildings as a collection of discrete parts, a new approach embodies a more integrated, holistic view. It is termed the "Whole Building" approach to design and construction. Whole Buildings are energy efficient, deploy appropriate mechanical equipment for comfort and indoor air quality, feature optimized site design, are illuminated by day-lighting, are powered by both conventional and renewable energy sources, use recycled content materials, and use materials that are conducive to good indoor air quality. Buildings that are designed in keeping with these principles are referred to as "High Performance Buildings." Such facilities are built for a 50-year minimum life cycle.

Intent of Policy

A High-Performance Building is integrated with its site through the planning, design and construction process. The perception, quality, functionality and security of the building and the site are addressed in the planning and design phases. These are characteristics that are not typically dealt with in construction specifications but are critical because they help achieve a quality project.

Characteristics of High-Performance Buildings

The most important characteristics of the High-Performance Building are:

Energy Efficiency. Designing and constructing buildings for low and efficient energy use throughout the life of a building is a very high priority since energy use is probably the single greatest environmental impact of a building. An integrated design approach can often take advantage of energy savings that become feasible when the interaction between separate building elements such as windows, lighting, and mechanical systems are considered. While such an integrated energy efficient approach is likely to increase the initial cost, significant savings in operating cost can often be achieved. Reduced heating and cooling loads may also reduce the initial cost of HVAC equipment, which may justify the expense.

Healthy Buildings. The indoor environment and the outdoor environment are related, and the health of the building occupants should be ensured in any "sustainable" building. Sample strategies for providing a healthy building include:

- Designing air distribution systems for easy cleaning and maintenance
- Avoiding mechanical equipment that could introduce combustion gases into the building
- Avoiding materials with high rates of Voliatile organic compounds (VOC) off-gassing such as standard particleboard, some carpets and adhesives, and certain paints
- Controlling moisture to minimize mold and mildew
- Introducing daylight to as many places as possible
- Giving occupants control over their environment with features such as task lighting and temperature controls

Most of these measures will increase construction costs, but are easily justified based on the increased health, well-being, and productivity of the building occupants. Failure to implement these measures can lead to unnecessary illness to employees.

Security. Security in government buildings requires balancing "openness" and protection, privacy and public access, savings and costs. The new High Performance Building design provides innovative ways to improve security while protecting values of openness and access that the public expects with its public buildings. The new design will integrate security technology, architecture and landscaping.

Technology Performance. As we move into the 21st Century, the types of information systems and technology used by state employees are changing rapidly.

Until wireless bandwidth systems are both cost competitive and powerful enough to serve all voice and data distribution, access flooring will provide the best response and flexibility to wire management. Access flooring is a means of providing a superior air distribution system.
The new types of access flooring available to provide these superior services come at the price of a higher shell and core cost. Since wireless systems would not require access flooring, the added cost must be considered when wireless technology becomes available.

Sustainable Design. Providing a healthy and productive work environment is a key aspect of the sustainable approach. This includes indoor air quality, access to views, and natural light. Energy and water efficiency is also a significant focus of sustainable design. Management of the construction process is also a key element of sustainable buildings. This includes the use of recycled content materials, recycling of construction waste, management of storm water runoff during construction and after, and other environmental concerns.

Goals of Policy

High-Performance Buildings should:

- Contribute to occupant health and productivity
- Be energy and water efficient
- Maintain consistent performance
- Minimize maintenance costs over life of building
- Provide systems with long life warranties
- Offer flexibility of office and agency uses
- Provide a high level of security without compromising public access
- Extend the life of a building to 50 years or more
- Protect the environment

Policy 6.2 - Critical Infrastructure Systems

The state shall manage the infrastructure systems of State Capitol facilities to the highest standards to preclude interruption of vital public services.

Background

Utility systems[8] are the threads and strands that tie the state's buildings together. Without this critical utility infrastructure, state government would come to a grinding halt.

Since the 1900's, the demand for infrastructure support on the West and East Campuses has grown extensively. As buildings have been added to the inventory, main utility lines were extended to supply steam and chilled water. Natural gas, primary power, domestic/fire water, sanitary/combined sewer and storm drain utility lines were also installed to serve the expanding Capitol Campus.

The 1982 Master Plan included very little about the State Capitol's utility systems. Brief mention of the need to underground all campus utilities is all that is said. The 1991 Master Plan makes no mention of utility systems at all.

Although many of the lines on the East Campus are of fairly recent vintage, much of the original utility infrastructure of the West Campus has been in continuous use for almost 75 years. In recent years, some significant failures have interrupted government operations, created environmental hazards, and required very costly repairs.

Intent of Policy

It is intended and imperitive that infrastructure systems be proactively managed and maintained. This policy emphasizes the importance of consideration of infrastructure maintenance during the facility design stage.

Goals of Policy

In May 2001, a Campus Infrastructure Master Plan was prepared for the utilities that serve West and East Campuses. It presents a series of projects that will require major upgrades over a 10-year period, including repairs and expansion of the following systems:

- Steam and condensate
- Primary power
- Natural gas
- Domestic and fire water
- Sanitary sewer
- Storm water

This program will extend the useful life and improve the reliability and service of the Capitol Campus infrastructure. An ongoing program of repair, upgrade, expansion and replacement of utility systems (and improvement to utility access to better facilitate maintenance) is vital to ensure uninterrupted service to the public, protection of the environment, and the safety of campus users and employees.

[8] For purposes of this Master Plan, infrastructure is defined as utility systems such as water, sewer, storm drainage, telecommunications, electrical power, steam distribution, chilled water distribution, street lighting, etc.

Policy 6.3 - Integration with Local Infrastructure

The state shall manage its utility systems in coordination with local utility systems and, where practicable, shall establish relationships for the provision of vital services through partnership with others.

Background

Without utilities to power, service, and connect the various functions of government, the state's operations will simply stop. Critical infrastructure is required to conduct the state's business and they are dependent upon external providers. For example, the campus powerhouse supplies steam and chilled water to campus buildings via large-scale boiler and chiller operations; however, the powerhouse must draw upon natural gas and electrical services from the private sector to support this activity.

Water, sewer, storm drainage, telecommunications, electrical power, steam distribution, chilled water distribution, and street lighting infrastructure all operate within a context where local coordination is absolutely essential. However, coordination is only the first step toward efficiency.

Intent of Policy

Integration of utility services often takes the form of extensions and improvements to the physical plant that offer mutual benefits to campus users, utility providers, and other consumers. An example of this type of arrangement is the recent introduction of recycled water for campus irrigation. The local water treatment utility worked with campus managers to install a distribution system that was sized to meet current and future needs. As one of the earliest users of reclaimed water in the region, the Capitol Campus has helped to advance this important resource, which reduces demand on potable water resources and reduces effluent disposal concerns. Campus users will benefit directly from this new resource, the purveyor benefits from an extension of the distribution network, and society itself benefits from better management of limited resources.

It is the intent of this policy to seek out and take advantage of opportunities that promise widespread benefits.

Goals of Policy

Suppliers of basic utilities to the Capitol Campus (water, electricity, and natural gas) have established demand management as a goal for improved efficiency and sustainability. The state will integrate this direction into its plans and policies to:

- Vigorously pursue demand management through best practice strategies
- Apply standards developed by Leadership in Energy and Environmental Design (LEED) to new buildings, as well as to major building upgrades
- Operate facilities with utility efficiency in the forefront.

In recent years, significant advancements have been made in water and energy conservation on the Capitol Campus. In the years ahead, campus utilities will require upgrades and expansions that respond to changing user needs as well as replacement of aging systems. As these improvements are undertaken, campus planners and engineers should explore opportunities for greater efficiency through systems integration among campus infrastructure components and those external systems that offer cost effective and sustainable approaches.

PRINCIPLE SEVEN

7 Financial Performance

The state protects its citizens' investment in state facilities.

The full portfolio of State Capitol assets, including both owned and leased facilities, should be managed in a coordinated businesslike manner that values life-cycle investment.

Each state-owned office building should have a multi-year asset management plan geared to optimize the utility and value of the building. All state office buildings (owned or leased) should be managed in a way that optimizes their long-term value and balances the functional, symbolic, cultural and recreational roles that these assets serve.

Historically, rent revenues collected from state agencies by the Department of General Administration have been well below market rates and have not been sufficient to maintain and preserve the department's 3.7 million square feet of office and support facility space. This has caused excessive deferred maintenance that eventually results in, and accelerates the need for, major renewal expenses from the capital budget. It also results in reduced customer satisfaction and increased vacancy rates in state-owned buildings.

Additionally, rent revenue has supported parking operations as well as public and historic facilities.

There is a need and opportunity to establish business practices that ensure positive financial positions for these programs, improve the quality of the facilities and service levels, protect the state's investments, and allow front-line agencies to better accomplish their missions of serving the public.

The buildings and grounds of the State Capitol, both owned and leased, represent a diverse collection of assets from historic and monumental buildings to modern office structures. They include roads, sidewalks, vast lawn areas, elaborate flowerbeds, as well as parking lots, garages and warehouses. Each one represents a public endeavor and serves in some way as the physical face of government; therefore, each demands the careful and prudent use of public dollars in its management and maintenance.

Policy 7.1 - Financing Strategies

The state shall integrate its facility financing decisions into its strategic planning process.

Background

In concert with implementation of a strategic plan, facility financing proposals should be evaluated as mission enablers rather than solely as costs. Decisions to own or lease facilities should be based on the facility's contribution to the mission, the level of control required, the planning horizon for the function, and costs. Life-cycle analysis and capital rationing strategies should be used to contribute information for the cost portion of facility financing decisions.

Intent of Policy

Both periodic and continuous long-term feedback should be used to evaluate the results of facilities investments and to improve the decision-making process.

Recognizing that resources are finite, both economics and costs must be among the criteria used to make acquisition and renovation decisions. In order to minimize economic impacts and costs, an array of acquisition methods (that include alternative financing strategies) should be evaluated.

Because some sources of funding may not be available in a given biennium, capital rationing tools must be used to allocate finite resources over time. Ten-year plans should incorporate capital rationing techniques to match the most appropriate and available revenue source on the project list with the highest combined present value and/or profitability index (using benefit measures to substitute for "profitability").

Economic decisions must be based on life-cycle costs, which include financing, acquisition, operating, and disposal costs, as well as asset values. Cost decisions must include evaluations of opportunity costs in addition to initial and ongoing costs. Evaluations must be from the basis of the taxpayer as owner. These should be coordinated with budget governance agencies such as Office of Financial Management.

Goals of Policy

As individual facility financing decisions are made in accordance with this policy, the following questions should be addressed:

- Should the state lease or buy?
- What should the planning horizon be for occupancy (how long should the state plan to stay in this location)?
- Should the decisions be based on program impact, budget impact, or economic impact?
- What is the state's responsibility to local governments and/or business owners with regard to its facility acquisition strategies?
- Should the state finance at the lowest overall cost (General Obligation bonds) or should

it finance in a way that doesn't use a portion of the state's debt limit?
- Should current users pay for future uses?
- Should future payers pay for current use (deferral)?

In response to, and in light of, other goals, the state should base its facility decisions on the principle of choosing that which provides the best value for each dollar invested. To that end, the following criteria apply:

- Comparison should be over an extended life cycle
- Value and cost are not synonymous. Value includes cost, history, aesthetics, sustainability, location, physical condition, and ancillary benefits
- Value criteria should be measured and compared using life cycle analysis methods
- The life cycle analysis is an important factor that should be reviewed along with other principles in making facilities decisions

Policy 7.2 - Leased Versus Owned Analysis

The state shall use total cost of ownership, life-cycle cost and other economic models to evaluate whether to own or lease space to meet the state's projected business and operational needs.

Background

One of the important goals of *The Master Plan for the Capitol of the State of Washington*, 1991 was "the coordination of government facility needs with adjoining communities through urban redevelopment and the creation of satellite campuses." The 1991 Plan called for new construction (of state office buildings) to be concentrated in three "preferred development areas" in Lacey, Olympia, and Tumwater. Such a concentration of state-owned facilities would promote consolidation and co-location of state office facilities, transportation demand management and growth management principles. In addition, the 1991 Plan called for a leasing strategy to be devised "to improve the cost-effectiveness and manageability" of leased property. However, it was not until December 2000, that a leasing strategy was developed and the "Preferred Leasing Areas" approach implemented.

The Master Plan thus adopts an analytical approach to own-versus-lease decisions in the management of the State's real property portfolio. A number of interrelated factors, beyond short-term financial considerations and immediate operational needs, should be taken into account.

State agencies shall ensure that decisions related to facility needs have undergone rigorous analysis by the appropriate operating and capital budgeting authorities.

Important questions in the own versus lease analysis include:

- What are the impacts on budget cash flow, net present value, operational savings and the financing aspects of the alternatives?
- What is the total cost of ownership of the options?
- What opportunities exist for inter-agency consolidation, co-location, and shared facility resources?
- What level of control over space attributes is required to assure that functional effectiveness is achieved; including issues such as access, working conditions, etc.?
- What level of facility quality and flexibility are required by the program?
- What are the implications for the state's whole portfolio of leased and owned facilities?
- What is in the long-term best interests of the state?
- If there is development, what are the consequences for a community?

The lease versus ownership analysis starts with a financial analysis of operating and capital costs, as well as the requirements of the tenant agency. The cost components of the question are answered using a model which was created specifically for this purpose by the Joint Legis-

lative Audit and Review Committee (JLARC). The model involves calculating the net present value of the cash outlay over the lease term and comparing this to the cost of borrowing. However, other factors require consideration, such as how will the decision impact or influence other state policies. It should be noted that funding decisions through the legislative budget process affect the lease-versus-buy debate.

Intent of Policy

This policy is intended to ensure that acquisition of state facilities, particularly office space, is based on planning and evaluation of both owning and leasing options and opportunities. It is further intended that decisions on owning versus leasing will be made with the long-term interests of the state as the foremost consideration. It recognizes that the question of owning versus leasing is a fundamental question that an agency has to answer before proceeding with any acquisition approach.

Goals of Policy

It is the goal of this policy to ensure that:

- A deliberative and strategic planning process, is pursued in determining facility needs
- Decisions to own or lease are based on thorough functional, economic and financial analyses
- Such decisions meet the needs of the state within the context of the community

Policy 7.3 - Portfolio Management

The state shall ensure that the burden of financial responsibility for the State's owned and leased facilities rests equitably on those who benefit.

Background

A number of existing cost recovery strategies have been in place to support the various aspects of:

- Office facilities
- Public and historic facilities
- Transportation, parking and infrastructure facilities

The existing methods are summarized below.

When a tenant leases space in a state-owned building, the tenant agency pays the lease rate on a periodic basis. Historically, the lease rate was set to recover certain costs related to tenant use of the space. The cost of services (e.g., custodial, utilities, etc.) and maintenance is a part of the lease rate. The cost of state-owned building operations has historically been funded with the **facilities and services charge**. It represents a cost allocation of services and maintenance based on square feet.

If a state tenant requires improvements to their leased space, the tenant pays those costs either by adding them to the lease rate or with a direct **cash payment**.

When the state purchases space, financing methods vary. Some have been acquired by bond issuance and, for most of the owned space, bond repayments are made out of general revenues and not by the agencies housed in the space. In some instances (e.g., the Labor & Industries Building) the housed agencies make **bond payments** out of their own operating or revenue resources.

The financing of capital repairs to state-owned space has been done with the **capital project surcharge** since 1995. This is an annual fixed fee based on square feet. This charge is earmarked to finance repairs, over time, to the buildings from which the funds originate.

The quality of the space occupied has not historically affected the facilities and services charge or the capital project surcharge levels.

The acquisition of parking has generally been by bond issue. General revenues paid most bonds while operation and maintenance were paid by other fund sources. Some parking operations have recently been funded by **parking fees**.

Some services related to housing state government (such as maintenance of the Capitol grounds, operation of the State Capitol Visitor Services and the care of historic interior finishes) are referred to as Public and Historic Facility (PHF)[9] expenses. These are financed through a **cost allocation formula** for each agency based on state employee headcount

[9] This term, prior to 2004, was known as Seat of Government (SOG) expenses.

in Thurston County. The cost of these public benefits is thereby absorbed by those state agencies with employees in the county.

Acquisition of transportation (roads, sidewalks, etc.) and infrastructure (campus wiring, chilled water distribution, sewer and water lines, etc.) has historically been financed using bonds paid off from general revenues. The maintenance and operation of the transportation and infrastructure systems has been **absorbed into the facilities and services charges**, and paid on a square foot basis by agencies housed in state-owned buildings.

Intent of Policy

It is the intent of this policy to establish an equitable strategy for the application of charges related to occupancy of state-owned space.

Goals of Policy

The goals of this policy are to ensure that:

- The per-square-foot costs charged for space (rent) are commensurate with the quality of the space
- The fees collected for future facility renewal are actually distributed back to the facility from which they came
- The cost of maintaining Public and Historic Facilities is funded from fees other than tenant rental charges
- The "total cost of ownership" for each facility is understood and that fee and rent structures are based on that model

Recommended Methods

Those who use or receive benefits from the operation of facilities should make a reasonable financial contribution related to the benefits they receive from these facilities. The contribution will, at a minimum, equal the cost (over time) of providing the facility and operating services.

The clients and customers who benefit from the state's Public and Historic Facilities are the citizens of the state. Thus, the burden of financial responsibility should fall on the general citizenry through a direct, general fund appropriation.

To the extent that the beneficiaries of transportation and infrastructure can be identified, and their benefits measured, the payment burden should fall on them. However, some transportation and infrastructure beneficiaries are hard to identify. In those cases, the burden of financial responsibility should fall on the general citizenry through a direct, general fund appropriation.