



Predesign Review Report

Heritage Center - Executive Office Building

Project #2006-117
 December 2009



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Heritage Center – Executive Office Building Project

1.0 Executive Summary

Reason for Study

For the Heritage Center - Executive Office Building Project the Department of General Administration was directed to conduct a predesign review via Legislative Proviso (see Appendix 9-4). This review builds on previous predesign and predesign addendum work, and should be utilized in that context. The review was conducted to reduce the scope and cost of the project to a level of financing that available revenue will support. This design review process has included estimating the bond capacity for each project, adjustments to the program for each to bring the projects within bond capacity and a review of alternate sites.

The predesign review represents the best work of a partnership of interested parties, including community members; businesses; elected officials; local government; state agencies; facilities experts; SRG Partnership, the project architects; and GA staff and management.

This predesign review meets the requirements set forth by the Legislature and also addresses additional considerations in order to provide decision makers with the information necessary to determine the next steps. This predesign review reduces the scope and cost of the projects to a financing level that revenue will support. It reduces the program in the Heritage Center to just the State Library, Archives space for historically significant documents and space for rotating museum exhibits. The proposals for the Executive Office Building eliminate the previously unassigned space, reducing the building size to about 81,400 square feet – enough to accommodate the Office of the Insurance Commissioner and staff from the Office of the State Treasurer.

Financial Considerations

The 2007 Legislature authorized, using alternative financing, the construction of a 204,000 square foot Heritage Center (HC) and a 120,000 square foot Executive Office Building (EOB). The project had completed design development and was into the construction documents phase of design. The national economic downturn and its resulting impact on Washington State's economic conditions affected the extent to which the project could be financed. The 2009-11 biennial budget directed that a predesign review be conducted to reduce the scope and cost of the project to a level of financing that available revenue will support.

The first step in determining project affordability was to calculate the amount of Certificate of Participation (COP) financing that revenue would support. In order to do that calculation, the Forecasting Division of the Office of Financial Management analyzed past revenue collections in concert with economic data to forecast possible future revenue collections for the Heritage Center (see Appendix 9-70). In addition, calculations of net lease revenue (total revenue less operating costs) were incorporated (see Appendix 9-70 for Heritage Center and Appendix 9-69 for the Executive Office Building). Using these forecasts the Office of the State Treasurer analyzed the bond market, potential interest rates and financing costs to calculate a range of COP financing capacity (see page 5-5) for both the Heritage Center and the Executive Office Building. For the Heritage

Center the maximum bond capacity (given the proposed construction schedule) is \$119.1 million. Likewise, for the Executive Office Building (at 80,000 square feet on the proposed construction schedule) the maximum bond capacity is \$56.6 million.

The budgets for the various alternatives (other than the original project scope) are within the range of bond capacity identified by the Office of the State Treasurer. Scope reductions were necessary in order to achieve these reduced budget levels. For the Heritage Center the total project cost (average) at the two stand alone sites is \$111.2 million. For the Executive Office Building the total project cost (average) at the two stand alone sites is \$54.2 million. For both projects all total project cost budgets (except the original project scope) are less than the maximum bond capacity.

Fortunately, the design and construction of the Heritage Center and Executive Office Building does have a positive economic impact. Analysis indicates that about 1,200 person years of family wage jobs – about 600 construction jobs over a 2 year period will be working on these projects. The economic multiplier effect will create an additional 1,600 jobs during the same 2 year period (800 per year). In addition, the two projects budget expenditures includes about \$12 million in sales taxes that will be paid to local and state government during the two year construction period.

The financing strategy for this project should recognize the benefit that will accrue to the state by not issuing the COP financing until just prior to the commencement of construction. In order to save on capitalized interest cost, upfront costs for design and preconstruction services as well as project management up to COP issuance should be seriously considered for financing by some means other than issuance of the COP. For the Heritage Center a potential source is accruing the Auditor Filing Fee and the Corporate Filing Fee revenue collections. For the Executive Office Building alternative strategies such as expense reimbursement (when the COP is issued) might be among the options considered.

Likewise, an evaluation of alternate financing strategies for furniture and equipment (as detailed in Appendix 9-63 and on the CBS forms in Appendix 9-21) should be considered dependent on interest rates and repayment plans. These alternatives, like the Office of the State Treasurer's Lease Purchase Program, may have an impact on short-term lease costs but may pay dividends on a life cycle cost basis due to lower interest rates as well as enabling financing closer to the actual acquisition of the equipment, again saving capitalized interest costs.

Scope and Program Changes

Scope reductions were necessary to achieve these reduced budget levels. For the Executive Office Building the proviso advised that the size be reduced to a level for which there are specified tenants that comply with the capitol campus master plan criteria. Two tenants, the Office of the Insurance Commissioner and staff from the Office of the State Treasurer, have been identified as potential tenants. The square feet required to meet their needs is approximately 81,400 gross square feet. Since additional tenants might be identified financing capacity was calculated for three alternatives – 80,000, 90,000 and 120,000 gross square feet. A specific program (see detail in Appendix 9-5 and a summary on page 3-3 and 3-4) has been prepared for these two tenants.

The proviso also directs that the Heritage Center be reduced to what is “needed for the state library and exhibit space for historically significant documents from the state archives and rotating exhibits from national, state, and local historical museums.” The originally scoped Heritage Center program resulted in a building of 204,000 gross square feet. The latest downsized program, accommodating the changes called for by the Legislative Proviso, is about 140,000 gross square feet.

The major reductions were:

- Shrink the conference center to turn it into a smaller multipurpose space (17,300 square feet reduction)
- Allow for archives space for only historically significant documents. Providing space for all State Archive documents would require an additional 18,800 square feet. (18,800 square feet reduced from original program)
- Reduce and repurpose the museum into a smaller exhibit space (16,500 square feet reduced)
- Common areas and the loading dock were reduced (12,400 square feet)

Site Analysis

The Heritage Center – Executive Office Building Predesign (2006) and Predesign Addendum (2007) limited the site considerations to the GA Building site and the Dawley Block site. Due to the economy and the resulting project budget constraints a review of potential project cost savings related to construction on alternate sites was important. This predesign review analyzed a total of twelve sites (see map on page 4-1). The analysis criteria included:

- Site development cost (including costs related to demolition of existing structures¹)
- Availability of site related to project schedule (including the cost impact of delay)
- Buildability and accessibility of the site and potential orientation of the building
- Program needs
- Highest and best use of the site
- Does the proposed building on the site comport with the Capitol Master Plan
- Stakeholder perspectives with regard to use of the site for the proposed program

Because of the ability to build down the hillside, only the GA Building site has the capacity to house both the Heritage Center and Executive Office Building programs together. The GA Building site shows two alternatives, housing both the original program and the reduced scope. This Predesign Review analysis concludes that the Heritage Center might also be sited at the Visitors Center (Site #7) and at the Dawley Block (Site #3). The Archives Building (Site #4) and the West Campus Edge sites (Site #12) are the alternatives to the GA Building site for the Executive Office Building.

Building Design Characteristics

The design of both buildings will continue to be consistent with the historical context of the West Capitol Campus. They will complement (and in some cases enhance) the classically inspired spatial and landscape relationships between buildings and the campus. The buildings will be dignified, formal, have a sense of permanence and place. The building exteriors will be simple and restrained and predominately three exterior materials: primarily Wilkinson sandstone, bronze colored metal and glass. The building exterior will be modulated and proportioned to existing West Campus buildings and in keeping with the scale of buildings such as the Cherberg and O'Brien Buildings.

¹ The Capital Budget System (CBS) requests include demolition, in compliance with Office of Financial Management guidelines, for sites where demolition of existing structures is needed. However, wider consideration (outside the capital budget process) is being given to separating the cost of demolition from specific projects.

Project Description

Agency Name: General Administration
Agency Code: 150
Project Number: 2006-117 CBS Number: 2008288
Project Title: Heritage Center and Executive Office Building
Agency Contact: Craig Donald
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WA 98504-1011
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Executive Office Building

The 2006 Capitol Campus Master Plan notes that, “citizens expect to find the appropriate state agency or elected official quickly and easily when they need to. They intuitively assume that the highest-ranking officials and elected leaders will be located at the center of state government – the Legislative building..”

After the 2001 Nisqually earthquake in 2001 and the rehabilitation of the Legislative Building, several statewide elected officials were relocated temporarily from the center of government, the Legislative Building. Under the preferred alternative, the Insurance Commissioner and staff, all currently in leased space, and the Treasurer’s staff, would be located in the Executive Office building. The Insurance Commissioner, per the master plan, would be considered a Tier 1 tenant and should be as close to the Legislative Building as possible.

Heritage Center Building

Policy 1.3 of the Capitol Campus Master Plan speaks to the need to educate the public about our Heritage: “The State Capitol, then, presents a very rich environment for educating both adults and children, from our own state and from afar, about our democratic ideals, the process of democratic governance, and our State’s history, heritage, and cultures.”

This is the overriding mission of the Heritage Center. Other than the Legislative Building, there is no central place on campus to tell the story of Washington State. By law the State Library (which includes the original territorial library) must be located on the Capitol Campus. The State Archives contain the original signed constitution of the State of Washington. The Washington State Historical Society has many historical artifacts that are stored away from the public. Under the preferred alternative, persons doing research would find, for the first time, archive and library materials at the same location.

Prior Planning History

The 2005 Legislature combined capital project and space requests from the Office of the Insurance Commissioner, the Secretary of State, and the Department of General Administration to create the Executive Office Plaza/Heritage Center, also known as the North Capitol Campus Executive Office Building(s). At the completion of the predesign, the 2007 Legislature authorized a planning budget and moved the Heritage Center and the Executive Office Building into the design phase.

The site selected is the site of the existing General Administration Building. The project consisted of the Heritage Center public areas including the museum, learning center, gift shop and café located on the main floor with the reading room and events center on the floor below. Library and Archives storage and conservation areas were located below the public floors along with the loading dock and museum support spaces. The staff offices were on the exterior of the hillside facing Capitol Lake. The Executive Office Building included four stories of office space above the Heritage Center museum. The Office of the Insurance Commissioner occupied the top two floors with the Treasurer staff on the next floor down. There was one floor unassigned to a committed tenant. The project proceeded to move through design and into construction documents. Faced with unprecedented economic turmoil, the 2008 Legislature re-assessed the project's authorized budgets and determined that the assumed revenues for the Heritage Center could no longer support the proposed project and asked the team to revisit and reduce the scope of the Heritage Center to within the amounts the current funding would support. The legislature also requested that the Executive Office Building be adjusted to accommodate only committed tenants.

Project Mission & Strategic Plan:

- o Improve public access to historic government materials and essential services
- o Reduce the quantity of leased space
- o Collocate and consolidate scattered offices
- o Improve customer satisfaction and commitment to government services
- o Follow LEED principles in design and construction
- o Provide effective design leadership in the context of the historic Capitol Campus
- o Work with the surrounding community

State Codes, Standards & Guidelines

This predesign review was requested in order to streamline programs and reduce costs in order for the projects to fit within the funds available. In order to examine the possibilities to reduce scope and costs and maintain the project missions, we examined separating the projects on separate sites. We looked at a total of 12 different possible sites for both projects. Only the original GA building site could accommodate a combined project.

The sites examined were:

- Site #1 (westerly side of Masterplan Opportunity site 1) represents the status quo or do nothing option. This is the original project on the original GA building site. All indicators are that this site is still not affordable with the available projected revenues.

- Site #2 is also the GA site, but with a substantially reduced program. This would also be a combined project with the Heritage Center Staff moving from the lower floors and into the office tower. The road would be relocated. While the project costs are diminished, they are still outside of the affordable range and it is questionable if this reduced building is the highest and best use of this valuable site.

- Site #3 (easterly side of Masterplan Opportunity Site 1) is across Columbia Street and replaces the Dawley building (1063) and the GA Garage. Either the Heritage Center or the Executive Office building could be located on this site, but not both. For both the functions of the Heritage Center and the Executive Office Building, this site is more connected to urban Olympia elements than the classic seat of government point of view. The cultural and physical separation from the capitol building makes this a less desirable site. This site might be more suited for a general office building. A considerable amount of parking would be lost and expensive replacement parking required.
- Site #4 (Not identified in the Masterplan) is attached to the existing archives building west of the Highways Licensing Building. This would be a four to five story building of about 80,000 gsf for the Executive Office Building. Pedestrians would enter from the Capitol Way side of the building. There would be a direct visual connection to the campus from this site.
- Site #5 (Masterplan opportunity site #7) is further south on Capitol Way at the old IBM building site. The current building is occupied by a small contingent of ESD. This would be a larger building that is currently on the site but would only accommodate the Insurance Commissioner. This site addresses the east campus environment and not the best fit for elected officials.
- Site #6 (not identified in the Masterplan) is north of the IBM site. This would also be a site for an executive office building of approximately 80,000-90,000 gsf. Both Sites #5 and #6 could conceivably expand and take advantage of Plaza Garage parking. Because of the mature trees on this site which are few and far between, CCDAC requested that this site be removed from consideration.
- Site #7 (easterly side of Masterplan opportunity site #6) is the current visitor center site. This is under consideration for the Heritage Center only. Public functions would be above ground with a Library and a portion of the Archives storage underground. A pedestrian tunnel is proposed to link the plaza garage and the current Archive building to the Heritage Center. This tunnel could be extended to other legislative buildings in the future.
- Site #8 is a renovation of the Pritchard building for the Library including the originally designed expansion. The Heritage Center would be built at the Pritchard parking lot site (Masterplan opportunity site #5) with below grade parking and library and archive storage.
- Site #9 (not identified in the Masterplan) proposes a renovation of the Insurance building for the Insurance Commissioner only. A new location for the current tenants of the Insurance building would need to be developed.
- Site #10 (also not identified in the Masterplan) would relocate cherry lane to the west of the conservatory site and planned in the original design with a new building for elected officials on the site with a large parking structure underneath.
- Site #11(not identified in the Masterplan) creates a new Executive Office building on the west side of the legislative building as a mirror image to the insurance building. This proposal would include relocating the Governor's Mansion. This completes the original Wilder and White master plan.
- Site #12 (Masterplan opportunity sites 3 and 4) is north of the Mansion and west of the legislative building. Proposed is a two phased development of the mansion parking lot that would create an edge to the campus not unlike the Cherberg and O'Brien buildings configuration. The most southern building would be phase 1. Each phase would be a building of approximately 80,000 gross square feet.

Executive Office Building

In the original design was a 120,000 gross square-foot office building for the Office of the Insurance Commissioner and Office of State Treasurer staff and others. There were approximately 35,000 gross square feet of unassigned space. Currently, the Insurance Commissioner and the Treasurers staff are committed tenants of the building. A combined Heritage Center/Executive Office Building can still be accommodated on sites 1 and 2 but neither are affordable without additional tenants. The best sites for an efficient office building separate from the Heritage Center for statewide elected officials for these occupants can be accommodated on the original site, 4 or 12.

These buildings are intended to be significant buildings with a life span of over 100 years, similar to the historic capitol group. The size and scale of the buildings are in keeping with existing structures. On site 12 the building size, scale and height would be in keeping with the Cherberg and O'Brien buildings. Their appearance would reflect the character and stateliness of the adjacent west campus buildings, using the same organizing philosophy and Wilkinson sandstone employed on the monumental capitol group. A few new materials would be expressed in these buildings to make them reflective of "our time," not simply imitations of existing buildings. The landscaping and walks would be in keeping with the new Campus Landscaping masterplan and the Olmsted features

These buildings would be energy efficient and healthy for visitors and workers. Products chosen for these structures will be sustainable, reusable, durable and good for the environment. We would achieve a LEED silver certification and we are optimistic we can possibly achieve LEED gold.

Site Comparison Matrix-EOB

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Costs Dec 2 2009-Preferred New Costs.xls -File Name

Site	GSF	Parking Cars	In Budget	Completion Year	Pros	Cons	Comments
Site 1 (Original Design-EOB with HC)	119,994 GSF of EOB Only	0	No	2015	Both programs as originally conceived fit on one site. Eliminates outdated building CD's are substantially complete Good views to the lake	Too Expensive Requires Demo and relocation on existing Building Cannot be done within a reasonable timeframe	
Site 2 (Original Reduced-EOB with HC)	81,312 GSF of EOB Only	0	Possible	2015	Both programs adjusted downward fit on one site. Eliminates outdated building Good views to the lake	Too expensive Requires demo of existing GA building and relocation of existing tenants. Under utilizes the potential of the site Cannot be done within a reasonable timeframe	
Site 3 - (1063 Site-EOB Only)					Gateway to downtown Improves underdeveloped corner.	EOB would be remote from Leg. Building Eliminates parking or too expensive if parking is replaced Eliminates existing building & tenants that would need to be relocated Lease cost per SF is unaffordable	Not taken forward seen as too far from Leg Bldg
Site 4 (Archives-EOB Only)	81,450	0	Possible	2013	Helps define an edge along Capitol Way Close to axis between east and west campus. Possible added archives storage in basement. Near parking	East side of Capitol Way Poor public access Need to build around Archives and garage operations.	
Site 5 - (IBM South-EOB Only)					Southern gateway to campus Near Parking	Removed from west campus East of Capitol Way Requires demo of existing building Adjacent to residential neighborhood	Not Taken Forward
Site 6 - (IBM North-EOB Only)					Southern gateway to campus Near west campus Near Parking Open site	East of Capitol Way Displaces trees	Not Taken Forward due to CCDAC concern of tree removable
Site 7 - (Visitor Center-EOB Only)					High visibility and good front door for visitors to campus Improves underdeveloped corner of campus Proximity to core of west campus Link to parking & Archives via tunnel	Other possible conflicting development proposal Potential neighborhood issues Will not hold both HC & EOB. Priority of use for HC. If the HC is not located here, the EOB is a possibility. It will then have potential negative neighborhood issues.	Not Taken Forward for the EOB
Site 8 - (Pritchard-EOB Only)					Reuse existing historic building Prominent axial relationship to Legislative Building Reduced cost due to building reuse	Very difficult to make executive offices work Neighborhood issues Requires relocation of building tenants	See Pritchard Study October 2006 Not Taken Forward for the EOB
Site 9 (Insurance Bldg-EOB Only)	60,807	0	Possible	2013	Insurance Commissioner back to the Insurance Building Proximity to the Legislative Building Reduced cost due to building reuse	Requires relocation of existing building tenants Area and configuration limited by existing building Only fits Insurance Commissioner	
Site 10 - (Conservatory-EOB Only)					Prominent campus location Good proximity to Legislative Building Views to Capitol Lake Can accommodate ample parking below	Requires demolition of Conservatory & associated costs Requires relocation of road & associated costs Requires demolition of maintenance area & associated costs Poor soils	Rejected Strongly by CCDAC
Site 11 - (Governor's Mansion-EOB Only)					Prominent campus location Good proximity to Legislative Building Finishes the original campus plan	Requires moving the Governor's Mansion & associated costs	Site added By CCDAC Not taken forward because of cost to move mansion
Site 12 (West Side Axis Site-EOB Only)					Prominent campus location Good proximity to Legislative Building Can help to improve the west edge of campus Phase 2 can add additional space if needed	Phase 1 requires some parking relocation. Phase 2 requires major parking relocation. Additional staff occupancy will require additional parking or transportation solution to hold West Campus parking status quo. Proximity to Mansion	Site added By CCDAC
Phase 1	87,781	0	Possible	2013			
Phase 2	109,095	0	Possible	2015			

Heritage Center

The best sites identified for the Heritage Center include sites 1 and 2, sites 3 and 7. The Heritage Center, originally programmed at approximately 204,000 gross sf is now being planned at approximately 116,000 gross sf. The space dedicated to the events center and its support spaces, learning center, and temporary exhibits gallery have been replaced with a single multi-function room that can be divided and scheduled to accommodate those activities. The café has been downsized to serve sandwiches and drinks.

The original project on site #1 is still out of range of the available projected funds. A reduced Heritage Center and Executive Office building on that site does not fully optimize the potential and thus is not the best value. Site #3 while accommodating the very minimum program, does not accommodate enough archive storage. Additionally, replacing the required parking puts the project outside of the range of available funds. On Site #7 the archives space is also reduced to only the most accessed significant documents. A tunnel from the Heritage Center to the plaza garage will allow for access to the less requested documents that will remain behind in the existing archives building. Site #7 is the only reasonable site that can accommodate the Heritage Center.

As with the Executive Office Building, this building is intended to be a significant building with a life span of over 100 years, similar to the historic capitol group with the size and scale of the buildings in keeping with existing structures. None of the alternates exceed the height of the Cherberg and O'Brien buildings. Their appearance would reflect the character and stateliness of the adjacent west campus buildings, using the same organizing philosophy and Wilkinson sandstone employed on the monumental capitol group. A few new materials would be expressed in these buildings to make them reflective of "our time," not simply imitations of existing buildings.

These buildings would be energy efficient and healthy for visitors and workers. Products chosen for these structures will be sustainable, reusable, durable and good for the environment. We would achieve a LEED silver certification and we are optimistic we can possibly achieve LEED gold.

Site Comparison Matrix-Heritage Center

12/2/2009 10:05 -Print Date

Costs Dec 2 2009-Preferred New Costs.xls -File Name

Site	GSF	Parking Cars	In Budget	Completion Year	Pros	Cons	Comments
Site 1 (Original Design-HC with EOB)	193,557 GSF of HC Only	0	No	2015	Both programs as originally conceived fit on one site. Eliminates outdated building CD's are substantially complete Good views to the lake	Too Expensive Requires Demo and relocation on existing Building Cannot be done within a reasonable timeframe	
Site 2 (Original Reduced-HC with EOB)	132,846 GSF of HC Only	0	Possible	2015	Both programs adjusted downward fit on one site. Eliminates outdated building Good views to the lake	Too expensive for EOB in a combined building and too expensive for HC alone. Requires demo of existing GA building and relocation of existing tenants. Cannot be done within a reasonable timeframe Under utilizes the potential of the site Will require either additional archives space or alternative operations methodology.	
Site 3 (1063 Site HC Only)	142,896 GSF of HC Only, not including parking area.	132	Possible	2015	Gateway to downtown Improves underdeveloped corner.	Visitors are further from the Legislative Building than from Sites #1, #2, or #7 Includes demolition of the GA Garage. That parking may need to be replaced. The cost of that replacement parking is not included in the current budget level. Eliminates existing building & tenants that would need to be relocated this adds great risk of delay Will require either additional archives space or alternative operations methodology.	
Site 4 - (Archives-HC Only)						Difficult to cross Capital Way	Not Taken Forward
Site 5 - (IBM South-HC Only)						Difficult to cross Capital Way	Not Taken Forward
Site 6 - (IBM North-HC Only)						Difficult to cross Capital Way	Not Taken Forward
Site 7 (Visitor Center-HC Only)	137,650 GSF of HC Only, not including parking area.	132	Possible	2013	High visibility and good front door for visitors to campus Improves underdeveloped corner of campus Proximity to core of west campus Link to parking & and allows for easy sharing of Archives space due to tunnel. Sites #2 and #3 will require either additional archives space or alternative operations methodology. Can be done within budget Give possibility of joint development with adjacent historic neighborhood	Other possible conflicting development proposal Potential neighborhood issues	
Site 8 (Pritchard-HC Only)					Reuse existing historic building Prominent axial relationship to Legislative Building Reduced cost due to building reuse	Too removed for visitors, would have adverse traffic impact Neighborhood Issues Requires relocation of building tenants Requires a larger building footprint for existing site plus additional footprint on the east parking lot. Hillside soils have not been tested for the scope of construction this program anticipates.	Not taken forward due to concern about visitor experience, traffic impact and site logistics
Site 9 - (Insurance Bldg-HC Only)						Not appropriate HC site	Not Taken Forward
Site 10 - (Conservatory-HC Only)						Removed as site by CCDAC	Not Taken Forward
Site 11 - (Governor's Mansion-HC Only)						Too removed for visitors and would have adverse traffic impact	Not Taken Forward
Site 12 - (West Side Axis Site-HC Only)						Too removed for visitors and would have adverse traffic impact	Not Taken Forward

Proposed Preferred Solutions

Executive Office Building

Two of the sites studied have proved to be excellent options for an Executive office Building. Site 4 adjacent to the State Archives Facility, and Site 12 on the west axis of the main capitol group. Site 4 provides easy access to both the main capitol group and the Plaza garage for the office workers. Site 12 provides some of the closest office space to the Legislative building on a vacant and under-utilized and rough edge of the formal campus grounds. This site is able to form the missing western edge to the Capitol group and enables to completion of the provisions of the campus landscape master plan.

Heritage Center

The Visitor Center Block, site 7, has proved to be the best option for a Heritage Center. As a focal point to the major entry axis for visitors to the Capitol Campus this vantage is optimal for placement of the main campus visitor service features included in the Heritage Center. The site is also has excellent proximity to the main capitol group enabling quick access for visitors, including school age visitors who are the predominate visitors to the campus.

Implementation Approach

Design & Construction

There are several public works project delivery methods available: traditional Design/Bid/Build, General Contractor/Construction Manager (GC/CM), and Design/Build. The Department of General Administration has extensive experience in managing all of these methods. Each of these methods have been considered and analyzed.

Design/Bid/Build (DBB): In the traditional approach to construction the project, this is the prescribed method of delivery. The owner (state) selects an architect/engineer (A/E) team to help define the project, develop the design and bid documents and monitor construction progress. The construction contract is awarded to the lowest responsive, responsible bidder to build the project.

Advantages

- This process is well understood by all involved parties.
- Open competition.
- Potential for high degree of control and involvement by the owner.
- Independent oversight of construction contractor by A/E.

Disadvantages

- Segments design, construction and operation and reduces collaboration.
- Linear process increases duration.
- Risks are primarily borne by the owner.
- Prone to disputes and creates opportunities for risk avoidance by the A/E and contractor.
- Low-bid contractor selection reduces creativity and increases risks of performance problems.

General Contractor/Construction Manager (GC/CM): The GC/CM is selected at the beginning of the design process. The A/E team and GC/CM work together throughout the design process. The GC/CM role during design is to monitor and make suggestions relating to budget, constructability, and inter-discipline coordination. The A/E team maintains full responsibility for the design. The GC/CM will guarantee the construction cost during the design phase. The GC/CM manages the bid process through competitive bid packages to subcontractors. RCW 39.10 limits the use of GC/CM to complex projects over \$10 million.

Advantages:

- A more collaborative design and construction team is created.
- The GC/CM is selected based on primarily qualifications and then on price, thus ensuring that the contractor can manage the complexity of the project.
- Schedule can be accelerated.
- GC/CM shares risk for project by guaranteeing cost..
- Errors and omissions in the drawings are greatly reduced.
- Major subcontractors (mechanical electrical) may be pre-qualified.

Disadvantages:

- There is a premium paid for preconstruction services.
- Sub-contracting community has concerns about GC/CM unfairly burdening the subcontractors.
- All subcontracts must be competitively bid and awarded to the lowest responsive bidder.
- Willingness of GC/CM to guarantee price in volatile bidding environment will favor setting MACC later in the design process

Design/Build (DB): The design-build selection process is two-tiered. The design-build team, consisting of architects, engineers and contractors, respond to a Request for Qualifications prepared by the owner. A panel of judges will evaluate the RFQ's and develop a short list of candidates to respond to a request for proposals. The RFP is a performance specification outlining in detail the owner's expectations for the project. The panel selects the contractor/A/E team based on the best proposal, qualifications and price. A contract is negotiated with the contractor for both the design and construction of the selected proposed design. The contractor holds the contract with the architect. RCW 39.10 requires that an honorarium be paid to the non-successful respondents. This process is also limited to projects over \$10 million that do not require a large degree of owner input.

Advantages:

- There is only one point of accountability for the owner to manage.
- The construction cost is guaranteed at the award of the contract.
- The majority of owner decisions are made prior to the contract award.
- The contractor carries the risk of the project.

Disadvantages:

- The RFP must be clearly written to include all owner expectations.
- Design/build approach reduces owner control over design details. Owner's rejection of the design details may entail change orders and delay claims.
- There is a high cost to design-build firms to compete, which may limit competition
- The design team works for the contractor, not the owner.

Recommendation:

The nature of this project indicates detailed involvement by numerous entities and agencies throughout design. The political scrutiny expected by the locations on or near West Campus means that a 'hands-on' approach should be taken to manage this project. These facts virtually eliminate the design-build approach. This project is too large and phasing and coordination too complex to utilize design/bid/build with assured success. The GC/CM option matches the size, complexity and schedule for this project.

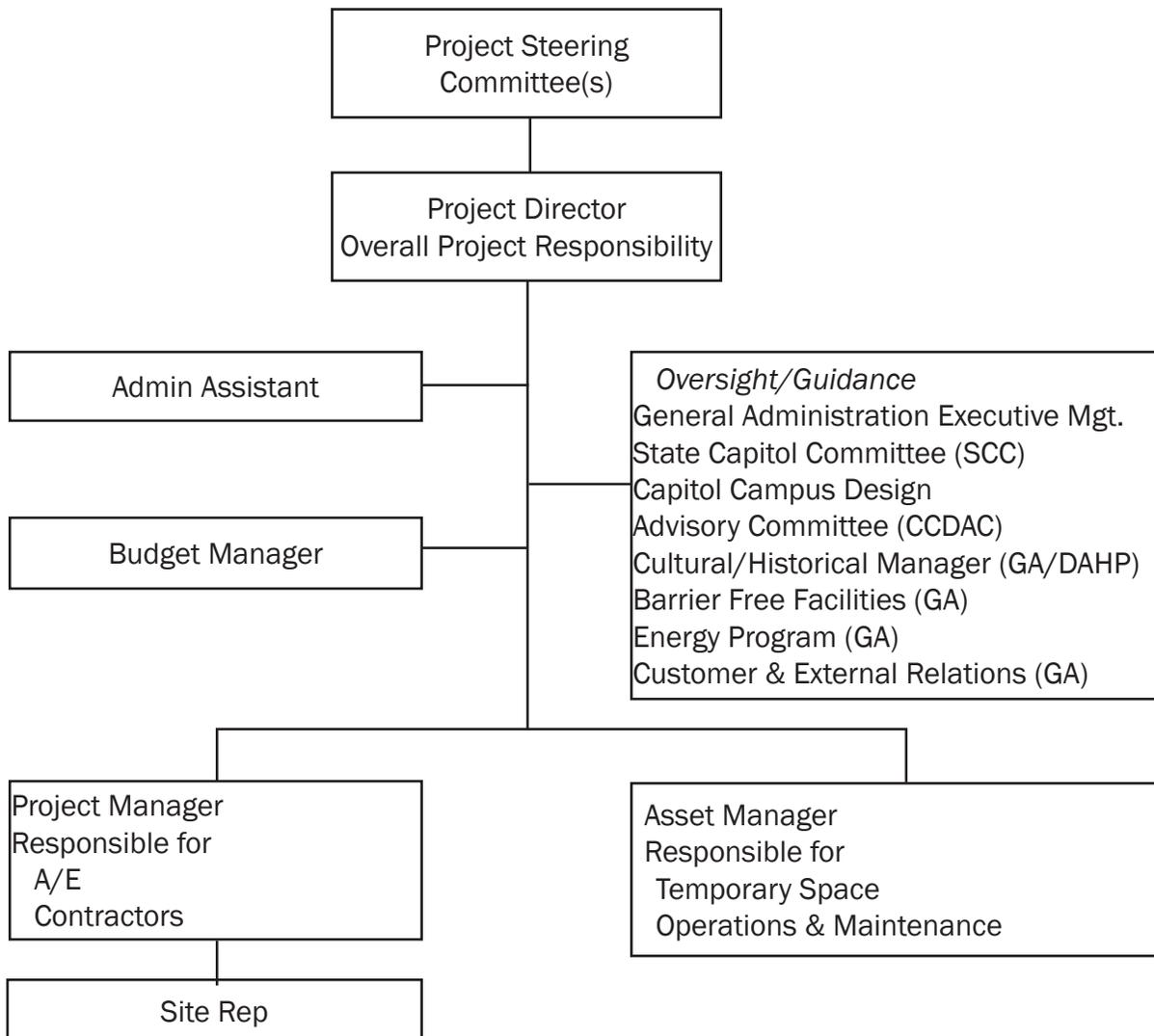
This project will be a multi-phased two pronged project that anticipates implementation over two or more bi-ennia. If the projects are separate buildings, one GCCM will manage both pieces of the project. Having the contractor involved to provide input and coordination to construction sequencing during all phases of the design process will enhance the success of the project. Constant constructability review will add value to design development particularly in the earthwork category. Coordination of the subcontractor bidding process is essential in order to reap the greatest benefit of competitive bids. Appropriate fees have been added to the budget to take advantage of the value added by the GC/CM process

Project Management

GA Project Staffing

This project will be managed by staff within GA with oversight and guidance by the State Capitol Committee (SCC), Capitol Campus Design Advisory Committee (CCDAC), and a Steering Committee consisting of stakeholders from various agencies. If there is a separate Heritage Center and Executive Office Building, each project will have its own steering committee. GA Executive Management will be actively involved and take a lead role in final decisions for the project. GA staff will provide additional consultative support in partnership with other agencies and stakeholders, including the areas of historic preservation and protection of cultural resources, barrier-free design, sustainable building practices, and maintenance and operations. GA's Facilities Division employs many licensed professionals with experience and expertise in building design and construction who may be called upon for consultation 'as needed.'

The Project Director (PD) will have primary responsibility for the Project. This position will manage the overall progress of the project and will have or obtain final approval of scope, schedule and budget decisions. The PD will interact regularly with General Administration Executive management and report to the Assistant Director of Facilities. The other members of the project team will report to the PD.



The Project Manager (PM) is primarily responsible for managing the design and construction activity. This person will organize and conduct the selection of the GC/CM and write the design and construction contracts. The PM will follow through from design to construction to make sure that scope, schedule and budget is maintained. The PM will report to the Project Director.

The Asset Manager will primarily be responsible for tenant and stakeholder co-ordination, furniture acquisition, and program development. This person will be knowledgeable in building operations and their effects on the project budget. This person will report to the project director.

A Budget Manager will be brought on board early to monitor and maintain the financial health of the project. This person will be responsible to track design, construction and owner costs for the duration of the project. This person will report to the Project Director.

Once construction commences, a GA Site Representative will be on board to monitor and document construction activity. This person will be the eyes and ears on the ground on a daily basis. The role is to report any construction irregularities and discrepancies to the project manager.

Supporting the project team will be an administrative assistant. This person will be responsible for maintaining the project record, making sure meetings are scheduled and all parties notified. This person will work closely with all members of the team as well as inside GA and outside GA stakeholders. This person will report to the Project Director.

Oversight and Guidance for historical structures and landscapes as well as any cultural artifacts that may be uncovered during construction will be by GA's Cultural /Historical Manager with input for the Department of Archeology and Historical Preservation. Universal accessibility issues will be guided by the Barrier Free Facilities Coordinator. At every design milestone, the design will be reviewed to ensure universal access for all. Monitoring and advising the design and construction team on energy and LEED issues will be the GA Sustainable Building Manager.

Schedule

There are a variety of scenarios for schedules and coordination of schedules dependent upon the combination of sites chosen. Each scenario comes with its own level of risk and methods to mitigate that risk. The over arching assumption is that both projects are funded and are built concurrently under the management of one GCCM.

Unless the project picks up on site #1 where it was in 2008, design will use between 10 to 14 months. Overall governmental activities need to be accounted for as schedules are being fine tuned. Review times for constituent groups, committees, and stakeholders must also be considered. Because the proposed alternative project's buildings are smaller (the site #1 building continues at its original size, but all other alternatives are smaller), construction will take between 18 and 24 months instead of the 26 to 30 months originally planned. These time frames are extended if the buildings are not designed and constructed together.

Since both buildings are to be constructed on or very near the West Campus, one GCCM will manage and coordinate the entire project. We anticipate that the critical path will be through bidding and early startup. It is important to run activities concurrently, but also important, as an economy of scale, to somewhat stagger the bid packages so that work flows from one portion of the project to the other to avoid congestion and bottlenecks during the construction process.

Site #1, #2, and #3 currently have tenants in the existing buildings and would need to be relocated prior to construction commencing. If some the tenants of the GA building were to move to the new DIS project and Pro-Arts building, construction could not start until at least 2013 when the Pro-Arts would be complete, leaving a six month to a year gap between the end of design and the beginning of construction. The largest tenant in the Dawley Building, the Hands on Children's Museum, is tentatively scheduled to be in their new facility by the middle to end of 2012. Vacating these buildings is beyond the scope and control of this project and adds to the risk of these sites. Any setback of the DIS, Pro-Arts or Hands on Children's Museum projects is also a direct setback to both the Heritage Center and Executive Office Building in the case of sites #1 and #2, and to the Heritage Center in the case of site #3 which will ultimately add significantly to the overall cost of the project.

Scheduling around the activities of the Archives building and the difficulty of access to the plaza garage will add time to construction at site #4. While this does not impede the start date, it impacts the completion date. Site #4 will take at least 22 to 26 months to complete once construction starts. No evacuation of the Archives building is anticipated for this portion of the project. However, the construction coordination with the neighboring office buildings and parking garage will add complexity and risk to building on this site.

Sites #7 and #12 have the least schedule impacts to the project, but have the most complexity in scheduling around campus activities and legislative cycles. At the pre-design level, we can only do a broad brush assumption of construction schedules. Very careful analysis will be needed by the GCCM during pre-construction to establish a precise schedule. Fortunately, the legislative season ends just as the construction season begins. If these two sites are chosen, it is even more important that the projects are constructed concurrently to shorten the overall disruption time for the west campus.

Program Assumptions

This Predesign Review Report reviews the size and location of a planned Heritage Center and Executive building that was planned to be located on the site of the existing General Administration. That facility was based on a predesign titled “Predesign Executive Office Plaza/Heritage Center Project #2006-117” dated September 2006, and the addendum to that report dated November 2007. That predesign evolved to a point substantially through the development of construction documents when it was stopped because it was determined that the level of financing available for the project was not what was originally believed. This program analysis attempts to align the scope with the level of financing that available revenues will support.

This revised predesign specifies that the Office of the Insurance Commissioner and the Office of the State Treasure occupy the Executive Office Building. These two offices meet the functional priority 1 under “Policy 2.1 – Location of State Government Function” to be located near the Legislative Building.

The Heritage Center outlined in this report has been reduced to a size that the revenues will support and that size meets what is needed for the state library and exhibit space for historically significant documents from the state archives and rotating exhibits from national, state, and local historical museums.

The previous predesign for these projects limited the site to the existing General Administration Building site and the site directly east; this review has looked at the original sites along with eleven other reasonable state owned sites. The site analysis in this report reviews the pros and cons of these sites and this program analysis shows what the program would be on each site.

From these eleven sites we have narrowed the preferred sites to five and those are as follows:

Site 2 Original Reduced - This is a reduced program for both the Executive Office Building and the Heritage Center on the GA Building Site.

Site 3 Dawley Block - This is the Capitol Way Building (also known as the Dawley Building) site where both programs will not fit together but each will fit separately.

Site 4 Archives Building - This is the site of the existing Archives Building and is a site for the Executive Office Building.

Site 7 Visitor Center Block - This is the site of the existing visitor’s center and is a site for the Heritage Center.

Site 12 West Side Axis - This is a site west of the Legislative building and west of the Governor’s Mansion lawn that would accommodate the Executive Office Building

Existing Facilities

The original predesign document dated September 2006, reviewed the condition of the existing buildings on the GA Site referred to as site 2 in this report and the 1063 Capitol Way Building (also known as the Dawley Building) referred to Site 3 in this report.

The Archives site, site 4 in this report, is extensively documented in a report titled “Addition Feasibility Study Archives Building Olympia, Washington” dated February 1998. All other sites listed above that became possible sites involve demolition of minor structures or no demolition at all. All this information was used in this program analysis.

Interrelationships and Adjacencies of Functions

PROCESS

The development of the program for this predesign review began with the design that was developed for the Heritage Center and Executive Office Building Project that was stopped in the spring of 2009. This review looked at multiple ways that the cost of that project could be reduced.

This revised project includes a Heritage Center with three major components, the State Library, Heritage Center areas that include exhibit space for historically significant documents and rotating exhibits and Archives space that supports the research function of the Library and space to house those documents. In addition it included an Executive Office Building that will house the Office of the Insurance Commissioner and some space for The Office of the Treasurer.

In the original design both the Heritage Center and the Executive Office Building were in one structure. This arrange was designed to work but was not a required adjacency. In this review site 2 option we use the same site and keep both functions in one building but make it smaller. All the other sites were not large enough to house both the Heritage Center and Executive Office on one site so they accommodate one or the other.

There is no functional requirement to have the Executive Office in the same location or building with the Heritage Center so to have them on separate sites works very well.

There was a desire that the Executive Office Building house more than one agency and in all sites we house both the Office of the Insurance Commissioner and space for the Treasurer. In several of the site locations we can accommodate more executive office than required by the two major tenants so we list in those cases that additional space a as available area.

SPACE NEEDS SUMMARY

The following square footage comparisons shows the net and gross areas for each of the sites listed above and how that area compares to our original design referred to Site #1. There are two comparisons one for the Executive Office Building and one for the Heritage Center.

There has been no area reduction for the Executive Office Building tenants but some of the sites can hold additional tenant space and that is shown as available. Our mandate was to show only buildings sized to available tenants yet the final buildings show buildings that can allow some additional space. In the case of site #12 it is such a desirable site we have shown a second phase that could allow future tenants if the need arises.

Executive Office Building	Site #1 GA Original In HC+EOB	Site #2 GA Reduced In HC+EOB	Site #3 1063 NA	Site #4 Archives EOB only	Site #7 Visitor Ctr NA	Site #12 West Axis Phase 1 EOB only	Site #12 West Axis Phase 2 EOB only
Available Area							
Available Area Total NSF	23,977	0	NA	0	NA	3,099	68,957
Available Area Total GSF	38,335	0	NA	0	NA	4,955	110,250
Insurance Commissioner							
Agency Shared	8,708	8,708	0	8,708	0	8,708	0
Company Supervision	4,765	4,765	0	4,765	0	4,765	0
Consumer Protection	6,901	6,901	0	6,901	0	6,901	0
Executive	2,715	2,715	0	2,715	0	2,715	0
Fraud Unit	1,522	1,522	0	1,522	0	1,522	0
Legal Affairs	2,419	2,419	0	2,419	0	2,419	0
Legislation	0	0	0	0	0	0	0
Operations	4,915	4,915	0	4,915	0	4,915	0
Policy	1,598	1,598	0	1,598	0	1,598	0
Public Affairs	634	634	0	634	0	634	0
Rates & Forms	3,855	3,855	0	3,855	0	3,855	0
Insurance Commissioner Total NSF	38,032	38,032	0	38,032	0	38,032	0
Insurance Commissioner Total GSF	60,807	60,460	0	60,597	0	60,807	0
Treasurer							
Accounting Services	910	910	0	910	0	910	0
Administration	648	648	0	648	0	648	0
OST Consultants	288	288	0	288	0	288	0
Cash Management	1,384	1,384	0	1,384	0	1,384	0
Info Services	1,916	1,916	0	1,916	0	1,916	0
Seasonal	187	187	0	187	0	187	0
Shared	6,915	6,915	0	6,915	0	6,915	0
Investments	794	794	0	794	0	794	0
Treasurer Total NSF	13,042	13,042	0	13,042	0	13,042	0
Treasurer Total GSF	20,852	20,852	0	20,852	0	20,852	0
Executive Office Building Total NSF	75,051	51,074	NA	51,074	NA	54,173	68,957
Executive Office Building Total GSF	119,994	81,312	NA	81,449	NA	86,614	110,250

The Heritage Center has for all sites shown been reduced to an affordable size. This reduction has happened mostly in the archives storage areas and a major reduction in meeting and exhibit space.

Heritage Center	Site #1 GA Original In HC+EOB	Site #2 GA Reduced In HC+EOB	Site #3 1063 HC Only	Site #4 Archives NA	Site #7 Visitor Ctr Inc Tunnel HC Only	Site #12 West Axis Phase 1 NA	Site #12 West Axis Phase 2 NA
Archives							
Collections - General	22,082	11,307	11,307	0	11,307	0	0
Collections - Maps & Plans	1,440	1,440	1,440	0	1,440	0	0
Division Management	1,131	1,131	1,131	0	1,131	0	0
Processing	2,877	2,877	2,877	0	2,877	0	0
Record Management	1,033	1,033	1,033	0	1,033	0	0
Research	486	486	486	0	486	0	0
Archives Total NSF	29,049	18,274	18,274	0	18,274	0	0
Heritage Center							
Museum Exhibit Support	4,979	1,705	1,705	0	1,705	0	0
Museum Exhibit Space	15,767	9,252	9,252	0	9,252	0	0
Building Support	624	624	624	0	624	0	0
Business office	1,924	962	962	0	962	0	0
Conference Center	14,997	4,313	4,313	0	4,313	0	0
Common	20,793	19,058	19,058	0	19,058	0	0
Heritage Center Total NSF	59,084	35,914	35,914	0	35,914	0	0
Library							
Administrative	883	883	883	0	883	0	0
Technical Services	2,267	2,267	2,267	0	2,267	0	0
Development	2,247	2,247	2,247	0	2,247	0	0
R&D	827	827	827	0	827	0	0
Branches	291	291	291	0	291	0	0
Public Services Staff	2,643	2,643	2,643	0	2,643	0	0
Public Services	510	510	510	0	510	0	0
PAS	2,194	2,194	2,194	0	2,194	0	0
Library Staff	369	369	369	0	369	0	0
Reading Room	9,915	9,915	9,915	0	9,915	0	0
Genealogy	2,369	2,369	2,369	0	2,369	0	0
Collections	10,835	12,836	12,836	0	12,836	0	0
Library Total NSF	35,350	37,351	37,351	0	37,351	0	0
Other Spaces							
Visitors & Convention Bureau	0	0	0	0	616	0	0
Retail	0	0	5,000	0	0	0	0
Total Other Spaces NSF	0	0	5,000	0	616	0	0
Heritage Center Total NSF	123,483	91,539	96,539	NA	92,155	NA	NA
Heritage Center Total GSF	193,557	132,846	139,766	NA	138,913	NA	NA

Major Equipment

Furniture

Itemized Need

The furniture needs of proposed tenant agencies are estimated by utilizing General Administration Space Standards. In the programming process, employees were assigned either Private Offices (PO1 through PO6) or Open Spaces (OS2 through OS6, there are no OS1's). Other areas with furniture needs, enumerated in the program, include Reception Areas (RA1 through RA5) and Conference Rooms (CR1 through CR 8). Each category of space has typical furniture to which Correctional Industries System prices have been assigned. The prices are inclusive of delivery and installation.

The following trends are expected to impact furniture needs for the tenants of the buildings proposed in this predesign:

1. Move toward wireless instruments (phone as well as computers) and Voice Over Internet Provider (VOIP), which eliminates voice data wiring past the service entrance facility. A few fiber bundles may snake through the buildings to reach relays on each floor, not the massive copper runs that we have now. A few years ago wireless was considered too risky from a security standpoint. Wireless systems should be mandatory in a 100-year building.
2. Acceptance of computers as recurring leased costs rather than fixed capital costs. Telecommute arrangements may eventually preclude the need to provide a designated work station for each FTE

In addition, both the Heritage Center and the Executive Office Building require some operational equipment in addition to the office, conference and reception furniture outlined above. That operational equipment includes compact shelving, library reading room furniture, audio visual equipment, lunchroom, break area and coffee bar equipment. Please see Appendix XX for a summary estimate of that equipment [Note: I have included those two sheets in the Landscape Pages Attached].

Budgeted Furniture and Equipment

Not all identified furniture and equipment has been budgeted at this time. Given the life cycle cost analysis it has been determined that 1/2 the compact shelving (enough for ten years use after building opening) needs to be purchased in the initial project budget. The remainder should be purchased with cash or an equipment Certificate of Participation at the ten year point. In addition, the Office of the Insurance Commissioner recently purchased new modular furniture. Discussions with the project architects indicate that furniture might be utilized in the new building. Pending final design the project assumes the existing office furniture can be reused in the new Executive Office Building.

Schedule

Correctional Industries estimates a six-month lead time for placing an order of this size. Depending on phases or the number of floors involved, this time could be staggered and compressed into a shorter period. Air quality considerations for off-gassing were concurrent with the installation and commissioning exercises.

	Totals
PO 1	\$3,810
PO 2	\$3,640
PO 3	\$4,560
PO 4	\$5,250
PO 5	\$5,890
PO 6	\$6,700
SP	\$960
OS 1	\$1,400
OS 2	\$5,880
OS 3	\$8,320
OS 4	\$9,200
OS 5	\$10,270
OS 6	\$14,390
SW 2	\$16,320
SW 4	\$29,130
CA 1	\$870
CA 2	\$1,450
CA 3	\$2,030
CA 4	\$2,900
CR 1	\$1,450
CR 2	\$2,030
CR 3	\$2,610
CR 4	\$3,770
CR 5	\$4,640
CR 6	\$7,540
CR 7	\$9,860
CR 8	\$12,180
RA 1	\$920
RA 2	\$1,500
RA 3	\$2,250
RA 4	\$3,000
RA 5	\$4,500
RR 3	\$2,250
RR 4	\$3,000
RR 5	\$4,500
KB 1	\$2,900
KB2	\$5,400
WR 1	\$0
WR 2	\$0
WR 3	\$0
WR 4	\$0
IR 1	\$870
IR 2	\$1,740

Micro
(For more detail please see the Departmental Summary Sheets in Appendix 10)

Individual Furniture cost assumptions

	bookshelves\$	chair_desk\$	chair_sides\$	computers\$	credenza\$	desk_office\$	desk_office_1\$	file_2_lateral\$	file_box_mobile\$	keyboards\$	OS2\$	OS3\$	OS4\$	OS5\$	OS6\$	other\$	overhead_light\$	phone\$	printer\$	sofa_1\$	sofa_2\$	sofa_3\$	sofa_4\$	SW2\$	SW4\$	table_round\$	table_square\$	tackboards\$	whiteboards\$	
PO 1	290	690	580	0	0	0	920	350	0	90	0	0	0	0	0	0	60	180	120	0	0	0	0	0	0	290	0	120	120	
PO 2	290	690	580	0	350	690	0	350	0	90	0	0	0	0	0	0	60	180	120	0	0	0	0	0	0	0	0	120	120	
PO 3	290	690	580	0	350	690	0	350	0	90	0	0	0	0	0	0	60	180	120	920	0	0	0	0	0	0	0	120	120	
PO 4	290	690	580	0	350	690	0	350	0	90	0	0	0	0	0	0	60	180	120	460	0	1150	0	0	0	0	0	120	120	
PO 5	290	690	580	0	350	690	0	700	0	90	0	0	0	0	0	0	60	180	120	0	750	1150	0	0	0	0	0	120	120	
PO 6	290	690	1740	0	350	690	0	350	0	90	0	0	0	0	0	0	60	180	120	460	0	1150	0	0	0	290	0	120	120	
SP	0	690	0	0	0	0	0	0	0	90	0	0	0	0	0	0	0	180	0	0	0	0	0	0	0	0	0	0	0	
OS 1	0	690	0	0	0	0	0	350	0	0	0	0	0	0	0	0	60	180	0	0	0	0	0	0	0	0	120	0	0	
OS 2	0	690	0	0	0	0	0	0	0	4950	0	0	0	0	0	0	60	180	0	0	0	0	0	0	0	0	0	0	0	0
OS 3	0	690	290	0	0	0	0	350	0	0	0	6450	0	0	0	0	120	180	0	0	0	0	0	0	0	0	120	120		
OS 4	290	690	290	0	0	0	0	350	290	0	0	6750	0	0	0	0	120	180	0	0	0	0	0	0	0	0	120	120		
OS 5	290	690	580	0	0	0	0	350	290	0	0	0	7590	0	0	0	60	180	0	0	0	0	0	0	0	0	120	120		
OS 6	290	690	580	0	0	0	0	1400	290	0	0	0	0	10310	0	0	120	180	0	0	0	0	0	0	0	290	0	120	120	
SW 2	0	1380	0	0	0	0	0	0	580	0	0	0	0	0	0	0	120	360	0	0	0	0	0	13880	0	0	0	0	0	
SW 4	0	2760	0	0	0	0	0	0	1160	0	0	0	0	0	0	0	120	720	0	0	0	0	0	0	24370	0	0	0	0	
CA 1	0	0	580	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	290	0	0	0	
CA 2	0	0	1160	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	290	0	0	0	
CA 3	0	0	1740	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	290	0	0	
CA 4	0	0	2320	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	580	0	0	
CR 1	0	0	1160	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	290	0	0	0	
CR 2	0	0	1740	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	290	0	0	
CR 3	0	0	2320	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	290	0	0	0	
CR 4	0	0	2900	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	870	0	0	
CR 5	0	0	3480	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1160	0	0	
CR 6	0	0	5800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1740	0	0	
CR 7	0	0	6960	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2900	0	0	
CR 8	0	0	8700	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3480	0	0	
RA 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	920	0	0	0	0	0	0	0	0	0	
RA 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1500	0	0	0	0	0	0	0	0	
RA 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2250	0	0	0	0	0	0	0	0	
RA 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3000	0	0	0	0	0	0	0	0	
RA 5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4500	0	0	0	0	0	0	0	0	
RR 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2250	0	0	0	0	0	0	0	0	
RR 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3000	0	0	0	0	0	0	0	0	
RR 5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4500	0	0	0	0	0	0	0	0	
KB 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2900	0	0	0	0	0	0	0	0	0	0	0	0	0	
KB2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5400	0	0	0	0	0	0	0	0	0	0	0	0	0	
WR 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
WR 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
WR 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
WR 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
IR 1	0	0	580	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	290	0	0	
IR 2	0	0	1160	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	580	0	0	

Executive Office Building Furniture & Equipment										
Notes & Exclusions										
Excludes construction identified equipment such as light fixtures, toilets, etc.										
Computers and copy machines excluded from all calculations										
Standard AV Allowances. Sophisticated AV (e.g., theater quality sound, etc.) is excluded and needs to be separately priced.										
When tenants identified for unrented space equipment needs will be calculated.										
Excludes computer, enhanced security and PBX equipment.										
Excludes loading dock equipment										
Excludes Treasurer's Vault										
	Office Furniture	Other Furniture (e.g., reading room chairs)	Copy & Workroom	Lunchroom, break, coffee bar	AV Equipment	Non Compact Shelving Filing	Compact Shelving	Building shop, maintenance, building admin.	Other	Total
Executive Office Building										
Support	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,000	\$2,000	\$5,000
Insurance Commissioner										
IC Executive Staff	\$851,173	\$3,554	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$854,727
IC Staff	\$1,492,529	\$700	\$0	\$0	\$0	\$0	\$0	\$0	\$1,600	\$1,494,829
IC Shared	\$71,460	\$0	\$3,500	\$34,200	\$25,000	\$164,700	\$0	\$1,500	\$1,000	\$301,360
Treasurer	\$587,165	\$0	\$0	\$9,700	\$6,100	\$119,400	\$0	\$0	\$20,400	\$742,765
Unrented Space	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Executive Office Building	\$3,002,328	\$4,254	\$3,500	\$43,900	\$31,100	\$284,100	\$0	\$4,500	\$25,000	\$3,398,682

Estimates of Office, Conference Room & Reception Area Furniture Costs by Budgeted Project												
These costs and the C100 Equipment totals exclude computers, copiers and other office equipment - assumes office equipment other than furniture is brought with worker or purchased from other than project resources)												
Space Type	IC Executive Staff Number	IC Staff Number	Reading Room Number	Library Collections Number	Library Staff Number	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost
Private Offices												
Total PO-1	0	61	61	61	61	\$3,810	\$232,410	\$3,810	\$232,410	61	\$3,810	\$232,410
Total PO-2	4	70	70	70	70	\$3,640	\$254,800	\$3,640	\$254,800	70	\$3,640	\$254,800
Total PO-3	17	228	228	228	228	\$4,560	\$1,039,680	\$4,560	\$1,039,680	228	\$4,560	\$1,039,680
Total PO-4	0	33	33	33	33	\$5,250	\$173,250	\$5,250	\$173,250	33	\$5,250	\$173,250
Total PO-5	5	7	7	7	7	\$5,890	\$41,230	\$5,890	\$41,230	7	\$5,890	\$41,230
Total PO-6	0	4	4	4	4	\$6,700	\$26,800	\$6,700	\$26,800	4	\$6,700	\$26,800
Total PO-S	0	4	4	4	4	\$9,359	\$37,435	\$9,359	\$37,435	4	\$9,359	\$37,435
Total Special Private Offices	0	4	4	4	4	\$9,359	\$37,435	\$9,359	\$37,435	4	\$9,359	\$37,435
Grand Total Private Offices	26	454	454	454	454	\$2,278,399	\$472,794	\$2,278,399	\$472,794	454	\$2,278,399	\$472,794
Conference Rooms												
Total CR-1	0	8	8	8	8	\$1,450	\$11,600	\$1,450	\$11,600	8	\$1,450	\$11,600
Total CR-2	0	7	7	7	7	\$2,030	\$14,210	\$2,030	\$14,210	7	\$2,030	\$14,210
Total CR-3	0	16	16	16	16	\$2,610	\$41,760	\$2,610	\$41,760	16	\$2,610	\$41,760
Total CR-4	0	7	7	7	7	\$3,770	\$26,390	\$3,770	\$26,390	7	\$3,770	\$26,390
Total CR-5	0	15	15	15	15	\$4,640	\$69,600	\$4,640	\$69,600	15	\$4,640	\$69,600
Total CR-6	0	14	14	14	14	\$7,540	\$105,560	\$7,540	\$105,560	14	\$7,540	\$105,560
Total CR-7	1	4	4	4	4	\$9,860	\$39,440	\$9,860	\$39,440	4	\$9,860	\$39,440
Total CR-8	0	7	7	7	7	\$12,180	\$85,260	\$12,180	\$85,260	7	\$12,180	\$85,260
Total Other Conference Rooms	1	22	22	22	22	\$21,800	\$479,600	\$21,800	\$479,600	22	\$21,800	\$479,600
Grand Total Conference Rooms	1	100	100	100	100	\$873,420	\$479,600	\$873,420	\$479,600	100	\$873,420	\$479,600
Open Space Offices												
Total OS-1	0	0	0	0	0	\$1,400	\$0	\$1,400	\$0	0	\$1,400	\$0
Total OS-2	0	7	7	7	7	\$5,880	\$41,160	\$5,880	\$41,160	7	\$5,880	\$41,160
Total OS-3	3	565	565	565	565	\$8,320	\$4,700,800	\$8,320	\$4,700,800	565	\$8,320	\$4,700,800
Total OS-4	4	174	174	174	174	\$9,200	\$1,600,800	\$9,200	\$1,600,800	174	\$9,200	\$1,600,800
Total OS-5	52	181	181	181	181	\$10,270	\$1,858,870	\$10,270	\$1,858,870	181	\$10,270	\$1,858,870
Total OS-6	0	28	28	28	28	\$14,390	\$402,920	\$14,390	\$402,920	28	\$14,390	\$402,920
Grand Total Open Space Offices	59	955	955	955	955	\$8,604,550	\$402,920	\$8,604,550	\$402,920	955	\$8,604,550	\$402,920
Reception Areas												
Total RA-1	0	3	3	3	3	\$920	\$2,760	\$920	\$2,760	3	\$920	\$2,760
Total RA-2	0	9	9	9	9	\$1,500	\$13,500	\$1,500	\$13,500	9	\$1,500	\$13,500
Total RA-3	1	7	7	7	7	\$2,250	\$15,750	\$2,250	\$15,750	7	\$2,250	\$15,750
Total RA-4	0	1	1	1	1	\$3,000	\$3,000	\$3,000	\$3,000	1	\$3,000	\$3,000
Total RA-5	0	3	3	3	3	\$4,500	\$13,500	\$4,500	\$13,500	3	\$4,500	\$13,500
Total Other Reception Areas	1	1	1	1	1	\$6,000	\$18,000	\$6,000	\$18,000	1	\$6,000	\$18,000
Grand Total Reception Areas	1	26	26	26	26	\$66,510	\$18,000	\$66,510	\$18,000	26	\$66,510	\$18,000
Grand Total Costs						\$11,822,879		\$11,822,879				\$11,822,879
Inflation estimate per year												
Inflation to year 2014 compounded		5%		5%			\$14,370,784					\$14,370,784
CI discount for order over \$250,000		4%		4%			\$13,795,953					\$13,795,953

Special Systems

Architectural Systems

General Introduction

The following section describes the evolution of the architectural and urban design thinking for the Heritage Center and Executive Office Building projects. A clear articulation of guiding design principles, along with an understanding of the Capitol Campus's rich heritage will give shape to the form of the buildings and their architectural character.

Guiding Design Principles

Two important documents were used to establish the guiding design principles.

1. The Capitol Campus Design Advisory Committee's Design Opportunity Recommendations served as a guide for urban design and contextual issues.
2. Washington State's Capitol Campus Master Plan (2005) served as a guide to open space and building design criteria. Other iterations of the campus master plan were also referenced, including the Wilder and White's original plan of 1911, the Olmsted Brother's plan of 1928, and the West Campus Historic Landscape Preservation Plan of 2009.

CCDAC's Design Opportunity Recommendations

Purpose: "To encourage Design Excellence"

Urban Design Issues (to be addressed)

- View corridors
- Axis
- Edges/Buffers
- Transition Zones
- Topography
- Pedestrian Circulation
- Vehicular Circulation
- City Zoning
- City Development Plans
- Arrival Sequence
- Service Access
- Parking/Transportation

Contextual Issues

- Respect the architectural style and scale of the west campus
- Provide a transition in scale and massing to the city (project sites should have no "back")
- Avoid creating a wall between Capitol Campus and downtown Olympia or the adjacent neighborhoods.
- Enhance the hierarchy of campus open space
- Building should reflect its role within campus context (Leg Bldg. is the primary "monument")
- Evaluate various approach sequences
- Evaluate role and function of city streets (street vacation?)
- Identify relocation options for displaced functions
- Identify existing features which are sacrosanct (not to be impacted – view of capitol dome, etc.)

Program Issues

- Buildings should reflect the public to private hierarchy (on exterior and interior)
- Public space should foster government and community life
- Identify site parking capacity (identify available existing parking)
- Identify security issues
- Evaluate transportation needs/systems

Concepts

- Create appropriately scaled buildings related to existing buildings, adjacent neighborhoods, and open space
- Incorporate existing hierarchy of campus organizing elements
- Develop sequenced exterior spaces
- Establish a hierarchy of campus open space
- Create a “public face” for each program component (i.e., Heritage Center, Exec. Office)
- Reflect the public/ceremonial to private function sequence
- Develop a formal edge to campus central space
- Relate to views, vistas and axes
- Reflect the architectural thinking of our time (should not merely mimic historic style)

Capitol Campus Master Plan (2005)

Design

- Be consistent with the historical architectural context (i.e., the original capitol grouping)
- Complement the classically inspired spatial relationships between buildings

Capitol Campus Open Space

- Capitol Campus is created by buildings and landscaped open spaces between them
- Extend the concept of a “building group” (with strong spatial and design relationships)
- Goals:
 - Reinforce grandeur of natural setting
 - Enhance view corridors
 - Visually link different areas
 - Develop campus perimeters (visual and physical transition to the adjacent neighborhoods)
- Historical capitol group - respect north/south axis
- Campus lacks definition at the perimeter (needs definition at entry points)
- Street level retail or pedestrian uses along Capitol Way (to ensure street vitality)

Design at the Capitol Campus

- The aesthetic quality of state owned office buildings shall...
 - Possess a dignified and formal character
 - Have a sense of strength and permanence
 - Reflect the symbolic themes of pride in statehood and citizenship
- Goals:
 - Keep original capitol group intact and the Legislative Building as the dominant architectural element
 - New state buildings are of their era

Design Guidelines

General:

- All new buildings recognize the Legislative Building as the capitol’s predominant feature

Materials:

- Historically compatible
- Color/texture of Wilkinson stone
- Limit large areas of metal/glass
- No new contrasting materials

Color:

- Light sandstone colors
- No contrasting paint or materials

Scale:

- Maximum height – height of O’Brien, Cherberg and Insurance buildings
- Approximately 4 levels above grade (+60 feet high)

Siting:

- Attention to axis between buildings
- Consider distance/volume between buildings
- Respect existing landscape patterns
- Create pedestrian scaled open space

Building Proportion:

- Geometric proportion in harmony with west campus buildings

Architectural Style:

- Blend with existing “style”
- Do not imitate
- Be representative of the time constructed
- Embody the spirit of west campus without copying

Additional Design Principles

- Strengthen the capitol’s connection to Olympia’s downtown core
- Create a campus that is world class in its design achievements
- Define the campus edge (use building scale/design to ease transition to neighborhoods)
- Create campus gateways
- Provide visitor destinations
- Locate community/public uses along northern edge of campus (public transit, convenience to downtown)
- Locate lower public use facilities on southern edge of campus (minimize neighborhood impacts)
- Establish formal axes at campus core (Olmsted, Wilder/White legacy)
- Reduce visual impact of parking wherever possible
- Locate new state office and visitor facilities in relation to public open spaces

Historical Analysis

One of our main goals in this predesign process was to respect and preserve the rich heritage of the Capitol Campus.

To understand the legacy of the campus, we studied Wilder and White’s original plan of 1911, the Olmsted Brothers plan of 1928, and subsequent master plans: Paul Thiry’s 1958 plan, Walker/McGough/Foltz’s 1970 plan, John Graham’s 1982 plan, ZGF’s 1991 plan, the current 2005 master plan, and the 2009 West Campus Historic Landscape Preservation Plan by Mithun.

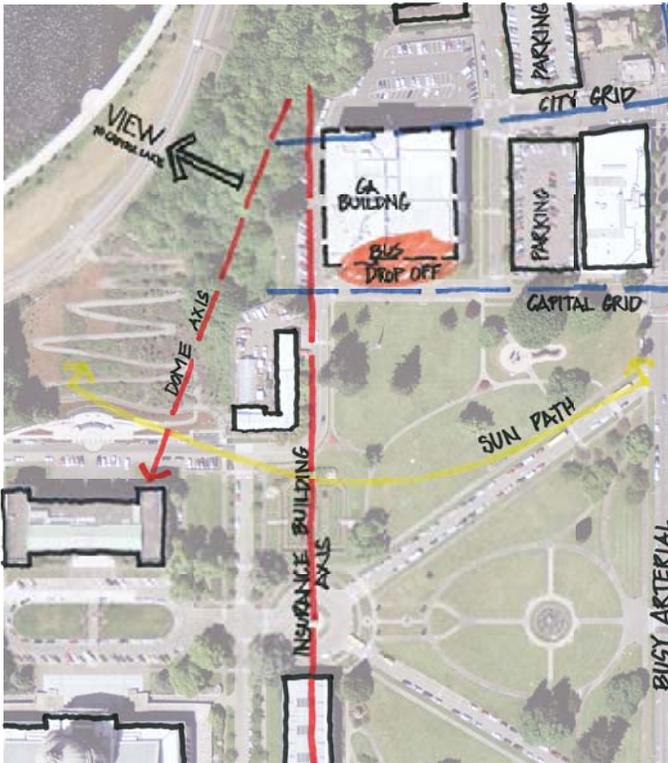
Over the last 50 years many of the same important issues have been repeatedly discussed and debated that directly relate to this project’s scope:

- New building locations on the west campus
- Open space preservation and enhancement
- Connections down to Heritage Park and Capitol Lake
- The conservatory’s location on campus
- The connection of 11th Avenue to Cherry Lane
- Parking garage locations and visibility
- Defined campus entry points

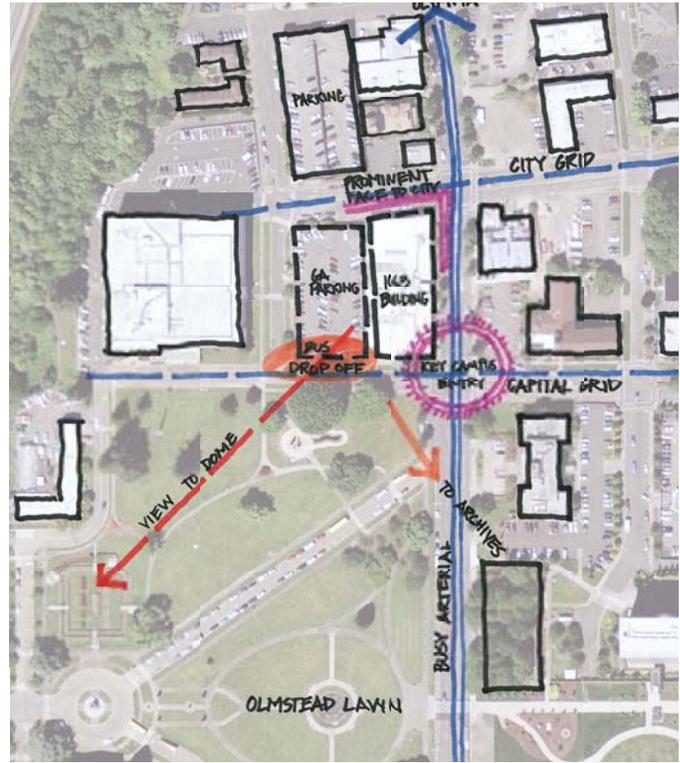
With an understanding of the past, this predesign looks to the future and addresses many of the same issues in a way that will preserve the heritage of the Capitol Campus for future generations.



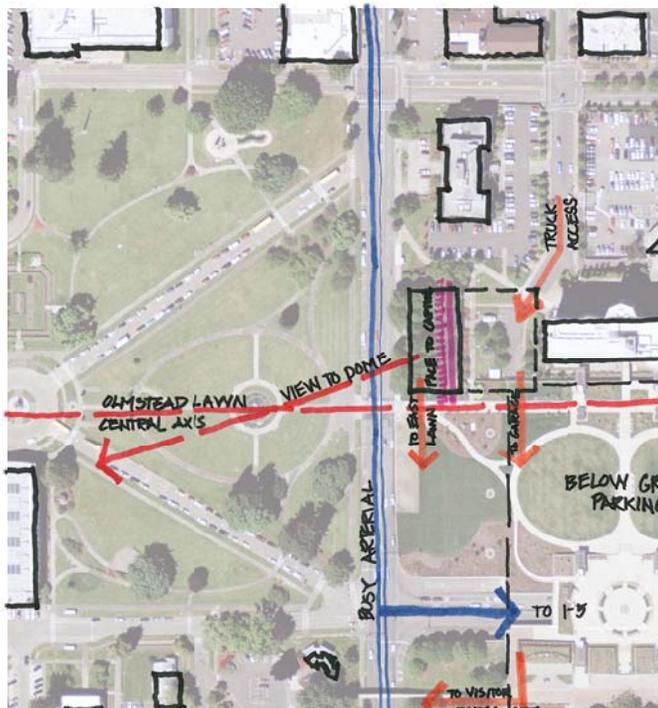
Site Analysis Diagrams



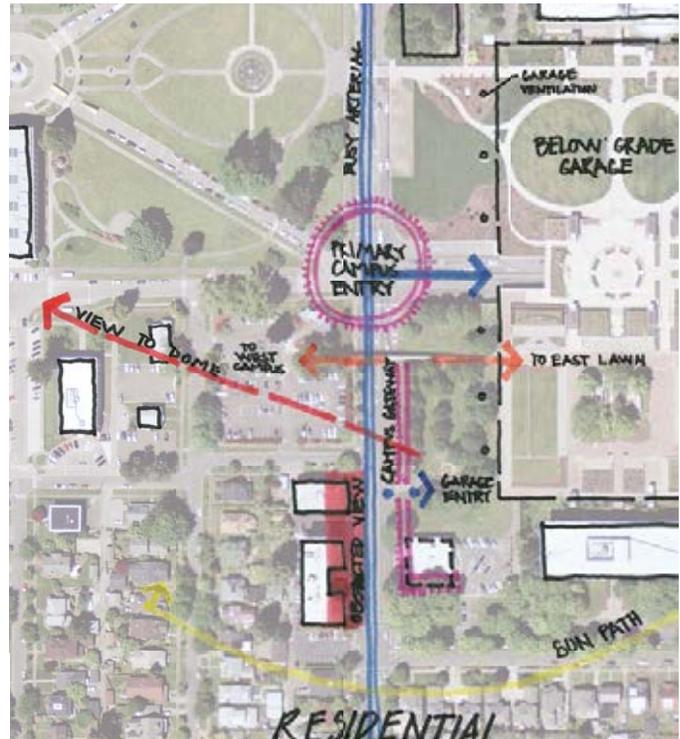
Site 1 & 2



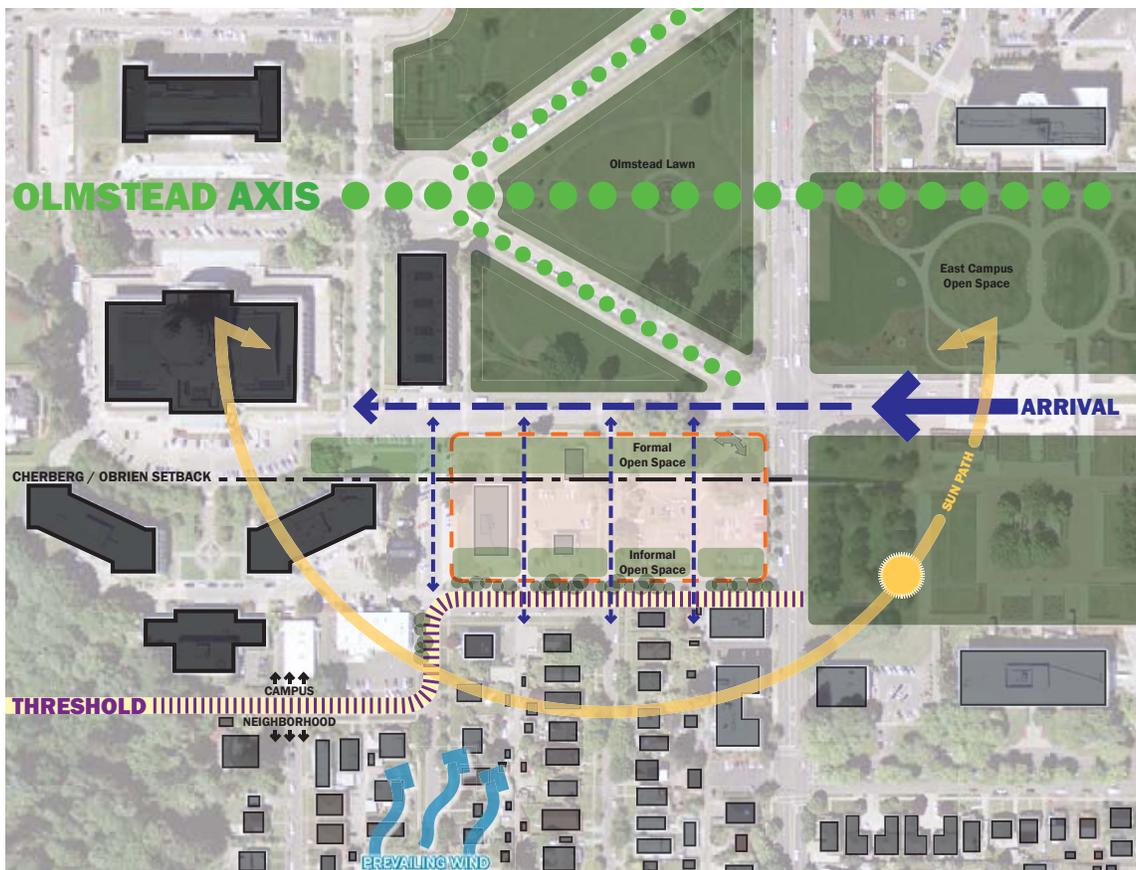
Site 3



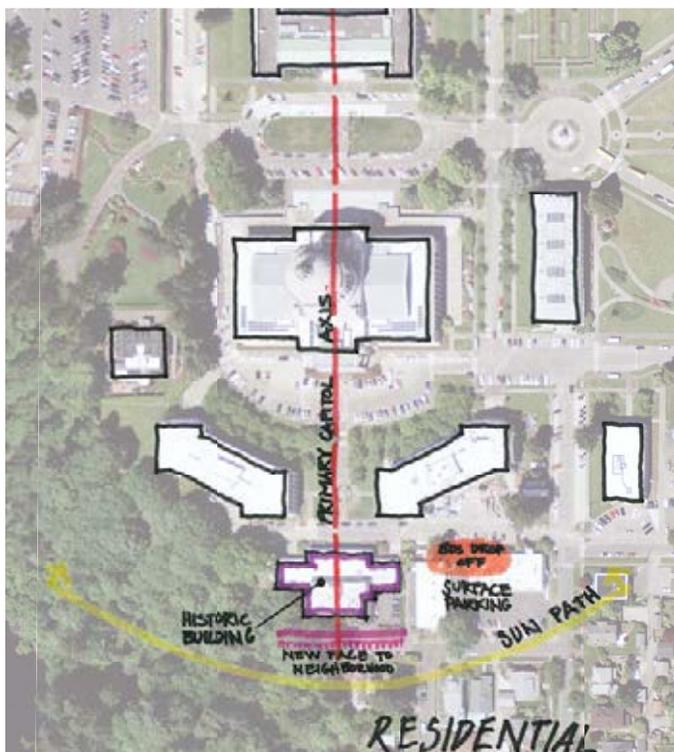
Site 4



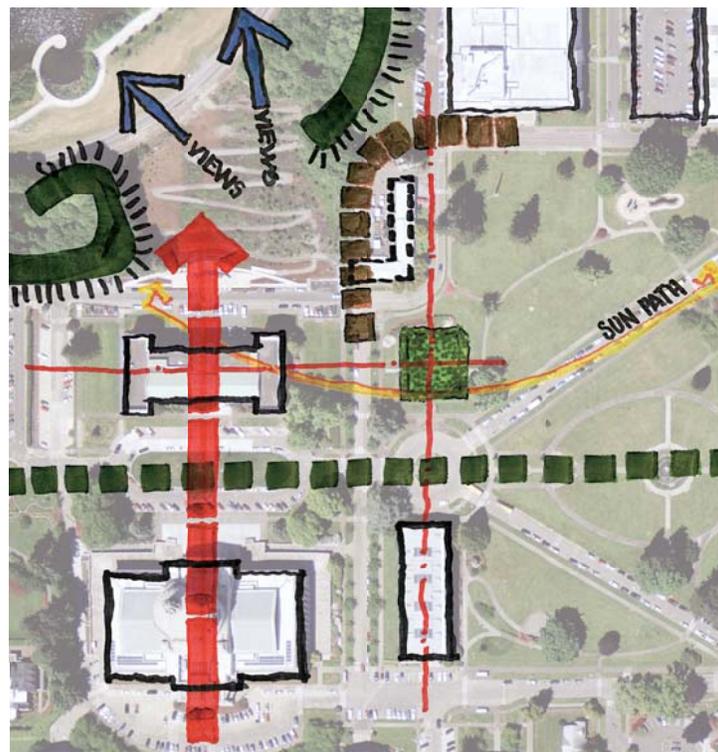
Site 5 & 6



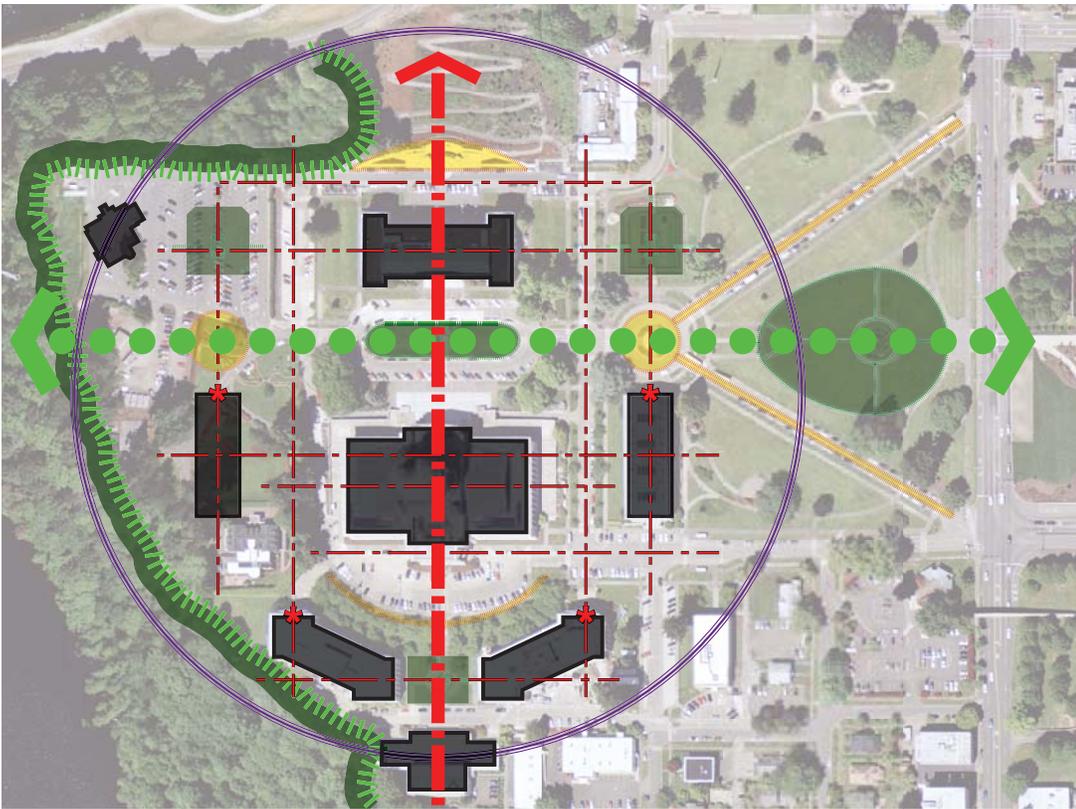
Site 7



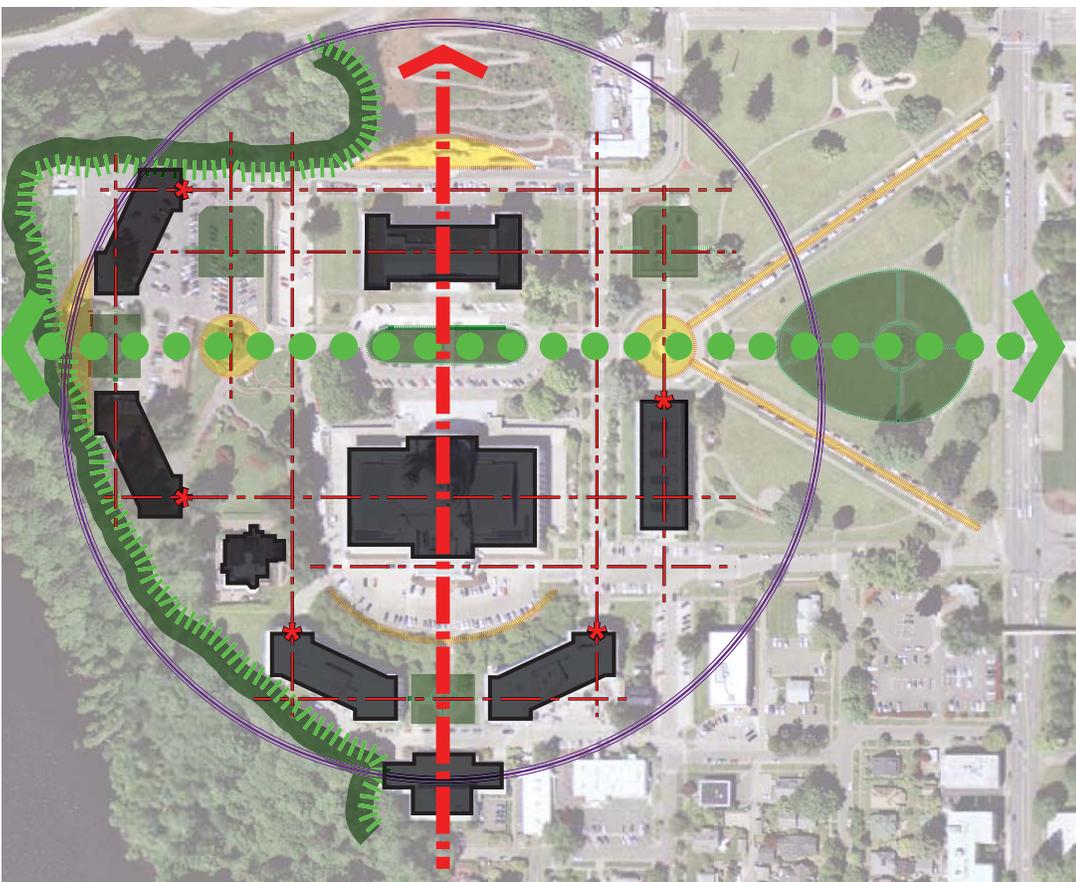
Site 8



Site 10



Site 11



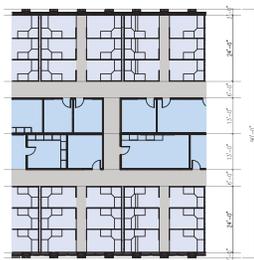
Site 12

Executive Office Building

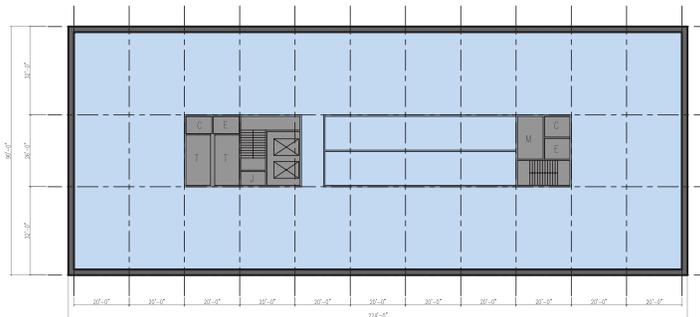
The Executive Office Building is a four-story, approximately 80,000 square-foot building. . Sites that remain in consideration are the GA Building Site, the Archives Building Site, and the West Side Axis Site.

The Executive Office Building would house primarily elected executive offices, including the Office of the Insurance Commissioner and the Office of the Treasurer. The building's prominent location, proximity to the Legislative Building, expansive views, and the quality of materials would provide space appropriate for these elected officials.

The Executive Office Building will reinforce the geometry of the original capitol group and provide appropriate definition to the Olmsted Lawn. The height, width and length of this building are similar to the Insurance Building and the Cherberg & O'Brien Buildings, respecting the mass and scale of the existing structures. The interior organization will optimize the planning efficiency using the GA's space allocation standards, but with a view toward future workplace flexibility.



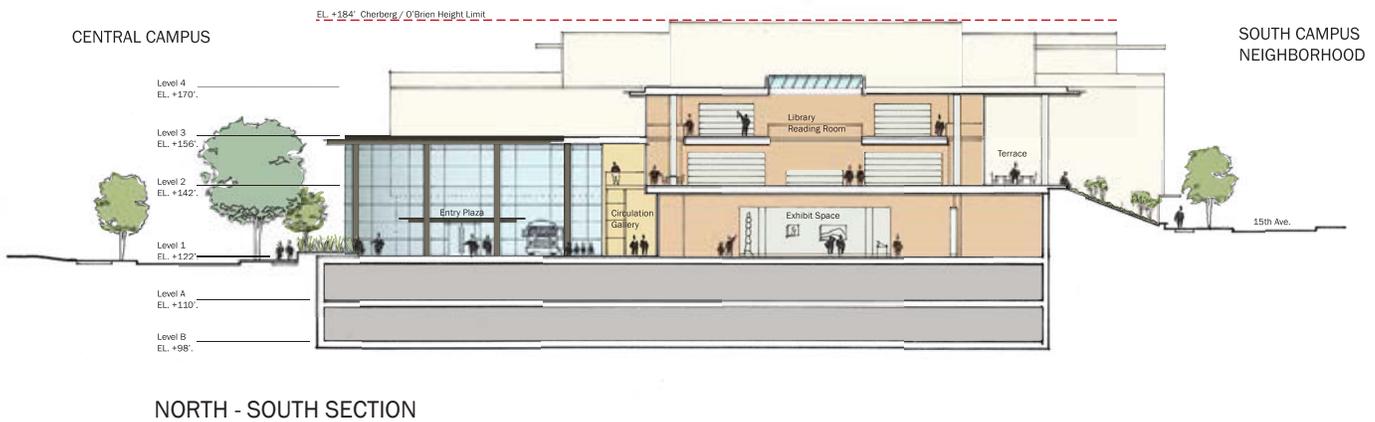
Dual Corridor



Heritage Center

The Heritage Center is a four-story, approximately 134,000-square-foot building. Sites that remain in consideration are the GA Building Site, the Dawley Block Site, and the existing Visitor Center Site.

The project would house the Washington State Library, a portion of the Washington State Archives, archives research facilities, a Visitors Center, an exhibit space, a café & gift shop, a multi-purpose meeting room, and administrative offices. The prominent location will provide an enhanced entry point to the campus, creating a gateway and a threshold between the central campus and the adjacent urban or neighborhood context. The Heritage Center building will reinforce the geometry of the original capitol group and provide appropriate definition to the Olmsted Lawn. The height and massing of this building are compatible with the existing central campus architecture, and provide a transition of scale between the campus and the neighboring context. The interior organization will optimize visibility and access to the public components of the program, and provide a prominent orientation to the capitol campus for new and returning visitors.



Building Exterior

Building Height

All buildings facing the Olmsted lawn will be approximately four stories above adjacent grade (+/- 60-feet), i.e., no building will be taller than the base of the Legislative Building or the Cherberg and O'Brien buildings– as defined by Capitol Campus Master Plan (2005).

Scale/Proportion

The building exteriors will be modulated and proportioned in relation to existing structures. The base of the Legislative Building, the Temple of Justice and the Insurance Building all have a distinct base, middle and top expressed on the exterior. The first floor is expressed as the “base.” The second and third floors are grouped together acting as the “middle” and the fourth floor is pushed back slightly to lower the precluded height to create a terrace and give a distinctive “top” to the building .

The exterior window modulation is based on a 10-foot center-to-center dimension as are the significant existing buildings.

Exterior Materials/Detailing

The primary exterior material would be Wilkinson sandstone to match the existing buildings on the west campus. The exterior material palette would be simple and restrained, essentially three materials – Wilkinson sandstone, bronze colored aluminum and clear glass. All aluminum panels and mullions would be bronze colored to match bronze metal elements on the existing buildings.

The buildings will generally have a “punched” window expression to relate to existing buildings. However, certain elements such as primary entries, public circulation spaces and program elements that serve the public (such as the café) could be predominantly glass.

The design intent for the building exterior is not to copy the existing buildings, but to respect their scale, proportion and materiality. They would be modern, 21st-century interpretations detailed and executed in a modern way.



Building Interior

General

The level of interior finish for the Heritage Center and the Executive Office Building would be commensurate with the typical public space and office interiors found on the west campus.

Executive Office Building

Public Spaces – Entry, lobbies, main corridors, etc.

Walls – Combination of stone panels, wood panels and veneer plaster.

Floors – Stone, Terrazzo

Ceiling – Acoustical wood panels and coved/soffited GWB.

Office Space

Walls – painted GWB with wood base

Floors – Carpet tile over raised floor

Ceilings – Acoustical ceilings with some perimeter GWB soffits

Heritage Center

Public Spaces – Entrance, primary circulation areas, and public spaces

Walls – combination of stone panels, wood panels and veneer plaster

Floors – Stone, terrazzo

Ceilings – Acoustical wood ceiling, coved and soffited GWB

Office Space

Walls – painted GWB with wood base

Floors – Carpet tile over raised floor

Ceilings – Acoustical ceilings with some perimeter GWB soffits

Universal Design

The Heritage Center and Executive Office Building should embrace Universal Design concepts. The accessible features of this project should be transparent, inclusive and attractive. The focus of Universal Design is not specifically on people with disabilities, but all people, and it should be an essential consideration in the design.

Principle 1 Equitable Use The building's design should make it equally usable by everyone. Thus, the means by which people use the building should be the same (e.g., providing one entry to the building that works equally well for everyone). The buildings must never employ means that isolate or separate any group of users or enable one group over another.

Principle 2 Flexible Use The building's design should allow people to use its design features in more than one prescribed way (e.g., providing a countertop orientation map that is viewable from either a seated or standing position). Features should accommodate both right- and left-handed use and be adaptable to the individual user's pace.

Principle 3 Simple and Intuitive The building should make it easy for everyone to understand the purpose of each design feature and how to use it (e.g., providing washroom lavatory faucets that make their method of operation readily apparent and relatively easy). Wayfinding should be intuitive and obvious.

Principle 4 Perceptible Information The building should provide all essential information in a variety of modes (e.g., written, symbolic, tactile, verbal) to ensure effective communication with all users regardless of their sensory abilities. The information provided must be presented with sufficient contrast to surrounding conditions so that it is distinguishable from its context and decipherable in all its various modes of presentation.

Principle 5 Tolerance for Error Ideally, the building's design should eliminate, isolate or shield any design features that could prove hazardous or inconvenient to any user. The building's design should anticipate accidental or unintended actions by any user to minimize inconvenience and protect users from harm.

Principle 6 Low Physical Effort the building's designs should select and employ features that require little or no physical force to use them (e.g. opening a window or providing a smooth travel surface with minimal slope along the path of travel leading to the entrance).

Principle 7 Size and Space for Approach and Use A building's design features should provide an adequate amount of space that is appropriately arranged to enable anyone to use them (e.g. benches w/arms for transfers from wheelchairs; library stacks that do not require backing up to exit.)

Landscape Design

Landscape Components

The character and design of the new landscape open spaces for each potential building site will respond to the needs of the new building site and its users while complementing the character of the existing open spaces around Capitol Campus. The landscape development for each site as described herein will offer users, visitors and employees a variety of outdoor areas to accommodate everyday business, cultural activities, educational functions, ceremonies and larger events.

1. Planting

Plantings will be predominantly drought-resistant native and native-like plant species. Careful consideration will be used in choosing plants for on-structure landscape areas. Plant species will also be chosen to complement the existing plant palette on the Capitol Campus. Planting will be further informed by research on the original Olmsted design documents and the current landscape planning and renovation for the West Capitol Campus being undertaken by the GA

2. Site Furnishings and Lighting

Site furnishings appropriately placed within the landscape may include elements such as benches and seat walls, bicycle racks, trash and recycling receptacles. Site lighting will be coordinated and integral to the site and landscape design. Fixture style, light source and coverage will accommodate the safety and aesthetics of the campus while addressing the energy efficiency and light pollution issues for each project.

3. Irrigation

All landscaped areas will be irrigated with low volume, underground automatic irrigation systems. Irrigation systems will be coordinated and linked with the campus-wide irrigation control station that is in place. Applicable standards for materials and performance will be done in conjunction Capitol Campus grounds and operations requirements.

4. Maintenance

Design, materials and layout of the landscape will be undertaken to address the long term maintenance and operation components of each project. Maintenance of planting and landscape areas will minimize use of pesticides and herbicides. Care will be taken to design planting areas to be easily accessed by maintenance crews.

5. Special Consideration

Portions of certain sites will be landscaped in areas with below grade structures. The following guidelines will be used to develop the design for planting, paving, and other landscape features on structure.

General Guideline Densities for Structural Loads:

Reinforced Concrete:	150 lb/cf
Structural Foam:	5 lb/sf
Soil (saturated):	100-125 lb/cf
Stone:	160-180 lb/cf
Water:	62.4 lb/cf (assume a typical basin depth of 18")
Plant Material:	varies greatly
Groundcover:	2lb/sf
Med. Shrubs:	10 lb/sf
Trees:	500lbs-6,000+ lbs each

Note that one may be able to reduce live load requirements for shrub beds. These are not “public gathering areas,” and may often be reduced from 100lb/sf live loads to 40 lb/sf. This assumption should be discussed early on with the structural engineer and authorities having jurisdiction.

Typically, plants grown in an on-structure condition rarely attain mature sizes. Ultimate growth of the material varies depending on water, nutrient availability, light intensity and quality, root morphology, planter volume and maintenance, among others. Final loading should be reviewed once the design qualities required of the trees is better defined.

Site Access & Circulation

1.Vehicular

Vehicular and Service access to all building sites will be designed to minimize conflict with pedestrian movement, safety and other operational factors.

2.Pedestrian

Pedestrian circulation will be designed to be ADA and / or universally accessible and will connect to and complement the adjacent pedestrian system. Pedestrian circulation patterns will be designed to be consistent with the current Capitol Campus Landscape master plan and the intent of historic Olmsted designs.

3.ADA Access

All access points to the building and outdoor gathering spaces will meet ADA requirements for pedestrian circulation.

4.Bicycle

Bicycles can access the site at similar points as pedestrians. Secure bicycle racks will be appropriately located within the complex.

5.Campus Wayfinding

Appropriate pedestrian signage will be located around the site to direct visitors to each of the buildings and spaces. Vehicular signage will also be added to nearby streets to direct visitors to the parking garage and drop off areas.

Site 1 – Original GA Site and Site 2 – Reduced Original GA Site

1.Columbia Street Edge

The proximity of the project site to the corner of Union Street and Capitol Way was identified as a “transition zone/gateway” in the current Draft Master Plan for the Capitol of the State of Washington. While serving as an entry to the Capitol Campus, this edge will also respond to the urban context of the adjacent Olympia neighborhood. A forecourt plaza will be created at the corner of Union Street and Columbia Street.

2.Heritage Plaza

The Heritage Center/Executive Office Building creates a framed open space at its south side. It serves as the primary entry to the new building at elevation 98. Patterned paving will define and contrast the edges of the plaza against the building. The Plaza will face the Olmsted’s West Campus Lawn and directly engage the new project site with the rest of the Capitol Campus. A bus drop off area will be located within the Heritage Plaza along the south face of the building.

3.North Green

The North Green will be located just north of the new building as a car park, drop off and entry plaza for the north side of the building at elevation 79. This green space will serve as both a transitional amenity and buffer for the campus and neighborhood. Seating areas and view points are integral to the west edge of the entry plaza. Street trees will be placed along Columbia Street on the east. The north edge of the green will be a vegetated area to buffer the space for the adjacent neighborhood.

4.Olympic Terrace and Promenade

This Olympic Terrace will be created on the roof of the below-grade Heritage Center west of the Executive Office

Building. This terrace space will offer expansive views to Capitol Lake, Heritage Park, and the Olympic Mountains beyond. An overlook will be provided at the corner of Cherry Lane adjacent to the Law Enforcement Memorial which will incorporate a stair and landing system that provide other strategic points of access to the Regional Park, trail and open space system.

5.Olmsted Green Restoration

The Olmsted Green restoration will create an expansion to the originally designed Olmsted great lawn area by the re-alignment of Water Street to be in alignment with Cherry Lane. Original Olmsted planting plans included a shrub layer that was never realized for much of the west campus. This plan will implement a new shrub planting layer along with historically appropriate tree plantings to help begin to restore the original intent of the Olmsted brothers plans for the West Campus.

6.Vehicular Access

Water Street will be moved to align with Cherry Lane after the removal of the Capitol Conservatory and relocation of the campus maintenance facility. The realignment of this road will accomplish three important design objectives: complete the symmetry of the campus road system around the Olmsted Lawn; allow a consistent grade (elevation 95/98) across the length of Heritage Plaza and address strategic utility replacement and relocation.

7.Pedestrian

Pedestrians can access the site from the West Campus by crossing 11th Avenue or Columbia Streets at a crosswalks and entering the Heritage Plaza. The North Green can also be accessed from the north along Columbia Street and Union Street. From the corner of Union Street and Columbia Street pedestrians access the North Green. Pedestrians will also be able to access the site from the southwest by following the pedestrian promenade along Cherry Lane.

Site 3 – Dawley Block

Heritage Plaza

Similar to the GA site, the Dawley Block creates south facing Heritage Plaza that is a framed open space with hardscape designed to accommodate pedestrian and vehicular movement, ceremonial activities, and circulation. It will serve as the primary entry to building at the finished grade elevation of 11th Avenue. Seating components, bollards, lighting and patterned paving will define this plaza as both a civic place and important node component of the west campus.

Capitol Way Frontage

As the site engages Capitol Way, on its east side, this becomes its urban face with street trees and pedestrian orientation toward the city. Additionally, the building engages the Capitol Way street frontage and Heritage Plaza at its southeast corner, marking it as a pivotal place for both pedestrians and vehicles passing by the West Campus.

Union Street Edge

The Union Street edge organizes this urban boundary of northwest campus area into a pedestrian/ sidewalk environment that respects building elevation and interior spaces of the building while forming an important edge at this transitional area of the campus. Street trees and planting will be determined for appropriate species and placement. Trees along this edge will provide seasonal color, and a scale to the building and street.

Site 4 – Archives Building

Capitol Way / West Plaza

This Plaza will be built over existing Archives Building and will include renovation of the existing planting on the roof. It is diagrammed to include the installation of paving, hardscape and planting that will accommodate a pedestrian environment and gathering area at this primary entry to the building. Trees for this area will be placed in existing tree pits with built up soil and sub - base material to support the planting and surface improvements. Patterned concrete paving systems will occupy the pedestrian areas with site furnishings and amenities such as seating elements, lighted bollards, bike racks and trash receptacles to complement this area. Shade trees and ground plane planting will be specified to provide shade, seasonal interest and continuity between the East and West Campus landscape.

East Campus Edge

This includes lower, east side with building and garage access and is anticipated to be more of a service access and orientation in its layout and character. A critical site relationship in this area is that of the upper south side of the building and site interface with the east campus garage 'lid'. With that, secondary pedestrian access will likely be required via stairs to from the lower side of the Archives addition to the upper, east campus edge at this point.

Site 7 – Visitors Center

North Heritage Plaza

The North Heritage Plaza embraces the southern edge of the central west campus as a primary vehicular drop off, building entry and pedestrian gathering area. It will serve as a prominent civic space that will complement the Olmsted landscape while defining the transition between the Capitol Campus and South Campus neighborhood. Tree and planting placement will be tailored to integrate with both the specific site design and the Olmsted planning guidelines.

Columbia Street Access

The short piece of Columbia Street along the west side of this site will provide a link to the South Campus neighborhood. It will include vehicular access to the plaza and parking with street trees and a sidewalk to reinforce neighborhood scale and pedestrian nature of this edge.

South Campus Neighborhood Edge

The South Campus Neighborhood Edge is envisioned to be a planted and bermed solution that incorporates a building terrace and planted edge along the south side of the building. This concept reinforces the scale and character of the neighborhood and pedestrian environment while providing a graceful solution to the topographical grade change between the north and south sides of the site.

Capitol Way Frontage

Street trees along the east side of the site will serve to continue the urban edge along Capitol Way while incorporating a sidewalk and pedestrian quality at the east face of building. Recognizing this as a 'gateway' site, the landscape and site design along this edge will be more deferential to the building and the streetscape.

Site 12 – West Edge

West Forest Native Edge

A central concept in the planning and landscape design of this site is its optimization of existing forest vegetation and topography on its west side. Consideration for the scale and character of the new buildings is particularly important in relation to how these buildings define this edge of the campus - as viewed from the south and west. Restoring disturbed areas and ensuring the existing landscape is a continuing legacy of the Capitol Campus and an integral part of the building layout and program considerations. Direct access and interaction between the building and landscape is anticipated to include seating and overlooks with potential pedestrian areas and walkways.

Contemplative Space

As part of the recent Olmsted guideline and planning direction, there is a special open area with sweeping views that has been incorporated into the northwest corner of the campus. This is anticipated to serve a number of functions that include gathering and ceremonial activities for small and large groups with potential to incorporate site art or sculptural elements.

Central Campus Gardens

This building and site development are within the context of the West Campus Gardens. While not necessarily part of the funding and implementation for this project, these areas will be designed and implemented per Olmsted Master Plan principles. This includes feature areas, sunken gardens, monuments and ceremonial spaces. The site design and landscape strategy for any development on this site will recognize this planning and design precedent.

Entry Plaza

The Entry Plaza that is centered between the North and South buildings is anticipated to be a critical part of this area of the campus. These considerations range from the aspect of vehicular and pedestrian access to vehicular drop off and design considerations given its proximity to the Central Campus Gardens. Gathering for small groups or informal events and civic ceremonies will be an important part of the program, planning and design resolution. Conceptually it will incorporate a balance of paved and planted areas with the potential for terraces and gently sloping topography.

Structural Systems

Material	Standard
Concrete	
Concrete Structure (Floor Slabs, Beams, Columns, and Walls)	f'c = 5,000 psi, normal weight
Slab on Metal Deck, Foundations, and Slabs on Grade	f'c = 4,000 psi, normal weight
Reinforcing Steel	ASTM A615, Grade 60 ASTM A706, Special Ductile Quality
Welded Wire Fabric	ASTM A185
Structural Steel	
Wide Flange Shapes	ASTM A992, Fy = 50 ksi
Typical, Unless Noted Otherwise	ASTM A572, Fy = 50 ksi
Angles	ASTM A36, Fy = 36 ksi
Pipes	ASTM A53, Type E or S, Grade B, Fy = 35 ks
Hollow Steel Section Shapes	ASTM A500, Grade B, Fy = 46 ksi
Steel Composite Deck	ASTM A653, Grade A or C, 20 gauge minimum
Steel Roof Deck	ASTM A653, Grade A or C, 20 gauge minimum

LOADINGS

FLOOR AND ROOF LOADS

Live loads are in accordance with the 2006 Edition of the International Building Code (IBC). Live loads vary with the definition of the floor area use as defined by the architectural layout. The loading is presented in terms of pounds per square foot (psf).

Area	Loading
Galleries	200 psf (slabs and beams) 100 psf (columns)
Offices and Corridors	80 psf (includes partitions)
Public Spaces	100 psf
Stairs/Lobbies	100 psf
Loading Dock	250 psf or HS20-44
Mechanical Equipment Rooms	150 psf, or 40 psf plus Equipment Weight
Storage	125 psf
Archives	300 psf (includes high-density storage systems)
Roof	25 psf
Parking	40 psf

SNOW LOADS

The snow load is 25 psf.

WIND LOADING

Wind loads are in accordance with the 2006 IBC. The basic wind speed (3-second gust) is 85 miles per hour. The importance factor is 1.15. The exposure factor is B. The building classification is enclosed. Topographic effects

are anticipated to be applicable at Sites 1, 2, and 12, the Original Design, Original Reduced, and the West Side Axis, respectively.

SEISMIC LOADING

Seismic loads are in accordance with the 2006 IBC. The Occupancy Category is III. The seismic importance factor is 1.25. The site class is D in accordance with the geotechnical report. The seismic design category is anticipated to be D at each site. For Sites 1 and 2, Original Design and Original Reduced, respectively, spectral response coefficients are in accordance with the Geotechnical Report: $SS = 1.16$; $S1 = 0.44$. Spectral response coefficients for the remaining sites are anticipated to be similar.

STRUCTURAL SYSTEMS

FOUNDATION

The foundation design for Sites 1 and 2, Original Design and Original Reduced, respectively, is based on the geotechnical information outlined in the Conceptual Geotechnical Report dated October 19, 2007, prepared by Shannon & Wilson, Inc. Foundation design, sub-base, and under-slab drainage assumptions at all remaining sites will require confirmation via a complete Geotechnical evaluation.

The foundations are anticipated to consist of spread footings, spread footings bearing on "Geopier" ground improvement, or augercast concrete piles, or a combination of these systems, which will transfer all vertical and lateral loads to the ground.

The slabs on grade will consist of 4 to 8 inch-thick cast-in-place concrete slabs depending upon the loading. The sub-base and under-slab drainage requirements outlined in the Geotechnical Report for Sites 1 and 2 should be anticipated at each site.

Perimeter foundation and retaining walls will consist of 12- to 28 inch-thick cast-in-place concrete walls which will vary by depth.

Temporary shoring likely will be required in order to construct below-grade levels, based on proximity to existing roads, structures, and site features.

Site 12 (West Side Axis) presents issues with shallow/deep seated stability, seismic hazards, permanent drainage, and deep foundation considerations similar to the Original Design (Sites 1 and 2) which will need to be reviewed and addressed by a Geotechnical engineer.

The excavation for Site 4 (Archives Building) may expose portions of the existing below-grade parking garage. This may pose challenges with existing shoring, waterproofing, etc.

FLOOR AND ROOF FRAMING

Below-grade and at-grade levels will be concrete framed. The above-grade levels and roofs will be steel framed.

Below-Grade Levels

Below-grade floors will be concrete framed. The framing system will be a combination of one-way slabs spanning between beams and a two-way flat slab with drop caps, depending on clear-span and program requirements. Slab and beam framing systems are anticipated to be approximately 30 to 36 inches deep. The flat slab system is anticipated to be approximately 15 to 20 inches deep (including the depth of the drop cap).

The flat slab system will require approximately 30 foot by 30 foot bays. The slab and beam system will require approximately 20 foot by 40 foot bays. The slabs and beams will be supported on concrete columns varying in size from 18 inches square to 30 inches square.

Above Grade Levels

Above-grade floors and roofs will be steel framed with a composite concrete and metal deck system. Columns will be steel and should be carefully coordinated with below-grade levels to avoid column transfer conditions. Typical framing bays will have beams spaced at 10 feet on center.

Site 4 Archives Building

According to the Addition Feasibility study for the Archives Building dated February 1998, by Skilling Ward, Magnusson, Barkshire, if the existing building is to support new loads from the addition, reinforcement of existing structural elements is anticipated. The existing mat foundation may be the limiting factor for building up, since it may be impractical to strengthen it.

LATERAL FORCE-RESISTING SYSTEM

Lateral forces due to wind, seismic, and unbalanced soil pressure will be resisted by special concentric braced frames, concrete shear walls (including the perimeter foundation walls), or a combination thereof. The lateral loads will be carried by the concrete and metal deck floor framing systems to the shear walls and braced frames and ultimately be delivered to the foundations in proportion to their ability to resist lateral deformation.

The concrete shear walls and braced frames will be continuous from the roof to the foundation. The thickness of the shear walls will vary from 12 to 24 inches. The shear walls and braced frames will be distributed throughout the building around the circulation functions (corridors, stairs, elevators, and restrooms).

Site 4 Archives Building

According to the Addition Feasibility study for the Archives Building dated February 1998, by Skilling Ward, Magnusson, Barkshire, seismic upgrades of the existing building will be required, if they were not addressed at the time the report was written. Some of the items mentioned in the report include adding drag struts at the roof, tie downs at the base of the perimeter walls, and wrapping the columns. The lateral system in the addition could possibly be used to "brace" the existing building, which might mitigate some of the required strengthening.

Mechanical Systems

Mechanical Utilities

Natural Gas

Natural gas will be required for several kitchen appliances both in of the main kitchens. A new gas service will be provided from the campus distribution loop.

Sanitary Sewer

The sanitary connections serving the building will be made to the sewer mains that exit the building. Drainage will be by gravity. A grease interceptor will be provided to pre-treat any grease wastes from the kitchen service areas.

Domestic Water and Fire Protection

The domestic water service, estimated to be 4-inches, will be served off of the existing water main. The fire protection service to the building will be provided by an 8-inch fire service routed to the building. The domestic and fire services will each be protected by a Washington State Approved reduced pressure backflow preventer assembly and a double check valve assembly respectively. The 4-inch domestic water service will include a 3-inch water meter to monitor water consumption within the building.

Storm Water Drainage System

The building storm drainage system will include roof drains, terrace drains, area drains and an interior rainwater leader system. These will be routed to a storm water harvesting/retention tank system. The retained water will be filtered and pumped to be used for toilet and urinal flushing.

Campus Steam

The building will be served by 100 psi steam line entering at the south side of the building from a utilidor. Steam will be connected to shell and tube heat exchangers to provide domestic and heating hot water for the building. Condensate will be pumped back to the boiler plant.

Campus Chilled Water

Campus chilled water supply and return will be delivered to the building via a utilidor. Chilled water will be connected to plate frame heat exchangers to provide secondary chilled water for building cooling.

Electrical Service

The new project location will be served from the existing campus 12.47kV primary loop electrical distribution system for normal power. The primary loop is served by (4) primary circuits from Puget Sound Energy.

Heating, Ventilation, & Air Conditioning

Design Criteria

Outdoor Design Conditions:

Summer: 87°F dry bulb (ASHRAE 0.4%).

67°F wet bulb (ASHRAE 0.4%).

Winter: 18°F dry bulb (ASHRAE 99.8%)

Elevation: 200 ft

Codes and Standards:

The following codes and standards are applicable, in addition to any other local code requirements.

2006 International Building Code with Washington State Amendments

2006 International Mechanical Code with Washington State Amendments

2006 Uniform Plumbing Code with Washington State Amendments

2006 Washington State Energy Code

2006 National Fire Protection Association (NFPA)

Sheet Metal and Air Conditioning Contractors National Association (SMACNA)

Underwriters Laboratories (UL)

American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE)

American Association of Balancing Contractors (AABC)

Air Movement and Control Association (AMCA)

Occupational Safety and Health Administration (OSHA)

Air Conditioning and Refrigeration Institute (ARI)

HVAC Systems

Chilled Water Systems:

Campus chilled water supply and return will be delivered to the building via an utilidor.

There will be three chilled water systems in the building:

High temperature chilled water at 60 degrees F to be used for the chilled beams. Sub loops will be created for each exposure on each floor for zone temperature control. Each sub loop will be provided with an inline circulating pump and mixing valve.

Low temperature chilled water at 34 degrees to be used for the 24/7 systems and systems requiring lower temperature supply air.

The high temperature and normal temperature chilled water systems will be provided with separate thermal storage tanks to store cooling energy at night for use during the day. This will reduce the impact on the peak capacity requirement of the Campus chilled water plant. The thermal storage tanks will utilize Eutectic material.

Plate frame heat exchangers will be provided between the campus primary chilled water system and the secondary systems in the building.

The low temperature chilled water system will include closed circuit cooling towers, chillers, pumps and distribution system. All the components of this system will be connected to the emergency power system for continuous operation.

When outdoor temperatures permit, the condensing water system will be interconnected with the high temperature chilled water system to provide hydronic free cooling that can be stored during the nighttime hours.

Heating Hot Water Systems:

Campus high pressure steam and condensate return will be delivered to the building via an utilidor.

The heating source for the building will be provided via two (2) shell and tube heat exchangers connected to the campus 100 psi steam loop. Heating hot water will be distributed throughout the building at 150°F by three circulation pumps (each sized at 50% of total capacity) with variable speed drives.

Hot water sub loops will be provided for the radiant heating panels in the floor. Each sub loop will be provided with circulating pumps and mixing valves to maintain the lower sub loop temperature.

Condensate will be collected in a tank that will contain a tube bundle to pre heat domestic hot water. The condensate will then be pumped back to the campus boiler plant.

Heating, Ventilation, and Air Conditioning Systems:

System descriptions are as follows:

Chilled Beam – Overhead cooling source using chilled water in a passive element located either above a grille in the hung ceiling or exposed in spaces without ceilings. Room thermostats control chilled water flow through the elements for local temperature control. This system is planned for use in office spaces and used in conjunction with Floor Air system.

Floor Air – Constant volume supply air system using the raised floor for air distribution. The air system uses 100% outside air to provide ventilation air to the space. The system will also provide heating the perimeter spaces using zone heating coils during the winter season. This system is planned for use in office spaces and used in conjunction with the Chilled Beam system.

Radiant Floor – Hot water radiant heating system in the floor for space heating. The water temperature is modulated to maintain room temperature setpoint. This system is planned for use in lobbies and used in conjunction with natural ventilation.

CAV – Constant air volume system use for large single zone spaces that require special temperature and humidity conditions or fixed air quantities. This system is planned for use in archives and collection spaces. The floor air system also uses a CAV system to provide the fixed ventilation supply to the offices and auditorium.

VAV – Variable air volume system that provides for cooling and ventilation for areas requiring multiple temperature zones. This system is planned for use in the museum, maintenance area and miscellaneous office areas.

TWA Radiant Ceiling Panel

Each radiant ceiling panel has copper tubing attached to the back side in order to transfer energy to the aluminum surface and heat, or cool the space. The panels are piped together in series and groups to cover a given area. They can be specified with perforations in order to provide sound absorbing characteristics. Then the panels are zoned depending on perimeter and interior areas.

Typical Exposed Radiant Ceiling Panel Installation

Each zone has a small in-line circulation pump and a three way valve for blending in chilled and heating hot water as necessary to satisfy space temperatures (see schematic below). The ceiling panel and chilled beam loops are heated, or cooled in order to maintain space setpoint.

Radiant Ceiling Panel or Chilled Beam Zone Piping Schematic

An additional alternative to the radiant ceiling panels are chilled beams. These devices use the natural convective forces of cool “heavy” air to circulate and cool the air within the space. These systems would be used for interior spaces only since they do not work as effectively in heating mode, unlike the radiant ceiling panels

Chilled Beams Integrated with Lights

Kitchen Hood Exhaust Systems:

All kitchen exhaust ducts will be constructed using welded black iron, slope towards the intake hood and have gasketed access doors for inspection at all 90° elbows. The kitchen exhaust ducts will need to be enclosed in rated construction, or wrapped in fir wrap. Assume 3M Fire Barrier Duct for quality standard. Due to long runs of horizontal kitchen exhaust in all of these applications, the duct will need to be sloped to drain points as required to maintain minimum elevations.

Conference Center Kitchen:

All of the kitchen exhaust will be collected to a central point and routed up to an exhaust fan located at the high roof.

Frozen Photo System:

Dedicated water-cooled split system will provide cooling for the frozen photo space that requires to be maintained at 14 degrees F. Redundant systems will be provided and be connected to the emergency power system.

Toilet Ventilation Systems:

Each toilet room will be ventilated through a toilet exhaust system ducted to exhaust fan located at the high roof. The system shall be capable of exhausting a minimum of 2 cfm/sf or 10 air changes per hour, whichever is greater.

Electric Closet Ventilation System:

The electrical closet on each floor will be ventilated using a transfer air fan. Each electrical closet will be provided with a return air/make up air opening with fire damper above the finished ceiling of the adjoining space.

Elevator Machine Rooms, IDF and MDF Rooms:

The elevator machine rooms and IDF and MDF rooms will be air-conditioned using fan coil units connected to the 24/7 chilled water system. Elevator machine rooms shall be constructed with smoke-proof enclosures for smoke management purposes.

Stairway and Hoistway Pressurization

All the stairways and elevator hoistways will be provided with pressurization systems in accordance with the high rise section of the building code.

Automatic Temperature and Building Control Systems:

Requirements: Provide a BACNet based BMS computer based system capable of controlling central plant equipment, fans, HVAC units, and designed for expandability by using plug-in modules.

Locate central BMS components in the building Engineer's office.

Provide local stand-alone field control modules in each major mechanical room.

The BMS Subcontractor is responsible for all power wiring from designated circuits identified in the electrical panel schedules.

System Overview: Provide a Direct Digital Control (DDC) system with full control of mechanical equipment.

Provide BMS to monitor environmental data and control the function of the following equipment installed in the facility:

Boilers

Shell & Tube heat exchangers

Pumps

Air handling units

Exhaust fans

Lighting system (interior and exterior) time clocks

Ventilation systems

Domestic hot water systems

Security system interface

Fire alarm system interface

Energy meters

Other designated functions/systems

The BMS system will be set up to easily trend logs and sequentially download them for long-term data storage. Provide complete system of electronic PID control technology to automatically maintain and regulate environmental conditions.

Use system architecture with intelligent field distributed control modules to communicate in both LAN/WAN and WEB configuration communications.

Electric Motors:

All electric motors will be premium efficiency type and suitable for use on inverter drive systems where applicable. TEFC motors will be required when located within the air stream.

Acoustics:

As part of the design development phase, all of the mechanical systems will need to be reviewed by the acoustical consultant to ensure the desired noise and vibration levels throughout the building meet project requirements. Recommendations will be incorporated into the construction documents.

Critical items requiring acoustical evaluation include, but are not limited to, the following areas or systems: cooling tower, chillers, Auditorium, conference rooms, and other special rooms.

Plumbing

Codes and Standards

This installation will comply with the Washington State Codes, Washington State adopted Uniform Plumbing Code, and will comply with Washington State Facilities Standards.

Water Supply

The building water supply will connect to the existing domestic water mains. The domestic service will be protected by Washington State Approved reduced pressure principle backflow preventer assemblies. A duplex assembly will be provided for the service.

Water pressure at the fixtures will be limited to a maximum pressure of 75 PSI through the use of pressure reducing valve assemblies as required.

Size domestic water systems using a maximum of 5-PSI pressure drop per 100 feet of pipe and a maximum velocity of 8.0 feet per second.

Civil Engineer will take the water lines from a point 5 feet from the building to the main water line.

Domestic Hot and Cold Water

The building's service main size is anticipated to be 4-inches in diameter.

A triplex variable speed water pressure booster pump system will be provided for the project. The booster pump system will be configured such that the system will be capable of 100% of the total design flow with the loss of the largest pump.

The water service entrance piping and domestic water piping 3-inches and larger will be schedule 10, type 304 stainless steel with roll grooved joints. Piping 2-1/2-inches and smaller will be type L copper joined with lead-free, 95-5 type solder.

Provision will be made for future connection to the recycled water system which will provide water for toilet and urinal flushing. This system will be piped in "purple pipe" for distinction from the potable water system. Water from the storm water harvesting system will initially connect to the "purple pipe" system to provide water for flushing.

Domestic hot water will be supplied from centrally located water storage tanks using steam-to-water, heat exchangers to heat the water. The system will be circulated throughout the facility to maintain the hot water tem-

perature and to assure that water and time are not wasted by occupants while waiting for hot water. Water will be stored within the water heaters at 140 degrees F and reduced to 120 degrees for distribution through the use of thermostatic mixing valves, installed in parallel in a manifold configuration.

As an augmentation to the conventional domestic water heating system, a solar assisted water pre-heating system will be given consideration.

Natural gas system

A natural gas service with meter and pressure regulator will be provided by the natural gas purveyor at a location acceptable to the Owner. Gas pressure will be 7 inch to 14 inch WC in the building.

The building's service main size is anticipated to be 3 inches diameter.

Primary design criteria will use the NFPA 54, the National Fuel Gas Code and NFPA Standards including any applicable state and Washington State facilities requirements.

Gas will be distributed in schedule 40 black steel piping with threaded malleable iron fittings. The gas lines will be routed throughout the facility to gas fired equipment and appliances, including gas-fired cooking equipment within the kitchen service areas.

Sanitary Sewer and Waste System

The building's service main size is anticipated to be 8 inches in diameter and will connect to the existing municipal sewer system. A complete sanitary waste and vent system will be provided in accordance with Uniform Plumbing Code (as adopted by Washington State) throughout the building, arranged for gravity flow. Sewage ejectors will be provided where required when gravity drainage cannot occur. Soil, waste and vent lines will be sized per UPC using good engineering practice. The Civil Engineer will take the sewer lines from 5 feet point to the street sewer.

Sanitary waste and vent piping above and below ground will be service weight hub-less cast iron pipe. Couplings for below ground installation shall be bolted and gasketed cast-iron and above ground shall be FM approved stainless steel couplings.

Storm Drainage System

Complete roof drainage systems with independent overflow drains and risers through the building will be provided. System design based on 2.0 inches per hour rainfall intensity and on local code requirements. The maximum velocity in the storm drainage system will be limited to 3 feet per second.

The storm drains will be routed to a storm water harvesting/retention tank system. The retained water will be filtered and pumped to be used for toilet and urinal flushing.

Additional Roof Drains, Terrace/Area Drains will be provided for areas located at building setbacks.

Building storm drain system will be run from the building and connected to the system 5 feet from the building line. Civil Engineer will take the storm drain from 5 feet point to the street storm sewer. The storm line will leave the building at the same locations as the existing storm service.

Hose Bibbs

Hose bibbs with vacuum breakers will be provided at a minimum in accordance with the following:

Mechanical equipment rooms

Non-freeze hose bibbs in boxes will be provided as one minimum on each exterior face. Maximum spacing will not exceed 100 feet.

Each toilet room.

Plumbing Fixtures

(Similar to American Standard)

All fixtures will be selected for ultra low flow water consumption.

Water Closets: Wall hung, low consumption, dual flush valve, and open front seat less cover.

Lavatories: Vitreous china counter top, with single handle mixing faucets. All lavatories will have insulated offset waste.

Urinals: ultra low consumption, 1/8 gallon per flush, Wall hung, with flush valve.

Drinking Fountains.

Each water supply will be roughed in with an isolation valve at the fixture.

Floor Drains

Drain will be provided at a minimum for the following, or as specified by Code or local building authority.

Mechanical equipment rooms.

Each toilet room.

Each janitor's closet

Fire Protection Design

Codes and Standards

This installation will comply with the Washington State Codes and Washington State Facilities Standards.

All Fire Protection design, products, and installation shall comply with the applicable provisions and recommendations of the following jurisdictional codes, authorities and guidelines:

International Code Council

International Building Code, 2006 Edition

International Fire Code, 2006 Edition

State of Washington, Code Amendments

National Fire Protection Association

National Fire Protection Association Standard 13, 2008 Edition

National Fire Protection Association Standard 14, 2006 Edition

National Fire Protection Association Standard 20, 2008 Edition

National Fire Protection Association Standard 70, National Electrical Code, 2008 Edition

National Fire Protection Association Standard 72, 2008 Edition

National Fire Protection Association 75, Standard on Information Technology equipment Protection, 2009 Edition

National Fire Protection Association 110, Standard for emergency and Standby Power Systems, 2007 Edition

National Fire Protection Association 232, Standard for the Protection of Records and Storage

National Fire Protection Association 909, Code for the Protection of Cultural Resources

Applicable FM GLOBAL Loss Prevention Data Sheets

FM GLOBAL Data Sheet 2-8 "Earthquake Protection for Water-Based Fire Protection Systems"

FM GLOBAL Data Sheet 2-8N "Installation of Sprinklers (NFPA)"

FM P7825a, Approval Guide Fire Protection, 2008

FM P7825b, Approval Guide Electrical Equipment, 2008

UNDERWRITERS LABORATORIES (UL)

UL 668, Hose Valves for Fire Protection Service, 2008

UL Building Materials Directory, 2008

UL Fire Protection Equipment Directory

Local Codes, Code Amendments and Requirements

Provide fire protection products including valves, fittings and couplings, supports, anchors, fire stops, sprinklers, fire hose stations, hose valves, etc., that are Underwriters Laboratories listed/FM Global Approved, and acceptable to the local Authority Having Jurisdiction.

Executive Office Building Fire Protection Design Objectives

The executive Office Building is intended to form general office. Therefore, the fire and life safety requirements will generally follow at least those presented in the Fire Code and Building Code for commercial properties. With the exception of Potential site #1, all other proposed locations are low rise structures and do not have code mandated requirements beyond those outlined for the specific facility occupancy.

Fire safety objectives must be set for the facility. They must establish acceptable loss levels and subsequent protection levels for collections, the building and continuity of operations.

Life safety must not be less than prescribed by mandated local, state, provincial or federal codes and standards. The fire detection and alarm system must include ADA features and functionality.

Critical fire safe aspects of the facility must include:

Water supply to the site and building.

Fire detection, fire suppression and fire alarms systems.

Properly rated construction and roof materials.

Fire rated doors.

Preventing fire ignition from mechanical and electrical systems.

Preventing fire ignition by selecting furniture and finishes that lower flame spread and smoke generation and are constructed with a low flame spread rating.

Isolating fire and smoke to prescribed areas of a floor of the building.

Isolating fire and smoke to the floor where the fire occurs.

Preventing fire spread from an adjacent building or outside sources into the facility.

Smoke mitigation and Control

Based upon a technical risk analysis for critical records and electronic data processing equipment, a determination should be made for the need and extent of smoke mitigation that should appropriately be provided. At the same time some additional considerations for passive fire/smoke hardening of computer rooms to protect against exposing area fire should also be evaluated. Smoke extraction may not be feasible in these spaces, since they may lack direct access to the outside vertically that would be needed in large area quantities to make exhaust effective. However, pressurization schemes relative to surrounding occupancies could be made effective in preventing smoke infiltration into critical rooms. This evaluation and the selected strategy will have a direct impact on emergency power resource sizing.

Emergency Power and Critical Support Systems

A technical risk analysis versus exposure mitigation objectives should be conducted to determine the reliability and potential redundancy levels required to meet risk management, continuity of operations, and asset preservation requirements with respect to emergency power support. A risk analysis needs to be performed to determine desired levels of continuity for operations for such functions as ventilation equipment in electronic data processing areas. This will include consideration of the routing of primary and secondary power supplies, physical separation of trains, fire protection for each train, and need for redundant equipment/systems.

NFPA 110 does not stipulate requirements for separation or redundancy of primary and secondary feeds for fire pumps. Similarly, neither this standard, nor the Fire Marshal require seismic considerations in preserving the feed connectors during an earthquake event. However, good engineering practice with information technology or data processing facilities dictates consideration of the separate routing of primary and emergency generator lines, physical separation of each feed to prevent common mode failure, fire resistant cable usage between the generators or primary source and the transfer switch. Consideration should also be given toward the connection of the jockey (pressure maintenance pump) to both the primary and emergency power supply, as well.

Fire and Smoke Resistive Construction

Any Building Code allowable building construction for the selected height and area is permissible with Occupancy Group B (Business) and A (Assembly) facilities. As a result there are no special code related limitations for this type of building.

From a risk mitigation standpoint, additional fire and smoke separations should be provided within museum and library facilities. Conceptually, these wall and floor separations should include:

Parking to Office Level ceiling/floor: 2 hr

Emergency Generator, Transfer Switches, Essential Power Control Centers, Critical HVAC: 2 hrs

Fire Pump Room: 2 hr with exterior door access

Maintenance Shops: 1 hr

MCC, electrical, and Communications Rooms: 1hr with approved automatic fire protection

Information Technology Equipment (Computer Rooms, Server Rooms, etc.): 1 hrs

Commercial kitchens, restoration laboratories: 1 hr

Assembly: 1 hr

Corridors: 1 hr

Heritage Center Archival Fire Protection Design Objectives

The Heritage Center is intended to service as a combined archival, archival restoration, museum display, library, and assembly occupancy in a low rise shell. The speed and totality of a fire's destructive forces represent one of the most significant threats to archives. In a relatively short time period a fire's impact can cause serious

structural damage to the facility and may damage the collections beyond recovery. Archival, library, cultural, and museum facilities, because of their unique holdings, require a higher level of fire safety than is normally required for commercial buildings. Consequently, the Society of American Archivists, “Archival and Special Collections Facilities - Guidelines for Archivists, Librarians, Architects, and Engineers” supplements the mandated building and fire codes for commercial buildings.

Since fire safety utilizes a holistic approach to facility features and systems, this section’s design narrative covers aspects of construction, occupancy, protection and exposures as an integrated arrangement to perform in a cost-effective manner to meet both code mandated and risk management objectives.

Fire safety objectives must be set for the facility. They must establish acceptable loss levels and subsequent protection levels for collections, the building and continuity of operations.

Life safety must not be less than prescribed by mandated local, state, provincial or federal codes and standards. The fire detection and alarm system must include ADA features and functionality.

Archives must be provided with a reasonable level of protection against damage or loss from fire, combustion products and fire suppression actions. This protection level may vary depending on the unique aspects of specific collections items and categories.

The facility must be provided with protection against catastrophic loss of integrity from fire, combustion products and fire suppression actions.

The archives program must be reasonably protected against operational downtime and impact from fire, combustion products and fire suppression actions. The acceptable period of downtime must be defined by the archives administrator.

The archives facility must be designated a smoke-free building.

Fire Risk Assessment

A fire risk assessment must be conducted when planning a new facility or major renovation to an existing facility. This assessment must identify potential fire threats and their potential impact on the facility, collections, organizational mission and persons within the structure. It must also evaluate fire protection elements identifying appropriate solutions that achieve the desired fire safety goals and objectives. It is recommended that a risk assessment be conducted for existing facilities every five years to maintain a continued level of fire safety. This risk assessment should be undertaken by a qualified fire protection specialist, experienced in archives, museum, library and cultural facility fire safety and include the collaboration of the Owner’s fire insurance loss control representative, Owner’s Risk Management and Safety representative, Owner’s Security representative, fire marshal and building official for the local authority having jurisdiction. Guidance for the conduct and preparation of a fire risk assessment for new facilities is provided within NFPA 909, Code for the Protection of Cultural Resources.

Smoke Mitigation and Control

Based upon a technical risk analysis for high valued areas of the museum, library, and archives space, a determination should be made for the need and extent of smoke mitigation that should appropriately be provided. At the same time some additional considerations for passive fire/smoke hardening of critical spaces to protect against exposing area fire should also be evaluated. Smoke extraction may not be feasible in the sensitive spaces, since they may lack direct access to the outside vertically that would be needed in large area quantities to make exhaust effective. However, pressurization schemes relative to surrounding occupancies could be made effective in preventing smoke infiltration into critical rooms. This evaluation and the selected strategy will have a direct impact on emergency power resource sizing.

Emergency Power and Critical Support Systems

A technical risk analysis versus exposure mitigation objectives should be conducted to determine the reliability and potential redundancy levels required to meet risk management, continuity of operations, and asset preservation requirements with respect to emergency power support. A risk analysis needs to be performed to determine desired levels of continuity for operations for such functions as ventilation equipment in controlled atmosphere archival areas. This will include consideration of the routing of primary and secondary power supplies, physical separation of trains, fire protection for each train, and need for redundant equipment/systems. The ability to provide some form of smoke mitigation in high valued areas of the museum, library, and archives space also needs to be considered.

NFPA 20 and 110 do not stipulate requirements for separation or redundancy of primary and secondary feeds for fire pumps. Similarly, neither these standards, nor the Fire Marshal require seismic considerations in preserving the feed connectors during an earthquake event. However, good engineering practice with similar archival and museum facilities dictates consideration of the separate routing of primary and emergency generator lines, physical separation of each feed to prevent common mode failure, fire resistant cable usage between the generators or primary source and the transfer switch for the pump, and in the case where both a booster and fire pump exist, separate primary and emergency power feeds for each. Consideration should also be given toward the connection of the jockey (pressure maintenance pump) to both the primary and emergency power supply, as well. Seismic considerations should be coordinated through a structural engineering and technical risk analysis for any fire/booster pump emergency power feeds to reduce the potential for shear damage from movement or restraint.

Fire and Smoke Resistive Construction

The building provides the enclosure that safeguards the collections and related operations from weather, adverse environmental conditions, and security threats. Protecting the archives, museum, and library from fire damage is paramount. Construction requirements for the repository must comply with NFPA 232, Standard for the Protection of Records and Storage, NFPA 909, Code for the Protection of Cultural Resources and the local mandated building code. Where conflicts between the codes arise the most restrictive requirements must apply for archival facilities.

Critical fire safe aspects of the facility must include:

Water supply to the site and building.

Fire detection, fire suppression and fire alarms systems.

Properly rated construction and roof materials.

Fire rated doors.

Preventing fire ignition from mechanical and electrical systems.

Preventing fire ignition by selecting furniture and finishes that lower flame spread and smoke generation and are constructed with a low flame spread rating.

Isolating fire and smoke to prescribed areas of a floor of the building.

Compartmentalizing building spaces will prevent migration of fire and will vary depending on how the spaces are used.

Isolating fire and smoke to the floor where the fire occurs.

Preventing fire spread from an adjacent building or outside sources into the facility.

Building Structure

It is preferred that all archives, museum, and library facilities be constructed of IBC Type IA or IB fire resistive construction a comparison of fire resistance requirements is shown as follows:

Building Element	Type IA	Type 1B
Structural Frame	3 hr	2 hr
Bearing walls		
Exterior	3hr	2hr
Interior	3hr	2hr

Nonbearing walls and partitions	0	0
Floor Construction	2 hr	2 hr
Roof Construction	1 ½ hr	1 hr
Shafts and exist stairs	2 hr	2 hr

From a risk mitigation standpoint, additional fire and smoke separations should be provided within museum and library facilities. Conceptually, these wall and floor separations should include:

Parking to Museum Level ceiling/floor: 2 hr

Emergency Generator, Transfer Switches, Essential Power Control Centers, Critical HVAC: 2 hrs

Fire Pump Room: 2 hr with exterior door access

Maintenance Shops: 1 hr

MCC, electrical, and Communications Rooms: 1hr with approved automatic fire protection

Archives, Controlled Atmosphere Storage, Book Stacks: 2 hrs

Library, museum, museum loading and support, collections, commercial kitchens, restoration laboratories: 1 hr

Assembly: 1 hr

Corridors: 1 hr

Book Stacks, Archival Areas, Restoration and Preservation Areas (Critical areas)

Book Stacks, Archival Areas, Restoration and Preservation Areas must have the highest level of fire safe integrity. Stacks and areas housing archival materials must be constructed to resist the entry of fire, smoke, water, and toxic gases.

Construction. All walls, ceilings and floors of a book stack and archival area, as well as restoration and preservation areas must be constructed of masonry or reinforced concrete assemblies. Combustible materials shall not be used in any portion of these critical areas' construction, finishes or any portion of the building's structural members that support these areas. In addition, book stacks and all supporting structures must be designed and constructed to ensure that the structure will withstand all the conditions that a fire may impose upon it for the entire fire duration. The duration of the book stack and archival area fire resistance must not be less than 1.5 times the anticipated fire duration of all combustibles within the stack. In the absence of accurate knowledge regarding the fire duration, the stack enclosure should not be less than four hours. Stack and archival area fire resistance must not be reduced if fire suppression is provided even when permitted by the building code. All building structural members that support stacks and archival areas must have a fire resistance rating at least equal to that of the stack or archival enclosure. In addition, the stack's support structure must be of adequate strength to carry the full load of the building structure plus the wet weight of the stack structure and contents. Spray on fire proofing materials must not be used in stacks or archival areas. Safes, file cabinets or record containers housing archival records that are housed outside of stacks must have a minimum fire resistance of two hours.

Book Stacks, Archival Area, Restoration and Preservation Area walls must be free from penetrations except for openings that are required for essential systems. Conduit penetrations must have fire rated seals through walls. Floors and roofs shall not be pierced for conduit.

Exterior walls must have the same fire rating as interior walls and must be free from penetrations, with the exception of exterior openings that are required for proper ventilation and are fitted with automatic fire and smoke dampers that provide a fire resistance rating equivalent to the wall. Smoke barrier walls with self closing doors must be provided for all multiple floor shelving systems in stacks to prevent vertical smoke migration. Smoke barrier walls should be used for all museum, display, and library spaces as separations from common areas, major office suites, and assembly areas.

All stacks and archives greater than 500 ft² in area must be provided with means to extract smoke directly to the exterior. Extract can be mechanical or passive.

All door openings must be protected with fire rated doors with a fire rating in hours equal to the classification of the stack walls. Doors must be listed and labeled in accordance with ANSI/UL 155, Tests for Fire Resistance of Vault and File Room Doors. Stack doors must be equipped with automatic closing devices to maintain the door in a normally closed and latched position.

All other fire doors in the repository or archives must be equipped with automatic closing devices and maintained in a normally closed position. Exception: Where closed doors interfere with normal business operations and a smoke detection is provided, they may be held open with magnetic devices that release and close the doors upon activation of the smoke detection system operation.

Shafts and Stairways. Elevators, stairways, conveyors and other shafts must not open directly into Book Stacks, Archival Areas, Restoration and Preservation Areas. Exception: Stairways, elevators, conveyors and shafts that are located within these spaces and are exclusive for use of the respective space.

Climate Control. Climate control for the Book Stacks, Archival Areas, Restoration and Preservation Areas must be accomplished by fixed systems. Portable heating, air conditioning or humidity control equipment must not be used in stacks. Exception: Equipment used for temporary stabilization and recovery may be used in emergency situations.

Boilers, furnaces, humidification, de-humidification, air conditioning and other climate conditioning equipment that serve the Book Stacks, Archival Areas, Restoration or Preservation Areas must not be located within the critical area enclosure. In addition, all controls for utilities that serve critical areas must be located outside of the critical areas so that access to the controls does not require entry to the critical area.

Ducts and pipes that do not serve the Book Stacks, Archival Areas, Restoration or Preservation Areas must not enter or pass through the stack. Any pipe that serves a critical area must have its point of penetration through the wall completely filled with cement or other approved grouting.

All mechanical ducts serving the Book Stacks, Archival Areas, Restoration and Preservation Areas must be provided with an automatic, combined fire and smoke damper that is equipped to completely close the duct opening and shut down fans that serve the duct in the event of fire. The individual damper or combination thereof must provide equivalent fire resistance rating to the stack wall.

Duct smoke detectors should be provided in the supply and return ducts of the air handling systems and be designed to shut down the individual air handler unit if smoke is detected in the system.

There should be a main shut-off of the air handling systems. It should be possible to shut down the air handling system manually and override the automatic controls during a fire emergency.

This shut-off switch should be located in the fire control panel.

Electrical. All Book Stacks, Archival Areas, Restoration and Preservation Areas wiring must be in conduit and installed in accordance with NFPA 70, National Electrical Code. All circuits that serve critical areas must be fitted with arc-fault circuit interrupters (AFCI). Wiring within critical areas must be limited to those necessary for illumination. Electrical and communications cabling that does not serve the respective critical area must not pass through the stack. Exception: Power limited circuits as defined by NFPA 70 for security, fire detection and alarm, and temperature/humidity monitoring. Where a conduit or cable serves the critical area, the point of penetration through the wall shall be completely filled with cement or other approved grouting.

The electrical distribution equipment, including communications panels, must not be located within Book Stacks, Archival Areas, Restoration or Preservation Areas. Critical area electrical and lighting circuits must be arranged so that they are de-energized when the stack's main lock is engaged. Automatic timers may be used to shut lights off after thirty minutes. Exception: Power limited circuits as defined by NFPA 70 for security, fire detection and alarm, and temperature/ humidity monitoring may be used in critical areas.

Lighting and electrical power within stacks must only be accomplished by fixed systems. Portable lighting and extension cords must not be used in stacks. Exception: Portable equipment used for temporary stabilization and recovery may be used in emergencies.

Water Supply

A detailed flow supply test and fire protection water supply estimate calculation will need to be completed for each of the alternate locations selected. Due to the variability in both pressure and flow available from the State Capital and City of Olympia underground fire mains in and adjoining the potential sites, only limited generalized assumptions concerning water supply sizing can be made at this time. Based upon the previous site surveys for Potential Location #1, it was determined that a booster fire pump would be required.

Based upon the IFC, a fire pump is required in addition to the primary water supply when the building is classified as a high rise. A high rise is defined in the IBC as a structure with a height in excess of 75 ft as measured from the lowest fire department access. While the design team has operated under the assumption that the building is a high rise for Potential Location # 1, the height issue should be verified by the architect. Since the height limitation may be close, the Fire Marshal has indicated a willingness to waive the fire pump and tank requirement if an argument can be made that other building features and fire department response factors will permit a level of fire protection that is at least as effective as the prescriptive standard's requirements. If this can be achieved, the fire pump may be eliminated from the project

However, since the other candidate locations are not high rise in nature a fire pump and tank will not be required in these instances.

A booster fire pump was determined to be necessary to meet fire protection demand for Potential Location #1. However, the need for and sizing of the booster pump for the other candidate locations must be hydraulically evaluated in light of the standpipe criteria and potential impacts form combined versus separate sprinkler and standpipe risers.

Based upon the fact that chlorinated potable water is deemed by the Department of Ecology to pose a threat to riparian stream beds when discharged directly into storm drains, if a proposed tank is used for collection of rain-water, et al. for recycling; it can also be sized to accommodate annual full flow testing of the booster pump. This feature will also make such testing easier and faster to conduct.

A double detector check valve assemblies will be installed to protect the water service from contamination.

Building Fire Protection

The building will be protected by a hydraulically calculated automatic wet sprinkler system. Each floor will be considered as a separate sprinkler zone with its own sprinkler control valve assembly consisting of a supervised valve, flow switch, and drain valve. Floor sprinklers will be served by at least two risers.

All equipment and devices shall be Underwriters Laboratories listed, Factory Mutual Approved and acceptable to the local Authority Having Jurisdiction. Fire Protection Contractor shall sign and seal with a Washington State Fire Protection Designer Certificate of Competency all shop Drawings and hydraulic calculations prior to issuance to Building and Fire Departments for approval. No work shall be installed without approved shop Drawings.

It shall be the responsibility of the Contractor to coordinate the location of all sprinkler heads with final reflected ceiling Drawings.

Fire sprinkler mains shall not interfere with the HVAC contractor's ability to place HVAC main ducts tight to bottom of fire proofed structural elements.

The Contractor shall provide all offsets, drains and drain plugs for trapped piping, and drainage piping. The Contractor shall notify the Architect, in writing, of all discrepancies in sprinkler head locations where local codes are violated (i.e., allowable distance from walls or exterior glass, small room spacing, stairs, etc.).

Fire sprinkler mains shall not interfere with the HVAC contractor's ability to place HVAC main ducts tight to bottom of fire proofed structural elements.

System piping shall be hydraulically designed throughout all areas in accordance with the rules and regulations of the applicable standards. Hydraulic calculations shall be in accordance with the Area/Density Method or other method approved for the application used, per NFPA 13 and FM Loss Prevention Data Sheets 2-8 and 2-8N. The Owner's Insurance Carrier shall be contacted to verify any additional requirements.

System piping shall be hydraulically designed throughout all areas in accordance with the rules and regulations of the applicable standards using the design densities indicated herein:

Fire Sprinklers: The fire sprinkler hydraulic calculations shall include hose allowances as defined for the hazard for inside and outside hose streams as required to meet applicable standards.

Hydraulically designed sprinkler systems should be designed for a supply pressure of at least 10 percent, but not less than 10 psi, below the supply curve.

The velocity of water through the fire protection piping system shall not exceed maximum allowable velocities allowed by applicable standards.

Standpipes: Pipe sizes based upon providing the required flow rate at the most hydraulically remote fire hose valve connection on the standpipe and at the top most hose outlet of each of the other standpipes at a minimum 65 psi residual. The minimum flow rate for the most remote standpipes shall be 500 gpm, and 250 for each additional standpipe, with total not to exceed 1000 gpm for combined systems.

The hydraulic calculations shall be based on current flow data obtained from local water authority. Confirm flow data prior to design and layout of fire protection systems.

Wet Pipe Sprinkler Protection. All sprinkler systems shall be hydraulically calculated. Sprinkler design area adjustment for quick response heads based upon ceiling height, per NFPA 13 Section 11.2.3.2.3 shall be permitted. In the event design criteria information from the project fire insurance underwriter is unavailable at the time of initial design, the following minimum criteria shall be used:

Light Hazard: Offices, data processing, restaurant seating area, library – exclusive of book stacks, non-exhibition assembly areas, and corridor - piping systems shall be sized to deliver a minimum 0.10 gpm/sq. ft. over an area of 1500 sq. ft. at the most remote location and 250 gpm for hose stream. The protection area per sprinkler head shall be 225 square feet.

Ordinary Hazard – Group 1: Restaurant service area, exhibition assembly areas, shops, maintenance areas, mechanical rooms, and archival restoration areas - piping shall be sized to deliver a minimum 0.15 gpm/sq. ft. over 1500 sq. ft. at the most remote location. Sprinkler head spacing shall be limited to maximum area of 130 square feet.

Ordinary Hazard – Group 2: Retail areas, truck dock, storage areas and library book stacks, archives - piping shall be sized to deliver a minimum 0.20 gpm/sq. ft. over an area of 1500 sq. ft. at most remote location. Sprinkler head spacing shall be limited to maximum area of 130 sq. ft.

Preaction System Density Requirements:

Sprinkler design area adjustment for quick response heads based upon ceiling height, per NFPA 13 Section 11.2.3.2.3 shall be permitted.

Ordinary Hazard – Group 1: Museum, Archives, Library, Archival Restoration, Information Technology Rooms (based upon fire hazards assessment for risk management purposes) - piping shall be sized to deliver a minimum 0.15 gpm/sq. ft. over 1500 sq. ft. at the most remote location for single interlock systems and 1950 sq ft for double interlock arrangements. Sprinkler head spacing shall be limited to maximum area of 130 square feet. The maximum area coverage per smoke detector shall not exceed: 120 sq. ft.

Group preaction systems into single zones per floor to achieve a net savings in installation costs, reduction in maintenance, reduction in the footprint occupied by multiple sprinkler system risers on each floor, and mainte-

nance of the same level of reliability overall.

Where pendent heads are required dry pendent heads shall be used to permit more thorough drainage of water subsequent to a system trip. This represents an installation cost increase, but significant reduction in potential for plugging of sprinkler heads caused by cycling of preaction arrangement (dry/wet) from system trips, also reduction in damage from contaminated water residue otherwise trapped in pendent sprinkler drops and return bends. No change in aesthetics of heads within the ceiling area.

Use corrosion resistant piping (galvanized or stainless steel) for preaction systems – This incremental increase in material cost would be off-set by the reduction in potential contaminant damage from corrosion products developing within the preaction system piping.

Use an approved multi-cycling (FireCycle) system arrangement for the preaction arrangement to archive, book stack, museum, and library areas to provide a reliable on-off system operating capability during a fire event to limit discharge. The installation of a FireCycle Arrangement for preaction systems may be slightly more expensive in design, but combines features to reduce potential for inadvertent discharge of water, with reduced water discharge during a credible fire to mitigate damage without compromising reliability and code compliance. All pre-action piping shall be sloped back to drains and caps shall be strategically provided to facilitate water removal.

Dry Pipe System Protection:

Ordinary Hazard – Group 1: Parking Garage, and Canopies or Overhangs over 4 ft wide - piping shall be sized to deliver a minimum 0.15 gpm/sq. ft. over the most remote 1950 sq ft. Sprinkler head spacing shall be limited to maximum area of 130 square feet.

The maximum area coverage per smoke detector shall not exceed: 120 sq. ft.

All dry system piping shall be sloped back to drains and caps shall be strategically provided to facilitate water removal.

Standpipe Systems:

Class I systems automatic standpipes with 2 ½-inch hose valves. Base the arrangement upon a wet-manual configuration, hydraulically designed in accordance with NFPA 14.

A 2½-inch fire hose valve will be provided in the stairwell at each floor or as required by the local fire department. A dedicated 4-inch drain riser will be required with 2-1/2 capped outlets on a 45-degree angle for testing the pressure regulating valves. One 4-way fire department connection will be provided at a location to be coordinated with the local fire department.

Provide with drain risers adjacent to each standpipe equipped with 2½ inch internal threaded swivel fittings having threads as designated by local fire authority.

Provide 2½ inch pressure reducing type hose valve where pressure will exceed 175 pounds per square inch.

Zoning of the Fire Protection System:

Wet Sprinkler System: Water flow detection zoning shall be per floor basis with areas not exceeding maximum allowable per NFPA.

Elevator Machine Room Requirements:

The sprinkler supply line to each elevator machine room shall be provided with an accessible shutoff valve with tamper switch.

Fire sprinklers installed in the elevator machine rooms shall be intermediate temperature rating.

Elevator Pit Requirements:

Install automatic sprinkler heads in elevator pits such that the water spray pattern shall not spray higher than 2 feet above the pit floor, with a spray pattern directed level and down.

An accessible sprinkler shut-off valve shall be provided outside of and near the pit. The valve shall be normally open, with no provision to shut off elevator power.

Do not locate automatic sprinkler heads on a car entrance side or interfere with pit access.

Provide drain valve and plug at the lowest point of the automatic sprinkler piping in the pit and installed to avoid mechanical damage. Piping shall enter the shaft at the floor level of the bottom landing and be wall mounted, fit tight against the wall, and maintain proper clearance to the car and counterweights. In walk-in pits, sprinkler piping may enter the pit in an approved manner other than the floor level of the car's lowest landing.

Piping Arrangement

No pipes or other apparatus shall be installed so as to interfere in any way with the full swing of doors, building access doors, and access doors in ductwork. The arrangement, positions, and connections of pipes, drains, valves, etc., shown on the Drawings shall be taken as a close approximation and while they shall be followed as closely as possible, the right is reserved by the Project Representative to change the locations to accommodate any conditions which may arise during the progress of the work without additional compensation to this Contractor for such changes, provided that the changes are requested prior to the installation of this Contractor's work. Piping typically shall be installed concealed in or above building construction; i.e.; hung ceilings, and shall be so arranged that relocation of lighting fixtures, or plumbing and mechanical systems, will not cause any interference.

Coordinate with the fire sprinkler and alarm trades to ensure full awareness of the location of all control valves, flow switches, tamper switches, and alarm and signal switches.

Hangers: Design shall be per NFPA 13, for pressures in excess of 100 psi, NFPA 13, 2-6 and 4-5.2.

Earthquake Sway Bracing: Design will be per NFPA 13 using UL listed or FM Approved components. The location of sway bracing and flexible couplings shall be shown on all shop drawings submitted for approval in sufficient detail to verify their location, preferred arrangement, and conformance to this standard.

Flushing Connections: Flushing connections shall be per NFPA 13, 4-4.1.7.18.

Sleeves and Penetrations: All pipes penetrating concrete or masonry walls or floors shall be sleeved. All pipe penetrations shall have minimum clearance as per NFPA 13, 4-5.4.3.4. Sleeves shall be caulked to retain the proper fire-wall rating with an approved sealant.

Sprinkler heads in finished area will be quick response type, chrome finish with white escutcheon.

For all archival storage areas and the like, double interlock pre-action fire suppression systems will be provided.

Clean Agent Fire Protection

The selection of an appropriate clean agent (e.g.: watermist, FM 200, Inergen, etc.) shall be based upon a fire hazards assessment by a qualified fire protection specialist.

Potential candidates for clean agent protection include, archives, rare book stacks, automated mobile shelving units, selected information technology equipment rooms.

Clean agent systems shall be installed in conjunction with an approved automatic sprinkler system throughout, rather than as a substitute.

Electrical Design

Codes and Standards

General Administration (GA) Facilities Standards.
National Electrical Code (NEC).
International Fire Code (IFC).
Washington State Fire Marshal Requirements.
Washington State Energy Code.
American National Standards Institute (ANSI).
Institute of Electrical and Electronics Engineers (IEEE).
Illuminating Engineering Society of North America (IES).
National Fire Protection Association (NFPA).
National Electrical Manufacturers Association (NEMA).
Underwriters Laboratories (UL).

Primary Distribution – Medium Voltage

The General Administration Campus owns its own 12.47kV primary power distribution systems with maintenance provided by Puget Sound Energy for utility power service. PSE provides (4) 12.47kV primary circuits which are distributed and looped through the campus from the southeast corner along Cherry Street and 16th Avenue. The project buildings will be served by an extension of an existing primary circuit delivered to the new building from an existing switching vault.

Normal Power System

Each building will have a 480Y/277V, 3-phase, 4-wire low voltage switchboard (size TBD) with solid state circuit breakers group mounted, interrupt current rated at 100,000 AIC.
Secondary metering provision to be confirmed with Campus and GA.

GROUP MOUNTED SWITCHBOARD

480V and 208V branch panelboards and associated step-down transformers will be distributed throughout in electrical rooms located on the floor of service or a mezzanine level above near the loads they serve. Mechanical power distribution will be provided with dedicated distribution panels and/or MCCs located in the mechanical rooms throughout the facility.
Acceptable Manufacturers: Cutler Hammer, General Electric, or Square D/Group Schneider.

Emergency Power System

One radiator cooled, diesel fuel fired standby engine generator set rated, 480Y/277V, 3-phase, 4-wire, 60 Hz, 1800 rpm will be provided to supply power supporting all life/safety loads (egress and emergency exit lighting, fire alarm systems, smoke removal fans, all elevators) and Owner-specified optional loads (e.g. computers, UPS, HVAC, etc.) This size of these units has not yet been determined.
Auto transfer switches to be provided and to be designated to feed Emergency load, legally required standby loads and optional standby loads..

The generators will be located within the buildings with a 2-hour day tank adjacent or in a base mounted tank, an under ground fuel storage tank to be provided and sized to support the Owners requested 72 hours of full-load operation. A signal from any automatic transfer switch will start the engine and supply power to the emergency distribution system in the event of failure of the normal power source.

Generator will be exercised per the requirements of NFPA 110. Permanently installed load banks will be installed to meet these requirements.

Acceptable Manufacturer: Cummins/Onan , Caterpillar or approved equal

Grounding System

A complete grounding system complying with National Electrical Code will be provided. Grounding system shall consist of the following:

Main Grounding System. The main building grounding system will consist of the following:

Bond to structural steel.

Bond to incoming water main.

Bond to grounding rod for lightning protection system if provided.

Ground rods shall be located in main electrical room or at building exterior below grade or unexcavated area and connected to main electrical room service grounding bus.

All the above will be terminated to a ground bus bar in the main electrical room. In addition, the service entrance neutral conductor will be bonded to the switchboard ground bus, the electrical room ground bus bar and the ground rod.

Ground Riser. A ground riser will be provided in each electrical room with transformers and telecommunications room. Each will consist of the following:

Bare copper conductor from the main building ground bus to a ground bus on each level. Each ground bus will be bonded to the nearest building steel.

Each transformer neutral ground bar will be bonded to the ground bus in addition to the nearest building steel.

Branch circuit grounding. The continuous metallic conduit raceway will serve as the ground path for feeders.

Branch circuits shall be provided with an insulated grounding conductor run with the circuit conductors. This grounding conductor shall be in addition to the ground path provided by the continuously grounded metallic raceway system that encloses the phase and neutral conductors.

Equipment Connections

HVAC equipment.

Plumbing equipment.

Fire protection equipment.

Elevators.

Owner furnished equipment.

Motorized doors and gates.

120V power connections and empty conduit for irrigation control system.

Convenience and special purpose receptacles.

Food Service equipment

Fire Alarm Systems

Codes and Standards

This installation will comply with the Washington State Codes and Washington State Facilities Standards.

All Fire Protection design, products, and installation shall comply with the applicable provisions and recommendations of the following jurisdictional codes, authorities and guidelines:

International Code Council

International Building Code, 2006 Edition

International Fire Code, 2006 Edition

State of Washington, Code Amendments

National Fire Protection Association

National Fire Protection Association Standard 70, National Electrical Code, 2008 Edition

National Fire Protection Association Standard 72, 2008 Edition

National Fire Protection Association 75, Standard on Information Technology Equipment Protection, 2009 Edition

National Fire Protection Association 110, Standard for emergency and Standby Power Systems, 2007 Edition

National Fire Protection Association 232, Standard for the Protection of Records and Storage

National Fire Protection Association 909, Code for the Protection of Cultural Resources

Applicable FM GLOBAL Loss Prevention Data Sheets

FM P7825a, Approval Guide Fire Protection, 2008

FM P7825b, Approval Guide Electrical Equipment, 2008

UNDERWRITERS LABORATORIES (UL)

UL Fire Protection Equipment Directory

Local Codes, Code Amendments and Requirements

Provide fire alarm products including smoke and heat detectors, fire alarm control panels and annunciators, notification appliances, HVAC fan and damper interface, magnetic door release interface, conduit, wiring, supports, anchors, fire stops, etc., that are Underwriters Laboratories listed/FM Global Approved, and acceptable to the local Authority Having Jurisdiction.

General

A fire alarm system is required to be connected to the automatic sprinkler system to monitor valve tamper and water flow alarms. The fire alarm system must be connected to a constantly attended remote monitoring system or approved central station. A smoke detector must be provided with 10 ft horizontally of the fire alarm control panel, in accordance with NFPA 72.

A fire alarm system is required to be connected to the automatic sprinkler system to monitor valve tamper and water flow alarms. The fire alarm system must be connected to a constantly attended remote monitoring system or approved central station. A smoke detector must be provided with 10 ft horizontally of the fire alarm control panel, in accordance with NFPA 72.

Automatic smoke detectors must be provided at each elevator lobby in accordance with the IBC and ASME A17.1 for elevator recall. When a fire alarm system is provided, smoke detection for elevator landings it must be interconnected with the elevator landing smoke detection.

Where automatic closing fire doors are installed in rated smoke or fire separations are provided, smoke detection must be within 10 feet of each side of the opening and arranged through the fire alarm control panel for coordinated release of the approved hold open devices.

Duct smoke detection must be provided for fan shutdown and fire/smoke damper closure per the IBC and shall be connected to the fire alarm control panel when provided. Duct smoke detection will also require supervised visual and auditory signals to the fire alarm control panel and a constantly attended location.

Accessible areas of refuge will require smoke detection and two-way communication between the area of refuge

and a constantly attended location, via the fire alarm control panel.

Any smoke pressurization, evacuation, or mitigation system shall be interconnected to the fire alarm control panel, in accordance with the IBC, IFC, and NFPA 90A and 90B. Where it is determined that the fire alarm control panel will also interface with the building management system, both control panels and their associated components and devices must be cross-listed and compatible in accordance with UL 864 for fire protection service. Any building fire suppression systems, including but not limited to automatic sprinklers, commercial cooking hood fire suppression, preaction sprinkler systems, and clean agent fire suppression systems shall be interfaced and supervised for trouble, detection operation, valve supervision, and agent release.

Audible/visual notification appliances must be provided throughout the building in accordance with NFPA 72. If either of the buildings contains a floor for office occupancy located 75 feet above the lowest level of fire department vehicle access, an automatic fire alarm system, an emergency voice/alarm communication system and a fire department communication system will be required. Since only Potential Location #1 may be considered a high rise building, all other candidate sites and building configurations do not need to meet Section 907.9.2 of the IFC. If Potential Location #1 is deemed a high rise, it will require a separate zone by floor for smoke detection, sprinkler water flow devices, manual fire alarm pull stations, and other types of automatic fire detection and suppression systems. Open area smoke detection is required for all common areas, corridors, and lobbies, in addition to any duct smoke detection. A fire command center will be required for a high rise building. The fire alarm systems will be the addressable type with each initiating device annunciated as an individual zone. The Fire Alarm and Control Panel shall provide centralized control and annunciation of fire alarm zones and associated annunciation with interface to fire-fighter's smoke control panel. Area smoke detectors shall be analog type to permit monitoring and calibration of smoke detector sensitivity from the FACP.

The fire alarm system shall be fully supervised and include both manually and automatically actuated alarms consisting of:

Manual pull stations in each elevator lobby, entries to stairwells, main exit doors and intermediate locations to provide 200 feet maximum spacing between manual pull stations.

Connections to fire sprinkler system water flow, tamper switches and pre-action system.

Area smoke detectors in each mechanical, electrical, telephone, and elevator machine room, at each stair and elevator lobby door fitted with magnetic hold open devices, and in each elevator lobby for elevator recall. Fire detectors in elevator shafts.

Duct type smoke detectors at the inlet of all return air duct stub outs, at main return air plenums, at the discharge of each supply air fan and where required to operate a fire/smoke damper.

Speakers and strobes per the IFC and the ADA.

Emergency voice/alarm communication.

Fire department communication.

Data gathering panels for Executive Offices F/A devices.

Annunciator and remote annunciators.

The fire alarm LED annunciator shall provide indication of the floor of an alarm and the type of alarm, i.e., manual, sprinkler flow, or smoke. The fire alarm system shall be connected to an approved central monitoring service. Remote annunciators will be located in Security Control rooms.

The Executive Office Center is primarily considered to be an IBC Group B (business) occupancy with some Group A (assembly) areas. Where the anticipated occupant load exceeds 300 in assembly areas, 500 occupants total in business occupancy, or 100 persons above or below the level of exit discharge, a manual fire alarm system is required. Alternatively, manual fire alarm pull stations may be omitted when an approved automatic sprinkler system is provided throughout the building and alarm notification appliances are arranged to activate upon

sprinkler water flow. The City of Olympia requires at least manual fire alarm pull stations at each exit on every floor, regardless of the presence of approved automatic sprinkler protection throughout the building. The following recommended additional level of smoke detection should be provided:

Provide spot type smoke detectors within common areas, corridors, conference rooms.

Provide air aspirating or spot type smoke detection for any clean agent systems determined by fire hazard assessment to be needed for property protection or operational continuity for information technology areas.

Provide heat detection within the emergency generator and the booster fire pump rooms.

Provide smoke detection in major electrical switchgear rooms and storage/records rooms.

Consider liquid spill monitoring interfaced with the fire alarm control panel for critical records rooms, information technology rooms, and other areas highly susceptible to liquid damage.

The Heritage museum, archives, and library is considered to be primarily IBC Group A (assembly), with extensive storage (S), office and restoration area ((B) support areas. In addition to the level of fire alarms required in the Executive Office Center, it is anticipated that the assembly areas will account for an occupant load of 1,000 or more, which according to FC 907.2.1.1, requires an emergency voice/alarm system, equipped with or supplied from an approved emergency power source. Where an atrium connecting two or more stories is provided, the fire alarm system will also require interface with the smoke control system and voice/alarm communication, in accordance with 907.2.13. The following recommended additional level of smoke detection should be provided:

Provide spot type smoke detectors within common areas, corridors, conference rooms.

Provide beam or air aspirating smoke detection where ceiling heights exceed 15 ft. and more than twelve (12) spot type detectors would be required within any single zone or fire area.

Provide air aspirating or spot type smoke detection for any clean agent systems determined by fire hazard assessment to be needed for property protection or operational continuity for information technology areas.

Where multi-cycling preaction systems are selected, approved heat detectors listed for the releasing system will be required in addition to smoke detection.

Provide heat detection within the emergency generator and the booster fire pump rooms.

Provide smoke detection in major electrical switchgear rooms and storage/records rooms.

Consider liquid spill monitoring interfaced with the fire alarm control panel for critical records rooms, archives rooms, museum below grade operations, art and valuable records storage, book stacks, and information technology rooms, and other areas highly susceptible to liquid damage.

Interface archival vault, book stack, and valuable art storage area temperature and humidity alarms and control for supervision with the fire alarm system.

Acceptable Manufacturers to be confirmed with GA.

Luminaires

General

This section covers lighting in typical office and support areas, equipment rooms, stairwells and other back of house spaces. Lighting controls for these spaces will be provided in compliance with the Washington State Energy Code. Single-occupant offices, restrooms, storage rooms, janitor closets and other small enclosed rooms will be provided with occupancy sensors to automatically control lighting and, as applicable, combined with dual-level switching to allow occupant selection of lighting level. Open offices, corridors, waiting areas, lobbies, and other large office/office support spaces will be controlled by a microprocessor-based lighting control panel with low voltage switch locations and astronomical timeclock programming.

Architectural lighting systems and specialty control systems will be provided in public areas and areas requiring specific lighting needs. Preliminary design concepts apply to the following specialty areas:

Lobbies:

Perimeter cove lighting shall provide indirect ceiling uplighting with accent lighting for highlighted entries, artwork, points of interests.

Public Gathering Areas:

A combination of either recessed indirect lighting or downlighting and accent lighting.

Auditorium and Conference Hall:

Dimmable downlighting and cove uplighting shall provide for task lighting to stage presence. Step lighting provided for low level pathway lighting.

Galleries:

Aimable downlighting and accent lighting shall provide both permanent and changing exhibit spaces.

Illumination will be in accordance with the recommendations of the Illuminating Engineering Society and Washington State Energy Code.

Lighting fixtures will be provided in accordance with IES Illumination recommendation as follows:

Emergency egress lighting will be provided to achieve 1 fc along path of egress.

Equipment, Storage Rooms: illumination level: 30 foot-candles.

Stairwells and Utility Corridors: illumination level: 5 foot-candles.

Private and open offices: illumination level: 50 foot-candles.

Conference, training room (Executive Office only): illumination level: 30 foot-candles.

Kitchen & Lunch room: illumination level: 30 foot-candles.

Shipping / Receiving area: illumination level: 30 foot-candles

Toilet and washroom: illumination level: 10 foot-candles

Energy code for lighting shall comply with Washington State Energy Code the as below:

Common area, corridors, toilet facilities and washrooms,

elevator lobbies: 0.8 W/SF

Parking garages: 0.2 W/SF

Storage areas, warehouse: 0.5 W/SF

Office / admin. Areas: 1.0 W/SF

Workshop: 1.4 W/SF

Cafeterias: 1.3 W/SF

Lighting systems shall utilize high efficiency, low glare fixtures. High power factor electronic ballast's will be provided where available.

Internally illuminated exit signs will be provided as required for safe egress and as required by code. Exit signs shall be edge-lit and high efficiency utilize LED sources. Self powered (nuclear) type exits signs will not be permitted.

Lighting System

Site Lighting

A layered approach to site lighting with pedestrian scale poles combined with low level lighting will provide safe and even light levels while highlighting architectural and landscape features. Highlighting of features will provide visual cues as to destination and location on campus while providing vertical illumination to increase facial recognition. Building entries will be highlighted to create a destination when viewing the building from a distance. Outdoor paved seating areas will be illuminated with a combination of pedestrian scale light poles and low level bench and step light fixtures. Landscape areas will have minimal lighting with a few key trees or sculptures illuminated to provide view into the distance while retaining dark skies. Lighting at parking areas will be provided by full-cut-off LED light fixtures equipped with high performance optics.

Daylighting

Extensive daylight study will be performed and coordinated to maximize daylight penetration into interior spaces. The goal of daylighting of interior spaces will be to increase connection to nature and time of day changes while reducing electric lighting loads during daylight hours. Light fixtures in the daylight zones will be equipped with dimming ballasts to allow for automatic electric light load shedding with no noticeable change in light levels. Photocells will be carefully placed to read daylight levels accurately, making the daylight control system automatic and user-friendly.

Interior Lighting

Lighting will be designed to highlight the architecture and task areas while providing a highly energy efficient lighting system. A task/ambient approach to lighting will provide lower ambient light levels with higher light levels at tasks provided by tasklights or directional light fixtures. Light fixtures will be carefully placed to integrate with the daylight zones and the daylight control system. Light sources will achieve energy efficiency with a high lumen per watt ratio, have long lamp life to reduce replacement and maintenance costs and aid visibility by having a Color Rendering Index of at least 80 CRI. Light fixtures shall utilize high efficiency photometrics and provide low glare illumination. High power factor electronic ballasts will be provided where available. General lighting approach per major program areas is as follows.

Lighting Controls

A series of networked light panels will provide automatic control of the lighting system. The lighting control panels will be connected to the Building Management System to allow lighting system energy use and outage monitoring. Automatic sweep off of light fixtures will be utilized with local override switches for after-hours use. Occupancy sensors will be used in all private offices, classrooms, meeting rooms, storage and support spaces to ensure light fixtures are not on when the room is not in use. Daylight photocell sensors will automatically dim light fixtures in all daylight zones. Exterior light fixtures will be controlled via one central photocell and by the building time clock for further fine tuning of hours of operation.

Exit signs shall be edge-lit and utilize high efficiency LED sources. Emergency egress lighting will be provided to achieve a minimum of 1 fc along path of egress.

The lighting systems are being designed in accordance with the recommendations of the Illuminating Engineering Society and Washington State Energy Code. The Lighting system will be designed to meet the following goals and guidelines for each program area:

Area	Target Illuminance	Design Intent	Lamp	W/SF
Building Entries	General 5 fc	Light fixture integrated into building overhangs and canopies to light the ground and architectural features.	CFL LED MH	.8
Exterior Seating	General 2 fc Accent 5 fc	Pedestrian scale poles used at open areas and paths. Wall recessed steplight at stairs.	CFL LED MH	.2
Landscape	General .5 fc Accent 1 fc	Low level area light fixtures will light key landscape features.	CFL LED	.1
Parking	General 2 fc	Full cut off light fixtures on 20' poles. Pedestrian scale poles at path areas	LED	.15
Lobbies	General 15 fc Task 30 fc	Indirect lighting will illuminate the architectural volume and vertical surfaces. Feature materials and tasks will be highlighted	FL MH	.8
Exhibits	General 20 fc Accent 60 fc	A combination of light fixture distributions will provide maximum flexibility. Downlights, pendant indirect fixtures and linear wallwashers will be used.	CFL FL	1.2
Library	General 20 fc Task 35 fc	The architectural volume will be highlighted and tasklight will be provided at all stacks and desks	CFL FL MH	1.5
Offices	General 30 fc Task 50 fc	Pendant mount indirect light fixtures will provide ambient light levels. Tasklights will be mounted at desks.	CFL FL LED task	1
Meeting Rooms	General 30 fc Accent 50 fc	A combination of indirect and directional lighting will provide a flexible system with multiple light levels possible.	FL	1.2
Archive records	General 20 fc Task 40 fc	Lighting will be bright and even when needed. Controls will be used to turn lights off when rooms are not in use. Direct fluorescent fixtures will be used.	FL	1
Corridors	General 10 fc	Indirect lighting will used. Intersections and destinations will be highlighted.	CFL FL	.8
Shipping	General 30 fc	Even light levels will be provided by energy efficient light fixtures	FL	.8
Restrooms	General 20 fc	Even bright light levels will be provided. Vanities will be lighted to a higher light level.	FL	.8
Mech/Elec Rm	General 30 fc	Strip fluorescent light fixtures will be evenly spaced around mechanical and electrical equipment	FL	1

Telecommunication Systems

Introduction

This section is intended to define the standards, criteria and assumptions used for the design, documentation and specification of a telecommunications system to support the Heritage Center and Executive Office Building to be located on the Washington State Capitol Campus in Olympia, WA. This narrative will form the basis for the design for the telecommunications system.

This basis of design shall address pathways, spaces and media designs to support various information transport systems, including an administrative telephone system to support voice and voice grade services, local area network (LAN) systems, wide area network (WAN) systems and video distribution systems.

The specific areas covered by this section of this report are as follows:

Definition of a campus pathway system to connect the building to the Capital Campus Department of Information Services (DIS) network.

Definition of a building pathway and spaces system to house the data network and voice components and their associated telecommunications cabling system

Definition of a unified signal grounding system.

Definition of building backbone cables and their distribution and termination methods.

Definition of workstation cables and their distribution and termination methods.

Definition of pathway, spaces and media identification.

A discussion of the following systems is currently not included in this section of this basis of design and may be covered elsewhere:

Communication systems (telephony PBX, VOIP, radio, cellular, dictation)

Local and wide area network active components (servers, switches, routers, etc.)

Audio/visual system

Rooftop antenna systems

In Gallery electronics

Telecommunications Systems Related Codes and Standards

In addition to the previously noted codes and standards that have been adopted and/or amended by the State of Washington, the telecommunications systems will also be designed in accordance with the standards, regulations and recommendations of the following entities:

Telecommunications Distribution Infrastructure Standard (TDIS)

American National Standards Institute (ANSI)

National Electrical Manufacturers Association (NEMA)

Telecommunications Industry Association / Electronics Industries Association (TIA/EIA)

Building Industry Consulting Service International (BICSI)

Institute of Electrical and Electronics Engineers (IEEE)

Underwriters Laboratories (UL)

American Standards Association (ASA)

Federal Communications Commission (FCC)

American Society of Testing Materials (ASTM)

In the event of conflicts, the more stringent provisions shall be applied.

Telecommunications Entrance Pathways and Spaces

Telephone and data network services for the project will be extended from the existing campus network backbone cabling pathway, a minimum of four 4-inch conduits shall be provided between the project and the nearest point of connection to the campus infrastructure. All conduit facilities shall be run below grade. Detailed design, routing and locations of conduits and any new maintenance utility vaults shall be coordinated with the Project's

Civil and Electrical Engineers.

Telecommunications Outside Plant Cabling

Telephone and data network connectivity to the Campus network will be provided by outside plant cabling consisting of a minimum of 500-pair copper UTP cables, 48-strands 50µm laser enhanced multimode optical fiber and 48-strands singlemode optical fiber.

Main Telecommunications Room (MTR)

A main telecommunications room shall be provided on Floor C. Depending on the final determination of equipment to be housed within the room, the room shall be sized at minimum 650 square feet. A room with minimal dimensions of 20' x 30' is recommended. The MTR will serve as the central networking, communications and computing center for the building and shall support network operations functions. The space shall also serve as the entrance facility (EF) for the building with area dedicated for termination of incoming outside plant cabling. The room does not account for space for individual workstation areas, printers and paper storage. The MTR shall be fully protected from water infiltration by ensuring that all water, glycol and drainage piping serving air conditioners, lavatories, roof drains, etc. shall be run outside the MTR walls. They shall only penetrate the room where necessary to serve equipment.

The MTR walls shall be of slab-to-slab construction to facilitate the outfitting of the room for environmental conditioning and fire protection / isolation of slab-to-slab construction. All penetrations of rated wall shall be fire-stopped in an approved manner to prevent the passage of flames, smoke and gases. A minimum 2-hour fire rated wall construction is recommended for the MTR.

Walls and doors shall be configured and located to provide secured access. The number of entrances shall be minimized and provide for smooth operation and safety egress for personnel working within the space. At a minimum all doors should be provided with card key activated locks.

The MTR should be constructed without a suspended, lay-in ceiling so as to avoid the constraints of a fixed grid structure and its limitations on locating and installing overhead cable trays and light fixtures.

Air conditioning shall be provided with units specifically designed to serve the heat loads and humidity control requirements of the MTR. Units shall be sized to maintain a temperature of 65-72 degrees Fahrenheit at 20-55 percent relative humidity. Environmental conditions shall be maintained on a 24 hour-a-day, 7 days-a-week basis. The MTR shall also be equipped with hi-temperature alarms that report to the security and/or building management systems panels. Sensors shall be placed 60" AFF.

Power requirements for the MTR shall be based on equipment lists provided by DIS; however load density shall be based on an average of 40-50 watts per square foot. This number is based on a low density of file servers. Loads may escalate significantly should a larger concentration of high density file servers be located within the MTR.

Lighting requirements shall be a minimum of 50 foot-candles maintained at 36" AFF. Lighting fixtures, motors, air condition, etc. shall not be powered from the same electrical distribution panel as the telecommunications equipment in the room.

The MTR shall be protected in accordance with all applicable codes and ordinances. A pre-action fire suppression system shall be provided. Portable fire extinguishers shall be provided at strategic locations within the MTR and shall be rated for all types of fires. A fire alarm annunciator panel shall be located at the main entrance to the room. At the first activation of any sensor, both audible and visual alarms shall be sent to multiple areas within the MTR, positioned so that they can be installed noticed from anywhere, as well as to strategic locations outside the MTR. A manual override shall be provided at the entrance to the room enabling an operator to delay charging of the sprinkler pipes by a fixed time interval in order to attempt to extinguish the fire manually. A solid copper ground busbars shall be provided for signal ground connections. The ground busbar shall be bonded to the appropriate ground conductor as described herein.

Telecommunications Room (TR)

Telecommunications rooms shall be provided on each floor to facilitate distribution of voice and data station cables to the work area outlet. The rooms shall be stacked vertically through the building. In addition, they shall be located in an area on the floor plate which will ensure that the length of the installed workstation cables does not exceed 90 meters per TIA/EIA standards for telecommunications cabling. If workstation cables can not be kept to within TIA/EIA standards, a second floor serving TR shall be provided. Consideration may also be given to serve smaller floor plates, with limited telecommunications outlet locations, from a telecomm room above or below the smaller floor plate. A discussion with DIS will be needed to confirm applicability for this project. Each telecommunication room shall be a minimum 100 square feet in area. A room with dimensions of 10' x 10' is recommended. Each TR shall support the horizontal distribution of station cables. The dimensions indicated will provide space for up to three free standing telecommunications equipment racks with vertical wire managers.

The TR's shall be fitted to support the following types of systems and equipment:

Termination and patching facilities for workstation cables.

Termination and patching facilities for UTP backbone cables.

Termination and patching facilities for optical fiber backbone cabling.

Hardware and racking for LAN switches.

Hardware for any wireless based telecommunications systems.

Wall space for mounting other low voltage systems such as CATV distribution components and electronic surveillance and access control systems.

A typical TR shall be of slab to slab construction to facilitate the outfitting of the rooms for environmental conditioning and fire protection / isolation. A suspended ceiling should not be installed in the TR. All penetrations shall be sealed to prevent the passage of fire, smoke and gas. A minimum 1-hour fire rated wall construction is recommended for each of the TR's.

TR's shall be provided with sprinkler heads mounted on the sidewalls. Sprinkler heads shall be provided with cages. Wet pipes, either run overhead or along the walls shall not traverse the rooms. Telecommunication rooms shall be furnished with 3/4" plywood on all designated walls installed 6-inches AFF. Plywood shall be void free and treated on both sides with two coats of fire resistant paint. Finishes in the room shall be light in color to enhance lighting. Finishes shall be applied before room fit out. Concrete floors and walls shall be sealed and cured to eliminate dust. Floors shall be covered with anti-static vinyl tiles

Telecommunication rooms shall be furnished with a single lockable door of at least 36" wide by 80" high. Consideration shall be made to electronically secure the spaces.

Environmental conditions shall be maintained on a 24-hours-a-day, 7-days-a-week basis. Environmental limits for the telecommunication rooms are 64-75 degrees Fahrenheit and 30-55 percent relative humidity, non-condensing. Telecommunication rooms shall be equipped with high temperature alarms that report to the security and/or BMS console. Positive pressure shall be maintained within the room, with a minimum of one air change per hour.

Lighting levels within the telecommunication rooms shall be a minimum of 50 foot candles maintained at 36" AFF.

Power circuits for all telecommunications equipment located within any given telecommunication room shall be fed from an electrical panel dedicated to these loads. The panel shall be fed from the stand-by generator power system. UPS backup, if required, shall be fed from stand alone UPS units mounted within the equipment racks. Power circuit requirements for the room shall be based on equipment lists provided by the Owner, however a minimum of one 20A circuit shall be provided for each equipment rack installed within the room, plus one spare. Allowing for future equipment requirements, room load density may be estimated at a minimum of 40 watts per square foot. Circuits may be brought to the equipment racks overhead and attached to overhead cable tray and

then stubbing down to a location coordinated with the Owner.

In addition to outlets dedicated to telecommunications equipment, electrical convenience outlets (120V, 20A duplex receptacles) shall be provided at 6-foot intervals within the telecommunication rooms. A maximum of four duplex outlets shall be fed from a single 20A circuit. All branch circuiting shall include a ground wire from the distribution panel's ground busbar to all electrical outlets in the room. The outlets shall be used for testing equipment and power tools only, and not for network transport electronics.

Lighting fixtures, motors, air conditioning, etc shall not be powered from the same electrical distribution panel as the telecommunications equipment in the telecommunication rooms. Electrical transformers shall not be located within the room.

A solid copper ground bar shall be provided in each telecommunication room, for signal ground connections. The ground busbar shall be bonded to the appropriate ground conductor, as described herein.

Server Room

A discussion with DIS and the Owner will be required to determine programming requirements for any additional telecommunications spaces including server rooms. Requirements shall be confirmed and included with the base building design for build out of space.

Building Backbone and Workstation Pathway Systems

All pathways shall be designed to provide the capacity and capability to properly install high performance unshielded twisted pair and optical fiber cables to support the initial and subsequent requirements of the occupants.

All pathway routes shall be coordinated with other building services (electrical, mechanical, plumbing, etc. to assure proper clearances and accessibility.

The workstation cable distribution pathways shall be designed to accommodate cable changes as well as minimize building occupant disruption when such pathways and spaces are accessed.

The pathway system shall be coordinated with the electrical distribution system in order to maintain a minimum 48" separation from motors or transformers, 12" separation between parallel runs of telecommunication and electrical cabling and 5" separation from fluorescent lights. Where 12" separation is not possible; the telecommunication cabling shall be separated from electrical cables by a ferrous material to minimize potential interference. Where electrical and telecommunication cabling cross, it shall be at right angles only.

A minimum of six 4" conduits shall be provided between the MTR and lower level TR. On floors with more than one TR, a minimum of four 4" conduits shall be provided between the two TR's.

A minimum of six 4" sleeves shall be provided between each stacked TR. Sleeves shall extend a minimum of 3" above the finished floor.

A minimum of four 4" conduits shall be provided in the side walls of each TR for the routing of workstation cables to the workstation areas. Conduits shall extend to the nearest cable tray located in the corridor ceiling space.

A minimally sized 24"W x 4"D cable tray system will be provided in the accessible ceiling spaces to support installation of workstation cables. 4" conduits maybe needed in the ceiling areas of the building to create zones where cables are express routed from the zone back to the telecommunications room. EZ path sleeves will also be utilized in areas where fire rated walls are penetrated.

12" and 24" ladder type cable trays shall be provided in the ceiling areas of the MTR and TR's to support the distribution of cables within the room.

Wall mounted telecommunications outlets (for voice/data) shall be provided with a 4" by 4" electrical box at the bottom of the minimum sized 1" conduit stub-up. Where stub up extend horizontally more than 60", 1-1/4" conduit stub ups shall be substituted. Wall mounted telephone outlets, located at +48" AFF shall be provided with a

2" by 4" electrical box. A 3/4" conduit stub-up may be substituted for wall mounted telephones. Flexible cable supports shall be provided from the stub up locations to the nearest section of cable tray.

Due to conduit fill ratios and stressing of the cables during installation, conduits shall be limited to a total of 180 degrees of bends or 100" between pulling points.

Uniform Telecommunications Grounding System

A uniform telecommunications grounding and bonding system shall be provided in accordance with J-STD-607A, Grounding and Bonding Requirements for Telecommunications in Commercial Buildings. This system shall be designed in conjunction with the electrical power grounding system. The following guidelines are provided for the design of the system.

The telecommunications grounding backbone shall consist of solid copper busbar and copper conductors interconnected in the following manner:

Main electrical ground to the telecommunications main grounding busbar (TMGB) located in the MTR.

The TMGB to individual telecommunications grounding busbars (TGB) in each TR.

The telecommunications grounding busbar in each of these rooms to the nearest point of grounding building steel, if available.

Where an electrical power panel board is located within the MTR or TR, the TGB shall be bonded to the panel board's alternating current equipment ground (ACEG).

All bonding conductors shall be a minimum #3 AWG copper conductors. The conductor jacket shall be green in color or marked appropriately, and installed in continuous lengths. A grounding riser shall be provided up the telecommunication room riser path.

The TMGB shall be pre-drilled, a minimum of 1/2" thick x 4" wide solid copper bar, electro-tin-plated, and insulated from their supports by a 2" separation. The TGBs shall be pre-drilled, a minimum of 1/4" thick x 2" wide solid copper bar, electro-tin-plated and insulated from their supports by a 2" separation.

All metallic raceways, racks and cabinets entering or located with a room with a TGB shall be bonded to the TGB via a minimum #6 AWG bare copper conductor.

Telecommunications Cabling System

The telecommunications cabling system shall be designed to conform to the requirements of TIA/EIA-568B, The Commercial Building Telecommunications Cabling Standard.

Building backbone cabling shall consist of the following:

A 200-pair Category 3 UTP cable from the MTR to each TR. Each end of the cable shall be terminated onto wall mounted 110-style termination blocks.

At a minimum, a 48-strand multi-mode optical fiber cable and a 24-strand single mode optical fiber cable shall be provided from the MTR to each TR. Optical fibers shall be terminated with connectors mounted in optical fiber patch panels at each end. Connector type will need to be determined in conjunction with DIS.

Workstation cabling shall consist of the following:

Workstation outlet locations shall be provided with a standard cable set consisting of TIA/EIA 568B, 4-pair, UTP Category 6 cables. All cables shall be terminated at the workstation utilizing Category 6, 8-pin, modular connectors with either T568A or T568B pinning at the workstation faceplate as determined by DIS. Cables for voice network applications shall be terminated onto 110 termination blocks at the telecommunication rooms. Cables for data network applications shall be terminated onto equipment rack mounted, 8-pin, modular patch panels in the telecommunication rooms. In order to establish an applications independent cabling system, all cables may be terminated onto rack mounted, 8-pin, modular patch panels. Standard cable set to be determined in conjunction with DIS.

All wall phone locations shall be provided with one Category 6 cable.

Cable set for all other locations shall be coordinated with the building's programming requirements.

Patching and cross connects between cable terminations and transport electronics shall be accommodated with the least amount of termination and cross connect hardware that is practical. When feasible, connections between horizontal cable terminations and transport electronics will be made directly, through the use of an appropriate patch cord. Where necessary, connections between UTP cables terminated on rack mounted hardware and remote rack or wall-mounted equipment shall be made via the use of an intermediate "tie" field adjacent to the rack mounted cabling terminations.

Connection between horizontal termination fields and tie fields, and from patch panels to equipment ports, shall be made through the use of pre-manufactured patch cords or punch down cross connect wire.

Pathways, Spaces and Media Identification

An identification system shall be developed to uniquely identify each equipment rack, pathway segment, telecommunications room, rack, patch panel, and cable installed in the building.

All horizontal and backbone cables shall be assigned a unique alphanumeric designation for identification purposes. Appropriately marked labels shall be provided at each end of each cable.

Labels having the appropriate cable designation shall be provided in the following locations for each cable:

On the outlet faceplate in the work area.

On the termination block or patch panels in the MTR or TR.

Cable designations shall be designed for easy identification of serving closet and termination location.

Cable termination information shall form the basis for the development of a telecommunications / facilities administration system database.

Other Low Voltage Telecommunications Systems

Several other low voltage systems related to the telecommunications system will be installed as part of this project. These systems include:

Wireless Local Area Network (WLAN)

Provisions for a wireless local area network system will be provided as part of the telecommunications infrastructure. Provisions shall include Cat6 cabling to be provided at regular intervals throughout a given floor plate to facilitate the placement of DIS provided wireless access points. Cabling shall be installed from the floor serving TR out to the floor and left coiled up in the ceiling space. Access points will be located approximately 60 feet on center throughout any given floor. Coverage requirements for the WLAN will be determined by DIS.

Community Access Television (CATV)

Raceway infrastructure shall be provided for cable television signal outlets. Amplifiers, cabling, channel selector device, and receptacle devices will be provided by the Contractor and include coaxial cabling installed from the TR locations to each CATV outlet location. Locations for CATV will be determined by DIS.

Electronic Access Controls & Video Surveillance Systems

Electronic Access Controls Introduction

All Fire codes and emergency egress requirements shall take precedence over the determination of which doors shall be secured by the electronic access control (EAC) system. The basic components of an EAC system include master computer, control panels, peripheral devices such as card readers, door position switches, magnetic locks, electronic strikes, Request-To-Exit devices. A discussion will need to occur with the Owner to determine the extent of and locations for electronically secured doors.

Master Computer

A master computer shall run the proprietary EAC software, manage the overall system parameters, maintain the system database and control all communications with the control panels. The master computer shall be capable of tying back to the local area network for remote monitoring and integration with any existing Campus wide deployed EAC system.

Control Panels

Located in telecomm rooms, controls panels will manage the activation of peripheral devices by turning the devices on or off in order to control people access into secured areas. Media for communications between control panels and peripheral devices shall be via copper unshielded twisted-pair (UTP) cables. Communications protocol between the control panels and peripheral devices shall be determined by the EAC system manufacturer requirements.

Card Readers (CR)

Card reader devices shall be located at all secured doors in the building. Additionally, all elevators shall be provided with card readers to secure elevator usage as required by the Owner. Devices shall be based on "Smart Card" technology utilizing the 13.56 MHz frequency range for wireless transmission.

Door Position Switches (DS)

Door position switch devices shall be recessed mounted and provide a standard gap no greater than 1/2". Devices shall be specified as Form A (SPST) Reed type.

Magnetic Locks (ML)

Magnetic locks shall be direct-hold type, mounted to the doorframe opposite the metal plate or armature. When energized, the lock bonds to the armature and locks the door. All ML holding force shall be a minimum 1200 lb.

Electronic Strikes (ES)

Electronic strikes shall replace the strike where the lock latches to the frame of the door. Upon application (fail secure) or removal (fail safe) of power, a solenoid electrically activates the keeper, allowing the lock's latch bolt to pass. All ES devices shall be UL 1034 listed and provide programmable unlock times between 8 and 11 seconds.

Request-To-Exit (REX)

Request-To-Exit devices shall be located on the unsecured side of doors to allow for free passage from the secured space into the unsecured space without hindering passage or causing an alarm. REX devices shall utilize passive infrared technology to detect motion in their coverage area.

Motion Detectors

Motion detectors shall be dual technology (microwave and PIR) and be surfaced mounted at galleries and museum support spaces as identified by Owner.

Video Surveillance Introduction

The primary application for a surveillance or closed-circuit-television (CCTV) system shall be for recording activi-

ties for later local or remote reviews at a later date. The CCTV system components shall consist of image capture devices (cameras), recording equipment (digital video recorders or DVR), and monitoring or viewing stations. A discussion will need to occur with the Owner to determine the extent of and locations for CCTV cameras.

Image Capture Devices

Color and night/day CCD cameras shall be provided as required. The baseline criteria shall be night/day technology shall be deployed in low light environments or when lighting levels are expected to vary significantly and regularly. Color cameras shall only be located where sufficient and consistent lighting levels exist so that camera performance is maximized. Lens technologies for cameras shall be dependent on the application and required field of view. Fixed cameras shall be provided at locations where a single, unchanging, viewing area is present. Pan-Tilt-Zoom (PTZ) cameras shall be provided at locations where a 360° view of a given area is required. Remote viewing and control of the camera shall utilize Internet-Protocol (IP) based technology. All cameras shall be provided with specific housings designed to prevent issues with moisture, dust, heat and vandalism. Transmission media for camera signals shall be via balanced unshielded twisted-pair copper cables suitable for transmission of IP based video signals. Cameras shall also utilize power-over-the-Ethernet (POE) technology.

Recording Media

All camera recordings shall be saved to digital format for the purposes of storage for later review. Digital recording storage shall be via storage-area-networks (SAN) and redundant array of independent disks (RAID) technology at the MTR. All recordings shall be accessible for remote viewing over the LAN.

Monitoring

Monitors or viewing stations for reviewing surveillance footage shall be provided at locations noted by the Owner. Viewing stations shall be based on liquid crystal display (LCD) technology with dimensions determined by the Owner

Civil Description

A new Heritage Center and a new Executive Office Building is proposed on the Washington State Capitol Campus. There are 12 potential redesign schemes proposed on the campus. The four preferred sites were investigated. Information was gathered from the State Capitol Campus maps, City of Olympia storm system, sanitary sewer and water maps and as-built drawings obtained from the City of Olympia. The findings from our research on the storm system, water system and sewer system around these proposed sites is summarized below.

Site Option No. 1 and 2 – Heritage Center and Executive Office Building

This site has previously designed to a design development level. Civil site plans have been completed.

Site Location

The building site is surrounded by existing streets, asphalt parking and other buildings. Public access to the current building is from 11th Avenue. Parking lots located along the west and north sides of the GA Building provide parking for campus staff. The parking garage located to the east provides public parking. A receiving area is located at the northwest and lowest corner of the building.

Proposed improvements will include a pedestrian drop off area adjacent to the new building along the north side of 11th Avenue. All access points to the building and outdoor gathering spaces will meet ADA requirements for pedestrian circulation.

A large retaining/shoring system and steep slope borders the site on the west that continues down into Heritage Park and Capitol Lake. The northern half of the West Campus experiences a 30 foot elevation change that slopes down from the Winged Victory and Tivoli Fountain north to Union Street. Therefore the project generally slopes northerly with a topographic relief of roughly 13 feet from 11th Avenue to Union Avenue.

Storm Drainage Systems

The project site contains and is surrounded by several storm drainage systems of varying sizes and pipe types. Some of these systems, located on the west and north sides of the site, will need to be relocated and/or improved to accommodate the proposed development. The city sewer and storm drainage maps indicate that some roadway drainage is connected to the sanitary sewer system. All new roadway, parking lot and building drainage will be connected to a new storm drainage system which will extend from Water St. and 12th Street to Columbia Street and approximately 10th Avenue.

Storm drainage for the campus is regulated by the City of Olympia Storm Water Manual dated January 2005. The regulation requires that quantity control be provided for new and redeveloped impervious surfaces. However, the project site is located in a drainage basin that is exempt from flow control. Therefore, detention will not be required.

The storm water standards require that runoff from pollution generating surfaces be treated before being discharged from the project site. Treatment for paved areas subject to vehicular traffic will be treated with the use of underground treatment systems. Roof runoff is considered “clean” and does not require treatment before discharge to the city storm system.

Water Systems

Water service within the campus is currently provided by a city water main circulating throughout the campus. Portions of the water main are owned and operated by the State of Washington. According to city utility maps, a 12-inch diameter cast iron water main is located on the east side of Capitol Way. A 6-inch diameter cast iron water main is located within Union Avenue and Columbia Street. Another water main is also located within 11th Avenue and is designated as a State Owned 10-inch diameter ductile iron pipe. Fire sprinkler and domestic service for the existing GA Building is provided from the 6-inch city water main in Columbia.

Fire hydrants are currently located at the following locations:

On 11th Avenue at the intersections of Water Street and Columbia Street and Capitol Way.

Northeast corner of the intersection of Union Avenue and Capitol Way

Mid-block on Columbia fronting the existing GA Building

For the new Heritage Building and Executive Office Building a new fire service and domestic service will be provided. It is expected that the existing 6-inch water main located on Columbia Street between Union Avenue and 11th Avenue will be replaced with a larger size pipe to improve fire flow conditions. One or two new fire hydrants may be added to provide adequate fire hydrant coverage for the new building.

Sanitary Sewer Systems

Sanitary sewer service is provided by City of Olympia. Sewer service for the existing GA Building is provided on the east side of the building by a 4-inch diameter cast iron pipe extending to a manhole located at the intersection of Union Avenue and Columbia Street. An existing 8-inch diameter sewer main is located along the west side of the existing GA Building. This main continues northerly and westerly through the existing parking lot where it turns north within Columbia Street.

The existing sewer located west of the site will require relocation to accommodate the proposed site and building improvements. It will most likely be relocated to 11th Avenue and Columbia Street, along the south and east sides of the new building. Sanitary service for the proposed building will be provided by extending new services from the existing main located within Columbia Street. Existing sewer services may be able to be used if it is confirmed that the services are in adequate condition, size and slope for the proposed use.

Soils

Soil conditions on the project site are not anticipated to present an insurmountable constraint during construction of the new facility. However, the steep slope and retaining wall to the west of the project are known to exhibit symptoms of instability. The cause if this condition is known to have been due to fill soils being placed within the existing gully that crossed the campus. The fill was not placed in a dense condition and settlement/slumping has been an ongoing problem within the sloped zone.

The recent geotechnical report recommends shallow foundations for the Executive Office Building and either deep foundations or modified foundations for the Heritage Plaza. Additional detailed geotechnical analysis will be required to establish final design criteria for retaining walls and building foundations. As part of the soil stabilization, exposed soils will be vegetated in a manner to quickly protect and stabilize slopes.

Site Option No. 3 – Heritage Center

Site Location

The building site is bound on the north by Union Avenue, on the east by Capitol Way, on the south by 11th Avenue and on the west by Columbia Street. The 1063 Building and a parking garage are currently located on this site. Located to the west of the project is the General Administration Building.

Storm Drainage Systems

This project site is located within the Capital Drainage Basin. Projects in the Capital Drainage basin are exempt from flow control. Detention will not be required.

A combination storm/sewer system is located in Capitol Way and flows to the north. Discharge of stormwater into a combined storm/sewer is prohibited unless approved by the Executive Director of LOTT. Under extraordinary circumstances, such as lack of direct discharge alternatives due to combined sewer service and stormwater, or other direct inflow sources per the City of Olympia Municipal Code 13.20.05 combined discharge may be acceptable. Storm drainage from the proposed building, improved frontage and site areas will be collected into a new storm drainage system which will connect to the dedicated municipal storm sewer at Columbia Street and 10th Avenue.

The storm water standards require that runoff from pollution generating surfaces be treated before being dis-

charged from the project site. Treatment for paved areas subject to vehicular traffic will be treated with the use of underground treatment systems. Roof runoff is considered “clean” and does not require treatment before discharge to the city storm system.

Water Systems

There are waterlines located on all four sides of this project site. To the north there is a 6” cast iron pipe. To the east there is a 12” cast iron pipe located in Capitol Way. To the south there is a 10” ductile iron pipe. To the west there is a 6” cast iron pipe. There is a hydrant located on the northeast corner of 11th Avenue and Columbia Street and at the northeast corner of 11th Avenue and Capitol Way.

Sanitary Sewer Systems

A sewer line currently is located on this site. A 6” clay sewer line splits the site running from south to north. The line continues north into Union Avenue and then travels to the east. The sewer line in Union Avenue is an 8” clay sewer line. Another sewer system is located in the intersection of Union Avenue and Columbia Street. This system consists of an 8” clay pipe that flows to the north in Columbia Street. Most likely a new side sewer will serve the building and connect to the municipal sewer in Union Avenue.

Site Option No. 4 – Executive Office Building

Site Location

Site location 4 is located adjacent to the existing State Archives Building. This building is located on the east portion of the Washington State Capitol Campus. The existing State Archives Building is located to the east of Capitol Way between the vacated 12th Avenue and 13th Avenue. The building is accessed from Washington Street which is located to the east. To the north of the site is the Capitol Court Building and to the east is the Highways and License Building. It is proposed to expand to the east and west of the State Archives Building footprint.

Storm Drainage Systems

This site is located in the Moxlie Drainage Basin. There is an existing combination storm/sanitary sewer conveyance system located in Washington Street. This 8” clay line starts near the intersection of the vacated 12th Avenue and Washington Street and flows to the north. This system connects with a system located in Union Avenue and then travels to the east. Flow control will be required on the site. Stormwater from the site cannot be discharged into the combination storm/sanitary sewer system located in Washington Street without approval of the Executive Director of LOTT.

The nearest dedicated storm system to the site is located at the intersection of 11th Avenue and Franklin Street, which is located approximately 2 blocks from the project site. At this intersection there is a 21” concrete storm line that runs north to Union Avenue. At Union Avenue the storm line travels to the east in a 24” concrete pipe.

Treatment of stormwater prior to discharge will be required. Stormwater from pollution generating surfaces will need to be treated by a stormwater treatment facility. Direct discharge of stormwater from pollution generating impervious surfaces to groundwater is prohibited. Enhanced treatment is required for pollution generating surfaces because the site is considered a commercial site. Enhanced treatment facilities include treatment wetlands, a two facility treatment train (combination of two of the following with some exceptions: biofiltration swales, filter strips, basic wetpond, wet vault, treatment wetlands, combined detention/wetpool) and manufactured systems.

Water Systems

A 12” CI water line is located in Capitol Way to the west of the proposed site. There is also a 12” DI in 12th Avenue vacated ROW located to the north of the existing State Archives Building. A 10” DI water line is located to the south of the existing State Archives Building in vacated 13th Avenue ROW. A hydrant is located at the corner of Capitol Way and the vacated 13th Avenue. A hydrant is also located at the northwest corner of Washington Street and the vacated 12th Avenue.

Sanitary Sewer Systems

An 8" clay line is located in Washington Street located to the northeast of the proposed site. This conveyance system is a combination storm/sewer system. There is also a combination storm/sewer system in Capitol Way located to the west of the site. This pipe is 15" clay and flows to the north. Discharge of stormwater into a combined storm/sewer is prohibited unless approved by the Executive Director of LOTT. Under extra ordinary circumstances, such as lack of direct discharge alternatives due to combined sewer service and stormwater, or other direct inflow sources per the City of Olympia Municipal Code 13.20.05 combined discharge may be acceptable.

Soils

Soils are believed to be medium dense/medium stiff fine grained soils (silts, clayey silts and/or sandy silts) with occasional silty sand layers and/or lenses. Various degrees of organics are listed in the boring logs and the density/stiffness increase somewhat with depth. Deep foundations will likely be required. Shoring of the excavation is possible using conventional methods. Subsurface explorations varied from no groundwater observed to 25 to 45 feet depth with indications of possible perched water. Depending on the groundwater location and the depth of the building, dewatering may or may not be necessary.

Site Option No. 7 – Heritage Center

Site Location

Option 7 is located on the existing Washington State Visitors Center site. There is also a parking lot on the site. The site is bordered on the north by Sid Snyder Avenue, to the east by Capitol Way, on the south by 15th Avenue and Columbia Street on the west. The building is proposed to be located on the east side of the site along Capitol Way.

Storm Drainage Systems

This site option is located within the Capital Drainage Basin. A storm conveyance system is located on the proposed site. There is a series of 4" PVC pipes and catch basins that collect and direct stormwater to the northwest corner of the site where it enters into a combination sanitary sewer storm water system located in Sid Snyder Avenue. This system flows to the east and enters into the combination storm/sewer system located in Capitol Way and travels to the north. There are also catch basins located in Sid Snyder Avenue that area connected to this combination storm/sewer conveyance system. Discharge of stormwater into a combined storm/sewer is prohibited unless approved by the Executive Director of LOTT. Under extra ordinary circumstances, such as lack of direct discharge alternatives due to combined sewer service and stormwater, or other direct inflow sources per the City of Olympia Municipal Code 13.20.05 combined discharge may be acceptable.

Near the intersection of Sid Snyder Avenue and Capitol Way there is a storm conveyance system that collects some runoff from Sid Snyder Avenue and conveys it to the northwest to a storm system located in the South Diagonal. The system located in the South Diagonal is a dedicated storm system. This system conveys stormwater in a 12" CPP pipe to the northwest. Pipe sizes increase traveling to the northwest and eventually connect with a 24" CMP pipe near the intersection of the South Diagonal and Cherry Lane. This 24" CMP storm line travels to the west and outlets into Capital Lake. Flow control would not have to be provided if the capacity in this pipe is confirmed to be sufficient because the pipe directly discharges to Capital Lake.

Treatment of stormwater prior to discharge will be required. Stormwater from pollution generating surfaces will need to be treated by a stormwater treatment facility. Direct discharge of stormwater from pollution generating impervious surfaces to groundwater is prohibited. Enhanced treatment is required for pollution generating surfaces because the site is considered a commercial site. Enhanced treatment facilities include treatment wetlands, a two facility treatment train (combination of two of the following with some exceptions: biofiltration swales, filter strips, basic wetpond, wet vault, treatment wetlands, combined detention/wetpool) and manufactured systems.

Water Systems

A 6" CI water line is located in Columbia Street located to the west of the proposed site. There is also a 10" DI pipe that is located in Sid Snyder Avenue to the north of the site. This line connects to the 10" CI pipe located in Capitol Way which borders the site on the east. A fire hydrant is located at the southwest corner of Sid Snyder Avenue and Columbia Street. There is also a hydrant located at the intersection of Sid Snyder Avenue and South Diagonal.

Sanitary Sewer Systems

An 8" clay combination storm/sewer conveyance system is located in Columbia Street and flows to the north. This conveyance system also conveys stormwater/sewage from 15th Avenue. The system connects with a man-hole located at the intersection of Sid Snyder Avenue and Columbia Street. Stormwater and sewage are then conveyed to the east to the main collection line located in Capitol Way. There is a 12" clay combination storm/sewer line that flows to the north located in the middle of Capitol Way. The City of Olympia prohibits the storm and sewer systems be combined unless approved by the Executive Director of LOTT. Under extra ordinary circumstances, such as lack of direct discharge alternatives due to combined sewer service and stormwater, or other direct inflow sources per the City of Olympia Municipal Code 13.20.05 combined discharge may be acceptable.

Soils

Soils are believed to be medium dense/medium stiff fine grained soils (silts, clayey silts and/or sandy silts) with occasional silty sand layers and/or lenses. Various degrees of organics are listed in the boring logs and the density/stiffness increase somewhat with depth. The parking garage across the street from site is on piles and the existing Achieves building is on a mat foundation. Deep foundations will likely be required. Shoring of the excavation is possible using conventional methods. Subsurface explorations varied from no groundwater observed to 25 to 45 feet depth with indications of possible perched water. Depending on the groundwater location and the depth of the building, dewatering may or may not be necessary.

Utility Depths for Tunnel

The building is proposed to be an elevation of 98 on the site. Utilities in Capitol Way are proposed to be located above the tunnel. The combination storm/sewer 12" clay pipe invert elevation under Capitol Way is approximately 7 feet below the surface elevations. Water in Capitol Way is a 10" CI pipe with an assumed cover of 30 inches, so approximately 3.33 feet below surface elevations.

Site Option No. 12 – Executive Office Building

Site Location

Another proposed location for the Executive Office Building is located to the northwest of the Governor's Mansion. The site is located at the far west end of the Washington State Capitol Campus. The building is proposed to be situated along the top of the slope that leads down to Capital Lake angled to the northwest. There is an existing parking lot and woods in this area currently.

Storm Drainage Systems

A stormwater systems currently runs through the site and flows towards Capital Lake. A 24" PVC pipe runs east to west from the north end of the loop located in front of the Temple of Justice towards Capital Lake. A conveyance system is located in the parking lot located to the west of Pleasant Lane. Eight inch pipes convey stormwater to the west towards Capital Lake also. Because the site drains to Capital Lake, Minimum Requirement #7: Flow Control does not apply because it directly discharges to Capital Lake downstream of Tumwater Falls. There is also a small conveyance system located in the Governor's Garage driveway that collect stormwater and discharge it towards Capital Lake. This site is located in the Capital Drainage Basin.

Treatment of stormwater prior to discharge will be required. Stormwater from pollution generating surfaces will need to be treated by a stormwater treatment facility. Direct discharge of stormwater from pollution generating impervious surfaces to groundwater is prohibited. Enhanced treatment is required for pollution generating surfaces because the site is considered a commercial site. Enhanced treatment facilities include treatment

wetlands, a two facility treatment train (combination of two of the following with some exceptions: biofiltration swales, filter strips, basic wetpond, wet vault, treatment wetlands, combined detention/wetpool) and manufactured systems.

Water Systems

There are a series of water lines that are near to the project area. In Pleasant Lane there is a 4" CI line that runs north south from 12th Avenue to the entrance of loop in front of the Legislative Building and the Temple of Justice. Between the Legislative Building and the Temple of Justice in the southern portion of the loop there is an 8" CI and 10" DI water lines running to the east from Pleasant Lane. A 6" CI line tees off of the 10" DI line and runs south parallel to the Legislative Building. The 8" DI pipe also goes south along the west side of the legislative building. A 2" CI line serves the Governor's Mansion and is teed off of an 8" DI pipe located to the northeast of the mansion. A 3" DI pipe is located in the north part of the parking lot and travels down to the Power House.

Sanitary Sewer Systems

An 8" concrete sanitary sewer system line flows from south to north up Pleasant Lane from south of the Legislative Building to 12th Avenue. At the intersection of 12th Avenue and Pleasant Lane a 6" PVC line from the west (Power House) and the 8" concrete combine and flow to the east in an 8" PVC pipe. A 4" DI force main comes from the Power House and is emptied into a 6" PVC located at the north end of the existing parking lot.

Soils

This site location is adjacent to the limits of fill placed at the toe of the slope located to the southwest during the late 1800's and early 1900's. Several slides have occurred to the east of the Governor's Mansion located to the south of the proposed site. There is evidence of creep and downed/leading trees along the slope to the northwest of the mansion. Quoting Open File Report 96-3 by the Washington Department of Natural Resources: "On the slopes adjacent to the Governor's mansion are two large slump-earthflows with steep headwalls and hummocky slide debris at the base. These failures formed debris that extend out into Capital Lake approximately 20 ft beyond the rest of the shoreline. Springs and seeps are visible in the headwall areas as well as at the base of the slope in the slide debris. Slope movement in this area has probably been sporadic with different portions moving at different times, making it difficult to estimate age of movement". The soils are poorly drained, with numerous springs flowing almost year round. Storm pipes have been observed discharging onto the slope. Slide debris is likely 10 to 15 ft deep along the slope with both surface erosion and deep seated failures occurring over time. Research conclusions identify episodic slope instability here is 'likely'. Issues with shallow/deep seated stability, seismic hazards, permanent drainage, and deep foundation considerations will need to be reviewed and addressed

Geotech Description

The following is a summary of a quick research review of the subsurface information we currently have for the proposed Heritage Center EOB alternative sites Based on this quick review:

Site 12

The site will be adjacent to the limits of fill placed at the toe of the slope during the late 1800's and early 1900's.

Several slides have occurred east of the Governor's Mansion; with evidence of surface creep and downed/leaning trees along the slope northwest of the mansion.

Quoting Open File Report 96-3 by the Washington Department of Natural Resources: "On the slopes adjacent to the Governor's mansion are two large slump-earthflows with steep headwalls and hummocky slide debris at the base. These failures formed debris that extends out into Capital Lake approximately 20 ft beyond the rest of the shoreline. Springs and seeps are visible in the headwall areas as well as at the base of the slope in the slide debris. Slope movement in this area has probably been sporadic with different portions moving at different times, making it difficult to estimate age of movement".

The soils are poorly drained, with numerous springs flowing almost year round. Storm pipes have been observed discharging onto the slope.

Slide debris is likely 10 to 15 feet deep along the slope with both surface erosion and deep seated failures occurring over time.

Research conclusions identify episodic slope instability here as 'likely'.

Site 12 is similar to that of the original location north of the Conservatory. Similar issues with shallow/deep seated stability, seismic hazards, permanent drainage, and deep foundation considerations will need to be reviewed and addressed.

Sites 4 and 7

We do not have much information in house at these specific locations, but surrounding subsurface data leads us to believe the soils are similar along the top of the campus; medium dense/medium stiff fine grained soils (SILTS, clayey SILTS, and/or sandy SILTS) with occasional silty SAND layers and/or lenses. Various degrees of organics are listed in the boring logs and the density/stiffness increases somewhat with depth.

Courtesy of MKA, we found out that the parking garage across from street from Site 7 is on piles and that the existing Archive building is on a mat foundation. Based on many factors, deep foundations will likely be required for the Heritage Center at both sites.

Shoring of the excavation is possible using conventional methods. However, our limited information does not tell us much about groundwater in the vicinity. Subsurface explorations varied from no groundwater observed to 25 to 45 feet depth with indications of possible perched water. Depending on the groundwater location and the depth of the building, dewatering may or may not be necessary.

Future Needs & Flexibility

This section is covered in detail in the previous report “Predesign Executive Office Plaza/Heritage Center Project #2006-117” from September 2006.

Sustainable Design / LEED Certification

In July 2005 the State of Washington enacted Senate Bill 5509 requiring publicly funded major building projects to achieve LEED® “Silver Certification” at a minimum. To this end, an eco-charrette was completed as part of the predesign process to look at alternative designs for the building. The table below is a preliminary illustration of the probable LEED® Version 3.0 credits attainable for this project to achieve LEED® Silver and possibly LEED® Gold. All of the proposed sites have the potential to achieve all of the points on the following scorecard.

LEED 2009 for New Construction and Major Renovation				Heritage Center & E08	
Project Checklist				20-Nov	
16 3 7 Sustainable Sites		Possible Points: 26		Materials and Resources, Continued	
Y	1	Prereq 1	Construction Activity Pollution Prevention	1	1
1		Credit 1	Site Selection	1	1
5		Credit 2	Development Density and Community Connectivity	1	1
1	1	Credit 3	Brownfield Redevelopment	1	1
6		Credit 4.1	Alternative Transportation—Public Transportation Access	1	1
1		Credit 4.2	Alternative Transportation—Bicycle Storage and Changing Rooms	1	1
	3	Credit 4.3	Alternative Transportation—Low-Emitting and Fuel-Efficient Vehicles	1	1
	2	Credit 4.4	Alternative Transportation—Parking Capacity	1	1
1		Credit 5.1	Site Development—Protect or Restore Habitat	1	1
1		Credit 5.2	Site Development—Maximize Open Space	1	1
1		Credit 6.1	Stormwater Design—Quantity Control	1	1
1		Credit 6.2	Stormwater Design—Quality Control	1	1
1		Credit 7.1	Heat Island Effect—Non-roof	1	1
1		Credit 7.2	Heat Island Effect—Roof	1	1
1		Credit 8	Light Pollution Reduction	1	1
6 4 Water Efficiency		Possible Points: 10		14 1 Indoor Environmental Quality	
Y		Prereq 1	Water Use Reduction—20% Reduction	1	1
2	2	Credit 1	Water Efficient Landscaping	1	1
2		Credit 2	Innovative Wastewater Technologies	1	1
2	2	Credit 3	Water Use Reduction	1	1
16 10 9 Energy and Atmosphere		Possible Points: 35		3 2 1 Innovation and Design Process	
Y		Prereq 1	Fundamental Commissioning of Building Energy Systems	1	1
Y		Prereq 2	Minimum Energy Performance	1	1
Y		Prereq 3	Fundamental Refrigerant Management	1	1
9	10	Credit 1	Optimize Energy Performance	1	1
	7	Credit 2	On-Site Renewable Energy	1	1
2		Credit 3	Enhanced Commissioning	1	1
2		Credit 4	Enhanced Refrigerant Management	1	1
3		Credit 5	Measurement and Verification	1	1
	2	Credit 6	Green Power	1	1
4 10 Materials and Resources		Possible Points: 14		2 2 Regional Priority Credits	
Y		Prereq 1	Storage and Collection of Recyclables	1	1
3		Credit 1.1	Building Reuse—Maintain Existing Walls, Floors, and Roof	1	1
1		Credit 1.2	Building Reuse—Maintain 50% of Interior Non-Structural Elements	1	1
1	1	Credit 2	Construction Waste Management	1	1
2		Credit 3	Materials Reuse	1	1
61 29 20 Total		Possible Points: 110		61 29 20 Total	
<small>Certified 40 to 49 points Silver 50 to 59 points Gold 60 to 79 points Platinum 80 to 110</small>					

Codes & Regulations

Code Summary:

The building is being considered one building of Type I construction.

Relative to exiting and fire alarms the structure is considered one building including the Heritage Center and Executive Office Building.

The building is high rise construction when combined onto the GA Building site, the buildings are not high rise on the alternative sites.

Applicable Codes:

2006 International Building Code (IBC), with state amendments WAC 51-50

Appendix D, Fire Districts

Appendix E, Sections 101 through 106

Appendix G, Flood resistant construction

Appendix H, Signs

Appendix J, Grading

2006 International Mechanical Code (IMC), with state amendments WAC 51-52

2006 International Fuel Gas Code (IFGC)

2006 International Fire Code (IFC), with state amendments WAC 51-54

2006 Uniform Plumbing Code (UPC), with state amendments WAC 51-56 & 51-57, and the following:

Appendix A, Pipe sizing

Appendix B, Notes on combination waste/venting

Appendix I, Installation Standards

Appendix H, Grease Interceptors

2005 National Electric Code (NEC)

2003 Accessible & Usable Buildings & Facilities ICC/ANSI A117.1 (ICC A117.1)

2006 Washington State Energy Code (WSEC) WAC 51-11 WAC

2006 Washington State Ventilation & Indoor Air Quality Code (WSVIAQ) WAC 51-13

Electrical Safety Standards WAC 296-46B

Note: some of these codes are superceded by Washington State amendments

This list does not include Ordinance provisions to regulate Grading and Clearing (OMC 16.48),

Floodplain Development (OMC 16.04.030.20), Tree protection ordinances, etc.

Structural Design Criteria:

Roof Snow Load: 30 PSF

Snow load may not be reduced for roof slope pursuant to IBC 1608.4

Rain on Snow Surcharge of 5 PSF if slope <1/2"

Basic Wind Speed: 85 MPH

Exposure: C in some locations near shoreline or on hills, B elsewhere

Seismic Design Category: D1

Rainfall: 2"/hr

A geotechnical investigation is required for commercial projects pursuant to IBC Section 1802

IBC Review:

Chapter 3: Use and Occupancy Classification

Occupancy Groups :

Group B This is the main occupancy group; see incidental and accessory uses below.

Group A-3 (Assembly spaces of 50-300 persons) includes heritage center, & library main reading room. Group A-2

(Assembly uses intended for food consumption) includes café & café seating
Group S-1 (Moderate-hazard storage) includes the archives and library collections

Incidental Use Areas (Table 302.1.1)

Storage Rooms greater than 100SF require 1-hour separation or fire extinguishing system.

Note that with fire extinguishing system smoke separation is still required (302.1.1.1)

Accessory use areas (section 302.2)

Accessory use areas not in table 302.1.1 and not Group H are not required to be separated if the accessory use area is less than 10% of the area of the floor on which it is located and does not exceed Table 503 values for such use group.

Accessory assembly areas less than 750SF are not considered separate occupancies.

Occupancy Separations (see section 302.3 and table 302.3.2)

In general there is a 2-hour occupancy separation between type B and type A-3 occupancies with reduction to one hour permitted when sprinklers are provided. See note b. in table 302.3.2 for when occupancy separations are not required for storage areas within Group B

Mixed Occupancy (302.3): If classified as a mixed occupancy building, the uses must be either Separated or Non-Separated and the allowable floor areas would be calculated accordingly:

Non-Separated Uses (section 302.3.1): Required construction type shall be determined by applying height and area limitations for each use group to the entire building and the most restrictive type so determined shall apply to the entire building.

Separated Uses (section 302.3.2): In each story, the building area shall be such that the sum of the ratios of floor areas of each use divided by the allowable area for each floor shall be less than one.

*Summary:

Primary Occupancy is Group B with some accessory A-3 and A-2 use groups.

Based on construction Type I (see chapter 6 summary below), we anticipate that the building will be classified as Mixed Occupancy with Separated Uses because S-1, A-3 and A-2 spaces fill more than 10% of the area of some levels and thus cannot be called accessory use to group B. Any other occupancy groups classified as accessory or incidental use areas to the main occupancy group do not need to be considered different occupancy and only need to be separated with a fire barrier if required as defined in incidental use areas.

Chapter 4: Special Requirements Based On Use and Occupancy

See Section 403: High-Rise Buildings

Section 403.1 Applicability. The provisions of this section shall apply to buildings having occupied floors located more than 75 feet above the lowest level of fire department vehicle access. (The Executive Office Building and Heritage Center together are taller than 75 feet from the lowest level of fire department vehicle access. Therefore this structure is considered a high-rise building except if alternate sites are used then structure is not considered a high rise)

See Section 404: Atriums.

Section 404.3 – An automatic sprinkler system throughout would be required. Buildings will be sprinkler protected.

Section 404.4 – Smoke control system shall be installed

Section 404.5 – Atrium spaces shall be separated from adjacent spaces by a 1-hr fire barrier wall, or if not separated, adjacent spaces must be considered part of the atrium volume when smoke control system is required.

Section 404.8 – In other than the lowest level of the atrium, where the required means of egress is through the atrium space, the portion of exit access travel distance within the atrium space shall not exceed 200 feet.

See Section 406: Motor-Vehicle-Related Occupancies
Section 406.4 Enclosed parking garages

Chapter 5: General Building Heights and Areas

Building area shall include exterior areas below projections of roofs or floors above (section 502.1)

Allowable Height and Building Area (see Table 503)

Assuming Construction Type I-B (refer to Chapters 3 and 6):

Maximum area: no single story shall exceed allowable area/floor

Unlimited SF/floor for group A (x3 stories per 506.4)

Unlimited SF/floor for group A-3 (x3 stories per 506.4)

Maximum # stories:

11 stories for group B

11 stories for group S-1, A-3 and A-2

Maximum height: measured to average height of highest roof surface

160 feet above “grade plane” for type IB construction

Grade Plane: Plane representing the average of finished ground level adjoining the building at exterior walls. With building set into hillside, the approximate average grade plane can be averaged from the southeast corner to the northeast corner of the building as those are the highest and lowest points of grade.

Height and Area Modifications (Section 504 and Section 506):

May increase maximum height by 20’ and 1 additional story if protected with sprinkler system.

May increase maximum areas per calculations as part of the general area modifications (Section 506.1) if protected with sprinkler system. This includes additions due to a frontage increase (Section 506.2).

Summary:

For construction Type I-B:

Maximum Allowable Building area (Group B):

Unlimited SF/floor

Maximum Allowable Building area (Group A-3):

Unlimited SF/floor

Maximum Number of Stories: 11+1story sprinkler modification = 5 stories max.

Max building Height: 160 feet +20 feet sprinkler modification = 180 feet.

*The Building is within maximum allowable area, maximum number of stories and maximum allowable height for construction type I-B.

Chapter 6: Types of Construction

Anticipated Construction Type: Type I-B.

Type I construction is a type of construction in which all building elements listed in Table 601 are of non-combustible materials.

Fire resistance-rating requirements of building elements, Type I-B (see Table 601):

Structural Frame: 2 hours

Bearing walls (interior and exterior): 2 hours

Nonbearing exterior walls (per table 602): 1 hours (w/ min. fire separation distance of 10’)

Nonbearing interior walls: 0 hours

Floor Construction: 2 hours
 Roof Construction: 1 hours

Chapter 7: Fire Resistance-Rated Construction

This Chapter describes materials and assemblies to be used when required to be built of fire-resistive rated construction by the code. Some fire rated construction to note:

Stairway Enclosures	2 hr. when greater than 4 stories (see 1019.1)
Area Separation	2 hr. (none anticipated)
Shaft Enclosures (section 707)	1 hr. if less than 4 stories, 2 hr. if greater than 4 stories
Protected Elevator Lobby	Not required if building is sprinkler protected (707.14.1)
Corridors	See section 10.16 (not required if sprinkled)
Occupancy Separation	See chap 3 summary above
Building Elements	See chap 6 summary above

Table 705.4 – Fire wall fire-resistance ratings:

Groups B, A, and S-1 all require 3 hour rating for fire walls. Each portion of a building separated by one or more fire walls that comply with the provisions of this section shall be considered a separate building.

Table 715.3 – Fire door and fire shutter protective ratings:

- Firewalls and fire barriers with 3-hour rating require 3-hour rated doors
- Firewalls and fire barriers with 2-hour rating require 1.5-hour rated doors
- Shaft exit enclosures and exit passageways with a 1-hour rating require 1-hour rated doors
- Other fire barriers with 1-hour rating require 0.75-hour rated doors
- Corridor walls requiring a 1-hour rating require 20min rated doors
- Exterior walls requiring a 2-hour rating require 1.5-hour rated doors

715.3.7 Fire doors shall be self-closing in accordance with this section

715.3.7.3 Requirements for automatic closing by actuation of smoke detector apply to the cross-corridor doors at exit stairs.

Chapter 8: Interior Finishes

Wall and Ceiling Finishes: see section 803.1 for Class A, B, and C requirements for flame spread and smoke developed.

Flame Spread of finish materials per Table 803.5 for sprinklered buildings by occupancy group:

	Group A-3 and A-2	Group B	Group S-1
Stairways:	Class B	Class B	Class C
Exit ways:	Class B	Class C	Class C
Rooms:	Class C	Class C	Class C

Interior floor finishes per section 804

Chapter 9: Fire Protection Systems

Complying automatic sprinkler systems are defined in this chapter, and sprinklers are used as reason for a number of height and area modifications and other exceptions throughout the code.

Sprinklers are not required for occupancy group B (See Section 903.2)

Sprinklers are only required for occupancy group A-3 (See Section 903.2.1.3) if the A-3 fire area exceeds 12,000 SF or has an occupant load of 300 or is located on a floor other than level of exit discharge. This requires the buildings A-3 occupancy spaces to be sprinkled.

Sprinklers are only required for occupancy group A-2 (See Section 903.2.1.2) if the A-2 fire area exceeds 5,000 SF or has an occupant load of 300 or is located on a floor other than level of exit discharge. This requires the buildings A-2 occupancy spaces to be sprinkled.

Sprinklers are required in occupancy group S-1 (See Section 903.2.9)

It is our intention to equip the building with automatic sprinkler systems throughout.

Chapter 10: Means of Egress

Minimum height of egress path: 7'-0" throughout, 6'-8" minimum at stairs

Occupant Load determination (Section 1004): the largest load number calculated by both designed occupant use as well as occupant load calculated per values given by table 1004.1.2.

Occupant Load Factors (Table 1004.1.2)

Assembly without fixed seats:

Concentrated (chairs only not fixed)	7net
Standing Space	5net
Unconcentrated (tables and chairs)	15 net
Office& Business Areas:	100 gross
Kitchens, commercial:	200 gross
Parking Garage:	200 gross
Storage Rooms:	300 gross
Mechanical Rooms:	300 gross
Library Reading Room:	50 net
Library Stack Area:	100 gross

Do not sum up the floors. Each floor is independent of the other. (1004.4)

Egress width per person served (Table 1005.1)

Stairways	0.2" per person w/ sprinkler system, not less than 48" (1007.3)
Other egress components	0.15" per person w/ sprinkler system, not less than 44" at corridors

Door encroachment: no more than 7" when fully open (1005.2)

Accessible Means of Egress (1007.1): provides accessible route to an area of refuge, horizontal exit or public way (See section 1002) Accessible spaces shall have minimum of one accessible means of egress or two accessible means from a space required to have more than one exit. See also 1007.3 – an enclosed stair can be considered part of accessible means of egress and per 1007.3 exception #3, a 48" required clear width and a defined area of refuge at enlarged landings is not required if building is fully sprinklered.

Buildings with four or more stories (1007.2.1): One accessible means of egress shall be via a complying elevator when a floor is four or more stories above or below an exit discharge.

Areas of Refuge (1007.6): Sized to accommodate one wheelchair space of 30"x48" for each 200 occupants. When located within enlarged stair enclosure landings, the area of refuge shall not reduce the required exit width. A two-way communication device is required at the area of refuge (1007.6.3). Area of refuge is not required as noted in 1007.3 above.

Roof Stair: One stairway up to the roof is required in buildings 4 or more stories in height (1009.12) Roof stair-

way access is required through a penthouse (walls, floor and roof) complying with section 1509.2 (1009.12.1)

Egress through intervening spaces (1013.2): Only permitted when intervening space is accessory to the area served.

Common path of egress travel (1013.3): Maximum 75' travel before two means of egress are available.

Exit Access Doorways Required (Table 1014.1): Greater than 50 occupants requires two exit access doorways.

Exit Access and Travel Distance (Table 1015.1): With a sprinkler system, the maximum travel distance is 250 feet for A occupancy, 300 feet for B occupancy, and 400 feet for S-2 occupancy.

Corridors in group B, group A, and group S occupancies shall be 1-hour rated without a sprinkler system or 0-hour rated with a sprinkler system (table 1016.1)

Maximum dead end corridors: 20 feet. 50 feet with a sprinkler system in group B occupancy

Minimum Number of Exits (1018):

Room or spaces with occupant load of 1-500 require access to 2 exits (Table 1018.1)

Room or spaces with occupant load of 501-1,000 require access to 3 exits (Table 1018.1)

Room or spaces with occupant load >1,000 require access to 4 exits (Table 1018.1)

Occupied Roof shall have access to exits as required for stories (1018.1)

Vertical Exit Enclosures (1019):

2-hour rated when connecting greater than 4 stories

1-hour rated when connecting less than 4 stories

Exterior walls of vertical exit enclosures shall be rated per 704 for exterior walls. Where non-rated or unprotected openings enclose the stair and are exposed to other parts of the building by less than 180degrees, the building exterior walls within 10 feet shall be rated to minimum 1-hour to a point 10 feet above top most landing or the roof line whichever is lower.

Chapter 11: Accessibility

In addition to 2003 IBC and any Washington State amendments, it is also anticipated that the design team will discuss accessibility goals with the state that meet universal design standards that may be more stringent than required by any codes or regulations.

Chapter 12: Interior Environment

Applicable ventilation, temperature, lighting and sound transmission provisions.

Chapter 13: Energy Efficiency

Refer also to mechanical and electrical systems narratives.

Applicable codes & guidelines to be reviewed with authorities having jurisdiction:

International Energy Conservation Code

Washington State Energy Code.

Energy Life Cycle Cost Analysis (ELCCA)

Leadership in Energy and Environmental Design (LEED) per RCW 39.35 D

Washington State Energy Code Minimum Building Envelope Requirements (Table 13-1)

Item	Minimum Thermal Performance
Roofs	R-21 or U=0.050
Opaque Walls	R-19 or U=0.14
Opaque Doors	U=0.60
Floors over unconditioned space	R-19 or U=0.056
Slab on Grade	R-10 or F=0.54
Glazing (30% to 45% of wall area)	Max U=0.60 and Max SHCG=0.4

Chapter 14: Exterior Walls

Applicable definitions: Stone (natural), concrete

Chapter 15: Roof Assemblies and Rooftop Structures

The enclosed mechanical area is considered a penthouse (Section 1509.2)

Chapter 16, 17 and 18: Structural requirements and standards. Refer to structural narrative

Chapter 19, 20, 21, 22, 23, 24, 25, 26: Building materials requirements and standards

Chapter 27: Electrical requirements and standards. Refer to electrical narrative.

Chapter 28: Mechanical requirements and standards. Refer to mechanical narrative.

Chapter 29: Plumbing Systems

Refer also to plumbing systems narrative.

Minimum number of Required Plumbing Facilities (Table 2902.1)

Table 2902.1 has been amended by the State.

“Average” floor +/- 50,000 sf at 1 person/200 sf = 250 people

Assume 125 men – requires 5 toilets (or 3 urinals + 2 toilets)

3 lavatories

Assume 125 women – requires 5 toilets

3 lavatories

Chapter 30: Elevators and Conveying Systems

Hoist way Enclosure protection: see 3002.1

Elevator Car to accommodate ambulance stretcher required in buildings of 4 stories or more (3002.4)

Emergency Operations per section 3003

Hoist way venting required per section 3004

Elevator Machine Rooms per section 3006

Parking Needs

This Predesign Review has developed alternative approaches to address both the parking needs of visitors as well as the parking needs of employees¹. The following is a summary of the total parking need for the two projects given the alternate program sizes of each².

Parking Needs Analysis				
	Executive Office Building		Heritage Center	
	120,000 GSF	90,000 GSF	80,000 GSF	204,000 GSF
Total Stalls	267	202	180	298

Since the original predesign recommendation to build a 503 stall parking garage, there has been an effort to analyze alternatives to further construction of parking facilities.

There is limited land available on either the West Capitol Campus or East Capitol Campus to be used for surface parking. Because major areas of additional surface parking are not feasible on the Capitol Campus, other alternatives such as off site surface parking, structured parking or transportation alternatives are being considered.

A below-grade parking garage with 560 stalls is offered as one alternative in this study. The proposed location for this parking garage is at the site of the current Conservatory. The garage is a combination of employee/staff parking and visitor parking not only for this project but also to meet unaddressed needs for the West Capitol Campus.

All ingress and egress from the garage for parking and loading is from a sloped ramp to a newly proposed access road that transverses to the west side of the current GA Building thence to the North of the GA Building to Union Avenue.

Another alternative is the acquisition of sufficient land with reasonable access to the Capitol Campus (e.g., either proximate land, near transit service or via some form of shuttle) to construct surface parking. The cost of surface parking (including local land acquisition) is about 1/3rd the cost of below-grade parking structures.

A third alternative is the acquisition of sufficient land, with reasonable access to the Capitol Campus, to construct an above-grade parking structure. Assuming local land costs the cost of the combination of land acquisition and construction is about 2/3rd the cost of the proposed below-grade parking garage.

Additional alternative strategies are explored in the Transportation Alternatives *Section 7* of this report.

¹ Please see Appendix 9 for detail regarding the number of stalls needed, in the absence of alternatives, for the two projects given the different size programs.

² Note that these represent total need. About 85 of the tenants of the proposed projects already park on either the East or West Capitol Campus so the net need for these specific projects is actually less.

Site Alternatives

The pre-design review process identified, studied, and considered twelve sites to locate the Executive Office Building and Heritage Center in order to bring the project within the budget's capacity. These sites are identified in the figure below. Some sites are well suited for Heritage Center functions and others work well for the Executive offices. Only Site 1 and 2 have the capacity to hold both programs together.



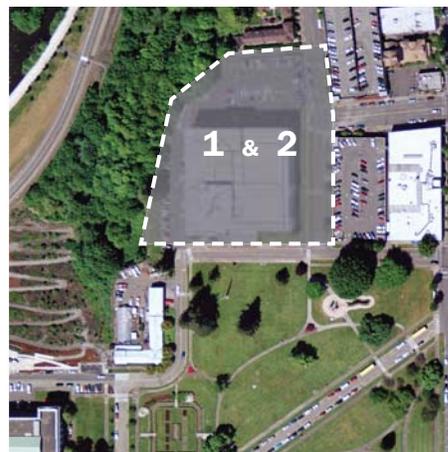
Aerial Diagram Documenting Site Alternatives

Site 1: Original Project

Site 1 refers to the original site and scope documented in the “Heritage Center & Executive Office Building Project Final Design Development GA #2006-117.” It is positioned north of 11th, between Water Street and Columbia Street, and is neighbored by an apartment complex to the north. The site is located on the western block of the property identified by the 2006 Capitol Campus Master Plan as Opportunity Site 1. It is currently occupied by the General Administration building.

The existing 283,000 square-foot GA building was completed in 1953 and sits four floors above grade on the southern side that faces the Capitol Campus and five floors above grade on the north side. A paved parking lot occupies the northern half of the site and is retained by a concrete wall along the north edge adjacent to a publicly accessible alley. A narrow parking area and grass panel is located west of the GA building running parallel to the bluff. The site has a clear view of the Legislature Building and the potential for expansive views of Capitol Lake.

The bluff overlooking Capitol Lake just west of the GA building site is generally populated by Big Leaf Maples and mixed under-story plants. It is stabilized by a shoring system that was installed around 1986. A linear lawn area and a large Sequoia tree sit atop the bluff. This area is used by state workers and visitors to enjoy the view of Capitol Lake and relax in the narrow open lawn area. Views of the Legislative Building from this lawn are currently blocked by the Capitol Conservatory.



Site 2: Original Project with Reduced Scope

Site 2 refers to a scheme located on the GA building site with a reduced project scope.

Site 3: Dawley Block

Site 3 refers to the block immediately to the east of the original site, and is bounded by Columbia Street to the west, 11th Avenue to the south, Capitol Way to the East, and Union Avenue to the north. The site is located on the eastern block of the property identified by the 2006 Capitol Campus Master Plan as Opportunity Site 1. It is currently occupied by the GA Parking Garage on the west and the Dawley Building on the east. The northeast corner of the site defines the edge of the Capitol Campus from the surrounding Olympia neighborhood. This corner has the opportunity to become an important gateway or entry to the Capitol Campus. This site also offers views to the Legislature Building.

The Dawley Building, constructed in 1932, is located at 1063 Capitol Way. Among its current tenants are the Hands-On Children’s Museum and Meconi’s Italian Subs. Over time, other first-floor businesses have included a bakery, a café, a photography studio, a ballroom, a bowling alley, and the notorious Capital Bar & Grill. At one time, the north end had a series of food stalls that opened into the street. Past second floor tenants have included Dietz Business College, KGY Broadcasting, and the offices of prominent local attorneys. The building is on the Olympia Heritage Register. The GA Garage was built in 1960. Its companion to the south, the Columbia Garage, was built in 1973 in the same “brutalist” style of architecture.

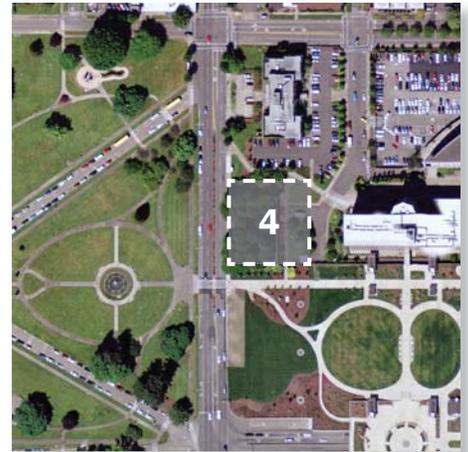


Site 4: Archives Building Site

Site 4 is the property located adjacent to the current State Archives building, on the northern edge of the East Plaza west of the Highway Licenses building. The project would connect the eastern edge of the existing building. The “Archives Building Addition Feasibility Study,” conducted by GA in 1998 documents the viability of this concept. The northern edge of the site faces the Olmstead lawn, offering views to the Legislature Building. The site has the potential to define and improve the eastern edge of the Capitol Campus.

The existing Archives Building was constructed in 1962. The three story structure is mostly below grade. The roof is at the same elevation as Capitol Way and covered with soil, grass, and trees in large concrete planters. The top story is exposed on the east side along the Washington Street entrance to the Plaza Garage and partially exposed on the north side.

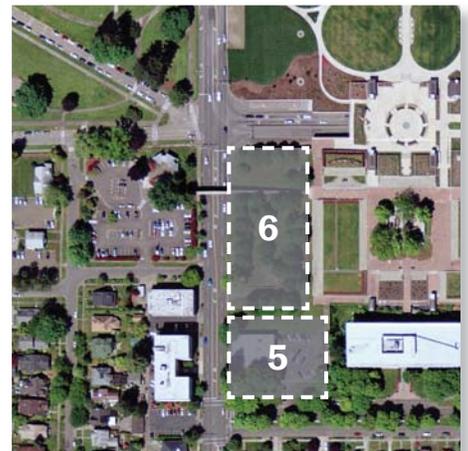
The site east of the building is landscaped with grass and trees extending out to the Washington Street entrance of the Plaza Garage. A small concrete block emergency generator building with fuel tank is located at the south end of the site, and a memorial tree at the north end. An underground utility tunnel connects the Archives building to the Highway Licenses building. The driveway extending from the street to the existing loading dock of the Archives Building divides the east site in half.



Site 5: South IBM Building Site

Site 5 refers to the site currently occupied by the Old IBM Building, north of Maple Park Avenue, on the east side of Capitol Way. The site is located on the property identified by the 2006 Capitol Campus Master Plan as Opportunity Site 7. The site contains 1.1 acres and is immediately adjacent to the East Plaza garage.

The Old IBM Building is the first state office building the northbound traveler on Capitol Way encounters. The building is 14,200 square feet, two-story, and was constructed over 30 years ago. Because the existing building is not in compliance with current life-safety codes and the land it occupies has greater value for other uses, both the 1982 and 1991 master plans call for its demolition. The existing building is, by default, the south-side “gateway” to the campus.



Site 6: North IBM Building Site

Site 6 is the property bounded by the Old IBM Building to the south, Capitol Way to the west, the 14th Avenue tunnel entry to the north, and the East Plaza Garage to the east. Currently, the site is occupied by a bosk of trees. A pedestrian pathway and bridge run across the north portion of the site and span Capitol Way to connect the east campus to the historic west campus. An entry ramp into the East Plaza garage is located on the south portion of the site. The northern edge of the site faces the East Plaza, and has the potential to establish a direct linkage to the garage.

Site 7: Visitor Center Block

Site 7 refers to the block located on the southwest quadrant of the intersection of 14th Avenue and Capitol Way, and is bounded by 15th Avenue to the south and Columbia Street to the west. The site is located on the eastern portion of the property identified by the 2006 Capitol Campus Master Plan as Opportunity Site 6, which describes the site as, “the primary vehicular gateway to west campus.” The site has high potential to function as a signature hub for visitors and other public activity on campus. It is immediately adjacent to the Historic Olmstead Lawn, and is less than a three minute walk away from the Legislative Building.

This is the site of the existing visitor center and an 84-car surface parking lot. The Visitor Center was considered to be a temporary building when it was constructed in 1981. It occupies the NE corner of the site and is readily visible to traffic from this busy intersection. Also on the northeast corner of the site are two underground electrical vaults. A pedestrian pathway that spans Capitol Way to connect the historic west campus to the east plaza enters the site mid-block along Capitol Way.

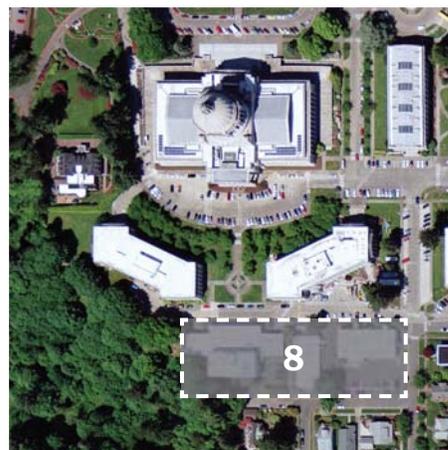
Across 15th Avenue, on the site’s southern border, is the historic South Capitol Neighborhood. The neighborhood consists of approximately 400 well-preserved properties that showcase a wide variety of mid-century residential design. The site offers the unique potential of transitioning between the Capitol Campus and the neighborhood with a lower density public facility dedicated to the preservation of the Washington State Capitol Heritage.



Site 8: Pritchard Building Site

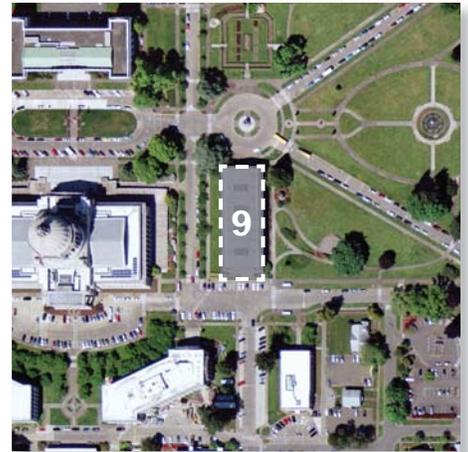
Site 8 refers to the existing Pritchard building and the 99-car surface parking lot to the east. The site is bounded by 15th Avenue to the north, Water Street to the east, 16th Avenue to the south, and a forested bluff overlooking the Capitol Lake to the west. The parking lot block is identified by the Capitol Campus Master Plan as Opportunity Site 7. This site has the opportunity to bring revitalize an aging and underutilized building within the historic capitol building group. The site offers views to Capitol Lake and the Legislative Building, and the potential of establishing a stronger connection to the South Capitol Neighborhood.

The existing 58,000 square-foot Pritchard building was completed in 1959. The building form takes a “T” shape in plan. It is fronted by a 2-story glassy volume with one floor below grade, which takes the form of the top of the “T.” A seven-floor solid block of collections space, with 8’-7” floor-to-floor heights, forms the base of the “T” in plan. Although the building was constructed with modern sensibilities 31 years after the completion of the Legislative Building, it has become an integral member of the historic capitol building group.



Site 9: Insurance Building

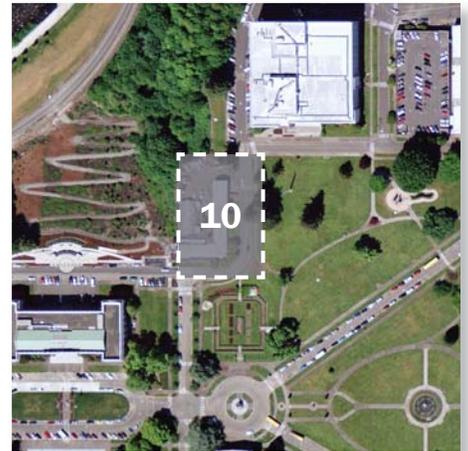
Site 9 refers to the Insurance building, which is sited south of the Winged Victory monument, north of Sid Snyder Avenue, and east of Cherry Lane on the southwest corner of the historic Olmstead Lawn. The 64,200 square-foot building was constructed in the early 1920s, and was completed shortly after Temple of Justice. It is a four-floor, neoclassical structure occupied primarily by the Office of Financial Management, and providing some office space for the Office of the Insurance Commissioner and the Auditor’s Office.



Site 10: Capitol Conservatory Site

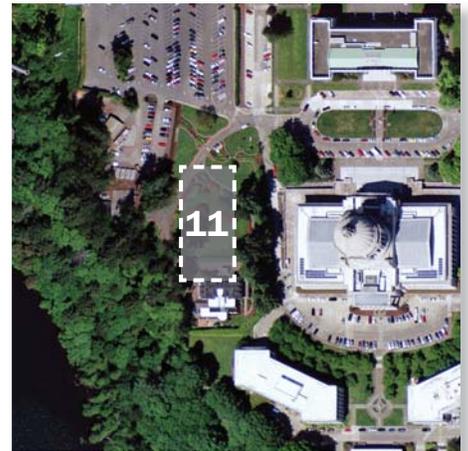
Site 10 is the property currently occupied Conservatory site bordering the northwest edge of the Olmstead Lawn. The site comprises approximately 6/10 of an acre, and is occupied by an existing building that houses both a greenhouse for visiting public and a grounds maintenance shop. The site offers spectacular views to Capitol Lake, Heritage Park, Downtown Olympia, and the Capitol Dome.

The existing greenhouse structure was constructed in 1939 and expanded in 1963. It is currently closed to the public, due to its poor structural integrity. Several studies by GA and the Department of Natural Resources have shown that the property was “created” by dumping large amounts of fill materials and debris into what was once a ravine that ran in a SE to NW direction. Severe settling in parts of the existing greenhouse is an indication that the fill was not compacted when placed. This site is currently the center of operations for grounds maintenance.



Site 11: Governor’s Mansion Site

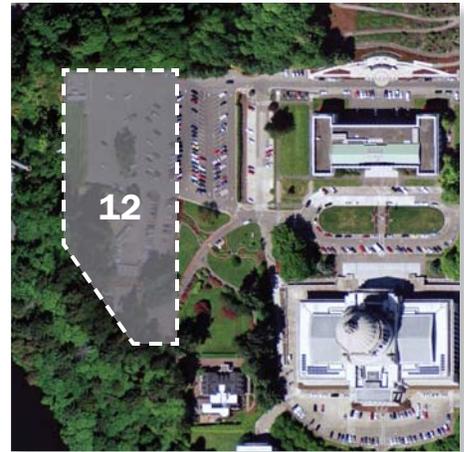
Site 11 is positioned west of the Legislative building on property currently occupied by the Governor’s Mansion. Locating a building on this site would complete the vision documented in the 1911 Wilder and White master plan that mirrors the insurance building across the Legislative Building’s north-south axis and would require the relocation of the Governor’s Mansion.



Site 12: West Side Axis Site

Site 12 is located on the western edge of the Capitol Campus and is currently occupied by maintenance soil storage and surface parking. Its edges are defined by the forested bluff to the north and west and Pleasant Lane to the east. The site includes property identified by the 2006 Capitol Campus Master Plan as Opportunity Sites 3 and 4, which comments that the sites offer views that are “unmatched by any other portion of the campus.” The development of Site 12 provides the opportunity to revitalize the west edge campus, and complete the historic capitol building group without moving the Governor’s Mansion.

Main utility lines enter the campus on the west edge of the hillside, and are buried under Site 12. The site has a significant grade change that slopes down from the Governor’s Mansion to the north edge of the site. The site also contains a few large trees that would be documented and considered through design.



Significant Natural and Built Features

The Washington State Capitol Campus is comprised of several significant natural and built features that every site must address in some way. Although not all of these features are directly adjacent to all of the sites, they all impact every site in unique ways. These features join together to create a single campus environment.

Historic Capitol Group

The Historic Capitol Group is an architectural and cultural treasure that symbolizes Washington's statehood. The group includes the Temple of Justice (completed in 1920); the Insurance Building (1921); the Legislative Building (1928); Cherberg Building (1937); and O'Brien Building (1940). These ceremonial buildings serve as workplaces for Washington's elected officials and staff, and are a source of identity, character, and pride for the entire state and the local community.

Design by Wilder and White, the Capitol Group's massing and configuration focuses on the Legislative Building, the activity center of the group. The Legislative Building is complemented by auxiliary buildings on all sides. Courtyards between the buildings are scaled to encourage pedestrian flow in and out of the buildings as well as around them. The general orientation of the group is configured about the north-south axis centered on the Legislative Building. The Temple of Justice, O'Brien, and Cherberg are also sited along this axis. North of the West Campus, the axis is anchored by the City's Heritage Park Fountain and extends to the Puget Sound and the Olympic Mountains beyond.

West Campus Lawn & Heritage Trees

Designed by the Olmsted Brothers in 1928, this open green space dominates the West Campus with its organized pattern of streets, sidewalks, and landscape spaces. Two "Heritage trees", an English Oak (*Quercus Robur*) and an American White Elm (*Ulmus Americana*) and the World War II Memorial reside in the lawn area along 11th Avenue. The American white elm grew from a cutting derived from the historic Elm that General George Washington stood under when first taking command of the Continental Army in Cambridge, Massachusetts. The English Oak is the largest of its species in Washington State. The World War II Memorial was dedicated in 1999. The design features a star-like cluster of five, 14-foot high bronze blades engraved with the names of nearly 6,000 Washington residents who lost their lives in WWII.

East Capitol Campus

The East Capitol Campus is comprised of large, state-owned office buildings that are sited around the East Plaza. Buildings include Capitol Court Building, State Archives Building, Highway - Licenses Building, Natural Resources Building, Office Building Two, Transportation Building, Employment Security Building, and the Old IBM Building. Opposite Capitol Way from the Olmstead Lawn, the plaza occupies approximately four city blocks. It sits on top of the 2,400-car Plaza Garage and straddles 14th Avenue. A 2005 redesign and restoration provided broad walkways and formal landscaping to create visual and pedestrian connections between office buildings and the garage below. This portion of the Capitol Campus terminates the east-west axis established by the Olmstead Lawn with an offset open space of approximately the same scale.

Major Public Artwork and Installations

The beauty, history, and symbolism of the state's capitol grounds are not only shaped by the architecture and open spaces, but also by the numerous monuments and artworks. These installations have the power of recalling the stories of history, and add to the cultural richness and meaning of the ceremonial Capitol Campus. The campus has identified 18 of these landmarks, including the Winged Victory, the Tivoli Fountain, the World War II Memorial, and the Korean War Memorial. These installations are sited along key axes and at important nodes in a way that reduces the scale of the built environment to that of a pedestrian, encourages visitors and staff to reflect on ideas and events larger than themselves, and provides landmarks around which people can congregate.

Adjacent Olympia Neighborhood

The neighborhood bordering the northeast edges of sites 1-3 is zoned Downtown Business (DB) and is made up of a mix of commercial and residential land use. Columbia Street which bisects the project site is a direct route to downtown Olympia.

South Capitol Neighborhood Historic District

Located just south of the Capitol Campus and immediately adjacent to sites 5-8, is the South Capitol Neighborhood Historic District. This historic register neighborhood consists of approximately 400 well-preserved properties that showcase a wide variety of mid-century residential design. Within this neighborhood resides the historic Lord Mansion, one of Olympia's few genuine mansions, which was built in 1923 and currently houses the State Capitol Museum.

In recent history the neighborhood has observed the growing presence of non residential uses eroding away at the character and integrity of the neighborhood. Any development on the Capitol Campus, no matter its adjacency to the South Campus Neighborhood, must be sensitive to this historic place and consider the ways that the project will impact this sensitive community of homes. Traffic and parking issues are among the neighborhood's concerns.

Capitol Lake & Heritage Park

The western bluff that defines the west edge of the Capitol Campus overlooks Capitol Lake and Heritage Park. Capitol Lake is a 260-acre reservoir. It was created in 1951 when the state constructed an earthen dam, 80-foot concrete spillway and bridge along 5th Avenue in Olympia. The dam blocked the tidal flow of Budd Inlet and changed the mudflats of the Deschutes River estuary into a lake. The lake was created to serve as a reflecting pool for the Capitol buildings, to improve the link between east and west Olympia, and for recreation purposes. Although the lake is no longer open for swimming, the lake and adjacent Heritage Park attract visitors and residents of Olympia year round. The park is considered the northern extension of the West Capitol Campus, connecting the campus to the city of Olympia. Currently, the Lake and Park can only be accessed from Capitol Campus via a gravel switchback path which begins at the Law Enforcement Memorial.

Site Comparison Matrices

The following matrices provide a comparison of sites in terms of area, parking, budget, pros, and cons. These charts provide a useful tool to compare the way that the different sites accommodate the Heritage Center and Executive Office Building programs. Through a series of meetings with the office of General Administration, the future building occupants, and the Capitol Campus Design Advisory Comity, the team used these matrices to narrow its focus to a total of five viable alternative sites for the Heritage Center and Executive Office Building.

Heritage Center Site Comparison

Site	GSF	Parking Cars	In Budget	Completion Year	Pros	Cons	Comments
Site 1 (Original Design-HC with EOB)	193,557 GSF of HC Only	0	No	2015	Both programs as originally conceived fit on one site. Eliminates outdated building CD's are substantially complete Good views to the lake	Too Expensive Requires Demo and relocation on existing Building Cannot be done within a reasonable timeframe	
Site 2 (Original Reduced-HC with EOB)	132,846 GSF of HC Only	0	Possible	2015	Both programs adjusted downward fit on one site. Eliminates outdated building Good views to the lake	Too expensive for EOB in a combined building and too expensive for HC alone. Requires demo of existing GA building and relocation of existing tenants. Cannot be done within a reasonable timeframe Under utilizes the potential of the site Will require either additional archives space or alternative operations methodology.	
Site 3 (1063 Site HC Only)	142,896 GSF of HC Only, not including parking area.	132	Possible	2015	Gateway to downtown Improves underdeveloped corner.	Visitors are further from the Legislative Building than from Sites #1, #2, or #7 Includes demolition of the GA Garage. That parking may need to be replaced. The cost of that replacement parking is not included in the current budget level. Eliminates existing building & tenants that would need to be relocated this adds great risk of delay Will require either additional archives space or alternative operations methodology.	
Site 4 - (Archives-HC Only)						Difficult to cross Capital Way	Not Taken Forward
Site 5 - (IBM South-HC Only)						Difficult to cross Capital Way	Not Taken Forward
Site 6 - (IBM North-HC Only)						Difficult to cross Capital Way	Not Taken Forward
Site 7 (Visitor Center-HC Only)	137,650 GSF of HC Only, not including parking area.	132	Possible	2013	High visibility and good front door for visitors to campus Improves underdeveloped corner of campus Proximity to core of west campus Link to parking & and allows for easy sharing of Archives space due to tunnel. Sites #2 and #3 will require either additional archives space or alternative operations methodology. Can be done within budget Give possibility of joint development with adjacent historic neighborhood	Other possible conflicting development proposal Potential neighborhood issues	
Site 8 (Pritchard-HC Only)					Reuse existing historic building Prominent axial relationship to Legislative Building Reduced cost due to building reuse	Too removed for visitors, would have adverse traffic impact Neighborhood Issues Requires relocation of building tenants Requires a larger building footprint for existing site plus additional footprint on the east parking lot. Hillside soils have not been tested for the scope of construction this program anticipates.	Not taken forward due to concern about visitor experience, traffic impact and site logistics
Site 9 - (Insurance Bldg-HC Only)						Not appropriate HC site	Not Taken Forward
Site 10 - (Conservatory-HC Only)						Removed as site by CCDAC	Not Taken Forward
Site 11 - (Governor's Mansion-HC Only)						Too removed for visitors and would have adverse traffic impact	Not Taken Forward
Site 12 - (West Side Axis Site-HC Only)						Too removed for visitors and would have adverse traffic impact	Not Taken Forward

Executive Office Building Site Comparison

Site	GSF	Parking Cars	In Budget	Completion Year	Pros	Cons	Comments
Site 1 (Original Design-EOB with HC)	119,994 GSF of EOB Only	0	No	2015	Both programs as originally conceived fit on one site. Eliminates outdated building CD's are substantially complete Good views to the lake	Too Expensive Requires Demo and relocation on existing Building Cannot be done within a reasonable timeframe	
Site 2 (Original Reduced-EOB with HC)	81,312 GSF of EOB Only	0	Possible	2015	Both programs adjusted downward fit on one site. Eliminates outdated building Good views to the lake	Too expensive Requires demo of existing GA building and relocation of existing tenants. Under utilizes the potential of the site Cannot be done within a reasonable timeframe	
Site 3 - (1063 Site-EOB Only)					Gateway to downtown Improves underdeveloped corner.	EOB would be remote from Leg. Building Eliminates parking or too expensive if parking is replaced Eliminates existing building & tenants that would need to be relocated Lease cost per SF is unaffordable	Not taken forward seen as too far from Leg Bldg
Site 4 (Archives-EOB Only)	81,450	0	Possible	2013	Helps define an edge along Capitol Way Close to axis between east and west campus. Possible added archives storage in basement. Near parking	East side of Capitol Way Poor public access Need to build around Archives and garage operations.	
Site 5 - (IBM South-EOB Only)					Southern gateway to campus Near Parking	Removed from west campus East of Capitol Way Requires demo of existing building Adjacent to residential neighborhood	Not Taken Forward
Site 6 - (IBM North-EOB Only)					Southern gateway to campus Near west campus Near Parking Open site	East of Capitol Way Displaces trees	Not Taken Forward due to CCDAC concern of tree removable
Site 7 - (Visitor Center-EOB Only)					High visibility and good front door for visitors to campus Improves underdeveloped corner of campus Proximity to core of west campus Link to parking & Archives via tunnel	Other possible conflicting development proposal Potential neighborhood issues Will not hold both HC & EOB. Priority of use for HC. If the HC is not located here, the EOB is a possibility. It will then have potential negative neighborhood issues.	Not Taken Forward for the EOB
Site 8 - (Pritchard-EOB Only)					Reuse existing historic building Prominent axial relationship to Legislative Building Reduced cost due to building reuse	Very difficult to make executive offices work Neighborhood issues Requires relocation of building tenants	See Pritchard Study October 2006 Not Taken Forward for the EOB
Site 9 (Insurance Bldg-EOB Only)	60,807	0	Possible	2013	Insurance Commissioner back to the Insurance Building Proximity to the Legislative Building Reduced cost due to building reuse	Requires relocation of existing building tenants Area and configuration limited by existing building Only fits Insurance Commissioner	
Site 10 - (Conservatory-EOB Only)					Prominent campus location Good proximity to Legislative Building Views to Capitol Lake Can accommodate ample parking below	Requires demolition of Conservatory & associated costs Requires relocation of road & associated costs Requires demolition of maintenance area & associated costs Poor soils	Rejected Strongly by CCDAC
Site 11 - (Governor's Mansion-EOB Only)					Prominent campus location Good proximity to Legislative Building Finishes the original campus plan	Requires moving the Governor's Mansion & associated costs	Site added By CCDAC Not taken forward because of cost to move mansion
Site 12 (West Side Axis Site-EOB Only)					Prominent campus location Good proximity to Legislative Building Can help to improve the west edge of campus Phase 2 can add additional space if needed	Phase 1 requires some parking relocation. Phase 2 requires major parking relocation. Additional staff occupancy will require additional parking or transportation solution to hold West Campus parking status quo. Proximity to Mansion	Site added By CCDAC
Phase 1	87,781	0	Possible	2013			
Phase 2	109,095	0	Possible	2015			

Proposed Design Alternatives

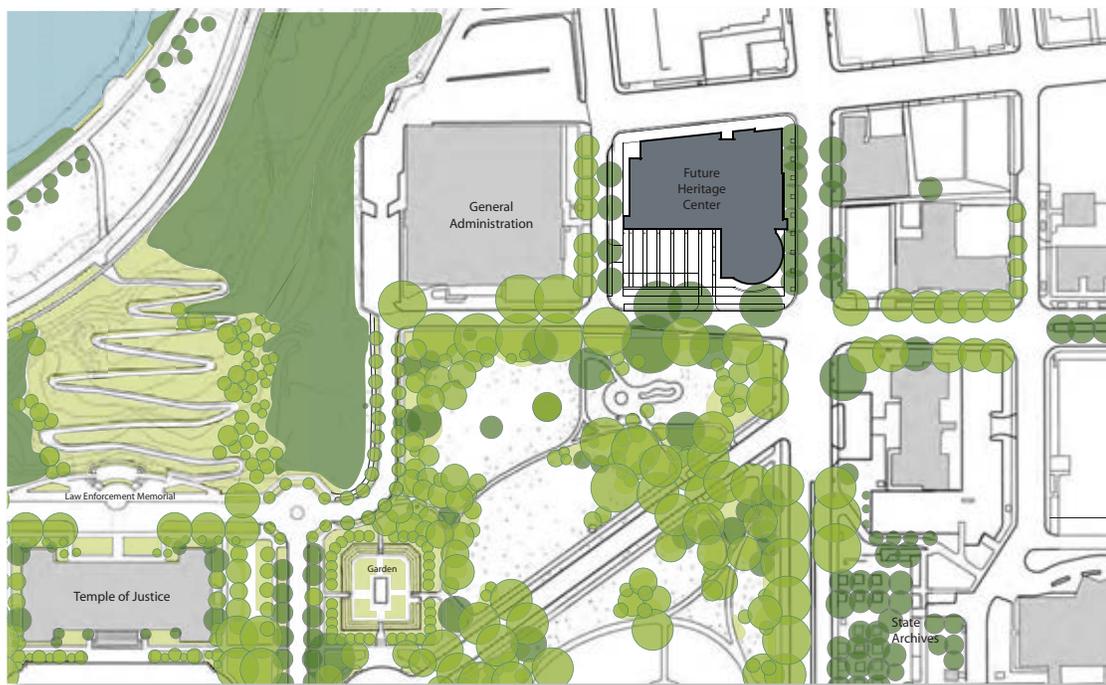


Site 2: Original Project with Reduced Scope

The Heritage Center and Executive Office Building would be co-located on the site of the existing GA building, and built along the hillside edge with views toward Heritage Park and Capitol Lake. The eight-story building includes two floors of Heritage center program partially below grade and terraced down the hillside. The ground floor accommodates the main building entry, a circulation gallery, the Heritage Center exhibit space, and other public program elements, such as the café and gift store. The upper four floors are designed to accommodate the Executive Office Building program of the Insurance Commissioner and the Treasurer. The primary face of the building addresses the south and frames Olmstead's west campus lawn. The south façade of the building also defines a new plaza that visually extends the formal open space of the Olmstead Lawn and serves as the primary vehicular and bus drop off for the project. Library and archives collections are housed in two levels of below grade storage space with high-density shelving systems.

An estimated 40-50 parking stalls will be provided in the new parking lot at the north end of the project site. This lot will be planted with a grid of trees to provide shade and soften the character of the space. The parking lot will be accessed from a driveway on the south edge of the lot at the corner of Columbia St. and Union Ave. The existing garage east of Columbia Street will serve this project, as it has served the GA building.

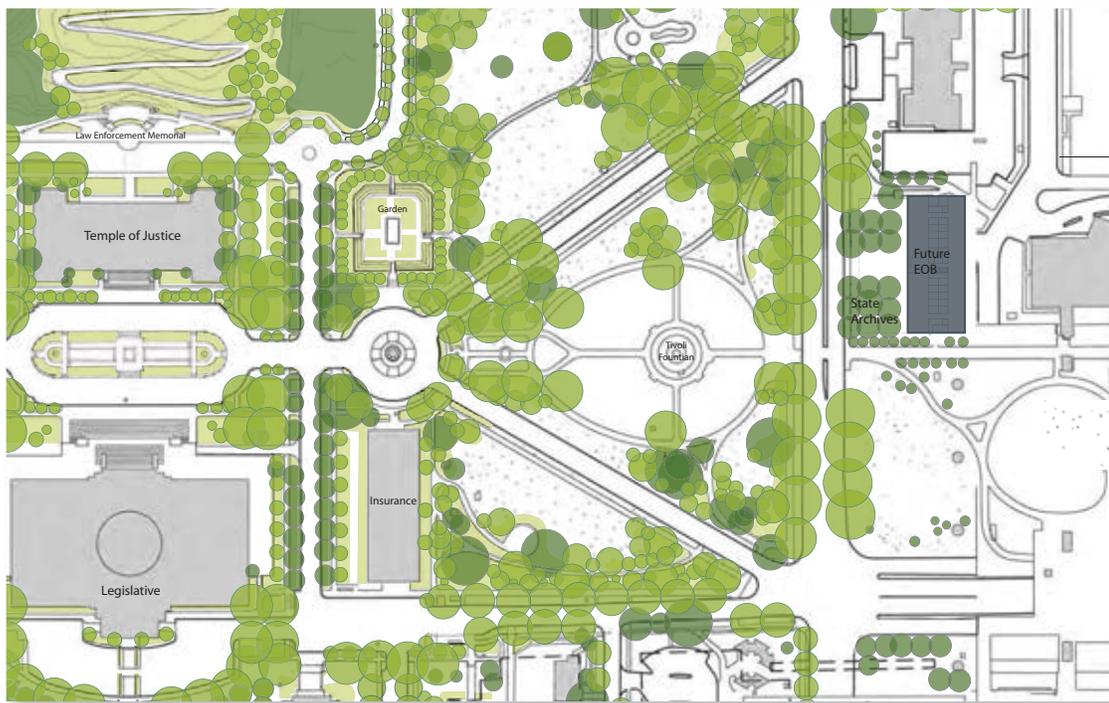
As part of this project scope, it is recommended that Water Street be moved to align with Cherry Lane after the relocation of the Capitol Conservatory. The realignment of this road would complete the symmetry of the campus road system around the Olmsted Lawn.



Site 3: *Dawley Block*

The Dawley Block, on 11th Avenue between Capitol Way and Columbia St., could accommodate the Heritage Center program. The building's massing would express the public and private components of the program. A four-level wing along Capitol Way, (five-levels at the north-east corner, due to the slope of Capitol Way), responds to the city zoning and provides an urban edge to the downtown arterial. The upper floors would house the administrative offices for library and archives staff. A three-level building at the center of the block stacks the library reading room above the Heritage Center exhibit space. An open and transparent circulation gallery faces south and welcomes visitors to the Heritage Center. This light-filled space connects visitors to the café, gift store, and the exhibit entry. A plaza along 11th Avenue visually extends the formal open space of the Olmstead Lawn and serves as the primary vehicular and bus drop off for the project. Library and archives collections are housed in two levels of below grade storage space with high-density shelving systems.

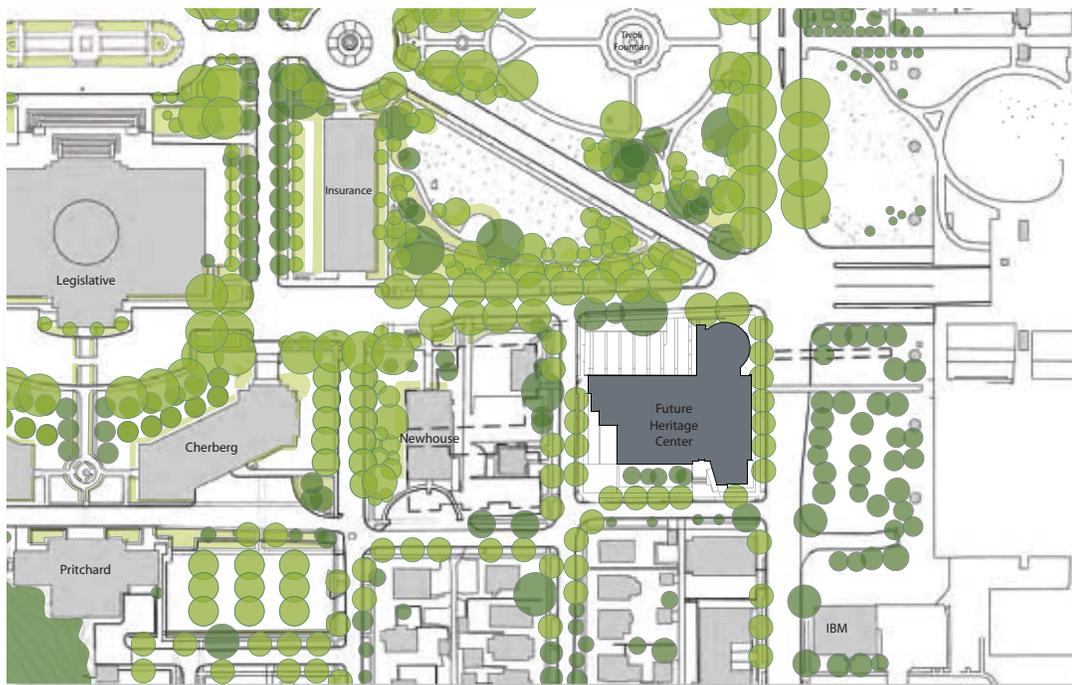
This site can accommodate over one hundred parking spaces in a two-level below grade garage, with entry off Union Street on the north side of the block. A few additional parking spaces are defined at grade. Replacement of the parking spaces lost due to the demolition of the existing GA garage is not a part of this project scope.



Site 4: Archives Building Site

This site, along the east side of Capitol Way and just east of the existing State Archives Building, could accommodate the Executive Office Building program. The simple five-level massing of the building provides an edge to the tree bosque along Capitol Way and helps frame the east side of the Olmsted Lawn. The primary entry to the building could occur at a new plaza space within the tree grid. A lower level entry and loading bay on the east side of the building accommodates the existing State Archives function, which could remain beneath the tree bosque and partially below the new office building.

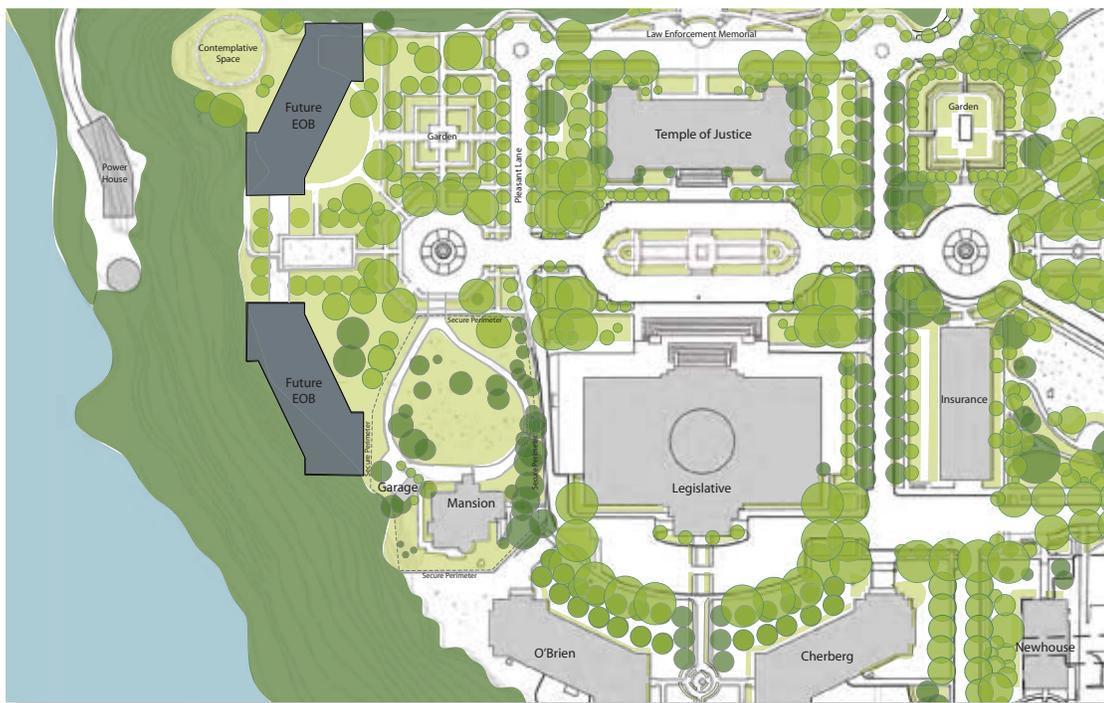
The existing access drive to the parking garage below the East Campus Plaza is to remain, and would provide easy access to parking for the office building tenants. No new parking spaces are created within this project scope.



Site 7: Visitor Center Block

This site, on the corner of Capitol Way and Sid Snyder Avenue could accommodate the Heritage Center program. Similar to the design proposed on Site 3, the building's massing would express the public and private components of the program. A four-level wing along Capitol Way responds to the city zoning and provides an urban edge to the downtown arterial, housing the library and archives administrative offices on the upper floors. A three-level building at the center of the block stacks the library reading room above the Heritage Center exhibit space. The height of the building mass steps down to addresses the smaller scale of the residential South Capitol Neighborhood. An open and transparent circulation gallery faces north and welcomes visitors to the Heritage Center. This light-filled space connects visitors to the café, gift store, and the exhibit entry. A plaza along Sid Snyder Avenue visually extends the formal open space of the Olmstead Lawn and serves as the primary vehicular and bus drop off for the project. Library and archives collections are housed in two levels of below grade storage space with high-density shelving systems.

This site can accommodate over one hundred parking spaces in a two-level below-grade garage, with entry off Columbia Street on the west side of the block. A few additional parking spaces are defined at grade. Replacement of the parking spaces that currently occupy the surface lot on the Visitor Center site is not a part of this project scope.

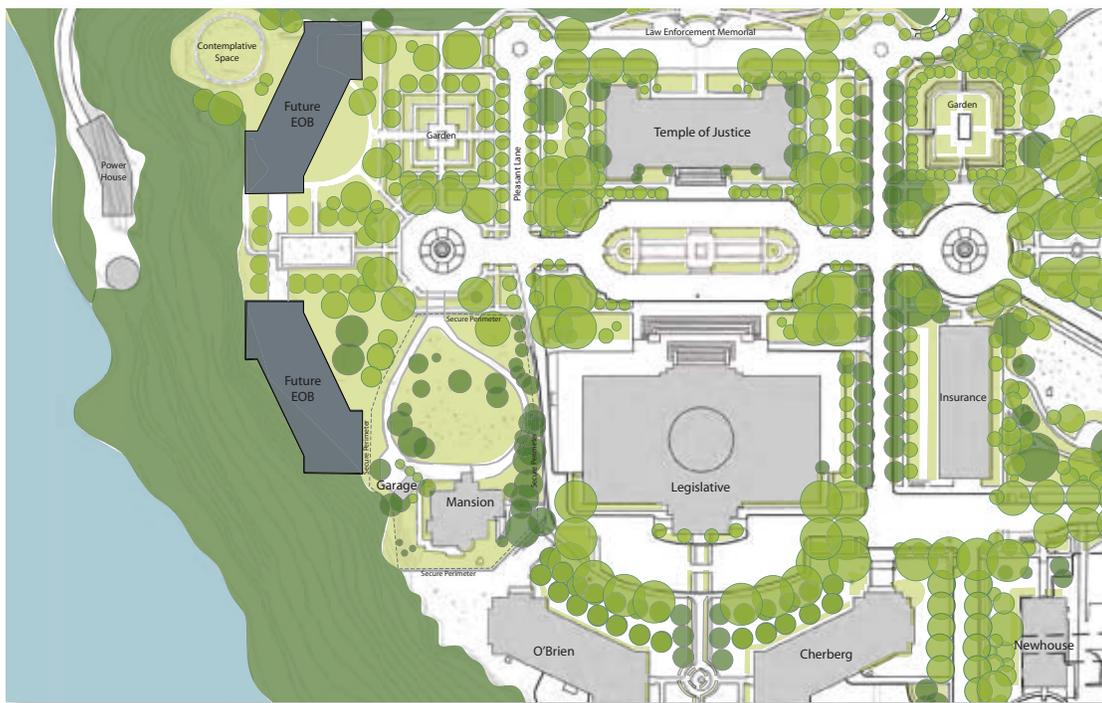


Site 12: *West Side Axis Site*

This site, to the west of the Legislative Building and positioned along the edge of the hillside could accommodate the Executive Office Building program. This site affords the opportunity to position a pair of buildings flanking the primary east-west axis of the central campus. The four-story massing of the buildings (five stories on the west side, facing the forested bluff) recall the size and scale of the Cherberg and O'Brien buildings and clearly define the west edge of the campus. The current program for the Executive Office Building, including the Insurance Commissioner and the Treasurer, would fill the southern building as a first-phase project scope. The second building, the one positioned to the north of the central axis, could be built in a second phase to accommodate the needs of other tenants as required. The primary entries could occur at a new plaza space positioned between the pair of buildings and along the central axis, celebrating the uninterrupted view to Capitol Lake. This project would include landscape improvements to the area between the Legislative Building and the new Executive Office Buildings that help to realize the vision of the West Campus Historic Landscape Preservation Plan.

The phase-one Executive Office Building does not significantly disrupt the surface parking that exists to the west of the Temple of Justice and on the north edge of the plateau. No new parking spaces are created within this project scope.

The Executive Office Building would provide a stronger definition to Governor's Residence lawn and includes improvements to the security perimeter, as well as a new garage for her vehicle fleet.



Site 12: *West Side Axis Site*

This site, to the west of the Legislative Building and positioned along the edge of the hillside could accommodate the Executive Office Building program. This site affords the opportunity to position a pair of buildings flanking the primary east-west axis of the central campus. The four-story massing of the buildings (five stories on the west side, facing the forested bluff) recall the size and scale of the Cherberg and O'Brien buildings and clearly define the west edge of the campus. The current program for the Executive Office Building, including the Insurance Commissioner and the Treasurer, would fill the southern building as a first-phase project scope. The second building, the one positioned to the north of the central axis, could be built in a second phase to accommodate the needs of other tenants as required. The primary entries could occur at a new plaza space positioned between the pair of buildings and along the central axis, celebrating the uninterrupted view to Capitol Lake. This project would include landscape improvements to the area between the Legislative Building and the new Executive Office Buildings that help to realize the vision of the West Campus Historic Landscape Preservation Plan.

The phase-one Executive Office Building does not significantly disrupt the surface parking that exists to the west of the Temple of Justice and on the north edge of the plateau. No new parking spaces are created within this project scope.

The Executive Office Building would provide a stronger definition to Governor's Residence lawn and includes improvements to the security perimeter, as well as a new garage for her vehicle fleet.

Other Design Considerations

The following design issues would apply to both the Heritage Center and the Executive Office Building, regardless of the site selected for each project.

Landscape Components

The character and design of the new landscape open spaces will respond to the needs of the structures and its users while complementing the character of the existing open spaces around Capitol Campus. The spaces will offer visitors and employees a variety of outdoor areas to accommodate everyday activities and larger events.

Planting

Plantings for this project will be predominantly drought-resistant native plant species. Careful consideration will be used in choosing plants for on-structure landscape areas. Plant species will also be chosen to complement the existing plant palette on the West Campus.

Site Furnishings

Site furnishings appropriately placed within the landscape may include benches, bicycle racks, trash and recycling receptacles.

Irrigation

All landscaped areas will be irrigated with automatic irrigation systems.

Maintenance

Maintenance of planting areas will minimize use of pesticides and herbicides. Care will be taken to design planting areas to be easily accessible to maintenance crews.

Special Consideration

Portions of the site's landscaped areas may be over below grade structures. The following guidelines will be used to develop the design for planting, paving, and other landscape features on structure.

General Guideline Densities for Structural Loads:

Reinforced Concrete:	150 lb/cf
Structural Foam:	5 lb/sf
Soil (saturated):	100-125 lb/cf
Stone:	160-180 lb/cf
Water:	62.4 lb/cf (assume a typical basin depth of 18")
Plant Material:	varies greatly
Groundcover:	2lb/sf
Med. Shrubs:	10 lb/sf
Trees:	500lbs-6,000+ lbs each

If the structure is post-tensioned it greatly influences sleeving for the mechanical systems.

Water feature weight should add concrete structure (pool floor, walls, coping, etc.) in with the typical water depth noted above. Typically, the water feature waterproofing will be a secondary system applied over a concrete structure, and concealed with a veneer of tile, stone, brick, metal, etc.

Note that one may be able to reduce live load requirements for shrub beds. These are not “public gathering areas,” and may often be reduced from 100lb/sf live loads to 40 lb/sf. This assumption should be discussed early on with structural and Authorities Having Jurisdiction. Plan on a 30” min. soil depth for shrub areas and 48” depth for small trees. For larger specimen trees, assume a 72” min. soil depth.

Typically, plants grown on-structure such as this never attain mature sizes. How stunted the material remains varies depending on water, nutrient availability, light intensity and quality, root morphology, planter volume and maintenance, among others. The above numbers should be safe, conservative values. Final loading should be reviewed once the design qualities required of the trees is better defined.

ADA Access

All access points to the building and outdoor gathering spaces will meet ADA requirements for pedestrian circulation.

Bicycle

Careful consideration will be given to providing safe access to the site for bicycle riders. Secure bicycle racks will be appropriately located within the complex. Showers and changing facilities will be provided to accommodate employees of the building who bicycle commute.

Campus Wayfinding

Appropriate pedestrian signage will be located around the site to direct visitors to each of the buildings and spaces. Vehicular signage will also be added to nearby streets to direct visitors to available parking and drop off areas.

Insert heading re: Site Lighting?

Site Art Opportunities

Each project site will include opportunities for the integration of public art.

Project Description

This predesign review is to conduct a predesign review to:

- Align the scope of the project with the level of financing that available revenues will support.
- Specify the tenants of the executive office building, based on the capital campus master plan criteria; and
- Reduce the size of the heritage center to what is needed for the state library and exhibit space for historically significant documents from the state archives and rotating exhibits from national, state, and local historical museums.

To that end the predesign review updated the original design’s costs. It also examines alternate designs and sites for facilities with reduced programmatic scope and reduced square feet.

The following estimates give costs for six site and building configuration alternatives.

Option Site 1. This alternative is the original project scope for a combined 204,000 square foot Heritage Center – Executive Office Building on the current GA Building site. It would entail the demolition of the General Administrative Building.

Option Site 2 The second alternative is to reduce the size of a combined Heritage Center- Executive Office Building to 214,000 square feet. The project would be built on the current GA Building site. It would entail the demolition of the General Administrative Building.

Option Site 3 The third alternative is to construct a 140,000 square foot Heritage Center on the Dawley Building site. This option entails the demolition of the Dawley Building as well as the GA Garage.

Option Site 4 This alternative is to construct a 80,000 square foot Executive Office Building to the east of the current Archives Building.

Option Site 7 This alternative anticipates the construction of a 140,000 square foot Heritage Center on the site of the current Visitor’s Center. This option will entail the demolition of the current Visitor’s Center.

Option Site 12 This alternative anticipates the construction of a 90,000 square foot Executive Office Building at the site of the Soils Shed. This option will entail the demolition of the Soils Shed and the relocation of its functions.

Detailed Construction Cost Estimates

Detailed construction cost estimates totals are found in the Appendix Section 10. A summary of those construction costs follows:

Option	\$/SF	Total
Option Site 1	\$490.74	\$154,440,000
Option Site 2	\$487.81	\$104,468,989
Option Site 3	\$340.89	\$65,228,244
Option Site 4	\$417.60	\$34,013,427
Option Site 7	\$340.07	\$64,975,107
Option Site 12	\$426.30	\$37,421,047

Total Project Costs (Construction, Design & Project Mangment)

The following is a summary of the total project costs as shown on the OFM Capital Budget System (CBS) forms contained in Appendix 10 for each of these alternatives. The total project costs include design, construction of capital improvements, equipment and calculated an estimated future cost. Total project costs exclude the costs of ongoing operations (e.g. utilities and custodial services), financing costs (e.g. the cost of issuance of a Certificate of Participation), and leasing costs (e.g., temporary housing during construction). The operational, financing and leasing costs are included on the OFM Form C3 and in the Life Cycle Costs section below

Summary of Total Project Cost							
Option	Design & Consultant Services	Construction Contracts	Equipment	Art Work	Other Costs	Project Management	Total Project Cost
Option Site 1	\$7,726,149	\$201,967,177	\$19,619,001	\$756,530	\$3,648,602	\$7,153,640	\$240,871,099
Option Site 2	\$9,763,110	\$136,244,271	\$19,619,001	\$516,284	\$2,794,860	\$6,195,840	\$175,133,366
Option Site 3	\$7,300,048	\$82,235,661	\$17,369,571	\$281,139	\$1,463,778	\$3,844,255	\$112,494,452
Option Site 4	\$4,653,206	\$42,258,829	\$1,235,079	\$159,665	\$869,053	\$2,655,405	\$51,831,237
Option Site 7	\$6,802,195	\$80,465,747	\$17,070,692	\$273,197	\$1,584,437	\$3,775,249	\$109,971,517
Option Site 12	\$4,863,985	\$46,702,384	\$1,242,176	\$176,406	\$917,642	\$2,655,405	\$56,557,998

Life Cycle Costs

This section summarizes the findings on the OFM Form C3's in Appendix XX. There are six categories of expense that make up the life cycle portion of the analysis:

Total Project cost (listed above) amortized over 25-years - including financing and interest costs.

Temporary Housing costs during construction based on prevailing market lease rates plus limited tenant improvements.

Permanent Housing is included in those cases where the alternative does not fully address the program need as addressed in the preferred alternative – this is included so accurate cost comparisons can be made. Permanent housing is based on prevailing market lease rates plus tenant improvements.

Replacement Cost is an estimate of the cost to replace an asset that has a useful life of less than the planning horizon of 50-years. The present worth replacement cost is calculated using the Joint Legislative Audit and Review Committee's (JLARC) Life Cycle Cost Model "residual value" calculation and is based on construction cost only.

Operating Cost (see C3 form Operating Cost detail) include costs such as utilities, custodial, repairs and maintenance, management services and a capital replacement reserve.

Residual Value related to ongoing operation of the owned buildings beyond the 50-year horizon to the end of building life is included as a "negative cost" (or credit) – the residual value is 90% of the JLARC model depreciated value in order to recognize an imputed cost of disposal.

The following is a comparison of the six alternatives on a cash basis and a net present value basis. This demonstrates how much will be expended on the alternatives over a 50-year period.¹

Summary of Life Cycle Cost Analysis		
(Forms C3 - \$Millions)		
Option	Estimated Life Cycle Cost (50-Years)	Present Worth Cost (50-Years)
Option Site 1	\$878.0	\$384.6
Option Site 2	\$613.4	\$265.2
Option Site 3	\$472.3	\$190.6
Option Site 4	\$206.9	\$84.3
Option Site 7	\$446.9	\$174.9
Option Site 12	\$225.9	\$93.0

¹ The bottom line total includes the residual value as a negative cost

Financing Alternatives

Article VIII, of the state Constitution defines state debt and its limitations. In addition to having the power to issue debt, under RCW 39.94, the state has the power to enter into financing contracts. For projects such as the Heritage Center – Executive Office Building project the financing contract includes financing leases and lease-purchase contracts for the use and purchase of real and personal property. Payments for these financing contracts are made from appropriated funds. Financing contracts are special limited obligations that are payable solely from certain identified sources and are subject to limitations such as non-appropriation clauses. Typical financing contract vehicles include Certificates of Participation (COP) and IRS rule 63-20 Financings (63-20). This section will investigate the impact of three alternate modes of financing for these projects – General Obligation (GO) Bonds, COP and 63-20 contracts.

Revenue Sources

Assuming these projects are financed using GO Bond financing, the repayment of the bonds pledges the full faith and credit of the state and is payable from funds constituting “general state revenues.” As such, the revenue sources are not subject to the same rigor as is the case with COP or 63-20 financing. In the case of COP and 63-20 financings the revenue flow over the bond repayment period must be equal or greater than the amount that needs to be repaid.

The entirety of the Executive Office Building’s revenues will originate from space leases. The tenants have committed to a starting fully serviced (all costs including operating, maintenance, capital and furniture) rate of \$56.25 per square foot (or less in 2013 dollars). The beginning lease rate can increase by 6.5% every biennium. The total revenue that source will generate, over the 25-year bond period, is \$ \$207,516,060 (for 120,000 square feet), \$155,637,045 (for 90,000 square feet) and \$138,344,040 (for 80,000 square feet).

The Heritage Office Building is financed via multiple sources of revenue. It is financed using a \$2.00 per document filing fee on County Auditor filing documents, a \$5.00 per document filing fee on all Corporate filings in the state and revenue from leases for the Library and Archives spaces. In the case of the Library and Archives the lease rate for their office and operational spaces (not storage space) will be a starting fully serviced (all costs including operating, maintenance, capital and furniture) rate of \$56.25 per square foot (or less in 2013 dollars). For storage space the fully serviced cost per square foot will start at \$20.60. The beginning lease rates are assumed to increase by 3% per year throughout the bond repayment period (22-years). The project County Auditor Filing Fee revenue during the term of the repayment of bonds (assuming a 2013 occupancy) is \$137,607,328. The projected Corporate Filing Fee revenue during the term of the repayment of bonds (assuming a 2013 occupancy) is \$7,031,900. Assuming a 204,000 square foot project the lease space revenue will total \$146,829,339. Assuming the downsized Heritage Center of approximately 140,000 square feet the lease space revenue will be \$128,829,862.

Office of State Treasurer Bond Capacity Estimate

Using the revenue estimates the Office of the State Treasurer estimated Certificate of Participation bonding capacity given interest rate, financing cost assumptions and operating costs as outlined in the Maintenance and Operations section of this report. The following represent the range of their estimates given the various timings and square feet of the options outlined above.

Calculation of Executive Office Building Bond Proceeds						
Square Feet	Net Revenue		Bond Proceeds Available			
			Long Term Interest Rate Assumption		Sensitivity Analysis	
	2013	2015	2013	2015	2013	2015
80,000	\$110,587,844	\$117,781,065	\$43,997,186	\$46,860,234	\$56,612,284	\$60,291,398
90,000	\$124,401,200	\$132,458,664	\$49,495,252	\$52,721,459	\$63,685,286	\$67,841,921
120,000	\$165,868,266	\$176,671,597	\$66,006,337	\$70,305,131	\$84,927,512	\$90,461,955

Calculation of Heritage Center Bond Proceeds						
Square Feet	Net Revenue		Bond Proceeds Available			
			Long Term Interest Rate Assumption		Sensitivity Analysis	
	2013	2015	115% Coverage	No Coverage	115% Coverage	No Coverage
142,300	\$217,750,417		\$82,825,448	\$94,179,768	\$104,533,364	\$119,128,424
142,300		\$232,413,957	\$94,810,181	\$106,955,577	\$118,087,725	\$133,665,083
204,000		\$218,873,373	\$90,034,996	\$101,452,261	\$111,962,255	\$126,615,006

As noted these represent the bond proceeds available assuming Certificate of Participation financing. The alternative of utilizing 63-20 financing was not studied in detail, however past studies have indicated that 63-20 financing interest rates are about 14 basis points higher than Certificate of Participation rates. In addition, there is an annual operating fee of about ½% of the annual repayment cost that accrues to the not-for-profit entity. The net impact of these two additional costs will reduce the bond proceeds as noted above by approximately 2% overall. Thus, assuming 63-20 financing the Heritage Center Bond Proceeds available (given a 140,000 square foot building constructed in 2013) would range from \$81.2 million to \$116.7 million.

State Policy

The Master Plan for the Capitol of the State of Washington – 2006 was approved by the State Capitol Committee on June 15, 2006. This Master Plan provides a set of principles and policies that guide the decision-making process for major development or redevelopment of state capitol properties such as proposed by this predesign.

Master Plan Policy

While all 7 principles and all 24 policies of the Master Plan will have some level of influence on the predesign, there are some that will have significant influence. These are:

- Principle 1, Policy 1.4 Accessibility for All
- Principle 2, Policy 2.1 Location of State Government Functions
- Principle 3, Policy 3.2 Transportation Demand Management
- Principle 3, Policy 3.3 Environmental Stewardship
- Principle 4, Policy 4.1 Preservation of State Capitol Buildings, Grounds and Collections
- Principle 5, Policy 5.1 Capitol Campus Open Space
- Principle 5, Policy 5.2 Design at the Capitol Campus
- Principle 5, Policy 5.4 Universal Access
- Principle 5, Policy 5.5 Commemoratives and Artwork on State Capitol Grounds
- Principle 6, Policy 6.1 High Performance Buildings
- Principle 7, Policy 7.1 Financing Strategies

With regard to Policies 1.4 and 5.4: All aspects of this project are expected to meet national standards for accessibility and to the extent practicable, are expected to comply with the goals of universal access.

With regard to Policy 2.1: The proposed occupants of the new buildings have been carefully measured against four criteria, one of which is the criteria established in this policy. The policy states that “functions most closely affiliated with the lawmaking process, ceremonial activities of statewide elected officials, and public ceremonial and educational functions” should be given location priority 1 – closest to the Legislative Building. There are 8 development sites that are relatively close to the Legislative Building. They are Opportunity Sites 1, 2, 3, 4, 5, 6 and 7 (as well as land to the north of opportunity site 7). All these sites were considered in the planning for the Heritage Center and Executive Office Buildings. In addition, an additional site to the east of the State Archives was considered for development of the Executive Office Building.

With regard to Policy 3.2: This predesign report contains a Transportation Alternative section that provides for alternatives to building parking facilities. The Transportation Alternatives section outlines strategies to reduce the number of cars traveling to the Capitol Campus during the legislative session (the time when the demand for parking is greatest). In addition, these projects, on their own, accommodate and encourage alternative modes of transportation by providing bus loading and unloading zones, by setting aside portions of the parking areas to vanpool and carpool vehicles, by providing secured areas for bicycles, and by providing easy pedestrian pathways from transit stops. Additionally, one alternative calls for the construction of a tunnel under Capitol Way between the Plaza Garage and the new Heritage Center – thus enhancing the use of the existing Plaza Garage.

With regard to Policy 3.3: The facilities constructed under this project will meet or exceed the highest standards of environmental protection, both during and after construction.

With regard to Policy 4.1: One of the alternatives of this predesign calls for the demolition of either the 1063 Building or the GA Building. There are some elements of the GA Building that are of historic significance and those will be saved and incorporated into the new buildings. The most important of these is the mosaic mural in the lobby of the GA Building. Additionally, both buildings will be documented in accordance with guidelines provided by the Secretary of the Interior's Standards for the Treatment of Historic Properties prior to demolition.

With regard to Policy 5.1: One of the primary design goals for the West Capitol Campus alternatives is to bring it more into the fabric of the West Campus. The open spaces between and around the proposed new structures will be designed to extend the character of West Campus. Additionally, the organizing axes used by Wilder and White and the Olmsted Brothers to create the basic layout of West Campus will be extended to the project site and used to control the placement and orientation of the new structures. Existing view corridors will be carefully examined and protected and view opportunities created by the new structures will be maximized.

With regard to Policy 5.2: This policy stresses the importance of aesthetic quality and architectural character of buildings located on the West Campus. It provides guidelines on materials, color, scale, and design which will be carefully followed. It also establishes the goal for new state office buildings to be "the best architectural and technical examples of the era in which they are created". This will be the major design challenge – to create modern structures that are in harmony with the historic character of existing West Campus buildings. For the Executive Office Building alternative at the Archives Building site on East Campus the design guidelines for the East Campus will be followed. Those guidelines call for following a contemporary architectural character, light sandstone coloration, building heights no greater than existing buildings and quality contemporary materials.

With regard to Policy 5.5: The new buildings proposed by this predesign will include opportunities for major public art.

With regard to Policy 6.1: The highest standards will be employed to ensure energy efficiency, healthy indoor environment, security of workers in the buildings as well as visitors to the buildings, and the latest technology in communication systems. Sustainable and green building standards will be incorporated. A LEED® rating of "silver" will be the minimum standard to be achieved for these buildings and a rating of "gold" will be the goal wherever possible.

With regard to Policy 7.1: How the construction of these new buildings is financed will be critical to both the prospect of acquiring the necessary funds as well as to achieving the quality envisioned.

Master Plan Opportunity Sites

One of the options anticipates the construction of a single building to house both the Heritage Center and the Executive Office Building. This project is identified in the Master Plan as Opportunity Site #1. See Master Plan map number M-10. The opportunities and constraints described for this site have been taken into consideration and are reflected in the preferred alternative. They are:

- This site is a "gateway" from the city into the Capitol Campus
- Commanding views in all directions
- Steep bank on the west side

This predesign review has also considered additional sites for stand-alone Heritage Center and Executive Office Buildings. For the Heritage Center, Opportunity Sites 6 (eastern block that currently houses the Visitor's Center) and 1 (eastern block that currently houses the Dawley Building and the GA Garage) are considered. For the Executive Office Building, Opportunity site 4 and the site east of the Archives Building are considered.

State Codes, Standards & Guidelines

Application of Revised Code of Washington

There are a number of Revised Code of Washington codes applicable to this project:

RCW 27.04.045 (7) – Duties of state librarian – (7) Maintaining the library on the State Capitol Grounds.

RCW 39.35 High-performance public buildings.

RCW 39.42 State bonds, notes, and other evidences of indebtedness.

RCW 39.94 Financing contracts

RCW 43.01.091 Departments to share debt service costs.

RCW 43.01.225 Commute trip reduction – Parking revenue – State vehicle parking account.

RCW 43.01.240 State agency parking account – Parking rental fees – Employee parking, limitations.

RCW 43.17.050 Office at capital – Branch offices.

RCW 43.19.455 Purchase of works of art – Procedure.

RCW 43.19.668 Energy Conservation – Legislative Finding – Declaration

RCW 43.19.682 Energy conservation to be included in landscape objectives.

RCW 43.34.040 Buildings – Erection – Improvements

RCW 43.34.080 Capitol campus design advisory committee – Generally.

RCW 43.82.010 Acquisition, Lease, and Disposal of Real Estate for State Agencies – Long-range Planning – Use of Lease as Collateral or Security – Colocation and Consolidation – Studies – Delegation of Functions – Exemptions

RCW 43.82.035 Predesign process for requests to lease, purchase, or build facilities for state programs – Approval of plans for major leased facilities

RCW 43.82.056 Long-term facility needs – Six-year facility plan

RCW 46.08.172 Parking rental fees – Establishment.

RCW 79.24.300 Parking facilities authorized – Rental.

RCW 79.24.530 Department of general administration to design and develop site and buildings – Approval of capitol committee.

RCW 79.24.710 Properties identified as “state capitol public and historic facilities.”

RCW 79.24.720 Dept of General Administration’s responsibilities (for public and historic facilities of the state capitol)

Capitol Campus Design Guidelines

Section C of the General Requirements section of the “General Administration Facilities Design Guidelines and Construction Standards” (January 2008) states:

Consultants are required to comply with all applicable codes and ordinances. General Administration owns buildings throughout the State. Projects at any location shall comply with applicable codes and ordinances of the local Authority Having jurisdiction (AHJ). (p. 00021-01)

The proposed projects will need to comply with the Capitol Campus Design Guidelines. As noted in the Serviceability section:

The initial design and construction is a small fraction of the facility’s life cycle cost. The true value of an improve-

ment is measured by its ability to accommodate users and provide low cost operations and maintenance. Building services must be efficient, and ideally, transparent to the occupants and public. Service access and maintenance considerations must be given first priority to keep life cycle costs low. (p. 00022-01)

The implication is that the construction of buildings in accordance with the guidelines might result in a higher first cost but will result in a building that has a relatively longer service life and lower operating costs – thus lowering life cycle costs.

Sustainability Guidelines

Sustainable design and construction assures (to the extent possible) building materials, systems and methods promote environmental quality, economic vitality, and social benefits during construction and during the ongoing operation of the buildings. The entire lifecycle of the building is considered (including operation and demolition).

Related to High Performance Green Building, State facilities will now be designed and built to the LEED® Silver standard. LEED® is a Green Building Rating System developed by the US Green Building Council. The applicable statute is RCW 39.35.D. The pertinent sections in RCW 39.35D reads as follows:

39.35.D 030 (1) All major facility projects of public agencies receiving any funding in a state capital budget, or projects financed through a financing contract as defined in RCW 39.94.020, must be designed, constructed, and certified to at least the LEED® silver standard. This subsection applies to major facility projects that have not entered the design phase prior to the effective date of this section and to the extent appropriate LEED® silver standards exist for that type of building or facility.

Applicable to this Predesign SRG completed the GA Pre-Design/Schematic QA Submittal and associated forms and information after an “eco-charrette.” A LEED® Checklist was prepared (see Section 3). This submittal includes an Environmental Design Considerations form and LEED® Checklist along with the GA LEED® QA Submittal

Introduction

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Meeting the immediate parking needs for these facilities could be a paralyzing dilemma in terms of financial planning and infrastructure issues. However, there are alternatives to building additional parking – especially given that anecdotal counts of parking usage indicate that there is ample parking on the East and West Campus’ to meet the additional needs of the proposed Heritage Center and Executive Office Buildings during non-session times of the year.

In June 2009 the Thurston Regional Planning Council completed a draft report entitled “Capital Community Moving Forward (CCMF).” This report “provides a broad view of how visitors and state employees travel to, around, and between state facilities in Thurston County. The report includes over forty recommendations to encourage Commute Trip Reductions and to help meet new Climate Change goals. This section does not dwell on the recommendations in that report, but its focus is on concrete suggestions that meet certain cost and benefit principles.

According to CCMF during the Legislative Session there is an increase in parking demand on Campus. During the session, there are over 15,000 visitors per month to the Capitol Campus. During session there are an additional 600 employees on campus. This puts a strain on the available campus parking during that time. But, during the remainder of the year the overall supply of parking on Campus exceeds overall demand. Furthermore, even during session there is plenty of parking available during the day between 5 PM and 8 AM².

In this section alternate strategies, to meet the “during session demand” for parking within the existing supply, will be evaluated. Managing parking demand and single occupant vehicle travel to Campus during the session might well provide a more cost-effective way to meet people’s needs. Many of the CCMF recommendations ought to be considered to help address the during session supply-demand imbalance. This section will explore those recommendations with special merit as well as additional recommendations (not included in the CCMF Report) that might also provide parking relief during the Legislative Session. The list of recommendations will include rough order of magnitude cost estimates (with an eye toward finding solutions that have a life cycle cost less than the parking garages but that have a greater overall environmental benefit).

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Alternate Strategies

Alternate Strategies are developed and evaluated some principles should be kept in mind. Among the principles we should consider are:

- Existing infrastructure and services should be adequately maintained, preserved, and optimized before new infrastructure is added.
- Multiple traveling consumer choices should be encouraged rather than limiting choice.
- Alternative investments should be directly linked with measurable benefits.
- Alternate strategies should be demonstrably cost effective (life cycle costs) in addressing identified problems.

The most effective strategy for reducing vehicle trip demand is parking pricing. An increase to employee parking costs during session months to a level at which employees will reduce demand. This may be accompanied by a lower rate during the rest of the year. Thus, if the per employee charge is currently \$25 per month, this alternative might implement a charge of \$20 per month during non-session months (nine months a year) but \$75 per month during the session months (three months a year). Under such a scenario those giving up their parking during session months would retain their parking priorities during non-session months.

An alternate to the forgoing strategy is a “parking cash out” program during the Legislative Session. During the session, those employees who give up their employee parking stalls not only don’t have to pay the \$25 per month fee, they receive an additional \$150 subsidy (this would have to be accompanied by an strict enforcement of parking limits in the South Capitol Neighborhood).

Another variation on this strategy is through price differentiation to encourage “all day” parking during sessions to locate at periphery areas beyond campus. To facilitate this, frequent shuttles (every five minutes or less) between major gathering centers on campus and the peripheral parking areas would be required between 7 AM and 9 AM and between 4 PM and 6 PM. The periphery parking should be surface lots close enough to enable shuttle trips of less than five minutes. One might also consider moving all but daily use agency vehicles out of Campus lots during session. This will require surface periphery lots outside the campus zone. It will also require some form of on-demand shuttle service to those lots.

Another mode is to set length of parking stay differential rates that encourage short-term parking and discourage long-term parking. Such a plan might have a charge of \$0.50 per hour for the first hour, \$1.50 per hour for the second and third hour and a total charge of \$20 for daily parking beyond three hours.

Some current uses of existing parking structures might be better supplied in less costly facilities. For instance, the proposal to construct an additional 560 car garage will cost \$35.4 million – or \$188 per gross square foot. If replacement leased covered storage cost \$9 per gross square foot per year it is cost effective to move that storage, thus freeing up the parking spaces for actual parking rather than storage. Making it convenient, comfortable, and cost-effective to travel without an automobile

Current parking arrangements are all self-parking of vehicles. Valet parking has the ability to increase capacity. But, it is operationally expensive, it requires cultural adjustment and does not work optimally during peak loading times. Valet parking has been shown to increase vehicle capacity by between 30% and 40%. Thus, assuming the Mansion Parking lot was transferred to a valet lot during sessions, the parking capacity might be increased by about 100 from the current 316 stalls. Valet services during the hours of 6 AM through 8 PM during weekdays during the session would add about \$100,000 in employee cost. Valet parking services that charged \$2 per hour would generate about \$200,000 in revenue offsetting staff and insurance costs. Constructing 100 fewer stalls will save \$6.3 million in project costs.

Parking Analysis

According to Olympia Municipal Code Section 18.38.100 – Vehicular and bicycle parking standards – parking is based on the gross square feet of building area (unless otherwise noted in Section 18.38.160). The Capitol Campus is located within the “Downtown District” (Figure 38-2). Based Section 18.38.100, the following is the calculation of the required parking, according to the gross square feet of building proposed:

Standard

- Offices, Government – parking spaces standard is three and a half (3.5) spaces per one thousand (1,000) square feet. Bicycle parking standard is one per 15 auto stalls with a minimum of two.
- Libraries and Museums – parking spaces standard is one space per 300 square feet of public floor area. Bicycle parking standard is one per 20 auto stalls with a minimum of 2.
- Warehouse Storage – for warehouse storage over 20,000 square feet the standard is 18 spaces plus 0.50 for each additional 1,000 square feet beyond 20,000. Bicycle parking standard is 1 per 40 auto stalls with a minimum of one.

However, the Capitol Campus is exempt from the Municipal Parking Code. But we can use the code to help guide decision making. The challenge is to balance the identified need with the amount of parking that can be accommodated by existing and available parking and transportation alternatives.

The total parking planned for the two projects is outlined below:

Parking Analysis for Heritage Center		
Building Rentable Square Feet	204,000	140,000
Estimated Employees Based On Analysis	153	153
<u>Working From DOT Standards Applying TDM</u>		
Estimate Used for Parking Analysis	155	155
Parking Stall Per Employee	1.00	1.00
Total Parking Stalls Before Calculations	155	155
Zoned Parking Reduction	31	31
TDM Reduction of 25%	38.75	38.75
Preferred Parking for CTR Users	23.25	23.25
Total Single Occupancy Stalls	62	62
Visitor Stalls	195.5	45.5
Handicapped Stalls	3	3
Delivery Stalls	2	2
Total Stalls	285	135
<u>Working From City of Olympia Municipal Standards</u>		
Stalls per City of Olympia Code	454	330
TDM Reduction	113	82
Preferred Parking for CTR Users	51	37
Total Single Occupancy Stalls	62	62
Visitor	225	63
Handicapped Stalls	9	7
Delivery Stalls	5	3
Total Stalls	352	172
<u>Planned Parking</u>		
<i>Regular Employee Parking</i>	<i>62</i>	<i>62</i>
<i>Preferred Parking for CTR Users</i>	<i>23</i>	<i>23</i>
<i>Visitor Stalls</i>	<i>200</i>	<i>50</i>
<i>Handicapped Stalls</i>	<i>9</i>	<i>7</i>
<i>Delivery Stalls</i>	<i>4</i>	<i>3</i>
Total	298	145

Parking Analysis for Executive Office Building			
Building Rentable Square Feet	120,000	90,000	80,000
Estimated Employees Based On Analysis	320	235	205
<u>Working From DOT Standards Applying TDM</u>			
Estimate Used for Parking Analysis	325	240	210
Parking Stall Per Employee	1.00	1.00	1.00
Total Parking Stalls Before Calculations	325	240	210
Zoned Parking Reduction	65	48	42
TDM Reduction of 25%	81.25	60	52.5
Preferred Parking for CTR Users	48.75	36	31.5
Total Single Occupancy Stalls	130	96	84
Visitor Stalls	32.5	24	21
Handicapped Stalls	7	5	4
Delivery Stalls	3	2	2
Total Stalls	221	163	143
<u>Working From City of Olympia Municipal Standards</u>			
Stalls @ 3.5/1000 standard	420	315	280
TDM Reduction	105	79	70
Preferred Parking for CTR Users	47	35	32
Total Single Occupancy Stalls	213	160	142
Visitor	42	32	28
Handicapped Stalls	8	6	6
Delivery Stalls	4	3	3
Total Stalls	315	236	210
<u>Planned Parking</u>			
<i>Regular Employee Parking</i>	<i>170</i>	<i>130</i>	<i>115</i>
<i>Preferred Parking for CTR Users</i>	<i>49</i>	<i>36</i>	<i>32</i>
<i>Visitor Stalls</i>	<i>37</i>	<i>28</i>	<i>25</i>
<i>Handicapped Stalls</i>	<i>8</i>	<i>6</i>	<i>6</i>
<i>Delivery Stalls</i>	<i>3</i>	<i>2</i>	<i>2</i>
Total	267	202	180

However, some of the tenants that will occupy these new buildings are already on campus and their parking need is currently met by existing resources. A preliminary analysis of the Executive Office Building tenancy indicates that there are currently about 80 workers parking in existing facilities. Using the TDM reduction, that means the total needs for Executive Office Building parking can be reduced by about 61 stalls. A preliminary analysis of the Heritage Center tenancy indicates that there are currently about 20 workers parking in existing facilities. Using the TDM reduction, means the total needs for the Heritage Center can be reduced by about 15 stalls.

Some of the buildings proposed for demolition currently house workers and visitors who currently park on campus as well. For instance, if the GA Building is demolished some 800 workers plus visitors to the offices housed in the GA Building will park elsewhere, thus relieving their demand on the GA and Columbia Garages.

But, each option may also result in the demolition of existing parking. The following are the parking stalls that might be displaced by each of the preferred sites.

Sites 1 and 2

GA surface parking lot	122
Total displaced stalls	122

Site 3

GA Garage	238
1063 Building	24
Total displaced stalls	262

Site 4	
Archives parking lot	10
Total displaced stalls	10

Site 7	
Visitor's Center Lot	84
Columbia on-street parking	6
Total displaced stalls	90

Site 12	
Soils shed area stalls	12
Total displaced stalls	12

It would be difficult to construct the total number of required parking stalls plus any demolished stalls on some sites without impacting a number of other important elements, from cost to aesthetics. Therefore, a section of this report analyzes the transportation alternatives that might be considered in conjunction with the development of these projects.

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In this section alternate strategies, to meet the “during session demand” for parking within the existing supply, will be evaluated. Managing parking demand and single occupant vehicle travel to Campus during the session might well provide a more cost-effective way to meet people’s needs. Many of the CCMF recommendations ought to be considered to help address the during session supply-demand imbalance. This section will explore those recommendations with special merit as well as additional recommendations (not included in the CCMF Report) that might also provide parking relief during the Legislative Session. The list of recommendations will include rough order of magnitude cost estimates (with an eye toward finding solutions that have a life cycle cost less than the parking garages but that have a greater overall environmental benefit).

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The total parking planned for the two projects is outlined below:

Parking Analysis for Heritage Center		
Building Rentable Square Feet	204,000	140,000
Estimated Employees Based On Analysis	153	153
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Estimate Used for Parking Analysis	155	155
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Total Parking Stalls Before Calculations	155	155
Zoned Parking Reduction	31	31
TDM Reduction of 25%	38.75	38.75
Preferred Parking for CTR Users	23.25	23.25
Total Single Occupancy Stalls	62	62
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Handicapped Stalls	3	3
Delivery Stalls	2	2
Total Stalls	285	135
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Stalls per City of Olympia Code	454	330
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Total Single Occupancy Stalls	62	62
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Handicapped Stalls	9	7
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Total	298	145

Parking Analysis for Executive Office Building			
Building Rentable Square Feet	120,000	90,000	80,000
Estimated Employees Based On Analysis	320	235	205
<u>Working From DOT Standards Applying TDM</u>			
Estimate Used for Parking Analysis	325	240	210
Parking Stall Per Employee	1.00	1.00	1.00
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Zoned Parking Reduction	65	48	42
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However, some of the tenants that will occupy these new buildings are already on campus and their parking need is currently met by existing resources. A preliminary analysis of the Executive Office Building tenancy indicates that there are currently about 80 workers parking in existing facilities. Using the TDM reduction, that means the total needs for Executive Office Building parking can be reduced by about 61 stalls. A preliminary analysis of the Heritage Center tenancy indicates that there are currently about 20 workers parking in existing facilities. Using the TDM reduction, means the total needs for the Heritage Center can be reduced by about 15 stalls.

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Meeting the immediate parking needs for these facilities could be a paralyzing dilemma in terms of financial planning and infrastructure issues. However, there are alternatives to building additional parking – especially given that anecdotal counts of parking usage indicate that there is ample parking on the East and West Campus’ to meet the additional needs of the proposed Heritage Center and Executive Office Buildings during non-session times of the year.

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Handicapped Stalls	3	3
Delivery Stalls	2	2
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TDM Reduction	113	82
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Total Single Occupancy Stalls	62	62
Visitor	225	63
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Total	298	145

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Building Rentable Square Feet	120,000	90,000	80,000
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<u>Working From DOT Standards Applying TDM</u>			
Estimate Used for Parking Analysis	325	240	210
Parking Stall Per Employee	1.00	1.00	1.00
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TDM Reduction of 25%	81.25	60	52.5
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The total parking planned for the two projects is outlined below:

Parking Analysis for Heritage Center		
Building Rentable Square Feet	204,000	140,000
Estimated Employees Based On Analysis	153	153
<u>Working From DOT Standards Applying TDM</u>		
Estimate Used for Parking Analysis	155	155
Parking Stall Per Employee	1.00	1.00
Total Parking Stalls Before Calculations	155	155
Zoned Parking Reduction	31	31
TDM Reduction of 25%	38.75	38.75
Preferred Parking for CTR Users	23.25	23.25
Total Single Occupancy Stalls	62	62
Visitor Stalls	195.5	45.5
Handicapped Stalls	3	3
Delivery Stalls	2	2
Total Stalls	285	135
<u>Working From City of Olympia Municipal Standards</u>		
Stalls per City of Olympia Code	454	330
TDM Reduction	113	82
Preferred Parking for CTR Users	51	37
Total Single Occupancy Stalls	62	62
Visitor	225	63
Handicapped Stalls	9	7
Delivery Stalls	5	3
Total Stalls	352	172
<u>Planned Parking</u>		
<i>Regular Employee Parking</i>	<i>62</i>	<i>62</i>
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<i>Delivery Stalls</i>	<i>4</i>	<i>3</i>
Total	298	145

Parking Analysis for Executive Office Building			
Building Rentable Square Feet	120,000	90,000	80,000
Estimated Employees Based On Analysis	320	235	205
<u>Working From DOT Standards Applying TDM</u>			
Estimate Used for Parking Analysis	325	240	210
Parking Stall Per Employee	1.00	1.00	1.00
Total Parking Stalls Before Calculations	325	240	210
Zoned Parking Reduction	65	48	42
TDM Reduction of 25%	81.25	60	52.5
Preferred Parking for CTR Users	48.75	36	31.5
Total Single Occupancy Stalls	130	96	84
Visitor Stalls	32.5	24	21
Handicapped Stalls	7	5	4
Delivery Stalls	3	2	2
Total Stalls	221	163	143
<u>Working From City of Olympia Municipal Standards</u>			
Stalls @ 3.5/1000 standard	420	315	280
TDM Reduction	105	79	70
Preferred Parking for CTR Users	47	35	32
Total Single Occupancy Stalls	213	160	142
Visitor	42	32	28
Handicapped Stalls	8	6	6
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Total Stalls	315	236	210
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Total	267	202	180

However, some of the tenants that will occupy these new buildings are already on campus and their parking need is currently met by existing resources. A preliminary analysis of the Executive Office Building tenancy indicates that there are currently about 80 workers parking in existing facilities. Using the TDM reduction, that means the total needs for Executive Office Building parking can be reduced by about 61 stalls. A preliminary analysis of the Heritage Center tenancy indicates that there are currently about 20 workers parking in existing facilities. Using the TDM reduction, means the total needs for the Heritage Center can be reduced by about 15 stalls.

Some of the buildings proposed for demolition currently house workers and visitors who currently park on campus as well. For instance, if the GA Building is demolished some 800 workers plus visitors to the offices housed in the GA Building will park elsewhere, thus relieving their demand on the GA and Columbia Garages.

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It would be difficult to construct the total number of required parking stalls plus any demolished stalls on some sites without impacting a number of other important elements, from cost to aesthetics. Therefore, a section of this report analyzes the transportation alternatives that might be considered in conjunction with the development of these projects.

Introduction

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Meeting the immediate parking needs for these facilities could be a paralyzing dilemma in terms of financial planning and infrastructure issues. However, there are alternatives to building additional parking – especially given that anecdotal counts of parking usage indicate that there is ample parking on the East and West Campus’ to meet the additional needs of the proposed Heritage Center and Executive Office Buildings during non-session times of the year.

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In this section alternate strategies, to meet the “during session demand” for parking within the existing supply, will be evaluated. Managing parking demand and single occupant vehicle travel to Campus during the session might well provide a more cost-effective way to meet people’s needs. Many of the CCMF recommendations ought to be considered to help address the during session supply-demand imbalance. This section will explore those recommendations with special merit as well as additional recommendations (not included in the CCMF Report) that might also provide parking relief during the Legislative Session. The list of recommendations will include rough order of magnitude cost estimates (with an eye toward finding solutions that have a life cycle cost less than the parking garages but that have a greater overall environmental benefit).

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Current parking arrangements are all self-parking of vehicles. Valet parking has the ability to increase capacity. But, it is operationally expensive, it requires cultural adjustment and does not work optimally during peak loading times. Valet parking has been shown to increase vehicle capacity by between 30% and 40%. Thus, assuming the Mansion Parking lot was transferred to a valet lot during sessions, the parking capacity might be increased by about 100 from the current 316 stalls. Valet services during the hours of 6 AM through 8 PM during weekdays during the session would add about \$100,000 in employee cost. Valet parking services that charged \$2 per hour would generate about \$200,000 in revenue offsetting staff and insurance costs. Constructing 100 fewer stalls will save \$6.3 million in project costs.

Parking Analysis

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<u>Planned Parking</u>		
<i>Regular Employee Parking</i>	<i>62</i>	<i>62</i>
<i>Preferred Parking for CTR Users</i>	<i>23</i>	<i>23</i>
<i>Visitor Stalls</i>	<i>200</i>	<i>50</i>
<i>Handicapped Stalls</i>	<i>9</i>	<i>7</i>
<i>Delivery Stalls</i>	<i>4</i>	<i>3</i>
Total	298	145

Parking Analysis for Executive Office Building			
Building Rentable Square Feet	120,000	90,000	80,000
Estimated Employees Based On Analysis	320	235	205
<u>Working From DOT Standards Applying TDM</u>			
Estimate Used for Parking Analysis	325	240	210
Parking Stall Per Employee	1.00	1.00	1.00
Total Parking Stalls Before Calculations	325	240	210
Zoned Parking Reduction	65	48	42
TDM Reduction of 25%	81.25	60	52.5
Preferred Parking for CTR Users	48.75	36	31.5
Total Single Occupancy Stalls	130	96	84
Visitor Stalls	32.5	24	21
Handicapped Stalls	7	5	4
Delivery Stalls	3	2	2
Total Stalls	221	163	143
<u>Working From City of Olympia Municipal Standards</u>			
Stalls @ 3.5/1000 standard	420	315	280
TDM Reduction	105	79	70
Preferred Parking for CTR Users	47	35	32
Total Single Occupancy Stalls	213	160	142
Visitor	42	32	28
Handicapped Stalls	8	6	6
Delivery Stalls	4	3	3
Total Stalls	315	236	210
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Total	267	202	180

However, some of the tenants that will occupy these new buildings are already on campus and their parking need is currently met by existing resources. A preliminary analysis of the Executive Office Building tenancy indicates that there are currently about 80 workers parking in existing facilities. Using the TDM reduction, that means the total needs for Executive Office Building parking can be reduced by about 61 stalls. A preliminary analysis of the Heritage Center tenancy indicates that there are currently about 20 workers parking in existing facilities. Using the TDM reduction, means the total needs for the Heritage Center can be reduced by about 15 stalls.

Some of the buildings proposed for demolition currently house workers and visitors who currently park on campus as well. For instance, if the GA Building is demolished some 800 workers plus visitors to the offices housed in the GA Building will park elsewhere, thus relieving their demand on the GA and Columbia Garages.

But, each option may also result in the demolition of existing parking. The following are the parking stalls that might be displaced by each of the preferred sites.

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Total displaced stalls	262

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Site 7	
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It would be difficult to construct the total number of required parking stalls plus any demolished stalls on some sites without impacting a number of other important elements, from cost to aesthetics. Therefore, a section of this report analyzes the transportation alternatives that might be considered in conjunction with the development of these projects.

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Meeting the immediate parking needs for these facilities could be a paralyzing dilemma in terms of financial planning and infrastructure issues. However, there are alternatives to building additional parking – especially given that anecdotal counts of parking usage indicate that there is ample parking on the East and West Campus’ to meet the additional needs of the proposed Heritage Center and Executive Office Buildings during non-session times of the year.

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In this section alternate strategies, to meet the “during session demand” for parking within the existing supply, will be evaluated. Managing parking demand and single occupant vehicle travel to Campus during the session might well provide a more cost-effective way to meet people’s needs. Many of the CCMF recommendations ought to be considered to help address the during session supply-demand imbalance. This section will explore those recommendations with special merit as well as additional recommendations (not included in the CCMF Report) that might also provide parking relief during the Legislative Session. The list of recommendations will include rough order of magnitude cost estimates (with an eye toward finding solutions that have a life cycle cost less than the parking garages but that have a greater overall environmental benefit).

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The most effective strategy for reducing vehicle trip demand is parking pricing. An increase to employee parking costs during session months to a level at which employees will reduce demand. This may be accompanied by a lower rate during the rest of the year. Thus, if the per employee charge is currently \$25 per month, this alternative might implement a charge of \$20 per month during non-session months (nine months a year) but \$75 per month during the session months (three months a year). Under such a scenario those giving up their parking during session months would retain their parking priorities during non-session months.

An alternate to the forgoing strategy is a “parking cash out” program during the Legislative Session. During the session, those employees who give up their employee parking stalls not only don’t have to pay the \$25 per month fee, they receive an additional \$150 subsidy (this would have to be accompanied by an strict enforcement of parking limits in the South Capitol Neighborhood).

Another variation on this strategy is through price differentiation to encourage “all day” parking during sessions to locate at periphery areas beyond campus. To facilitate this, frequent shuttles (every five minutes or less) between major gathering centers on campus and the peripheral parking areas would be required between 7 AM and 9 AM and between 4 PM and 6 PM. The periphery parking should be surface lots close enough to enable shuttle trips of less than five minutes. One might also consider moving all but daily use agency vehicles out of Campus lots during session. This will require surface periphery lots outside the campus zone. It will also require some form of on-demand shuttle service to those lots.

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Some current uses of existing parking structures might be better supplied in less costly facilities. For instance, the proposal to construct an additional 560 car garage will cost \$35.4 million – or \$188 per gross square foot. If replacement leased covered storage cost \$9 per gross square foot per year it is cost effective to move that storage, thus freeing up the parking spaces for actual parking rather than storage. Making it convenient, comfortable, and cost-effective to travel without an automobile

Current parking arrangements are all self-parking of vehicles. Valet parking has the ability to increase capacity. But, it is operationally expensive, it requires cultural adjustment and does not work optimally during peak loading times. Valet parking has been shown to increase vehicle capacity by between 30% and 40%. Thus, assuming the Mansion Parking lot was transferred to a valet lot during sessions, the parking capacity might be increased by about 100 from the current 316 stalls. Valet services during the hours of 6 AM through 8 PM during week-days during the session would add about \$100,000 in employee cost. Valet parking services that charged \$2 per hour would generate about \$200,000 in revenue offsetting staff and insurance costs. Constructing 100 fewer stalls will save \$6.3 million in project costs.

Parking Analysis

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Parking Analysis for Heritage Center		
Building Rentable Square Feet	204,000	140,000
Estimated Employees Based On Analysis	153	153
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Zoned Parking Reduction	31	31
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Building Rentable Square Feet	120,000	90,000	80,000
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Estimate Used for Parking Analysis	325	240	210
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It would be difficult to construct the total number of required parking stalls plus any demolished stalls on some sites without impacting a number of other important elements, from cost to aesthetics. Therefore, a section of this report analyzes the transportation alternatives that might be considered in conjunction with the development of these projects.

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However, some of the tenants that will occupy these new buildings are already on campus and their parking need is currently met by existing resources. A preliminary analysis of the Executive Office Building tenancy indicates that there are currently about 80 workers parking in existing facilities. Using the TDM reduction, that means the total needs for Executive Office Building parking can be reduced by about 61 stalls. A preliminary analysis of the Heritage Center tenancy indicates that there are currently about 20 workers parking in existing facilities. Using the TDM reduction, means the total needs for the Heritage Center can be reduced by about 15 stalls.

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Current parking arrangements are all self-parking of vehicles. Valet parking has the ability to increase capacity. But, it is operationally expensive, it requires cultural adjustment and does not work optimally during peak loading times. Valet parking has been shown to increase vehicle capacity by between 30% and 40%. Thus, assuming the Mansion Parking lot was transferred to a valet lot during sessions, the parking capacity might be increased by about 100 from the current 316 stalls. Valet services during the hours of 6 AM through 8 PM during weekdays during the session would add about \$100,000 in employee cost. Valet parking services that charged \$2 per hour would generate about \$200,000 in revenue offsetting staff and insurance costs. Constructing 100 fewer stalls will save \$6.3 million in project costs.

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Building Rentable Square Feet	204,000	140,000
Estimated Employees Based On Analysis	153	153
<u>Working From DOT Standards Applying TDM</u>		
Estimate Used for Parking Analysis	155	155
Parking Stall Per Employee	1.00	1.00
Total Parking Stalls Before Calculations	155	155
Zoned Parking Reduction	31	31
TDM Reduction of 25%	38.75	38.75
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Visitor Stalls	195.5	45.5
Handicapped Stalls	3	3
Delivery Stalls	2	2
Total Stalls	285	135
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Stalls per City of Olympia Code	454	330
TDM Reduction	113	82
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Total Single Occupancy Stalls	62	62
Visitor	225	63
Handicapped Stalls	9	7
Delivery Stalls	5	3
Total Stalls	352	172
<u>Planned Parking</u>		
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Total	298	145

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Building Rentable Square Feet	120,000	90,000	80,000
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<u>Working From DOT Standards Applying TDM</u>			
Estimate Used for Parking Analysis	325	240	210
Parking Stall Per Employee	1.00	1.00	1.00
Total Parking Stalls Before Calculations	325	240	210
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TDM Reduction of 25%	81.25	60	52.5
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Another mode is to set length of parking stay differential rates that encourage short-term parking and discourage long-term parking. Such a plan might have a charge of \$0.50 per hour for the first hour, \$1.50 per hour for the second and third hour and a total charge of \$20 for daily parking beyond three hours.

Some current uses of existing parking structures might be better supplied in less costly facilities. For instance, the proposal to construct an additional 560 car garage will cost \$35.4 million – or \$188 per gross square foot. If replacement leased covered storage cost \$9 per gross square foot per year it is cost effective to move that storage, thus freeing up the parking spaces for actual parking rather than storage. Making it convenient, comfortable, and cost-effective to travel without an automobile

Current parking arrangements are all self-parking of vehicles. Valet parking has the ability to increase capacity. But, it is operationally expensive, it requires cultural adjustment and does not work optimally during peak loading times. Valet parking has been shown to increase vehicle capacity by between 30% and 40%. Thus, assuming the Mansion Parking lot was transferred to a valet lot during sessions, the parking capacity might be increased by about 100 from the current 316 stalls. Valet services during the hours of 6 AM through 8 PM during weekdays during the session would add about \$100,000 in employee cost. Valet parking services that charged \$2 per hour would generate about \$200,000 in revenue offsetting staff and insurance costs. Constructing 100 fewer stalls will save \$6.3 million in project costs.

Parking Analysis

According to Olympia Municipal Code Section 18.38.100 – Vehicular and bicycle parking standards – parking is based on the gross square feet of building area (unless otherwise noted in Section 18.38.160). The Capitol Campus is located within the “Downtown District” (Figure 38-2). Based Section 18.38.100, the following is the calculation of the required parking, according to the gross square feet of building proposed:

Standard

- Offices, Government – parking spaces standard is three and a half (3.5) spaces per one thousand (1,000) square feet. Bicycle parking standard is one per 15 auto stalls with a minimum of two.
- Libraries and Museums – parking spaces standard is one space per 300 square feet of public floor area. Bicycle parking standard is one per 20 auto stalls with a minimum of 2.
- Warehouse Storage – for warehouse storage over 20,000 square feet the standard is 18 spaces plus 0.50 for each additional 1,000 square feet beyond 20,000. Bicycle parking standard is 1 per 40 auto stalls with a minimum of one.

However, the Capitol Campus is exempt from the Municipal Parking Code. But we can use the code to help guide decision making. The challenge is to balance the identified need with the amount of parking that can be accommodated by existing and available parking and transportation alternatives.

The total parking planned for the two projects is outlined below:

Parking Analysis for Heritage Center		
Building Rentable Square Feet	204,000	140,000
Estimated Employees Based On Analysis	153	153
<u>Working From DOT Standards Applying TDM</u>		
Estimate Used for Parking Analysis	155	155
Parking Stall Per Employee	1.00	1.00
Total Parking Stalls Before Calculations	155	155
Zoned Parking Reduction	31	31
TDM Reduction of 25%	38.75	38.75
Preferred Parking for CTR Users	23.25	23.25
Total Single Occupancy Stalls	62	62
Visitor Stalls	195.5	45.5
Handicapped Stalls	3	3
Delivery Stalls	2	2
Total Stalls	285	135
<u>Working From City of Olympia Municipal Standards</u>		
Stalls per City of Olympia Code	454	330
TDM Reduction	113	82
Preferred Parking for CTR Users	51	37
Total Single Occupancy Stalls	62	62
Visitor	225	63
Handicapped Stalls	9	7
Delivery Stalls	5	3
Total Stalls	352	172
<u>Planned Parking</u>		
<i>Regular Employee Parking</i>	<i>62</i>	<i>62</i>
<i>Preferred Parking for CTR Users</i>	<i>23</i>	<i>23</i>
<i>Visitor Stalls</i>	<i>200</i>	<i>50</i>
<i>Handicapped Stalls</i>	<i>9</i>	<i>7</i>
<i>Delivery Stalls</i>	<i>4</i>	<i>3</i>
Total	298	145

Parking Analysis for Executive Office Building			
Building Rentable Square Feet	120,000	90,000	80,000
Estimated Employees Based On Analysis	320	235	205
<u>Working From DOT Standards Applying TDM</u>			
Estimate Used for Parking Analysis	325	240	210
Parking Stall Per Employee	1.00	1.00	1.00
Total Parking Stalls Before Calculations	325	240	210
Zoned Parking Reduction	65	48	42
TDM Reduction of 25%	81.25	60	52.5
Preferred Parking for CTR Users	48.75	36	31.5
Total Single Occupancy Stalls	130	96	84
Visitor Stalls	32.5	24	21
Handicapped Stalls	7	5	4
Delivery Stalls	3	2	2
Total Stalls	221	163	143
<u>Working From City of Olympia Municipal Standards</u>			
Stalls @ 3.5/1000 standard	420	315	280
TDM Reduction	105	79	70
Preferred Parking for CTR Users	47	35	32
Total Single Occupancy Stalls	213	160	142
Visitor	42	32	28
Handicapped Stalls	8	6	6
Delivery Stalls	4	3	3
Total Stalls	315	236	210
<u>Planned Parking</u>			
<i>Regular Employee Parking</i>	<i>170</i>	<i>130</i>	<i>115</i>
<i>Preferred Parking for CTR Users</i>	<i>49</i>	<i>36</i>	<i>32</i>
<i>Visitor Stalls</i>	<i>37</i>	<i>28</i>	<i>25</i>
<i>Handicapped Stalls</i>	<i>8</i>	<i>6</i>	<i>6</i>
<i>Delivery Stalls</i>	<i>3</i>	<i>2</i>	<i>2</i>
Total	267	202	180

However, some of the tenants that will occupy these new buildings are already on campus and their parking need is currently met by existing resources. A preliminary analysis of the Executive Office Building tenancy indicates that there are currently about 80 workers parking in existing facilities. Using the TDM reduction, that means the total needs for Executive Office Building parking can be reduced by about 61 stalls. A preliminary analysis of the Heritage Center tenancy indicates that there are currently about 20 workers parking in existing facilities. Using the TDM reduction, means the total needs for the Heritage Center can be reduced by about 15 stalls.

Some of the buildings proposed for demolition currently house workers and visitors who currently park on campus as well. For instance, if the GA Building is demolished some 800 workers plus visitors to the offices housed in the GA Building will park elsewhere, thus relieving their demand on the GA and Columbia Garages.

But, each option may also result in the demolition of existing parking. The following are the parking stalls that might be displaced by each of the preferred sites.

Sites 1 and 2

GA surface parking lot	122
Total displaced stalls	122

Site 3

GA Garage	238
1063 Building	24
Total displaced stalls	262

Site 4	
Archives parking lot	10
Total displaced stalls	10

Site 7	
Visitor's Center Lot	84
Columbia on-street parking	6
Total displaced stalls	90

Site 12	
Soils shed area stalls	12
Total displaced stalls	12

It would be difficult to construct the total number of required parking stalls plus any demolished stalls on some sites without impacting a number of other important elements, from cost to aesthetics. Therefore, a section of this report analyzes the transportation alternatives that might be considered in conjunction with the development of these projects.

Intro

There are two ways to look at operating costs – actual expenses and what is actually paid for service. Actual expenses represent the amount of operating costs that will be added to state costs for the facility. These costs represent staff, materials and contracts that what will need to be added to the budget to operate and maintain the facility. What is actually paid for operating an individual building on the Capitol Campus is different than the actual expense for that building. On the Capitol Campus the rates charged (and that the agencies pay) for all the buildings on campus are calculated based on the total costs of all buildings divided by the total square feet on campus. Each individual building is then charged based on the average rate times the square feet in that specific building. Thus, these new buildings might well have a lower actual operating cost than other buildings on campus, but their rate per square foot will be the same as the other buildings on campus

Actual Added Staffing & Operating Costs

Based on the square feet to be added, the functionality of the buildings and the proposed building’s proposed materials and systems, the following is the proposed staffing to operate and maintain the Heritage Center and the Executive Office Buildings (showing the costs for each relative alternative size studied) once they open:

Heritage Center 204,000 GSF <i>Added Maintenance & Operations Staffing</i>	
Position	FTE
Construction & Maintenance Project Supervisor	0.40
Electrician	0.40
Carpenter	0.40
HVAC Technician	0.40
Facilities Sr. Planner	0.20
Custodian 1	8.16
Custodian 2	0.40
Maintenance Mechanic 2	0.40
Grounds & Nursery Services Specialist 3	0.40
Total Maintenance & Operations Staffing	11.16

Heritage Center 142,000 GSF <i>Added Maintenance & Operations Staffing</i>	
Position	FTE
Construction & Maintenance Project Supervisor	0.30
Electrician	0.30
Carpenter	0.30
HVAC Technician	0.30
Facilities Sr. Planner	0.20
Custodian 1	5.20
Custodian 2	0.30
Maintenance Mechanic 2	0.30
Grounds & Nursery Services Specialist 3	0.40
Total Maintenance & Operations Staffing	7.60

Executive Office Building 120,000 GSF <i>Added Maintenance & Operations Staffing</i>	
Position	FTE
Construction & Maintenance Project Supervisor	0.30
Electrician	0.30
Carpenter	0.30
HVAC Technician	0.30
Facilities Sr. Planner	0.20
Custodian 1	4.80
Custodian 2	0.30
Maintenance Mechanic 2	0.30
Grounds & Nursery Services Specialist 3	0.30
Total Maintenance & Operations Staffing	7.10

Executive Office Building 90,000 GSF <i>Added Maintenance & Operations Staffing</i>	
Position	FTE
Construction & Maintenance Project Supervisor	0.20
Electrician	0.20
Carpenter	0.20
HVAC Technician	0.20
Facilities Sr. Planner	0.20
Custodian 1	3.60
Custodian 2	0.20
Maintenance Mechanic 2	0.20
Grounds & Nursery Services Specialist 3	0.30
Total Maintenance & Operations Staffing	5.30

Executive Office Building 80,000 GSF <i>Added Maintenance & Operations Staffing</i>	
Position	FTE
Construction & Maintenance Project Supervisor	0.20
Electrician	0.20
Carpenter	0.20
HVAC Technician	0.20
Facilities Sr. Planner	0.20
Custodian 1	3.20
Custodian 2	0.20
Maintenance Mechanic 2	0.20
Grounds & Nursery Services Specialist 3	0.30
Total Maintenance & Operations Staffing	4.90

Individual operating starting operating cost rates (2009 base) are based on recent experience with our GA costs (rates charged by our providers), the units used at the recently completed Edna Goodrich Building in Tumwater and recent figures developed by the Office of Financial Management using the Whitestone Buildings Operations Experience.

Edna Lucille Goodrich Building

Operating Costs Per RSF Per Year

Expense Category	Cost Per Rentable Square Foot (as of July, 2009)
Utilities	\$1.91
Custodial Services	\$1.51
Repair and Maintenance	\$2.00
Contracts (Incl. Security)	\$0.75
Insurance	\$0.50
Building Administration	\$1.98
Parking Maintenance	\$0.10
Total	\$8.76

Note that the Edna Lucille Goodrich building is financed using 63-20 financing. The negotiations for that form of financing included an annual fee to be paid to the not-for-profit entity. That fee as of July 2009 represented \$0.20 per RSF. Taking that amount out of the operating cost would leave an estimate of \$8.56 for a Certificate of Participation financing project.

Whitestone Facilities Operations Cost Reference
(Per RSF Per Year)

Category	09-11 Biennium
Utilities	\$1.98
Custodial Services	\$1.90
Repair and Maintenance	\$2.94
Contracts (Incl. Security)	\$0.45
Building Administration	\$0.52
Parking Maintenance	\$0.17
Total	\$7.96

Note that the Whitestone Facilities Operations Cost Reference Report estimates (as provided by the Office of Financial Management) do not include insurance costs. For comparison purposes, adding \$0.50 per RSF for insurance will increase the Whitestone number to \$8.46 per RSF.

For the purposes of the C-3 calculations the 2009 base operations and maintenance cost will be estimated at \$8.50 per RSF adjusted for inflation.

Facilities & Service Rates

The following is the 09-11 Biennial Facilities and Service Rates for the Capitol Campus (excluding the Capital Project Surcharge). These rates represent what will need to be paid per rentable square foot for occupied space. Once again a 60% adjustment to custodial and utilities costs for library and archives storage space will be made.

09-11 Facilities & Services Rates

Updated to 11-13 and 13-15 Biennium's

Using OFM's Whitestone Inflation Indices

Category	09-11 Rate per RSF	11-13 Inflated Rate	13-15 Inflated Rate
Custodial/Refuse & Recycle	\$2.65	\$2.77	\$2.91
Utilities	\$2.40	\$2.50	\$2.63
Construction & Maintenance	\$1.31	\$1.36	\$1.42
Cash Recovery Revenues	\$0.80	\$0.84	\$0.88
Contracts (Incl. Security)	\$0.75	\$0.78	\$0.82
Building Access/Steam Plant	\$0.66	\$0.69	\$0.73
Bldg Systems Support	\$0.55	\$0.57	\$0.60
Parking Management	\$0.52	\$0.54	\$0.57
Indirect Charges	\$0.39	\$0.41	\$0.43
Other Direct	\$0.30	\$0.31	\$0.33
Sign Shop	\$0.19	\$0.20	\$0.21
Paint Shop	\$0.11	\$0.11	\$0.12
Total	\$10.63	\$11.09	\$11.63

For the purposes of calculating the balances available from the revenue stream that can be applied to COP payoff, the Facilities and Services Rates (adjusted for inflation) will be used.

Inflation Assumptions

Inflation assumptions are based on the Whitestone Facilities Operations Cost Reference Report figures currently used by the Office of Financial Management. The following are the figures for the upcoming two biennia:

Whitestone Building Operations Inflation Estimates

Category	Inflation to 11-13 Biennium	Inflation to 13-15 Biennium
Utilities	4.1%	5.1%
Custodial Services	4.5%	5.1%
Repair and Maintenance	4.1%	4.0%
Contracts (Incl. Security)	4.1%	5.1%
Building Administration	4.5%	5.1%
Parking Maintenance	4.5%	5.1%

For calculation purposes beyond these two biennia it is assumed that operations and maintenance inflation will be 2.5% per year (5.06% per biennia).



Landscape Plan

SITE 1 Original GA Site

January 2010



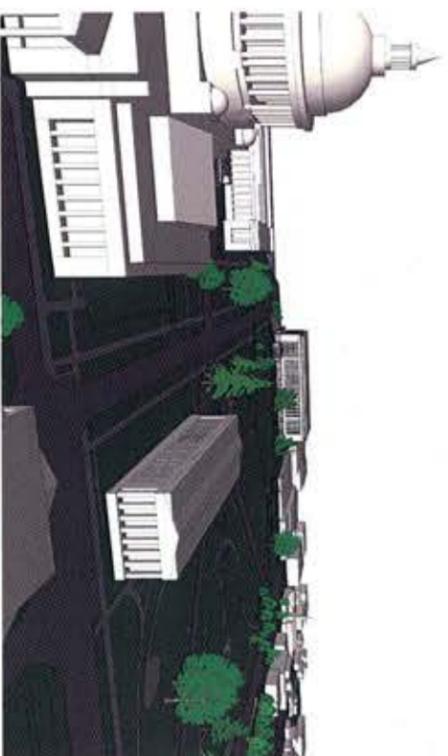
Birds Eye View Above East Plaza



Birds Eye View North of East Campus



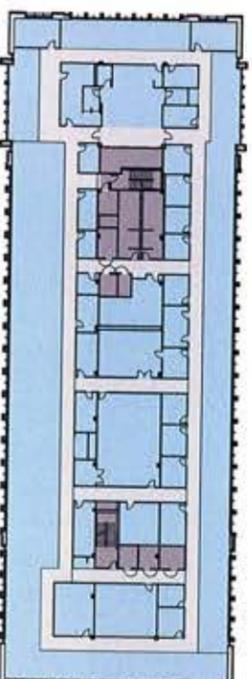
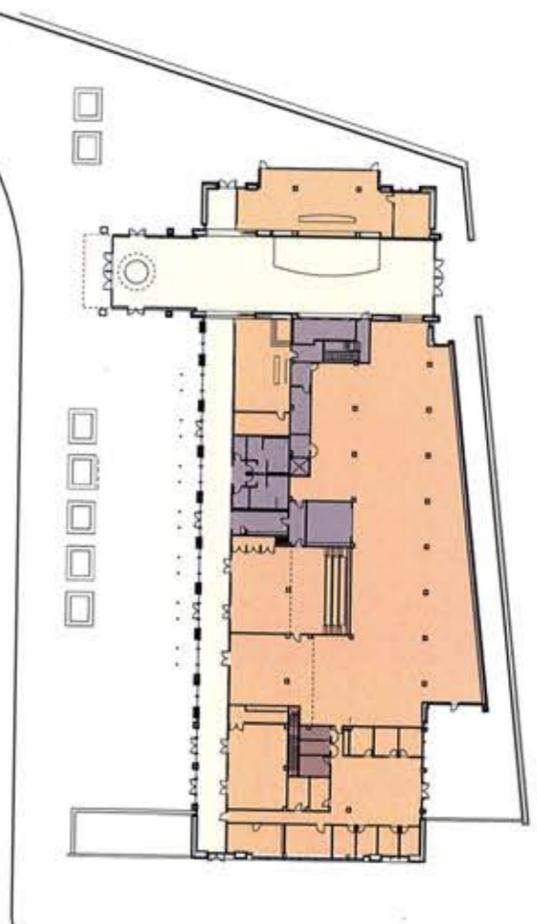
Across Olmstead Lawn



From Cherberg Building

SITE 1 Original GA Site

January 2010

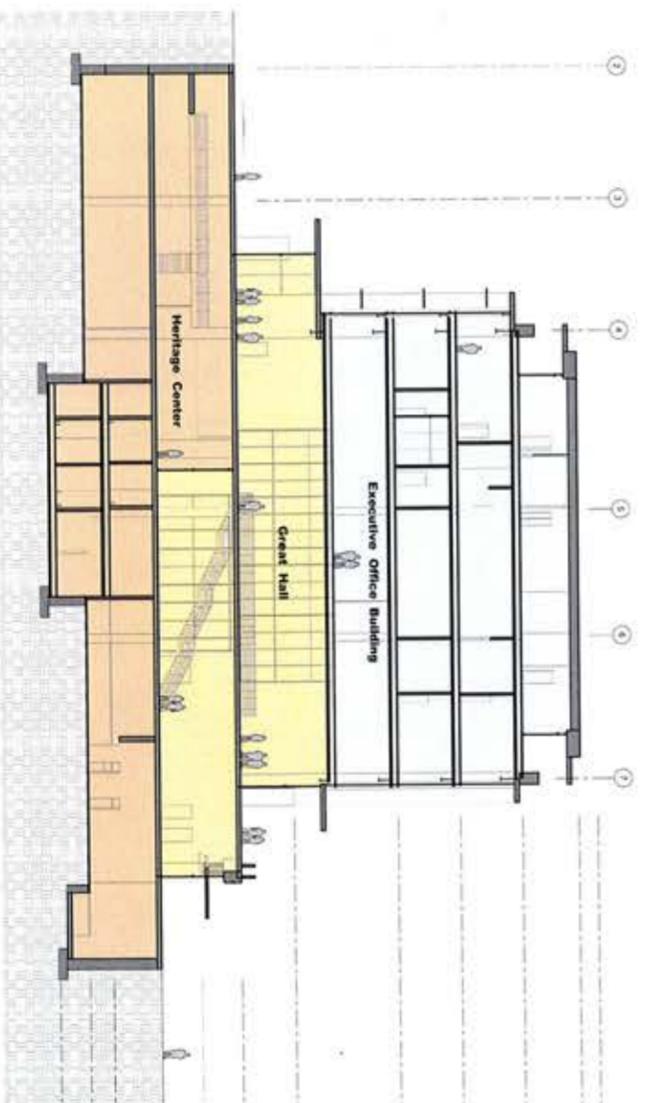


First Floor Plan

Typical Office Floor Plan

SITE 1 Original GA Site

January 2010



North-South Section

SITE 1 Original GA Site

January 2010

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Executive Office Building Program Comparison

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Department	Name	Occupancy	Use	Area	Count	Predesign Program Net Area	SD Net Area	DD Net Area	Revised Predesign	DD to RPD Delta
Office of the Insurance Commissioner										
Agency Shared	Lunch Room	Lunch Room	BR-2	500	1	500	524	536	536	0
Agency Shared	Conference Rooms	Building Conference RM	CR-	1400	1	1400	932	0	0	0
Agency Shared	Conference Rooms	Conference Room, Seats 8	CR-3	168	1	168	173	256	256	0
Agency Shared	Conference Rooms	Conference Room, Seats 8	CR-3	168	1	168	226	250	250	0
Agency Shared	Conference Rooms	Conference Room, Seats 1	CR-5	240	1	240	167	246	246	0
Agency Shared	Computer Room	Cmptr Training Rm	CR-6	660	1	660	609	415	415	0
Agency Shared	Conference Rooms	Conference Room, Seats 2	CR-7	336	1	336	335	723	723	0
Agency Shared	Conference Rooms	Training Room	CR-8	800	1	800	796	1121	1121	0
Agency Shared	First Aid Rooms	First Aid Rooms	FA	80	1	80	91	0	0	0
Agency Shared	First Aid Rooms	First Aid Rooms	FA	80	1	80	111	93	93	0
Agency Shared	Interview Rooms	Interview Rooms	INT-1	100	1	100	0	0	0	0
Agency Shared	Interview Rooms	Interview Rooms	INT-1	100	1	100	94	77	77	0
Agency Shared	Coffee Bars	Coffee Bars	KB-1	36	1	36	71	23	23	0
Agency Shared	Coffee Bars	Coffee Bars	KB-1	36	1	36	43	46	46	0
Agency Shared	Coffee Bars	Coffee Bars	KB-1	36	1	36	38	16	16	0
Agency Shared	Coffee Bars	Coffee Bars	KB-1	36	1	36	36	20	20	0
Agency Shared	Coffee Bars	Coffee Bars	KB-1	36	0	0	34	20	20	0
Agency Shared	Agency Shared	Secured Vestibule	RA	140	0	0	605	814	814	0
Agency Shared	Agency Shared	Secured Reception	RA	675	1	675	268	333	333	0
Agency Shared	Mail Room	Mail Storage Room	SA	100	1	100	100	0	0	0
Agency Shared	Computer Room	Computer Repair Room	SA	140	1	140	140	135	135	0
Agency Shared	Computer Room	Elec Control	SA	450	1	450	453	344	344	0
Agency Shared	Mail Room	Mail Room/Imaging Area	SA	460	1	460	575	588	588	0
Agency Shared	Storage Room	Storage Room	ST	100	1	100	179	131	131	0
Agency Shared	Storage Room	Storage Room	ST	100	1	100	179	322	322	0
Agency Shared	Copy/Storage Rooms	Copy/Supply Rooms (Rates)	WR-1	168	1	168	168	324	324	0
Agency Shared	Copy/Storage Rooms	Copy/Supply Rooms (Cons)	WR-1	168	1	168	231	298	298	0
Agency Shared	Storage Room	Storage Room	ST	168	1	168	187	205	205	0
Agency Shared	Copy/Storage Rooms	Copy/Supply Rooms (CP S)	WR-1	168	1	168	162	572	572	0
Agency Shared	Copy/Storage Rooms	Copy/Supply Rooms (Oper)	WR-1	168	1	168	264	168	168	0
Agency Shared	Copy/Storage Rooms	Copy/Supply Rooms (Legal)	WR-1	168	1	168	177	231	231	0
Agency Shared	Copy/Storage Rooms	Copy/Supply Rooms (SIU)	WR-1	480	1	480	117	165	165	0
Agency Shared	Copy/Storage Rooms	Copy/Supply Rooms (Exec)	WR-4	280	1	280	168	236	236	0
Total NSF Agency Shared Total						8569	8253	8708	8708	0
Company Supervision	Administration	Admin. Asst. 4	OS-5	96	1	96		96	96	0
Company Supervision	Administration	Insurance Tech. 1	OS-5	96	2	192	296	192	192	0
Company Supervision	Administration	Deputy Ins. Com	SA	250	1	250	250	250	250	0
Company Supervision	Comp. Lic. & Spec. Proj.	Contract Employee	OS-3	64	5	320	299	320	320	0
Company Supervision	Comp. Lic. & Spec. Proj.	Contract Employee	OS-3	64	5	320	754	256	256	0
Company Supervision	Comp. Lic. & Spec. Proj.	PPA 3	OS-5	96	1	96		96	96	0
Company Supervision	Comp. Lic. & Spec. Proj.	Special Deputy (Co Lic Mgr	SA	145	1	145	145	145	145	0
Company Supervision	Files	File cabinet, lateral 4 draw	FLA4	10	14	140	0	0	0	0
Company Supervision	Files	File cabinet, vertical 4 draw	FVA4	8	8	64	0	0	0	0
Company Supervision	Files	File Room	SA	750	1	750	496	236	236	0
Company Supervision	Files	Storage cabinet 2 door	SCA3	15	3	45	0	0	0	0
Company Supervision	Financial Analysis	Examiner 2	OS-5	96	3	288		288	288	0
Company Supervision	Financial Analysis	Examiner 3	OS-5	96	1	96	700	96	96	0
Company Supervision	Financial Analysis	Examiner 4	OS-5	96	3	288		288	288	0
Company Supervision	Financial Analysis	Chief Fin. Analyst	PO-3	145	1	145	145	145	145	0
Company Supervision	Financial Exam	Automated Systems Exami	OS-5	96	1	96		96	96	0
Company Supervision	Financial Exam	Office Asst. Sr.	OS-5	96	1	96	288	96	96	0
Company Supervision	Financial Exam	Professional	OS-5	96	2	192		192	192	0
Company Supervision	Financial Exam	Field Exam Prof.	OS-5	96	3	288	288	288	288	0
Company Supervision	Financial Exam	Field Exam Prof.	OS-5	96	3	288	288	192	192	0
Company Supervision	Financial Exam	Sr. Office Asst. 1	OS-5	96	0	0	41	0	0	0
Company Supervision	Financial Exam	Chief Examiner	PO-3	145	1	145	145	145	145	0
Company Supervision	Holding Co.	Analyst 1	OS-5	96	1	96	96	96	96	0
Company Supervision	Holding Co.	Manager	PO-3	145	1	145	145	145	145	0
Company Supervision	Market Analysis	FPA-3	OS-5	96	5	480		480	480	0
Company Supervision	Market Analysis	FPA-4	OS-5	96	1	96	758	96	96	0
Company Supervision	Market Analysis	Ins. Tech.	OS-5	96	1	96		96	96	0
Company Supervision	Market Analysis	Chief Market Analyst WMS:	PO-3	145	1	145	145	145	145	0
Company Supervision	Market Analysis	Manager Exempt	PO-3	145	1	0	0	0	0	0
Company Supervision	Market Analysis	Market Conduct Oversight I	PO-3	145	1	145	145	145	145	0
Company Supervision	Work Area	Imaging	SA	96	1	96	0	145	145	0
Company Supervision	Work Area	Work Counter	WCA2	14	2	28	0	0	0	0
Total NSF Company Supervision Total						5666	5424	4765	4765	0
Consumer Protection	Administration	Admin. Asst 4	OS-5	96	1	96	100	96	96	0
Consumer Protection	Administration	Deputy Commissioner	PO-5	250	1	250	250	250	250	0
Consumer Protection	Agency	File cabinet, lateral 5 draw	FLB5	12	12	144	0	0	0	0
Consumer Protection	Agency	File room	SA	595	1	595	1000	165	165	0
Consumer Protection	Agency	Counters	SA	0	0	0	142	131	131	0
Consumer Protection	Agency	Work Table	WTA1	25	2	50	0	0	0	0

Executive Office Building Program Comparison

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Department	Name	Occupancy	Use	Area	Count	Predesign Program Net Area	SD Net Area	DD Net Area	Revised Predesign	DD to RPD Delta
Consumer Protection	Agency	Library	-	0	0	0	83	131	131	0
Consumer Protection	Consm. Advoc.	Manager WMS3	PO-3	145	1	145	145	145	145	0
Consumer Protection	Consm. Advoc.	Admin. Asst 4	OS-5	96	1	96	101	96	96	0
Consumer Protection	Consm. Advoc.	Ins. Pol & Comp Analyst 2	OS-5	96	3	288	288	288	288	0
Consumer Protection	Consm. Advocacy L & H	Ins Pol & Comp Analyst 1	OS-5	96	3	288	288	288	288	0
Consumer Protection	Consm. Advocacy L & H	Ins Pol & Comp Analyst 1	OS-5	96	3	288	288	288	288	0
Consumer Protection	Consm. Advocacy L & H	Ins Pol & Comp Analyst 1	OS-5	96	2	192	288	192	192	0
Consumer Protection	Consm. Advocacy L & H	Ins Pol & Comp Analyst 2	OS-5	96	1	96	96	96	96	0
Consumer Protection	Consm. Advocacy P & C	Ins Pol & Comp Analyst 1	OS-5	96	3	288	288	288	288	0
Consumer Protection	Consm. Advocacy P & C	Ins Pol & Comp Analyst 1	OS-5	96	2	192	288	192	192	0
Consumer Protection	Consm. Advocacy P & C	Ins Pol & Comp Analyst 2	OS-5	96	1	96	96	96	96	0
Consumer Protection	Consm. Advocacy P & C	Professional	OS-5	96	2	192	192	192	192	0
Consumer Protection	Consm. Advoc.	Professional	OS-5	96	1	96	288	0	0	0
Consumer Protection	Consm. Advoc.	Special Project	OS-5	96	0	0	0	0	0	0
Consumer Protection	Investigation / Examinations	Market Conduct Examiner	OS-4	96	0	0	0	0	0	0
Consumer Protection	Investigation / Examinations	Ins. Tech 1	OS-3	64	3	192	288	288	288	0
Consumer Protection	Investigation / Examinations	Ins. Tech 1	OS-3	64	2	128	288	288	288	0
Consumer Protection	Investigation / Examinations	MRG WMS 2	PO-3	145	1	145	145	145	145	0
Consumer Protection	Licensing	Ins Tech 1	OS-5	96	1	96	282	96	96	0
Consumer Protection	Licensing	Ins Tech 2	OS-5	96	2	192	192	192	192	0
Consumer Protection	Licensing	Ins Tech 3	OS-5	96	3	288	285	288	288	0
Consumer Protection	Licensing	Ins Tech 3	OS-5	96	1	96	96	96	96	0
Consumer Protection	Licensing	Ins Tech 4	OS-5	96	1	96	586	96	96	0
Consumer Protection	Licensing	Ins Tech 4	OS-5	96	1	96	96	96	96	0
Consumer Protection	Licensing	Professional	OS-5	96	2	192	192	192	192	0
Consumer Protection	Licensing & Education	Manager WMS2	PO-3	145	1	145	145	145	145	0
Consumer Protection	Licensing	Equipment	SA	0	0	0	264	172	172	0
Consumer Protection	Education	FPA-3	PO-3	145	2	290	238	192	192	0
Consumer Protection	SHIBA	Secretarial	OS-4	80	1	80	96	96	96	0
Consumer Protection	SHIBA	Admin Asst 4	OS-5	96	1	96	96	96	96	0
Consumer Protection	SHIBA	CC4	OS-5	96	1	96	576	96	96	0
Consumer Protection	SHIBA	FRA 2	OS-5	96	1	96	96	96	96	0
Consumer Protection	SHIBA	Health Ins. Adv. 1	OS-5	96	2	192	192	192	192	0
Consumer Protection	SHIBA	Supervisor HIA2	OS-5	96	1	96	311	96	96	0
Consumer Protection	SHIBA	Professional	OS-5	96	0	0	192	192	192	0
Consumer Protection	SHIBA	Program Manager WMS3	PO-3	145	1	145	145	145	145	0
Consumer Protection	Support Services	Ins. Tech 3	OS-3	64	1	64	288	96	96	0
Consumer Protection	Support Services	Customer Service Spec 2	OS-3	64	0	0	0	192	192	0
Consumer Protection	Support Services	Investigator	OS-5	96	3	288	288	288	288	0
Consumer Protection	Support Services	Office Supv. 2	OS-5	96	1	96	96	96	96	0
Total NSF Consumer Protection Total						6597	8062	6901	6901	0
Executive	Executive Office	Executive Assistance	PO-2	120	1	120	120	120	120	0
Executive	Executive Office	Executive Assistance	PO-2	120	1	120	120	120	120	0
Executive	Executive Office	Chief Deputy Commissione	SA	290	1	290	300	320	320	0
Executive	Executive Office	Insurance Commissioner	SA	500	1	500	500	689	689	0
Executive	Hearings	Hearing Examiner	PO-3	120	1	120	116	145	145	0
Executive	Hearings	Hearing Examiner Professi	PO-3	145	1	120	120	96	96	0
Executive	Hearings	Hearings File Room	ST	120	1	0	0	120	120	0
Executive	Office Support	Kitchenette	KB-2	77	1	77	95	105	105	0
Executive	Office Support	Conference Room	CR-7	560	1	560	560	538	538	0
Executive	Waiting Area	Chair (Storage)	CSA1	12	2	24	30	0	0	0
Executive	Waiting Area	Sofa, Seats 3 (Reception)	CSA1	36	1	36	504	395	395	0
Executive	Waiting Area	Coat Rack	MIDI	12	1	12	0	0	0	0
Executive	Office Support	WC	WC	0	0	0	50	67	67	0
Executive	Waiting Area	Antique Cabinet	SA	12	1	12	0	0	0	0
Total NSF Executive Total						1991	2515	2715	2715	0
SIU	Fraud Unit	Work Room	WR-1					165	165	0
SIU	Fraud Unit	Evedence Storage	SA					185	185	0
SIU	Fraud Unit	Admin Asst.	OS-5	96	1	96	296	96	96	0
SIU	Fraud Unit	Research Analyst	OS-5	96	2	192	192	192	192	0
SIU	Fraud Unit	Manager WMS	PO-3	145	1	145	145	159	159	0
SIU	Fraud Unit	Manager WMS	PO-3					145	145	0
SIU	Fraud Unit	Manager WMS	PO-3					145	145	0
SIU	Fraud Unit	Manager WMS	PO-3					145	145	0
SIU	Fraud Unit	Manager WMS	PO-3					145	145	0
SIU	Fraud Unit	Manager WMS	PO-3					145	145	0
SIU	Fraud Unit	Manager WMS	PO-2	120	1	120	120	145	145	0
Total NSF SIU Total						553	561	1522	1522	0
Legal Affairs	Division of Legal Affairs	Admin. Asst 4	OS-5	96	1	96		96	96	0
Legal Affairs	Division of Legal Affairs	Legal Sec.	OS-5	96	1	96	293	96	96	0
Legal Affairs	Division of Legal Affairs	Paralegal	OS-5	96	1	96		192	192	0
Legal Affairs	Division of Legal Affairs	Investigator	OS-5	96	4	384	394	384	384	0
Legal Affairs	Division of Legal Affairs	Attorney	PO-3	145	1	145	145	145	145	0
Legal Affairs	Division of Legal Affairs	Attorney	PO-3	145	1	145	145	145	145	0

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Department	Name	Occupancy	Use	Area	Count	Predesign Program Net Area	SD Net Area	DD Net Area	Revised Predesign	DD to RPD Delta
Legal Affairs	Division of Legal Affairs	Attorney	PO-3	145	1	145	145	145	145	0
Legal Affairs	Division of Legal Affairs	Attorney	PO-3	145	1	145	145	145	145	0
Legal Affairs	Division of Legal Affairs	Attorney	PO-3	145	1	145	145	145	145	0
Legal Affairs	Division of Legal Affairs	Attorney	PO-3	145	1	145	145	145	145	0
Legal Affairs	Division of Legal Affairs	Managing Attorney	PO-4					167	167	0
Legal Affairs	Division of Legal Affairs	Storage	ST	0	1	0	138	364	364	0
Legal Affairs	Division of Legal Affairs	Deputy Commissioner	PO-5	250	1	250	250	250	250	0
Total NSF Legal Affairs Total						1792	1945	2419	2419	0
Legislation	Legislation	Deputy Commissioner	SA	250	1	250	0	0	0	0
Total NSF Legislation Total						250	0	0	0	0
Operations	Division of Administration	Deputy Commissioner	PO-5	250	1	250	248	250	250	0
Operations	Facilities	Mgr. WMS 2	PO-3	145	1	145	145	145	145	0
Operations	Facilities	Professional	OS-5	96	1	96	192	96	96	0
Operations	Division of Administration	Admin. Asst 4	OS-5	96	1	96		96	96	0
Operations	Fiscal & Budget	Fin. Analyst 1	OS-5	96	1	96		96	96	0
Operations	Fiscal & Budget	Fin. Analyst 2	OS-5	96	1	96		96	96	0
Operations	Fiscal & Budget	Fin. Analyst 3	OS-5	96	1	96	578	96	96	0
Operations	Fiscal & Budget	Fin. Analyst 5	OS-5	96	1	96		96	96	0
Operations	Fiscal & Budget	Fiscal Tech	OS-5	96	1	96		96	96	0
Operations	Fiscal & Budget	Professional	OS-5	96	1	96		96	96	0
Operations	Fiscal & Budget	Manager WMS 3	PO-3	145	1	145	145	145	145	0
Operations	Fiscal & Budget	HR Fiscal Vault	SA	200	0	0	178	242	242	0
Operations	Human Resources	H.R. Consultant 3	OS-4	96			120	120	120	0
Operations	Human Resources	H.R. Consultant 3	OS-4	96	2	192	120	120	120	0
Operations	Human Resources	Manager EMS 3	PO-3	145	1	145	145	145	145	0
Operations	Human Resources	H.R. Consultant Asst.	OS-5	96	1	96	381	96	96	0
Operations	Human Resources	Professional	OS-5	96	1	96		96	96	0
Operations	Info. Services	ITA/A3	OS-5	96	1	96		96	96	0
Operations	Info. Services	ITA/A2	OS-5	96	0	0		0	0	0
Operations	Info. Services	ITA/A4	OS-5	96	3	288	288	288	288	0
Operations	Info. Services	ITS/A5	OS-5	96	3	288	1558	288	288	0
Operations	Info. Services	ITS/AS6	OS-5	96	3	288		288	288	0
Operations	Info. Services	Professional	OS-5	96	6	576		576	576	0
Operations	Info. Services	Manager WMS 3	PO-3	145	1	145	145	145	145	0
Operations	Info. Services	Manager WMS 3	PO-3	145	1	145	145	145	145	0
Operations	Info. Services	Manager WMS 3	PO-3	145	0	0	145	145	145	0
Operations	Open Area	Bookcase, 6 Shelves	BCA6	10	13	130	0	0	0	0
Operations	Open Area	File Cabinet, Lateral 5 Drw	FLB5	12	4	48	0	0	0	0
Operations	Open Area	Micro Film Reader	SA	96	1	96	0	0	0	0
Operations	Public Records	AA3	OS-5	96	1	96		96	96	0
Operations	Public Records	Forms&Records Analyst	OS-5	96	2	192	673	192	192	0
Operations	Public Records	Office Asst. Sr.	OS-3	64	3	192		288	288	0
Operations	Public Records	Professional	OS-5	96	1	96		96	96	0
Operations	Public Records	Mgr. WMS 1	PO-3	145	1	145	145	145	145	0
Total NSF Operations Total						4658	5063	4915	4915	0
Policy	Policy	Sr. Health Policy Advisor	OS-4	96	1	96		96	96	0
Policy	Policy	Sr Policy Analyst	OS-4	96	1	96		96	96	0
Policy	Policy	Admin. Asst 4	OS-5	96	1	96	485	96	96	0
Policy	Policy	Admin. Reg. Analyst	OS-5	96	1	96		96	96	0
Policy	Policy	Economic Policy Analyst	OS-5	96	1	96		96	96	0
Policy	Policy	Leg./Projects	OS-5	96	1	96		96	96	0
Policy	Policy	Professional	OS-5	96	2	192	206	0	0	0
Policy	Policy	Research Analyst 4	OS-5	96	1	96	159	96	96	0
Policy	Policy	Sr. Policy Analyst	OS-5	120	1	120		96	96	0
Policy	Policy	Task force coordinator	PO-3	145	0	0	120	145	145	0
Policy	Policy	Staff Attorney	PO-3	145	1	145	145	145	145	0
Policy	Policy	Rules Coordinator	PO-2	120	1	120	120	145	145	0
Policy	Policy	Deputy Commissioner	SA	250	1	250	250	250	250	0
Policy	Legislation	Deputy Commissioner	SA	120	0	0	120	145	145	0
Total NSF Policy Total						1499	1605	1598	1598	0
Public Affairs	Open Area	Bookcase, 4 Shelves	BCA4	10	8	80	0	0	0	0
Public Affairs	Division Admin.	Comm. Outreach Coord.	OS-5	96	1	96		96	96	0
Public Affairs	Division Admin.	Professional	OS-5	96	1	96	407	96	96	0
Public Affairs	Division Admin.	Public Info. Off 3	OS-5	96	1	96		96	96	0
Public Affairs	Division Admin.	Public Info. Proj. Mgr.	OS-5	96	1	96		96	96	0
Public Affairs	Division Admin.	Deputy Commissioner	SA	250	1	250	250	250	250	0
Total NSF Public Affairs Total						714	657	634	634	0
Rates & Fourms	Actuarial Service	Act. Analyst 1	OS-5	96	1	96		96	96	0
Rates & Fourms	Actuarial Service	Act. Analyst 2	OS-5	96	2	192	576	192	192	0
Rates & Fourms	Actuarial Service	Act. Analyst 3	OS-5	96	1	96		96	96	0
Rates & Fourms	Actuarial Service	Professional	OS-5	96	1	96		96	96	0

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Department	Name	Occupancy	Use	Area	Count	Predesign Program Net Area	SD Net Area	DD Net Area	Revised Predesign	DD to RPD Delta
Rates & Fourms	Actuarial Service	Actual Sr.	PO-3	145	1	145	145	145	145	0
Rates & Fourms	Actuarial Service	Actuary 2 (PR Reg)	PO-2	120	1	120	120	120	120	0
Rates & Fourms	Actuarial Service	Actuary 2 (PR Reg)	PO-2	120	1	120	120	120	120	0
Rates & Fourms	Actuarial Service	Actuary 3 Assoc	PO-2	120	1	120	120	120	120	0
Rates & Fourms	Actuarial Service	Actuary 3 Assoc	PO-2	120	1	120	120	120	120	0
Rates & Fourms	Division of Administration	Admin. Asst 4	OS-5	96	1	96	96	96	96	0
Rates & Fourms	Division of Administration	Deputy Commissioner	SA	250	1	250	245	250	250	0
Rates & Fourms	Healthcare	Ins. Pol & Comp Analyst 1	OS-5	96	4	384		384	384	0
Rates & Fourms	Healthcare	Ins. Pol & Comp Analyst 2	OS-5	96	2	192	672	192	192	0
Rates & Fourms	Healthcare	Professional	OS-5	96	2	192		96	96	0
Rates & Fourms	Healthcare	Manager WMS2	PO-3	145	1	145	145	145	145	0
Rates & Fourms	Life & Disability	Funct. Program Analyst 2	OS-5	96	1	96		96	96	0
Rates & Fourms	Life & Disability	Funct. Program Analyst 3	OS-5	96	3	288	480	288	288	0
Rates & Fourms	Life & Disability	Professional	OS-5	96	1	96		96	96	0
Rates & Fourms	Life & Disability	Manager WMS2	PO-3	145	1	145	145	145	145	0
Rates & Fourms	Mgr. Analyst	Ins. Tech. 2	OS-5	96	3	288	348	288	288	0
Rates & Fourms	Mgr. Analyst	Mgr. Analyst 3	PO-3	145	1	145	212	145	145	0
Rates & Fourms	Open Area	Bookcase, 4 Shelves	BCA4	10	8	80	0			0
Rates & Fourms	Open Area	Bookcase, 6 Shelves	BCA6	10	3	30	0			0
Rates & Fourms	Open Area	File Cab., Vertical 5 Drw Le	FVB5	9	16	144	0			0
Rates & Fourms	Open Area	File Cabinet, Lateral 5 Drw	FLB5	12	5	60	0			0
Rates & Fourms	Open Area	Micro Film Reader/Printer /	OS-5	96	1	96	0			0
Rates & Fourms	Open Area	Storage Cabinet, 2 Door	SCA2	14	1	14	0			0
Rates & Fourms	Open Area	Work Table	WTA1	25	2	50	0			0
Rates & Fourms	Property & Casualty	Funct. Program Analyst 1	OS-5	96	3	288		288	288	0
Rates & Fourms	Property & Casualty	Professional	OS-5	96	1	96	384	96	96	0
Rates & Fourms	Property & Casualty	Manager WMS2	PO-3	145	1	145	145	145	145	0
Total NSF Rates & Forums Total						4425	4073	3855	3855	0
Total NSF Office of the Insurance Commissioner						36,713	38,158	38,032	38,032	0
Office of the Treasurer										
Accounting Services	Accounting Services	Management	PO-3	145	1	145	145	142	142	0
Accounting Services	Accounting Services	Professional	OS-5	96	4	384	385	384	384	0
Accounting Services	Accounting Services	Supervisor	OS-5	96	4	384	382	384	384	0
Total NSF Accounting Services						913	912	910	910	0
Administration	Administration	Deputy Treasurer	PO-5	250	3	750	250	250	250	0
Administration	Administration	Professional	OS-5	96	1	96	107	96	96	0
Administration	Administration	Support	OS-4	80	2	160	100	160	160	0
Administration	Administration	PDPC	PO-3	145	0	0	250	142	142	0
Total NSF Administration						1006	707	648	648	0
Auditor/OST Consultants	Auditor/OST Consultants	Auditor/OST Consultants	OS-5	96	3	288	362	288	288	0
Total NSF Auditor/OST Consultants						288	362	288	288	0
Cash & Warrant Management	Cash & Warrant Management	Management	PO-3	145	1	145	145	148	148	0
Cash & Warrant Management	Cash & Warrant Management	Management	PO-3	145	1	145	145	148	148	0
Cash & Warrant Management	Cash & Warrant Management	Management	PO-3	145	1	145	145	144	144	0
Cash & Warrant Management	Cash & Warrant Management	Professional	OS-5	96	9	864	977	864	864	0
Cash & Warrant Management	Cash & Warrant Management	Support	OS-4	80	1	80	80	80	80	0
Total NSF Cash & Warrant Management						1379	1492	1384	1384	0
Information Services	Information Services	Management	PO-3	145	1	145	145	143	143	0
Information Services	Information Services	Management	PO-3	145	1	145	145	143	143	0
Information Services	Information Services	Management	PO-3	145	1	145	145	143	143	0
Information Services	Information Services	Management	PO-3	145	1	145	145	143	143	0
Information Services	Information Services	Management	PO-3	145	1	145	145	0	0	0
Information Services	Information Services	Supervisor	OS-5	96	2	192	241	192	192	0
Information Services	Information Services	Technical	OS-5	96	9	864	866	864	864	0
Information Services	Information Services	Technical	OS-5	96	3	288	345	288	288	0
Total NSF Information Services						2069	2177	1916	1916	0
Seasonal Positions	Seasonal Positions	Interns	OS-4	80	2	160	193	187	187	0
Total NSF Seasonal Positions						160	193	187	187	0
Agency Shared	Agency Shared	Reception Area Seats 4	RA-2	108	1	108	158	440	440	0
Agency Shared	Agency Shared	Receptionist Station	OS-5	96	1	96	98	125	125	0

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Department	Name	Occupancy	Use	Area	Count	Predesign Program Net Area	SD Net Area	DD Net Area	Revised Predesign	DD to RPD Delta
Agency Shared	Agency Shared	Vestibule	SA	140	1	140	146	104	104	0
Agency Shared	Agency Shared	Warrant Counter	SA	120	1	120	148	105	105	0
Agency Shared	Agency Shared	Warrant Equip. Room	SA	260	1	260	260	307	307	0
Agency Shared	Agency Shared	Warrant Work Area	SA	330	1	330	330	353	353	0
Agency Shared	Agency Shared	Storage Room	ST	120	1	120	120	526	526	0
Agency Shared	Agency Shared	Storage Room	ST	120	1	120	73	98	98	0
Agency Shared	Agency Shared	Supply Room	ST	120	1	120	104	138	138	0
Agency Shared	Agency Shared	Supply Room	ST	120	1	120	120	69	69	0
Agency Shared	Agency Shared	Supply Room	ST	120	0	0	81	143	143	0
Agency Shared	Agency Shared	Vault Storage	ST	140	1	140	140	131	131	0
Agency Shared	Agency Shared	Warrant Storage Room	ST	550	1	550	550	671	671	0
Agency Shared	Agency Shared	Conf/Training Rooms	SA	800	1	800	800	791	791	0
Agency Shared	Agency Shared	Coffee Bars	KB-1			0		73	73	0
Agency Shared	Agency Shared	Coffee Bars	KB-1	41	1	41	0	109	109	0
Agency Shared	Agency Shared	Computer Repair Room	SA	120	1	120	120	137	137	0
Agency Shared	Agency Shared	Conference Room, Seats 1	CR-5	240	1	240	243	263	263	0
Agency Shared	Agency Shared	Conference Room, Seats 2	CR-6	360	1	360	311	343	343	0
Agency Shared	Agency Shared	Open Conf. Area, Seats 8	CA-4	150	1	150	150	159	159	0
Agency Shared	Agency Shared	Open Conf. Area, Seats 8	CA-4	150	1	150	150	150	150	0
Agency Shared	Agency Shared	Copy/Supply Room, standa	WR-1	168	1	168	190	174	174	0
Agency Shared	Agency Shared	Copy/Supply Room, standa	WR-1	168	1	168	171	167	167	0
Agency Shared	Agency Shared	Copy/Supply Room, standa	WR-1	168	1	168	168	154	154	0
Agency Shared	Agency Shared	Break Rooms	BR	250	1	250	230	420	420	0
Agency Shared	Agency Shared	Bookcase, 4 Shelves	BCA-4	10	8	80	0			0
Agency Shared	Agency Shared	Bookcase, 6 Shelves	BCA-6	10	1	10	0			0
Agency Shared	Agency Shared	File Cabinet, Lateral 2 Draw	FLA-2	10	5	50	385	108	108	0
Agency Shared	Agency Shared	File Cabinet, Lateral 3 Draw	FLA-3	10	37	370	587	587	587	0
Agency Shared	Agency Shared	File Cabinet, Lateral 4 Draw	FLA-4	10	43	430	160	70	70	0
Agency Shared	Agency Shared	File Cabinet, Lateral 5 Draw	FLA-5	10	17	170	486	0	0	0
Agency Shared	Agency Shared	File Cabinet, Vert.2 Drw Le	FVB-2	8	13	104	83	0	0	0
Agency Shared	Agency Shared	File Cabinet, Vert. 4 Drw Le	FVB-4	9	11	99	0	0	0	0
Agency Shared	Agency Shared	File Cabinet, Vert. 5 Drw Le	FVB-5	9	1	9	0	0	0	0
Agency Shared	Agency Shared	Storage Cabinet, 2 Door	SCA-2	14	30	420	0	0	0	0
Total NSF Agency Shared						6581	6562	6915	6915	0
Investments	Investments	Admin Support	OS-5	96	0	0	96	96	96	0
Investments	Investments	Support	OS-5	96	0	0	96	96	96	0
Investments	Investments	Support	PO-3	120	0	0	120	118	118	0
Investments	Investments	Support	PO-3	120	0	0	120	119	119	0
Investments	Investments	Deputy	PO-5	250	0	0	250	247	247	0
Total NSF Investments						0	802	794	794	0
Total NSF Office of the Treasurer						12,396	13,207	13,042	13,042	0

Heritage Center Program Comparison

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Department	Name	Occupancy	Use	Area	Count	Predesign Program Net Area	SD Net Area	DD Net Area	Revised Predesign	DD to RPD Delta
Archives										
Archives Collections - General	Archives Collections	General records open storage	SA	23,000	1	23,000	20,168	19,215	8,440	-10,775
Archives Collections - General	Archives Collections	Paper records Vault	VST	1,000	1	1,000	1,079	944	944	0
Archives Collections - General	Archives Collections	Photo Vault - 40 degrees	VST	1,000	1	1,000	1,154	925	925	0
Archives Collections - General	Archives Collections	Photo Vault - 54 degrees	VST	750	1	750	754	696	696	0
Archives Collections - General	Archives Collections	Frozen Photo Storage	SA	200	1	200	210	188	188	0
Archives Collections - General	Archives Collections	54 degree Vestibule	SA	0	1	0	0	114	114	0
Total NSF Archives Collections						25,950	23,365	22,082	11,307	-10,775
Archives Collections-Maps & Plans	Archives Collections	Map&Plan Storage	VST	5,000		5,000	0	0	0	0
Archives Collections-Maps & Plans	Archives Collections	(Oversize) Map Storage	VST	0	1	0	1,614	689	689	0
Archives Collections-Maps & Plans	Archives Collections	Plan Storage	VST		1	0	1,115	751	751	0
Total NSF Archives Collections-Maps & Plans						5,000	2,729	1,440	1,440	0
Archives Division Mngmnt	Division Management	State Archivist	PO-5	280	1	280	281	286	286	0
Archives Division Mngmnt	Division Management	Deputy St. Archivist	PO-3	168	2	336	335	332	332	0
Archives Division Mngmnt	Division Management	Assistant	OS-4	80	2	160	160	116	116	0
Archives Division Mngmnt		Receptionist		64	1	0	0	64	64	0
Archives Division Mngmnt	Division Management	Small Conference Room	CR-5	240	1	240	0	292	292	0
Archives Division Mngmnt	Division Management	Large Conference Room	CR-7	420	1	420	0	0	0	0
Archives Division Mngmnt		Coat Closet			1	0	0	41	41	0
Total NSF Archives Division Mngmnt						1,436	776	1,131	1,131	0
Archival Processing	Archival Processing	Archives Acq. Staff	OS-4	80	2	160	160	160	160	0
Archival Processing	Archival Processing	Processing Lead	OS-4	80	1	80	80	80	80	0
Archival Processing	Archival Processing	State Archives Manager	PO-3	168	1	168	166	200	200	0
Archival Processing	Archival Processing	Processing Staff	OS-4	80	2	160	160	160	160	0
Archival Processing	Archival Processing	Processing Students/Volunteer:	OS-6	200	1	200	373	285	285	0
Archival Processing	Archival Processing	Digital Access Lead	OS-4	80	1	80	80	80	80	0
Archival Processing	Archival Processing	Digital Access Staff	OS-4	80	2	160	160	160	160	0
Archival Processing	Archival Processing	Incoming Rec. Acquisition Area	SA	1,500	1	1,500	1,400	1,399	1,399	0
Archival Processing	Archival Processing	Supply Storage	ST	400	1	400	477	353	353	0
Total NSF Archival Processing						2,908	3,056	2,877	2,877	0
Archives Records Mngmnt.		Manager	PO-3	168	1	0	164	200	200	0
Archives Records Mngmnt.		St. Records Mngmnt. Admin.	OS-3	64	2	0	80	128	128	0
Archives Records Mngmnt.		Local Records Mngmnt. Admin.	OS-3	64	3	0	80	192	192	0
Archives Records Mngmnt.		St. Records Lead	OS-3	64	1	0	113	64	64	0
Archives Records Mngmnt.		Local Records Lead	OS-3	64	1	0	123	64	64	0
Archives Records Mngmnt.		Digital Records/Training Lead	OS-3	64	1	0	123	64	64	0
Archives Records Mngmnt.		Staff	OS-5	64	1	0	64	0	0	0
Archives Records Mngmnt.		Work Room			1	0	0	149	149	0
Archives Records Mngmnt.		Copier/ Supply			1	0	0	172	172	0
Total NSF Archives Records Mngmnt.						0	747	1,033	1,033	0
Archives Research	Research	Research Staff Lead	OS-4	80	1	80	80	80	80	0
Archives Research	Research	Staff	OS-4	80	3	240	240	240	240	0
Archives Research	Research	Special Collections Staging	WR-1	168	1	168	139	166	166	0
Total						488	459	486	486	0
Total NSF Archives						35,782	31,132	29,049	18,274	-10,775

Heritage Center Program Comparison

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Department	Name	Occupancy	Use	Area	Count	Predesign Program Net Area	SD Net Area	DD Net Area	Revised Predesign	DD to RPD Delta
Heritage Center										
HC Museum Exhibit Support		Volunteer & Tour Guides			1	0	316	344	344	0
HC Museum Support	Museum Support	Tour Guides	SA	200	1	200	0	0	0	0
HC Museum Support	Museum Support	Volunteer Area	SA	240	1	240	0	0	0	0
HC Museum Support	Museum Support	Classroom	SA	1,200	1	1,200	781	0	0	0
HC Museum Exhibit Support	Museum Support	Arrival Multi-Purpose	SA	1,200	1	1,200	874	933	0	-933
HC Museum Exhibit Support	Museum Support	Learning Lab	SA	1,200	1	1,200	779	2,058	0	-2,058
HC Museum Exhibit Support	Museum Support	Classroom Storage	SA	150	1	0	286	130	0	-130
HC Museum Exhibit Support	Museum Support	Learning Lab Storage	SA	150	1	0	128	153	0	-153
HC Museum Exhibit Support	Museum Support	Dirty Shop	SA	300	1	300	223	313	313	0
HC Museum Exhibit Support	Museum Support	Wood Shop	SA	800	1	800	582	814	814	0
HC Museum Exhibit Support	Museum Support	Museum Exhibit Coat Storage	SA		1	0	0	234	234	0
Total NSF Exhibit Support						5,140	3,969	4,979	1,705	-3,274
HC Museum Exhibit	Public Spaces	Stor/Processing	SA	5,000	1	5,000	0			0
HC Museum Exhibit	Public Spaces	Loan Exhibit Processing	SA		1	0	845	845	845	0
HC Museum Exhibit	Public Spaces	Mount Making	SA		1	0	395	347	347	0
HC Museum Exhibit	Public Spaces	Loan Exhibit Receiving	SA		1	0	1,200	1,049	433	-616
HC Museum Exhibit	Public Spaces	Exhibit Preparation	SA		1	0	452	447	447	0
HC Museum Exhibit	Public Spaces	Permanent Storage	SA		1	0	1,580	1,398	1,398	0
HC Museum Exhibit	Public Spaces	Museum Exhibit Elec. Control	SA	300	1	0	202	166	166	0
HC Museum Exhibit	Public Spaces	Special Exhibit Gallery	SA	5,000	1	5,000	5,270	5,000	0	-5,000
HC Museum Exhibit	Public Spaces	Main Exhibition Hall	SA	6,500	1	6,500	6,485	6,515	0	-6,515
HC Museum Exhibit	Public Spaces	Exhibit Space	SA		1	0	0	0	5,616	5,616
Total NSF Exhibit						16,500	16,429	15,767	9,252	-6,515
HC Building Support	Building Management	Main support Grounds Keeper	SA	240	1	240	102	0	0	0
HC Building Support	Building Management	First aid Room	SA	90	1	90	80	72	72	0
HC Building Support	Building Management	First aid Room 2	SA	90	1	0	97	94	94	0
HC Building Support	Building Management	Building Manager Office Suite			1	168	224	229	229	0
HC Building Support	Building Management	BM Admin	OS-1	64	1	64	0	0	0	0
HC Building Support	Building Management	Reception	RA-5	146	1	146	0	0	0	0
HC Building Support	Building Management	HC Surplus	SA	700	1	0	434	131	131	0
HC Building Support	Building Management	Security Office	PO-2	120	1	120	200	98	98	0
Total NSF Building Support						828	1,137	624	624	0
HC Business Office Exhibit Staff	Building Management	Events Coordinator	PO-4	168	1	168	140	125	na	na
HC Business Office Exhibit Staff	Building Management	Exhibit Coordinator	PO-4	168	1	168	140	126	na	na
HC Business Office Exhibit Staff	Building Management	EC Admin	OS-1	64	1	64	64	64	na	na
HC Business Office Exhibit Staff	Building Management	Development Director	PO-4	168	1	168	137	126	na	na
HC Business Office Exhibit Staff	Building Management	DD Admin	OS-1	64	1	64	64	64	na	na
HC Business Office Exhibit Staff	Building Management	Marketing Director	PO-4	168	1	168	137	126	na	na
HC Business Office Exhibit Staff	Building Management	Creative Director	SW-4	64	1	64	140	126	na	na
HC Business Office Exhibit Staff	Building Management	Site Manager	PO-4	168	1	0	140	124	na	na
HC Business Office Exhibit Staff	Building Management	Temporary Exhibits Coordinato	PO-4	168	1	0	140	113	na	na
HC Business Office Exhibit Staff	Building Management	WSHS Staff	OS-4	80	2	320	240	160	na	na
HC Business Office Exhibit Staff	Building Management	WSHS Staff			1	0	0	113	na	na
HC Business Office Exhibit Staff	Building Management	MD Admin	OS-1	64	2	256	64	128	na	na
HC Business Office Exhibit Staff	Building Management	Work Area			1	0	55	0	na	na
HC Business Office Exhibit Staff	Building Management	Small Conf. Rm			1	0	268	303	na	na
HC Business Office Exhibit Staff	Building Management	Copy/ Supply			1	0	0	117	na	na
HC Business Office Exhibit Staff	Building Management	KB-1			1	0	0	109	na	na
Total NSF Exhibit Staff						1,440	1,729	1,924	962	-962
HC Conference Center	Conference Center	Auditorium;	SA	3,600	1	3,600	2,948	0	0	0
HC Conference Center	Conference Center	Conference Center (seats 400)	SA	8,750	1	8,750	6,886	0	0	0
HC Conference Center	Conference Center	Conference Center A			1	0	0	2,315	0	-2,315
HC Conference Center	Conference Center	Conference Center B			1	0	0	3,184	0	-3,184
HC Conference Center	Conference Center	Conference Center C			1	0	0	2,020	0	-2,020
HC Conference Center	Conference Center	Prefunction	SA	NA	1	0	2,000	2,132	0	-2,132
HC Conference Center	Events Space	Events Space	SA	NA	1	0	0	0	3,695	3,695
HC Conference Center	Conference Center	AV Production Area	SA	540	1	540	213	188	0	-188
HC Conference Center	Conference Center	Coat Storage	SA	75	1	0	75	69	0	-69
HC Conference Center	Conference Center	Coat Storage	SA		1	0	0	50	0	-50
HC Conference Center	Events Space	Chair & Table Storage	SA	600	1	600	92	914	386	-528
HC Conference Center	Conference Center	Chair & Table Storage	SA	0	1	0	333	0	0	0
HC Conference Center	Conference Center	Chair & Table Storage	SA	0	1	0	103	0	0	0
HC Conference Center	Events Space	Kitchen	SA	1,000	1	1,000	707	1,379	232	-1,147
HC Conference Center	Conference Center	Cooler	SA		1	0	0	64	0	-64
HC Conference Center	Conference Center	Freezer	SA		1	0	0	46	0	-46
HC Conference Center	Conference Center	Bev. Cooler	SA		1	0	0	60	0	-60
HC Conference Center	Conference Center	Banquet Cooler	SA		1	0	0	98	0	-98
HC Conference Center	Conference Center	Liquor Stor.	SA		1	0	0	143	0	-143
HC Conference Center	Conference Center	Steward Stor.	SA		1	0	0	74	0	-74
HC Conference Center	Conference Center	Staff Toilet	SA		1	0	0	54	0	-54
HC Conference Center	Conference Center	Banquet Linen & Uniforms	SA		1	0	0	79	0	-79
HC Conference Center	Conference Center	Dry Storage	SA		1	0	0	236	0	-236
HC Conference Center	Conference Center	Kitchen Access	SA	450	1	0	402	491	0	-491
HC Conference Center	Conference Center	Conference Center Prep	SA	250	1	0	321	1,275	0	-1,275

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Department	Name	Occupancy	Use	Area	Count	Predesign Program Net Area	SD Net Area	DD Net Area	Revised Predesign	DD to RPD Delta
HC Conference Center	Conference Center	Conf.Cntr. & Kchn.-Office	SA	250	4	0	0	126	0	-126
HC Conference Center	Conference Center	Green Rm.	SA	200	4	0	107	0	0	0
HC Conference Center	Conference Center	Auditorium-Electronic Control	SA	200	4	0	74	0	0	0
Total NSF Conference Center						14,490	14,261	14,997	4,313	-10,684
HC Common	Public Spaces	AV Conservation	SA	200	4	200	0	0	0	0
HC Common	Public Spaces	Conservation Lab	SA	1,000	1	1,000	623	883	883	0
HC Common	Public Spaces	Info Desk	SA	64	1	0	130	113	113	0
HC Common	Public Spaces	Scanning room	SA	1,300	1	1,300	1,248	1,262	1,262	0
HC Common	Public Spaces	Special Collections Reading Rm	SA	1,300	1	1,300	1,534	1,395	1,395	0
HC Common	Public Spaces	Map room	SA	1,200	1	1,200	1,126	922	922	0
HC Common	Public Spaces	Photo Room	SA	420	4	420	54	0	0	0
HC Common	Public Spaces	Electronic Control Room	SA	500	1	500	491	408	408	0
HC Common	Public Spaces	Electronic Control Staff	SA		1	0	0	323	323	0
HC Common	Conference Center	Washington Room	SA	300	2	600	770	615	336	-279
HC Common	Public Spaces	Staff area	OS-4	80	5	400	0	0	0	0
HC Common	Public Spaces	Museum Store Gift Shop	SA	2,000	1	2,000	1,000	1,031	1,031	0
HC Common	Public Spaces	Store Gift Shop Storage	SA		1	0	545	263	263	0
HC Common	Public Spaces	Store Gift Shop Manager			1	0	0	111	111	0
HC Common	Public Spaces	Cafe	SA	2,000	1	2,000	1,214	1,726	862	-864
HC Common	Public Spaces	Kitchen	SA		1	0	258	309	200	-109
HC Common	Public Spaces	Café Service	SA		1	0	384	89	0	-89
HC Common	Public Spaces	Great Hall Lobby	SA	6,000	1	6,000	6,000	7,076	7,076	0
HC Common	Public Spaces	OSOS Conf./Training Room	SA	360	1	360	490	595	336	-259
HC Common	Public Spaces	Storage	ST		4	0	0	135	0	-135
HC Common	Public Spaces	Conf./Training room	SA	500	4	0	0	0	0	0
HC Common	Public Spaces	HC Mail & Supply Suite	SA	100	1	100	888	953	953	0
HC Common	Public Spaces	HC Supply	SA	200	1	200	0	165	165	0
HC Common	Public Spaces	Staff lunchroom & Kitchen				0	1,398	0	0	0
HC Common	Public Spaces	Staff lunchroom	SA	1,095	1	1,095	0	1,443	1,443	0
HC Common	Public Spaces	Kitchenette	SA	225	1	225	0	91	91	0
HC Common	Public Spaces	Vending				0	0	234	234	0
HC Common	Public Spaces	Oral History		64	5	320	320	320	320	0
HC Common	Public Spaces	Oral History Shelving	SA		1	0	0	58	58	0
HC Common	Public Spaces	Historic Records	PO	225	1	225	227	225	225	0
HC Common	Public Spaces	Foyer	SA	225	4	0	0	0	0	0
HC Common	Public Spaces	Heritage Hall (Hall of Records)	SA	225	1	0	138	48	48	0
Total NSF Common						19,145	18,838	20,793	19,058	-1,735
Library										
Library Administrative	Administrative	State Librarian	PO-5	280	1	280	242	279	279	0
Library Administrative	Administrative	Deputy State Librarian	PO-3	168	2	336	331	335	335	0
Library Administrative	Administrative	Admin Asst.	OS-4	84	1	80	80	118	118	0
Library Administrative	Administrative	Conference/Training	CR-8	540	4	540	721	0	0	0
Library Administrative	Administrative	Small conference room	CR-3	144	4	144	145	0	0	0
Library Administrative	Administrative	Kitchen/ Copy			1	0	0	151	151	0
Total NSF Library Administrative						1,380	1,519	883	883	0
Library Technical Services	Technical Services	Manager	PO-3	168	1	168	186	168	168	0
Library Technical Services	Technical Services	Staff	OS-5	96	3	288	288	288	288	0
Library Technical Services	Technical Services	Staff_	OS-4	80	8	640	640	640	640	0
Library Technical Services	Technical Services	Staff_	OS-3	64	6	384	384	384	384	0
Library Technical Services	Technical Services	Work Areas	SA	120	4	480	473	248	248	0
Library Technical Services	Technical Services	Materials storage	PO-3	168	1	168	277	168	168	0
Library Technical Services	Technical Services	Supply room	SA	224	1	224	237	234	234	0
Library Technical Services	Technical Services	PASColl NUC pre-1956	SA	30	1	30	30	87	87	0
Library Technical Services	Technical Services	Shelving	SA			0	0	50	50	0
Total NSF Library Technical Services						2,382	2,515	2,267	2,267	0
Library Development	Library Development	Manager	PO-3	168	1	168	181	162	162	0
Library Development	Library Development	LSTA Coordinator	PO-3	168	1	168	169	162	162	0
Library Development	Library Development	Staff	OS-3	64	18	1,152	1,152	1,152	1,152	0
Library Development	Library Development	Staff_	OS-4	80	3	240	240	240	240	0
Library Development	Library Development	Staff_	OS-5	96	1	96	96	96	96	0
Library Development	Library Development	Storage & Computer Storage			1	0	245	193	193	0
Library Development	Library Development	Storage	ST	150	4	150	0	0	0	0
Library Development	Library Development	Computer Storage	ST	64	4	64	0	0	0	0
Library Development	Library Development	Production area	OS-6	120	1	120	131	117	117	0
Library Development	Library Development	Lib. Dev. Files	ST	150	1	150	139	125	125	0
Total NSF Library Development						2,308	2,353	2,247	2,247	0
Library R&D	R&D	MGR	PO-3	168	1	168	192	177	177	0
Library R&D	R&D	Cubicles	OS-3	64	5	320	320	320	320	0
Library R&D	R&D	Volunteer station	SW-4	168	2	336	325	330	330	0
Total NSF Library R&D						824	837	827	827	0

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Department	Name	Occupancy	Use	Area	Count	PreDesign Program Net Area	SD Net Area	DD Net Area	Revised PreDesign	DD to RPD Delta
Library Branches	Branches	Manager	PO-3	168	1	168	195	163	163	0
Library Branches	Branches	office assistant	OS-3	64	1	64	64	64	64	0
Library Branches	Branches	Cubicle	OS-3	64	1	64	64	64	64	0
Total NSF Library Branches						296	323	291	291	0
Lib. Public Services - Staff	Public Services	Manager	PO-3	168	1	168	167	169	169	0
Lib. Public Services - Staff	Public Services	Reference Documents staff	OS-5	96	1	96	80	96	96	0
Lib. Public Services - Staff	Public Services	Reference Doc. staff_	OS-4	80	2	160	160	160	160	0
Lib. Public Services - Staff	Public Services	Reference Doc. staff	OS-3	64	6	384	384	384	384	0
Lib. Public Services - Staff	Public Services	Gen. Wrk. Area	ST	120	1	120	168	160	160	0
Lib. Public Services - Staff	Public Services	Northwest History staff	OS-3	64	5	320	320	320	320	0
Lib. Public Services - Staff	Public Services	Northwest History staff_	OS-4	80	1	120	119	80	80	0
Lib. Public Services - Staff	Public Services	NW Work Area	SA	120	1	120	125	127	127	0
Lib. Public Services - Staff	Public Services	Genealogy staff	OS-3	75	6	448	448	384	384	0
Lib. Public Services - Staff	Public Services	Genealogy staff	OS-5	96	1	0	0	96	96	0
Lib. Public Services - Staff	Public Services	Ref. Virt. Gov.	SA	120	1	120	114	125	125	0
Lib. Public Services - Staff	Public Services	Map Libr.	OS-4	80	2	192	160	160	160	0
Lib. Public Services - Staff	Public Services	Additional Staff	OS-3	64	3	0	448	192	192	0
Lib. Public Services - Staff	Public Services	Coats/Storage	ST		1	0	0	190	190	0
Total NSF Lib. Public Services - Staff						2,248	2,693	2,643	2,643	0
Library Public Services	Public Services	Reference Desk	OS-5	96	2	192	270	235	235	0
Library Public Services	Public Services	Reception, Circulation	SA	64	2	128	272	275	275	0
Library Public Services	Public Services	Conference room	GR-8	540	1	540	0	0	0	0
Library Public Services	Public Services	Computer training room	SA	600	1	600	0	0	0	0
Total NSF Library Public Services						1,460	542	510	510	0
Library PAS	PAS	Manager	PO-3	168	1	168	195	168	168	0
Library PAS	PAS	Staff_	OS-5	96	2	192	192	192	192	0
Library PAS	PAS	Staff	OS-4	80	2	160	160	160	160	0
Library PAS	PAS	Staff_	OS-3	64	9	576	576	576	576	0
Library PAS	PAS	Storage, preserv., supplies	ST	120	1	120	148	0	0	0
Library PAS	PAS	State Doc. Distr. Center	ST	120	1	120	144	249	249	0
Library PAS	PAS	Resource sharing storage	SA	120	1	120	148	120	120	0
Library PAS	PAS	Bindery	SA	350	1	350	432	346	346	0
Library PAS	PAS	Small Conf. Rm.	SA	120	1	120	232	326	326	0
Library PAS	PAS	Sorting & Intake	SA		1	0	0	57	57	0
Total NSF Library PAS						1,926	2,227	2,194	2,194	0
Library Staff		Copy Room			1	0	0	235	235	0
Library Staff		Cart Storage			1	0	0	134	134	0
Total NSF Library Staff						0	0	369	369	0
Lib. Main Reading Rm	Main Reading Room	General reading room	SA	3,000	1	3,000	3,500	4,400	4,400	0
Lib. Main Reading Rm	Main Reading Room	General	Stacks	450	1	450	450	279	279	0
Lib. Main Reading Rm	Main Reading Room	Periodicals & Newspapers	Display	150	1	150	62	104	104	0
Lib. Main Reading Rm	Main Reading Room	Reference	Stacks	450	1	450	252	224	224	0
Lib. Main Reading Rm	Main Reading Room	NW Multimedia, display	Display	50	1	50	50	48	48	0
Lib. Main Reading Rm	Main Reading Room	Northwest Collection	Stacks	3,500	1	3,500	4,482	3,982	3,982	0
Lib. Main Reading Rm	Main Reading Room	Display Alcoves	SA	500	1	0	1,039	743	743	0
Lib. Main Reading Rm	Main Reading Room	Public copier	SA	120	1	120	106	135	135	0
Total NSF Lib. Main Reading Rm						7,720	9,941	9,915	9,915	0
Lib. Fam. Hist./Gen. Rm	Family History/Genealog	Microfilm	Cbnts	900	1	900	686	947	947	0
Lib. Fam. Hist./Gen. Rm	Family History/Genealog	Genealogy & Phonebooks				0	1,389	1,103	1,103	0
Lib. Fam. Hist./Gen. Rm	Family History/Genealog	Genealogy Reading Rm	Stacks	700	1	700	0	0	0	0
Lib. Fam. Hist./Gen. Rm	Family History/Genealog	Phonebooks	Stacks	300	1	300	0	0	0	0
Lib. Fam. Hist./Gen. Rm	Family History/Genealog	Journal Display	Stacks	100	1	100	66	49	49	0
Lib. Fam. Hist./Gen. Rm	Family History/Genealog	Microfilm service area	SA	500	1	500	0	0	0	0
Lib. Fam. Hist./Gen. Rm	Family History/Genealog	Genealogy Service Area	SA	300	1	300	290	270	270	0
Total NSF Lib. Fam. Hist./Gen. Rm						2,800	2,431	2,369	2,369	0
Library Collections	Collections	Federal Collection	Cmpct	10,000	1	10,000	4,191	5,473	6,484	1,011
Library Collections	Collections	Collection Staging area	SA	150	1	150	150	148	175	27
Library Collections	Collections	Journal back-files	Cmpct	2,000	1	2,000	1,155	1,467	1,738	271
Library Collections	Collections	Newspapers hard copy	Cmpct	800	1	800	167	253	300	47
Library Collections	Collections	State publications	Cmpct	3,000	1	3,000	866	2,255	2,671	416
Library Collections	Wash. NW Room	Rare Book Room (vault)	Vault	2,000	1	2,000	820	717	849	132
Library Collections	Wash. NW Room	Historic reference	Cmpct	450	1	450	168	159	188	29
Library Collections	Wash. NW Room	Pamphlets	Cbnts	30	1	30	30	19	23	4
Library Collections	Wash. NW Room	Manuscript Collections	Cmpct	400	1	400	109	101	120	19
Library Collections	Collections	Offers	Cmpct	212	1	211	193	189	224	35
Library Collections	Collections	Gifts Newspapers	Cmpct	150	1	150	171	54	64	10
Total NSF Library Collections						19,191	8,020	10,835	12,836	2,001

OVERALL SUMMARY

	Gross Floor Area	\$ / SF	\$x1,000
Site No. 2 - EOB / Heritage Center			
Building & Sitework	214,158 SF	487.81	104,469
TOTAL CONSTRUCTION COST	June 2013		104,469

Site No. 3 - Heritage Center			
Parking	48,451 SF	127.70	6,187
Building	142,896 SF	413.18	59,041
TOTAL CONSTRUCTION COST	June 2011		65,228

Site No. 4 - EOB			
Building & Sitework	81,450 SF	417.60	34,013
TOTAL CONSTRUCTION COST	June 2011		34,013

Site No. 7 - Heritage Center			
Parking	53,412 SF	122.74	6,556
Building	137,650 SF	424.41	58,420
TOTAL CONSTRUCTION COST	June 2011		64,975

Site No. 12 - EOB			
Phase A - South Building	87,781 SF	426.30	37,421
Phase B - North Building	109,095 SF	443.58	48,392
TOTAL CONSTRUCTION COST	June 2011 *		85,813

* Phase B starts in June 2013, and final completion is End of 2014

Alternates	\$x1,000
Alternate 1: Site No. 4 - Two Levels of Underground Parking	3,867
Alternate 2: Site No. 3 with Extended Schedule to Completion in 2015	3,977

UNIFORMAT SUMMARY FOR DIRECT WORK

Gross Area:

	SITE NO. 2 EOB / Heritage Center		SITE NO. 3 Heritage Center		Total
	\$/SF	214,158 SF	\$/SF	142,896 SF	\$/SF
SITE WORK					
G10 Site Preparation	\$ 21.07	\$ 4,513,023	\$ 9.10	\$ 1,299,781	\$ 6.79
G20 Site Improvements	\$ 20.40	\$ 4,368,045	\$ 4.07	\$ 582,066	\$ 3.04
G30 Site Mechanical Utilities	\$ 9.93	\$ 2,125,863	\$ 13.42	\$ 1,917,243	\$ 10.02
G40 Site Electrical Utilities	\$ 5.43	\$ 1,163,750	\$ 5.65	\$ 807,406	\$ 4.22
G60 Other Site Construction	\$ -	\$ -	\$ -	\$ -	\$ -
Subtotal: Site Work	\$ 56.83	\$ 12,170,680	\$ 32.24	\$ 4,606,495	\$ 24.07
BUILDING					
A10 Foundations	\$ 11.67	\$ 2,500,278	\$ 10.17	\$ 1,453,196	\$ 10.89
A20 Basement Construction	\$ 24.15	\$ 5,172,873	\$ 7.97	\$ 1,138,356	\$ 12.86
B10 Superstructure	\$ 40.31	\$ 8,632,705	\$ 49.39	\$ 7,058,025	\$ 43.63
B20 Exterior Cladding	\$ 37.74	\$ 8,083,331	\$ 53.72	\$ 7,676,791	\$ 41.53
B30 Roofing	\$ 9.52	\$ 2,039,054	\$ 17.41	\$ 2,487,621	\$ 13.13
C10 Interior Construction	\$ 36.07	\$ 7,725,566	\$ 28.45	\$ 4,065,815	\$ 22.10
C20 Stairs	\$ 1.66	\$ 355,489	\$ 2.17	\$ 310,657	\$ 2.04
C30 Interior Finishes	\$ 21.87	\$ 4,683,421	\$ 14.70	\$ 2,101,137	\$ 11.47
D10 Conveying	\$ 4.35	\$ 931,000	\$ 5.05	\$ 722,000	\$ 3.77
D20 Plumbing Systems	\$ 5.57	\$ 1,191,900	\$ 4.28	\$ 612,063	\$ 3.34
D30 HVAC Systems	\$ 46.83	\$ 10,029,019	\$ 42.66	\$ 6,096,405	\$ 33.27
D40 Fire Protection Systems	\$ 4.49	\$ 961,326	\$ 4.95	\$ 707,929	\$ 4.93
D50 Electrical Systems	\$ 43.23	\$ 9,258,484	\$ 36.22	\$ 5,175,676	\$ 28.25
F10 Special Construction	\$ -	\$ -	\$ -	\$ -	\$ -
F20 Selective Demolition	\$ -	\$ -	\$ -	\$ -	\$ -
Subtotal: Building	\$ 287.47	\$ 61,564,447	\$ 277.17	\$ 39,605,673	\$ 231.20
Total Building and Site Work	\$ 344.30	\$ 73,735,127	\$ 309.40	\$ 44,212,167	\$ 255.27
Reimbursables	\$ 13.77	\$ 2,949,000	\$ 12.37	\$ 1,768,000	\$ 10.21
Subcontractor Bonds	\$ 3.58	\$ 767,000	\$ 3.22	\$ 460,000	\$ 2.65
Contingency for Design Development	\$ 36.17	\$ 7,745,113	\$ 32.50	\$ 4,644,017	\$ 26.81
A/E M/ACC	\$ 397.82	\$ 85,196,239	\$ 357.49	\$ 51,084,184	\$ 294.95
GC/CM Contingency	\$ 11.94	\$ 2,556,000	\$ 10.73	\$ 1,533,000	\$ 8.85
GC/CM M/ACC	\$ 409.75	\$ 87,752,239	\$ 368.22	\$ 52,617,184	\$ 303.80
Pre-construction Fee	\$ 2.87	\$ 614,266	\$ 2.58	\$ 368,320	\$ 2.13
GC/CM Fee	\$ 18.57	\$ 3,976,000	\$ 16.68	\$ 2,384,000	\$ 13.77
Bid General Conditions	\$ 14.01	\$ 3,001,131	\$ 12.59	\$ 1,799,509	\$ 10.39
GC/CM M/ACC	\$ 445.20	\$ 95,343,637	\$ 400.08	\$ 57,169,013	\$ 330.08
Escalation to Mid-Point	\$ 42.61	\$ 9,125,353	\$ 13.10	\$ 1,872,285	\$ 10.81
TOTAL CONSTRUCTION COST	\$ 487.81	\$ 104,468,989	\$ 413.18	\$ 59,041,299	\$ 340.89

Construction Completion June 2015
 Construction Start Date June 2013
 Construction Duration (months) 24 MTHS
 Construction Mid-Point June 2014
 Escalation to Mid-Point 9.57%

June 2013
 June 2011
 24 MTHS
 June 2012
 3.28%

UNIFORMAT SUMMARY FOR DIRECT WORK

		SITE NO. 4		SITE NO. 7		Total	
		EOB		Heritage Center			
		\$/SF	81,450 SF	\$/SF	137,650 SF	\$/SF	191,062 SF
SITE WORK							
G10	Site Preparation	1.72	\$ 140,037	-	\$ -	1.78	\$ 245,193
G20	Site Improvements	2.64	\$ 214,935	-	\$ -	13.62	\$ 1,875,400
G30	Site Mechanical Utilities	16.16	\$ 1,316,510	-	\$ -	17.08	\$ 2,350,650
G40	Site Electrical Utilities	7.01	\$ 570,855	-	\$ -	8.23	\$ 1,133,417
G60	Other Site Construction	-	\$ -	-	\$ -	-	\$ -
	Subtotal: Site Work	27.53	\$ 2,242,336	40.72	\$ 5,604,659	29.33	\$ 5,604,659
BUILDING							
A10	Foundations	7.91	\$ 644,274	9.75	\$ 1,342,731	10.75	\$ 2,054,697
A20	Basement Construction	-	\$ -	15.46	\$ 2,128,564	19.24	\$ 3,676,216
B10	Superstructure	42.83	\$ 3,488,330	50.38	\$ 6,934,642	43.57	\$ 8,324,057
B20	Exterior Cladding	75.46	\$ 6,146,561	48.94	\$ 6,736,476	35.43	\$ 6,768,951
B30	Roofing	17.27	\$ 1,406,517	16.75	\$ 2,306,186	12.21	\$ 2,332,892
C10	Interior Construction	31.13	\$ 2,535,661	27.87	\$ 3,836,043	21.01	\$ 4,015,123
C20	Stairs	2.60	\$ 211,513	1.98	\$ 272,667	1.85	\$ 352,856
C30	Interior Finishes	26.22	\$ 2,135,619	14.40	\$ 1,982,395	10.91	\$ 2,084,958
D10	Conveying	6.07	\$ 494,000	5.25	\$ 722,000	3.78	\$ 722,000
D20	Plumbing Systems	5.52	\$ 449,563	4.20	\$ 577,474	3.18	\$ 607,351
D30	HVAC Systems	32.30	\$ 2,630,835	41.79	\$ 5,751,878	31.66	\$ 6,049,463
D40	Fire Protection Systems	3.90	\$ 317,248	4.85	\$ 667,921	4.85	\$ 927,093
D50	Electrical Systems	36.58	\$ 2,979,808	35.48	\$ 4,883,182	26.88	\$ 5,135,823
F10	Special Construction	-	\$ -	-	\$ -	-	\$ -
F20	Selective Demolition	-	\$ -	-	\$ -	-	\$ -
	Subtotal: Building	287.78	\$ 23,439,928	277.10	\$ 38,142,159	225.33	\$ 43,051,480
Total Building and Site Work		315.31	\$ 25,682,264	317.81	\$ 43,746,818	254.66	\$ 48,656,139
	Reimbursables	12.61	\$ 1,027,000	12.71	\$ 1,750,000	10.19	\$ 1,946,000
	Subcontractor Bonds	3.28	\$ 267,000	3.31	\$ 455,000	2.65	\$ 506,000
	Contingency for Design Development	33.12	\$ 2,697,626	33.38	\$ 4,595,182	26.75	\$ 5,110,814
	A/E MACC	364.32	\$ 29,673,890	367.21	\$ 50,546,999	294.24	\$ 56,218,953
	GC/CM Contingency	10.93	\$ 890,000	11.01	\$ 1,516,000	8.82	\$ 1,686,000
	GC/CM MACC	375.25	\$ 30,563,890	378.23	\$ 52,062,999	303.07	\$ 57,904,953
	Pre-construction Fee	2.63	\$ 213,947	2.65	\$ 364,441	2.12	\$ 405,335
	GC/CM Fee	17.00	\$ 1,385,000	17.14	\$ 2,359,000	13.73	\$ 2,624,000
	Bid General Conditions	12.83	\$ 1,045,292	12.94	\$ 1,780,559	10.37	\$ 1,980,364
	GC/CM MACC	407.71	\$ 33,208,130	410.95	\$ 56,567,000	329.29	\$ 62,914,652
	Escalation to Mid-Point	9.89	\$ 805,297	13.46	\$ 1,852,569	10.78	\$ 2,060,455
	TOTAL CONSTRUCTION COST	417.60	\$ 34,013,427	424.41	\$ 58,419,569	340.07	\$ 64,975,107

Construction Completion
November 2012
Construction Start Date
June 2011
Construction Duration (months)
18 MTHS
Construction Mid-Point
February 2012
Escalation to Mid-Point
2.43%

June 2013
June 2011
24 MTHS
June 2012
3.28%

UNIFORMAT SUMMARY FOR DIRECT WORK

		SITE NO. 12			Total		
		EOB Phase A (South Building)	EOB Phase B (North Building)				
		\$/SF	87,781 SF	\$/SF	109,095 SF		
				\$/SF	196,876 SF		
SITE WORK							
G10	Site Preparation	\$ 2.24	\$ 196,520	\$ 1.59	\$ 173,838	\$ 1.88	\$ 370,357
G20	Site Improvements	\$ 15.76	\$ 1,383,600	\$ 14.43	\$ 1,574,578	\$ 15.03	\$ 2,958,178
G30	Site Mechanical Utilities	\$ 15.54	\$ 1,364,153	\$ 12.69	\$ 1,383,903	\$ 13.96	\$ 2,748,056
G40	Site Electrical Utilities	\$ 10.28	\$ 902,763	\$ 8.72	\$ 951,572	\$ 9.42	\$ 1,854,335
G60	Other Site Construction	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Subtotal: Site Work		\$ 43.83	\$ 3,847,035	\$ 37.43	\$ 4,083,890	\$ 40.28	\$ 7,930,925
BUILDING							
A10	Foundations	\$ 9.16	\$ 804,292	\$ 9.50	\$ 1,035,961	\$ 9.35	\$ 1,840,253
A20	Basement Construction	\$ 10.99	\$ 964,811	\$ 5.89	\$ 642,558	\$ 8.16	\$ 1,607,369
B10	Superstructure	\$ 40.51	\$ 3,555,939	\$ 40.94	\$ 4,465,851	\$ 40.75	\$ 8,021,790
B20	Exterior Cladding	\$ 63.76	\$ 5,597,074	\$ 70.35	\$ 7,674,913	\$ 67.41	\$ 13,271,986
B30	Roofing	\$ 11.87	\$ 1,041,571	\$ 10.94	\$ 1,193,070	\$ 11.35	\$ 2,234,641
C10	Interior Construction	\$ 31.13	\$ 2,732,754	\$ 31.13	\$ 3,396,291	\$ 31.13	\$ 6,129,045
C20	Stairs	\$ 1.78	\$ 156,539	\$ 1.62	\$ 177,089	\$ 1.69	\$ 333,628
C30	Interior Finishes	\$ 26.22	\$ 2,301,618	\$ 26.22	\$ 2,860,471	\$ 26.22	\$ 5,162,089
D10	Conveying	\$ 4.33	\$ 380,000	\$ 3.48	\$ 380,000	\$ 3.86	\$ 760,000
D20	Plumbing Systems	\$ 5.52	\$ 484,507	\$ 5.52	\$ 602,150	\$ 5.52	\$ 1,086,657
D30	HVAC Systems	\$ 32.30	\$ 2,835,326	\$ 32.30	\$ 3,523,769	\$ 32.30	\$ 6,359,095
D40	Fire Protection Systems	\$ 3.90	\$ 341,907	\$ 3.90	\$ 424,925	\$ 3.90	\$ 766,832
D50	Electrical Systems	\$ 36.58	\$ 3,211,424	\$ 36.58	\$ 3,991,186	\$ 36.58	\$ 7,202,610
F10	Special Construction	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
F20	Selective Demolition	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Subtotal: Building		\$ 278.05	\$ 24,407,762	\$ 278.37	\$ 30,368,233	\$ 278.23	\$ 54,775,995
Total Building and Site Work		\$ 321.88	\$ 28,254,797	\$ 315.80	\$ 34,452,123	\$ 318.51	\$ 62,706,920
Reimbursables		\$ 12.87	\$ 1,130,000	\$ 12.63	\$ 1,378,000	\$ 12.74	\$ 2,508,000
Subcontractor Bonds		\$ 3.35	\$ 294,000	\$ 3.28	\$ 358,000	\$ 3.31	\$ 652,000
Contingency for Design Development		\$ 33.81	\$ 2,967,880	\$ 33.17	\$ 3,618,812	\$ 33.46	\$ 6,586,692
A/E MACC		\$ 371.91	\$ 32,646,677	\$ 364.88	\$ 39,806,935	\$ 368.02	\$ 72,453,612
GC/CM Contingency		\$ 11.15	\$ 979,000	\$ 10.94	\$ 1,194,000	\$ 11.04	\$ 2,173,000
GC/CM MACC		\$ 383.06	\$ 33,625,677	\$ 375.83	\$ 41,000,935	\$ 379.05	\$ 74,626,612
Pre-construction Fee		\$ 2.68	\$ 235,380	\$ 2.63	\$ 287,007	\$ 2.65	\$ 522,386
GC/CM Fee		\$ 17.36	\$ 1,524,000	\$ 17.03	\$ 1,858,000	\$ 17.18	\$ 3,382,000
Bid General Conditions		\$ 13.10	\$ 1,150,014	\$ 12.85	\$ 1,402,243	\$ 12.96	\$ 2,552,257
GC/CM MACC		\$ 416.21	\$ 36,535,071	\$ 408.34	\$ 44,548,185	\$ 411.85	\$ 81,083,256
Escalation to Mid-Point		\$ 10.09	\$ 885,975	\$ 35.23	\$ 3,843,955	\$ 24.02	\$ 4,729,930
TOTAL CONSTRUCTION COST		\$ 426.30	\$ 37,421,047	\$ 443.58	\$ 48,392,139	\$ 435.87	\$ 85,813,186

Construction Completion
 November 2012
Construction Start Date
 June 2013
Construction Duration (months)
 18 MTHS
Construction Mid-Point
 February 2012
Escalation to Mid-Point
 2.43%

November 2014
 November 2014
June 2013
 June 2013
18 MTHS
 18 MTHS
March 2014
 March 2014
8.63%
 8.63%

HERITAGE CENTER COMPONENT SUMMARY

Gross Area: 314,708 SF

		\$/SF	\$x1,000
1. Foundations		19.88	6,256
2. Vertical Structure		16.30	5,129
3. Floor & Roof Structures		55.39	17,430
4. Exterior Cladding		49.41	15,551
5. Roofing, Waterproofing & Skylights		14.57	4,585
<i>Shell (1-5)</i>		155.54	48,950
6. Interior Partitions, Doors & Glazing		17.64	5,551
7. Floor, Wall & Ceiling Finishes		27.21	8,564
<i>Interiors (6-7)</i>		44.85	14,114
8. Function Equipment & Specialties		14.45	4,546
9. Stairs & Vertical Transportation		5.58	1,756
<i>Equipment & Vertical Transportation (8-9)</i>		20.03	6,302
10. Plumbing Systems		7.16	2,253
11. Heating, Ventilating & Air Conditioning		43.85	13,800
12. Electric Lighting, Power & Communications		41.76	13,143
13. Fire Protection Systems		5.48	1,723
<i>Mechanical & Electrical (10-13)</i>		98.24	30,918
Total Building Construction (1-13)		318.66	100,285
14. Site Preparation & Demolition		14.34	4,513
15. Site Paving, Structures & Landscaping		14.79	4,653
16. Utilities on Site		10.45	3,290
Total Sitework Construction (14-16)		39.58	12,456
TOTAL BUILDING AND SITEWORK (1-16)		358.24	112,741
Reimbursables	4.00%	14.33	4,510
Subtotal Direct Construction Cost		372.57	117,251
Subcontractor Bonds	1.25%	4.66	1,466
Subtotal		November 2009	377.23
Escalation to Midpoint (April 2014)	8.78%	33.11	10,419
Subtotal		February 2013	410.34
Contingency for Development of Design	6.50%	26.67	8,394
A/E MACC		437.01	137,530
GC/CM Contingency	3.00%	13.11	4,126
GC/CM MACC		450.12	141,656
Preconstruction Services Fee	Fixed	3.08	970
Specified General Conditions	Fixed	22.09	6,952
GC/CM Construction Fee	3.25%	15.45	4,861
TOTAL GCC		February 2013	490.74

C-3

STATE OF WASHINGTON BENEFIT AND LIFE CYCLE COST ANALYSIS SUMMARY						FORM C-3 (Rev 6-01)	
Agency		Department of General Administration		Analysis Type		LCC	
Project		Heritage Center - Executive Office Building		Analysis Date		12-8-09	
Location		Capitol Campus - Olympia, WA		Analysis By		Craig J. Donald	
Economic Life (in Years)		50		Discount Rate		5.00%	
				File Name			
Description	HC-EOB Site 1		HC-EOB Site 2		HC Site 3		
	Estimated Cost	Present Worth	Estimated Cost	Present Worth	Estimated Cost	Present Worth	
1. Initial Costs							
A.		\$0	\$0	\$0	\$0	\$0	\$0
B.	Amortized Cost	\$394,681,860	\$245,930,418	\$283,029,813	\$169,341,916	\$163,779,620	\$97,992,343
C.	Cost to Vacate GA Building	\$830,000	\$830,000	\$830,000	\$830,000		
D.	Cost to Vacate the Dawley Building					\$20,000	\$20,000
E.	Cost to Move the Soils Shed						
F.	Replacement of GA Garage (Above Grade)					\$9,900,000	\$8,980,000
G.							
<i>Total Initial Cost (PW)</i>		\$395,511,860	\$246,760,418	\$283,859,813	\$170,171,916	\$173,699,620	\$106,992,343
<i>Total Initial Cost Difference vs. Lowest Cost Alternative</i>		\$111,652,047	\$76,588,501			\$17,430,093	\$13,493,426
2. Replacement/Salvage Cost & Residual Value							
(See appropriate Resid-Repl Sheet)		Year					
A.							
B.							
C.							
D.							
E.							
F.							
G.							
H.							
<i>Total Replacement Cost/(Savings) (PW)</i>		\$0	\$0	\$0	\$0	\$0	\$0
3. Annual Costs (Savings)							
A.	Operating Cost	\$478,672,894	\$134,033,708	\$325,735,697	\$91,209,600	\$298,585,732	\$83,607,309
B.		\$0	\$0	\$0	\$0	\$0	\$0
C.	Net Additional Cost for 2 years Leasing f	\$3,770,000	\$3,770,000	\$3,770,000	\$3,770,000		
D.							
E.							
F.							
G.							
H.							
<i>Total Annual Cost</i>		\$482,442,894	\$137,803,708	\$329,505,697	\$94,979,600	\$298,585,732	\$83,607,309
Grand Total Costs (Savings)		\$877,954,754	\$384,564,126	\$613,365,510	\$265,151,516	\$472,285,351	\$190,599,653
Life Cycle PW Savings (Loss) vs. Lowest Cost Option			-\$119,412,609				-\$15,727,691
Savings (Loss) % vs. Lowest Cost Option			-45.0%				-9.0%

STATE OF WASHINGTON BENEFIT AND LIFE CYCLE COST ANALYSIS SUMMARY	FORM C-3 (Rev 6-01)
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Agency	Department of General Administration	Analysis Type	LCC
Project	Heritage Center - Executive Office Building	Analysis Date	12-8-09
Location	Capitol Campus - Olympia, WA	Analysis By	Craig J. Donald
Economic Life (in Years)	0	Discount Rate	0.00%
		File Name	

Description	HC Site 7		EOB Site 4		EOB Site 12	
	Estimated Cost	Present Worth	Estimated Cost	Present Worth	Estimated Cost	Present Worth
1. Initial Costs						
A. Amortized Cost	\$0	\$0	\$0	\$0	\$0	\$0
B. Cost to Vacate GA Building	\$156,269,526	\$93,498,917	\$82,730,874	\$49,499,396	\$91,417,308	\$54,696,649
C. Cost to Vacate the Dawley Building						
E. Cost to Move the Soils Shed					\$1,000,000	\$907,030
F. Replacement of GA Garage (Above Grade)						
G.						
<i>Total Initial Cost (PW)</i>	\$156,269,526	\$93,498,917	\$82,730,874	\$49,499,396	\$92,417,308	\$55,603,679
<i>Total Initial Cost Difference vs. Lowest Cost Alternative</i>					\$9,686,434	\$6,104,283
2. Replacement/Salvage Cost & Residual Value						
<i>(See appropriate Resid-Repl Sheet)</i>	Year					
A.						
B.						
C.						
D.						
E.						
F.						
G.						
H.						
<i>Total Replacement Cost/(Savings) (PW)</i>	\$0	\$0	\$0	\$0	\$0	\$0
3. Annual Costs (Savings)						
A. Operating Cost	\$290,606,532	\$81,373,045	\$124,203,865	\$34,778,457	\$133,515,466	\$37,385,808
B. Net Additional Cost for 2 years Leasing for GA	\$0	\$0	\$0	\$0	\$0	\$0
C.						
D.						
E.						
F.						
G.						
H.						
<i>Total Annual Cost</i>	\$290,606,532	\$81,373,045	\$124,203,865	\$34,778,457	\$133,515,466	\$37,385,808
Grand Total Costs (Savings)	\$446,876,058	\$174,871,962	\$206,934,739	\$84,277,853	\$225,932,775	\$92,989,487
Life Cycle PW Savings (Loss) vs. Lowest Cost Option						-\$8,711,634
Savings (Loss) % vs. Lowest Cost Option						-10.3%

Cost Estimate Summary Site 1

OFM

150 - Department of General Administration

Cost Estimate Summary

2009-11 Biennium

*

Cost Estimate Number: 269
Cost Estimate Title: Heritage Center - Executive Office Bldg Site #1

Report Number: CBS003
Date Run: 12/4/2009 4:11PM

Contact Info Contact Name: Craig J Donald Contact Number: 360.902.7344

Statistics

Gross Sq. Ft.: 314,708
Usable Sq. Ft.: 267,500
Space Efficiency: 85%
MACC Cost per Sq. Ft.: 415
Escalated MACC Cost per Sq. Ft.: 481
Remodel? No
Construction Type: Other Schedule A Projects
A/E Fee Class: A
A/E Fee Percentage: 5.68%

Schedule	Start Date	End Date
Pre-design:	06-2006	08-2006
Design:	06-2010	04-2011
Construction:	07-2013	08-2015
Duration of Construction (Months):	25	

Cost Summary Escalated

Acquisition Costs Total		0
Pre-Schematic Design Services		0
Construction Documents		5,236,680
Extra Services		(1,188,746)
Other Services		3,283,111
Design Services Contingency		394,104
Consultant Services Total		7,725,149
Site work		13,650,636
Related Project Costs		0
Facility Construction		137,655,328
Construction Contingencies		15,180,496
Non Taxable Items		0
Sales Tax		15,822,313
Construction Contracts Total		201,967,177
Maximum Allowable Construction Cost(MACC)	151,305,964	
Equipment		18,082,029
Non Taxable Items		0
Sales Tax		1,536,972
Equipment Total		19,619,001
Art Work Total		756,530
Other Costs Total		3,648,602
Project Management Total		7,153,640
Grand Total Escalated Costs		240,870,099
Rounded Grand Total Escalated Costs		240,870,000

Additional Details

Alternative Public Works Project: Yes
State Construction Inflation Rate: 3.50%
Base Month and Year: 03-2010
Project Administration By: AGY

Cost Estimate Summary

2009-11 Biennium

*

Cost Estimate Number: 269

Report Number: CBS003

Cost Estimate Title: Heritage Center - Executive Office Bldg Site #1

Date Run: 12/4/2009 4:11PM

Contact Info **Contact Name:** Craig J Donald

Contact Number: 360.902.7344

Additional Details

Project Admin Impact to GA that is NOT Included in Project Total: \$0

Cost Estimate Detail

2009-11 Biennium

*

Cost Estimate Number: 269 **Analysis Date:** December 03, 2009
Cost Estimate Title: Heritage Center - Executive Office Bldg Site #1
Detail Title: HCEOB Site#1
Location: Olympia Washington
Contact Info **Contact Name:** Craig J Donald **Contact Number:** 360.902.7344

Statistics

Gross Sq. Ft.: 314,708
 Usable Sq. Ft.: 267,500
 Rentable Sq. Ft.:
 Space Efficiency: 85%
 Escalated MACC Cost per Sq. Ft.: 481
 Escalated Cost per S. F. Explanation

Construction Type: Other Schedule A Projects
 Remodel? No
 A/E Fee Class: A
 A/E Fee Percentage: 5.68%
 Contingency Rate: 5.00%
 Contingency Explanation

Management Reserve: 5.00%
 Projected Life of Asset (Years):
 Location Used for Tax Rate: Olympia Washingtc
 Tax Rate: 8.50%
 Art Requirement Applies: Yes
 Project Administration by: AGY
 Higher Education Institution?: No
 Alternative Public Works?: Yes

Project Schedule

	<u>Start Date</u>	<u>End Date</u>
Pre-design:	06-2006	08-2006
Design:	06-2010	04-2011
Construction:	07-2013	08-2015
Duration of Construction (Months):	25	
State Construction Inflation Rate:	3.50%	
Base Month and Year:	3-2010	

Project Cost Summary

MACC:	\$ 130,573,681
MACC (Escalated):	\$ 151,305,964
Current Project Total:	\$ 209,342,954
Rounded Current Project Total:	\$ 209,343,000
Escalated Project Total:	\$ 240,870,099
Rounded Escalated Project Total:	\$ 240,870,000

<u>ITEM</u>	<u>Base Amount</u>	<u>Sub Total</u>	<u>Escalation Factor</u>	<u>Escalated Cost</u>
CONSULTANT SERVICES				
<u>Construction Documents</u>				
A/E Basic Design Services	5,117,444			
SubTotal: Construction Documents		5,117,444	1.0233	5,236,680
<u>Extra Services</u>				
Civil Design (Above Basic Services)	105,800			
Geotechnical Investigation	66,100			
Commissioning (Systems Check)	107,600			
Site Survey	26,500			
Testing	39,700			
Voice/Data Consultant	118,200			
Value Engineering Participation & Implementation	15,900			
Constructability Review Participation	15,900			
Environmental Mitigation Services (EIS)	55,500			
Landscape Consultant	132,400			
AV Consultant	72,700			
Acoustic Consultant	59,500			
Cost Reconciliation (GCCM beyond basic services)	132,300			
Communication Consultant	56,500			
Document Reproduction (Construction Docs)	159,400			
ELCCA	66,100			
Elevator Consultant	43,100			
Envelope & Stone Consultant	68,800			
Fire & Life Safety	23,000			
GCCM Participation (beyond basic services)	250,700			
Graphics & Wayfinding	82,500			
Interior Consultant	150,100			
LEED Documentation	175,200			
Special Lighting Consultant	231,400			
Mockups & Investigation	57,700			
Models & Rendering	156,700			
Public Meetings	50,100			
Reimbursables	100,400			
Security and Access Control	92,000			
Utility & Energy Rebates (Research & Applications)	18,800			
Museum Consultant	132,300			
Museum Store Consultant	13,200			
Cafe Food Service Consultant	26,500			
Adjustment for Design Work Already Completed	(4,064,279)			
SubTotal: Extra Services		(1,161,679)	1.0233	(1,188,746)
<u>Other Services</u>				
Bid/Construction/Closeout	2,299,141			
HVAC Balancing	90,000			
Staffing	398,798			
As-Builts Drawings (CAD Only)	36,000			
SubTotal: Other Services		2,823,939	1.1626	3,283,111
<u>Design Services Contingency</u>				
Design Services Contingency	338,985			
SubTotal: Design Services Contingency		338,985	1.1626	394,104
Total: Consultant Services		7,118,689	1.0852	7,725,149

CONSTRUCTION CONTRACTS

<u>Site work</u>				
G10 - Site Preparation	4,513,023			
G20 - Site Improvements	4,368,045			
G30 - Site Mechanical Utilities	2,125,863			
G40 - Site Electrical Utilities	1,163,750			

<u>ITEM</u>	<u>Base Amount</u>	<u>Sub Total</u>	<u>Escalation Factor</u>	<u>Escalated Cost</u>
CONSTRUCTION CONTRACTS				
SubTotal: Site work		12,170,681	1.1216	13,650,636
<u>Facility Construction</u>				
A10 - Foundations	6,760,800			
B10 - Superstructure	24,379,200			
B20 - Exterior Closure	16,805,700			
B30 - Roofing	4,954,900			
C10 - Interior Construction	5,998,900			
C20 - Stairs	1,897,700			
C30 - Interior Finishes	9,255,000			
D10 - Conveying	4,912,800			
D20 - Plumbing Systems	2,434,800			
D30 - HVAC Systems	14,913,500			
D40 - Fire Protection Systems	1,862,000			
D50 - Electrical Systems	14,203,500			
F20 - Selective Demolition	4,048,200			
Reimbursables	4,510,000			
Subcontractor bonds	1,466,000			
SubTotal: Facility Construction		118,403,000	1.1626	137,655,328
Maximum Allowable Construction Cost (MACC)		130,573,681	1.1600	151,305,964
<u>GCCM Risk Contingency</u>				
GCCM Risk Contingency	4,126,000			
SubTotal: GCCM Risk Contingency		4,126,000	1.1626	4,796,888
<u>GCCM or Design Build Costs</u>				
GCCM Fee	4,861,000			
Bid General Conditions	6,952,000			
GCCM Preconstruction Services	970,000			
SubTotal: GCCM or Design Build Costs		12,783,000	1.1626	14,861,516
<u>Construction Contingencies</u>				
Management Reserve	6,528,684			
Allowance for Change Orders	6,528,684			
SubTotal: Construction Contingencies		13,057,368	1.1626	15,180,496
Sales Tax		13,645,904	1.1595	15,822,313
Total: Construction Contracts		174,185,953	1.1595	201,967,177
EQUIPMENT				
E10 - Equipment	13,465,154			
E20 - Furnishings	2,087,942			
SubTotal:		15,553,096	1.1626	18,082,029
Sales Tax		1,322,013	1.1626	1,536,972
Total: Equipment		16,875,109	1.1626	19,619,001
ART WORK				
Project Artwork	756,530			
Total: Art Work		756,530	1.0000	756,530
OTHER COSTS				
Mitigation Costs	708,093			

<u>ITEM</u>	<u>Base Amount</u>	<u>Sub Total</u>	<u>Escalation Factor</u>	<u>Escalated Cost</u>
OTHER COSTS				
Historic and Archeological Mitigation	205,000			
Enhanced Third Person Cx	891,958			
Advertising	5,750			
Permits	652,868			
Plan Checking	424,364			
Special Inspections & Training	290,000			
Historic Structures Report	75,000			
Total: Other Costs		3,253,033	1.1216	3,648,602
PROJECT MANAGEMENT				
Agency Project Management	5,017,533			
IAA with Engineering & Architectural Services	2,136,107			
Total: Project Management		7,153,640	1.0000	7,153,640

Cost Estimate Summary and Detail**2009-11 Biennium**

*

Cost Estimate Number: 269
Cost Estimate Title: Heritage Center - Executive Office Bldg Site #1**Report Number:** CBS003
Date Run: 12/4/2009 4:11PM

<u>Parameter</u>	<u>Entered As</u>	<u>Interpreted As</u>
Associated or Unassociated	Unassociated	Unassociated
Biennium	2009-11	2009-11
Agency	150	150
Version	*	All Versions-All Version Sources
Project Classification	*	All Project Classifications
Capital Project Number	*	All Project Numbers
Cost Estimate Number	269	269
Sort Order	Number	Number
User Group	Agency Budget	Agency Budget
User Id	*	All User Ids

Cost Estimate Summary Site 2

OFM

150 - Department of General Administration

Cost Estimate Summary

2009-11 Biennium

*

Cost Estimate Number: 268
 Cost Estimate Title: Combined Heritage Ctr - Exec. Office Bldg Site #2

Report Number: CBS003
 Date Run: 12/3/2009 2:22PM

Contact Info Contact Name: Craig J Donald Contact Number: 360.902.7344

Statistics

Gross Sq. Ft.: 214,158
 Usable Sq. Ft.: 182,000
 Space Efficiency: 85%
 MACC Cost per Sq. Ft.: 417
 Escalated MACC Cost per Sq. Ft.: 482
 Remodel? No
 Construction Type: Other Schedule A Projects
 A/E Fee Class: A
 A/E Fee Percentage: 6.19%

Schedule

Schedule	Start Date	End Date
Pre-design:	08-2006	04-2010
Design:	06-2010	06-2011
Construction:	07-2013	08-2015
Duration of Construction (Months):	25	

Cost Summary Escalated

Acquisition Costs Total			0
Pre-Schematic Design Services			0
Construction Documents			3,911,592
Extra Services			2,252,390
Other Services			3,095,204
Design Services Contingency			503,924
Consultant Services Total			97,467,110
Site work			13,650,636
Related Project Costs			0
Facility Construction			89,606,116
Construction Contingencies			10,375,575
Non Taxable Items			0
Sales Tax			10,673,514
Construction Contracts Total			164,219,701
Maximum Allowable Construction Cost x ACC3		106,254,752	
Equipment			18,082,029
Non Taxable Items			0
Sales Tax			1,536,972
Equipment Total			19,619,001
Art Work Total			514,700
Other Costs Total			27,910,400
Project Management Total			47,957,000
Grand Total Escalated Costs			1,571,667,644
Rounded Grand Total Escalated Costs			1,571,667,000

Additional Details

Alternative Public Works Project: Yes
 State Construction Inflation Rate: 3.50%
 Base Month and Year: 03-2010
 Project Administration By: AGY

Cost Estimate Summary

2009-11 Biennium

*

Cost Estimate Number: 268**Report Number:** CBS003**Cost Estimate Title:** Combined Heritage Ctr - Exec. Office Bldg Site #2**Date Run:** 12/3/2009 2:22PM**Contact Info****Contact Name:** Craig J Donald**Contact Number:** 360.902.7344**Additional Details**

Project Admin Impact to GA that is NOT Included in Project Total: \$0

Cost Estimate Detail

2009-11 Biennium

*

Cost Estimate Number: 268 **Analysis Date:** December 03, 2009
Cost Estimate Title: Combined Heritage Ctr - Exec. Office Bldg Site #2
Detail Title: HCEOB Site#2
Location: Olympia Washington
Contact Info **Contact Name:** Craig J Donald **Contact Number:** 360.902.7344

Statistics

Gross Sq. Ft.: 214,158
 Usable Sq. Ft.: 182,000
 Rentable Sq. Ft.:
 Space Efficiency: 85%
 Escalated MACC Cost per Sq. Ft.: 482
 Escalated Cost per S. F. Explanation

Construction Type: Other Schedule A Projects
 Remodel? No
 A/E Fee Class: A
 A/E Fee Percentage: 6.19%
 Contingency Rate: 5.00%
 Contingency Explanation

Management Reserve: 5.00%
 Projected Life of Asset (Years):
 Location Used for Tax Rate: Olympia Washingtc
 Tax Rate: 8.50%
 Art Requirement Applies: Yes
 Project Administration by: AGY
 Higher Education Institution?: No
 Alternative Public Works?: Yes

Project Schedule

	<u>Start Date</u>	<u>End Date</u>
Predesign:	08-2006	04-2010
Design:	06-2010	06-2011
Construction:	07-2013	08-2015
Duration of Construction (Months):	25	
State Construction Inflation Rate:	3.50%	
Base Month and Year:	3-2010	

Project Cost Summary

MACC:	\$ 89,244,581
MACC (Escalated):	\$ 103,256,752
Current Project Total:	\$ 152,836,435
Rounded Current Project Total:	\$ 152,836,000
Escalated Project Total:	\$ 175,133,366
Rounded Escalated Project Total:	\$ 175,133,000

<u>ITEx</u>	<u>Base Amount</u>	<u>Sub Total</u>	<u>Escalation Factor</u>	<u>Escalated Cost</u>
C8 NSULTANT SERVICES				
<u>Construction Documents</u>				
A/E Basic Design Services	3,811,725			
SubTotal: Construction Documents		670117,25	1.0262	679117592
<u>Extra Services</u>				
Civil Design (Above Basic Services)	80,000			
Geotechnical Investigation	50,000			
Commissioning (Systems Check)	81,373			
Site Survey	20,000			
Testing	30,000			
Voice/Data Consultant	89,409			
Value Engineering Participation & Implementation	12,000			
Constructability Review Participation	12,000			
Environmental Mitigation Services (EIS)	42,000			
Landscape Consultant	100,120			
AV Consultant	55,000			
Acoustic Consultant	45,000			
Cost Reconciliation (GCCM beyond basic services)	100,000			
Communication Consultant	42,700			
Document Reproduction (Construction Docs)	120,552			
ELCCA	50,000			
Elevator Consultant	32,600			
Envelope & Stone Consultant	52,000			
Fire & Life Safety	17,400			
GCCM Participation (beyond basic services)	189,560			
Graphics & Wayfinding	62,400			
Interior Consultant	113,520			
LEED Documentation	132,500			
Special Lighting Consultant	175,000			
Mockups & Investigation	43,600			
Models & Rendering	118,500			
Public Meetings	37,900			
Reimbursables	75,900			
Security and Access Control	69,600			
Utility & Energy Rebates (Research & Applications)	14,250			
Museum Consultant	100,000			
Museum Store Consultant	10,000			
Cafe Food Service Consultant	20,000			
SubTotal: Extra Services		27191000	1.0262	27252790
<u>Other Services</u>				
Bid/Construction/Closeout	1,712,514			
HVAC Balancing	90,000			
Staffing	398,798			
As-Builts Drawings (CAD Only)	65,000			
Enhanced Construction Administration	396,000			
SubTotal: Other Services		27427612	1.1626	6795720M
<u>Design Services Contingency</u>				
Design Services Contingency	433,446			
SubTotal: Design Services Contingency		166700	1.1626	506792M
Total: Consultant Services		97102764,	1.0726	97,467110

C8 NSTRUCTION C8 NTRACTS

Site work

G10 - Site Preparation	4,513,023
G20 - Site Improvements	4,368,045
G30 - Site Mechanical Utilities	2,125,863
G40 - Site Electrical Utilities	1,163,750

<u>ITEx</u>	<u>Base Amount</u>	<u>Sub Total</u>	<u>Escalation Factor</u>	<u>Escalated Cost</u>
C8 NSTRUCTI8 N C8 NTRACTS				
SubTotal: Site (ork)		1271,0701	1.1216	167450764
<u>Facility Construction</u>				
A10 - Foundations	2,814,800			
A20 - Basement Construction	5,823,600			
B10 - Superstructure	9,718,700			
B20 - Exterior Closure	9,100,300			
B30 - Roofing	2,295,600			
C10 - Interior Construction	8,697,500			
C20 - Stairs	400,200			
C30 - Interior Finishes	5,272,700			
D10 - Conveying	1,048,100			
D20 - Plumbing Systems	1,341,800			
D30 - HVAC Systems	11,290,700			
D40 - Fire Protection Systems	1,082,300			
D50 - Electrical Systems	10,423,400			
F20 - Selective Demolition	4,048,200			
Reimbursables	2,949,000			
Subcontractor bonds	767,000			
SubTotal: Facility Construction		70,6700	1.1626	97404714
x avimum Allo(able Construction Cost)x ACC3		92MM501	1.1600	10672547, 52
<u>GCCM Risk Contingency</u>				
GCCM Risk Contingency	2,677,337			
SubTotal: GCCx Risk Contingency		274,766,	1.1626	6711274, 2
<u>GCCM or Design Build Costs</u>				
GCCM Fee	3,976,000			
Bid General Conditions	3,001,131			
GCCM Preconstruction Services	614,266			
SubTotal: GCCx or Design Build Costs		7591769,	1.1626	970257, 50
<u>Construction Contingencies</u>				
Management Reserve	4,462,229			
Allowance for Change Orders	4,462,229			
SubTotal: Construction Contingencies		922MM50	1.1626	1076, 575, 5
Sales Tax		921, 7211	1.1580	1074, 6751M
Total: Construction Contracts		11, 745M90M	1.1580	1642MM2, 1
EQUIPx ENT				
E10 - Equipment	13,465,154			
E20 - Furnishings	2,087,942			
SubTotal:		157567094	1.1626	107027029
Sales Tax		176227016	1.1626	1756479, 2
Total: Equipment		1470, 57109	1.1626	1974197001
ART W8 RK				
Project Artwork	516,284			
Total: Art Work		51420M	1.0000	51420M
8 THER C8 STS				

<u>ITEx</u>	<u>Base Amount</u>	<u>Sub Total</u>	<u>Escalation Factor</u>	<u>Escalated Cost</u>
8 THER C8 STS				
Mitigation Costs	321,237			
Historic and Archeological Mitigation	205,000			
Enhanced Third Person Cx	632,355			
Special Inspections (Code Required)	102,355			
HazMat Good Faith Survey (Visitor Center)	2,000			
Advertising	5,750			
Permits	588,275			
Plan Checking	382,379			
Special Inspections & Training	177,500			
Historic Structures Report	75,000			
Total: 8 ther Costs		27917051	1.1216	27,917,040
PR8 JECT x ANAGEx ENT				
Agency Project Management	4,341,634			
IAA with Engineering & Architectural Services	1,854,206			
Total: Project x anagement		47195700	1.0000	47195700

Cost Estimate Summary and Detail

2009-11 Biennium

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Cost Estimate Number: 268
Cost Estimate Title: Combined Heritage Ctr - Exec. Office Bldg Site #2

Report Number: CBS003
Date Run: 12/3/2009 2:22PM

<u>Parameter</u>	<u>Entered As</u>	<u>Interpreted As</u>
Associated or Unassociated	Unassociated	Unassociated
Biennium	2009-11	2009-11
Agency	150	150
Version	*	All Versions-All Version Sources
Project Classification	*	All Project Classifications
Capital Project Number	*	All Project Numbers
Cost Estimate Number	268	268
Sort Order	Number	Number
User Group	Agency Budget	Agency Budget
User Id	*	All User Ids

Cost Estimate Summary Site 3

OFM

150 - Department of General Administration

Cost Estimate Summary

2009-11 Biennium

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Cost Estimate Number: 271
 Cost Estimate Title: Heritage Center and Garage at Site#3

Report Number: CBS003
 Date Run: 12/3/2009 4:18PM

Contact Info Contact Name: Craig J Donald Contact Number: 360.902.7344

Statistics

Gross Sq. Ft.: 196,308
 Usable Sq. Ft.: 133,145
 Space Efficiency: 68%
 MACC Cost per Sq. Ft.: 287
 Escalated MACC Cost per Sq. Ft.: 317
 Remodel? No
 Construction Type: Varies
 A/E Fee Class: Varies
 A/E Fee Percentage: Varies

Schedule	Start Date	End Date
Pre-design:	08-2006	04-2010
Design:	06-2010	06-2011
Construction:	01-2012	02-2014
Duration of Construction (Months):	25	

Cost Summary Escalated

Acquisition Costs Total			0
Pre-Schematic Design Services		45,627	
Construction Documents		2,782,041	
Extra Services		2,252,390	
Other Services		1,853,941	
Design Services Contingency		366,049	
Consultant Services Total			7,400,06M
Site work		4,907,300	
Related Project Costs		0	
Facility Construction		57,230,686	
Construction Contingencies		6,231,718	
Non Taxable Items		0	
Sales Tax		6,442,425	
Construction Contracts Total			M2,245,xx1
wa(imum Allo) able Construction Cost3wACCW	x2,147,9Mk		
Equipment		16,008,821	
Non Taxable Items		0	
Sales Tax		1,360,750	
Equipment Total			17,4x9,571
Art k orOTotal			2M,149
8 ther Costs Total			1,6x4,77M
Project management Total			4, M66,255
Grand Total Escalated Costs			112,696,652
Rounded Grand Total Escalated Costs			112,696,000

Additional Details

Alternative Public Works Project: Yes
 State Construction Inflation Rate: 3.50%
 Base Month and Year: 03-2010
 Project Administration By: AGY

Cost Estimate Summary

2009-11 Biennium

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Cost Estimate Number: 271**Report Number:** CBS003**Cost Estimate Title:** Heritage Center and Garage at Site#3**Date Run:** 12/3/2009 4:18PM**Contact Info** **Contact Name:** Craig J Donald**Contact Number:** 360.902.7344**Additional Details**

Project Admin Impact to GA that is NOT Included in Project Total: \$0

Cost Estimate Detail

2009-11 Biennium

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Cost Estimate Number: 271 **Analysis Date:** December 03, 2009
Cost Estimate Title: Heritage Center and Garage at Site#3
Detail Title: Heritage Center Site#3
Location: Olympia Washington
Contact Info **Contact Name:** Craig J Donald **Contact Number:** 360.902.7344

Statistics

Gross Sq. Ft.: 142,896
 Usable Sq. Ft.: 83,145
 Rentable Sq. Ft.:
 Space Efficiency: 58%
 Escalated MACC Cost per Sq. Ft.: 393
 Escalated Cost per S. F. Explanation

Construction Type: Other Schedule A Projects
 Remodel? No
 A/E Fee Class: A
 A/E Fee Percentage: 6.94%
 Contingency Rate: 5.00%
 Contingency Explanation

Management Reserve: 5.00%
 Projected Life of Asset (Years):
 Location Used for Tax Rate: Olympia Washingtc
 Tax Rate: 8.50%
 Art Requirement Applies: Yes
 Project Administration by: AGY
 Higher Education Institution?: No
 Alternative Public Works?: Yes

Project Schedule

	<u>Start Date</u>	<u>End Date</u>
Pre-design:	08-2006	04-2010
Design:	06-2010	06-2011
Construction:	01-2012	02-2014
Duration of Construction (Months):	25	
State Construction Inflation Rate:	3.50%	
Base Month and Year:	3-2010	

Project Cost Summary

MACC:	\$ 51,084,096
MACC (Escalated):	\$ 56,227,866
Current Project Total:	\$ 95,228,844
Rounded Current Project Total:	\$ 95,229,000
Escalated Project Total:	\$ 104,112,679
Rounded Escalated Project Total:	\$ 104,113,000

<u>ITEw</u>	<u>Base Amount</u>	<u>Sub Total</u>	<u>Escalation Factor</u>	<u>Escalated Cost</u>
C8 NSULTANT SERVICES				
<u>Pre-Schematic Design Services</u>				
GeoTech	45,233			
SubTotal: Pre-Schematic Design Services		65,244	1.0087	65,x27
<u>Construction Documents</u>				
A/E Basic Design Services	2,446,213			
SubTotal: Construction Documents		2,66x,214	1.0262	2,510,406
<u>Extra Services</u>				
Civil Design (Above Basic Services)	80,000			
Geotechnical Investigation	50,000			
Commissioning (Systems Check)	81,373			
Site Survey	20,000			
Testing	30,000			
Voice/Data Consultant	89,409			
Value Engineering Participation & Implementation	12,000			
Constructability Review Participation	12,000			
Environmental Mitigation Services (EIS)	42,000			
Landscape Consultant	100,120			
AV Consultant	55,000			
Acoustic Consultant	45,000			
Cost Reconciliation (GCCM beyond basic services)	100,000			
Communication Consultant	42,700			
Document Reproduction (Construction Docs)	120,552			
ELCCA	50,000			
Elevator Consultant	32,600			
Envelope & Stone Consultant	52,000			
Fire & Life Safety	17,400			
GCCM Participation (beyond basic services)	189,560			
Graphics & Wayfinding	62,400			
Interior Consultant	113,520			
LEED Documentation	132,500			
Special Lighting Consultant	175,000			
Mockups & Investigation	43,600			
Models & Rendering	118,500			
Public Meetings	37,900			
Reimbursables	75,900			
Security and Access Control	69,600			
Utility & Energy Rebates (Research & Applications)	14,250			
Museum Consultant	100,000			
Museum Store Consultant	10,000			
Cafe Food Service Consultant	20,000			
SubTotal: E(tra Services		2,196,MM6	1.0262	2,252,490
<u>Other Services</u>				
Bid/Construction/Closeout	1,099,023			
As-Builts Drawings (CAD Only)	65,000			
Enhanced Construction Administration	396,000			
SubTotal: Other Services		1,5x0,024	1.1042	1,722,577
<u>Design Services Contingency</u>				
Design Services Contingency	312,318			
SubTotal: Design Services Contingency		412,41M	1.1042	466,Mx2
Total: Consultant Services		x,55Mx71	1.0483	x,M75,7x0
C8 NSTRUCTI8 N C8 NTRACTS				
<u>Site work</u>				
G10 - Site Preparation	1,299,781			
G20 - Site Improvements	582,066			

<u>ITEw</u>	<u>Base Amount</u>	<u>Sub Total</u>	<u>Escalation Factor</u>	<u>Escalated Cost</u>
C8 NSTRUCTI8 N C8 NTRACTS				
G30 - Site Mechanical Utilities	1,917,243			
G40 - Site Electrical Utilities	807,406			
SubTotal: Site) orO		6,x0x,69x	1.0653	6,907,400
<u>Facility Construction</u>				
A10 - Foundations	1,623,600			
A20 - Basement Construction	1,271,800			
B10 - Superstructure	7,885,600			
B20 - Exterior Closure	8,576,900			
B30 - Roofing	2,779,300			
C10 - Interior Construction	4,542,600			
C20 - Stairs	347,100			
C30 - Interior Finishes	2,347,500			
D10 - Conveying	806,700			
D20 - Plumbing Systems	683,800			
D30 - HVAC Systems	6,811,200			
D40 - Fire Protection Systems	790,900			
D50 - Electrical Systems	5,782,600			
Reimbursables	1,768,000			
Subcontractor bonds	460,000			
SubTotal: Facility Construction		6x,677,x00	1.1042	51,420,5xx
wa (imum Allo) able Construction Cost 3wACCW		51,0M6,09x	1.1000	5x,227,Mxx
<u>GCCM Risk Contingency</u>				
GCCM Risk Contingency	1,533,000			
SubTotal: GCCw RisOContingency		1,544,000	1.1042	1,x92,749
<u>GCCM or Design Build Costs</u>				
GCCM Fee	2,384,000			
Bid General Conditions	1,799,509			
GCCM Preconstruction Services	368,320			
SubTotal: GCCw or Design Build Costs		6,551,M29	1.1042	5,02x,140
<u>Construction Contingencies</u>				
Management Reserve	2,554,205			
Allowance for Change Orders	2,554,205			
SubTotal: Construction Contingencies		5,10M610	1.1042	5,x60,70x
Sales Ta(		5,294,572	1.1013	5,M29,944
Total: Construction Contracts		x7,570,907	1.1013	76,617,476
EQUIPwENT				
E10 - Equipment	13,068,800			
E20 - Furnishings	1,429,317			
SubTotal:		16,69M117	1.1042	1x,00MM21
Sales Ta(		1,242,460	1.1042	1,4x0,750
Total: Equipment		15,740,657	1.1042	17,4x9,571
ART k 8 RK				
Project Artwork	281,139			
Total: Art k orO		2Ml,149	1.0000	2Ml,149

<u>ITEw</u>	<u>Base Amount</u>	<u>Sub Total</u>	<u>Escalation Factor</u>	<u>Escalated Cost</u>
8 THER C8 STS				
Mitigation Costs	214,344			
Enhanced Third Person Cx	398,684			
Special Inspections (Code Required)	102,355			
HazMat Good Faith Survey (Visitor Center)	2,000			
Advertising	5,750			
Permits	337,855			
Plan Checking	181,973			
Total: 8 ther Costs		1,262,9x1	1.0653	1,426,12x
PR8 JECT wANAGEwENT				
Agency Project Management	3,343,414			
IAA with Engineering & Architectural Services	501,295			
Total: Project wamagement		4,M66,709	1.0000	4,M66,709

Cost Estimate Detail

2009-11 Biennium

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Cost Estimate Number: 271 **Analysis Date:** December 03, 2009
Cost Estimate Title: Heritage Center and Garage at Site#3
Detail Title: Parking Garage for Site#3
Location: Olympia Washington
Contact Info **Contact Name:** Craig J Donald **Contact Number:** 360.902.7344

Statistics

Gross Sq. Ft.: 53,412
 Usable Sq. Ft.: 50,000
 Rentable Sq. Ft.:
 Space Efficiency: 94%
 Escalated MACC Cost per Sq. Ft.: 111
 Escalated Cost per S. F. Explanation

Construction Type: Parking Structures and Garages
 Remodel? No
 A/E Fee Class: C
 A/E Fee Percentage: 7.17%
 Contingency Rate: 5.00%
 Contingency Explanation

Management Reserve: 5.00%
 Projected Life of Asset (Years):
 Location Used for Tax Rate: Olympia Washingtc
 Tax Rate: 8.50%
 Art Requirement Applies: No
 Project Administration by: AGY
 Higher Education Institution?: No
 Alternative Public Works?: Yes

Project Schedule

	<u>Start Date</u>	<u>End Date</u>
Pre-design:	08-2006	04-2010
Design:	06-2010	06-2011
Construction:	01-2012	02-2014
Duration of Construction (Months):	25	
State Construction Inflation Rate:	3.50%	
Base Month and Year:	3-2010	

Project Cost Summary

MACC:	\$ 5,352,400
MACC (Escalated):	\$ 5,910,120
Current Project Total:	\$ 7,614,093
Rounded Current Project Total:	\$ 7,614,000
Escalated Project Total:	\$ 8,381,773
Rounded Escalated Project Total:	\$ 8,382,000

<u>ITEw</u>	<u>Base Amount</u>	<u>Sub Total</u>	<u>Escalation Factor</u>	<u>Escalated Cost</u>
C8 NSULTANT SERVICES				
<u>Construction Documents</u>				
A/E Basic Design Services	264,799			
SubTotal: Construction Documents		2x6,799	1.0262	271,747
<u>Other Services</u>				
Bid/Construction/Closeout	118,968			
SubTotal: Other Services		11M9xM	1.1042	141,4x6
<u>Design Services Contingency</u>				
Design Services Contingency	19,188			
SubTotal: Design Services Contingency		19,1MM	1.1042	21,1M7
Total: Consultant Services		602,955	1.0529	626,2MM
C8 NSTRUCTI8 N C8 NTRACTS				
<u>Facility Construction</u>				
A10 - Foundations	696,300			
A20 - Basement Construction	1,461,700			
B10 - Superstructure	1,425,200			
B20 - Exterior Closure	297,900			
B30 - Roofing	26,800			
C10 - Interior Construction	179,500			
C20 - Stairs	88,000			
C30 - Interior Finishes	102,800			
D20 - Plumbing Systems	29,900			
D50 - Electrical Systems	253,200			
D30 - HVAC Systems	298,300			
D40 - Fire Protection Systems	259,800			
Reimbursables	185,000			
Subcontractor bonds	48,000			
SubTotal: Facility Construction		5,452,600	1.1042	5,910,120
wa(imum Allo) able Construction Cost 3wACCW		5,452,600	1.1000	5,910,120
<u>GCCM Risk Contingency</u>				
GCCM Risk Contingency	161,000			
SubTotal: GCCw RisOContingency		1x1,000	1.1042	177,77x
<u>GCCM or Design Build Costs</u>				
GCCM Fee	250,000			
Bid General Conditions	188,571			
GCCM Preconstruction Services	38,595			
SubTotal: GCCw or Design Build Costs		677,1xx	1.1042	52x,MM7
<u>Construction Contingencies</u>				
Management Reserve	267,620			
Allowance for Change Orders	267,620			
SubTotal: Construction Contingencies		545,260	1.1042	591,012
Sales Ta(		556,x96	1.1042	x12,692
Total: Construction Contracts		7,0MD,500	1.1042	7,MM2M7
8 THER C8 STS				
Mitigation Costs	72,677			
Permits	35,403			
Plan Checking	23,012			

<u>ITEw</u>	<u>Base Amount</u>	<u>Sub Total</u>	<u>Escalation Factor</u>	<u>Escalated Cost</u>
8 THER C8 STS				
Total: 8 ther Costs		141,092	1.0653	149,x52
PR8 JECT wANAGEwENT				
Agency Project Management	294,396			
Adjustment to Zero	(294,850)			
Total: Project management		356W	1.0000	356W

Cost Estimate Summary and Detail

2009-11 Biennium

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Cost Estimate Number: 271
Cost Estimate Title: Heritage Center and Garage at Site#3

Report Number: CBS003
Date Run: 12/3/2009 4:18PM

<u>Parameter</u>	<u>Entered As</u>	<u>Interpreted As</u>
Associated or Unassociated	Unassociated	Unassociated
Biennium	2009-11	2009-11
Agency	150	150
Version	*	All Versions-All Version Sources
Project Classification	*	All Project Classifications
Capital Project Number	*	All Project Numbers
Cost Estimate Number	271	271
Sort Order	Number	Number
User Group	Agency Budget	Agency Budget
User Id	*	All User Ids

Cost Estimate Summary Site 4

OFM

150 - Department of General Administration

Cost Estimate Summary

2009-11 Biennium

*

Cost Estimate Number: 266
 Cost Estimate Title: Heritag - Her St gov 3gr Cf

Report Number: BS3004
 Date Run: 12/4/2009 1:14PM

Contact Info Contact Name: Bldg # J Ddx Contact Number: 4609020 4ff

Statistics

8IDGG3soqæ 71,6P9
 FGUx 3soqæ P1,. 00
 35dir HEG ui % 64b
 CpBB BDG5rI 3soqæ 464
 HG dxac CpBB BDG5rI 3soqæ 491
 yrADcræ ?D
 BDGiti adu m%r: - arI 3i Trct x p MDNi aG
 p/H qrr BxGG p
 p/H qrr Mliruatvr: . 69b

Schedule	Start Date	End Date
Mrcr Gy:	07/2006	01/2010
Jr Gy:	04/2010	02/2011
BDGiti adu:	09/2011	06/2014
Jt l adu DEBDGiti adu jC DufG:	2P	

Cost Summary Escalated

Acquisition Costs Total		0
Mrb Tr Adaj Jr Gy 3r Ingr G	1. P,000	
BDGiti adu J D t AruaG	1,99,. 21	
Head 3r Ingr G	1,66P,41f	
- arI 3r Ingr G	1,071,P76	
Jr Gy 3r Ingr G BDGiti adu vr ui %	241,P7P	
Consultant Services Total		7,456,204
3gr) Dw	2,44f ,2. 4	
yr dxac MDNi aBDGG	0	
qdi gg%BDGiti adu	29,P97,696	
BDGiti adu BDGiti adu vr ui %	4,201,717	
? Du mdedUx kr AG	0	
3dx Grde	4,410,P97	
Construction Contracts Total		72,25MM29
x awimum Allo(able Construction Cost)x ACC3	61,962,949	
Hst GAr ua	1,147,422	
? Du mdedUx kr AG	0	
3dx Grde	96,. P.	
Equipment Total		1,265,0V0
Art k orOTotal		159,445
8 ther Costs Total		MM9,056
Project x anagement Total		2,455,705
Grand Total Escalated Costs		51,MM1,26W
Rounded Grand Total Escalated Costs		51,MM1,000

Additional Details

pæ ludaqr Mt Uq l DwGMDNi a Wf G
 3ada BDGiti adu kuEdaDu y da: 4P0b
 SdG C Duf duc W dl: 04/2010
 MDNi apcA gada S% p8 W

Cost Estimate Summary

2009-11 Biennium

*

Cost Estimate Number: 266

Report Number: BS3004

Cost Estimate Title: Herit agr - Hgr St gcgv 3gr Cf

Date Run: 12/4/2009 1:P4MC

Contact Info Contact Name: Bldg # J Ddx

Contact Number: 460002o 4f f

Additional Details

MDNi apcA gu kA 5di aad8 p adagS? - mkui x cr c gu MDNi amDdx Y0

Cost Estimate Detail

2009-11 Biennium

*

Cost Estimate Number: 266 Analysis Date: JrirAUr1 04, 2009
 Cost Estimate Title: Heritagr - Hgr Stgcgv 3gr Cf
 Detail Title: 3gr Cf
 Location: - %A5gl l dGgivaDu
 Contact Info Contact Name: Bldg # J Dudc Contact Number: 460@02o 4f f

Statistics

8IDGG3soqæ 71,6P9
 FGiUx 3soqæ P1,. 00
 yruaUx 3soqæ
 35dir HEG ui % 64b
 HG dxæ c CpBB BDGa5r l 3soqæ 491
 HG dxæ c BDGa5r l 3oqoHe5xdudaDu

BDuGti aDu m%r: - aTr l 3i Trct x p MDNi æG
 yr ADcr R ? D
 p/H qrr Bx l GG P
 p/H qrr M l i ruavr: . 69b
 BDuavr ui %y da: P00b
 BDuavr ui %He5xdudaDu

Cdudvr Ar uay r G lnr: P00b
 MDNi æ c \$gr DEp GG ajW dl G:
 \$D dæ Du FG c E l mde y da: - %A5gl l dGgiva
 mde y da: 7@P0b
 play rst gr Ar uap 55x G W G
 MDNi apc Ag G dæ Du U% p8 W
 L y Tr l Hct i dæ Du ku Gæ a Du R ? D
 px l u dæ nr M Uj l D W GR W G

Project Schedule	Start Date	End Date
M r cr Gy u:	07f2006	01f2010
J r Gy u:	04f2010	02f2011
BDuGti aDu:	0Pf2011	06f2014
J t l dæ Du DEBDuGti aDu j C Du a T G:	2P	
3æ dæ BDuGti aDu ku E dæ Du y da:	4@P0b	
SdG C Du a T duc W dl:	4f2010	

Project Cost Summary

CpBB: Y 29,6. 4,94.
 CpBB jHG dxæ c(: Y 41,942,969
 Bt l l r ua MDNi an Dæ x Y f 7,PP2,2P7
 y D t ucr c Bt l l r ua MDNi an Dæ x Y f 7,PP2,000
 HG dxæ c MDNi an Dæ x Y P1,741,24.
 y D t ucr c HG dxæ c MDNi an Dæ x Y P1,741,000

<u>ITEx</u>	<u>Base Amount</u>	<u>Sub Total</u>	<u>Escalation Factor</u>	<u>Escalated Cost</u>
C8 NSULTANT SERVICES				
<u>Mr B i Tr A dai Jr Gy u 3r Ingr G</u>				
8 r Dm i T	1, P,000			
SubTotal: Pre-Schematic Design Services		1W5,000	10000	1W5,000
<u>B Du G i a Du J D i t A r u a G</u>				
p/H Sd G j Jr Gy u 3r Ingr G	1, P, f ,P29			
SubTotal: Construction Documents		1,5W7,529	10160	1,599, W21
<u>Head 3r Ingr G</u>				
B g g Jr Gy u j p U n r S d G j 3r Ingr G	120, P P2			
8 r D r i T u g d x k u n r G y d a Du	100,000			
B D A A G G D u g v j 3 % G r A G B T r i w (	42, f 20			
3 g r 3 t l n r %	17, . P0			
m r G y v	100,000			
V D j r / J d a l B D u G x d u a	f 2, P60			
V d x r H u v g r r l g u v M l a j t d a Du & k A 5 x A r u a l a Du	12,200			
B D u G i a l u g g y r n g) M l a j t d a Du	12,200			
H u n g D u A r u a l x C y d a Du 3r Ingr G j H K (	. f ,4f 0			
\$ d u c G d 5 r B D u G x d u a	24P,000			
p V B D u G x d u a	22, . P0			
p i D t G j B D u G x d u a	2. ,700			
B D G a y r i D u i g g l a Du j 8 B B C U r % D u c U d G j G Ingr G	P2, f 60			
B D A A t u g d a Du B D u G x d u a	46,000			
J D i t A r u a y r 5 l D c t i a Du j B D u G i a Du J D i G	. P, P00			
H \$ B B p	4P,000			
H x n d a l B D u G x d u a	20,000			
H u n r x D 5 r & 3 a D u r B D u G x d u a	40,000			
q g r & \$ g r 3 d E a %	1P,000			
8 B B C M l a j t d a Du j U r % D u c U d G j G Ingr G	4P,000			
8 l d 5 T g G & l d % g u c g v	f 7,600			
k u a l G l B D u G x d u a	6P,200			
\$ H H J J D i t A r u a l a Du	. 2,410			
3 5 r i g l x \$ y T a y v B D u G x d u a	4P,000			
C D i w t 5 G & k u n r G y d a Du	f 0,000			
C D c r x G & y r u c r l g u v	f 0,000			
M t U g j C r r a y v G	17,000			
y r g A U l G l U r G	P1,6f 2			
3 r i t l g l d u c p i i r G B B d a l D x	f 2,4. 9			
F a g g % H u r l v % y r U d a G j y r G d l i T & p 5 5 x j d a Du G	10,000			
p l U D G a	20,000			
SubTotal: Extra Services		1,570,446	10160	1,545,617
<u>- a l r l 3r Ingr G</u>				
S g / B D u G i a Du / B x D G D t a	. 0. ,49.			
p G S t g G J l d) g u v G j B p J - u %	f P,000			
H u T d u i r c B D u G i a Du p c A g u G d a Du	2P0,000			
SubTotal: 8 ther Services		1,002,69W	10. 90	1,0M1,5M4
<u>J r Gy u 3r Ingr G B D u a y v r u i %</u>				
J r Gy u 3r Ingr G B D u a y v r u i %	21f ,629			
SubTotal: Design Services Contingency		217,429	10. 90	261,5M5
Total: Consultant Services		7,50W21M	1042f	7,456,204

C8 NSTRUCTI8 N C8 NTRACTS				
<u>3 g r) D l w</u>				
8 10 h 3 g r M r 5 l d a Du	1f 0,04.			
8 20 h 3 g r k A 5 l D n r A r u a G	21f ,94P			
8 40 h 3 g r C r i T d u g d x F a g g y G	1,416,P10			
8 f 0 h 3 g r H x i d g d x F a g g y G	P. 0,7PP			

ITEx	Base Amount	Sub Total	Escalation Factor	Escalated Cost
C8 NSTRUCTI8 N C8 NTRACTS				
SubTotal: Site (orO		2,272,66W	10f 10	2,667,2V6
gdi cc%BDuGti aDu				
p10 hqD ucdaDuG	. 17,f 00			
S10 h3t 5rIGti aIr	4,779,700			
S20 hHear lD BDCG Ir	6,7P4,900			
S40 hy DCGuv	1,P67,f 00			
B10 hkuar lD BDuGti aDu	2,72. ,P00			
B20 h3adG	24P,900			
B40 hkuar lD qgGTr G	2,471,f 00			
J 10 hBDunr %uv	PP0,900			
J 20 hM A Uuv 3%Cr AG	P01,400			
J 40 hL VpB 3%Cr AG	2,944,600			
Jf 0 hqqr M Dri aDu 3%Cr AG	4P4,700			
J P0 hHx i ag dx3%Cr AG	4,422,. 00			
y r A U lG Ux G	1,02. ,000			
3t U Duadi aD UducG	26. ,000			
SubTotal: Facility Construction		2W761,400	10. 90	29,59M494
x awimum Allo(able Construction Cost)x ACC3		29,4V6,96W	10700	61,962,949
8 BBC y GwBDuuvr ui %				
8 BBC y GwBDuuvr ui %	790,000			
SubTotal: GCCx RisOContingency		M80,000	10. 90	940,610
8 BBC D l Jr Gy u St gc BDGG				
8 BBC qrr	1,47P,000			
Sg 8 rur ldxBDucgDuG	1,0f P,292			
8 BBC Mri DuGti aDu 3r lnr G	214,9f .			
SubTotal: GCCx or Design Build Costs		2,477,269	10. 90	2,M66,167
BDuGti aDu BDuuvr ui gG				
Cduvvr Ar uayr G lnr	1,f 74,69.			
p xD dui r B l BTduvr - lcr lG	1,f 74,69.			
SubTotal: Construction Contingencies		2,94W697	10. 90	6,201,MM
Sales Tax		6,0W7,926	10. 66	6,610,59M
Total: Construction Contracts		69,250,796	10. 66	72,25MM29
EQUIPx ENT				
H10 hHst GAr ua	496,4Pf			
H20 hqt lugGuvG	6P7,62P			
SubTotal:		1,057,9V0	10. 90	1,16M622
Sales Tax		M8,4V6	10. 90	94, V6W
Total: Equipment		1,177,452	10. 90	1,265,0V0
ART k 8 RK				
MDNi apla Dw	1P9,66P			
Total: Art k orO		159,445	10000	159,445
8 THER C8 STS				
Cgy daDu BDGG	122,f 79			
HuTdui r c mTgc M lG Du Be	414,P20			

<u>ITEx</u>	<u>Base Amount</u>	<u>Sub Total</u>	<u>Escalation Factor</u>	<u>Escalated Cost</u>
8 THER C8 STS				
35ri gixkuGri aDuGjBDcr yrst grc(	. P,000			
Mr IA gG	196,2P2			
Mdu BTr i wgv	12. ,P6f			
Total: 8 ther Costs		M67,M25	10f 10	M9,056
PR8 JECT x ANAGEx ENT				
pvr ui %MDNi aCdudvr Ar ua	2,00f ,1f 4			
kp p) gT Huvgr rlgv & pli Tgr i d ldx3r lng r G	6P1,262			
Total: Project x anagement		2,455,705	10000	2,455,705

Cost Estimate Summary and Detail

2009-11 Biennium

*

Cost Estimate Number: 266
 Cost Estimate Title: Heritage - Executive Office Building

Report Number: BS3004
 Date Run: 12/4/2009 1:14PM

<u>Parameter</u>	<u>Entered As</u>	<u>Interpreted As</u>
pGDI glac Di FudGDI glac	FudGDI glac	FudGDI glac
Sg uug A	2009m1	2009m1
pvr ui %	1P0	1P0
VrIGDu	*	p*xVrIGDuGp*xVrIGDu 3DlirG
MDNi aBxGDI glac Du	*	p*xMDNi aBxGDI glac DuG
Bd5dxMDNi a?tAUrI	*	p*xMDNi a?tAUrIG
BDGAGda ?tAUrI	266	266
3Da- lcrI	?tAUrI	?tAUrI
FGI 8IDt 5	pvr ui %St cvr a	pvr ui %St cvr a
FGI lc	*	p*xFGI lcG

Cost Estimate Summary Site 7

OFM

150 - Department of General Administration

Cost Estimate Summary

2009-11 Biennium

*

Cost Estimate Number: 2S0
 Cost Estimate Title: 7 Hrit aHMHgiHeBriHnS

Report Number: MCB003
 Date Run: 12/3/2009 4:008P

Contact Info Contact Name: Md ra d G#gt JD Contact Number: 3o0I902IS344

Statistics

. #, , Bsl qil: 1910o2
 F, t UHBsl qil: 1336I4b
 B% pHc EprHgpf: S05
 PyMM#, i %eBsl qil: 294
 c, pt d iHDP yMM#, i %eBsl qil: 31A
 RHm#DHLP N#
 M#g, iaupir#g Tf %t Vt eH
 y/c qHMHt, , : Vt eH
 y/c qH8Hepgit aH Vt eH

Schedule	Start Date	End Date
8 e-DH rag:	0A-200o	04-2010
GH rag:	0o-2010	0o-2011
M#g, iaupir#g:	0S-2011	0A-2013
Gu d ir#g #EM#g, iaupir#g (P #gih,):	2b	

Cost Summary Escalated

Acquisition Costs Total		0
8 e+BphHmt irp GH rag BHvvpH,	4b02S	
M#g, iaupir#g G#pumHgi,	26S0010	
cxi d BHvvpH,	262b2690	
OihHeBHvvpH,	16A9621	
GH rag BHvvpH, M#girgaHgpf	33S94S	
Consultant Services Total		7,402,195
BriHw#ek	b6oA0S9	
RHt iHD8 e#jHpi M#, i,	0	
qt prlif M#g, iaupir#g	b402o0#21	
M#g, iaupir#g M#girgaHgpH,	o6I006o0	
N#g Tt xt UHliHm,	0	
Bt H, Tt x	o6036S0	
Construction Contracts Total		40,675,66M
x awimum Allo(able Construction Cost)x ACC3	70,M06,500	
c sur% nHgi	1b66336bS	
N#g Tt xt UHliHm,	0	
Bt H, Tt x	163S63b	
Equipment Total		1M0M0,792
Art Work Total		2M0,19M
8 ther Costs Total		1,546,6CM
Project x anagement Total		Q,M5,269
Grand Total Escalated Costs		109,9M,51M
Rounded Grand Total Escalated Costs		109,9M2,000

Additional Details

y JHegt irvH8 uUjp W#ek, 8 e#jHpi: YH
 Bit iHM#g, iaupir#g Ig d ir#g Rt iH: 3Ib05
 Ct , HP #gih t gDYHt e: 03-2010
 8 e#jHpi y Dmigr, id ir#g Cf: y . Y

Cost Estimate Summary

2009-11 Biennium

*

Cost Estimate Number: 2S0

Report Number: MCB003

Cost Estimate Title: 7 Heritage Administration

Date Run: 12/3/2009 4:008P

Contact Info

Contact Name: Margaret J

Contact Number: 30019021S344

Additional Details

8 Heritage Administration, NOT IgruHDrg 8 Heritage T#it J \$0

Cost Estimate Detail

2009-11 Biennium

*

Cost Estimate Number: 2S0
 Cost Estimate Title: 7 H8it aHMHgiHeBriHnS
 Detail Title: 7 H8it aHMHgiHeBriHnS
 Location: Of m%t Wt , hrgai#g

Analysis Date: GHpHmUHe0362009

Contact Info Contact Name: Md ra d G#ggt D

Contact Number: 3o0I902IS344

Statistics

. e# , , Bsl qil: 13S6b0
 F , t UHBSl qil: A36I4b
 RHgit UHBSl qil:
 B% pHc EprHgpf: o05
 c , pt d iHD PyMM# , i %eBsl qil: 39S
 c , pt d iHD M# , i %eBl ql cx%t gt i#g

 M#g , iaupir#g Tf %t OihHeBphHDuHy 8e#jHpi,
 RHm#DH? N#
 y/c qHMHt , , : y
 y/c qHH8Hphgit aH ol9o5
 M#girgaHgpf Rt iH bl005
 M#girgaHgpf cx%t gt i#g

 P t gt aHmHgi RH, H8vH bl005
 8e#jHpiHD LrEl#Ey , , H (YHt e):
 L#pt i#g F , HD E#eTt x Rt iH Of m%t Wt , hrgai#
 Tt x Rt iH Alb05
 ye RHsureHmHgi y %eH : YH
 8e#jHpi y Dmgr , id i#g Uf: y . Y
 7 rahHec Dupt i#g Ig , iriui#g?: N#
 y JHgt ivH8uUup W#ek , ?: YH

Project Schedule

Start Date End Date

8e#DH rag: 0A-200o 04-2010
 GH rag: 0o-2010 0o-2011
 M#g , iaupir#g: 0S-2011 0A-2013
 Guet i#g #EM#g , iaupir#g (P #gih ,): 2b
 Bit iHM#g , iaupir#g IgE i#g Rt iH 3Ib05
 Ct , HP #gih t gDYHt e 3-2010

Project Cost Summary

PyMM: \$ b064o6o0
 PyMM (c , pt d iHD): \$ b46396o3
 Muethgi 8e#jHpi T#it J \$ 946I246Ao
 R#ugDHD Muethgi 8e#jHpi T#it J \$ 946I24600
 c , pt d iHD 8e#jHpi T#it J \$ 101623A6I0S
 R#ugDHDc , pt d iHD 8e#jHpi T#it J \$ 101623A600

<u>ITEx</u>	<u>Base Amount</u>	<u>Sub Total</u>	<u>Escalation Factor</u>	<u>Escalated Cost</u>
C8 NSULTANT SERVICES				
<u>8 d+BphHmt ip GH, rag BHvvpH</u> . H#THph	4b6233			
SubTotal: Pre-Schematic Design Services		65,200	1100AS	65,72M
<u>M#g, iaupir#g G#pumHgi</u> y/c Ct, rp GH, rag BHvvpH	2642564oS			
SubTotal: Construction Documents		2,62M67M	1102o2	2,691,07M
<u>cxi d BHvvpH</u> MvrJGH, rag (y U#vH Ct, rp BHvvpH) . H#Hphgrpt JlgvH, irat i#g M#mmr, , #grga (Bf, iHm, MhHpk) BriHBuevHf TH, irga V#rpH/Gt it M#g, uJt gi Vt JuHc gargH Hega 8t erp% i#g & lm% dHmHgit i#g M#g, iaupit UJif RHvrHw 8t erp% i#g cgvre#gHmHgit JP irat i#g BHvvpH, (cIB) Lt gD, pt %HM#g, uJt gi yV M#g, uJt gi y p#u, irp M#g, uJt gi M#, i RHb#gprjt i#g (. MMP UHf#gD Ut, rp, HvvpH,) M#mmugrpt i#g M#g, uJt gi G#pumHgi RHf#Dupi#g (M#g, iaupir#g G#p,) cLMMY cJvt i#eM#g, uJt gi cgvH#%H & Bi#gHM#g, uJt gi qrH & LrH Bt Hf . MMP 8t erp% i#g (UHf#gD Ut, rp, HvvpH,) . d %hrp, & Wt f HgDrga lgiH#eM#g, uJt gi Lc c G #pumHgit i#g B%hpt JLrahirga M#g, uJt gi P #pku% & lgvH, irat i#g P #DHJ & RHgDHega 8uUp P HHirga, RHmUe t UH BHueif t gDyppH, M#gi#J Firdif & cghaf RHUt iH, (RH, Ht eph & y %dpt i#g,) P u, Hum M#g, uJt gi P u, Hum Bi#dHM#g, uJt gi Mt Hlq##DBHvvpHM#g, uJt gi	A06000 b06000 A16S3 206000 306000 A96409 126000 126000 426000 1006120 bb6000 4b6000 1006000 426600 1206b2 b06000 326000 b26000 1S6400 1A96o0 o26400 113620 132600 1Sb6000 436000 11A600 3S6900 Sb6000 o9600 1462b0 1006000 106000 206000			
SubTotal: Extra Services		2,196,446	1102o2	2,252,090
<u>OihHvBHvvpH</u> CrDM#g, iaupir#g/M#, H#ui y, -CurJ, Gt wrga, (My G Ogf)	1690601 ob6000			
SubTotal: 8 ther Services		1,155,701	110Ab2	1,256,054
<u>GH, rag BHvvpH, M#girgaHgp</u> GH, rag BHvvpH, M#girgaHgp	29161b9			
SubTotal: Design Services Contingency		291,159	110Ab2	015,977
Total: Consultant Services		7,116,066	110400	7,059,104

C8 NSTRUCTI8 N C8 NTRACTS

<u>BriHw#ck</u> . 10 - BriH8eP% d i#g . 20 - BriHlm%#vHmHgi, . 30 - BriHP Hphgrpt JF irdih	24b6193 16Sb6400 26b06b0			
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<u>ITEx</u>	<u>Base Amount</u>	<u>Sub Total</u>	<u>Escalation Factor</u>	<u>Escalated Cost</u>
C8 NSTRUCTI8 N C8 NTRACTS				
. 40 - BriHc Jp i ept JF i r i r H	1613361S			
SubTotal: Site (ork		5,706,770	1104S0	5,474,0M9
<u>qt pr lif M#g, i e p i r #g</u>				
y 10 - q #ug D i #g,	1604600			
y 20 - Ct , Hm Hgi M#g, i e p i r #g	26Ab600			
C10 - Bu %H e i e p i r #g	36S0600			
C20 - c x i H #e M #, u e H	564A600			
C30 - R # #g a	26A4600			
M10 - Igi H #e M #g, i e p i r #g	4629A6200			
M20 - Bit r e	30b6600			
M30 - Igi H #e q r g r, h H,	26216200			
G10 - M #g v H r g a	A096000			
G20 - 8 J m U g a B f , i H m,	64S6000			
G30 - 7 V y M B f , i H m,	66446A00			
G40 - q r e H 8 # i H p i r #g B f , i H m,	S4A6000			
Gb0 - c J p i e p t J B f , i H m,	b6S16000			
R H m U e t U H,	16b06000			
Bu U p #g i e p i e U #g D,	4bb6000			
SubTotal: Facility Construction		66,962,000	110Ab2	64,MM1,046
x avimum Allo(able Construction Cost)x ACC3		50,567,970	110A00	56,709,670
<u>. MMP Rr, k M#g i r g a H g p f</u>				
. MMP Rr, k M#g i r g a H g p f	1610609			
SubTotal: GCCx Risk Contingency		1,517,609	110Ab2	1,765,70M
<u>. MMP #eGH rag Cur.DM#, i.</u>				
. MMP q H H	26b96000			
CrD . Hg H t J M #g D i r #g,	16SA06b9			
. MMP 8 e p #g, i e p i r #g B H v r p H,	3046441			
SubTotal: GCCx or Design Build Costs		6,506,000	110Ab2	6,44MM61
<u>M#g, i e p i r #g M#g i r g a H g p r H</u>				
P t g t a H m H g i R H, H v H	262S634A			
y J #w t g p H #e M h t g a H O e D H e	262S634A			
SubTotal: Construction Contingencies		5,056,797	110Ab2	5,645,067
Sales Tax		5,20M4MM	110A1S	5,775,967
Total: Construction Contracts		77,459,962	110A1S	MM2,026,110
EQUIPx ENT				
c 10 - c sur %m H g i	1360A6A00			
c 20 - quegr, hrga,	1612961S			
SubTotal:		16,694,11M	110Ab2	15,MD0,05M
Sales Tax		1,202,060	110Ab2	1,00M006
Total: Equipment		15,MD0,65M	110Ab2	1M0MD,792
ART W8 RK				
8 #j H p i y e w #k	2S3619S			
Total: Art Work		2M0,19M	110000	2M0,19M
8 THER C8 STS				

<u>ITEx</u>	<u>Base Amount</u>	<u>Sub Total</u>	<u>Escalation Factor</u>	<u>Escalated Cost</u>
8 THER C8 STS				
P rirat i#g M#, i,	4120b0			
c ght gpHD ThreD8 Hs #g Mx	431030			
B%#prt Jlg, %#pi#g, (M#DHRHsurdD)	1020bb			
7 t zP t i . ##Dqt rih BuevHf (Vr, ri#eM#HgiHe)	2000			
y DvHir, rga	b000			
8 Hmri,	2b203b			
8.t g MhHkrga	1o40SA			
Total: 8 ther Costs		1,0M,294	1104S0	1,6C0,169
PR8 JECT x ANAGEx ENT				
y aHpf 80#j#pi P t gt aHmHgi	3021009			
ly y wrih cgargHaga & y0phriHpiud JBHvprH,	4b3039			
Total: Project x anagement		0M5,264	110000	0M5,264

Cost Estimate Detail

2009-11 Biennium

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Cost Estimate Number: 2S0 Analysis Date: GHFMUHe0362009
 Cost Estimate Title: 7 Hrit aHMHgiHeBriHnS
 Detail Title: 8t krga . t d aH#eBriHhS
 Location: Of m%t Wt , hrgai#g
 Contact Info Contact Name: Md ra d G#ggt JD Contact Number: 3o0I902IS344

Statistics

. e#, , Bsl qil: b3e12
 F, t UHBsl qil: b0000
 RHgit UHBsl qil:
 B% pHc EprHgpf: 945
 c, pt d iHD PyMM#, i %eBsl qil: 11b
 c, pt d iHD M#, i %eBl ql cx%t gt i#g

M#g, iaupi#g Tf %t 8t krga BiaupiudH, t gD. t d aH
 RHm#DH? N#
 y/c qHMH, , : M
 y/c qHH8Hphgit aH SI115
 M#girgaHgpf Rt iH bl005
 M#girgaHgpf cx%t gt i#g

P t gt aHmHgi RH, HbvH bl005
 8e#jHpiHD LrEl#Ey, , H (YHt e):
 L#pt i#g F, HD#eTt x Rt iH Of m%t Wt , hrgai#
 Tt x Rt iH Alb05
 ye RHsureHmHgi y%#H, : N#
 8e#jHpi y Dmgr, id i#g Uf: y. Y
 7 rahHec Dupt i#g Ig, iriui#g?: N#
 y JHgit ivH8uUup W#ek, ?: YH,

Project Schedule	Start Date	End Date
8e#DH, rag:	0A-200o	04-2010
GH, rag:	0o-2010	0o-2011
M#g, iaupi#g:	0S-2011	0A-2013
Guet i#g #EM#g, iaupi#g (P #gih,):	2b	
Bit iHM#g, iaupi#g IgE i#g Rt iH	3Ib05	
Ct , HP #gih t gDYHt e	3-2010	

Project Cost Summary

PyMM: \$ b0S10A00
 PyMM (c, pt d iHD): \$ o6Ibb03S
 Muethgi 8e#jHpi T#it J \$ A0oS0oA
 R#ugDHD Muethgi 8e#jHpi T#it J \$ A0oA000
 c, pt d iHD 8e#jHpi T#it J \$ A6S33010
 R#ugDHDc, pt d iHD 8e#jHpi T#it J \$ A6S33000

<u>ITEx</u>	<u>Base Amount</u>	<u>Sub Total</u>	<u>Escalation Factor</u>	<u>Escalated Cost</u>
C8 NSULTANT SERVICES				
M#g, iaupir#g G#pumHgi, y/c Ct , rp GH, rag BHvprH, SubTotal: Construction Documents	2SA62b3	2M,250	1102o2	245,560
OihHeBHvprH, CrDM#g, iaupir#g/M#, H#ui SubTotal: 8 ther Services	12b012	125,012	110Ab2	106,770
GH, rag BHvprH, M#girgaHgpf GH, rag BHvprH, M#girgaHgpf SubTotal: Design Services Contingency	206lo3	20,170	110Ab2	21,441
Total: Consultant Services		62Q624	1104o4	66Q04M
C8 NSTRUCTI8 N C8 NTRACTS				
qt prJif M#g, iaupir#g y 10 - q#ugDt i#g, y 20 - Ct , HmHgi M#g, iaupir#g C10 - Bu%#e iaupiueH C20 - cxiH#eM#, ueH C30 - R##Ega M10 - lgiH#eM#g, iaupir#g M20 - Bit re M30 - lgiH#eqrgr, hH, G20 - 8JumUga Bf , iHm, Gb0 - c Jpiapt JBf , iHm, G30 - 7Vy MBf , iHm, G40 - qreH8e#iHpi#g Bf , iHm, RHmUue t UH, BuUp#gid pi#eU#gD, SubTotal: Facility Construction	SAo600 16510600 163b600 3b600 29600 19S600 AA600 113600 33600 2S96200 32A600 2Ao6400 19o600 b1600	5,7M,400	110Ab2	7,155,00M
x awimum Allo(able Construction Cost)x ACC3		5,7M,400	110900	7,155,00M
. MMP Rr, k M#girgaHgpf . MMP Rr, k M#girgaHgpf SubTotal: GCCx Risk Contingency	1S0600	1M,000	110Ab2	146,646
. MMP #eGH, rag Cur.DM#, i, . MMP qHH CrD. HgHt JM#gDir#g, . MMP 8e#p#g, iaupir#g BHvprH, SubTotal: GCCx or Design Build Costs	2ob600 1996A0b 406A94	505,799	110Ab2	564,M#5
M#g, iaupir#g M#girgaHgpH, P t gt aHmHgi RH, HvH y J#wt gpH#eMht gaHOeDHe SubTotal: Construction Contingencies	2A3690 2A3690	57M,140	110Ab2	715,506
Sales Tax		54M,66M	110Ab2	70M,426
Total: Construction Contracts		M502,627	110Ab2	4,161,706
8 THER C8 STS				
P rirat i#g M#, i, 8 Hmri, 8.t g MhHpkrga	A06l 1A 3S612 246A3			

<u>ITEx</u>	<u>Base Amount</u>	<u>Sub Total</u>	<u>Escalation Factor</u>	<u>Escalated Cost</u>
8 THER C8 STS				
Total: 8 ther Costs		162,010	1104S0	164,744
PR8 JECT x ANAGEx ENT				
y aHgpf 8 #jHpi P t gt aHmHgi	30S0133			
y Dju, imHgi i# ZH#	(30S0132)			
Total: Project x anagement		1	110000	1

Cost Estimate Summary and Detail

2009-11 Biennium

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Cost Estimate Number: 2S0
Cost Estimate Title: 7 Hæit aHMgiHeBriHnS

Report Number: MCB003
Date Run: 12/3/2009 4:008 P

<u>Parameter</u>	<u>Entered As</u>	<u>Interpreted As</u>
y , , #prt iHD#eFgt , , #prt iHD	Fgt , , #prt iHD	Fgt , , #prt iHD
CrHgrum	2009-11	2009-11
y aHgpF	1b0	1b0
VHe #g	*	y JIVHe #g, -y JIVHe #g B#uepH
8 #jHpi Mt , , ræpt i#g	*	y J8 #jHpi Mt , , ræpt i#g,
Mt %it J8 #jHpi NumUHe	*	y J8 #jHpi NumUHe
M#, i c, imt iH NumUHe	2S0	2S0
B#é OeDHe	NumUHe	NumUHe
F, He. #u%	y aHgpF CuDaH	y aHgpF CuDaH
F, HeID	*	y JF, HeID,

Cost Estimate Summary Site 12

OFM

150 - Department of General Administration

Cost Estimate Summary

2009-11 Biennium

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Cost Estimate Number: 2He
 Cost Estimate Title: rit agnE x aat 3g-w-Q 6-ft l 12d #CJDot 1.

Report Number: S3600:
 Date Run: 12/4/2009 : RMI/CB

Contact Info Contact Name: STDf , 8 GDDv Contact Number: : H0902æ: 44

Statistics

U7Go 6bs5rP qefeq1
 %oDpu 6bs5rP MFMq0
 6ADat r aat CaRP Ht y
 B dSS SGonAt 76bs5rP : e2
 r oaDDt v B dSS SGonAt 76bs5rP 402
 mt ? Gvt ū hG
 SGObrganGONRA P x nlt 76aJt vgu d C7gt arø
 d/r 5tt SūdooP d
 d/r 5tt Ct 7at QDft P esMHy

Schedule	Start Date	End Date
C7 vt of CP	0q(200H	01(2010
8 t of CP	0: (2010	02(2011
SGObrganGCP	0e(2011	0q(201:
8g7DhGO GcSGObrganGO#B GOJlo.P	2M	

Cost Summary Escalated

Acquisition Costs Total		0
C7 (6aJt ? Dna 8 t of O6t 7Eat o	1eM000	
SGObrganGO8 Gæg? t Oro	1Fe: 0F22e	
r i nD6t 7Eat o	1FMHF: 14	
x nlt 76t 7Eat o	1FIMF42q	
8 t of O6t 7Eat o SGObrganGO	24: 01H	
Consultant Services Total		7,46M945
6-ft) Gw	402eFq4e	
mt ūDt v C7gt anSGbrø	0	
5Da-urRSGObrganGO	: 1F2M F: 2H	
SGObrganGO SGObrganGO	: FM#2Fq1:	
h GONDI Dpu krt ? o	0	
6Dit o NDI	: FF-MqFe1:	
Construction Contracts Total		76,x02,M7
wa(imum Allo) able Construction Cost3wACCW	M6,241,1xM	
r bg-A? t On	1F144FqH	
h GONDI Dpu krt ? o	0	
6Dit o NDI	9eF 1:	
Equipment Total		1,272,1x6
Art k orOTotal		1x6,706
8 ther Costs Total		91x,672
Project management Total		2,655,705
Grand Total Escalated Costs		56,55x,994
Rounded Grand Total Escalated Costs		56,554,000

Additional Details

dut 70DnE Cgpua l Gwo C7gt arP Wt o
 6rDt SGObrganGOkQaDhGOmDt P : sMdy
 3Dot B GOJ DOv Wf D7P 0: (2010
 C7gt andv? -OonDhGO3RP dUW

Cost Estimate Summary

2009-11 Biennium

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Cost Estimate Number: 2He

Report Number: S3600:

Cost Estimate Title: r i t agnE x œat 3g-w-Cf 6-rt l 12d #CJDot 1.

Date Run: 12/4/2009 : RM CB

Contact Info

Contact Name: S7Df , 8 G0Dv

Contact Number: : H0s902œ: 44

Additional Details

C7Gt and v? -OK? ADanrGUd nJDn-o hx NIKœgvt v -OC7Gt anNGDP Y0

Cost Estimate Detail

2009-11 Biennium

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Cost Estimate Number: 2He
Cost Estimate Title: r i t agnE x œat 3g-w-Cf 6-rt l 12d #CJDot 1.

Analysis Date: 8 t at ? pt 70: F2009

Detail Title: 6-rt l 12d
Location: x uR? A-DI DoJ-Cf rGO

Contact Info Contact Name: S7Df , 8 GCDv

Contact Number: : H0902œ: 44

Statistics

U7Goo 6bs5rsP qeFeq1
%oDpt 6bs5rsP MFMt0
mt CrDpt 6bs5rsP
6ADat r œat CaRP H y
r oaDDrt v B dSS SGonAt 76bs5rsP 402
r oaDDrt v SGonAt 76s5sr i AuDDnGO

SGon7ganGONRAt P x nlt 76aJt vgu d C7Gt and
mt ? Gvt ũ h G
d/r 5t t SũDooP d
d/r 5t t Ct 7at CrDf t P esMHy
SGChCf t CaRmDrt P M00y
SGChCf t CaRr i AuDDnGO

B DCDf t ? t Onmt ot 7E P M00y
C7Gt art v \$-d Gcdoot n#M D7o.P
\$GadnGO%ot v cG7NDi mDrt P x uR? A-DI DoJ-Cf rC
NDi mDrt P qsM0y
d 7hmt bg-7 ? t ChdAAut oP Wt o
C7Gt and v? -Oon7DnGOpRP dUW
L-f Jt 7r vgaDnGOkOon7nGOTP h G
duit 7CDnE Cgpusa l G7woTP Wt o

Project Schedule

Start Date End Date

C7 vt o-f CP 0q(200H 01(2010
8 t o-f CP 0: (2010 02(2011
SGon7ganGCP 0e(2011 0q(201:
8 g7DnGO GcSGon7ganGO#B GOnJo.P 2M
6 rDrt SGon7ganGOkOuDnGOmDrt P : sM0y
3 Dot B GOnJ DOv Wt D7P : (2010

Project Cost Summary

BdSSP Y : 2F#H#H H
BdSS # oaDDrt v.P Y : M2q1Fle:
Sg7t ChC7Gt anNGDIP Y M2Fe: qf2HM
mGgOvt v Sg7t ChC7Gt anNGDIP Y M2Fe: qf000
r oaDDrt v C7Gt anNGDIP Y M#M#F99q
mGgOvt v r oaDDrt v C7Gt anNGDIP Y M#M#F000

<u>ITEw</u>	<u>Base Amount</u>	<u>Sub Total</u>	<u>Escalation Factor</u>	<u>Escalated Cost</u>
C8 NSULTANT SERVICES				
<u>C7 (6 aJt ? Dha 8 t of O6 t 7Eat o</u> Ut Gnt aJ	1eM000			
SubTotal: Pre-Schematic Design Services		1x5,000	1.0000	1x5,000
<u>SGOn7ganGO8 Gag? t On</u> d/r 3 Do-a 8 t of O6 t 7Eat o	1Fe02F9e9			
SubTotal: Construction Documents		1,x02,9x9	1.0110	1,xM0,22x
<u>r i r7D6 t 7Eat o</u> S-Eu8 t of O#1 pGE 3 Do-a 6 t 7Eat o. Ut Gt aJ OaDuKCE onf DnGO SG? ? -oo-GO-Cf #6 Fort ? o SJt aw. 6-rt 6g7E R Nt onCf VGat /8 DnD SGOgurDCh VDgt r Cf -Ct t 7Cf CD7na-ADnGO & k? Aut ? t OnDnGO SGOn7ganDp-urRmt Et) CD7na-ADnGO r CE-7GO? t OnDuB -rf DnGO6 t 7Eat o # 16. \$DOvoaDAt SGOgurDCh dV SGOgurDCh daGgona SGOgurDCh SGonmt aGCa-uDnGO#JSSB pt RGOv pDo-a ot 7Eat o. SG? ? gOaDnGO SGOgurDCh 8 Gag? t Onmt A7Gv ganGO #SGOn7ganGO8 Gao. r \$SSd r ut EDG7 SGOgurDCh r CE uGAt & 6 rGO SGOgurDCh 5-7t & \$-d 6Dt rR USSB CD7na-ADnGO#pt RGOv pDo-a ot 7Eat o. U7DAJ -ao & l DReOv-Cf KQt 7G7 SGOgurDCh \$r r 8 8 Gag? t OnDnGO 6At a-Du\$-f Jn Cf SGOgurDCh B GavgAo & KCE onf DnGO B Gvt w & mt Ovt 7Cf Cg pua B t t nCf o mt -? pg7oDp ut o 6 t ag7rRDOv daat oo SGO7Gu %nurR & r Ct 7 Rmt pDt o #mt of D7aJ & d AAuaDnGO. d 7pG7on	120FM2 100F00 : 2F420 1qFeM0 100F00 42FMH0 12F200 12F200 e4F 40 2: M000 22FeM0 2eFq00 M2F4H0 : HF000 eMFM00 : M000 20F000 : 0F000 1M000 : M000 4qFFH00 HM200 e2F 10 : M000 40F000 40F000 1qF000 MIF42 42F e9 10F000 20F000			
SubTotal: E(tra Services		1,570,66M	1.0110	1,565,M17
<u>x nJt 76 t 7Eat o</u> 3-v/SGOn7ganGO S ubt Cgn do(3g-uro 8 7D) -Cf o #Sd8 x OIR r OJDcat v SGOOn7ganGO dv? -Oon7DnGO	eHMFI0e 4M000 2M0F000			
SubTotal: 8 ther Services		1,060,10x	1.00M2	1,150,724
<u>8 t of O6 t 7Eat o SGOChCf t CaR</u> 8 t of O6 t 7Eat o SGOChCf t CaR	22: F9: e			
SubTotal: Design Services Contingency		22M9Mk	1.00M2	27M016
Total: Consultant Services		7,x02,646	1.00: 4:	7,46M945

C8 NSTRUCTI8 N C8 NTRACTS

<u>6-rt) G7w</u> U10 (6-rt C7 AD7DnGO U20 (6-rt k? A7GE ? t On U: 0 (6-rt B t aJDOaDu%nurnt o U40 (6-rt r ut an7aDu%nurnt o	19HM20 1F q: FFH0 1F H4FM 902FeH			
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ITEw	Base Amount	Sub Total	Escalation Factor	Escalated Cost
C8 NSTRUCTI8 N C8 NTRACTS				
SubTotal: Site) orO		M47x,0M6	1.04e0	7,02x,47x
5Da-urRS CObnrganCO				
d 10 (5GgOvDnGO	902F00			
d 20 (3Dot ? t OnSGObnrganCO	1F0q2F00			
3 10 (6gAt 7onrgan7	: F0qqF 00			
3 20 (r i r t 7G7SuGog7	H2eeF00			
3: 0 (mGG3CF	1F1HqF200			
S 10 (KQt 7G7SGObnrganCO	: F0HM000			
S 20 (6rD-7o	1eMF000			
S: 0 (KQt 7G75-OoJt o	2F0q1F000			
8 10 (SGOEt RF	42HF200			
8 20 (Cig? p-Cf 6Rort ? o	M#: F000			
8: 0 (LVdS 6Rort ? o	: F1q0F000			
8 40 (5-7: C7Gt anGO6Rort ? o	: q: F000			
8 M0 (r ut an7aDu6Rort ? o	: F0D1F000			
mt -? pg7oDpu o	1F1: 0F000			
6gpaGO7DarG7pGOvo	294F000			
SubTotal: Facility Construction		24,x99,600	1.0qM2	M1,25MM26
wa(imum Allo) able Construction Cost 3wACCW		M2,676,6M6	1.0q00	M5,241,1xM
USSB m-owSGOnCf t CaR				
USSB m-owSGOnCf t CaR	9e9F000			
SubTotal: GCCw RisOContingency		9x9,000	1.0qM2	1,062,711
USSB G78t of O3g-w SGor				
USSB 5t t	1FM24F000			
3-v Ut Ct 7DuSGOv-rGOo	1F1M0F014			
USSB C7 aGObnrganGO6t 7Eat o	2: MF q0			
SubTotal: GCCw or Design Build Costs		2,909,M07	1.0qM2	M15x,2x7
SGObnrganGO SGOChCf t Ca t o				
B DDCf t ? t Chmt ot 7Et	1Ft 2F: 2			
d uG) DCat cG7SJDcf t x 7t 7o	1Ft 2F: 2			
SubTotal: Construction Contingencies		M267,667	1.0qM2	M572,41M
Sales Ta(		M42,9xM	1.0q1M	M654,x1M
Total: Construction Contracts		7M142,66x	1.0q1M	76,x02,M47
EQUIPwENT				
r 10 (r bg-A? t Ch	: 9HF M4			
r 20 (5g7OoJ-Cf o	HVqF2M			
SubTotal:		1,057,9x9	1.0qM2	1,177,46M
Sales Ta(		49,6xM	1.0qM2	9x,M1M
Total: Equipment		1,177,652	1.0qM2	1,272,1x6
ART k 8 RK				
C7Gt and 7n) Gw	1eHF40H			
Total: Art k orO		1x6,706	1.0000	1x6,706
8 THER C8 STS				
B-rf DnGO SGOro	1: 1F02			

<u>ITEw</u>	<u>Base Amount</u>	<u>Sub Total</u>	<u>Escalation Factor</u>	<u>Escalated Cost</u>
8 THER C8 STS				
r QJDCat v NJ-7v Ct 7oGOSi	: 1: RM20			
6At a-DukCbAt anGOb #S Gvt mt bg-7t v.	eM000			
Ct ?? -ro	21M91:			
CtDOSJt awGf	140F 44			
Total: 8 ther Costs		4x6,779	1.04e0	91x,672
PR8 JECT wANAGEwENT				
df t QaRC7gt anB DCDf t ? t On	2F12M42H			
kd d) -nJ r Cf -Qt t 7Cf & d 7aJ-rt arg7Du6t 7E-at o	M29F9e9			
Total: Project wamagement		2,655,705	1.0000	2,655,705

Cost Estimate Summary and Detail

2009-11 Biennium

*

Cost Estimate Number: 2He

Report Number: S3600:

Cost Estimate Title: r i t agnEt x œat 3g-w-Cf 6-rt l 12d #CJDot 1.

Date Run: 12/4/2009 : RMICB

<u>Parameter</u>	<u>Entered As</u>	<u>Interpreted As</u>
d ooGa-Drt v G7%CDooGa-Drt v	%CDooGa-Drt v	%CDooGa-Drt v
3-t OOg?	2009(11	2009(11
dft CaR	1M0	1M0
Vt 7b-GO	*	d wVt 7b-GOb(d wVt 7b-GO6 Gg7at o
C7Gt anSUDoo-caDnGO	*	d wC7Gt anSUDoo-caDnGOo
SDArDuC7Gt anhg? pt 7	*	d wC7Gt anhg? pt 7o
SGonr on? Dtt hg? pt 7	2He	2He
6 G7hx 7rt 7	hg? pt 7	hg? pt 7
%ot 7U7GgA	dft CaR3gvf t n	dft CaR3gvf t n
%ot 7kw	*	d w%ot 7kwo

Enabling Legislation

EHSB 1216 Proviso Language

NEW SECTION. Sec. 1077. FOR THE DEPARTMENT OF GENERAL
ADMINISTRATION

Heritage Center and Executive Office Building (20082858)

The appropriations in this section are subject to the following conditions and limitations: The appropriations are provided to reimburse the general administration services account for design costs for the executive office building, and for a revision to the predesign of the heritage center executive office building. The revised predesign must align the scope of the project with the level of financing that available revenues will support. The revised predesign must specify the tenants of the executive office building, based on the capital campus master plan criteria, and must reduce the size of the heritage center to what is needed for the state library and exhibit space for historically significant documents from the state archives and rotating exhibits from national, state, and local historical museums.

Predesign Checklist



APPENDIX A

Predesign Checklist

The predesign checklist should be completed by the agency and submitted to the Office of Financial Management with the predesign.

Are the following in the predesign? If not, the item should be noted “not applicable.”

- Executive Summary
- Project Analysis
 - Discussion of operational needs
 - Discussion of alternatives
 - Discussion of selected alternative
 - Identification of issues
 - Prior planning and history
 - Stakeholders
 - Project description
 - Implementation approach
 - Project management
 - Schedule
- Program Analysis
 - Assumptions
 - Functions and FTEs
 - Spatial relationships between the facility and site
 - Interrelationships and adjacencies of functions
 - Major equipment
 - Special systems such as environmental, information technology, etc.
 - Future needs and flexibility
 - Sustainability and energy utilization
 - Applicable codes and regulations
- Site Analysis
 - Potential sites
 - Building footprint
 - Site considerations such as physical, regulatory and access issues
 - Acquisition process
- Project Budget Analysis
 - Assumptions
 - Detailed estimates
 - Funding sources

- Project cost estimate
 - Form C-3, Benefit and Life-Cycle Cost Analysis Summary
 - Sign-off by agency

- Master Plan and Policy Coordination
 - Impacts to existing plans
 - Adherence to significant state policies

- Facility Operations and Maintenance Requirements
 - Assumptions
 - Operating costs in table form
 - Staffing plan (capital and operating)

- Project Drawings/Diagrams
 - Site plans
 - Building plans
 - Building volumes
 - Elevations

- Appendix
 - Predesign checklist
 - Project budget unit cost detail
 - Sustainable design charette summary
 - Additional information as needed