
Implementation of ESSB 5509
“Green Building”
Report to the Legislature



UW Merrill Hall: Natural Ventilation and Green Roof



UW Bothell/Cascadia Comm. College: Native Landscaping



Deschutes Parkway, Olympia: Use of Recycled Materials



Legislative Building, Olympia: Solar Panel Installation

On the Cover:

- University of Washington, Merrill Hall: Natural Ventilation and Green Roof. This project features natural ventilation using strategically located windows and fans to draw warm air up and out. Green roof plantings help reflect heat and reduce the urban "heat island" effect. These are just a few of the many green building methods used in this LEED Silver certified building.
- UW Bothell/Cascadia Community College: Native Landscaping. This project preserved many mature trees and used native vegetation in the landscaping, in addition to using high performance windows and recycling construction waste.
- Deschutes Parkway, Olympia: Use of Recycled Materials. Deschutes Parkway, a vital transportation link for the Olympia and Tumwater communities, was heavily damaged in the 2001 Nisqually Earthquake. The repair project recycled the damaged road surface materials onsite in the strengthened roadbed.
- Legislative Building, Olympia: Solar Panel Installation. Installed at the conclusion of the 2001-2005 rehabilitation of the Legislative Building, solar panels are generating electricity equivalent that that needed to power the exterior lights on the Dome.

For more information on green building, please visit our website: www.ga.wa.gov/eas/green

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IMPLEMENTATION OF ESSB 5509

“GREEN BUILDING”

EXECUTIVE SUMMARY

The Department of General Administration (GA) has long committed to advocating, teaching and practicing “green” building concepts for capital construction in Washington State. In 2005, the Legislature and Governor Chris Gregoire moved Washington forward with Engrossed Substitute Senate Bill 5509. This law requires that construction projects funded in the capital budget must be designed, built and certified to high performance “green building” standards.

Our experiences to date indicate that green building can be successful; Fifty-six out of 60 eligible major facility projects are on track to achieve LEED Silver status.

As was projected in the 2005 Fiscal Notes when ESSB 5509 was under consideration, there are some costs associated with green building at this early stage of adoption in the marketplace. We’ve been advised by industry experts that these costs should decline over time; however, it is too early to have clear data. Therefore, our preliminary recommendations are focused on increasing our understanding of these costs and addressing short-term challenges to wider use of green building methods.

Implementation achievements

General Administration can report several significant achievements in implementing ESSB 5509:

- ✓ GA has established two advisory committees to assist with implementation and awareness, a 10-member Affected Agencies Committee, and a 37-member High Performance Buildings Advisory Committee.
- ✓ GA has worked with the Affected State Agencies Committee to establish the GA LEED Quality Assurance (QA) process, which monitors projects through design and construction for progress toward LEED certification.
- ✓ GA has worked with the green building industry and affected agencies to develop and deliver training in the LEED QA process and green building in numerous locations statewide to well over 300 participants to date.
- ✓ GA modified its Energy Life Cycle Cost Analysis guidelines to be consistent with LEED.
- ✓ GA has amended its architectural and engineering fees to reflect LEED requirements.
- ✓ GA has identified 60 current major facility projects, of which 56 are on track to achieve LEED Silver status.

Preliminary recommendations

The state has made much progress, and there is still work to be done. ESSB 5509 directs GA to make recommendations annually regarding the ongoing implementation of the law. Our preliminary recommendations based on the past 16 months of experience with ESSB 5509 are:

Issue: Since 2005, we have experienced high price volatility in construction, and many important items compete for limited project funds. A lack of funding specifically for LEED-related costs is seen as a major challenge.

Recommendation A: General Administration should analyze LEED-associated costs in current projects to validate the competing cost pressures agency project managers are reporting.

Recommendation B: If necessary, General Administration and the Office of Financial Management should explore options and develop recommendations for addressing any cost issues that emerge.

Issue: Renewable energy systems that can provide substantial environmental benefits and contribute to LEED certification are not always cost-effective in the short term. As a result, there is a concern that the added initial expense restricts investment into these systems and may reduce chances for LEED certification.

Recommendation C: General Administration should analyze the implementation, or lack thereof, of renewable energy systems in the 56 current major facility projects and the effects, if any, on securing LEED certification.

INITIAL IMPLEMENTATION EFFORT

The Department of General Administration is the lead agency for the implementation of ESSB 5509. *(Excerpts from ESSB 5509 are indented in smaller type throughout the document.)*

(3)(a) Public agencies, under this section, shall monitor and document ongoing operating savings resulting from major facility projects designed, constructed, and certified as required under this section.

(b) Public agencies, under this section, shall report annually to the department on major facility projects and operating savings.

(4) The department shall consolidate the reports required in subsection (3) of this section into one report and report to the governor and legislature by September 1st of each even-numbered year beginning in 2006 and ending in 2016. In its report, the department shall also report on the implementation of this chapter, including reasons why the LEED standard was not used as required by section 2 (5)(b) of this act. The department shall make recommendations regarding the ongoing implementation of this chapter, including a discussion of incentives and disincentives related to implementing this chapter.

GA has used its green building expertise and contacts in the region to develop a statewide program to achieve LEED Silver standards for state-funded projects. So far, this work has included:

- Collaboration with regional green building experts inside and outside state government through the establishment of advisory committees.
- Development of tracking and verification tools for state projects.
- Training on these tools for state project managers and others involved in design and construction of state-funded projects.
- Alignment of the Energy Life Cycle Cost Analysis process and the Engineering & Architectural fee structure with ESSB 5509.

Through these efforts, GA has identified 60 projects that meet the definition of a “major facility project” (see below) prior to applying the building type or “not practicable” exemption criteria (see Appendix 1 for a list of projects and LEED Quality Assurance reporting summary). Of those 60, GA cites 56 projects that will go through the process toward LEED Silver certification.

(5)(a) "Major facility project" means: (i) A construction project larger than five thousand gross square feet of occupied or conditioned space as defined in the Washington state energy code; or (ii) a building renovation project when the cost is greater than fifty percent of the assessed value and the project is larger than five thousand gross square feet of occupied or conditioned space as defined in the Washington state energy code.

In addition, GA has teamed with the Department of Community Trade and Economic Development (CTED) and the Department of Ecology to provide technical assistance and training for grant-applicant projects moving toward LEED Silver certification. This help and training has been valuable to these applicants, many of whom are working with smaller projects or have limited or no experience in green building design, including many of the architects contracted to design the buildings.

Establishing committees and the GA LEED Quality Assurance process

As the lead agency, GA was responsible for establishing two advisory committees: the Affected Agencies Committee and the High-Performance Building Advisory Committee (see Appendix 2 for a list of members). The purpose of these committees is spelled out in Section 6 of the chapter.

Sec. 6 (1)(a) The department, in consultation with affected public agencies, shall develop and issue guidelines for administering this chapter for public agencies. The purpose of the guidelines is to define a procedure and method for employing and verifying activities necessary for certification to at least the LEED silver standard for major facility projects.

And:

(2) The department shall create a high-performance buildings advisory committee comprised of representatives from the design and construction industry involved in public works contracting, personnel from the affected public agencies responsible for overseeing public works projects, the state board of education, the office of the superintendent of public instruction, and others at the department's discretion to provide advice on implementing this chapter. Among other duties, the advisory committee shall make recommendations regarding an education and training process and an ongoing evaluation or feedback process to help the department implement this chapter.

The 10-member **Affected Agencies Committee** (AAC) is made up of representatives from state agencies and colleges/universities that traditionally have the most construction or construction management. It has met five times, with the main task of developing the process for verifying that projects are on track to achieve LEED Silver: the **GA LEED Quality Assurance** (QA) process. It has four main goals:

1. Ensure that project design teams consider green building and integrated design very early in the design process.
2. Track progress of each project at key points during design and construction to identify projects that might face challenges in meeting the LEED Silver goal.
3. Provide feedback to project managers about utility incentive programs and helpful hints related to LEED issues.
4. Collect data for determining the costs and savings of green building and the LEED Silver requirement.

The GA LEED QA process has been operational since April 2006. The guidelines and submittal forms used in this process can be found in Appendix 3 and at www.ga.wa.gov/eas/green . A special email address was established to be used for the submittal process. All submittals and attachments are to be sent electronically to this email address: GASustainableBA@ga.wa.gov .

The **High-Performance Buildings Advisory Committee** (HPBAC) is made up of 37 people, including leaders in sustainable design and construction in the region and others involved in developing a successful statewide green building effort. The HPBAC has met once and considered such topics as the QA process and training issues. Smaller task groups were developed from this committee to look at training for state project managers and CTED grant applicants, and coordination with technical colleges' Workforce Training Program.

Development and delivery of training

Once the GA LEED QA Process was developed, GA coordinated training on the process at several locations:

- General Administration – Engineering and Architectural Services (agencies represented: General Administration, Social and Health Services (DSHS), Corrections (DOC)).
- Department of Transportation (DOT) in Seattle and Olympia.
- Department of Natural Resources (DNR) in Olympia.
- University of Washington (UW), Central Washington University (CWU), Eastern Washington University (EWU), Washington State University (WSU), and The Evergreen State College (TESC).

GA provided full-day green building training for state project managers in Olympia and at Eastern Washington University and Washington State University. These trainings were advertised to agencies, community colleges and universities, with 25 to 50 attendees each.

GA facilitated LEED Accredited Professional study sessions for DOT and DOC personnel. This included four 90-minute study sessions with nine to 12 participants over a two-month period. Another training session is set for January, 2007.

General Administration also worked with Cascadia Regional Green Building Council, a chapter of the U.S. Green Building Council, to develop LEED Training for contractors. Trainings were held in Seattle and Spokane. In Spokane, we coordinated training with Community Colleges of Spokane to coincide with a pending project. Prospective contractors were urged to take the class, and the class was well-attended. The college district said the training was successful and will increase its chances of achieving a LEED Silver project.

GA also coordinated training for prospective CTED grant applicants in preparation for the upcoming nonprofit capital projects grant application cycle. These full-day trainings were held in Olympia and Moses Lake.

Interest and demand among project managers and others involved in design and construction processes for more detailed training on LEED processes remains high.

Coordination with Energy Life Cycle Cost Analysis

The Energy Life Cycle Cost Analysis (ELCCA) guidelines have been modified to be consistent with LEED building simulation modeling requirements, reducing the need for additional modeling. The guidelines require that a LEED Checklist be submitted early in the design process so that design teams will consider an integrated design approach that includes energy systems.

Amendment of architectural and engineering fees

Sec. 6 (1) (b) The department and the office of the superintendent of public instruction shall amend their fee schedules for architectural and engineering services to accommodate the requirements in the design of major facility projects under this chapter.

General Administration's architect/engineer (A/E) fee schedule has been adjusted to reflect the LEED Silver requirements. Limited elements of green building design (such as the eco-charettes) have been included in Basic Services; however, many design services unique to green building will be covered under Additional Services in order to more clearly monitor costs.

Ongoing support

Initial efforts by GA to develop the green building program and provide training have been strong. General Administration offers a green building website that provides case studies of green building projects, GA LEED QA Process guidelines and submittal forms, and other useful links and information about green building. As state projects become certified under LEED additional case studies and lessons learned will be developed and added to the website.

In the 2007-09 biennium, 1.5 FTEs will be devoted to the efforts at GA. This will allow for completion of rule-writing, greater assistance to projects and training, and enhancement of the GA green building website.

Development of rules

Sec. 6 (3) The department and the state board of education shall adopt rules to implement this section.

Rule writing will be complete by June, 2008. We plan to work with the State Board of Education on a rule development plan in early 2007. We intend to file our CR-101 Preproposal Statement of Inquiry by March of 2007. The proposed rules and CR-102 filing would follow in October-November 2007, with the final rule adoption and CR-103 filing in April-May, 2008.

Tracking operating costs

General Administration is working with agencies to develop a format and process for reporting operating costs. With projects beginning design in July 2005, the earliest projects could be complete is January 2008. Therefore, a full year's worth of operation will not be realized until January 2009.

We are including recommendations for systems and equipment to build capability into the projects for the necessary monitoring into the comments provided in the GA LEED QA process.

LEED projects tracking summary

A summary table of Major Facility Projects is found in Appendix 1.

Agency sustainable building reports

Agency and university Sustainable Building Reports are included in Appendix 4.

ISSUES AND CHALLENGES: GA RECOMMENDATIONS

Our initial experience indicates that green building can be successful; Fifty-six out of 60 eligible major facility projects are on track to achieve LEED Silver status. However, as projected in 2005 Fiscal Notes when ESSB 5509 was under consideration, there is a price premium for green building at this early stage of implementation and adoption in the marketplace. We've been advised by industry experts that these costs are expected to decline over time; however, it is too early to have clear data. Therefore, our preliminary recommendations are focused on increasing our understanding of these cost factors and addressing short-term barriers to wider use of green building methods.

Issue: Many important items compete for limited project funds

Since 2005, we have experienced high price volatility in construction. With escalating costs for labor, steel, concrete, copper, and other building materials, project managers have been forced to look for places to cut costs out of the project. The budget needed for the LEED submittal process is often seen as competing with other critical program elements.

Several agencies report that funding specifically for LEED-related costs is a major concern. For instance, in the ESSB 5509 fiscal note, LEED certification submittal and consultant costs were projected to add less than 1 percent to project construction costs. Emerging anecdotal information suggests these costs can reach \$100,000 to \$200,000 on larger projects.

Recommendation A: General Administration should analyze LEED-associated costs in current projects.

It is important to validate any assumptions about the competing cost pressures agency project managers are reporting. GA should monitor and analyze cost data from current projects (Appendix 1), including the cost impacts, if any, of LEED activities.

For projects beginning design in July 2005, the earliest that construction could be complete is January 2008. LEED certification can require some months beyond project completion.

GA is required to submit this annual report to the Legislature under ESSB 5509. We propose adding this scope of work to the report, with a preliminary analysis of data gathered to date as part of the 2007 report, with the final analysis due with the 2008 report.

Recommendation B: If necessary, General Administration and the Office of Financial Management should explore options and develop recommendations for addressing any cost issues that emerge.

Issue: Renewable energy systems that can provide substantial environmental benefits and contribute to LEED certification are not always cost-effective in the short term.

Renewable energy projects (such as solar electric and solar thermal panels, geothermal and ground-coupled HVAC systems, biomass, digester gas and wind energy) earn double credit for LEED. It contributes to the Renewable Energy credits (up to three) and to the Energy Efficiency

credits (up to 10). Inclusion of renewable energy systems into state projects can improve the chances for a successful LEED Silver (or Gold) rating.

However, agencies are weighing the added costs of renewable energy projects. Often, the added initial expense restricts investment into these systems. As noted above, with escalating costs for building materials, project managers have been forced to look for places to cut costs out of the project. Payback for renewable energy systems may require 10 to 25 years.

Recommendation C: General Administration should analyze the implementation of renewable energy systems in the 56 current major facility projects and the effects, if any, on securing LEED certification.

Our concern is whether the added initial cost of renewable energy projects is limiting their use in major facility projects and, as a result, compromising our ability to achieve LEED certification. It is important to analyze and validate any assumptions about such factors in order to frame possible policy responses.

We propose adding this scope of work to this annual report to the Legislature required under ESSB 5509, with a preliminary analysis of data gathered to date as part of the 2007 report, with the final analysis due with the 2008 report.

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Appendix 1

Current Qualifying State Projects

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Appendix 2

Advisory Committee Members

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Appendix 3

Quality Assurance Guidelines

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Appendix 4

Agency Sustainable Building Reports

State Projects Affected by ESSB-5509

GA Green Bldg #	Project Information		Submittal Received					
	Project Mgt.	Project Name	Exemption	Pre-Design	Schem. D.	Design Dev.	Const.Doc.	Post-Const
G 05-004	GA-B	Bellevue CC - Science & Tech Bldg		2/3/2006				
G 05-006	GA-B	Cascadia CC - Center for the Arts, Tech, & Global Interact						
G 05-010	GA-B	Everett CC - Undergrad. Ed Center & Classrooms		8/11/2006				
G 05-011	GA-B	Everett CC - Paine Field Tech Center						
G 05-012	GA-B	Green River CC - General Classroom Bldg.						
G 05-014	GA-B	Green River CC - OEA Skill Support Center Addition	Below 5,000 SF					
G 05-015	GA-B	Lake WA Tech - Allied Health Bldg.						
G 05-016	GA-B	North Seattle CC - Employment Resource Center						
G 05-021	GA-B	Shoreline CC - Automotive Bldg.						
G 05-022	GA-B	Skagit Valley CC - Science Bldg.						
G 05-026	GA-B	Spokane Falls CC - Classroom Bldg.						
G 05-076	GA-B	Spokane Falls CC - Business and Social Science	Design started prior to 6/05					
G 05-077	GA-B	Spokane Falls CC - Early Learning Center						
G 05-027	GA-B	Walla Walla CC - Clarkston Heath Sciences						
G 05-028	GA-B	Walla Walla CC - Center for Water and Environ. Studies						
G 05-032	GA-A	GA Building/Executive Office Plaza/Heritage Center		8/31/2006				
G 05-033	GA-A	Military - Olympia Readiness Center						
G 05-034	GA-A	Centralia College - Science Complex		8/30/2006				
G 05-035	GA-A	Clark College - East County Satellite Campus		8/30/2006	8/30/2006			
G 05-036	GA-A	Clark College - Training Center-On Hold						
G 05-037	GA-A	Clover Park TC - Personal Care Services Renovation						
G 05-038	GA-A	Clover Park TC - Allied Heath Care Facility		6/16/2006				
G 05-001	GA-A	Grays Harbor CC - Voc. Ed. Renovation	2/6/2006					
G 05-039	GA-A	Olympic College - Humanities Building		8/18/2006				
G 05-040	GA-A	Pierce College - Ft. Steilacoom - Science & Tech Center		3/25/2006				
G 05-041	GA-A	Pierce Coll. - Puy - Communication, Arts & Allied Health		8/22/2006				
G 05-042	GA-A	South Puget Sound CC - Science Complex	6/8/2006					
G 05-043	GA-A	South Puget Sound CC - Learning Resource Ctr. & Park'g.		5/22/2006				
G 05-044	GA-A	South Puget Sound CC - Building 22 Renovation		8/15/2006				
G 07-001	GA-A	Tacoma CC-Early Childhood Edu. & Child Care Center		6/28/2006				
G 07-004	GA-A	GA-Pritchard Library Renovation		8/31/2006				
G 05-045	DOC	Coyote Ridge Corrections Center		8/24/2006				
G 05-046	DOC	WSP - South Close Security Complex						
G 05-047	DOC	MCC - Health Care Facility		6/8/2006				
G 05-048	DOC	WCCW - Health Care		5/24/2006				
G 05-049	DOC	WCC - Health Care Facility Remodel		6/8/2006				
G 05-050	DOC	AHCC - Minimum Security Beds (200)		6/7/2006				

GA Green Bldg #	Project Information		Submittal Received					
	Project Mgt.	Project Name	Exemption	Pre-Design	Schem. D.	Design Dev.	Const.Doc.	Post-Const
G 05-051	DOC	Mission Creek 120 Bed						
G 05-052	DSHS	McNeil Is. - Special Commitment Center		8/14/2006				
G 07-002	DSHS	Echo Glen - Residential Housing Units Renovations		8/14/2006				
G 07-003	DSHS	Green Hill School - HCA and IMU Buildings		8/21/2006				
G 05-053	DOT	Spokane - NW Regional Headquarters						
G 05-054	DOT	Ephrata Maintenance Facility						
G 05-055	DOT	Olympic Region Headquarters						
G 05-056	DOT	Eagle Harbor - Renovation						
G 05-057	DOT	Eagle Harbor - New						
G 05-058	DOT	Mukilteo Ferry Terminal						
G 05-059	DOT	Bainbridge Island Ferry Terminal						
G 05-060	DOT	Anacortes Ferry Terminal						
G 05-003	DNR	Greenhouse	1/12/2006					
G 05-061	DFW	No New or Remodel Facilities						
G 05-062	Parks	Deception Pass - Maintenance Shop	Below 5,000SF					
G 05-063	Parks	Deception Pass - Admin. Office	Below 5,000SF					
G 05-064	UW	Playhouse Theater Renovation		7/31/2006				
G 05-069	UW	Clark Hall Renovation		7/31/2006				
G 05-065	UW	Savery Hall Renovation		7/25/2006				
G 05-066	UW	MAG HSC/H Infrastructure Upgrade						
G 05-067	UW	UWT Assembly Hall		8/3/2006				
G 05-068	WSU	Warehouse Project	12/30/2005					
G 05-069	WWU	No New Projects						
G 05-070	EWU	Hargreaves Hall Renovation						
G 05-071	EWU	Patterson Hall Renovation						
G 05-072	EWU	Martin/Williamson Hall Remodel						
G 05-073	EWU	Isle Hall Remodel						
G 05-002	CWU	Dean Hall Renovation		4/4/2006	4/4/2006			
G 05-074	TESC	Daniel J Evans Library Modernization						
G 05-075	TESC	Lab I First Floor Class and Laboratory Renovation						

Key	Points
LEED Platinum	52+
LEED Gold	39-51
LEED Silver	33-38
LEED Certified	26-32
Projects Dropped or Agencies with No Applicable Projects	

State LEED Projects

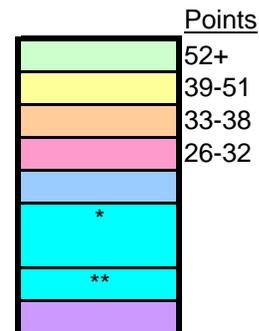
GA Green Bldg #	Project Information		EAS Project No.	Submittal Received					
	Project Mgt.	Project Name		(Note: Dates not shaded are anticipated submittal dates.)					
				Exemption	Pre-Design	Schem. D.	Design Dev.	Const.Doc.	Post-Const
G 05-004	GA-B	Bellevue CC - Science & Tech Bldg	06-123		2/3/2006		6/19/2006	10/19/2006	11/1/2008
G 05-006	GA-B	Cascadia CC - Center for the Arts, Tech, & Global Interact	06-144		9/15/2006		11/28/2006	5/1/2008	4/1/2009
G 05-010	GA-B	Everett CC - Undergrad. Ed Center & Classrooms	05-219		8/11/2006	7/15/2006	1/22/2007	5/22/2007	11/5/2007
G 07-005	GA-B	Ecology - Northwest Regional Office	06-257		12/7/2006	12/7/2007	6/11/2008	10/11/2008	1/1/2011
G 05-011	GA-B	Everett CC - Paine Field Tech Center	06-195						
G 05-012	GA-B	Green River CC - General Classroom Bldg.	06-147						
G 05-014	GA-B	Green River CC - OEA Skill Support Center Addition		Remove-Below 5,000 SF					
G 05-015	GA-B	Lake WA Tech - Allied Health Bldg.	06-073						
G 05-016	GA-B	North Seattle CC - Employment Resource Center	06-132		6/1/2007	9/1/2007	9/10/2008	1/1/2009	3/1/2010
G 05-021	GA-B	Shoreline CC - Automotive Bldg.	05-249	Remove-Below 50% of Assessed Value					
G 05-022	GA-B	Skagit Valley CC - Science Bldg.	05-200		12/13/2006	4/1/2006	10/1/2006	10/1/2007	11/1/2008
G 05-026	GA-B	Spokane Falls CC - Classroom Bldg.	06-052		12/12/2006	9/1/2007	4/13/2008	11/1/2009	4/15/2011
G 05-076	GA-B	Spokane Falls CC - Business and Social Science	04-192	Remove - Design started prior to 6/05					
G 05-077	GA-B	Spokane Falls CC - Early Learning Center	06-053		12/1/2006	9/1/2007	1/27/2008	5/27/2008	1/1/2011
G 05-027	GA-B	Walla Walla CC - Clarkston Heath Sciences	05-162						
G 05-028	GA-B	Walla Walla CC - Center for Water and Environ. Studies	05-210						
G 05-032	GA-A	GA Building/Executive Office Plaza/Heritage Center	06-117		8/31/2006	Unsure of schedule			
G 05-033	GA-A	Military - Olympia Readiness Center	06-017						
G 05-034	GA-A	Centralia College-Science Complex	03-218		8/30/2006	12/1/2005	9/15/2006	1/15/2007	12/15/2008
G 05-035	GA-A	Clark College - East County Satelite Campus	05-099		8/30/2006	8/30/2006	1/2/2007	5/2/2007	11/26/2007
G 05-036	GA-A	Clark College - Training Center - On Hold			On Hold				
G 05-037	GA-A	Clover Park TC - Personal Care Services Renovation	04-176	Remove - Design started prior to 7/05					
G 05-038	GA-A	Clover Park TC - Allied Heath Care Facility	06-092		6/16/2006	12/1/2007	5/1/2008	9/1/2008	12/1/2010
G 05-001	GA-A	Grays Harbor CC - Voc. Ed. Renovation	05-186	2/6/2006					
G 05-039	GA-A	Olympic College - Humanities Building	05-187		8/18/2006	Schedule not included in email			
G 05-040	GA-A	Pierce College - Ft. Steilacoom - Science & Tech Center	03-200		8/21/2005	9/1/2005	9/1/2006	1/1/2007	6/1/2009
G 05-041	GA-A	Pierce Coll. - Puy - Communication, Arts & Allied Health	03-198		8/22/2006	9/28/2005	11/1/2006	12/1/2007	6/1/2009
G 05-042	GA-A	South Puget Sound CC - Science Complex	03-223		8/3/2006	8/3/2006	9/1/2006	1/1/2007	7/1/2008
G 05-043	GA-A	South Puget Sound CC-Learning Resource Ctr. & Park'g.	05-137		5/22/2006	8/1/2006	3/1/2008	7/1/2008	1/1/2011
G 05-044	GA-A	South Puget Sound CC - Building 22 Renovation	06-280		8/15/2006	8/1/2006	Unsure of schedule		
G 07-001	GA-A	Tacoma CC-Early Childhood Edu. & Child Care Center	06-205		6/28/2006	11/1/2006	6/1/2007	10/1/2007	3/1/2009
G 07-004	GA-A	GA-Pritchard Library Renovation	06-117		8/31/2006		TBD	TBD	9/1/2009
G 05-045	DOC	Coyote Ridge Corrections Center	06-313		8/24/2006		11/21/2006	1/1/2007	11/31/08
G 05-046	DOC	WSP - South Close Security Complex	06-314						
G 05-047	DOC	MCC - Health Care Facility	06-043		6/8/2006	11/5/2007	1/30/2008	5/30/2008	9/1/2011
G 05-048	DOC	WCCW - Health Care	06-309		5/24/2006	8/1/2006	11/13/2006	3/13/2007	10/1/08
G 05-049	DOC	WCC - Health Care Facility Remodel	06-305						
G 05-050	DOC	AHCC - Minimum Security Beds (200)	06-311		6/7/2006	6/12/2006	9/19/2006	11/15/2006	5/1/2007
G 05-051	DOC	Mission Creek 120 Bed	06-312						

G 05-052	DSHS	McNeil Is. - Special Commitment Center	06-465		8/14/2006	4/1/2008	10/1/2008	2/1/2009	8/1/2010
G 07-002	DSHS	Echo Glen - Residential Housing Units Renovations			8/14/2006	8/1/2006	8/1/2006	12/1/2006	5/30/2008
G 07-003	DSHS	Green Hill School - HCA and IMU Buildings	06-481		8/21/2006	7/1/2006	10/1/2006	2/1/2007	2/1/2008
G 05-053	DOT	Spokane - NW Regional Headquarters							
G 05-054	DOT	Ephrata Maintenance Facility							
G 05-055	DOT	Olympic Region Headquarters							
G 05-056	DOT	Eagle Harbor - Renovation							
G 05-057	DOT	Eagle Harbor - New							
G 05-058	DOT	Mukilteo Ferry Terminal							
G 05-059	DOT	Bainbridge Island Ferry Terminal							
G 05-060	DOT	Anacortes Ferry Terminal							
G 05-003	DNR	Greenhouse		1/12/2006					
G 05-061	DFW	No New or Remodel Facilities							
G 05-062	Parks	Deception Pass - Maintenance Shop							
G 05-063	Parks	Deception Pass - Admin. Office							
G 05-064	UW	Playhouse Theater Renovation			7/31/2006	6/1/2006	11/1/2006	3/1/2007	7/1/2008
G 05-069	UW	Clark Hall Renovation			7/31/2006	8/1/2006	1/1/2007	5/1/2007	12/1/2008
G 05-065	UW	Savery Hall Renovation			7/25/2006	7/1/2006	3/1/2007	7/1/2007	6/1/2009
G 05-066	UW	MAG HSC/H Infrastructure Upgrade							
G 05-067	UW	UWT Assembly Hall			8/3/2006	6/1/2006	12/1/2006	4/1/2007	8/1/2008
G 05-068	WSU	Warehouse Project		12/30/2005					
G 05-078	WSU	Undergraduate Classroom Building - Vancouver							
G 05-069	WWU	No New Projects							
G 05-070	EWU	Hargreaves Hall Renovation							
G 05-071	EWU	Patterson Hall Renovation							
G 05-072	EWU	Martin/Williamson Hall Remodel							
G 05-073	EWU	Isle Hall Remodel							
G 05-002	CWU	Dean Hall Renovation			4/4/2006	4/4/2006	7/17/2006	11/17/2006	5/10/2008
G 05-074	TESC	Daniel J Evans Library Modernization							
G 05-075	TESC	Lab I First Floor Class and Laboratory Renovation							

Key

LEED Platinum
LEED Gold
LEED Silver
LEED Certified

Projects Dropped or Agencies with No Applicable Projects
This project will not seek LEED certification, but will follow through with the
GA QA process.
This project will seek LEED certification
This project will not seek LEED certification or follow GA QA process



State Green Building (ESSB 5509) Affected Agency Committee

Project Lead: Stuart Simpson 360-902-7199 ssimpso@ga.wa.gov

Acpt'd.	Agency/Company	Name	Phone	E-Mail
Affected Agencies Committee				
x	WSU	Keith Bloom	509-335-9016	bloom@wsu.edu
x	University of Washington	JR Fulton	206-221-7468	jrfulton@u.washington.edu
x	Com. & Tech College Board	Tom Henderson	360-704-4382	thenderson@sbctc.edu
x	Highline Community College	Pete Babington	206-870-3793	PBABINGT@highline.edu
x	DOC	Pam Jenkins	360-753-3975	pgjenkins@doc1.wa.gov
x	DSHS	Nancy Deakins	360-902-8161	deakink@dshs.wa.gov
x	Military	John Havens	253-512-7905	John.Havens@wa.ngb.army.mil
x	GA - E&AS	Paul Szumlanski	360-902-7271	pszumla@ga.wa.gov
x	DOT	Bill Shisler	360-705-7345	shisleb@wsdot.wa.gov

**State Green Building (ESSB 5509)
High-Performance Buildings Advisory Committee**

July 8, 2005

Project Lead: Stuart Simpson 360-902-7199 ssimpso@ga.wa.gov

Table #	Initial	Agency/Company	Name	Phone	E-Mail
		Affected Agencies Committee			
		WSU	Keith Bloom	509-335-9016	bloom@wsu.edu
		University of Washington	JR Fulton	206-221-7468	jrfulton@u.washington.edu
		Com. & Tech College Board	Tom Henderson	360-704-4382	thenderson@sbctc.edu
		Highline Community College	Pete Babington	206-870-3793	PBABINGT@highline.edu
		DOC	Pam Jenkins	360-753-3975	pgjenkins@doc1.wa.gov
		DSHS	Nancy Deakins	360-902-8161	deakink@dshs.wa.gov
		Military	John Havens	253-512-7905	John.Havens@wa.ngb.army.mil
		GA - E&AS	Paul Szumlanski	360-902-7271	pszumla@ga.wa.gov
		DOT	Bill Shisler	360-705-7345	shisleb@wsdot.wa.gov
		Other Affected Agencies			
		The Evergreen State College	Paul Smith	360-867-6115	smithpa@evergreen.edu
		School for the Blind	Rob Tracey	360-696-6321	Rob.Tracey@wssb.wa.gov
		GA - Planning & Fac. Mgt.	Gary Larson	360-902-0971	glarson@ga.wa.gov
		OFM	Steve Masse	360-902-0576	steve.masse@ofm.wa.gov
		Dept. of Ecology	Paige Sorensen	360-407-6352	psor461@ecy.wa.gov
		OSPI	Carter Bagg	425-503-5424	cbagg@ospi.wednet.edu
		OSPI	John Richards	360-725-6268	jrichards@ospi.wednet.edu
		State Board of Education			
		General Admin. - Energy	Jim Hayes	360-902-7281	jhayes@ga.wa.gov
		Design and Construction Industry Representatives			
		DKA	Marc Jenefsky		
		Olympic Associates	Steven Paget	206-268-0972	spaget@olympicassociates.com
		Cascadia Chap. USGBC	Kollin Min	206-850-2232	kolmin@yahoo.com
		Paladino & Company	Kristen Ralff-Douglas	206-522-7600	kristinrd@paladinoandco.com
		O'Brien & Company	Kathleen O'Brien	206-842-8995	kathleen@obrienandco.com
		Keen Engineering	Paul Anseeuw	206-770-7779	paulanseeuw@keeneng.com
		Bassetti Architects	Greg Hepp	206-340-9500	GHepp@BassettiArch.com
		Mithun Architects	Richard Franko	206-623-3344	RichardF@Mithun.com
		Zeck Butler Architects	Rod Butler	509-456-8236	butler@zeckbutler.com
		Sellen Construction	Jack Avery	206-682-7770	jacka@sellen.com
		Turner Construction	Jim Goldman		jgoldman@tcco.com
		Mortenson	Marvin Doster	425-895-9000	marvin.doster@mortenson.com
		AIA Washington	Stan Bowman	360-943-6012	bowman@aiawa.org
		AGC	Van Collins		vcollins@agcwa.com
		City of Seattle	Peter Dobrovolny	206-615-1094	peter.dobrovolny@ci.seattle.wa.us
		BetterBricks	Joel Loveland	877-604-6592	loveland@u.washington.edu
		Puget Sound Energy	Bob Stolarski	425-487-6542	bob.stolarski@pse.com
		Spokane CC	Joanne Murcar	509-533-4740	jmurcar@ccs.spokane.edu
		State Board of C&T Colleges	Michelle Andreas	360-704-4338	mandreas@sbctc.ctc.edu
		Donald King Architects	Marc Jenefsky AIA	206-443-9939	marc@diarchy.com

State of Washington

**Leadership in Energy and Environmental Design
(LEED™)**

Quality Assurance Process

Guidelines

For State Agency/College

and

University Facilities

Administered by:

The Department of General Administration

Background

With the passage of Engrossed Substitute Senate Bill 5509 – 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. A non-profit consensus based organization made up of architect and engineering firms, product manufacturers, and federal, state and local government agencies. The bill has now been transferred into statute at 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.

The Department of General Administration (GA) was given a leadership role in the development of procedures to ensure the state is successful in this effort. The pertinent section in the legislation reads as follows:

39.35.D 060 (1)(a) The department (GA), in consultation with affected public agencies, shall develop and issue guidelines for administering this chapter for public agencies. The purpose of the guidelines is to define a procedure and method for employing and verifying activities necessary for certification to at least the LEED silver standard for major facility projects.

GA is also responsible for reporting to the Governor and the Legislature related to progress implementing this chapter as stated in the following section:

39.35.D 030 (3)(a) Public agencies, under this section, shall monitor and document ongoing operating savings resulting from major facility projects designed, constructed, and certified as required under this section.

(b) Public agencies, under this section, shall report annually to the department on major facility projects and operating savings.

(4) The department shall consolidate the reports required in subsection (3) of this section into one report and report to the governor and legislature by September 1st of each even-numbered year beginning in 2006 and ending in 2016. In its report, the department shall also report on the implementation of this chapter, including reasons why the LEED standard was not used as required by section 2 (5)(b) of this act. The department shall make recommendations regarding the ongoing implementation of this chapter, including a discussion of incentives and disincentives related to implementing this chapter.

In response to the passage of ESSB 5509 GA assembled a committee of the Affected Agencies, as instructed in the legislation, and developed the following guidelines and process. GA would like to thank the Affected Agencies Committee for their commitment to this effort.

Affected Agencies Committee

Keith Bloom, Washington State University
Tom Henderson, State Community & Tech College Board
Pete Babington, Highline Comm. College
Nancy Deakins, Dept. of Soc. & Health Services
Paul Szumlanski, GA, E & A Services

JR Fulton, University of Washington
Pam Jenkins, Dept. of Corrections
John Havens, Military
Bill Shisler, Dept. of Transportation
Stuart Simpson, GA, E & A Services

Contact

GA Contact: Stuart Simpson, Sustainable Building Advisor, Project Lead
Phone: (360) 902-7199 E-Mail: ssimpso@ga.wa.gov

Introduction

The process outlined below will help ensure projects are on the right path to attain LEED™ Silver certification through the US Green Building Council (USGBC). This process applies to all new major facility project construction and renovation projects over 5,000 GSF, where the renovation costs exceed 50% of the building assessed value. Some projects may be exempt based on the following criteria:

39.35.D 020 (b) "Major facility project" does not include: (i) Projects for which the department, public school district, or other applicable agency and the design team determine the LEED silver standard or the Washington sustainable school design protocol to be not practicable; or (ii) transmitter buildings, pumping stations, hospitals, research facilities primarily used for sponsored laboratory experimentation, laboratory research, or laboratory training in research methods, or other similar building types as determined by the department. When the LEED silver standard is determined to be not practicable for a project, then it must be determined if any LEED standard is practicable for the project. If LEED standards or the Washington sustainable school design protocol are not followed for the project, the public school district or public agency shall report these reasons to the department.

For the projects that apply, the forms needed to complete the State LEED™ Quality Assurance Process are available for download at: www.ga.wa.gov/eas/green. Once at the website select "Submittal Forms".

To complete the forms, fill in the information requested in the blank spaces in yellow. Also make sure to attach the associated forms and information that are indicated on each of the GA Submittal forms. This site also has information regarding Frequently Asked Questions (FAQs) and other helpful information regarding the process and LEED™. GA Submittal Forms, and associated forms and information should be submitted by e-mailed to: SustainableBA@ga.wa.gov. This e-mail address can also be used for correspondence related to this process.

Projects For Which No Submittal is Required

If a project is new construction under 5,000 GSF or is a renovation project with a cost of less than 50% of the assessed value, it is exempt. No submittal is required. Assessed value can be based on County Assessors records, or replacement value, it is the owner's choice.

For projects where the design was initiated before July 24, 2005, no submittal is required.

The State Project Manager and/or owner's representative can determine if no submittal is required. If there is a question about whether a project would need to complete a form, contact the Sustainable Building Advisor at the Department of General Administration (360) 902-7199.

Exemption Declaration

The Architect or owner's representative will complete the Exemption Declaration form, if applicable. If an exemption is not being sought, skip this section and move to the Pre-Design/Schematic Design section.

Non-occupied buildings, hospitals, and laboratory facilities are exempt. A teaching lab, however, would not necessarily be exempt. The "Facility Type Exemption Declaration" must be completed and submitted during Pre-Design or if there is no Pre-Design, then early in Schematic Design.

There may be some unusual circumstances where LEED™ Silver is "not practicable". An explanation for using the "Not Practicable" Exemption Declaration form is required. The Not Practicable Exemption Declaration can be submitted during Pre-Design, early in Schematic Design, or at any time during the design or construction process when it is determined that compliance with RCW 39.35D is "not practicable".

This one form is used for either Exemption Declaration. The form must include the signature of a senior administrator level position, with the authority to make decisions that will be included in the GA High-Performance Green Building Biennial Report to the Governor and the Legislature. A LEED™ Checklist and one page description of why the exemption is being sought must also be included with the form.

GA Response

The GA-Sustainable Building Advisor (GA-SBA) will phone the agency contact to discuss the project if there is a question about the exemption. If the facility does not have a 100% Facility Type Exemption there will be discussion regarding partial compliance and/or submittal recommendations.

If a “Not Practicable” Exemption is being sought, the GA-SBA will phone the agency contact to discuss the recommended LEED™ compliance level, submittals, and reporting. For instance, if LEED™ Silver can not be accomplished, then LEED™ Certified may be appropriate. Certification through the US Green Building Council is required, however, this may also be a tipping point for a project budget. Compliance with the LEED™ Silver standard, without certification may be desired due to budget constraints. In this case, completion of the GA LEED™ Quality Assurance process may be one way to demonstrate a “good faith” effort to meet the intent of the statute.

Pre-Design / Schematic Design Submittal

The Architect or owner’s representative will complete the GA Pre-Design/Schematic QA Submittal and associated forms and information after the “eco-charrette” or sustainable building workshop, when a LEED™ Checklist has been prepared. This submittal includes an Environmental Design Considerations form and LEED™ Checklist along with the GA LEED™ QA Submittal. If the project does not have Pre-Design, submit this form and associated documents at Schematic Design. If submittal data has changed from the submittal sent in at Pre-Design, prepare and submit a new Schematic Design GA LEED™ QA Submittal.

GA Response

Comments on the Green Building goals will be provided by the GA-SBA along with identification of free technical and financial assistance, including utility incentive programs and contact names and phone numbers. There is also information regarding the Environmental Design Considerations and Building Commissioning Considerations. Attachments may include utility incentive applications.

Design Development Submittal

The Architect or owner’s representative will complete the GA Design Development QA Submittal and associated forms. Project header information can be copied from the Pre-Design/Schematic Design QA Submittal form. The DD QA Submittal includes an updated LEED™ Checklist and a Summary of Green Building Strategies to satisfy the selected LEED™ Credits (1 to 3 page summary). This GA LEED™ QA Submittal must occur at the end of the Design Development phase.

GA Response

A list of potential utility incentive measures may be included, as appropriate, along with comments related to the LEED™ Scorecard and strategies. Suggested items for inclusion in the Construction Documents and for the Pre-Bid and Pre-Construction Conferences will also be included.

Construction Documents Submittal

The Architect or owner's representative will complete the GA LEED™ QA Submittal for the Construction Documents phase and associated forms and information. Project header information can be copied from the Design Development form to expedite completion of this submittal. This submittal also includes an updated LEED™ Checklist and an updated Summary of Green Building Strategies to satisfy selected LEED™ Credits (2 to 4 pages). This GA LEED™ QA Submittal must occur at 90% through the Construction Documents phase.

GA Response

Comments will be provided by the GA-SBA as appropriate. This will include suggested activities for successful LEED™ implementation concerning the contractor, and securing utility incentives.

Post Construction Submittal

The Architect or owner's representative will complete the GA LEED™ QA Submittal for Post Construction and associated forms and information. This QA Submittal also includes an updated LEED™ Checklist, an updated Summary Report of Green Building strategies to satisfy selected LEED™ Credits (2 to 4 pages), and 10 pictures of the project illustrating the sustainable features and overall project, along with a brief description of each picture. This GA Submittal must occur at Substantial Completion or soon thereafter.

GA Response

Comments will be provided by the GA-SBA as appropriate. Final High-Performance Green Building Design and Construction Evaluation Summary will be provided. The Summary Report, LEED™ Checklist, and Pictures with descriptions will be included as a case study on the GA Green Building website.

Closing Comment

The information submitted in this Quality Assurance Process is needed for determining project status to achieve the LEED™ Silver standard. The GA LEED™ QA Submittal forms, associated information, and LEED™ Checklists will be used for the following:

- reporting to the Governor's Office and Legislature
- to identify projects that may need additional assistance to achieve LEED™ Silver
- preparing case studies
- developing an in-house data base of Green Building strategies and products
- determining the cost effectiveness of building to the LEED™ Silver standard
- learning how to best navigate the LEED™ process through the US Green Building Council
- sharing best practices

GA will work to provide information back to the affected agencies through direct emails and/or web site postings so that the State as a whole can be more successful at meeting this ambitious goal.

High-Performance Green Buildings Exemption Declaration

Received by GA:

Date:

Submit to: sustainableba@ga.wa.gov

Project Name:	<input type="text"/>	Agency/Institution	<input type="text"/>
Project Number:	<input type="text"/>	GA H-P Green Bldg. #	<input type="text"/>

Submitted By:	Name	Agency	Phone	E-Mail
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Conceptual Construction Cost Estimate	<input type="text"/>
Total Facility Square Footage Estimate	<input type="text"/>
Project Location/Address	<input type="text"/>

Facility Type Exemption*	Exempt Space Approx. %	Agency Representative Signature Block
Transmitter Building	<input type="text"/>	<input type="text"/>
Pumping Station	<input type="text"/>	
Hospital (not including skilled nursing)	<input type="text"/>	
Research Facilities with Laboratories	<input type="text"/>	
		Signature
		Name:
		Title:

"Not Practicable" Exemption**	Yes/No	Agency Representative Signature Block
The project will seek US Green Bldg. Council LEED Certification***	<input type="text"/>	<input type="text"/>
The project will participate in the GA LEED QA process**	<input type="text"/>	
The project will take no further action regarding LEED.	<input type="text"/>	
		Signature
		Name:
		Title:

This Exemption Submittal includes the following:

Provide a one page description of why the exemption is being sought.

Provide a LEED Checklist indicating which LEED Credits may be "practicable" for the project.

LEED Score attempting

* If a "Facility Type" exemption is requested and verified, no further submittals are required.

** If a "Not Practicable" exemption is requested, the project should pursue LEED to the level that is "practicable" for the project. Projects are encouraged to participate in the GA LEED QA process and subsequent annual reporting of the energy and water/sewer consumption to GA. This will demonstrate a "Good Faith" effort consistent with the intent of RCW 39.35D. Complete the appropriate GA LEED QA forms as the project progresses through the design and construction process. Feedback from GA will help projects to achieve the proposed LEED goal and will help to maximize utility incentives.

*** If the project continues to seek LEED Certification the project should also participate in the GA LEED QA process.

High-Performance Green Buildings

Received by GA:

Date:

Pre-Design/Schematic Design Submittal (submit after the eco-charrette)

Submit to: sustainableba@ga.wa.gov

Project Name	<input type="text"/>	Agency/Institution	<input type="text"/>
Project Number	<input type="text"/>	GA H-P Green Bldg. #	<input type="text"/>
Building Use	<input type="text"/>		

	Name	Agency or Firm	Phone	E-Mail
Submitted By	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Conceptual Construction Cost Estimate

Total Facility Square Footage Estimate

Project Location/Address

Has the project been registered with the US Green Building Council?	Yes / No		Begin Construction (Date)	End Construction (Date)	
	<input type="text"/>	<input type="text"/>			
Project Schedule	Begin SD (Date)	Begin DD (Date)	Begin CD (Date)	<input type="text"/>	<input type="text"/>

This submittal includes the following:

- 1 Provide a completed Environmental Design Considerations form*
- 2 Provide an updated LEED Checklist*

* These are required by the new Energy Life Cycle Cost Analysis (ELCCA) process

Provide a list of the following:	Name	Agency or Firm	Phone	E-Mail
State Project Manager	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Agency Representative	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Architect	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
LEED Submittal Preparation By	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Figure 3.1 Environmental Design Considerations Form

Environmental Design Consideration

Version 1.0 July 2005

Project Title:	Date:
Owner:	Owner's Rep:
Owner's Project No:	Owner's Phone No:
Owner's E-mail:	Owner's Fax No:
Completed by:	Phone No:
Firm:	E-mail:
Bldg Type:	
Approx. sq. ft:	<input type="checkbox"/> New <input type="checkbox"/> Remodel <input type="checkbox"/> Addition

The following are elements of an energy efficient design and can contribute to LEED™ points. Check 'Yes' to indicate items that will be considered in the High Performance Alternative of the Energy Life Cycle Cost Analysis

	Site Considerations	Yes	No	N/A
1)	Building orientated to optimize energy efficiency	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2)	Landscaping to provide solar shading	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Envelope	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3)	Energy Star™ compliant roof	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4)	Roof insulation to meet or exceed R-30 rigid or R-38 batt*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5)	Wall insulation with	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	a) wood studs, R-19 batt insulation*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	b) metal studs, R-19 and rigid insulation on the exterior*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	c) mass wall, R-10 rigid insulation*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6)	Windows:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	a) U=0.45 or lower*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	b) SHGC=0.45 (reduced cooling load) or lower*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	c) Exceed 50% Visual Light Transmittance (increased daylighting)*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7)	Skylights U=0.60 or lower*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8)	Doors U=0.50 or lower*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Lighting			
9)	Incorporate daylighting in over 50% of occupied critical visual task areas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10)	Automated daylight harvesting controls	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11)	Lumen maintenance controls (metal halide with electronic balast)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12)	Fluorescent lighting for the gym, multipurpose, commons or other High Bay application	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13)	Lighting power densities will meet or be lower than the following*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	a) Classroom: 1.15 watts per square foot (w/sf)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	b) Gym: 1.00 w/sf (1.8 w/sf over competitive area)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	c) Office: 1.10 w/sf	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	d) Library: 1.30 w/sf	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	e) Corridor: 0.70 w/sf	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

* Represents ELCCA prescriptive elements

High-Performance Green Buildings

Received by GA:

Date:

Design Development Submittal (submit at the end of DD)

Submit to: sustainableba@ga.wa.gov

Project Name	<input type="text"/>	Agency/Institution	<input type="text"/>
Project Number	<input type="text"/>	GA H-P Green Bldg. #	<input type="text"/>

	Name	Agency or Firm	Phone	E-Mail
Submitted By	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

This submittal includes the following:

- 1 Provide an updated LEED Checklist
- 2 Provide a one to three page summary of strategies used to meet LEED Credits

High-Performance Green Buildings

Received by GA:

Date:

Construction Documents Submittal (submit at 90% CD)

Submit to: sustainableba@ga.wa.gov

Project Name:	<input type="text"/>	Agency/Institution:	<input type="text"/>
Project Number:	<input type="text"/>	GA H-P Green Bldg. #	<input type="text"/>

	Name	Agency or Firm	Phone	E-Mail
Submitted By:	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>				

This submittal includes the following:

- 1 Provide an updated LEED Checklist
- 2 Provide a two to four page summary of strategies used to meet LEED Credits

High-Performance Green Buildings

Post Construction Submittal (submit at substantial completion)

Received by GA:

Date:

Submit to: sustainableba@ga.wa.gov

Project Name			Agency/Institution		
Project Number		GA H-P Green Bldg.#			
Final Square Footage	-				

Submitted By	Name	Agency or Firm	Phone	E-Mail

General Contractor	Name	Company	Phone	E-Mail

Construction Related Costs	
Facility Construction Costs (Est.)	\$ -
Site Work & Related Costs* (Est.)	\$ -
Max. Allowable Construct.Costs(MACC)	\$ -

Consultant Related Costs	
A) A/E Fees (Base)	\$ -
B) Additional A/E Fees	\$ -
Other Consultant Services	
C) Commissioning	\$ -
D)	\$ -
F) Est.LEED Related from (B,C &D)	\$ -
Total Consultant Fees (A,B,C &D)	\$ -

Estimated Construction Costs Associated with LEED**	
Costs Assoc. w/LEED (Est.)	\$ -
Savings Assoc. w/LEED (Est.)	\$ -
Total Project Cost	\$ -
Total Added LEED Cost	\$ -

Payback for LEED	#DIV/0!
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Energy and Water/Sewer Savings and Consumption Est.s (Taken from the LEED Submittal)	
Estimated Energy Savings (% \$)	
Est. Annual Energy Savings (\$/Yr)	\$ -
Est. Total Energy Use (kBtu/Yr)	
Est. Total Energy Use (\$/Yr)	\$ -
Estimated Water Savings (% \$)	
Est. Annual Water Savings (\$/Yr)	\$ -
Est. Annual Water Use (Gals/Yr)	
Est. Annual Water Cost (\$/Yr)	\$ -
Est. Annual Sewer Savings (\$/yr)	\$ -
Est. Annual Sewer Savings (Gals/yr)	
Total Estimated Annual Savings	\$ -

* Include demolition costs as part of site work.

** Make a best guess. Use conventional construction techniques as a base for comparison.

This submittal includes the following:

- Provide an updated LEED Checklist.
- Provide a two to four page summary of strategies used to meet LEED Credits, include discussion of costs and savings.
- Provide 10 pictures of the project illustrating the sustainable features and overall project (include descriptions)

	Gas	Electricity	Water	Other	Total
Utility Incentives Received	\$ -	\$ -	\$ -	\$ -	\$ -

Sustainable Building Report

Reported by: *Steve Salmi*
360/725-3021
steves@cted.wa.gov

Overview

CTED Capital Programs introduced the new green building requirements with our 2007-2009 competitive grant application cycle, which was conducted in the first half of 2006. In addition, with the passage of the 2006 Supplemental Capital Budget we have begun to implement the requirements in the direct appropriations that we administer. Implementing the green building law has had a significant impact on our processes, procedures, and workload. The level of compliance is about where we expected it to be after the first year (see below). However, we recognize that we need to increase our capacity to provide training and technical consultation for interested organizations in order to increase compliance without reducing accessibility to our grants.

Projects

Competitive grants: For the 2007-2009 application cycle just completed, 63 projects were recommended for funding. Of those, 19 (or 21 percent) plan to achieve LEED silver certification, 32 (35 percent) received a facility-type exemption, and 39 (43 percent) received a “not practicable” exemption. Note that these 63 recommended projects are submitted to the Governor for possible inclusion in her 2007-2009 Capital Budget request, and that the Legislature must approve any proposed appropriations.

Direct appropriations: We have been asked to administer 37 projects placed in the 2006 Supplemental Capital Budget by legislators or the Governor. (We have no role in the selection of these projects, and generally have no contact with the grantee until the budget is approved.) Of those projects, nine have provided us with information about their compliance with the green building law: None plan to achieve LEED silver certification, four have received a facility-type exemption, and five have received a “not practicable” exemption.

Training Efforts

Training for clients:

- *Green building workshops held on the east and west side of state drew upon the expertise of the Dept. of General Administration (GA), the Dept. of Ecology (DOE), and the Cascadia Chapter of the U.S. Green Building Council (USGBC). Workshop attendance: Eastside (approx. 18), Westside (approx. 65).*

- *Green building information has been prominently posted on our web site and in printed grant materials. The information has included our policies as well as referrals for technical information about the LEED process.*

Training for staff:

- *A staff member attended the Urban Land Institute conference on green buildings, and reference materials have been purchased.*
- *The expertise of GA, DOE, and USGBC has been tapped regarding specialized technical questions posed by grant applicants and recipients.*

Lessons Learned

- *Nonprofit organizations represent the majority of our grant recipients, and they are generally not required by other funding sources to enter the LEED process. Because nonprofit organizations usually must conduct time-intensive, independent fundraising campaigns to raise the non-state share of project costs, a key element in our role as grant officers is to convince nonprofits that LEED is cost-effective in the long term and good public policy - even though the initial construction costs will be slightly higher.*
- *As a phase-in measure we gave “not practicable” exemptions to those competitive grant applicants who had substantially completed their design work by the application deadline. If we had not done so, the number of applicants might have dropped by as much as 40 percent.*
- *Projects in rural parts of the state were less familiar with LEED and often have fewer resources with which to comply with the law. We will continue to inform and educate interested parties not only about the LEED requirements but also about the program’s long-term benefits.*
- *Our projects are so diverse (in terms of facility type as well as stage of development) that a one-size-fits-all training program is not particularly efficient and effective. We will modify our training and grant application workshop formats prior to the next application cycle in 2008.*
- *We have received a number of complaints from pro-green building architects that the LEED process is not the most cost-effective approach for their projects.*
- *Implementing this law has significantly changed the nature of our operations. In the past we have functioned as bankers; this law effectively turns us into regulators of building designs (particularly for non-governmental entities that otherwise would not be regulated by the state).*
- *Developing and implementing the green building law has stretched the capacity of our office, both in terms of FTEs and expertise. We are thus proposing to hire a contract manager with LEED certification.*

- *Some recipients of direct appropriations may not be fully informed in advance about the green building law. At our request, staff of the Legislature's fiscal committees have included a LEED notification on the application forms that document and track legislative requests for project funding.*

Recommended Improvements to the Legislation

- *None at this time.*

Sustainable Building Report

Reported by: Joanne Hillemann, Project Manger Central Washington University
Phone: (509) 963-2909
E-mail: hillemaj@cwu.edu

Overview

Central Washington University's Campus Facilities Master Plan 2005 sets a key vision for the campus to "take progressive measures toward environmental sustainability. Sustainability is defined as the ability to meet the needs of the present without compromising the ability of the future generations to meet their own needs. Sustainable actions will be taken to improve the relationship between humans and their natural environment, to amplify the beauty of the campus, to decrease resource expenditure and depletion, and to serve as a source of pride for the university community at large. Actions taken will help teach students and citizens learn sustainability by practice rather than words." CWU is committed to resource conservation and another key objective stated in our master plan is to "Develop with resource conservation measures in place. Work toward Leadership in Energy and Environmental Design (LEED) certification for all new and renovated facilities, as funds permit." CWU's Facilities Management Department has been successful in energy conservation practices, winning the Governor's Excellence in Energy Conservation award in 2005. Prior to State requirements for LEED Silver, CWU planned to pursue LEED silver for the Hogue Technology Renovation, as stated in the Predesign Manual completed in June 2004.

Projects	Year Completed	Size in GSF	LEED Level	Status
Dean Hall Renovation	Design	72,650	LEED NC Silver	Goal

Training Efforts

Facilities Management encourages and supports training to its staff to increase the quality and depth of a sustainable future and implementation. Project management staff have attended LEED certification training, and are pursuing LEED accreditation. Recently, we have received approval to hire a full time Sustainability Coordinator to assist project managers, facilitate the LEED process, and to provide sustainability lectures and workshops to CWU students and staff through the Construction Management Department.

Lessons Learned

Start early. Encourage stakeholder training in sustainable design. Hire consultants well versed in sustainable design. Identify sustainable champion for project. Utilize eco-charrettes. Create, follow thru and frequently review LEED checklists and status. Commission building systems, and bring the commissioning agent in early. Be flexible. Innovate.

Recommended Improvements to the Legislation *identify what would make it easier*

- Consider the difficulty in achieving LEED silver certification for renovation projects, and provide additional LEED funding in such cases.
- Provide specific set aside money for costs related to LEED documentation and implementation, so that these costs are off the table for discussion.
- Provide for increased networking within the State Agencies.

August 15, 2006

Sustainable Building Report Template

Reported by: Kristi Lynett, Sustainability Coordinator
Phone: (360) 902-2237
E-mail: lynetksl@dfw.wa.gov

Overview

We strongly believe the Governor's sustainability goals are important to the continued health and vitality of Washington State and its citizens. We also believe that as the stewards of our state's fish and wildlife resources it is our responsibility to minimize our agency's impact on those resources. We must demonstrate that our own actions and activities do not cause undue harm to those resources.

While we have not, and do not anticipate in the near future constructing any buildings eligible for LEED Certification, we are committed to minimizing our footprint in our built environment. Our Agency's Sustainability Plan includes goals of reducing our use of water, non-renewable energy, and toxic materials. We are currently developing an aggressive "Environmentally Preferable Products" Policy and Manual that will direct staff to purchase items and materials with environmentally preferable attributes. This includes work managed by our engineering and construction program. We are looking to update our bid specifications and educate staff who design and build the structures about greener alternatives.

Training Efforts

By the end of this year, we hope to have 5-10 engineers and project managers LEED Accredited. Even though our projects are not LEED eligible, we feel that the values of LEED will permeate through to other projects we construct. We are also excited to take advantage of the US Green Building Council's local chapters and the training opportunities provided through that organization.

Sustainable Building Report

Department of Corrections, Capital Projects

August 22, 2006

Overview

The Department of Corrections (DOC) made a commitment to green building in their first sustainability plan, dated September 2003, predating the state requirements to do so. This allowed us to have two LEED certified buildings already completed (one Gold and one Silver) and three more in the submittal stage. In addition, DOC headquarters are in a leased LEED Gold building. DOC has a busy building schedule and many more buildings are in some stage of LEED development.

Projects

2005-07 Biennium					
GA Green Building #	Project Name	Progress	Square Footage	LEED Level	Status
G 05-045	CRCC Expansion	Design (This is a design-build project)	526,000	Silver-Campus	Goal
G 05-046	WSP – South Close Custody Complex	Pre-Design	129,882	Silver	Goal
G 05-047	MCC - Health Care Facility	Pre-design June 2006*	113,460	Silver	Goal
G 05-048	WCCW – Health Care Facility	Pre-design May 2006	23,385	Silver	Goal
G 05-049	WCC – Health care Facility Remodel	Pre-design June 2006	32,000	Silver	Goal
G 05-050	AHCC – Visitation Unit	Pre-design June 2006	6,000	Silver	Goal
G 05-051	MCCCW- 120 Bed Expansion	Design	11,300	Certified**	Goal
2003-2005 Biennium					
	WSP North Close Custody Complex (7 Buildings)	June 2007 estimated completion	503,146	Silver	Registered
	Correctional Industries Office and Warehouse	Completed 2006	60,200	Silver	Submitted
	MCC SOU Maintenance Building	Completed 2006	6,000	Silver	Submitted
	MCC IMU/ Segregation Unit	Completed 2006	77,000	Gold	Submitted
	WSP Warehouse	Completed 2005	39,000	Silver	Achieved
	MCC Training Center	Completed 2005	10,000	Gold	Achieved

* This project is currently only funded through the pre-design stage. Funding for design is hoped for in the next budget

** Due to the conditions at MCCCW, we are unable to use many of the Sustainable Sites and Building Reuse credits, which makes it extremely difficult, if not impossible, to attain LEED Silver. The architect has been requested to submit an explanation to this affect.

Training and Support

Four project managers and two environmental service specialists at DOC are LEED Accredited Professionals. Other staff have participated in trainings but not yet taken the exam. Capital Projects supports the efforts of staff to become LEED accredited. When Headquarters moved into their new LEED building, training was provided to all staff on the LEED building features. Building Management staff continues to offer this training to employees on a monthly basis. The Department has hired a fulltime sustainability coordinator to assist with green building as well as other parts of the sustainability plan.

Reported By:

Janine Bogar, Sustainability Coordinator, Department of Corrections

Phone: (360) 725-8396

E-mail: jebogar@doc1.wa.gov

DSHS Sustainable Building Report

Reported by: Nancy K. Deakins, P.E., Deputy Assistant Director, GA/DSHS Team
Phone: (360) 902-8161
E-mail: deakink@dshs.wa.gov

Overview

The Department of Social and Health Services' (DSHS) Sustainability Plan states: *[We are] committed to the Principles of Sustainability as described in Executive Orders 02-03, 04-01, and 05-01, and Engrossed Substitute Senate Bill 5509 for the needs of the present and future generations. We are dedicated to improving the quality of life and promoting healthy environments for the communities in which we work and live. We will strive to reduce the natural, economic, and cultural environmental footprints of the Department.* GA/DSHS Team uses the processes developed with General Administration for managing projects with LEED requirements.

Projects	Year Completed	Size in GSF	LEED Level	Status
EGCC Housing Units Phase 2	Design Development	18,320	LEED NC Silver	Goal
GHS Intensive Management Unit	Schematic Design	13,000	LEED NC Silver or Certified	Goal
GHS Health Center and Administration	Schematic Design	20,000	LEED NC Silver	Goal
SCC 96-Bed Expansion	Pre-Design	55,300	LEED NC Silver	Goal

Training Efforts

All PMs have attended the LEED New Construction Technical Review Workshop. Two PMs are LEED Accredited Professionals and the remaining four PMs will earn this by June 30, 2007.

Lessons Learned

Start early. Stakeholder training in sustainable design. Hire the right consultants. Stay focused. Identify strong intent. Educate stakeholders. Utilize eco-charrettes. Create and follow thru on LEED checklists. Be flexible and innovative.

Recommended Improvements to the Legislation

- Reduce reporting requirements by having one point of reporting

Sustainable Building Report

Reported By: Steven W. Bloom, P.E., Project Manager-Eastern Washington University
Phone: (509) 359-6339
E-mail: sbloom@mail.ewu.edu

Overview

EWU currently has 5 projects in process which will utilize the principals of Sustainable Building Design. Four of the projects are mandated to meet LEED Silver, and [one](#) is a voluntary effort.

Project statistics are as follows:

Project Title	Status
Hargreaves Hall Renovation	Currently in Predesign
Patterson Hall Renovation	Consultant selection planned for Fall '06
Martin/Williamson Hall Remodel	Consultant selection planned for Fall '06
Isle Hall Remodel	Consultant selection planned for Fall '07
Student Rec. Center	Construction start Fall '06

Project Details

Hargreaves Hall Renovation

EWU Project Manager	Jim Moeller
Architect	Madsen Mitchel Evenson & Conrad,pllc - Spokane
LEED Consultant	Kelly A. Karmel, AIA, LEED AP - Design Balance – Missoula, MT

[Student Rec. Center](#)

EWU Project Manager	Troy Bester
Architect	Sink Combs Dethlefs – Denver, CO
LEED Consultant	Kelly A. Karmel, AIA, LEED AP - Design Balance – Missoula, MT

[Should attain Silver Rating - see attached score sheet](#)

END OF REPORT

Certified 26 to 32 points
Silver 33 to 38 points
Gold 39 to 51 points
Platinum 52 or more points

8	1	5	Sustainable Sites	Possible Points 14
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Y	?	N	Prereq	Description	
Y			Prereq 1	Erosion & Sedimentation Control	
1			Credit 1	Site Selection	1
		1	Credit 2	Urban Redevelopment	1
		1	Credit 3	Brownfield Redevelopment	1
1			Credit 4.1	Alternative Transportation , Public Transportation Access	1
1			Credit 4.2	Alternative Transportation , Bicycle Storage & Changing Rooms	1
		1	Credit 4.3	Alternative Transportation , Alternative Fuel Refueling Stations	1
		1	Credit 4.4	Alternative Transportation , Parking Capacity	1
	1		Credit 5.1	Reduced Site Disturbance , Protect or Restore Open Space	1
1			Credit 5.2	Reduced Site Disturbance , Development Footprint	1
		1	Credit 6.1	Stormwater Management , Rate and Quantity	1
		1	Credit 6.2	Stormwater Management , Treatment	1
1			Credit 7.1	Landscape & Exterior Design to Reduce Heat Islands , Non-Roof	1
1			Credit 7.2	Landscape & Exterior Design to Reduce Heat Islands , Roof	1
1			Credit 8	Light Pollution Reduction	1

3	1	2	Water Efficiency	Possible Points 5
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Y	?	N	Prereq	Description	
1			Credit 1.1	Water Efficient Landscaping , Reduce by 50%	1
		1	Credit 1.2	Water Efficient Landscaping , No Potable Use or No Irrigation	1
		1	Credit 2	Innovative Wastewater Technologies	1
1			Credit 3.1	Water Use Reduction , 20% Reduction	1
1			Credit 3.2	Water Use Reduction , 30% Reduction	1

6	1	9	Energy & Atmosphere	Possible Points 17
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Y	?	N	Prereq	Description	
Y			Prereq 1	Fundamental Building Systems Commissioning	
Y			Prereq 2	Minimum Energy Performance	
Y			Prereq 3	CFC Reduction in HVAC&R Equipment	
2			Credit 1.1	Optimize Energy Performance , 20% New / 10% Existing	2
1	1		Credit 1.2	Optimize Energy Performance , 30% New / 20% Existing	2
		2	Credit 1.3	Optimize Energy Performance , 40% New / 30% Existing	2
		2	Credit 1.4	Optimize Energy Performance , 50% New / 40% Existing	2
		2	Credit 1.5	Optimize Energy Performance , 60% New / 50% Existing	2
		1	Credit 2.1	Renewable Energy , 5%	1
		1	Credit 2.2	Renewable Energy , 10%	1
		1	Credit 2.3	Renewable Energy , 20%	1
1			Credit 3	Additional Commissioning	1
1			Credit 4	Ozone Depletion	1
		1	Credit 5	Measurement & Verification	1
1			Credit 6	Green Power	1

7	6		Materials & Resources	Possible Points 13
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Y	?	N	Prereq	Description	
Y			Prereq 1	Storage & Collection of Recyclables	
		1	Credit 1.1	Building Reuse , Maintain 75% of Existing Shell	1
		1	Credit 1.2	Building Reuse , Maintain 100% of Existing Shell	1
		1	Credit 1.3	Building Reuse , Maintain 100% Shell & 50% Non-Shell	1
1			Credit 2.1	Construction Waste Management , Divert 50%	1
1			Credit 2.2	Construction Waste Management , Divert 75%	1
		1	Credit 3.1	Resource Reuse , Specify 5%	1
		1	Credit 3.2	Resource Reuse , Specify 10%	1
		1	Credit 4.1	Recycled Content , Specify 5%	1
1			Credit 4.2	Recycled Content , Specify 10%	1
		1	Credit 5.1	Local/Regional Materials , 20% Manufactured Locally	1
		1	Credit 5.2	Local/Regional Materials , of 20% Above, 50% Harvested Locally	1
		1	Credit 6	Rapidly Renewable Materials	1
1			Credit 7	Certified Wood	1

12	3		Indoor Environmental Quality	Possible Points 15
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Y	?	N	Prereq	Description	
Y			Prereq 1	Minimum IAQ Performance	
Y			Prereq 2	Environmental Tobacco Smoke (ETS) Control	
1			Credit 1	Carbon Dioxide (CO₂) Monitoring	1
		1	Credit 2	Increase Ventilation Effectiveness	1
		1	Credit 3.1	Construction IAQ Management Plan , During Construction	1
		1	Credit 3.2	Construction IAQ Management Plan , Before Occupancy	1
		1	Credit 4.1	Low-Emitting Materials , Adhesives & Sealants	1
		1	Credit 4.2	Low-Emitting Materials , Paints	1
		1	Credit 4.3	Low-Emitting Materials , Carpet	1
		1	Credit 4.4	Low-Emitting Materials , Composite Wood	1
		1	Credit 5	Indoor Chemical & Pollutant Source Control	1
		1	Credit 6.1	Controllability of Systems , Perimeter	1
		1	Credit 6.2	Controllability of Systems , Non-Perimeter	1
		1	Credit 7.1	Thermal Comfort , Comply with ASHRAE 55-1992	1
		1	Credit 7.2	Thermal Comfort , Permanent Monitoring System	1
		1	Credit 8.1	Daylight & Views , Daylight 75% of Spaces	1
	1		Credit 8.2	Daylight & Views , Views for 90% of Spaces	1

3	1	1	Innovation & Design Process	Possible Points 5
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Y	?	N	Prereq	Description	
1			Credit 1.1	Innovation in Design - Green Education	1
1			Credit 1.2	Innovation in Design: Green Housekeeping	1
		1	Credit 1.3	Innovation in Design: Water efficiency > 40%	1
		1	Credit 1.4	Innovation in Design: Local regional > 40%	1
1			Credit 2	LEED™ Accredited Professional	1

Sustainable Building Report

Reported by: Stuart Simpson, Green Building Advisor, E&A Services
 Phone: (360) 902-7199
 E-mail: ssimpso@ga.wa.gov

Overview

Engineering and Architectural Services (E&AS) serves the project management needs of the community and technical college system, Department of Veterans Affairs, Military Department, State Patrol, and other agencies as well as General Administration (GA) owned and operated facilities. Prior to ESSB 5509 GA had been working with their client agencies to encourage Green Building and educating them about the advantages of Green Building technologies and design features. GA has been active in the pursuit and support of Green Building in the region since joining the US Green Building Council in 1999 and participating on the board of the first ever Regional Green Building Council, Cascadia, a Chapter of the US Green Building Council in 2000. GA has been actively updating documents and processes used in the project management of E&AS projects and for guidelines used across the state system. E&AS has 9 LEED Accredited Professionals and houses the GA Green Building Program that coordinates with agencies and universities statewide.

GA Managed Projects	Year Completed	Size in GSF	LEED Level	Status
VA Skilled Nursing, Retsil	2004	160,000	LEED NC Gold	Achieved
Tumwater Office Building	2004	180,000	LEED NC Gold	Achieved
Lake WA TC, Redmond	2005	35,000	LEED NC Silver	Achieved
School for the Blind	Design	29,000	LEED NC Gold	Goal
Everett CC, Undergraduate	Design	86,000	LEED NC Silver	Goal
Olympic College, Humanities	Design	80,500	LEED NC Silver	Goal
Pierce College, Ft St, Sci&Tech	Design	70,000	LEED NC Silver	Goal
Pierce College, Puy, Arts	Design	60,000	LEED NC Silver	Goal
SPSCC, Learning Res. Ctr.	Pre-Design	70,000	LEED NC Gold	Goal
SPSCC, Bldg. 22	Pre-Design	83,000	LEED NC Silver	Goal
Tac. CC, Early Childhood Ed.	Pre-Design	15,000	LEED NC Gold	Goal
Clover Pk. TC, Allied Health	Pre -Design	56,000	LEED NC Silver	Goal

Training Efforts

The GA Green Building Program offers free training to E&AS, Real Estate Services, and others. E&AS Project Management (PM) staff coordinate with PM Staff from Department of Corrections and Department of Social and Health Services to provide monthly trainings on various topics including Green Building technology and issues. GA organizes free workshops for client agencies that include Green Building issues. GA provides free LEED Accredited Professional training to State Project Management staff from all agencies in the Olympia area on request. GA also organizes Green Building training provided by others at a reduced rate for State Project Mangers statewide.

Lessons Learned

- Provide stakeholder training on sustainable design.
- Make Green Building and LEED experience part of the selection criteria for the architect.
- Identify a sustainable champion for project.
- Utilize an eco-charrette to establish Green Building and LEED goals very early in the design process.
- Review LEED status at each major design milestone.
- Assign LEED credits early to appropriate design team members for follow through.
- Commission building systems.
- Make sure the contractor is “on-board” regarding contractor related LEED credits.
- “Borrow” appropriate standards, strategies, information, ideas, and checklists from other organizations. Fine tune and adopt them. Continue to adjust and improve.
- Be flexible and innovative.

Recommended Improvements to the Legislation

- Establish a budget that is set aside for LEED related consultant and registration/submittal costs. This would not be subject to being cut from the project.
- Provide separate incentive funding for renewable energy measures in the projects.
- Make clear the association between capital funding and LEED certification.

Sustainable Building Report

Reported by: JR Fulton, Project Manger University of Washington
 Phone: (206) 221-7468
 E-mail: jrfulton@u.washington.edu

Overview

The University of Washington’s (UW) Campus Master Plan states that sustainable building is an integrated framework of design, construction, operations and demolition practices that encompass the environmental, economic and social impacts of buildings. It further states sustainable design is that which includes efficient management of energy and water resources, management of materials and waste, protection of health and indoor environmental quality, protection of the environment and reinforcement of natural systems and an integrated design approach. Prior to State requirements for LEED Silver, the UW has certified three LEED projects, two of which are Silver. In addition to the four current State projects mandated to be LEED Silver, the UW has three additional “voluntary” projects slated to also be USGBC certified.

Projects	Year Completed	Size in GSF	LEED Level	Status
UW Tacoma Phase IIB	2004	129,000	LEED NC Silver	Achieved
Merrill Hall Urban Horticulture	2004	19,670	LEED NC Silver	Achieved
Nordeim Court Apartments	2003	176,170	LEED NC Certified	Achieved
Research and Technology	2006	128,924	LEED CS Gold	Submitted
Education Outreach	Construction	57,730	LEED NC Silver	Goal
Savery Hall Renovation	Design	26,830	LEED NC Silver	Goal
Clark Hall Renovation	Design	29,543	LEED NC Silver	Goal
Playhouse Theater Renovation	Design	11,210	LEED NC Silver	Goal
UWT Assembly Hall	Design	20,250	LEED NC Silver	Goal
Business School	Pre-design	120,000	LEED NC Silver	Goal

Training Efforts

Capital Projects Office (CPO) offers free training to UW staff, faculty and students to become a LEED Accredited Professional on a yearly basis and covers cost of USGBC examination for CPO employees. There are approximately 50 LEED Accredited Professionals on campus with the majority being staff in Capital Projects and Engineering Services. The UW and CPO also offer training, workshops and lectures in sustainable building practice. CPO has hired a full time Sustainability Manger to assist project managers and facilitate LEED process.

Lessons Learned

Start early. Stakeholder training in sustainable design. Hire the right consultants. Stay focused. Identify strong intent. Identify sustainable champion for project. Educate stakeholders. Utilize eco-charrettes. Create and follow thru on LEED checklists. Commission building systems. “Borrow” appropriate standards, strategies, information,

ideas, and checklists from other organizations. Fine tune and adopt them. Continue to adjust and improve. Be flexible. Innovate.

Attachments:

Sustainable Project Strategies Checklist:

http://www.cpo.washington.edu/DOCMAN/WEB_FTP/DOCMANFTP/Sustainable%20Design%20Strategies.doc

Power Point Classes:

http://www.cpo.washington.edu/html/Sustain_Add_Info_PowerPoint.html

Facility Design Information Manual: <http://depts.washington.edu/fsesweb/fdi/fdi.html>

Recommended Improvements to the Legislation *identify what would make it easier*

- Provide specific set aside money for soft costs related to LEED documentation, so that these costs are off the table for discussion.
- Identify how LEED achievements will play into future Capital Budgets.
- Provide for increased networking within the State Agencies.

Sustainable Building Report Template

Reported by: W.G. Shisler, Principal Architect, WSDOT, Facilities
 Phone: (360) 705-7345
 E-mail: shisleb@wsdot.wa.gov

Overview

The Washington State Department of Transportation’s Sustainability Plan states that sustainable building is an integrated framework of design, construction, operations and demolition practices that encompass the environmental, economic and social impacts of buildings. It further states sustainable design is that which includes efficient management of energy and water resources, management of materials and waste, protection of health and indoor environmental quality, protection of the environment and reinforcement of natural systems and an integrated design approach. Prior to State requirements for LEED Silver, the WSDOT had only lived in one certified LEED project, the new Tumwater Office Building (Edna Lucille Goodrich).

Projects	Year Completed	Size in GSF	LEED Level	Status
Seattle Maintenance Facility	Design	29,480	LEED NC Silver	Goal
Ephrata Maintenance Facility	Design	28,085	LEED NC Silver	Goal
Olympic Region Headquarters	Design	160,000	LEED NC Silver	Goal
WSF Eagle Harbor - Renovation	Design	xxxx	LEED EC Silver	Goal
WSF Eagle Harbor - New	Design	xxxx	LEED NC Silver	Goal
WSF Mukilteo Ferry Terminal	Design	xxxx	LEED NC Silver	Goal
WSF Anacortes Ferry Terminal	Design	xxxx	LEED NC Silver	Goal
WSF Bainbridge Island Terminal	Design	xxxx	LEED EC Silver	Goal

Training Efforts

HQ Facilities Office offers free training to staff to become a LEED Accredited Professional on a yearly basis and covers cost of USGBC examination for employees. There are approximately 3 LEED Accredited Professionals on staff currently with another 4 in the study wings.

Lessons Learned

Start early. The design eco-charrette for Stakeholder training in sustainable design is most valuable. Contract with experienced professionals (consultants). Identify sustainable champion for project. Innovate. Create and follow thru on LEED checklists. Utilize others experience and appropriate standards, strategies, information, ideas, and checklists. Continue to adjust and improve.

Recommended Improvements to the Legislation *identify what would make it easier*

- Provide specific set aside money for soft costs related to LEED documentation, so that these costs are off the table for discussion (Documentation and processing time).
- Identify how LEED achievements will play into future Capital Budgets.
- Provide for increased networking within the State Agencies.

**Sustainable Building Report
Washington State University
Capital Planning and Development
August 18, 2006**

Prepared By: Keith L. Bloom
Director, Construction and Quality Assurance
Capital Planning and Development
Washington State University
Contact: e - bloom@wsu.edu, ph - 509.335.9016

Overview

A primary goal of Washington State University's department of Capital Planning and Development is to create high performance, environmentally responsible and sustainable facilities.

Several years prior to initiation of ESSB 5509, WSU engaged in informal evaluation of newly designed and constructed facilities benchmarked against the LEED scorecard. The goal was to determine whether the facilities would qualify as LEED "Certifiable". By adherence to WSU's uniform design standards and good design practice we determined that several of our newly constructed facilities would meet a LEED Certified level.

WSU does not have any new facilities under construction or completing design required to be LEED Silver by ESSB 5509. However, we continue to include and implement sustainable design and construction practices in the University's work.

Projects

WSU has one project currently under construction with the specified goal to obtain a LEED Certified rating. The Compton Union Building, WSU's student union building, has been funded with student fees as a result of a referendum in March of 2005. The student leadership established the goal that the facility shall meet LEED Certified rating though there is no mandate to do so.

The Undergraduate Classroom Building on the Vancouver Campus has just completed pre-design. It will be designed to LEED Silver as will all appropriate future WSU Projects. Further WSU has implemented several initiatives to help ensure our ability to comply with ESSB 5509 in future development, as follows;

Initiatives toward sustainable design and construction at WSU Pullman

- Create and maintain a concrete recycling site to stockpile and reuse waste concrete debris for future crushing for incorporation into new batch concrete or roadbed construction.
- In the spring of 2006 the two largest chillers on campus providing chilled water to many of the campus facilities were revamped with Non-CFC containing refrigerants to enable WSU to take a "prerequisite" credit pertaining to LEED. Up to this point WSU could not meet this prerequisite.
- WSU continues to lobby for funds to construct a reclaimed waste water facility to help reduce the amount of potable water used for irrigation by reclaiming waste sanitary sewage water.

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- In 2002 WSU implemented a construction waste recycling program requiring and facilitating contractor recycling of construction debris. This effort to date, has realized well over a hundred tons of recycled metal, glass, cardboard and plastic. One project alone recycled over 50% of all construction debris.
- Development of an overall campus stormwater management plan (in development.)
- Stockpile for future reuse waste asphalt. WSU is working with local asphalt supplier to develop a cooperative agreement to stockpile for future recycling waste asphalt generated from new construction or utility repair.
- Soil stockpiles: All topsoil not being reused on a project is stockpiled for future use by the University in lieu of being hauled off campus.

Training

All Capital Planning and Development executives, project management, planning, interior design and construction engineering staff have undergone LEED training. The goal is to have as many as 20 individuals obtain LEED Accredited Professional Status by the end of 2006.

Lessons Learned

- Educate and gain collaboration with the end user on the concepts, costs and tradeoffs.
- Identify early in design the sustainable project goals.
- Move “old line” thinking out of the way. Facilitate and allow brainstorming. Do it different than “the way we’ve always done it.”
- Specify LEED. Incorporate into each specification section the aspects of LEED which apply to that item of work.
- As much as designers are coming on board we have to train the contractors. Give them opportunity for buy-in and understanding of the concepts early.
- Accept new ideas and new technologies.

Recommended Improvements

- Provide funding to offset the costs of the sustainable initiative so program space won’t suffer at the hands of social improvements.
- Fund Training and resources for agencies already strapped for educational resources.
- Allow for sustainable applications which don’t force one to LEED but truly meet the intent of the legislation by reducing the environmental impact of our built environment.