Washington State Department of
Enterprise Services

Implementation of RCW 39.35D High Performance Green Buildings

Through June 2012

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Background

Leadership in Energy and Environmental Design (LEED) is an internationally recognized green building certification system. Developed by the U.S. Green Building Council (USGBC), LEED certification provides verification that a building or community was designed and built using strategies aimed at improving performance across a variety of metrics, including: energy savings, water efficiency, CO_2 emissions reduction, improved indoor environmental quality, and stewardship of resources and sensitivity to their impacts. LEED provides a concise framework for identifying and implementing practical and measurable green building design, construction, operations and maintenance solutions.

Chapter 39.35D RCW requires major facility projects funded in the capital budget or projects paid for through financing contracts to be certified to at least the LEED Silver standard. This applies to public agencies that enter into the design phase or the grant application process after July 24, 2005.

Enterprise Services is responsible for developing and issuing guidelines for green building by public agencies in Washington. The department is also charged recommending improvements to the overall process.

Agencies report annually to the department about their projects. Enterprise Services reports to the Governor and Legislature by September 1 of each even-numbered year. This report covers the period through June 30, 2012.

Report Highlights

- Enterprise Services is tracking 125 state-owned projects, representing more than $2 billion in construction costs.
- 91 percent of state agency, university, and college projects are participating, with a large percentage of the projects seeking and achieving LEED Gold.
- To date, 52 state-owned projects have been LEED certified. The LEED levels reached were as follows: Two LEED Platinum, 29 LEED Gold, and 22 LEED Silver. Case studies are included in Appendix 1.
- Added cost for LEED ranges from -1.4 percent to +3.4 percent based on total project cost data.
- Estimated energy savings range from 12 percent to 46 percent. For 75% of the projects for which complete data is available, the payback for LEED related costs is between 0 and 18 years.
- Construction waste recycling in 16 projects diverted over 93 percent of construction debris, totaling 15,722 tons, from landfills.
- Metering and reporting of actual energy and water use continues to be challenging due to technical problems and lack of resources.

State LEED Results Summary

This section provides a summary of the state Green Building program. Included are tables and graphics illustrating costs and calculated performance data, along with a spreadsheet showing the status of all 125 state-owned projects under the program.

Table 1 – State-Owned Projects Achieving LEED Certification to Date

LEED Rating	Agency/University Name	Building Name	Location
Platinum	Skagit Valley College	Science & Heath Building	Mount
	University of Washington	UWT - Joy Building Remodel (Ph 3)	Seattle
Gold	Bellevue College	Science & Technology Bldg.	Bellevue
	Central Washington University	Dean Hall Renovation	Ellensburg
	Centralia College	New Science Center	Centralia
	Clark College	East County Satellite Campus	Vancouver
	Columbia Basin College	Business Education "B" Bldg.	Pasco
	Corrections, Dept. of	Coyote Ridge Corrections Facility	Connell
	Eastern Washington University	EWU Student Sport & Rec. Ctr.	Cheney
	Eastern Washington University	Hargreaves Hall Renovation	Cheney
	Everett CC	Student Fitness & Health Center	Everett
	The Evergreen State College	Campus Activities Bldg. (Remodel)	Olympia
	Grays Harbor College	Childcare Center	Aberdeen
	North Seattle CC	Integrated Services Center	Seattle
	Olympic College	Humanities Building	Bremerton
	Peninsula College	Business & Humanities Center	Port Angeles
	Pierce College	Ft. Steilacoom - Science & Tech. Center	Tacoma
	Pierce College	Communication, Arts & Allied Health	Puyallup
	Washington School for the Deaf	Vocational Education & Support Bldg.	Vancouver
	South Puget Sound CC	Natural Sciences Complex	Olympia
	South Puget Sound CC	Instructional Building 23	Olympia
	South Puget Sound CC	Vocational Tech. Building	Olympia
	Spokane CC	Building 7	Spokane
	Spokane Falls CC	sn-w'ey'-mn (Bus. and Social Science)	Spokane
	Spokane Falls CC	Science Building	Spokane
	Tacoma CC	Early Learning Center	Tacoma
	University of Washington	UW - Clark Hall	Seattle
	University of Washington	UW Floyd and Delores Jones Playhouse	Seattle
	University of Washington	Savery Hall Renovation	Seattle
	University of Washington	UWT - William W. Philip Hall	Seattle
	Yakima Valley CC	Grandview Library	Yakima

LEED Rating	Agency/University Name	Building Name	Location
Silver	Corrections, Dept. of	Cedar Creek Corrections Center - 100 Bed Expansion	Littlerock
	Corrections, Dept. of	WCCW - Health Care	Purdy
	Corrections, Dept. of	AHCC - Minimum Security Beds (200)	Airway Heights
	Corrections, Dept. of	AHCC Building C2	Airway Heights
	Corrections, Dept. of	AHCC Treatment Program Building	Airway Heights
	Corrections, Dept. of	South Close - Warehouse	Walla Walla
	Corrections, Dept. of	South Close - Health Unit	Walla Walla
	Edmonds CC	Meadowdale Hall Renovation	Edmonds
	Everett CC	Undergraduate Education Center	Everett
	The Evergreen State College	Lab 1 - 1st Floor Renovation	Olympia
	Green River CC	Salish Hall	Auburn
	Lake Washington Institute of Technology	Allied Health Bldg	Kirkland
	Military Dept., WA State	Washington Youth Academy	Bremerton
	Washington State School for the Blind	New Phys. Ed. Center	Vancouver
	Social and Health Services, Dept. of	Echo Glen – Residential Housing Renovations	Snoqualmie
	Social and Health Services, Dept. of	Green Hill School - HCA Building	Chehalis
	Spokane Falls CC	Music Building	Spokane
	Walla Walla CC	Center for Water and Environmental Studies	Walla Walla
	Washington State University	Olympia Avenue Student Housing	Pullman
	Washington State University	Undergraduate Classroom Building	Vancouver
	Washington State University	Engineering/Computer Science Bldg.	Vancouver

Note: Projects are not in order of when LEED certification was awarded.

Table 2 – Status of State-Owned Projects Subject to LEED Requirements

Status	# of Projects
Design	11
Construction	21
Substantial Completion or Completed (but not yet certified)	16
Projects with LEED Certification	52
Miscellaneous Projects (on hold or dropped)	19
Projects Taking an Exemption	10

Department of Commerce Update

Under RCW 39.35D.080, all affordable housing projects or programs receiving Housing Trust Funds from the state capital budget must be built or implemented according to the Evergreen Sustainable Development Standard (ESDS).

Community Capital Facilities

Active contracts overview: 74 projects have certified that they are going through the LEED process since its inception. To date, the LEED status for projects participating in the Commerce grant program is as follows:

- 22 achieved LEED Silver.
- 14 achieved LEED Gold.
- 38 have not yet completed the LEED certification process.

Competitive grants overview: With the completion of our 2013-2015 application submittals on July 19, 2012, a total of 66 projects have applied for grant funding. The intentions of the applicants are as follows:

- 32 (48 percent) plan to achieve LEED Silver certification.
- 16 received a facility-type exemption.
- 18 received a “not practicable” exemption.

WA State Housing Trust Fund (HTF)

Initially, the Evergreen Sustainable Development System (ESDS) projects exceeded the energy requirements of the 2006 Washington State Energy Code (WSEC), and subsequently the ESDS v1.3 required projects to achieve 15 percent greater energy efficiency over the 2006 WSEC. The ESDS was updated in 2011 (ESDS v2.0), calling for increases in energy efficiency by about 7 percent over the 2009 WSEC.

The HTF is tracking over 130 Affordable Housing ESDS projects.

State LEED Project Tracking

The department’s Green Building Program tracks LEED projects through its LEED Quality Assurance (QA) process. This process consists of four to five submittals depending on whether a project has a pre-design phase. The initial submittal provides a project schedule that is used to populate the State LEED Project Tracking table.

Table 3, below, provides information about all 125 state-owned projects. When the design development submittal is received, the projected LEED level is indicated by the coloring of the project schedule on the design development cell of the spreadsheet. The table also indicates which projects have received LEED certification (far right side), the level achieved, and the month and year received.

State LEED Projects (Table 3)

Master List

Reference No.	Project Mgt.	Project Name	Project No.	Construction Cost Estimate	Project Square Footage	Submittal Received (Note: Dates not shaded are anticipated submittal dates.) Exemption	Pre-Design	Schem. Design	Design Dev.	Construction Docs.	Subst. Completion	LEED Certification Awarded
1	DES-A	Military - Washington Youth Academy	07-189	$5,000,000	20,000		LEED Silver				1/7/2009	Aug-10
2	DES-A	Centralia College - Science Complex	03-218	$20,400,000	70,000		LEED Gold				3/9/2009	Aug-10
3	DES-A	Clark College - East County Satellite Campus	05-099	$20,470,000	70,000		LEED Gold				4/22/2009	Jun-10
4	DES-A	Clover Park TC - Allied Heath Care Facility	06-092	$21,480,000	56,000		6/16/2006	3/19/2008	5/1/2008	9/1/2008	12/1/2010	
5	DES-A	Grays Harbor CC - Voc. Ed. Renovation	05-186			2/6/2006						
6	DES-A	Grays Harbor CC - Childcare Center	09-015	$1,635,000	6,246		LEED Gold				2/4/2010	Sep-10
7	DES-A	Olympic College - Humanities Building	05-187	$21,200,000	85,012		LEED Gold				1/8/2010	Aug-11
8	DES-A	Olympic College - Sophia Bremer Child Development Ctr	08-256	$3,318,000	12,890		12/1/2008	2/1/2009	4/1/2009	10/1/2009	10/1/2010	
9	DES-A	Peninsula College - Business & Humanities Center	06-125	$26,000,000	63,000		6/11/2009	6/11/2009	6/11/2009	2/9/2009	3/28/2011	May-12
10	DES-A	Peninsula College - Fort Worden Building 202	12-050	$3,300,000	14,000		3/1/2012	6/21/2012	10/17/2012	4/26/2013	9/1/2014	
11	DES-A	Pierce College - Ft. Steilacoom - Science & Tech Center	03-200	$21,300,000	70,000		LEED Gold				2/25/2010	Aug-10
12	DES-A	Pierce College - Puy - Communication, Arts & Allied Health	03-198	$19,000,000	60,000		LEED Gold				9/22/2010	Feb-11
13	DES-A	South Puget Sound CC - Science Complex	03-223	$18,546,500	66,990		LEED Gold				10/30/2008	May-10
14	DES-A	South Puget Sound CC - Vocational Tech Building	08-150	$8,550,000	40,000		LEED Gold				6/1/2010	Apr-11
15	DES-A	South Puget Sound CC - Instructional Building 23	08-150	$16,831,000	30,000		LEED Gold				9/1/2010	Mar-11
16	DES-A	South Puget Sound CC - Building 22 Renovation	08-150	$23,700,000	89,000		10/23/2009	12/31/2009	4/30/2010	9/30/2010	1/2/2013	
17	DES-A	Tacoma CC - Early Childhood Education. & Child Care Center	06-205	$4,242,000	15,000		LEED Gold				7/18/2008	Oct-09
18	DES-A	Tacoma CC - Health Careers Center	07-142	$29,935,000	69,266		10/1/2009	3/1/2010	10/1/2010	7/1/2011	1/1/2013	
19	DES-A	WA School for the Deaf, New Voc. Ed. & Support Bldg	07-214	$10,900,000	23,134		LEED Gold				8/1/2009	Aug-10
20	DES-A	WA State School for the Blind, New Phys. Ed. Center	08-040	$8,000,000			LEED Silver				3/1/2009	Sep-09
21	DES-A	Capitol Campus - O'Brien Bldg.	07-022	$27,000,000	103,987					5/27/2009	10/12/2012	
22	DES-A	Lower Columbia College - Myklebust Gym Renovation	12-001	$4,388,000	34,655			3/24/2012	4/1/2012	5/23/2012	9/1/2013	
23	DES-A	Lower Columbia College - Health Sciences		$20,000,000	70,000			6/1/2009	7/15/2009	1/15/2011	2/1/2013	
24	DES-B	Bellevue College - Science & Tech Bldg	06-123	$27,500,000	69,511		LEED Gold				11/1/2008	Jul-10
25	DES-B	Bellevue College Health Sciences Building	08-036	$25,538,000	70,000	On Hold	7/1/2008	2/15/2010	6/1/2010	11/15/2010	4/1/2013	
26	DES-B	Bellingham Technical College - Campus Center	08-070	$22,400,000	74,000		3/5/2008	3/5/2008	7/2/2008	12/28/2009	3/1/2012	
27	DES-B	Cascadia CC - Center for the Arts, Tech, & Global Interact	06-144	$26,440,529	54,300		9/15/2006		11/28/2006	12/5/2007	4/1/2009	
28	DES-B	Columbia Basin C - Social Science Ctr - Visual Arts Bldg.	07-153	$12,410,000	40,520	On Hold	7/1/2008					
29	DES-B	Columbia Basin C - Business Education	07-151	$4,715,245	24,000		LEED Gold				6/30/2009	Jul-10
30	DES-B	Columbia Basin C - V Building Career & Tech Education Ctr	07-152	$1,802,000			2/30/2008	4/30/2008	7/31/2008	4/30/2009	1/1/2012	
31	DES-B	Edmonds CC - Meadowdale Hall Renovation	08-058	$5,534,000	36,100		8/20/2007	8/20/2007	4/21/2008	11/10/2008	11/1/2010	Feb-12
32	DES-B	Everett CC - Undergraduate Education Center	05-219	$21,000,000	86,000		LEED Silver				11/5/2007	Sep-09
33	DES-B	Everett CC - Student Fitness & Health Center	08-199	$17,000,000	50,000		LEED Gold				12/14/2010	Jun-12
34	DES-B	Everett CC - Index Hall Replacement	09-207	$27,000,000	70,000		8/16/2010	8/16/2010	11/1/2010	5/1/2011	4/1/2013	
35	DES-B	Green River CC - Salish Hall	07-193	$26,281,180	79,996		LEED Silver				3/5/2011	Jun-12
36	DES-B	Lake WA Institute of Technology - Allied Health Bldg.	06-073	$22,669,877	83,500		LEED Silver				5/2/2011	Aug-12
37	DES-B	North Seattle CC - Integrated Services Center	06-132	$12,985,473	47,500		LEED Gold				3/25/2011	Oct-11
38	DES-B	North Seattle CC - Technology Building Renewal	08-177	$16,000,000	50,600		8/16/2010	8/16/2010	11/1/2010	10/1/2011	5/1/2013	
39	DES-B	South Seattle CC - Colin Building Expansion	10-063	$3,600,000	10,000			3/29/2010	6/14/2010	8/31/2010	3/1/2011	
40	DES-B	Seattle Central CC - Wood Construction Center	08-063	$19,600,000	57,229		1/1/2008	1/1/2008	6/6/2009	1/1/2009	10/1/2011	
41	DES-B	Skagit Valley College - Science Bldg.	05-200	$21,157,000	65,900		LEED Platinum				11/1/2008	Aug-10
42	DES-B	Skagit Valley College - Academic & Student Support Building	07-236	$25,433,000	64,230		9/1/2009	9/1/2009	2/1/2010	6/1/2010	1/15/2014	
43	DES-B	Spokane CC - Tech Ed Building	07-132	$19,804,000	70,000		4/1/2008	4/1/2008	6/15/2008	11/24/2009	3/6/2011	
44	DES-B	Spokane CC - Building 7	07-133	$6,405,000	31,571		LEED Gold				11/10/2010	Nov-11
45	DES-B	Spokane Falls CC - Music Building	07-134	$9,607,000	47,571		LEED Silver				1/22/2011	Jan-12
46	DES-B	Spokane Falls CC - Classroom Bldg.	07-148	$12,825,910	51,143		12/12/2006	9/1/2007	4/13/2008	11/1/2009	12/30/2012	
47	DES-B	Spokane Falls CC - Business and Social Science	04-192	$14,347,980	70,533		LEED Gold				8/1/2008	Dec-08
48	DES-B	Spokane Falls CC - Early Learning Center	07-149	$2,960,000	16,000		12/1/2006	9/1/2007	1/27/2008	5/27/2008	9/30/2012	
49	DES-B	Spokane Falls CC - Science Building	07-150	$19,547,000	69,825		LEED Gold				2/25/2011	Apr-12
50	DES-B	Walla Walla CC - Clarkston Health Sciences	05-162	$2,252,000		10/12/2006	11/30/2004	8/12/2005	12/20/2005	5/15/2006		
51	DES-B	Walla Walla CC - Center for Water and Environ. Studies	05-210	$2,000,000	10,500		LEED Silver				6/1/2008	Jun-10
52	DES-B	WSP - FTA Dormitory	07-203	$1,900,000	9,484	9/2/2008						
53	DES-B	Yakima Valley CC - Grandview Library	09-172	$3,116,878	12,553		LEED Gold				6/30/2011	Mar-12
54	DES-B	Yakima Valley CC - Brown Dental Renovation	07-155	$3,898,000		5/19/2008	11/21/2007	11/21/2007	1/2/2008	4/2/2008	7/1/2009	
55	DOC	Coyote Ridge Corrections Center	06-313	$190,000,000	564,000		LEED Gold				11/31/08	Jun-10
56	DOC	WSP - South Close - Voc Ed Building	06-314	$8,351,351	22,400	On Hold	7/9/2007	7/18/2007	12/5/2007	4/10/2008	6/29/2010	
57	DOC	WSP - South Close - Warehouse	06-314	$5,280,384	21,600		LEED Silver				6/29/2010	
58	DOC	Cedar Creek Corrections Center - 100 Bed Expansion	06-330	$4,878,336	16,300		LEED Silver				7/6/2009	
59	DOC	WSP - South Close - Health Unit	06-314	$22,931,500	49,022		LEED Silver				6/29/2010	Aug-11
60	DOC	Monroe Correctional Complex – Haz. Waste/Vehicle storage	06-305	$1,403,990	6,000	On Hold	6/8/2006	10/23/2009	2/5/2010	7/30/2010	6/1/2012	
61	DOC	Monroe Correctional Complex - Warehouse Facility	06-305	$5,985,000	26,000	On Hold	6/8/2006	10/23/2009	2/5/2010	7/30/2010	6/1/2012	
62	DOC	Monroe Correctional Complex - Health Care Facility	06-305	$39,031,010	113,400	On Hold	6/8/2006	12/11/2009	7/16/2010	5/23/2011	6/1/2014	
63	DOC	WA Corrections Center for Women - Health Care	06-309	$11,864,719	22,130		5/24/2006	8/1/2006	11/13/2006	3/13/2007	1/1/2010	Jan-10
64	DOC	WA Corrections Center - Health Care Facility Remodel	06-305			On Hold	6/7/2006	6/12/2006	9/19/2006	11/15/2006	5/1/2007	
65	DOC	Airway Heights Corrections Center – Min. Security Beds (200)	06-311	$868,000	116,000		LEED Silver				9/1/2008	Oct-10
66	DOC	Airway Heights Corrections Center - New Visitation Building	06-311	$1,975,000	6,100		LEED Silver				9/1/2008	Oct-09
67	DOC	Airway Heights Corrections Center - Treatment Program	08-300	$3,100,000	9,510		LEED Silver				6/15/2009	Apr-10
68	DOC	Mission Creek Corrections Center for Women - 120 Bed	06-312	$2,939,189	12,800	7/13/2007						
69	DOC	Mission Creek Corrections Center for Women - 100 Bed	08-303	$4,033,163	12,800		LEED Silver				10/15/2009	Nov-11
70	DOC	WA Corrections Center - Expand Reception Center	08-314	$46,265,000	87,583	On Hold	8/15/2009	2/15/2010	9/15/2010	7/1/2011	7/15/2013	

		Project Information	Project	Construction	Project	Submittal Received						LEED
						(Note: Dates not shaded are anticipated submittal dates.)						
Reference No.	Project Mgt.	Project Name	No.	Cost Estimate	Square Footage	Exemption	Pre-Design	Schem. Design	Design Dev.	Construction Docs.	Subst. Completion	Certification Awarded
71	DOC	WSP - 300 Bed Minimum Expansion	06-327	$47,169,000	105,536	On Hold	7/1/08	11/12009	10/30/2009	7/15/2015	9/1/2016	
72	DOC	Statewide - 300 Bed Minimum Expansion	06-327	$38,660,000	90,229	On Hold	6/30/2008	12/30/2012	2/28/2013	4/30/2013	9/30/2014	
73	DOC	WSP - MI Kitchen	06-307	$37,487,140	65,089	Dropped	6/30/2008	11/30/2009	3/1/2010	5/30/2010	4/30/2013	
74	DSHS	McNeil Is. - Special Commitment Center	06-465	$3,961,603	53,000	Dropped	10/16/2007	11/26/2007	1/21/2008	6/23/2008	7/6/2009	
75	DSHS	Echo Glen - Residential Housing Units Renovations	00-405	$10,720,000	18,320				LEED Silver		4/20/2010	Feb-12
76	DSHS	Echo Glen - Residential Housing Units Renovations Ph 3	10-456	$6,500,000	28,120		6/23/2010	9/7/2010	12/7/2010	6/1/2011	11/30/2012	
77	DSHS	Green Hill School-Residential Mental Health Unit	10-457	$4,200,000	10,500		12/20/2010	5/4/2011	6/23/2011	9/9/2011	10/30/2012	
78	DSHS	Green Hill School - HCA Building	06-481	$4,300,000	20,275				LEED Silver		10/26/2009	Jul-11
79	DSHS	Green Hill School - IMU Building	06-481	$4,200,000	12,000	8/26/2008						
80	DSHS	WSH - New Kitchen & Commissary	08-409	$4,400,000	50,000	Dropped						
81	DOT	Alaska Way Viaduct Tunnel Operations Building				7/2/2012					6/1/2015	
82	DOT	SR 520 Bridge Maintenance Facilities									7/1/2013	
83	DOT	Eagle Harbor Maintenance Facilities				7/30/2007					5/1/2011	
84	DOT	Anacortes Ferry Terminal									TBD	
85	DOT	Mukilteo Ferry Terminal									TBD	
86	DOT	Seattle Ferry Terminal									TBD	
87	DOT	Bainbridge Island Ferry Terminal				On Hold					TBD	
88	DOT	Olympic Regional HQ				On Hold					TBD	
89	UW	Business Hall (Balmer Hall)	201838	$46,800,000	70,518		3/24/2008	11/14/2008	9/1/2009	7/30/2010	3/8/2012	
90	UW	Playhouse Theater Renovation	200912	$5,660,000	13,554				LEED Gold		7/1/2008	Jul-09
91	UW	Clark Hall Renovation	200910	$9,000,000	30,541				LEED Gold		12/1/2008	Feb-10
92	UW	Savery Hall Renovation	200911	$36,200,000	102,105				LEED Gold		6/1/2009	Oct-10
93	UW	UWT - William W. Philip Hall	10686	$9,400,000	20,250				LEED Gold		8/1/2008	Nov-10
94	UW	Denny Hall Renovation	202039	$56,915,000	87,549	Hold	12/31/2007	8/23/2008	3/10/2009			
95	UW	Ethnic Cultural Center				Dropped						
96	UW	Burke Museum	203007	$52,500,000	100,000		7/12/2011	7/31/2013	7/31/2014	7/31/2015	4/1/2017	
97	UW	Intellectual House	202070	$5,853,000	8,400		3/30/2012	10/31/2012	2/28/2013	8/31/2013	10/31/2014	
98	UW	Anderson Hall				Dropped						
99	UW	Lewis Hall Renovation	202040	$25,130,000	33,736	Hold	4/1/2008	8/1/2008	12/1/2008	9/1/2009		
100	UW	Molecular Engineering Interdisciplinary Academic Bldg.	201989	$75,423,000	90,374		3/24/2008	5/6/2008	5/6/2011	5/6/2011	7/15/2012	
101	UW	UWB - Science and Academic (Phase 3)	202235	$68,000,000	74,975		2/18/2010	9/30/2010	4/1/2011	9/1/2012	6/1/2014	
102	UW	UWT - Joy Building Remodel (Phase 3)	200636	$28,500,000	46,238				LEED Platinum		3/25/2011	Jan-12
103	UW	UWT - Tioga Library (formerly Jefferson Bldg., Phase 3)	200636	$25,800,000	47,035		5/1/2008	10/30/2009	12/30/2010	8/10/2012	9/10/2012	
104	WSU	Undergraduate Classroom Building - Vancouver			58,000				LEED Silver		8/1/2009	Aug-10
105	WSU	Olympia Avenue Student Housing Project							LEED Silver		8/1/2009	Aug-10
106	WSU	Engineering and Computer Science Building - Vancouver			56,000				LEED Silver			
107	WSU	Global Animal Health			62,000						1/1/2012	
108	WWU	Academic Instruction Center							LEED Certified		8/31/2009	Sep-09
109	WWU	Buchanan Tower Addition				1/10/1900					9/1/2010	
110	WWU	Miller Hall Renovation	PW465	$35,801,240	133,117		2/11/2008	2/11/2008	4/23/2009	10/6/2009	10/31/2011	
111	WWU	Carver Academic Renovation									9/1/2014	
112	EWU	Hargreaves Hall Renovation	AE0511	$9,292,000	45,172				LEED Gold		3/1/2010	Sep-10
113	EWU	Patterson Hall Renovation	AE0614	$41,266,000	139,900		6/2/2008	6/2/2008	4/6/2009	1/4/2010	1/1/2014	
114	EWU	University Recreation Center							LEED Gold		9/1/2008	Mar-09
115	EWU	Martin/Williamson Hall Remodel		$24,636,277			2011	2015			2018	
116	EWU	University Science Center I					2013					
117	EWU	University Science Center II					2013					
118	CWU	IET/Hogue Technology Project			95,996						9/1/2012	
119	CWU	Dean Hall Renovation	5229	$18,038,328	79,553				LEED Gold		5/10/2008	Nov-10
120	CWU	Samuelson Communications & Technology Center			129,260							
121	CWU	Health Sciences			72,200							
122	TESC	Campus Activities Bldg Add. & Renovations	07-05	$14,000,000	100,500				LEED Gold		6/1/2010	Jun-10
123	TESC	Lab 1 - 2nd Floor Renovation		$4,950,000				10/1/2011			12/1/2013	
124	TESC	Lab 1 - 1st Floor Renovation							LEED Silver (commercial interiors (CI))		9/1/2006	Jun-07
125	TESC	Daniel J Evans Library Modernization - Phase 2	F06007	$14,323,000	87,000	Exemption	3/16/2007	9/10/2006	3/7/2007	1/28/2008	11/1/2008	
		Totals	$1,890,917,802	5,814,433								

No. of LEED projects that are certified: **52**

Key		Points
LEED Platinum		52+
LEED Gold		39-51
LEED Silver		33-38
LEED Certified		26-32
Projects Dropped or On-Hold		
This project will not seek LEED certification or follow GA QA process		

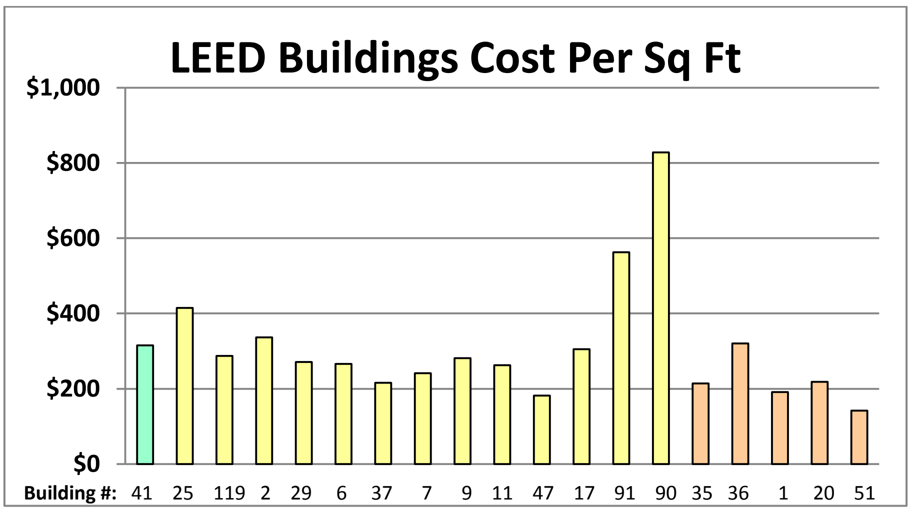
In design	11
In construction	21
Subst. complete (not yet certified)	16

Costs and Savings of LEED on State Building Construction and Operation

The following pages provide information about the total cost of several state-owned LEED buildings, the added costs for LEED, and the cost savings achieved in LEED buildings for energy and water use. In figures 1 – 4, below, each bar represents a particular building. The data for all 52 LEED buildings is not available, but the numbers included in this report provides a good representative sample.

Figure 1 – LEED Buildings – Cost per Square Foot

The figure below shows the building cost per square foot (building only, not including site preparation costs) and the LEED level achieved. The cost of a building is influenced by the type of use, complexity of the building systems, size, choice of materials, time of year bid, and whether the bid was before or after the recent economic downturn.



Key: See Table 3 for building number correlation (p. 7-8)	LEED Platinum	LEED Gold	LEED Silver

Figure 2 – Percent Added Cost of LEED

The figure below shows these same buildings with an estimate of the added costs for LEED-related elements as a percentage of the overall project costs (consultants and construction). These added costs were estimated by the state project managers, the architect consultant on the project and the contractor. The added costs include:

- LEED-related consultant fees.
- LEED certification fees.
- LEED-related construction costs.

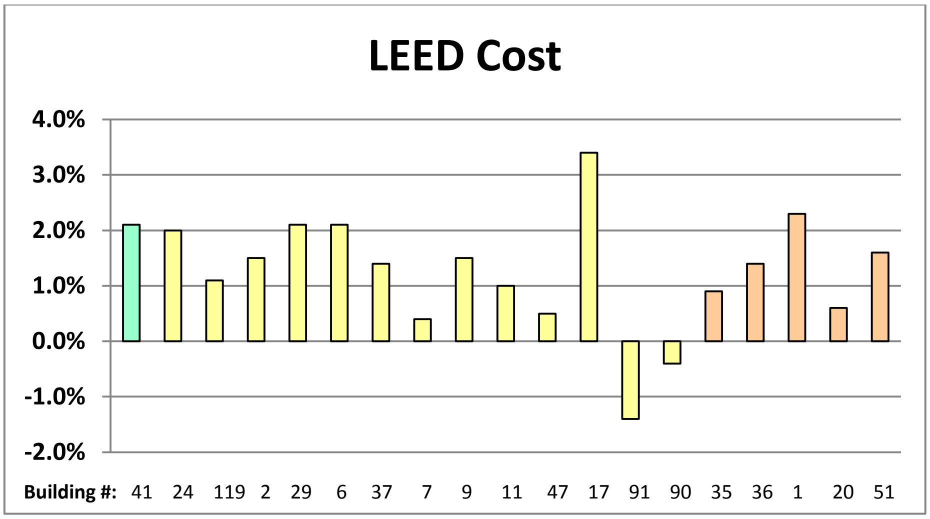
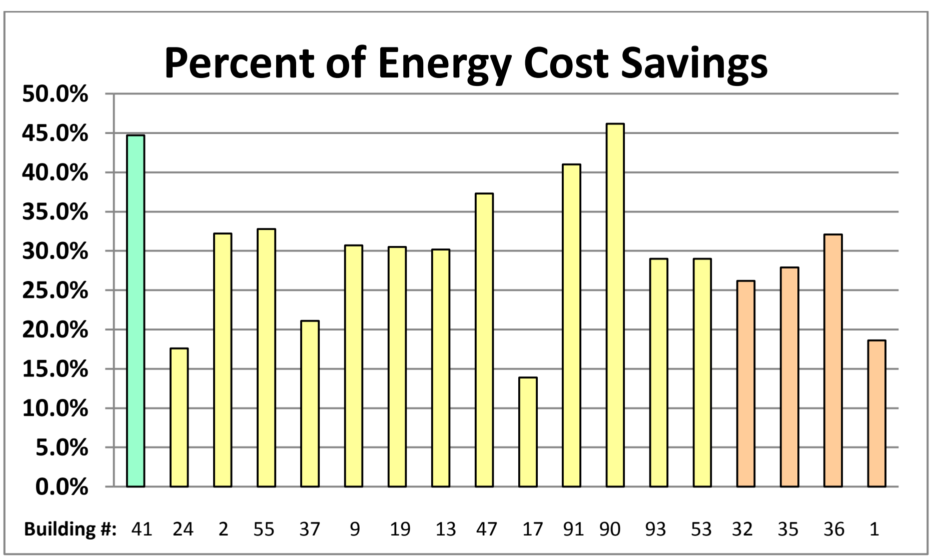


Figure 3 – Percent Energy Cost Savings

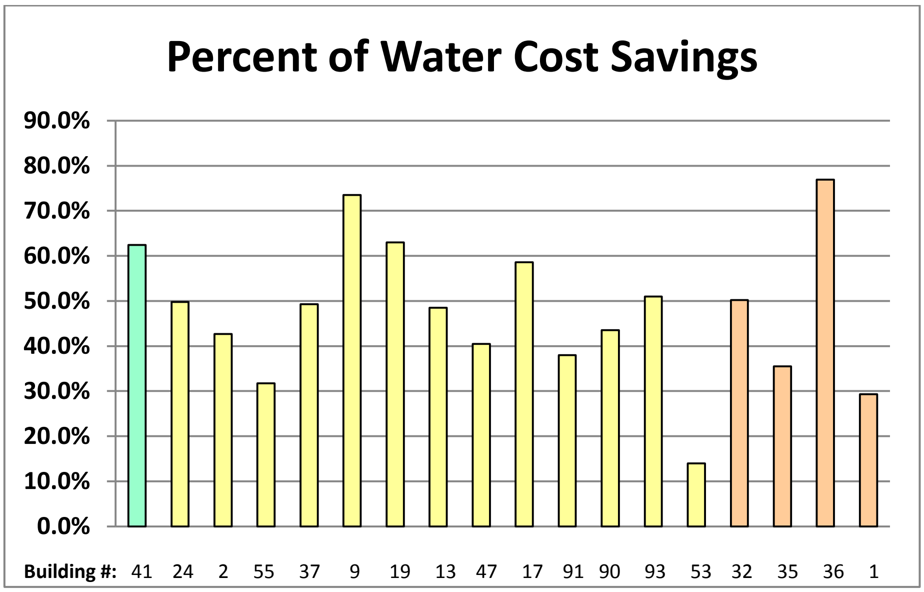
This figure compares the computer modeled “proposed” building energy consumption cost against modeled consumption cost data of a “code” building. This data was extracted from the LEED submittal.



Key: See Table 3 for building number correlation (p. 7-8)	LEED Platinum	LEED Gold	LEED Silver

Figure 4 – Percent Water Cost Savings in State LEED Buildings (Interior)

This figure compares interior water usage calculated for a “code” building and the “proposed” building. The interior water consumption is tied to the number of occupants. The numbers used to calculate the code and proposed levels may be quite different from the actual use levels. For instance, if there are more actual occupants than modeled, the water use would be higher but the same percentage of saving would still be realized due to the efficiency of the fixtures.



Key: See Table 3 for building number correlation (p. 7-8)	LEED Platinum	LEED Gold	LEED Silver

Payback for LEED

To calculate the payback for added costs of LEED construction, the LEED Quality Assurance process uses the following formula:

$$\frac{(\text{Added Consultant Costs} + \text{Added Construction Costs} + \text{LEED Certification Costs}) - (\text{Utility Incentives})}{(\text{Annual Savings in Water and Energy})}$$

The costs used should be accurate because they are developed by the state project managers, project architect and the contractor. Sometimes, it is difficult to determine what is a “LEED element” or simply part of good design.

The savings figures are from the energy modeling prepared for the energy life-cycle cost analysis process and LEED. Water savings are based on calculations prepared for LEED.

Table 4 – Cost, Savings and Payback of LEED in State Buildings

Agency	Building Name	Sq ft	Cost (Millions)	% Added Cost	Savings	Payback (Years)
Bellevue College	Science & Technology Bldg.	62,882	$29.6	2.0%	$33,774	17.5
Centralia College	New Science Center	69,984	$24.2	1.5%	$33,240	10.8
Green River CC	Salish Hall	82,792	$25.0	0.9%	$24,288	6.4
Lake Washington Technical College	Allied Health Bldg	83,554	$24.2	1.4%	$29,800	11.0
Military Dept., WA State	Washington Youth Academy	18,050	$4.1	2.3%	$2,116	43.7
North Seattle CC	Intergraded Services Center	47,500	$27.4	1.4%	$6,967	33.2
Peninsula College	Business & Humanities Ctr.	63,221	$25.1	1.5%	$17,065	23.6
Skagit Valley College	Science & Heath Building	65,900	$25.1	2.1%	$44,920	6.0
Spokane Falls CC	sn-w'ey'-mn (Bus. and Soc)	70,533	$15.3	0.5%	$33,167	2.4
Tacoma CC	Early Learning Center	12,962	$5.7	3.4%	$2,948	64.9
University of Washington	UW - Clark Hall	30,568	$19.6	-1.4%	$14,400	Immediate
University of Washington	UW F&D Jones Playhouse	12,692	$9.7	-0.4%	$10,481	Immediate

Studies have shown that in addition to utility cost savings green buildings improve worker productivity and retention. Anecdotal evidence suggests that green buildings reduce the number of worker sick days and lower the risk of “sick-building syndrome” lawsuits because the materials used do not contain or have low levels of volatile organic compounds, such as formaldehyde. These types of savings may be greater than those achieved from lower water and energy use, but are much harder to quantify.

Determining Costs and Savings of LEED Buildings

Costs

Determining the overall cost of LEED buildings is relatively easy. Project accounting provides the breakdown needed to show demolition costs, site development costs, building costs and consultant fees.

Determining the costs for elements attributable to LEED, on the other hand, is more difficult because of the integrated nature of building design and construction. For example, an atrium in the center of a building that provides natural light and ventilation using the stack effect is difficult to breakout as an added cost. Is the atrium counted as LEED or an architectural feature?

Using LEED strategies in the design of the building causes architects and engineers to work together to create buildings that blur the lines between mechanical systems, lighting systems, and architectural elements. The Quality Assurance process attempts to gather the added costs for LEED consultants, as well as construction elements. These costs are provided by the state project manager, the architect or both. This is documented for each project in Appendix 6 (LEED Building Cost and Performance Data).

Savings – First Cost

Although not typical, first cost savings can be achieved through careful design. For instance:

- The electrical system in a green building can be smaller than one in a conventional building by using shading devises, “cool” roofs, earth berms, more insulation, high-performance, operable windows, and energy-efficient lighting, which incorporates daylight harvesting.
- The heating system can be downsized through the use of a super insulated building envelope, and heat recovery on the exhaust air.
- The water systems can be downsized by using low-flow fixtures, saving money on piping and hook-up fees.

Savings – Operating Costs

When designing a building, simulation models are used to compare the proposed building to a building built to the energy code called the baseline building. This simulation keeps all things constant except for the features that are different between the two buildings.

Constant elements include weather, people loads, operating schedules, and plug loads.

Different features can include insulation levels, window solar heat gain coefficient, mechanical equipment efficiencies, orientation, and outside air quantities.

After at least 10 to 15 months of occupancy, the building simulation model can be updated to show actual operating conditions, including a fit to the actual energy use. Unfortunately, even though LEED provides a point for it, this extra building simulation model is rarely completed because of cost ($5,000 to $10,000).

Short of a duplicate baseline building housing the same use and level of occupancy, the building simulation model prepared during the design of the building provides the best available calculation of operational savings. This savings figure is used in calculating the payback for LEED-certified buildings in this report.

The operational savings calculated by the building simulation model represent the savings that are “capable” by the proposed building. Some features of the design will deliver those savings regardless of the operator. Such features include light shelves, building orientation, earth berms, and the envelope (insulation and windows).

However, although a building may be “capable” of a certain level of savings in the model, there are a number of elements that could keep those savings from being realized. These include:

- Improper commissioning of mechanical, electrical and control systems.
- Inadequate training of operation and maintenance staff.
- Inadequate staff available to properly maintain the building operating schedules and mechanical systems.

Some or all of these issues exist in instructional and institutional buildings built by the state.

College and university buildings make up 70 percent of those identified in this report. The other 30 percent are a diverse mix that includes prisons, dormitories, kitchen and dining halls, and more. The unique nature of many of these buildings makes it difficult to determine energy and water savings from actual consumption data. For example, while some college and university buildings include only classrooms and offices, most have space with more specialized uses, such as welding and auto shops, gym-nasiums, or performance halls. For many buildings, this varying mix of uses makes it difficult find a “like” building for purposes of comparing consumption data.

In that context, where possible this report compares actual consumption data received from the operators of similar types of buildings. Using year-to-year comparisons of a specific building may be the best way to benchmark. Year-to-year improvements in energy use accomplished through adjustments to the building mechanical and control systems is also a comparison that will be tracked over time and presented in this report.

Enterprise Services will continue to track energy and water use, and will provide feedback to the building operators if the consumption seems abnormally high. The department will also look for particularly efficient buildings and follow-up with those operators to learn how they achieved greater efficiencies.

Department of Corrections Case Study

As described above, measuring savings is difficult without a good comparison. Given the unique nature of many state buildings, good comparisons can be difficult to find. Taking on this challenge, the Department of Corrections prepared an analysis comparing energy and water use at two of its facilities: Airway Heights Correctional Center and Coyote Ridge Correctional Center.

Airway Heights opened in April 1992, before the advent of LEED certification. Coyote Ridge opened in February 2009 as the first-ever LEED Gold prison complex. The prisons are similar in size and population, and both are in Eastern Washington. However, Coyote Ridge consumed 30 percent less energy per square foot than Airway Heights. Potable water and wastewater use at Coyote Ridge were also considerably lower. When using the same rates for energy, water and wastewater, savings were $978,000 per year. The added cost of building Coyote Ridge to LEED Gold standards was less than 0.5 percent of the design-build budget, and the payback was less than one year.

A PowerPoint presentation prepared for presentation at the WA Energy/Facilities Conference, Leavenworth, in May 2012, which provides more detail, is included as Appendix 2.

Metering Challenges

This is the first biennium with a significant amount of reported consumption data, along with information related to metering. To get accurate consumption data for the LEED buildings, meters are necessary to consistently measure energy and water use throughout the year.

For stand-alone buildings, energy and water metering can be a relatively easy effort. Utility companies install the electric, gas, and water meters, and consumption can be tracked using utility bills. In some situations, a utility company can install pulse outputs to the energy management control system, making instantaneous use readings possible. Trends can be set up to capture monthly consumption data for reporting purposes. The LEED Quality Assurance process includes a spreadsheet template for reporting energy and water use (see appendix 4).

However, most state buildings are located on a campus. Often, there is only one or two meters for the entire campus, so there is no way to measure consumption for an individual building. To complicate this further, a central plant may provide steam to the individual buildings without any metering. A campus central plant may also provide domestic hot water and chilled water to the buildings.

Given these challenges, Enterprise Services will often request that a metering plan be prepared and submitted at the construction documents phase of the design. The department uses a metering plan template for each state LEED project (see Appendix 8). This helps ensure that design teams include meters in all LEED projects.

Installing meters in all buildings is difficult to accomplish for a variety of reasons, including:

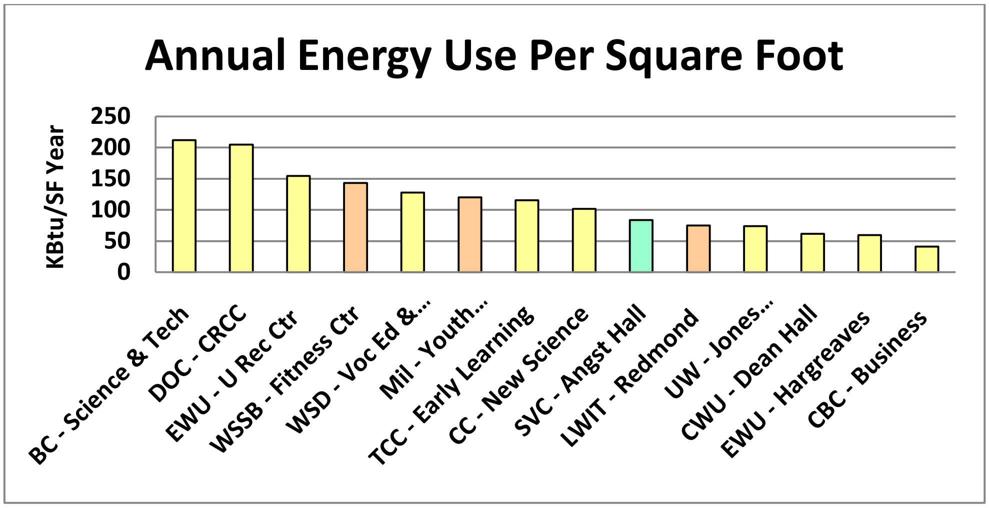
- Inadequate funding to get meters installed at the end of the project.
- Meters were installed, but were not fully programmed into the Energy Management Control System.
- Meters were installed, but are not maintained and functioning properly, resulting in lost data.
- Some meters are installed for electrical and water, but not heating because of the complexities and expense of measuring steam.

Facility operators are doing their best to report with data that is metered, or prorated, based on square footage or other strategies.

A Metering and Measurement Report template was developed to help operators document and report challenges with measuring energy and water use in state LEED buildings. This is the first year using this report (see appendix 5).

Actual Energy Use Reports Summary

Figure 5 – Energy Use Comparison of State LEED Projects – The types of facilities that reported energy use varied widely, from prisons to a child-care center.



Grouping similar types of buildings provides a better comparison of energy use. The next two figures make comparisons of community college science buildings (figure 6) and of college and university classroom/office buildings (figure 7).

Figure 6 – Energy Use Comparison in Community College Science Buildings

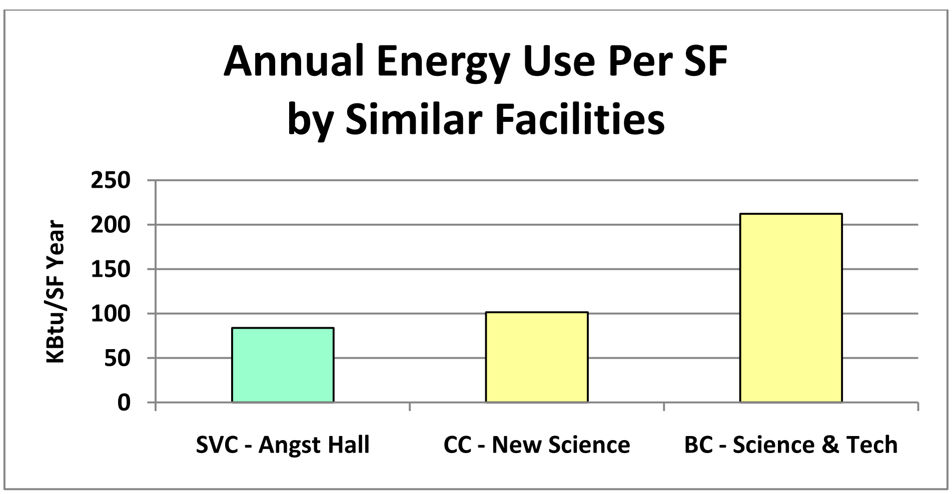
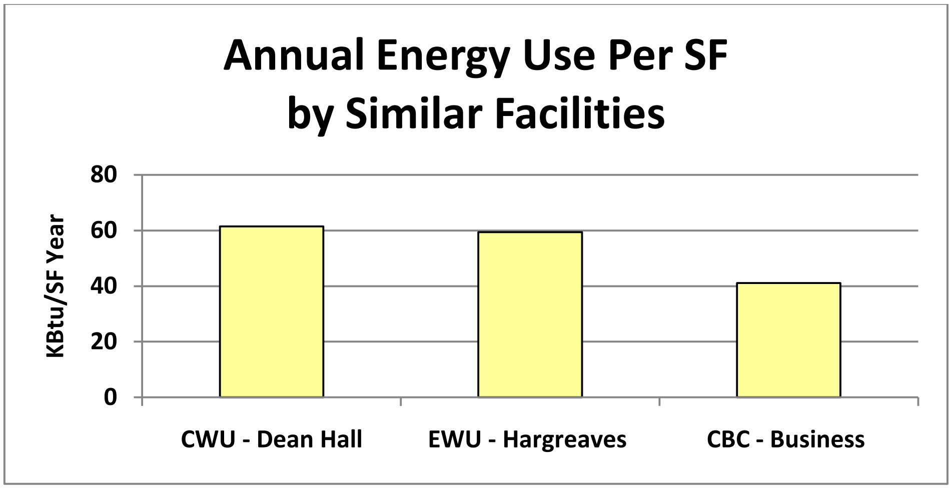


Figure 7 – College and University Classroom/Office Buildings



The above comparisons do not include differences in hours of use, plug loads, and climate, so they might not reflect the most efficient buildings. However, the comparisons do provide useful information that can target further evaluation.

Overview of the Enterprise Services LEED Quality Assurance (QA) Process

The Enterprise Services LEED Quality Assurance process was developed with the help of the original Affected Agencies Committee (see appendix 8). The process provides Enterprise Services with a minimum level of information to track the progress of a project through design and construction. The process allows for "verifying activities necessary for certification to at least the LEED silver standard for major facilities." (From RCW 39.35D.060 (1)(a)) It also helps ensure that proper metering is installed for energy and water consumption reporting by requiring a metering plan be submitted during the construction documents phase. It gives state project managers the information to make sure their project is on track to achieve at least LEED Silver.

The quality assurance process is made up of easy-to-complete templates and specific LEED documents. Dissemination through the department's Green Building web page and education provided to state project managers has integrated the process into the design and construction process.

The LEED Quality Assurance process requires the following:

- **At Schematic Design:** A half-page template with basic project size and cost information, and main contacts. A LEED checklist is also submitted.
- **At Design Development:** An updated LEED checklist and a two- to four-page description of how the project will meet the goals set in the LEED checklist, especially for energy and water efficiency goals.
- A new step may be offered at design development in the quality assurance process to extend the use of an energy service company (ESCO) for major projects. This can benefit an agency by having the ESCO complete the energy evaluation as part of the project design. Projects can benefit from additional

cost-effective measures identified and larger utility incentives. This was done as a pilot on a state office building on the Capitol Campus with good success.

- **At Construction Documents:** An updated LEED checklist and an updated two- to four- page strategies summary of how the project will meet the LEED goals set in the checklist. A metering plan is also submitted. A metering plan template is provided.
- **At Post-Construction:** Project cost data is collected. Added or saved costs related to LEED separated by consultant costs and construction costs are available from the final invoice. The added or saved construction costs are sometimes difficult to determine because of the integrated nature of green building design. Some features can easily be estimated, such as solar panels or a bike rack. Others can be more difficult, such as use of operable windows and skylights, features which may be added to the design for other reasons. This data is collected from the state project manager and project architect.

The savings data and other performance data are collected by "mining" the LEED submittal. This is accomplished using the LEED Building Cost and Performance template (appendix 6). This can be completed by the State Project Manager and/or the Architect. Using the LEED submittal documents provides access to all the energy and water savings calculations, construction waste management data, and other metrics.

Enterprise Services has established contacts at each of the agencies and universities. These contacts are used to disseminate information regarding the quality assurance process and to coordinate reporting to department.

In addition, case studies will be developed for each project. A state LEED Project Case Study gallery is included in this report in appendix 2 and will be displayed on the department's website at: www.ga.wa.gov/eas/green.

Enterprise Services LEED QA and Data Collection Process Goes On-Line

In 2011, the Joint Legislative Audit and Review Committee (JLARC) completed a statutorily required performance review of the high performance green building program. JLARC identified the lack of complete and timely reporting by state agencies and institutions as a serious limitation on any evaluation of the program. To help address this issue, Enterprise Services is developing an online process for agencies to use in submitting project information. Each of the steps in the quality assurance process described above will have a similar step in the online process. Features will include:

- All project submittal data will reside in one location and will be easily sorted, accessed, etc.
- Some reports and tracking spreadsheets will update continuously as new data comes in.
- Some reports and tracking spreadsheets will be open to public review for viewing at any time.
- Data will be available for development of biennial reports and custom reports.

- Data will be available to provide for feedback to participants regarding building performance.
- Reminders will be sent to the four listed project team members when project teams miss a quality assurance submittal due date.
- All templates will be available for download and complete plans and reports for upload (metering plan, post-construction LEED building cost and performance data and case study template).
- Users will be able to update project schedules and team member data as appropriate.
- Annual energy and water consumption reports will also be available to building operators (review previous submittals, spreadsheet templates to download, completed data to upload).
- Biennial Agency Sustainable Building Report will be available to appropriate capital building/facility staff (review previous reports, templates to download, completed report to upload).

The online quality assurance process will provide up-to-date summaries about green building efforts in the state. It will make the development of reports much easier and more complete.

Training Is Important For A Successful Program

Education is important to the success of the entire implementation effort. Training related to LEED is an ongoing effort for project managers. Periodic training is provided to state project managers regarding LEED and the quality assurance process.

Contractors are critical to the success of LEED projects. While architects are selected based on their knowledge of LEED and qualifications, contractors are selected based on their bid, but not necessarily on their knowledge of LEED. To meet this challenge, it was determined that the state could require the successful contractor to either have experience with LEED or be required to participate in a free training.

Enterprise Services partnered with the Department of Ecology and the Cascadia Regional Green Building Council to develop the Build-It LEED toolkit, a training program geared for contractors. The toolkit consists of a two-hour presentation, and an interactive Excel workbook and notebook. The department's Green Building advisor provides the Build-It LEED training to contractors. Over the past two years, the advisor has given several free trainings to contractors, project managers and owners' representatives. Many contractors are now proficient with LEED, so Build-It-LEED training requests are less and less frequent.

Building Operator Interview (Proposed)

Green buildings are often a mixture of systems that respond to natural forces, such as daylight and natural convection, and mechanical HVAC systems and artificial light. These buildings have operating strategies that change based on time of day and time of year. Systems can be automated and designed for occupant involvement. As a result, it is important that building operators and occupants understand these systems and the strategies to preserve comfort and maximize efficiency. Visits to some of the early state LEED projects have shown that green buildings are not always operated optimally. This can lead to higher energy use and uncomfortable occupants.

In an effort to improve building performance and occupant comfort, Enterprise Services is proposing that it perform a building operator interview after the building has been occupied for two to four months. The interview would include the following:

- Review of building operations manuals (if developed).
- Review of case study to understand green features of the building.
- Interview with building operator to determine if they are familiar with the green features and strategies for operation.
- Review the schedules and strategies incorporated into the building automation system with the building operator to determine their knowledge of the system.
- Enterprise Services would develop a summary report for the building operator. It would include appropriate recommendations for improvement. An electronic copy of the report would be kept by the department.

This effort will require additional funding to conduct and facilitate reporting.

Post-Occupancy Evaluation (Proposed)

Enterprise Services has collaborated with the Washington State University Extension Energy Program to develop a post-occupancy evaluation (POE) process, as described on page 15 of the 2010 Green Building Report. The evaluation process takes into account the design and operation of buildings as they related to occupant performance.

The process would be a valuable tool for Enterprise Services to evaluate the effectiveness of the green building effort and to share these experiences throughout the state. The reports developed from the evaluation of each state LEED building would provide energy and water savings information, maintenance-related impacts and occupancy survey results. These reports would be posted as case studies on the Enterprise Services green building web site.

The POE process would be implemented between 10 to 15 months after occupancy. Performing the POE before 12 months would help to identify issues prior to the end of the warranty period.

Rules

The Attorney General’s Office has determined that rules are not currently needed for implementation of RCW 39.35D. Enterprise Services has developed guidelines for tracking projects through its LEED Quality Assurance process and uses this tool to make sure proper attention is given to LEED issues throughout the project design and construction.

Green Building Metrics

One of the challenges of measuring the benefits of green building is developing metrics to track and report. The important attributes, where this data is found in the LEED process and Enterprise Services LEED QA process, are described below.

Building Square Footage & Cost

Building square footage and cost, along with building type and use are important elements to consider when comparing buildings. The added cost related to LEED is also important in determining the cost-effectiveness of LEED buildings. Building cost per square foot allows for comparing buildings of different size in a common unit of measure. This data is available in the LEED Project Summary. State project managers can also retrieve the data from project invoicing information.

High-performance green buildings help the state achieve a number of goals, including:

- Energy efficiency and reduced reliance on imported energy.
- Water efficiency to stretch resources.
- Reduced stormwater runoff into streams, rivers, lakes and Puget Sound.
- Reduced reliance on the automobile, which lessens traffic congestion and the carbon footprint.
- Reduced construction waste going to landfills.
- Increased use of recycled materials.
- Use of Washington-made products and materials.
- Protection of forests and habitat.
- Improved worker and occupant health and productivity.

Energy Efficiency and Renewable Energy Production

Energy efficiency and local production of renewable energy provides multiple benefits by:

- Lowering operating costs.
- Reducing emissions from energy sources (mostly electric and gas) which lower greenhouse gas impacts.
- Improves local economy (energy dollars saved and earned may stay local).
- Reduces energy imports.

Applicable LEED Credits:

- EAc1 – Optimize Energy Performance (percent energy cost savings, percent energy.
    - Btu savings, kWh & therms, or other fuels/year).
- EAc2 – On-Site Renewable Energy (kWh and/or Btu/year).

Water Efficiency

Water efficiency is important as we face shortages. Efficient use of water can also provide these benefits:

- Lower operating costs.
- Improved water availability for other uses.
- Greater capability of existing supply infrastructure to serve expanding customer base.
- Reduced need for expansion of waste water treatment facilities.

Applicable LEED Credits:

- WEc1 – Water Efficient Landscaping (percent water savings and gallons).
- WEc2 – Innovative Wastewater Technologies (0 or 1 point).
- WEc3 – Water Use Reduction (percent water savings and gallons).

Stormwater Management

In an effort to clean up streams, rivers, lakes and Puget Sound, Washington is aggressive on management of stormwater. This is critical to protect salmon and other fish habitat, and helps serve as another measurement of the overall health of the environment.

Applicable LEED credits:

- SSc6 – Stormwater Design (0, 1 or 2 points).

Alternative Transportation Sources

The urban areas of Washington suffer from traffic congestion. Transit options can ease this burden and improve air quality by reducing emissions from vehicles. The use of bicycles can also help reduce vehicle traffic and cut emissions while improving the health of building occupants. Walking access to services such as restaurants, banks, stores, etc., also improves building occupant health and reduces congestion.

Applicable LEED credits:

- SSc2 – Development Density & Community Connectivity (0 or 1 point).
- SSc4.1 – Public Transportation Access (0 or 1 point).
- SSc4.2 – Bicycle Storage & Changing Rooms (0 or 1 point).

Construction Waste Recycling

Nationwide, over 40 percent of the waste going to landfills is from construction waste. Recycling of this waste can:

- Extend the life of landfills.
- Provide a source of other materials and products.
- Reduce the impacts of extraction of raw materials.

Applicable LEED credits:

- MRc2 – Construction Waste Management (percent recycled and tons).

Table 5 – Construction Waste Recycling

Agency	Building Name	Location	Tons	% Recycled
Bellevue College	Science & Technology Bldg.	Bellevue	1,149.7	98.0%
Centralia College	New Science Center	Centralia	311.7	96.5%
Corrections, Dept. of	Coyote Ridge Corrections Facility	Connell	6,206.4	96.2%
Everett CC	Undergraduate Education Center	Everett	963.5	97.1%
Green River CC	Salish Hall	Auburn	353.0	98.8%
Lake Washington Technical College	Allied Health Bldg	Kirkland	702.0	91.0%
Military Dept., WA State	Washington Youth Academy	Bremerton	71.2	95.0%
North Seattle CC	Intergraded Services Center	Seattle	200.7	95.7%
Peninsula College	Business & Humanities Center	Port Angeles	315.0	84.0%
Skagit Valley College	Science & Heath Building	Mount Vernon	749.1	97.1%
South Puget Sound CC	Natural Sciences Complex, SPSCC	Olympia	418.3	96.3%
Spokane Falls CC	sn-w'ey'-mn (Business and Social Science)	Spokane	1,600.9	90.5%
Tacoma CC	Early Learning Center	Tacoma	250.0	99.7%
University of Washington	UW - Clark Hall	Seattle	192.3	94.1%
University of Washington	UW Floyd and Delores Jones Playhouse	Seattle	129.6	95.8%
University of Washington	UWT - William W. Philip Hall	Seattle	114.6	96.9%
Yakima Valley CC	Grandview Library	Yakima	872.2	66.5%

Use of Recycled Content Materials

Purchase of recycled content materials reduces the demands for “virgin” supplies. This reduces environmental impacts and creates local jobs by closing the recycle loop.

Applicable LEED credits:

- MRc4 – Recycled Content Materials (percent recycled content materials and cost).

Table 6 – Recycled Content Materials

Agency/University	Building Name	Location	Recycled Content Materials Cost	% Total Materials Cost*
Skagit Valley College	Science & Heath Building	Mount Vernon	$1,039,282	23.8%
Bellevue College	Science & Technology Bldg.	Bellevue	$1,146,427	21.2%
Centralia College	New Science Center	Centralia	$1,589,364	29.7%
Corrections, Dept. of	Coyote Ridge Corrections Facility	Connell	$6,033,972	33.1%
North Seattle CC	Intergraded Services Center	Seattle	$721,935	24.5%
Peninsula College	Business & Humanities Center	Port Angeles	$1,160,642	22.0%
Washington School for the Deaf	Vocational Education & Support Bldg.	Vancouver	$447,264	25.1%
South Puget Sound CC	Natural Sciences Complex	Olympia	$588,485	10.4%
Spokane Falls CC	sn-w'ey'-mn (Business and Social Science)	Spokane	$638,788	18.2%
Tacoma CC	Early Learning Center	Tacoma	$67,223	13.5%
University of Washington	UW Floyd and Delores Jones Playhouse	Seattle	$157,647	46.2%
Everett CC	Undergraduate Education Center	Everett	$873,977	18.3%
Green River CC	Salish Hall	Auburn	$1,767,439	34.9%
Lake Washington Technical College	Allied Health Bldg	Kirkland	$1,869,817	41.6%
Military Dept., WA State	Washington Youth Academy	Bremerton	$35,280	4.5%

*Percent of materials cost (in Divisions 2-10, does not include plumbing, electrical or HVAC equipment).

Use of Regional Materials

The use of regional materials (within 500 miles of job site) can create the following benefits:

- Create and retain local jobs.
- Keep money in the local economy.
- Reduce the trade imbalance.
- Reduce emissions from transportation of materials and products.

This is the only LEED metric that demonstrates the use of Washington materials (RCW 39.35D.090: Use of local building materials and products). If a project did not use enough to meet the 10 percent threshold, it was not reported.

Applicable LEED credits:

- MRc5 – Regional Materials (percent regional materials and cost).

Table 7 – Regional Materials

Agency/University	Building Name	Location	Regional Materials Cost	% Total Materials Cost*
Skagit Valley College	Science & Heath Building	Mount Vernon	$1,090,424	25.0%
Bellevue College	Science & Technology Bldg.	Bellevue	$626,985	11.6%
Centralia College	New Science Center	Centralia	$2,932,638	54.8%
Corrections, Dept. of	Coyote Ridge Corrections Facility	Connell	$8,901,376	74.1%
North Seattle CC	Intergraded Services Center	Seattle	$0	0.0%
Peninsula College	Business & Humanities Center	Port Angeles	$923,568	17.0%
Washington School for the Deaf	Vocational Education & Support Bldg.	Vancouver	$459,730	26.4%
South Puget Sound CC	Natural Sciences Complex	Olympia	$417,899	35.0%
Spokane Falls CC	sn-w'ey'-mn (Business and Social Science)	Spokane	$791,412	62.3%
Tacoma CC	Early Learning Center	Tacoma	$162,562	32.7%
University of Washington	UW Floyd and Delores Jones Playhouse	Seattle	$0	0.0%
Everett CC	Undergraduate Education Center	Everett	$1,262,504	26.4%
Green River Com College	Salish Hall	Auburn	$760,690	15.0%
Lake WA Technical College	Allied Health Bldg	Kirkland	$1,106,017	22.8%
Military Dept., WA State	Washington Youth Academy	Bremerton	$290,758	51.7%

*Percent of materials cost (in Divisions 2-10, does not include plumbing, electrical or HVAC equipment).

Protect Forests by Supporting Sustainable Forestry

The purchase of certified wood ensures that the lumber is harvested in a sustainable way and the wood has the chain of custody documentation to prove it. Sustainable forestry practices protect wildlife habitat, streams, rivers and lakes, and guards against excessive soil erosion. This helps protects the natural environment for future generations.

Applicable LEED credits:

- MRc7 – Certified Wood (0 or 1 point).
- Washington also recognizes wood from Washington that complies with the Forest and Fish Law as sustainable forestry.
- Other third party certified wood also is recognized by WA as meeting the intent of this LEED credit.

Good Indoor Air Quality

Good indoor air quality is a key to a healthy work environment, contributing to better worker productivity and reduced sick leave. Factors that can contribute to poor indoor air quality include:

- Dust in the ductwork and equipment from construction.
- Toxic fumes from construction practices absorbed into ceiling tile and carpet.
- Outgassing of materials with toxic fumes (volatile organic compounds).
- Outgassing of copiers and other equipment or activities in the building.

Applicable LEED credits:

- EQc3 – Construction IAQ Management Plan (0, 1 or 2 points).
- EQc4 – Low-Emitting Materials (0, 1, 2, 3 or 4 points).
- EQc5 – Indoor Chemical & Pollutant Source Control (0 or 1 point).

Access to Natural Light

Access to daylight has been shown to improve worker and student performance. It provides a connection with natural light, which enhances colors and overall visibility. Having access to views can also improve occupant satisfaction and help with worker retention.

Applicable LEED Credits:

- EQc8 - Daylight and Views (0, 1 or 2 points).

Use of Energy Star in Reporting Actual Energy and Water Use

Complete energy and water usage was received from 18 LEED projects. The reporting forms are found in appendix 4. The reporting forms used by Enterprise Services are comprehensive and provide base data about the building size, use, high-energy using equipment, etc., so it is necessary to get this form completed at least once for each project. In response to E2SSB 5854, the department is actively assisting agencies to establish Energy Star Portfolio Manager accounts for all buildings larger than 10,000 square feet. This is an opportunity for the Enterprise Services Green Building Program to use this mechanism to collect the energy and water consumption data and will reduce the efforts taken by the facility operators. Over the next two years, Enterprise Services will refine this process and work with facility management staff to work towards using the Portfolio Manager for energy and water reporting.

Agency/University Sustainable Building Reports Summary

Agencies and universities are required to provide biennial reports to Enterprise Services to show their progress related to their Green Building efforts. The department developed a template that is used by the agencies and universities to report green building activities, provide general comments, discuss training efforts, suggest improvements, and provide a discussion about their metering efforts and plans. These reports are found in appendix 3.

Exemption Declarations

The exemption declaration process was developed as a means for state organizations with projects to opt out of the LEED Silver certification process. Agencies are given three choices:

1. Pursue a LEED certification at a lower level.
2. Follow through with the Enterprise Services LEED QA process reports.
3. Do nothing more.

Ten out of 125 projects have submitted an Exemption Declaration. Enterprise Services' green building advisor works with those agencies to determine possible solutions that would support pursuit of LEED Silver certification, recognizing that the agencies make the final choice. Enterprise Services does not approve exemptions, but includes them in this report (appendix 7). Each agency is responsible for its own exemptions.

Recommendations for Improvement

Enterprise Services (formerly as General Administration) has coordinated implementation of ESSB 5509 for more than seven years. In consultation with affected agencies and universities, the department has developed processes for tracking LEED projects. The following is a combination of feedback from agencies about the issues concerning implementation of the law and knowledge of the state design and construction process.

Issue: Energy efficiency will continue to be a major priority in meeting sustainability standards set by the state. To achieve improved efficiency, it is imperative that cost-effective and energy-efficient systems identified in the energy life-cycle cost analysis process be considered in the design. However, capital budget funding can be a challenge. Renewable energy systems also contribute to better efficiency, but currently may not be as cost-effective.

Recommendation A: Provide capital funds to supplement projects to increase energy efficiency. Enterprise Services could assist with implementation of an incentive program through review of proposals as part of the energy life-cycle cost analysis process. The analysis encourages energy efficiency by evaluating the total cost of ownership of several competing design alternatives. The intent is to help build cost-effective public facilities.

Recommendation B: Establish a requirement that one-half of one percent of the maximum allowable construction cost be used for renewable energy systems, as defined by LEED.

Discussion: The most cost-effective time to implement energy efficiency measures in the life of a building is at the time of design. An incentive applied to a project based on the energy life-cycle cost analysis report could fund additional energy efficiency that may have been outside the original budget. More consistent funding of renewable energy projects would help contribute to a more stable renewable energy market, creating more experienced designers and installers. This will not only stimulate more green jobs, but enhance competition. As renewable energy technology lowers in price, Washington will be poised to respond to the demand for these systems. Renewable energy systems installed on state projects are also critical to achieving the carbon reduction goals set by E2SHB 2815, which the Legislature enacted in 2008.

Issue: For smaller projects, the administrative cost to seek LEED certification is a much higher percentage of the total project cost than for larger projects. As a result, some of the smaller projects must opt for an exemption from the process or cut program from the project.

Recommendation: Provide additional capital funding to cover the administrative costs for LEED certification funding for smaller projects (between 5,000 and 10,000 square feet). Since many LEED documentation costs are nearly the same as for much larger projects, the costs for consultant fees related to LEED documentation preparation can be a burden to the smaller projects. The additional funds would result in smaller projects that don't have to compromise design and construction to implement LEED, thus reaping the benefits.

Issue: There is no current funding for the Enterprise Services Green Building Program. This makes it difficult to support the state's LEED Building efforts through guidance, reporting, and feedback.

Recommendation: Provide funding for Enterprise Services efforts to support state LEED projects. This would include an increased level of effort for Building Operator Interviews, Post Occupancy Evaluation, and provide feedback to the design and project management professionals. This kind of involvement can lead to better design and improved energy efficiency in LEED buildings, thus saving operating funds.

Issue: Metering is needed to track energy and water use to determine savings.

Recommendation: Provide additional funding earmarked for metering to capital projects in new and major renovation projects.

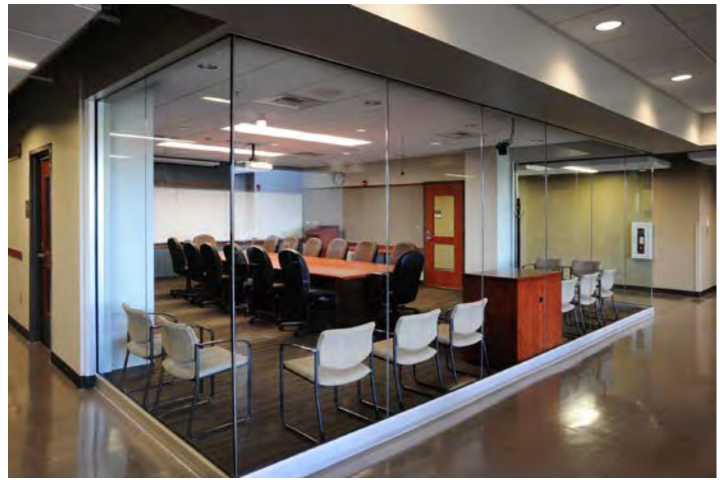
Appendices

1. State LEED Project Case Study Gallery
2. DOC Case Study – Airway Heights CC VS Coyote Ridge CC
3. Agency and University Reports
4. Energy and Water Savings Reporting Spreadsheet
5. Metering and Measurement Reports
6. LEED Building Cost & Performance Data
7. Exemption Declarations (2009-2011)
   (See the 2010 Report for earlier Exemption Declarations)
8. Enterprise Services LEED Quality Assurance Process Instructions and Forms

Appendix 1:

State LEED Project Case Study Gallery

1.	CWU – Dean Hall Renovation	LEED Gold
2.	Bellevue College – Science and Technology Building	LEED Gold
3.	Centralia College – New Science Center	LEED Gold
4.	Clark College – Columbia Tech Center	LEED Gold
5.	Olympic College – Humanities and Student Services	LEED Gold
6.	Skagit Valley College – Science and Allied Health Building	LEED Platinum
7.	South Puget Sound Com. College – Natural Science Building	LEED Gold
8.	Spokane Falls Com. College – sn-w'ey'-mn Building	LEED Gold
9.	Tacoma Com. College – Early Learning Center	LEED Gold
10.	Corrections – Coyote Ridge Corrections Center	LEED Gold
11.	WA State School for the Deaf – Vocational Ed and Support Bldg.	LEED Gold
12.	Military Department – WA Youth Academy	LEED Silver



Dean Hall Renovation

Central Washington University, Ellensburg, WA

LEED NC version 2.1/2.2 Gold Certification

Project Information:

Gross square footage:	79,553 SF
Construction Cost:	$23,958.000
Project Occupied:	February 2009
Energy Savings:	22.77%
Water Savings:	140,350 gal/yr
Waste Recycled:	2,108 tons/ 68%
Added LEED cost:	$95,650 design only
Incentives:	none
LEED Payback:	unknown
CO2 savings:	unknown

Design and Construction Team:

Owner's Project Manager:	Joanne Hillemann, LEED AP
Architect:	BCRA, Inc.
Contractor:	Lydig Construction
LEED Consultant:	BCRA, Inc.
Mechanical Engineer:	MW Consulting Engineers
Electrical Engineer:	Abacus Engineered Sys.
Structural Engineer:	PCS Structural Solutions
Civil Engineer:	BCRA, Inc.
Landscape Architect:	Nature By Design
Interior Designer:	BCRA, Inc.
Commissioning Agent:	Keithly Barber Associates
Acoustical Consultant:	The Greenbusch Group
Photography:	Dane Gregory Meyer

Project Narrative:

Dean Hall is the first constructed project to achieve LEED Gold GBCI certified on the Central Washington University campus in Ellensburg, WA. The project started under the LEED NCv2.1 rating system but the project team voluntarily chose to substitute selected credits meet the LEED NCv2.2 rating system as allowed by the USGBC compliance path.

Dean Hall, which had been vacant since 1998, now contributes to the academic system and enhances the northwest corner of the campus quadrangle contributing another Science facility to the developing Science neighborhood. Dean Hall houses the Departments of Geography and Anthropology & Museum Studies, museum exhibit space and teaching spaces, and the Dean's administrative offices, College of the Sciences.

Over 75% of the existing building shell and structure was renovated and reused thereby diverting potential waste from the landfill. There are small additions to the east and west sides of the existing building to accommodate an improved entry, new stairs, lobby, and studying areas. The east addition provides a connection and transparency between the building and the quadrangle.

The floors are organized by the public spaces and lecture/classrooms on the first floor, anthropology and geography specific classrooms and lab spaces on the second floor, and department faculty offices, research rooms, plus open and semi-private study areas on the third floor.

Sustainable features include site and building water use reduction, improved energy performance, utilization of recycled, regional, and low-emitting materials, enhancement of daylight and views, and post occupancy evaluations. Dean Hall exceeded the State of Washington requirement to achieve LEED Silver certification (achieved Gold) despite project budgeting prior to the LEED requirement and a difficult bidding environment.

Sustainable Sites

Brownfield Redevelopment: The project removed hazardous materials including asbestos and mercury contamination, lead paint and fluorescent light fixtures, tubes and ballasts.

Restore Open Space: Over 50% of the site was restored with native and adaptive landscaping.

Reduce Heat Islands: Over 50% of the exterior hardscape was concrete with a LEED compliant SRI value. The existing roof was replaced with a SRI compliant TPO membrane roofing system.

Water Efficiency

Water Use Reduction: Water conserving fixtures such as dual flush water closets, low flow showers, and low flow sinks.

Energy and Atmosphere

Commissioning: Fundamental and enhanced commissioning services were provided by a third party agent contracted thorough the Owner's Project Manager.

Energy Optimization: Dean Hall achieved over 22% energy savings better than ASHRAE 90.1-1999 earning 5 LEED points. The entire building was renovated with new building insulation, roofing, windows and doors, lighting, plumbing, and HVAC systems. The HVAC system consisted primarily of two dual fan, dual air handling units. The heating system utilizes campus steam while cooling is provided by campus chilled water. Most of the building lighting consists of T-5 high efficiency lamps and electronic ballasts.

Material and Resources

Building Reuse: Over 75% of the existing building shell and structure were protected and remain intact.

Construction Waste Management: The Contractor utilized a Construction Waste Management Plan to divert over 68% of demolition and construction waste from the landfill.

Materials: Over 9% of the materials such as steel, concrete, and acoustical ceiling tiles contain recycled content. Over 29% of the materials such as concrete, masonry, and gypsum wall board were manufactured locally. Over 79% of the wood in the building are FSC certified wood products.

Indoor Environmental Quality

Indoor Air Quality: The Contractor implemented a Construction IAQ Management Plan during construction and prior to occupancy. Low-emitting materials such as adhesives, sealants, paints and coatings, carpet, and composite wood products were specified and installed. Walk-off carpets are located at the entrances, MERV 13 filters are utilized, and custodial closets and labs are separated and exhausted to prevent cross-contamination of adjacent spaces.

Daylighting: During design, the Integrated Design Lab in Seattle evaluated a daylighting model of the existing concrete shading devices "concrete hoods" at each window. The daylighting study found that the removal of the shading devices would help to increase the light levels, but due to budget constraints, the existing concrete shading devices were not removed. The existing window size did allow the required amount of daylighting into the spaces to achieve the LEED EQc7.1 daylighting credit and it was cost prohibitive to increase the existing window rough opening. The daylighting and views were enhanced where practicable in the new exterior walls.

Innovation in Design

Sustainable Education Program: Central Washington University provided a comprehensive signage program and self-guided tour to educate the occupants of the benefits of the building sustainably.

Green Housekeeping: Central Washington University is committed to environmentally preferable cleaning products and practices and established a green housekeeping/cleaning policy for Dean Hall.

Post Occupancy Survey: A post occupancy survey examined thermal comfort, air quality, lighting, and acoustical quality of the building, to ensure satisfaction levels exceed 80%.

Bellevue College Science and Technology Building

LEED Gold

BELLEVUE COLLEGE
Become Exceptional

Completed in March 2009 and officially designated the "S Building," the three-story, 62,882 square-foot facility houses five high-tech classrooms for life sciences and chemistry classes; 16 advanced laboratories, including DNA-sequencer and scanning-electron-microscope labs; and a Science Study Center.

In awarding the Gold LEED rating, the Council cited the S Building's numerous "green" aspects:

1 The facility saves heating energy by employing loss-reducing designs for roof, wall and window construction, and for heating with high-efficiency, water-source heat pumps.

2 It saves lighting energy by bringing natural light into 91 percent of its interior space, and by using room-occupancy sensors to turn lights off when not needed.

3 It saves water through use of low-flow fixtures in laboratories, showers and restrooms, and promotes water quality through a landscaping design that enables water to drain naturally to the Kelsey Creek watershed.

4 It conserves natural resources by using electricity from renewable sources for more than one-third of its power needs, using recycled materials in more than one-fifth of its construction and achieving a 98 percent reduction, through recycling and more precise planning, in the amount of construction waste sent to landfills.

5 It provides for a healthier interior environment by using more outdoor air for interior ventilation, a maximum-volume air circulation system, and low-emission paint, carpeting and sealants.

Project specifics

Gross square footage:	62,882 sf
Construction cost:	$27,633,886
Project occupied:	12/2008
Energy savings:	$20,600 /14.1%
Water savings:	49.8%
Waste recycled:	98 %
Added LEED cost*:	$129,000.
Incentives:	$62,800
LEED Payback**:	6.3 years
CO_2 savings:	not available

Design and construction team

Owner's representative:	Dave Maxwell, Bellevue College
Project manager:	Bob Colasurdo, GA
Architect:	Miller Hull Partnership
Structural engineer:	AHBL
Mechanical engineer:	Hargis Inc.
Civil engineer:	Coughlin Porter Lundeen, Inc.
Electrical engineer:	Sparling
Landscape architect:	Berger Associates
LEED consultant:	O'brien & Associates
General contractor:	M.A. Mortenson Company

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Washington State Department of Enterprise Services

Sustainable sites

Land improvement: 57% of the previously developed site not included in the building footprint has been restored with native plantings.

Alternative transportation: Bellevue College is served by 4 bus lines with 0.25 miles of the site. Bicycle storage, shower/changing facilities and racks have been provided.

Light pollution reduction: The project is located in a campus setting and is compliant with LEED-NC for multiple buildings and On-Campus Building Projects.

Water efficiency

Irrigation: The installed irrigation system reduce potable water consumption by 50.8% from baseline.

Water efficient fixtures: The project utilizes ultra-low flow urinals, dual flush toilets and low flow lavatories, showers and kitchen sinks for a 50.8% reduction from baseline.

Energy and atmosphere

Natural light: Direct Line of sight views for 91% of all regularly occupied areas has been provided.

Heating and cooling: Energy efficient methods include an improved thermal envelope, high efficiency glazing, reduced lighting power density, occupancy sensors and high efficieincy water source heat pumps.

Lighting: Multi-shared and individual work stations have been provided with occupancy sensors, orverride on-off switches, and multi-level lighting controls,

Material and resources

Occupant recycling: The facility has been provided with appropriately sized dedicated areas for the collection and storage of recycling materials, including cardboard, paper, plastic and glass.

Recycle materials: Parking lot asphalt demolished for the construction of the building was 100% recycled.

Local materials: 11.6 % of total building materials and/or products have been extracted, harvested, or recovered, as well as manufactured within 500 miles of the project site.

Indoor environmental quality

Low-emitting materials: All indoor paint and coating products comply with the VOC limits of Green Seal and SCAQMD standards. Low emitting marials include adhesives and sealants, paints and coatings, carpet systems, composite woods and Agrifiber.

Innovation in design

Education: The project includes an educational display highlighting the building’s sustainable design features as well as an educational outreach program.

Green Cleaning: The college has commited to LEED –NC v2.1 IDc1.1 CIR ruling. for achievement of a Green Housekeeping program.

Centralia College New Science Center

LEED Gold

CENTRALIA COLLEGE

Project specifics

Gross square footage:	69,984 SF
Construction cost:	$23,980,983
Project occupied:	April 2009
Energy savings:	$ 33,171.00 and 5,486 KBtu/Yr
Water savings:	$ 197.24 39,761.67 gallons
Waste recycled:	311.74 Tons / 96.493%
Added LEED cost*:	$ 291,296.00, 1.3% of Constr.
Incentives:	none
LEED Payback**:	8.7 Years
CO_2 savings:	194 Tons

Design and construction team

Owner's representative:	Steve Ward, Centralia College
Project manager:	Jim Copland, General Administration
Architect:	Leavengood Architects
Structural engineer:	Arun Bhagat, AKB Structural Engineers
Mechanical engineer:	Wood Harbinger
Civil engineer:	Saez Consulting Engineers, Inc.
Electrical engineer:	Wood Harbinger
Landscape architect:	Karen Keist Landscape Architects
LEED consultant:	Green Building Services
General contractor:	Schwiesow Construction

The New Science Center at Centralia College is designed as a platform for discovery, organized to activate a vibrant and friendly pedestrian environment. The new three story concrete and steel structure is sympathetic to the original order of the street, housing the science departments, the nursing facilities, general classrooms and administrative offices. The project's visual and physical connections between the interior and exterior, creates an environment that promotes strong campus and community links, while offering innovative new learning opportunities.

Designed prior to the Washington State Sustainable requirements, the project achieved a gold status, without any revisions to the design. This can be attributed to the straightforward approach to achieve the sustainable goals for the campus. Working within a tight budget and a building type that typically has a high-energy demand, the sustainable design is characterized by efficiency and a passive common sense approach to design, in lieu of expansive active systems.

The expression of the passive design is captured in the new structures sun control systems. Overhangs and louvers were designed and tested with the Lighting Lab in Seattle, to reduce energy loads while activating natural lighting and social connections. Rain gardens defined a new passive approach to Storm Water Control for the campus, eliminating the expense of underground water detention. In addition, the College sought sustainable directions in materiality that was not only durable, but also long lasting.

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Washington State Department of Enterprise Services

Sustainable sites

Land improvement:
The New Science Center not only energize an existing pedestrian environment, it invites students to explore the world of science. With generous amounts of break-out spaces, laboratories and classrooms, the New Science Center communicates its environmental goals by contributing to a vibrant and healthy community. The new structure fosters public participation, with indoor/outdoor spaces that flow together spatially and visually. The project is part of the existing residential neighborhood, lending 43,000 SF of open space to both the campus and the community,

The New Structures replaces the existing science building and two classroom structures that have all reached the end of their building life cycle. Asbestos was identified in the existing science building, the site was classified as a brown-field and cleaned up prior to construction.

In the post development condition the new facility will add 0.16 acres of impervious surface. A passive approach to storm water management was set as a priority. Three infiltration rain gardens were implemented with a total bottom surface area of 1,453 SF. Sized for a 3-inches per hour infiltration rate, the rain gardens offset the storm water runoff and erosion from the site. Additionally a pervious concrete was provided for the ADA Parking and Service/Drop off area.

Alternative transportation:
The primary means of transportation to the campus has historically been the automobile. To inspire alternative means of transportation, the site is located adjacent to existing city bus lines. Bicycle facilities are located adjacent to the structure and electric power has been provided for alternative transportation vehicles in selected parking spaces around the building. No additional parking spaces were added to the campus parking plan as a result of this project, other than two ADA parking spaces off Locust Street. As a result this leaves an open area on the east side of the building for outdoor activities, graduation ceremonies terraces and pathways that connect the building to the campus.

Light pollution reduction:
All new light fixtures for the site are shielded to prevent light pollution of the night sky, the natural environment and crossing the property boundary. Existing Campus Street Lights have been retrofitted to minimize the night sky pollution while providing a safe and secure campus.

Water efficiency

Potable water has been reduced by 42.7%. The approach for the water harvesting, detention and conservation is defined as passive. With the exception of irrigated turf, Planting material chosen selected is native and drought resistant, once established irrigation will be not be needed.= This helps offset the open lawn areas required as a programmatic requirement for graduation ceremonies.

Dual flush toilets, water efficient faucets, low flow urinals, lavatories and kitchen sinks, all contribute to the to reduce water use for the Structure.

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Washington State Department of Enterprise Services

Energy and atmosphere

A number of energy conservation measures are designed into the New Science Center to reduce the overall energy savings for the site. Highly insulated building envelope including walls, and windows, high efficiency lighting and a highly efficient mechanical system all contribute to the calculated. Large roof overhangs, and sunshades located in large glazed areas minimize heat gain. The energy performance rating has been calculated at 31.2% according to the ASHRAE methodology.

High efficient condensing gas fired boilers and hot water heaters are 13% more efficient than conventional boilers. Air conditioning systems will be provided to all HVAC systems from a central air-cooled chiller located on the roof.

Variable Air Volume controls at the Science fume hoods are balanced with the general exhaust air valves to provide a negative offset in the room to control fumes while reducing energy loads on the mechanical system.

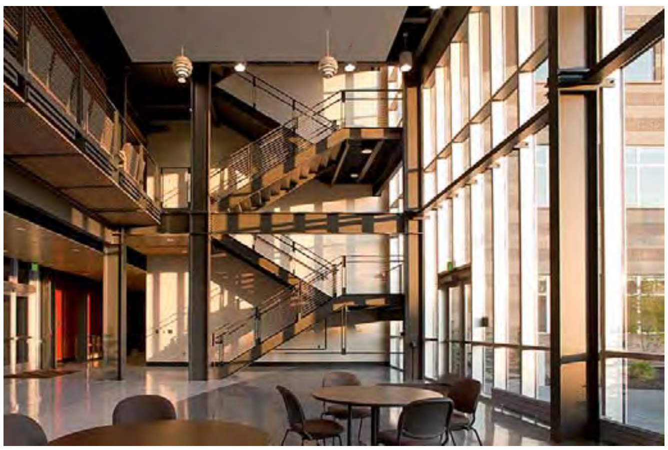
Natural Light reaches 75% of the building floor area, while a direct line of sight to the exterior reaches 96 % of the structure. Large overhangs and solar shades reduce glare and minimizes heat gain, especially in the south and west facing elevations. Natural light is utilized to enhance the building and reduce energy consumption.

Lighting Daylight controls reduce total quantity of artificial lighting, dimming electrical lights when outside light is adequate. Classrooms are zoned to turn luminaries on only when electric lighting is needed along, thus reducing the electrical load on the project. When electric light is needed the luminaries that are zoned use power while still providing quality light to the space.

Material and resources

Occupant recycling:
A Recycling Center is established for the entire building. Concrete demolished from the existing structures on the site was removed and recycled.

Recycle materials:
Exposed Steel and Concrete constitute a visual expression of recycled and local materials utilized in the structure. Recycled Materials with over 40% content are used and expressed in the design and itemized as follows:
Steel, Cast in Place Concrete, Rebar, Precast Concrete, Suspended Ceiling Panels, Mortise Locks, Insulation, Dens Glass Gold Sheathing, Casework,



Local materials: Local Material used on the project are listed as follows:
Rebar, Steel, Cast in Place Concrete, Casework, Steel Studs, Dens Glass Sheathing, Specialty doors, Pea Gravel.

Indoor environmental quality

Low-emitting materials:
Indoor air is protected by the choices of carefully researched finishes and other potential source of fumes. All sealants, paints and adhesives were selected for low volatile organic compounds (VOC) content. Floor finishes all Low VOC as follows; carpet, exposed concrete, concrete sealers, linoleum, and terrazzo. Filtration in the mechanical system exceeds standard industry practice. Operable windows in the administrative areas allow users to control fresh air entering their spaces.

Innovation in design

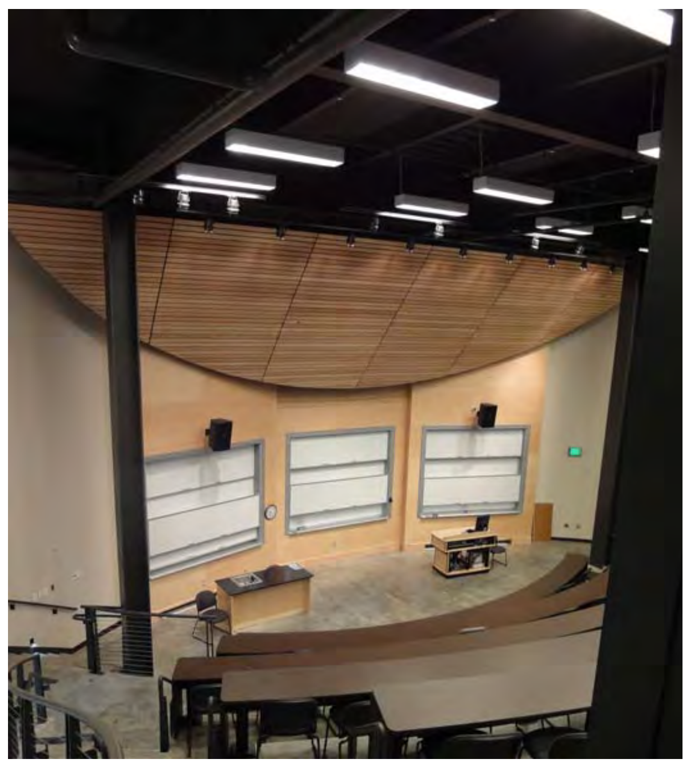
Education:
Signage is currently being developed to teach the different aspects of sustainable design to the users. Signage is being organized to show how the structure achieves sustainable design in each of the following categories:

Construction Waste:
The construction team selected division methods to divert over 95% of the construction waste from landfill.

Recycled Material:
Over 40% of the construction material was recycled

Water Efficiency:
This project used a combination of high efficiency fixtures including low flow water closets, low flow urinals and lavatories to achieve a 42.7% water use reduction.

Material Recourses:
The project team selected certified wood materials that allowed them to exceed a 95% threshold of FSC certified wood products.



Clark College at the Columbia Tech Center

Example of the Sustainable and Green Building Strategies incorporated in the Design, Construction, and on-going Operations of the facility:

Sustainable Sites:

Some of the strategies used to promote healthy ecosystems include and are not limited to:

- Capture, treatment and release of all stormwater on-site
- Use of rain gardens and bioswales for storm water treatment, *(and a celebration of our region's rain water by daylighting roof drains through artificial ponds for people to see the water being diverted from storm sewers into the rain garden, where it infiltrates and recharges the aquifer.,)*
- Reduced impervious surfacing
- Bicycle parking and Mass Transit service
- Light pollution avoidance

Rain Garden Source

Water Efficiency:

The project was designed with a projected total annual water savings of 948,184 gallons:

- Landscape Irrigation Efficiency: Over 70% irrigation water use reduction by landscaping with native and drought tolerant plant species, reducing lawn area, a high efficiency irrigation system, rain sensors, etc.(a projected savings of 810,000 gallons per year).
- Building Water Use Efficiency: 49.9% building potable water use reduction by installing low-flow fixtures, dual flush toilets, and pint flush urinals (an annual projected savings of 138,184 gallons inside the building).

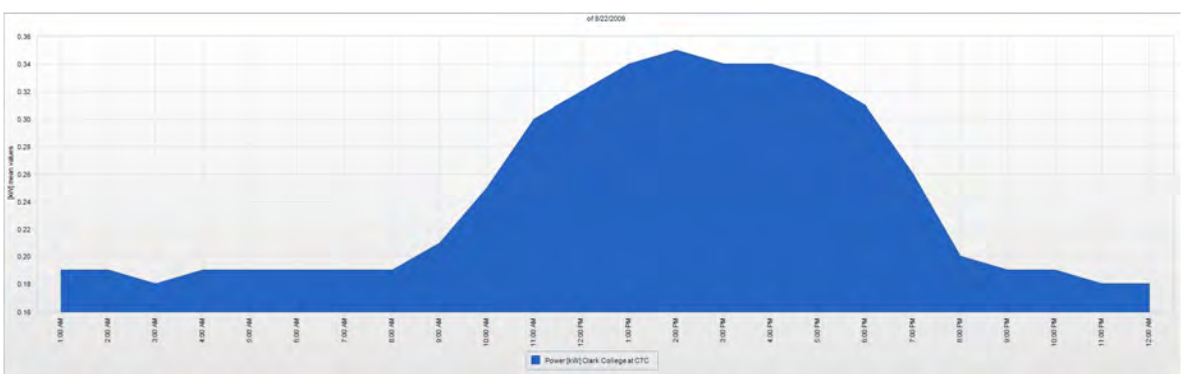
Energy and Atmosphere:

The Facility was designed with energy conservation in mind, and is targeted to perform nearly 29% more efficiently than standard buildings. The design even includes an innovative multi-story trombe wall that pre-heats the building's intake air with passive solar energy. Annual energy savings are estimated at nearly $20,000 per year (note also that bids opened nearly $500,000 below budget).

Trombe Wall

PV and Micro Wind turbines

Renewable Energy: Roof-top photovoltaic arrays (one fixed and one tracking for a total of 2.25kW) and two micro-wind turbines (2 kW) will provide real-life examples of renewable energy systems for students. Students will be able to monitor the energy used by the building and produced on site, while also gaining an understanding of these alternative power sources.



Sample graphic output of on-site power generated

Materials and Resources

Recycling:

In addition to providing recycling for building occupants, more than 95% of construction waste generated on the project was diligently recycled (323 tons) and diverted from landfills through an aggressive construction recycling and salvaging program.

Examples of Responsible Materials used on the project include:

- **32.3% Recycled** products and building materials
- **31.4% Regionally** harvested and manufactured building materials
- Certified wood from sustainable forests (FSC certified)
- Urea-formaldehyde free composite wood products and insulation
- Polished concrete floors reduce materials and maintenance needs, in addition to other low maintenance and durable materials

Indoor Environmental Quality

- **Daylighting:** Over 75% of occupied spaces have been designed with natural lighting, which has been shown to improve student performance, productivity and overall comfort of occupants.
- **Views:** Over 90% of occupied spaces will have access to exterior views.
- **Glazing and Sunshade Devices:** They block unwanted sun in summer, while capitalizing on passive daylighting and heating with deep penetration of daylight in the winter.

- **Indoor Air Quality** Non-toxic Building Materials were used, including low-VOC emitting paints, sealants, adhesives, carpets and finishes. The contractor implemented strict Indoor Air Quality management techniques during construction, and flushed out the building with fresh outside air after construction as an added precaution.
- **Mechanical system and filtration**: designed for high standards of occupant health and comfort. The general contractor adhered to a strict indoor Air Quality management plan during construction, and a complete building flush out was performed after construction to exhaust any remaining irritants. The College uses Green and healthy cleaning practices and cleaning agents to maintain indoor air quality and protect health.

Innovation in Design

Exemplary performance:
Water efficiency features of the design significantly conserve water above even the LEED Water efficiency credit thresholds.

Other Innovation:
Green Cleaning and Housekeeping practices adhere to very strict guidelines and environmentally safe products to protect the indoor environmental quality and and health of the buildings occupants and cleaning personnel.

Comprehensive green building education is provided in numerous ways to improve the public's knowledge and appreciation for green building through signage, flat panel monitors in the building, tours, Clark College program mailers, and even within the educational offerings in the building.

Starting early with an Eco-Workshop to set environmental goals, a LEED Accredited Professional (Greenstone Architecture, PLLC) was involved through out the entire design and construction process to assist in championing green building and guiding the entire integrated team through the related green design, construction, operations and LEED processes.

LEED Certification:
Although only required to achieve a Silver Rating by the State of Washington in the US Green Building Council's LEED rating system, the building is currently anticipating achieving LEED Gold Certification, and is currently in the certification review process.

LEED Costs and Savings:
The project's team goals were to design, construct and operate the facility to achieve as high a LEED certification as possible without significantly increasing first costs, and maximizing opportunities for savings over the life of the building, which has been designed to last fifty years. Integrated Design decisions were strategically selected to maximize value-based decisions.

Other savings not identified by the LEED process started with programming to reduce physical area and increase efficiency by designing multi-functional spaces. For instance; the ground floor corporate flexible learning center combined multiple program needs in one space that also should become a revenue source as a rental space when not being used by the college for educational programming. Other first cost saving features include limiting the parking area to the zoning standard minimum (reducing development costs), and concrete floors.

Building orientation was also a "free" life time savings strategy. By optimizing the solar orientation, not only are there energy savings from controlling solar heat gain, it serves to maximize passive heating, and daylighting strategies, including reduced lighting energy demand.

100% on-site infiltration of storm water not only avoided costly connection fees, but afforded a discount of over $6,000 a year from the City storm sewer impact fees.

Selection of water saving fixtures was not only a negligible first-cost item, but will contribute to a lifetime of water conservation and water/sewer service charge savings, in addition to conserving hot water and reducing energy use.

Energy Savings: Estimated at roughly $19,500 per year
Strategies that increase first cost were carefully balanced against program value, and the return on the investments (energy, maintenance, and replacement savings).

Higher quality and more efficient HVAC systems contribute to a life of energy savings, as do high efficiency lighting integrated with photocells, all incorporated with occupancy sensor controls.

On-site renewable energy systems are still a high first-cost choice with a fairly long return on the investment. However we feel the systems are more justifiable by the fact that they serve an educational program demand for the Power Utilities educational programs in the building. The installed systems were paid for by grants, and not from the State construction funds.

At a first cost premium of 1.10%, the additional first cost items relating to LEED (design team and consultant services, materials and construction, and LEED certification costs) will have a excellent return on the investment coupled with a healthier and improved learning and working environment justifies the small percentage of first cost value, especially considering the savings dividends that will continue over the future life of the building.

Everett Community College Gray Wolf Hall — LEED Silver

EVERETT COMMUNITY COLLEGE

Project specifics

Gross square footage:	77,000 sf
Construction cost:	$28,635,000
Project occupied:	04/2009
Energy savings:	$20,000/year / 1,425 MBtus/year
Water savings:	$12,840/year / 120,000 gal/year
Waste recycled:	964 tons / 97%
Incentives:	$103,000
CO_2 savings:	78.6 tons (1.45 lb/kWh)

Design and construction team

Owner's representative:	Larry Price, EvCC
Project manager:	Joe Sullivan, GA
Architect:	LMN Architects
Structural engineer:	MKA
Mechanical engineer:	Notkin
Civil engineer:	MKA
Electrical engineer:	Coffman
Landscape architect:	Site Workshop
GC/CM:	Mortenson

Gray Wolf Hall is the first LEED Certified building to be constructed on the Everett Community College Campus, and as such, the school took every reasonable opportunity available to make the building a model for future campus development.

The college needed flexible learning spaces for the department of Communications and Social Sciences, and required specialized video conferencing spaces for the University Center. These spaces will allow the college to continue to practice its mission to "Stay Close, Go Far."

Use of natural ventilation dovetailed nicely with the college's wish to provide operable windows in all offices. The office wing is angled slightly to the northwest, allowing views of both the Olympics and Cascades. Ample daylight fills the offices, and the direct/indirect lighting is individually controllable.

The General Contractor took every opportunity to provide LEED compliant materials and make certain that all subcontractors signed a pledge to do the same. Their exemplary performance made it possible for the project to exceed its mandate for LEED Silver.

Sustainable Sites

Land improvement: The site was previously 100% impervious (parking lot) and now has vegetated area equal to twice the footprint of the building.

Alternative transportation: The building is within ¼ mile of several bus stops, including a Transit Center. The campus built a new bicycle storage building and re-activated showers in an adjacent building. In addition, parking spaces for hybrid vehicles and carpools were provided in the parking area.

Water Efficiency

Irrigation: High efficiency irrigation heads were used throughout to reduce water usage. In addition, pedestrian walkway runoff irrigates a native-planted rain garden.

Water efficient fixtures: Low flow fixtures were used throughout the facility, including 0.5 gal/flush urinals, 1.6 gal/flush toilets, and electronic sensor faucets.

Energy and Atmosphere

Natural light: All faculty offices are day lit, and those on the south and west facades are sun-shaded. All offices and classrooms have room-darkening roller shades.

Heating and cooling: Only the classroom wing is air conditioned, using a high-efficiency DX cooling unit. The office wing is naturally ventilated. A pair of high-efficiency condensing boilers are used to create heating water for both wings.

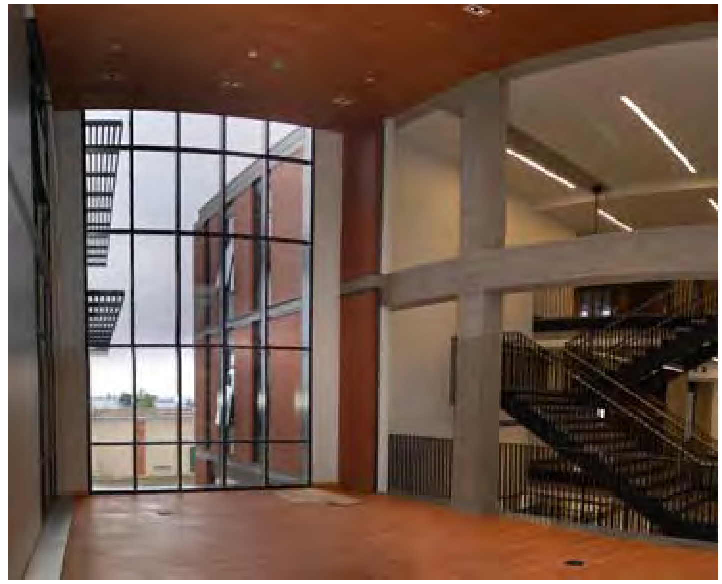
Lighting: The offices contain pendant-mounted direct / indirect lighting with four switchable lighting levels for occupant comfort. Classrooms have daylight zones switched separately from non-daylight zones, and whiteboards can continue to be lit even when projection systems are in use. Occupancy sensors are used in classrooms and restrooms.

Material and Resources

Construction waste management: The contractor was able to divert nearly 100% of the construction waste from landfills. This was due in large part through the re-use, on site, of the existing parking lot as fill for foundations.

Occupant recycling: The EvCC has an exemplary recycling program, including bottles, cans and paper. Receptacles are located throughout the campus.

Recycled materials: Includes fly ash in concrete, rebar, masonry ties, metal decking, insulation, gypsum wallboard, and aluminum curtain wall systems. Cabinetry substrate was 100% recycled and FSC certified.



Local materials: Includes brick, concrete (both aggregate and cement), rebar, and foam insulation.

Indoor Environmental Quality

Low-emitting materials: Formaldehyde-free MDF and low- or no-VOC paints were specified, all carpet is Green Seal compliant, and all sealants and coatings were reviewed by the construction team prior to use in the building. All contractors signed pledges to comply with the LEED goals of the project, and signs regarding the LEED goals were posted in highly visible locations by the contractor.

Chemical and Pollutant Source Control: Removable recessed walk-off mats were installed, MERV-13 filters were installed in the air handlers, and all copy and work rooms were exhausted separately from the main building return air.

Views: 100% of regularly occupied spaces have access to views.

Innovation in design

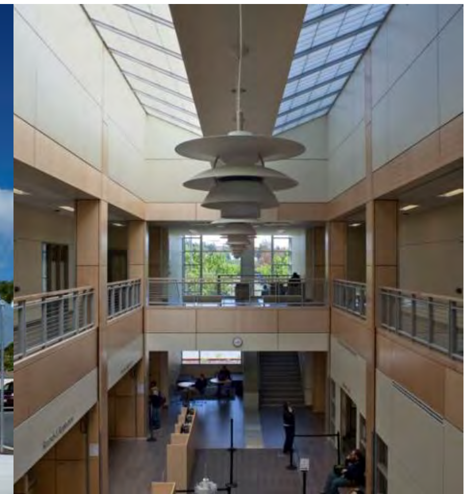
Green Cleaning: EvCC is committed to sustainable cleaning practices, and has implemented the OS1 sustainable cleaning program.

Exemplary Performance:

Maximize Open Space: project installed vegetated open space equal to more than double the footprint of the building.

Construction Waste Management: 97% of construction waste was diverted from landfills.

Alternative Transportation: The campus has a comprehensive transportation management plan which is audited regularly for effectiveness.



Olympic College Humanities and Student Services

LEED Silver (targeted)

OLYMPIC COLLEGE

Project specifics

Gross square footage:	85,012 sf
Construction cost:	$ 21,636,034 (MACC)
Project occupied:	01/2010
Energy savings:	$35,965 and 1,221,528 MMBtus annually;
Water savings:	$2,889 and 501,942 gallons annually
Waste recycled:	581.9 tons / 98.6%
Added LEED cost:	$104,407; 0.43 % of Construction Cost
Incentives:	No utility incentive funding was received
LEED Payback:	2.69 years
CO_2 savings:	162 tons annually

Design and construction team

Owner's representative:	Barbara Martin, VP of Administration, Olympic College, Bremerton, WA
Project manager:	Ronnie Hill, E&AS
Architect:	Yost Grube Hall Architecture
Associate Architect:	Rice Fergus Miller Architecture & Planning
Structural engineer:	KPFF Consulting Engineers
Mechanical engineer:	Notkin Engineering
Civil engineer:	SVR Design Co.
Electrical engineer:	Interface Engineering
Landscape architect:	SVR Design Co.
LEED consultant:	Green Building Services, Inc.
General contractor:	Pease and Sons, Inc.

The new Olympic College Humanities and Student Services Building completes a trio of new academic buildings that form the new gateway for the campus.

The building includes a three story academic wing and a two-story Student Services wing.

The academic wing provides a new home for the Division of Social Sciences and Humanities, consolidating administrative and teaching spaces that had previously been scattered among a number of buildings on campus. The twenty-five new teaching spaces include two distance learning classrooms, a computer-based language lab, an anthropology lab and a 144 seat lecture hall as well as general-purpose classrooms. New spaces in the academic wing also include Social Sciences and Humanities Division and faculty offices and the Writing Center.

The Student Services wing arranges student support functions around a skylit two-story atrium for convenient one-stop service. Student Services programs brought together in the new building include Records & Registration, Financial Aid, Advising, Counseling, and centers for Veterans' Programs, Women's Programs, Access Services, Tutoring, Testing and Careers.

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Sustainable sites

Land improvement: Site selection and Brownfield redevelopment are important factors in reducing environmental impact; the building location takes advantage of existing infrastructure, utilities and public transportation which help protect Greenfields and preserve natural resources. Open space around the building will be retained for the life of the building.

Alternative transportation: No new parking was developed as a result of this project. Regular bus lines serve the campus and sufficient bicycle parking is provided around the building with nearby shower and changing facilities thereby promoting alternative fuel transportation.

Light pollution reduction: The site lighting is full cutoff with no uplight to reduce sky glow and the unnecessary lighting of the sky. Interior lighting was aimed away from windows and skylights for efficient use of light.

Water efficiency

Irrigation: The landscape design incorporates plant material suited for the region to reduce long-term irrigation needs and were grouped to increase water efficiency by reducing water consumption in the landscaping by 59% over conventional means.

Water efficient fixtures: The building reduces water use by 20.4% via selected low-flow fixtures.

Energy and atmosphere

Natural light: The Humanities and Student Services Building takes advantage of natural lighting during the day. The offices and classrooms incorporate operable windows that allow building operators to take advantage of the natural air currents to minimize the use of mechanical heating and cooling. Daylight sensors continually monitor available natural light and turn off fixtures when adequate daylight is available. Sunshades on the south facing windows reduce glare, solar heat gains and the need for artificial lighting.

Heating and cooling: The building's increased energy performance of 40% better than ASHRAE 90.1-1999 lessens the environmental impact of energy production and improves energy costs. This is accomplished by using selected high efficiency direct/indirect lighting fixtures, occupancy sensors, day lighting controls, increased wall and roof U-values, high efficiency glazing and a heat recovery system. The HVAC consists of four 100% outside air, VAV air handling units with cooling provided by chilled water coils connected to a VAV air-cooled chiller. Tempering of the outside air at the AHUs and individual VAV boxes is provided by the campus hot water system. Heat exchangers at each AHU pre-heat outside air prior to introducing it to the heating coil. The heat exchanger is used rather than utilizing return air for pre-heating or pre-cooling of outside air.

Lighting: . Efficient lighting fixtures use the latest technology to reduce glare, improve worker productivity, and generate visual comfort. Occupancy sensors turn lights off when people are not present.

Material and resources

Occupant recycling: Recycling collection areas were located throughout the building to provide staff and students with the opportunity to divert waste from landfills.

Recycle materials: 35.48% of materials in the project contain recycled content Recycled materials included concrete, steel, gypsum, roofing materials, etc.

Local materials: 33.91% are manufactured regionally and 13.08% are extracted regionally. Regionally sourced materials include wood, brick, steel, glazing, aggregate, etc.

Indoor environmental quality

Low-emitting materials: Indoor air quality will be maintained with the use of low-emitting adhesives, paints, carpets, and composites.

Innovation in design

Education: Olympic College will be providing signage and tours of the Humanities Building focused on sustainability in an effort to educate the community about green building practices.

Green Cleaning: The cleaning staff will be trained in green cleaning practices and their use. Green Seal Certified products will be used.

Integrated Pest Management: The College staff will use the least-toxic means possible to address any potential pest concerns.

Exemplary Performance: 98%, or more than 580 tons, of the building's construction waste was diverted from landfill.

Skagit Valley College Science and Allied Health Building — LEED Platinum

Project specifics

Gross square footage:	65,230 sf
Construction cost:	$22,536,844
Project occupied:	8/2009
Energy savings:	$27,197/23,461 Therm/yr
Water savings:	121,942 gal/yr
Waste recycled:	749 tons / 98 %
Added LEED cost*:	$477,441.
Incentives:	$254,570
LEED Payback**:	8.2 years
CO_2 savings:	1,167 metric tons per year

Design and construction team

Owner's representative:	Dennis Rohloff, Skagit Valley College
Project manager:	Bob Colasurdo, GA
Architect:	Schreiber, Starling, & Lande
Structural engineer:	AHBL
Mechanical engineer:	Wood Harbinger
Civil engineer:	LBS Engineers
Electrical engineer:	K-Engineers
Landscape architect:	Murase Associates
LEED consultant:	Green Building Systems
General contractor:	Tiger Construction

The new Laura Angst Hall, Science and Allied Health Building, is sited on the Southwest corner of the main campus located in Mount Vernon.

The building comprises a 65,230-square-feet building with distance education classrooms, labs for nursing and other health occupations, as well as classrooms for astronomy, biology, chemistry, environmental conservation and physics.

The facility was built with a host of sustainable features including a rain garden that will also function as a lab. photovoltaic panels that supply 8.5 percent of the building's electricity, lighting that self adjusts to natural light, a system that recovers heat from lab hoods, and plumbing fixtures that use 40 percent less water.

The contractor achieved a 98 percent rate of recycling for construction waste, no new parking was added. The building achieved LEED Platinum certification.

The Distance Education portion of the building, equipped with wi-fi networks and smart classrooms will allow student options for learning opportunities at other community colleges as well as four-year universities.

http://www.ga.wa.gov/eas/green
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Sustainable sites

Land improvement: The project removed a contaminated building within the project limits resulting in a credit for brownfield redevelopment and for maximization of open space.

Alternative transportation: Skagit valley College is served by 2 bus lines with 0.25 miles of the site. Bicycle storage, shower/changing facilities and racks have been provided.

Light pollution reduction: The project is located in a campus setting and is compliant with LEED-NC for multiple buildings and On-Campus Building Projects.

Water efficiency

Irrigation: The installed irrigation system reduce potable water consumption by 68.4% from baseline.

Water efficient fixtures: The project utilizes ultra-low flow urinals, dual flush toilets and low flow lavatories, showers and kitchen sinks for a 48% reduction from baseline.

Energy and atmosphere

Natural light: The project achieved a minimum 2% glazing factor or a minimum daylight illuminance of 25 footcandles in 75.8% of all regularly occupied spaces.

Heating and cooling: Energy efficient methods include an improved thermal envelope, high efficiency glazing, reduced lighting power density, occupancy sensors and high efficieincy water source heat pumps.

Lighting: Multi-shared and individual work stations have been provided with occupancy sensors, orverride on-off switches, and multi-level lighting controls,

Material and resources

Occupant recycling: The facility has been provided with appropriately sized dedicated areas for the collection and storage of recycling materials, including cardboard, paper, plastic and glass.

Recycle materials: The project recycled 749 tons (97.1%) of on-site generated waste.

Local materials: 24.9 % of total building materials and/or products have been extracted, harvested, or recovered, as well as manufactured within 500 miles of the project site.

Indoor environmental quality

Low-emitting materials: All indoor paint and coating products comply with the VOC limits of Green Seal and SCAQMD standards. Low emitting marials include adhesives and sealants, paints and coatings, carpet systems, composite woods and Agrifiber.

Innovation in design

Education: The project includes an educational display highlighting the building's sustainable design features as well as an educational outreach program.

Green Cleaning: The college has committed to LEED –NC v2.1 IDc1.1 CIR ruling. for achievement of a Green Housekeeping program.

South Puget Sound Community College Natural Sciences Building LEED Gold

The new three story Natural Sciences Building forms the western edge of the campus and compliments an existing science building to create a Natural Sciences Complex. The building provides specialized instruction for geology, botany, physics, anatomy, chemistry, and biology. An programming goal identified early in the design process centered on how to combine laboratory program elements requiring controlled mechanical ventilation with offices and classroom spaces that were to be naturally ventilated and passively cooled. This core idea significantly influenced the layout of the building and increased our goals for energy savings.

Sustainable site features extend the learning environment to the outside of the building. A central storm water infiltration pond is used for water quality testing, and native plantings within the pond and around the building are used for plant identification by the botany program

Separating non-lab spaces in a naturally ventilated wing of the building was a fundamental strategy that led to above average energy savings. The resulting density of systems in the laboratory wing led to greater efficiency in systems piping and distribution.

Project specifics

Gross square footage:	52,000 sf
Construction cost:	$21,901,560
Project occupied:	01/2009
Energy savings:	$ 50,899 and 11 MMBtus per year
Water savings:	45,721 gal/yr
Waste recycled:	418.3Tons / 96.2%

Design and construction team

Owner's representative:	Ed Roque, Dean of Capital Facilities
Project manager:	Penny Koal, E&A Services
Architect:	The Miller|Hull Partnership
Lab Planning:	Research Facilities Design
Structural engineer:	AHBL
Civil engineer:	AHBL
Mechanical engineer:	PAE Consulting Engineers
Electrical engineer:	Sparling
Landscape architect:	Murase Associates, Inc.
LEED consultant:	O'Brien & Company, Inc.
General Contractor:	M. A. Mortenson Company

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Sustainable sites

Land improvement: 100% on-site stormwater infiltration, porous concrete, native plantings, and no irrigation

Alternative transportation: Describe how the project provides for alternative means of transportation.

Water efficiency

Water efficient fixtures: 50% water savings.

Site Water Use: Native plantings, including transitional native grasses to restore nutrients in the soil, allowed for no irrigation system to be installed.

Energy and atmosphere

Natural light: Continuous high and low ribbon windows in the laboratories provide excellent natural lighting for energy savings and improved color rendition. Refracting glass interlayer helps to bounce daylight deeper into the building.

Heating and cooling: A variable air volume mechanical system maintains safe ventilation standards in the laboratory wing, utilizing occupancy sensors to reduce air exchanges during hours of non-use, and heat recovery in the lab exhaust system to reduce energy consumption.

Natural Ventilation: Offices and Classrooms, including a 100 seat lecture hall, utilize natural ventilation, in-slab radiant heating and thermal mass to greatly reduce energy use.

Measurement and Verification: Mechanical systems are monitored to provide opportunities for tuning and optimization of the systems over the life of the building.

Material and resources

Construction Waste: Diverted 95% of construction waste material from landfill.

Recycled materials: Recycled content exceeded 10% of building materials, including; CMU, steel, wood doors, gypsum products, toilet partitions, particle board, aluminum panels, rigid insulation, ceiling tiles, carpet tile, and ceramic tile.

Local materials: Exceeded 20% of materials manufactured or fabricated within 500 miles of the project site.

Indoor environmental quality

Low-emitting materials: Sealants and adhesives, paint, carpet, and composite wood products all meet required standards for low-emitting materials, reducing off-gassing of these finish materials.

Increase ventilation effectiveness: Laboratories are ventilated with 100% outside air. Smaller individual offices are naturally ventilated with operable windows. Larger 50 person classrooms utilize stack ventilation and operable windows to draw air through the space. A 100-seat lecture hall utilizes stack ventilation and an automatically controlled air intake damper to draw air through the space. In both classrooms, a mechanical assist system supplements the natural ventilation when necessary.

Controllability of Systems: Offices are naturally ventilated with operable windows and controllability of a solar powered exhaust fan in each office. Classrooms and laboratory ventilation is controlled by individual thermostats.

Innovation

Air Quality testing: A scale model of the proposed building was subjected to wind tunnel testing to confirm that exhaust air effluent would not conflict with air supply and natural ventilation openings in this building and adjacent buildings.

Green Housekeeping: A manual including green cleaning products and procedures was prepared and adopted by the College.

Exemplary Performance: Water savings in excess of 48%, and diversion of over 96% of construction waste from landfill qualified for exemplary performance.

sn-w'ey'-mn Building
Spokane Falls Community College
Spokane, Washington

Replacing three 1967 buildings on the Spokane Falls Community College campus, this new 70,000-square-foot, three-story structure features two wings – each housing a separate department – connected by a light-filled three-story atrium lobby space. With equality between the Business and Social Science departments being a prime driver for the classroom spaces, the west (campus) façade is a rhythm of eight learning lanterns. Each lantern is composed of two stacked classrooms with a floor-to-ceiling thermal buffer wall maximizing the daylight entering the classrooms and creating a visual connection to the campus while also providing an insulating air space to minimize the heat gain and loss through the large expanse of glazing. The vertical concrete organizational members throughout the exterior are direct connections to the existing campus language, maintaining the continuity of the established rhythm.

Fulfilling the college's re-focused desire to create student-gathering spaces, multiple study areas are scattered throughout the floors and around the exterior. To promote the inclusion of features that minimize environmental impact and maximize energy efficiency, the facility has earned LEED Gold certification, making it the first community college building in Washington state to attain this status as well as the first LEED building constructed on a Community Colleges of Spokane (CCS) campus.

Initially called the Business and Social Science Building, the facility was formally named the sn-w'ey'-mn Building to honor the Salish-speaking people who historically lived in this region in an environmentally sustainable manner. sn-w'ey'-mn is a Native American word in the Salish language that means a trading place for knowledge, materials, trades and commercial goods. The major artwork of the building is focused on the theme of commerce, tying together the two departments that will be housed in the building: Social Sciences and Business. Commerce was a mainstay of the regional tribes who traded extensively among themselves and with the coastal tribes. This name recognizes the importance of commerce as it existed for thousands of years among regional tribes.

COMMUNITY COLLEGES OF SPOKANE

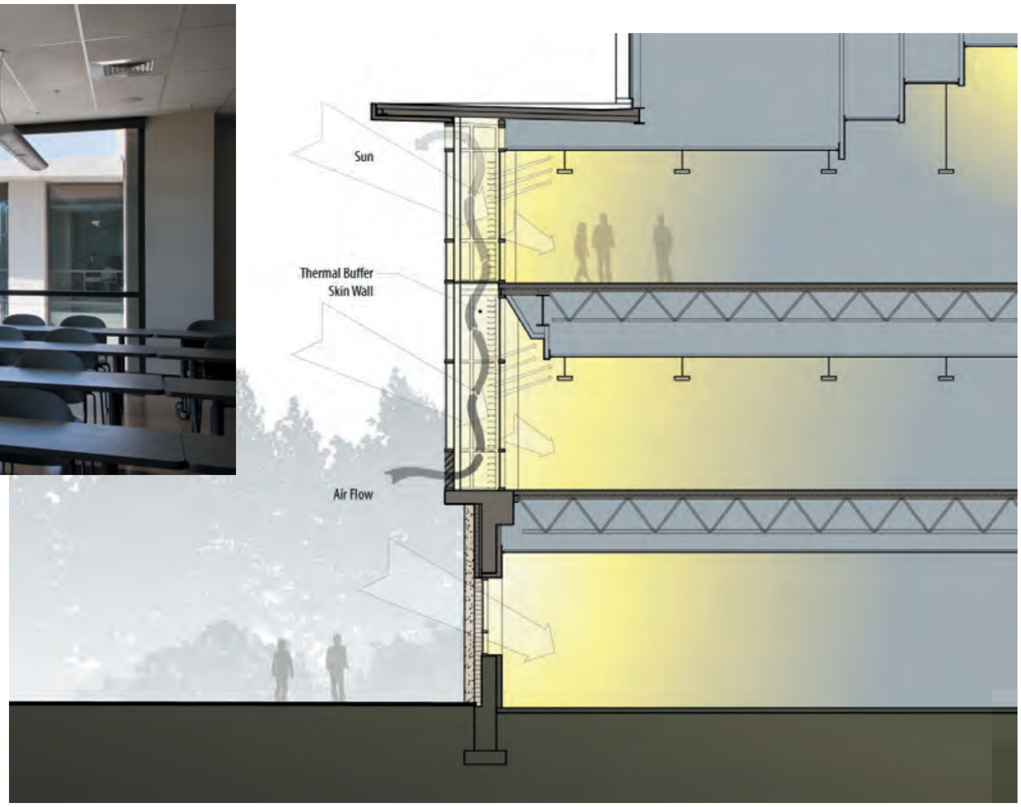
NAC | ARCHITECTURE

Design & Construction Team

Architect:	NAC|Architecture
Civil Engineer:	Taylor Engineering
Structural Engineer:	Structural Design Northwest
Mechanical Engineer:	L&S Engineering Inc.
Electrical Engineer:	NAC|Engineering
Landscape Architect:	Hellstrom and Associates
General Contractor:	Kearsley Construction Inc.

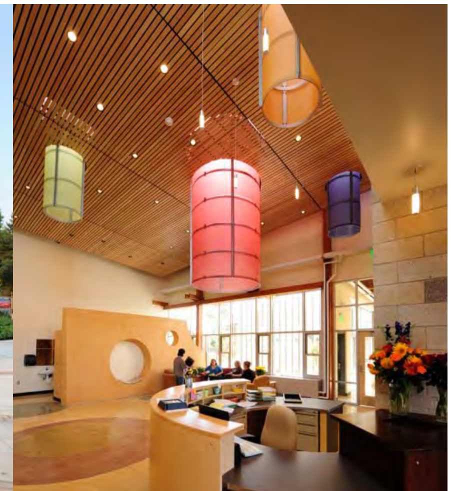
A sample of sustainable attributes includes:

- 40% reduction in water usage
- 90% of regularly occupied spaces have direct line of sight to exterior window
- 75% of regularly occupied spaces have minimum daylight factor of 2%
- 95% of construction waste diverted from landfills
- Red light/green light system in office corridors indicates whether or not to open windows without interfering with the building mechanical system
- MDF, bamboo, linoleum and recycled carpet are primary interior materials
- Building is operating for 2 years on wind-generated power
- Aggregate in terrazzo floors quarried from Chewelah, radiant heat below in lobby
- Concrete manufactured in Spokane Valley
- Masonry veneer manufactured in Mica, Washington



COMMUNITY COLLEGES OF SPOKANE

NAC | ARCHITECTURE



Tacoma Community College Early Learning Center — LEED Gold

Project specifics

Gross square footage:	12,962 sf
Construction cost:	$4,873,165
Project occupied:	09/2008
Energy savings:	244 MMBtus/yr; $4,000/yr
Water savings:	237,000 gallons/yr
Waste recycled:	99%
Added LEED cost*:	Approx. $191,000 for construction & fees 3.9% of construction
Incentives:	none
LEED Payback**:	unknown
CO_2 savings:	unknown

Design and construction team

Owner's representative:	Clint Steele, Tacoma Community College
Project manager:	Yelena Semenova, Washington State Department of General Administration, E&A Services
Architect:	McGranahan Architects
Structural engineer:	AHBL Engineers
Mechanical engineer:	BCE Engineers
Civil engineer:	AHBL Engineers
Electrical engineer:	BCE Engineers
Landscape architect:	Cascade Design Collaborative
LEED consultant:	O'Brien & Company
General contractor:	Pease Construction

The new 12,962 square foot Early Learning Center at Tacoma Community College enables student parents to pursue their education by providing a safe, affordable, and nurturing environment for their children. This project includes classrooms for Infants, Toddlers, Woddlers, and Preschoolers (age 3-5) for a total of 108 children; nearly doubling the capacity of the facility that it replaced. In addition to Early Learning programs for children, the new Center provides a classroom for adults in the Early Childhood Education/Paraeducator programs and observation rooms adjacent to every classroom to provide practicum and field observation opportunities. The facility was funded by TCC students, the TCC Foundation and a State matching grant.

The Early Learning Center received LEED Gold Certification. The building has natural ventilation, operable windows, and radiant floor heating. Through the use of CO2 and occupancy sensors, the ventilation systems adapts to the changing needs of building occupants and maximize energy savings. Bonus LEED innovation credits were achieved through a Green Housekeeping policy for environmental cleaning practices, as well as a Green Building Education program that communicates the sustainable features of the facility.

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Washington State Department of Enterprise Services

Sustainable sites

Alternative Transportation: The building is within 1/4 mile of 10 bus routes providing building occupants usable access to an alternate means of transportation.

Heat Island Effect: By using a light colored roof and plants that shade the building, the site creates less heat, reducing its contribution to high temperatures in the city.

Light Pollution Reduction: The building utilizes site and exterior lighting that is efficient and reduces glare. As a result excess light is not reflected into the sky and energy is saved.

Water efficiency

Water Efficient Landscaping: Utilizing drought tolerant plants and mulches to reduce water needs.

Water Use Reduction: By using dual flush toilets, low flow faucets and drought resistant planting this building will use 55% less water.

Energy and atmosphere

Commissioning of Building Systems: Commissioning is a process that ensures that all of the building mechanical systems are working properly. For example, if a fan was installed incorrectly it would affect all the other systems associated with it and ultimately waste energy.

Optimize Energy Performance: High relief louvers and low intake louvers naturally ventilate the building by allowing cool air to enter the building near the floor and heated air to exit the building near the ceiling.

Optimize Energy Performance: In-slab hydronic heating is used throughout the learning areas saving in energy expenses.

Material and resources

Storage and Collection of Recyclables: The Early Learning Center and TCC campus has an organized recycling program for paper, glass, plastics and food waste organics. The ELC is the first building on campus to recycle food waste organics.

Construction Waste Management: 75% of the building's construction waste was either reused or recycled.

Indoor environmental quality

Low-emitting Materials: Using materials that emit few volatile organic compounds (VOC's) reduces health problems

Daylight and Views: 95 percent of the ELC's indoor spaces allow views to the outdoors and natural daylight.

Innovation in design

Education: The Early Learning Center incorporates a Green Building Education program that communicates the sustainable features of the facility through comprehensive signage and informational pamphlets.

Green Cleaning: A LEED innovation credit was achieved through a Green Housekeeping Policy with environmentally preferable cleaning products and practices.

Exemplary Credit for Water Use Reduction: A LEED exemplary credit was awarded by achieving water use reduction by more than 40%. (The project saved 55%.)

Exemplary Credit for Maximizing Open Space: A LEED exemplary credit was earned by achieving Vegetated open space equal to over 40%. The project achieved 46% by setting aside open space as visual buffers, preserving native vegetation, maintaining an open meadow for shallow stormwater detention, and incorporating outdoor play spaces.

*construction and fees.

**Added cost for LEED related consultant fees and construction costs, minus the incentives, divided by the savings from utilities based on the modeling performed for the LEED submittal which is comparing the "as-built" building

SUSTAINABLE DESIGN

The US Green Building Council (USGBC) prescribes an approach to evaluating the performance of building design and compares them against the industry accepted energy efficient standards. The rating system has provided designers the opportunity to objectively demonstrate the performance of their sustainable design efforts. The Coyote Ridge Corrections Center is one of the first corrections centers of its size to apply these sustainable development standards in design and the first to achieve a LEED® Gold certification. By attaining this standard, this facility has achieved the following benchmarks in efficiency:

- **32% reduction in energy use**
  - 13% reduction in electricity, primarily in exterior lighting and Energy Star fixtures inside the building.
  - 42% reduction in natural gas use.
  - 50,000 MBtu per year reduced energy consumption will save up to $370,000 each year on energy bills.
  - Renewable energy production on-site.
    - » A Photovoltaic solar array capable of producing 105,525 kWh per year has been placed on selected roof areas.
- **32% reduction in water use**
  - Landscaping without irrigation and using ultra efficient plumbing fixtures saves over 5.5 million gallons of water each year.
- **Support for car pool/van pool programs that are expected to save thousands of gallons of gas each year with many of the employees expected to commute from the Tri-City area.**
- **96% of construction waste recycled or reused**
  - A Construction Waste Management program reduced the amount of the construction materials being sent to land-fills. The materials were sent to local recyclers to be recycled into new products. This not only reduces the need for land-fill but also reduces the need for raw materials, as many of these materials are recycled into new building materials.
- **46% of the materials in this facility were constructed from recycled material.**
- **45% of the building materials were fabricated locally.**
- **The use of light reflective roofing and light colored surface materials also reduces the solar heat gain on and around the buildings reducing heating loads and making the surrounding outdoor environment more comfortable for the inmates who use the grounds around the building for a number of activities.**

CH2MHILL

CONTINUED FROM INSIDE

In addition to these savings, a Photovoltaic array has been placed on the roof to generate power further reducing this facility's energy demand on the grid. This renewable energy source can be expanded and could prove effective enough at generating power.

MATERIAL AND RESOURCES

More than $28 million of raw materials went into construction of this facility; 46 percent came from recycled sources. Over $10 million worth of materials came from sources within 500 miles of this facility.

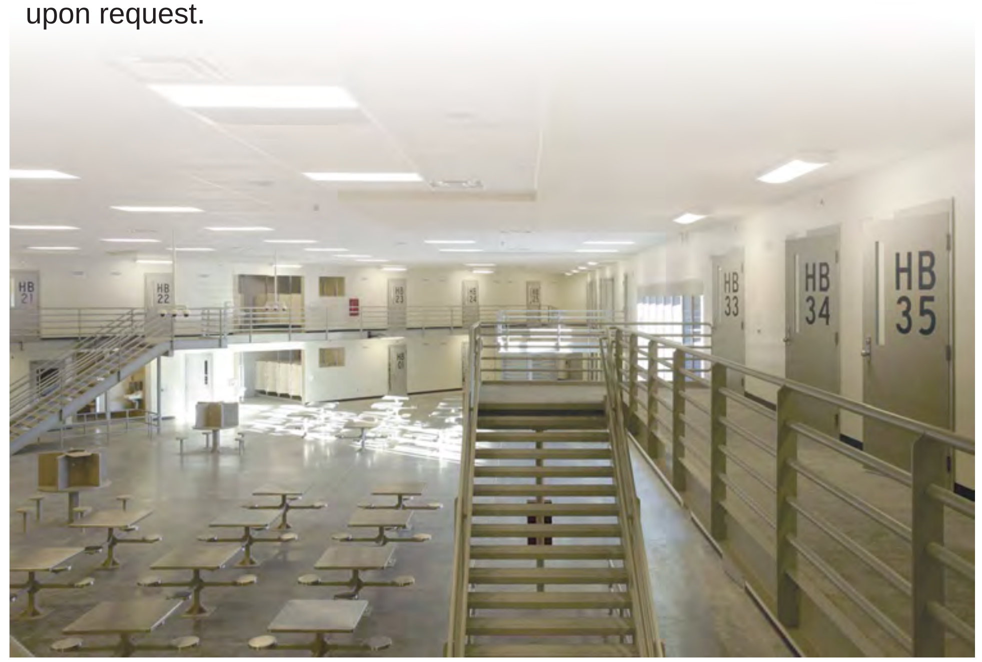
Nearly 27,500 tons of material was removed from this site during construction. Of that, only 160 tons were sent to land-fills. The rest were sent to recyclers to become the next generation of recycled building materials or went directly to other construction efforts, like the gravel base under roadwork.

INDOOR AIR QUALITY

The inmates spend much of their time indoors and with the high population density of this facility, indoor environmental quality is very important. By selecting building materials that produce fewer volatile organic compounds and are formaldehyde free, the design ensured that the materials used in construction do not compromise the indoor environment. By following strict procedures for cleansing the buildings with fresh air prior to occupancy, the owner is assured that the indoor air quality of the facility and the mechanical equipment used to ventilate the facility will be ready to support a healthy environment for the inmates. Smoke-free policies and green housekeeping strategies, also assure that steps have been taken to keep the environment healthy.

COMMUNITY AWARENESS

Limited guided tours of this facility will be made available to the public upon request.



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FOR ADDITIONAL INFORMATION ABOUT THIS FACILITY, CONTACT THE LEED® ACCREDITED PROFESSIONAL: Edward A. Pieterick, AIA, LEED® Architect / Design Manager
Ed.Pieterick@ch2m.com

Coyote Ridge Corrections Center

Connell, Washington

New Construction Campus Design

LEED® GOLD CERTIFIED

U.S. GREEN BUILDING COUNCIL

Department of Corrections WASHINGTON STATE

HUNT / LYDIG Joint Venture

INTEGRUS ARCHITECTURE

MW Consulting Engineers

What is LEED?

The **Leadership in Energy and Environmental Design** (LEED®) Green Building rating system for New Construction and Major Renovations (often referred to as LEED NC) is a performance standard for certifying the design and construction phases of commercial/ institutional buildings and high-rise residential buildings. The intent of LEED NC is to assist in the creation of high-performance, healthy, durable, affordable and environmentally sound buildings.

Welcome!

We invite you to use this field guide during your tour of this facility to introduce you to the features of this Corrections Center's design, which makes this one of the best examples of high performance and sustainable development for a correction center in the United States.

HISTORY

In January 2006, the Washington Department of Corrections (DOC) issued a request for proposals for the design and construction of the Coyote Ridge Corrections Center (CRCC) Expansion. The project is located on 145 acres near Connell, Washington, and has been built immediately adjacent to the existing facility. The existing 40-acre minimum security facility is between this site and the developed city limits of Connell. The existing minimum security facility has a capacity of 600. The new medium facility is capable of handling 2,048 inmates and employs over 200 staff.

The Washington Department of Corrections initiated a "Sustainability Plan" in September, 2002, describing the DOC's commitment to sustainable development to protect and manage the state's resources. The Sustainability Plan was developed in response to Executive Order 02-03. EO02-03 requires all state agencies to have and maintain such a plan. Included in the second plan update of October 2006, the DOC established a sustainability goal to design and construct new buildings to the USGBC LEED® Silver or Gold standards.

NEW FACILITY STATISTICS

- **Medium Security Facility**
- **145-acre site**
- **Housing 2,048 inmates**
- **Approximately 578,000 square feet of floor area**
- **21 new buildings**

» **Building A: Segregated Housing**

» **Buildings B – E: Medium Security Housing**

» **Buildings F – I: Hybrid Housing (Medium Security)**

» **Building J: Recreation –** this building serves as a place for inmates to exercise. The facility includes a gymnasium, hobby rooms, a music room, and other recreation areas.

» **Building L: Food Service and Medical/Mental Health –** this building is where inmates eat their meals. The dining facility, food preparation kitchen, coolers, and other culinary functions associated with this purpose are located in this facility. The medical side of the facility consists of clinic-exam rooms and related support spaces.

Central Security stations also monitor environmental conditions for inmates.

» **Building M: Inmate Programs –** this building includes a library, law library, classrooms, computer rooms, a counseling center and similar rooms for other developmental programs.

Daylight is brought into the buildings to make the confinement spaces as healthy as possible.

» **Building N: Intake/ Discharge and Visiting –** this building is where new inmates are registered and departing inmates are discharged. Additionally, visitation occurs in this building. There are administrative offices and common spaces for visitation as well as waiting rooms and locker rooms to process the users in and out of the facility.

» **Building P: Correctional Industries –** this building serves as a facility for the inmates to work. The facility includes a laundry operation and a food factory.

» **Building Q: Maintenance Technology and Clean Room –** this building provides building maintenance and vocational training opportunities with a carpentry shop, an electrical shop, and a welding shop. The building also provides a clean room to process inmates as they transition from the shops back inside of the facility.

» **Building R: Vehicle Sally Port –** is a secure fenced enclosure where vehicles are processed for entering and leaving the secured perimeter.

» **Building S: Outside Administration –** is the main facility staff office building, master control, visitor entry, and secure intake area.

» **Building T: Information Technology –** this facility has office space and the campus computer systems.

» **Building U: Switchgear and Water Treatment –** this two-room facility has the campus electrical switchgear in one side and the campus water softening system in the other side.

» **Building V: Warehouse –** is a storage warehouse for campus needs for food storage and freezers for cold food storage.

CH2MHILL

SUSTAINABLE SITE

Light Reflecting Roofing over 100% of Roof Area.

Light reflective roofing covering 100% of the roofing has significantly improved the micro-climate around the facility. Light colored materials absorb less heat. On the roof this means that less heat is transmitted through the structure, lowering the heat load on the equipment. In the yard, where visibility is a must, using materials on the ground that absorb less heat reduces the temperature in the yard, making it more comfortable for inmates confined to this facility.

To manage the stormwater potential of this 145-acre site, a stormwater collection and detention system was a high priority. The stormwater system uses underground piping and drywells to collect and hold the water to ensure that flow rates of the stormwater leaving the site do not exceed predevelopment conditions.

WATER EFFICIENCY

High Efficiency Boilers Save Energy and Building Area.

The gravel landscaping on this site was developed to be consistent with security needs of this facility, and to be a durable, low-cost solution to landscape needs. Though not exactly lush, it does reduce water consumption and herbicide and pesticide use. The area of landscape outside the inmate yard alone would use millions of gallons of water a year if it supported lawn or dense vegetation. The domestic water system inside the buildings has been designed using ultra low-flow fixtures like 1.5-gal/min showers, 0.5-gal/ flush urinals, and 1.1-gal/ flush toilets to save an estimated 5.5 million gal. of water per year.

ENERGY EFFICIENCY

Photovoltaic panels generate power on-site.

Attention to detail is responsible for saving over 50,000 MBtus of energy each year. Energy efficient water heaters, boilers, and air handling units coupled with energy efficient building envelopes and sophisticated temperature and control systems are expected to save Coyote Ridge over $370,000 a year in energy costs.

TEXT CONTINUED ON BACK PANEL

WSD Vocational Education and Support Building

LEED Gold

The Vocational Education and Support Building is the first of three phases in the larger campus master plan. The master plan seeks to create a cultural core generated between the campus' library, auditorium, gymnasium and multipurpose hall. These programs act as the hearts of the communities on campus and will allow the students to see that they are all part of a significant deaf community.

The building harbors the campus' multi-purpose space with adjoining kitchen, but is otherwise intended to function as a place for vocational education. The spaces dedicated to this purpose include a maintenance shop, automotive shop and a garden shop, supported by ancillary spaces devoted to these functions.

Control and even distribution of daylight played an important role in the multipurpose space in the building, which incorporates physically integrated assemblies of prismatic skylights, operable louvers and electric lights. Windows within this space that face out to the future plaza are shaded on their exterior from direct light and use mechanically controlled interior roller blinds to darken the interior space as necessary.

The buildings multipurpose space is located at the edge of what will someday become a central campus plaza because of this project's role in the overall campus master plan. The spaces within the building that facilitate vocational education are located on the other side of the building from the multipurpose space in order to allow it to have a strong public presence.

Project specifics

Gross square footage:	23,444 sf
Construction cost:	$8,432,819
Project occupied:	09/2009
Energy savings:	$ 10,636/year / 875 MMBtus/year
Water savings:	26,693 gallons/year
Added LEED cost:	$141,500.
CO_2 savings:	50 tons/year

Design and construction team

Owner's representative:	Rick Hauan, WSD
Project manager:	Dwayne Harkness, GA
Architect:	SRG Partnership Inc
Structural engineer:	Kramer Gehlen & Associates, Inc
Mechanical engineer:	PAE Consulting Engineers
Civil engineer:	Hopper, Dennis, Jellison, PLLC
Electrical engineer:	PAE Consulting Engineers
Landscape architect:	J. D. Walsh Associates, P.S.
General contractor:	Triplett Wellman Contractor

http://www.ga.wa.gov/eas/green
Phone: (360) 407-9376
Email: stuart.simpson@des.wa.gov

Washington State Department of Enterprise Services

Sustainable sites

Land improvement: The project site is a previously developed site – a brownfield that required asbestos abatement during excavation. The project's storm water runoff from roofs is directed to drywells on site, while the vegetated open spaces become rain gardens for runoff from paved surfaces. These strategies take advantage of the maximized open space and mean that no runoff leaves the site.

Alternative transportation: Building program includes 2 staff showers and bike racks to be added to campus. The project is located near several bus lines. Designated parking for low emitting and fuel efficient parking will be created for the school's fleet of hybrid cars.

Water efficiency

Irrigation: Several approaches were used to reduce potable water consumption for irrigation by 68%. The landscape design maximized the use of drought tolerant plant materials while minimizing high water use turf grasses. The irrigation system was designed with highly efficient irrigation heads and is controlled by a sophisticated system. The new irrigation system will also connect to the existing irrigation system in order to take advantage of these new features.

Water efficient fixtures: The project has reduced potable water use by 32% from a calculated baseline design through the installation of dual flush water closets, low-flow urinals, and low-flow showers and sinks.

Energy and atmosphere

Energy Performance: Well-insulated walls, roof and glazing along with a reduced lighting power density, daylighting, premium efficiency motors, variable speed drives, efficient ground source heat pumps, and an efficient domestic hot water heater optimize this project's energy efficiency.

Lighting: An automated lighting control system with integrated time clock and exterior photocell providing interior sweep control and exterior photocell/time clock control were used. Occupancy sensors, dimmable daylighting controls, and individual switches were provided in private offices, and conference room. The multi-purpose space was provided with two lighting control stations for full dimming control of three lighting zones, and raise/lower controls for motorized shades and skylight louvers.

Material and resources

Occupant recycling: In addition to conforming to recycling requirements set forth in LEED Materials & Resources Prerequisite Storage and Collection of Recyclables, campus operations have established a Food Waste Composting program.

Recycled materials: Recycled content counted for 25% of the total material costs and included: concrete, structural steel, metal deck, insulation, metal wall panels, steel doors, gypsum wallboard, acoustic ceilings, rubber floor, carpet, and linoleum.

Wood: FSC certified woods were used for wood doors, casework, and fire treated plywood. These certified wood products accounted for 79% of new wood-based costs.

Local materials: 26% of total material cost came from local materials.

Indoor environmental quality

Chemical and Pollutant Source Control: Removable walk-off mats were installed at all regularly used entry ways with a weekly maintenance schedule. Rooms used for chemical storage are pressurized and exhausted separately from main building return air. MERV-13 filters were installed in the air handlers.

Natural Light and Views: 78% of all regularly occupied spaces have access to daylight and views. Control and even distribution of daylight played an important role in the multipurpose space in the building, which incorporates physically integrated assemblies of prismatic skylights, operable louvers and electric lights.

Innovation in design

Education: The project facilitates green building education via related signage, a student curriculum describing green building strategies and concepts, and project specific information posted to the school's web site.

Green Cleaning: WSD has outlined green cleaning practices and will be using cleaners that meet Green Seal's standards for industrial cleaners.

Recycling: The campus operations have established a Food Waste Composting program. This building's program is inclusive of a cafeteria with full size commercial kitchen that produces breakfast lunch and dinner for students 5 days/week producing 320 gallons of weekly food waste. The school has established a program to send this material to be composted for reuse.

Construction Waste Management: More than 96% of construction waste was diverted from landfills.

Washington Youth Academy

LEED Silver

National Guard Youth ChalleNGe Program

Project specifics

Gross square footage:	18,050 sf
Construction cost:	$3,594,994
Project occupied:	01/2009
Energy savings:	$1,720 /yr, 175.2 MMbtu/yr
Water savings:	$2,935 /yr, 395,000 gal/yr
Added LEED cost*:	$ 92,400
Incentives:	N/A
LEED Payback**:	19.8 year payback
CO_2 savings:	6.4 tons

Design and construction team

Owner's representative:	Ron Cross, Military Department
Project manager:	Yelena Semenova, Dept. of General Administration
Architect:	Integrus Architecture
Structural engineer:	Integrus Architecture
Mechanical engineer:	Inventrix Engineering
Civil engineer:	AHBL
Electrical engineer:	Inventrix Engineering
General contractor:	CE&C

Washington Youth Academy is program by the Washington State National Guard, in partnership with the Bremerton School District. The program is part of the National Guard Youth ChalleNGe that helps "at risk" youth who are 18 years old and have drop out of high school.

The program offers a prescriptive, 22 week regiment of activities for these men and women. The intent is to provide a program with teachers and staff that train them in some basic learning skills. At the end of the training period the youth will have completed a GED or will return to their high school to complete their requirements for graduation. The initial program is followed by a 5 year partnership with a volunteer mentor who tracks and helps the youth.

The program uses the sustainable features as a teachable opportunity for the Cadets for what makes a better environment so that they make informed choices for themselves and their families. When they are first introduced to the program, they are given an orientation on the building's sustainable feature explaining how these impact their lives. As they are cleaning their dorm and work areas, they are being trained in the use of green cleaning products made available by the program, so they may use these in future jobs or their home.

The Program was able to reuse and adapt existing site components available at the Washington National Guard's campus in Bremerton to help create a more sustainable approach to project. Some components are: the existing military vehicle service yard was modified to add the required new parking area; the existing Readiness Center kitchen and dining area is used for the Cadets as well as the Guard staff on week end duty; the existing Armory was renovated for cadet physical training and added staff office space.

The existing site had a previously designed and installed stormwater treatment and detention system that was able to be used without disturbing the existing vegetation or causing any new excavation.

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Sustainable sites

Land improvement:
Existing, underutilized stormwater system was used for the new the impervious surfaces

Alternative transportation:
Bikes racks and showers are provided in the Readiness Center.
Parking stalls for hybrid electric vehicles in prominent and desirable parking locations to encourage their use.

Light pollution reduction:
The exterior light fixtures were located and oriented to contain any light within the project area.

Water efficiency

Irrigation:
Drought tolerant plants were planted and, once established, require no irrigation.

Water efficient fixtures:
Water efficient faucets, urinals, toilets and shower heads were included to reduce water use by 33%.

Energy and atmosphere

Natural light:
Natural day lighting was used in occupied spaces to enhance feel and look.

Heating and cooling:
Natural ventilation was used in lieu of a conventional HVAC system to save cost, provide more air changes and eliminate the use of refrigerants.

Lighting:
The electrical design limited energy costs by the use of dimming sensors and dimming ballasts in the light fixtures.

Green Power:
Green power from local, sustainable source was provided for a minimum two year period.

Material and resources

Occupant recycling:
Recycling of the program's activities provided at the campus.

Local materials:
Wood products from the region were used throughout as the structural framing systems in the form of glu-lam products.

Indoor environmental quality

Low-emitting materials:
Low-emitting materials for flooring, paints and sealants were selected for good indoor air quality for the project.

Innovation in design

Education:
The staff created several elements used to educate the Cadets and family as to LEED features of the project. A brochure and a poster were developed that identifies the sustainable features of the building. The brochure is given as a hand out for the Cadets and visitors. The Cadets are given an overview the sustainable building features at their initial orientation.

Green Cleaning:
Green cleaning products were included in project for a more sustainable environment and as an example for the cadet's understanding and education.

Exemplary Performance:
For exemplary performance used to achieve LEED credits Construction Waste Management, and extensive use regional materials.

*construction and fees.

**Payback equals the added cost for LEED related consultant fees and construction costs, minus the incentives, divided by the savings from utilities based on the modeling performed for the LEED submittal which compares the "as-built" building to an ASHRAE 90.1 building.

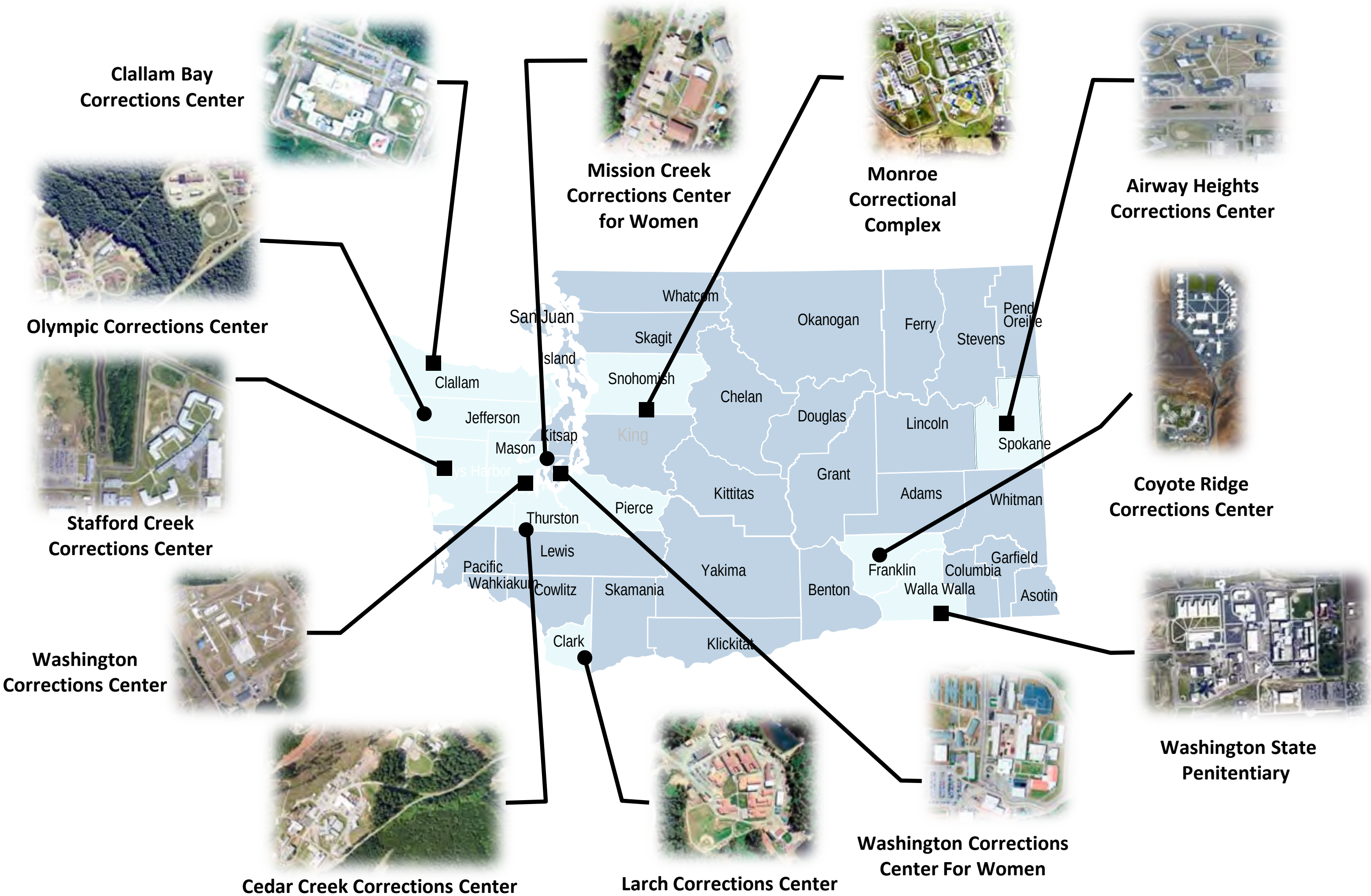
Green Building Performance
Measuring the Results

8th Annual Energy/Facilities Conference
May 2012

Gerald Winkler, AIA
President
Integrus Architecture
Spokane Washington

David Jansen, PE LEED AP
Director, Capital Programs
Washington State Department of Corrections

Prison Facilities in Washington State



What is Unique about a prison?

- Prisons are unusual constructs in society
- Prisons include many of the same features as a residential University
  - Dorms, cafeterias, classrooms, administration, medical/dental, maintenance, industries, warehouses, water and sewer systems
- But prisons cost more per square foot than educational facilities
- They also include elements common to hospitals and psychiatric facilities
- Prisons operate 24/365

What's Different?

- Prisons must
  - Prevent inmates from escaping
  - Prevent inmates from injuring staff
  - Prevent inmates from injuring each other
  - Prevent inmates from injuring themselves
  - Prevent inmates from damaging the facility
  - Prevent introduction of contraband
  - Provide an environment for learning and social change

Leadership in Energy and Environmental Design (LEED) Accomplishments to Date

- 39 LEED buildings – 15 Silver, 24 Gold
- One of the gold awards was for a campus award encompassing 22 buildings
- DOC headquarters in LEED Gold building (leased)

Achieved LEED Certifications

- Monroe Correctional Complex – 2005 SOU Maintenance Building–LEED Silver.
- Monroe Correctional Complex – 2005 Training Center – LEED Gold.
- Washington State Penitentiary – 2005 Warehouse – LEED Silver.
- Monroe correctional Complex – 2006 IMU/Segregation Unit –LEED Silver.
- Correctional Industries – 2006 Warehouse/Headquarters – LEED Silver.
- Washington State Penitentiary – 2007 North Close Security Complex. Seven separate buildings individually certified – LEED Silver.
- Cedar Creek Corrections Center – 2009 Perimeter Control Office Building – LEED Gold.
- Airway Heights Corrections Center – 2008 Visitation Building – LEED Silver.
- Airway Heights Corrections Center – 2009 Treatment Program Building – LEED Silver.
- Coyote Ridge Corrections Center – 2008 Expansion; Campus-wide – LEED Gold (22 buildings total).
- Mission Creek Corrections Center for Women – 2010 One Hundred Bed Expansion – LEED Silver.
- Washington Corrections Center for Women - 2010 Health Care Facility – LEED Silver.

Monroe Correctional Complex

Intensive Management & Segregation Units, Monroe

- LEED Silver
  - 77,000 square feet
- Features
  - Rainwater harvest
  - Recycled concrete
  - Heat island reduction
  - Increased ventilation
  - Energy efficient
  - Low VOC materials

- First LEED building in WA to house offenders
- LEED added only 1.4 percent additional cost

Washington State Penitentiary

North Close Custody Expansion, Walla Walla

- Seven LEED silver buildings
- Features
  - Alternative fuels
  - No or low VOC products
  - Energy and water efficiencies
  - Regional and recycled content materials
  - On-site construction waste recycling

Case Study: Coyote Ridge Corrections Center

- 2,048 Bed Medium Security Expansion
- LEED GOLD for the entire campus

Coyote Ridge Corrections Center

- LEED Features
  - No or low VOC products
  - Energy and water efficiencies
  - Regional and recycled content materials
  - Construction activity: pollution prevention
  - Alternative transportation
    - Low emitting & fuel efficient vehicles

Coyote Ridge Corrections Center Water Reclamation

- Water efficiency: Water Use Reduction WEc3
- Innovation in Design: Water Reclaim at C1 Building – IDc1.4
- Water reuse for laundry wash cycles
- Saves 2,160,000 gallons per year

Coyote Ridge Corrections Center
Optimize Energy Performance

- Energy & Atmosphere: Optimize energy performance EAc1.1-1.7
- Laundry water heat exchange
- Cooler/freezer condensing unit heat exchange
- Housing unit cell lighting sweep
- Solar arrays on Warehouse
  - Grant funded

LEED Cost for Coyote Ridge Corrections Center

- $240,000,000 project
- $189,000,000 Design Build Cost
- LEED Gold adds ~ ½ of 1% to the Design Build budget

LEED Cost for Coyote Ridge Corrections Center

Ventilation air heat recovery at Housing Units and Food Service	$163,000.00
Indirect evaporative cooling for Medium housing	$ 40,000.00
Enhanced Cell Lighting Controls	$ 24,000.00
High Efficiency Air Filters	$ 17,000.00
LEED design/documentation effort	$ 80,000.00
CI Laundry water/heat reclaim system	$200,000.00
CI Building refrigeration heat recovery	$160,000.00
Design/Builder LEED Consultant/Enhanced Commissioning	$175,000.00
LEED Submittal preparation and fees	$ 30,000.00
Total	$889,000.00

How to Determine if LEED Performs ?

- A problem; how do we gauge performance of LEED versus non LEED facilities?
- The LEED buildings are unique
- The LEED buildings are scattered within a number of older facilities
- We lack the resources to track each building individually and no two are enough alike to permit comparison
- Preferred metric “something” per inmate

Solution

- Two of our facilities lie in the same climate zone
- Both are medium and minimum custody
- One is the Coyote Ridge LEED facility; the other is the Airway Heights Prison
- Statistics are as follows

Coyote Ridge Corrections Center

Coyote Ridge Corrections Center Statistics

- Opened in February 2009
- 738,029 sq ft
- 395,341 sq ft Housing
- 73,564 sq ft Industries
  - Food Factory
  - Laundry
  - Mattresses
  - Meat Plant
- 269,164 sq ft Administration
- 2,353 Inmates; 637 Staff

Airway Heights Corrections Center

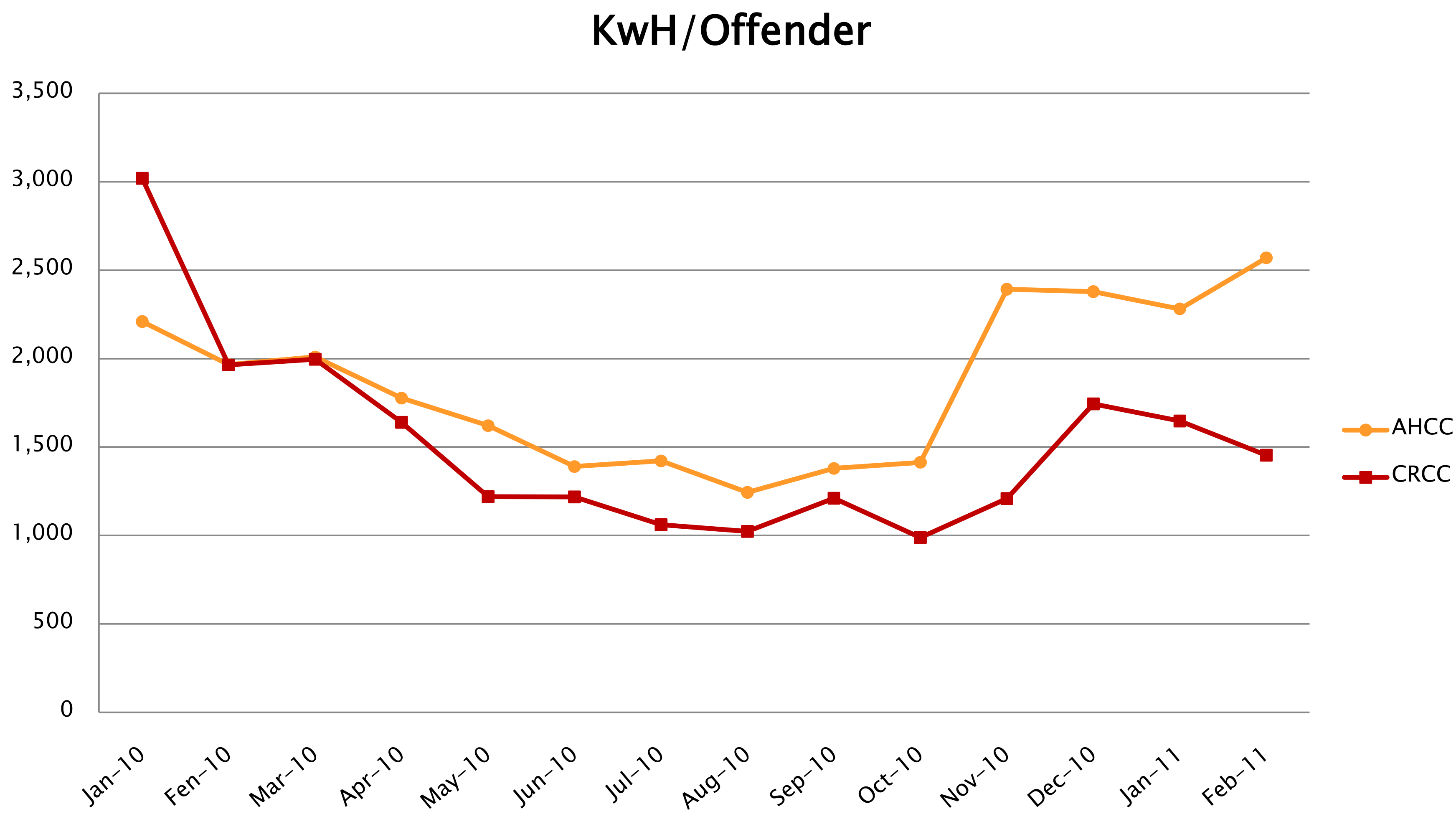
Airway Heights Corrections Center Statistics

- Opened in April 1992
- 717,000 sq ft total
- 320,875 sq ft Housing
- 95,573 sq ft Industries
    - Food Factory
    - Laundry
    - Optical
    - Textiles
- 301,493 sq ft Administration
- 2,174 Inmates; 663 Staff

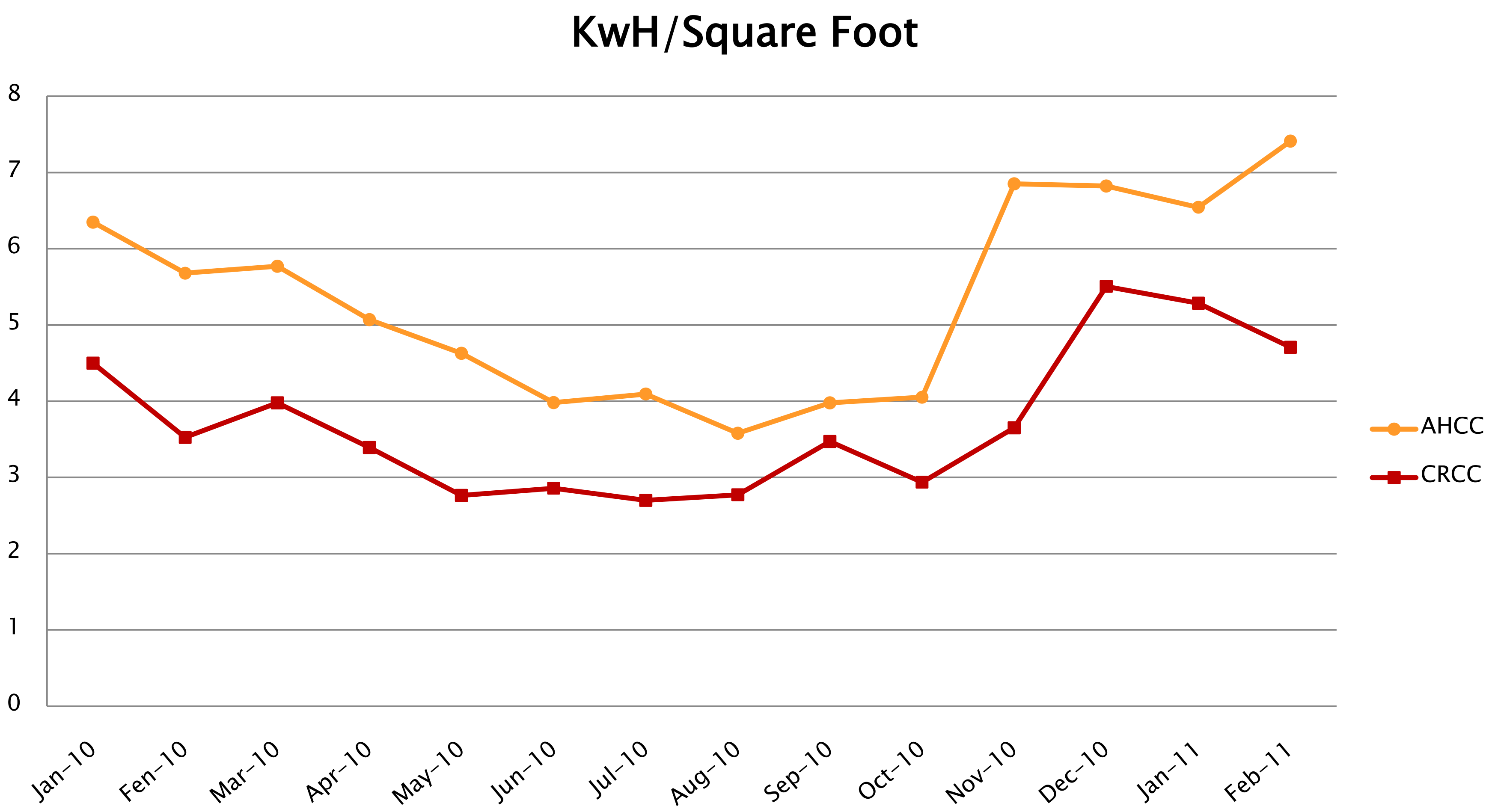
For a Ready Comparison

- Energy
  - Already metered; all forms of energy used are converted to Kilowatt hour equivalents
- Water and Wastewater
  - Already metered
- Other LEED factors like indoor air quality are impossible to measure with agency resources

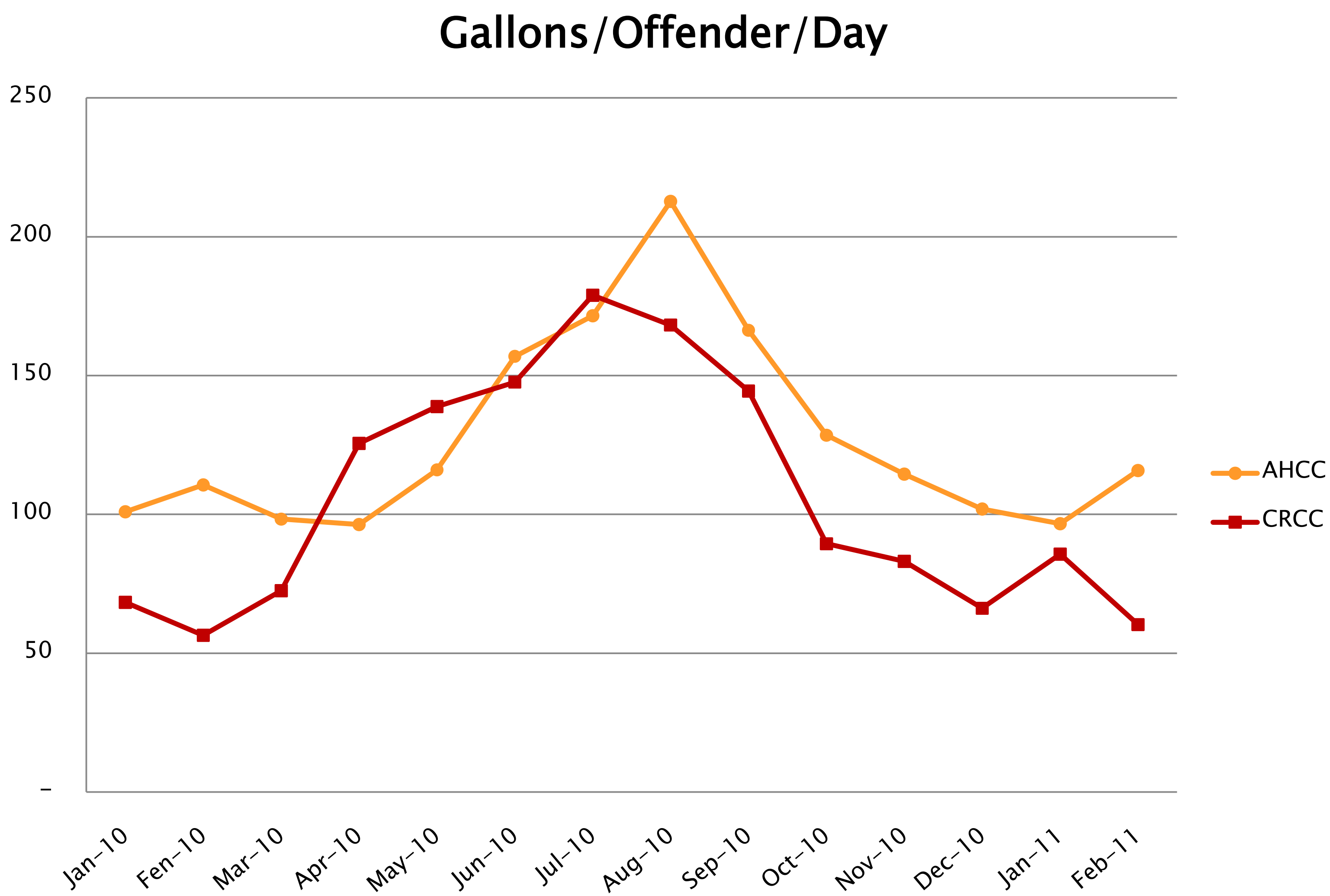
Energy Consumption Per Offender



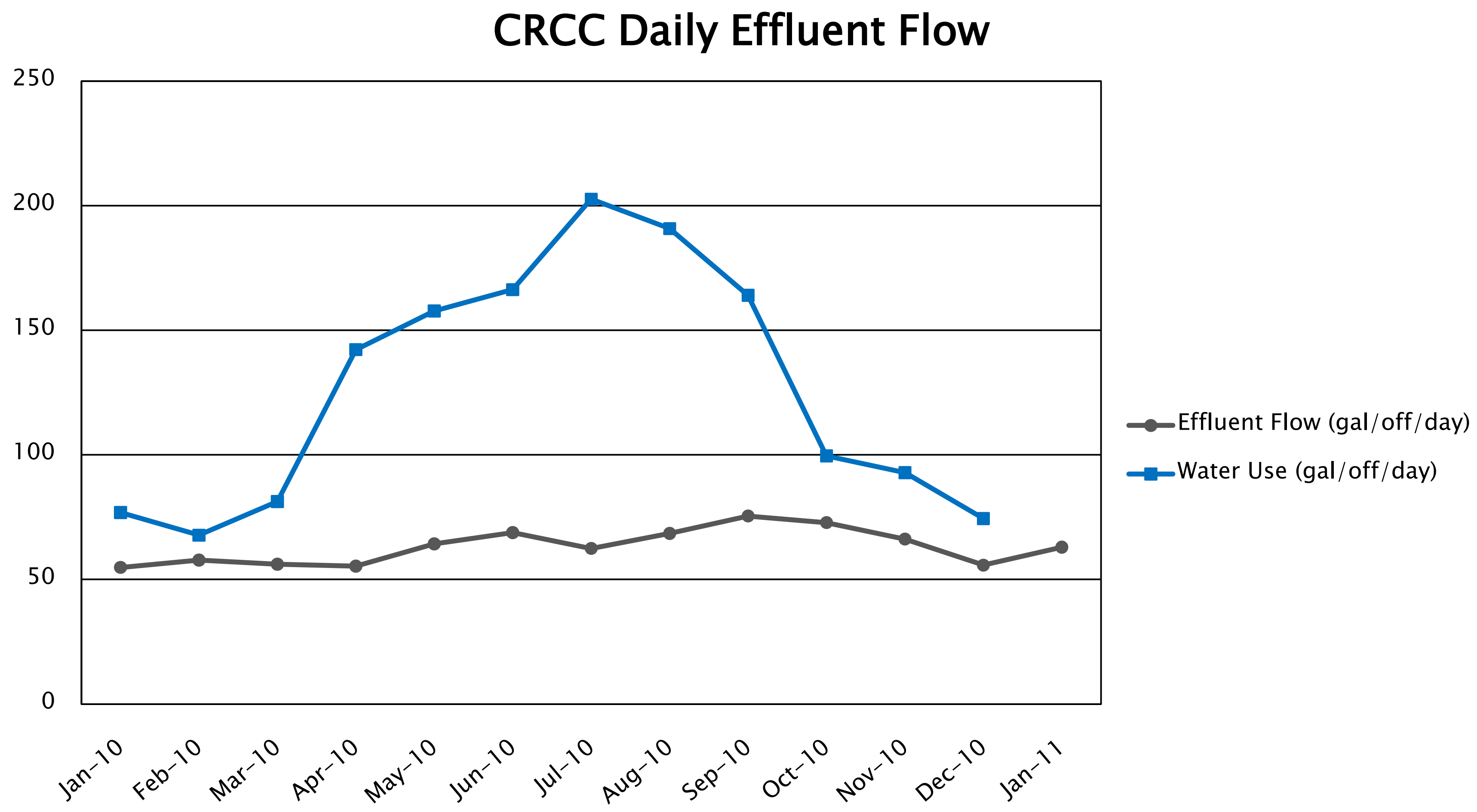
Energy Consumption Per Square Foot



Gallons of Water Used Per Offender



Water Use Versus Wastewater Discharge



How to create an Economic comparison ?

- The Facilities are in different billing environments
- Pretend we have magically relocated CRCC and placed it next to AHCC
- So, the analysis does not reflect real savings, but it does provide a basis for building performance comparison using costs as a scorecard

Economic Assumptions for comparison

- Using the average difference in utility consumption between these facilities
- Use the state wide average energy costs of $.0417 per KwH
- And the water and wastewater utility rates of Airway Heights for the analysis

Economic Values

- Energy costs would be about $460,000 less per year
- Water Costs would be about $53,000 less per year
- Wastewater costs would be about $460,000 less per year
- Total Cost Savings ~ $978,000 per year

Other Factors

- Coyote Ridge includes a Minimum Camp that was not part of the LEED project
- There have been some energy efficiency improvements at AHCC
- It is impossible to determine how much of this improvement is due to the energy code improvements versus LEED

Payback made on Energy Alone

- The LEED costs at CRCC was estimated to cost $889,000
- After subtracting the $418,000 received in energy rebates, the remaining $471,000 in LEED related costs was paid back in about 6 months through energy savings

Updated Information

- This presentation used 2010 data; has the comparison changed?
- In 2011 Coyote Ridge used 35% less water and generated 33% less wastewater than Airway Heights on a gallons per offender comparison.
- Coyote Ridge per offender energy use in 2011 was 4.5% less than Coyote Ridge in 2010.
- Airway Heights is currently working through an ESCO upgrade; it will be interesting to see if that brings the facilities closer in performance.
- Our state wide average for water is 140 gallons per offender day and wastewater is 117 gallons per offender day.
- Coyote Ridge is 109 gallons per offender day for water use and 66 gallons per offender day for wastewater.

Thank You!

- Questions?

Coyote Ridge Corrections Center 2,048 bed expansion.

Sustainable Building Report

University of Washington (UW)/Capital Projects Office (CPO)
July 6, 2012
Revision 1

Overview

Reported by
Clara Simon, LEED AP, Sustainability Manager
University of Washington
Capital Projects Office
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The University of Washington is committed to sustainability in the built environment as noted through actionable items listed below.

1. UW
    a. Rated #1 in Sustainability in Higher Education Institutions, Sierra Cool Schools, August 2011
    b. Rated in top 16 colleges in US on Green Hone Roll, Princeton Review, August 2011
    c. 19 LEED certified projects on UW properties with 19 in process
    d. Office of Environment Stewardship and Sustainability
    e. Over 500 academic classes on sustainability and environment
    f. Diverting 54% waste from landfills, 75% in construction waste
    g. Green cleaning in all UW buildings
    h. Transportation single car reduction program
    i. Bike transit systems with parking beyond local requirements
    j. Smart Grid in 175 buildings on Seattle campus – launching September 2012
    k. Climate Action Plan to achieve carbon neutrality by 2030
    l. 40 LEED APs on staff
2. CPO manages sustainability through a dedicated professional working exclusively on certifying LEED projects, and developing and implementing programs to increase successes in sustainability in the built environment
    a. LEED Projects http://f2.washington.edu/cpo/sustain/leed-projects
        i. LEED certified projects: 2 Platinum, 10 Gold, 5 Silver, 2 Certified
        ii. LEED Gold target for projects qualifying within LEED Minimum Program Requirements
        iii. LEED AP requirements for A/E team professionals, implemented through contract requirements, and with requirement for LEED documentation to be completed at the end of Construction Document phase to speed up project closeout
        iv. LEED AP requirements for Contractors through contract requirements: LEED AP on jobsite, develop and present LEED training program for subcontractors, use Built it LEED Toolkit, complete LEED documentation at Substantial Completion to speed up project closeout
    b. Other Projects – 300 to 400 projects annually
        i. Developed and implemented a CPO SustainAbilities Scorecard by reviewing eight building rating processes and committed one year of resources for

development http://f2.washington.edu/cpo/cpo-sustainabilities-scorecard -- recently launched program through A/E contract requirement

State Funded LEED Projects

1. Certified LEED-NC Projects
    a. Floyd and Delores Jones Playhouse Theatre, Seattle campus, major renovation, occupied 12/11/2008, Gold rating
    b. Clark Hall, Seattle campus, major renovation, occupied 6/15/2009, Gold rating
    c. Savery Hall, Seattle campus, major renovation, occupied 9/24/2009. Gold rating
    d. William H. Philip Hall, Tacoma campus, new construction, occupied 10/7/2008, Gold rating
    e. Joy Building, Tacoma campus, new construction, occupied 3/25/2011, Platinum rating
2. Completed LEED-NC Projects, Pending Certification
    a. Business Hall (formerly Balmer), occupancy 7/11/2012, Gold anticipated
3. In Process LEED-NC projects
    a. Burke Museum, Seattle campus, Predesign Phase, Platinum anticipated, design funding allocated in 2012 Supplemental Capital Budget
    b. Molecular Engineering Interdisciplinary Academic Building, occupancy 7/21/12, Gold anticipated
    c. Tioga Building, Tacoma campus, occupancy 9/10/2012, Gold anticipated
    d. Intellectual House, Seattle campus, occupancy 10/1/2014, Silver anticipated
    e. Science and Academic Building, Bothell campus, 9/20/2014, Silver anticipated

Training Efforts

1. CPO commitment:
    a. Students – hiring UW students to work on LEED projects, providing tours to campus students and visiting students from around the world, lecturing in classes on UW LEED project accomplishments
    b. A/E teams – provide team project kick-off, meet with team monthly to evaluate and educate on LEED results on project
    c. Contractors - Require training program of contractors for subcontractors
    d. Provide interdepartmental training on energy efficiency, such as LED lighting applications, UW's Climate Action Plan, sustainability requirements for carpet, low VOC implications on products
    e. Facilities Services Design Guidelines with embedded sustainability requirements, used by A/E teams

Lessons Learned

1. Through contracting hiring processes, require LEED AP professionals on design and construction teams
2. In hiring experienced design team members, include the LEED design of the project in basic services, and include only the LEED documentation as additional services. Provide clear language to be included in the basic A/E agreement, outlining responsibilities (see example - Attachment 1). Request that the LEED additional service proposal be listed by LEED prerequisite/credit and evaluate the amount of allocated proposed time, based upon past experience on LEED projects.

3. Achievement of energy points is the #1 way to increase a project's LEED rating. Spend time during predesign, to set goals.
4. Meet with design team monthly, and contractor monthly, during the length of the project.
5. Send all team members a copy of the certificate earned on a LEED project. This inspires pride of the success in the entire team.

Recommended Improvements to the Legislature

1. Historically, it costs the UW approximately $100,000 for the cost of LEED documentation, outside of the ELCCA and Commissioning. Since the UW has streamlined its processes and has an in-house professional to manage the process. It is assumed that it is costing other agencies higher dollars. More allocation of dollars is needed.
2. Dollars are needed to hire consultants to complete utility rebates.
3. On LEED Capital Projects, It would be helpful to have a fund to upfront energy and water savings enhancements that would make a project more efficient and pay back over time from the costs savings, similar to the ESCO process. Often, more energy efficient measures are not included in a project budget, because there is limited because dollars need to be expended to meet project programmatic requirements.
4. The LEED credit for Measurement and Verification is not pursued, because this is a process that occurs post-construction during the building's operation to verify energy and water savings. Funding for this credit would provide reassurances that the building is operating per desired.

Metering Efforts and Challenges

1. The LEED building requirements have helped the UW to expand the number of buildings being metered, but the UW did not initially ID the operational need to develop a meter management program, i.e., meter reading process and resources, data repository for meter readings, meter reporting and analysis system, billing system, meter outage alarm and response process, etc. The smart grid project has helped the UW to ID and fund the meter management program. So going forward the UW will have standard metering specifications, installation procedures/contractor submittal requirements, commissioning process and procedures, meter management system integration for new projects, a meter monitoring/alarm process, training and funding for meter maintenance staff, and the UW is currently developing a utility consumption analysis process, use reporting process including an energy dashboard and a pilot program for utility billing by activity center. This process will be on-going and the UW's goal is to meter every utility at the point of connection at every building within the next 5 years.
2. In the past two years, UW's Seattle campus was funded to design and implement Smart Grid on its campus and is scheduled to launch the process Fall, 2012. This process encompasses 175 buildings, and includes smart electricity meters and a dashboard interface to be able to read and report operating data. Up to this point it has been very difficult for the UW to be able to baseline its buildings on energy usage and comparing to actual usage, because gathering the data was too complex.
3. In June 2012, the UW's Seattle, Facilities Department, hired a Resource Conservation Manager, who's responsibility it is to report energy and water data on LEED projects funded through RCW 39.35D. This position was filled by the UW's Capital Project's Office, Project Manager for the Smart Grid project, as noted in item 1 above.

Overview

Washington State University remains committed to sustainable campus growth, responsible development, and resource conservation. In compliance with the requirements of the State of Washington, WSU endeavors to complete new building construction to a minimum of LEED Silver Certification as appropriate. This report covers construction or design completed in 2012 and planning efforts for 2010 and beyond.

Projects

Engineering and Computer Science Building, WSU Vancouver Funded under the previous name Applied Technology Center; this 56,000 GSF facility was completed in September 2011 and provides research and teaching space in Computer Sciences and Electrical Engineering. LEED Gold certification is pending.

Biomedical and Health Sciences Building – Phase 1 The Riverpoint Biomedical and Health Sciences Building – Phase 1, is a project to advance health-sciences based research and education program growth on the Riverpoint Campus in Spokane, Washington. The Phase 1 building will facilitate and significantly expand the existing Washington State University, University of Washington, and Eastern Washington University health-sciences collaboration with programs and services provided by the Spokane health care sector including regional hospitals, clinics, and research institutes. The project is designed for LEED Silver certification and is expected to be completed in the fall of 2013.

Clean Technology Laboratory Building The Clean Technology Laboratory Building is a new interdisciplinary facility that will boost the state of Washington's high-demand research and education priorities in "Clean Technology:" the developing industries in renewable materials and the environment. The 96,000 GSF facility will house science and engineering programs advancing new technologies in sustainable materials, atmospheric research, and water quality. Due to the emphasis on clean technology, LEED Gold will be targeted. Occupancy is expected in mid-2015.

Other Sustainable Projects Several projects in Pullman are pursuing sustainable certification, though due to funding sources other than the state capital budget are not required to do. The Paul G. Allen Center for Global Animal Health, a 62,000sf building focusing on infectious disease research and animal diagnostics, has completed construction and is pursuing LEED Silver. The recently completed Duncan Dunn & Community Halls project renovated and connected two 1920’s dormitory buildings, and Northside Residence Hall is a new 300-bed dormitory currently under construction; both projects are pursuing LEED Silver certification. A new Visitor Center is planned and LEED Silver certification is likely.

Training Efforts

WSU Capital Planning and Development now has thirteen professional staff members who are LEED Accredited Professionals. Periodic presentations are held by staff and are attended by industry representatives, academics, researchers and professionals to discuss available products and services and sustainable practices.

Project personnel continue to work with University researchers to explore other sustainable technologies. Of note is our recent experience using pervious paving on the Palouse - the heavy clay soils don't percolate and as such previous discussions regarding permeable pavement have not developed into project use. We now have several projects in place which utilize pervious concrete and asphalt pavement on a large scale to help slow the rate of storm-water runoff on site and improve the quality of the downstream flow.

Metering Efforts and Challenges

Design of major facilities on the Pullman campus includes provision for metering of main utility services. Those services usually include steam, normal electrical service, emergency Life-Safety electrical service, chilled water, and domestic water. Those utilities are all provided from campus district energy systems so are not metered by the local Utility. The only utility procured directly from the local Utility with individual building billing meters is natural gas. Campus heating is provided from the central district steam system, so natural gas is normally provided only for laboratory gas fuel systems, when required.

Proper installation, setup, and commissioning of meters is an on-going problem. It is not unusual for at least one meter on each building to have a problem that does not become apparent until some months after the building has been turned over by the contractor, and then getting effective assistance from the contractor/vendor in identifying and resolving the problem may take a number of additional months. In the meantime, no trustworthy data is collected.

In addition, the campus currently has only stand-alone meters requiring manual monthly meter reads, a very time-consuming effort. The potential for error in the meter reads and data entry/manipulation is significant and further complicates identification of actual meter problems and root causes. The monthly usage data is manually summarized and entered in historical data file worksheets and the file formats used make tracking and reporting very burdensome. This fall WSU will select and install an Enterprise Energy Management System front end for a networked metering system. Initially only electrical meters on approx. 36 buildings will be connected to the network. In the future, as funding allows, existing building meters will be upgraded and connected to the network. New facilities will be designed with metering connected to the networked system. Over time, the network metering system will eliminate most manual reads and provide a good tracking and reporting tool.

Lessons Learned

LEED has allowed our professional design team to probe strategies and explore creative solutions that have previously been overlooked or considered unattainable. It has also created a "sustainable design" mindset that extends beyond projects addressed in the legislation. Staff have embraced the concept of high performance development.

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Sustainable Building Report

Reported by: Mickey Parker, Administrative Services Manager, Facilities Management,
Central Washington University
Phone: (509) 963-1275
E-mail: parkerm@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 major 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 2004.

Projects	Year Completed	Size in GSF	LEED Level	Status
Dean Hall Renovation	2009	79,553	LEED NC Gold	Achieved
Hogue Technology Addition and Renovation	Sept. 2012	95,996	LEED NC Gold	Goal
Samuelson Communications & Technology Center	In Design	129,260	LEED NC Platinum	Goal
Health Sciences	Predesign Complete	72,200	LEED NC Gold	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, 2 are LEED APs, and others are pursuing LEED accreditation. Facilities held several LEED orientation workshops to familiarize staff with LEED, and LEED training pre and post construction.

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 early, and revisit later in design/CD phase. 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

- Consider the challenge and applicability in achieving LEED silver certification for renovation projects, and provide additional LEED funding in such cases.

New **Metering Efforts and Challenges**

CWU standards require installation of condensate, electric and water meters on all new construction – LEED and non-LEED projects. Reliable condensate meters have been a challenge. Meter tracking and reporting are coordinated through campus-wide Alerton and Ion systems and managed through the Facilities Management Department. The major challenges with metering include limited funds to support the manpower needed to verify meter accuracy and maintain meters.

****

Submit this report to Stuart Simpson, DES Sustainable Building Advisor, by e-mail.
stuart.simpson@des.wa.gov & sustainableBA@des.wa.gov

This report should be no more than three pages. No photographs or LEED Checklists please. LEED Certified projects should have a Case Study prepared with photos and LEED Checklist submitted separately. See the Case Study Template, and completed case studies and previous Sustainable Building Reports in the 2010 Green Building Report: http://www.ga.wa.gov/eas/green/

Due date: July 6, 2012

This will satisfy some of the annual reporting requirements dictated by RCW 39.35D.

Shawn King
Associate Vice President

Reported by: Shawn King, Associate Vice President for Facilities and Planning
Date: July 25, 2012
Phone: 509-359-6878
E-mail: sking@ewu.edu

Overview
EWU currently has (2) major project completed that are incorporation the principles of Sustainable Building Design. They are as follows:

Project	**Status**
Hargreaves Hall Renovation	
EWU Project Manager	Jim Moeller
Architect	Madsen, Mitchell, Evenson and Conrad, Spokane WA
LEED Consultant	Kelly Karmel, AIA LEED AP, Design Balance, Missoula, MT
Status	Completed March 2010; Certified LEED Gold.

University Recreation Center	
EWU Project Manager	Troy Bester
Architect	Sink, Combs, Dethlefs, Denver, CO
LEED Consultant	Kelly Karmel, AIA LEED AP, Design Balance, Missoula, MT
Status	Completed September 2008; Certified LEED Gold.

EWU current has several project underway that are in various stages of planning, design or construction that are incorporating the principles of Sustainable Building Design. They are:

Project	
Patterson Hall Renovation	
Project Manager	Jim Moeller
Architect	NAC Architecture, Spokane, WA
LEED Professional	Dana Harbaugh AIA LEED AP, Principal, NAC Architects
Status	Phase II construction in progress. Final completion Scheduled for January 2014 LEED Gold is anticipated.

University Science Center Science I	
Project Manager	Troy Bester
Architect	LMN Architects, Seattle, WA
LEED Professional	LMN Architects (pre design)
Status	Capital budget requested in 2011-13. Request was not approved by OFM. Request for design funds will be

	submitted in the 2013-2015 capital budget request. Pre Design report anticipates LEED Gold certification

University Science Center Science II

Project Manager	TBD
Architect	TBD
Status	2013-2015 capital biennial request. Anticipate LEED Gold Certification.

Martin Williamson Hall

EWU Project Manager	Troy Bester
Architect	Opsis Architecture, Portland, OR
LEED Professional	Alec Holser, AIA LEED AP
Status	Pre Design complete. Project Design deferred to 2015 with construction anticipated in 2017. LEED Gold anticipated

Note: Checklists from Available Projects below.

Training Efforts

As funding is available we continue to offer the ability for our staff to have access to professional training related to Sustainable Design on major and minor works projects. Additionally training related to maintenance and operation of new equipment and system is essential in keeping those installations operating at peak performance. As funding becomes less restrictive we hope to develop and plan for more design and M&O training to support the efforts that we have accomplish so far and promote into the future.

- Eastern Washington University is signatory to the American College and University Presidents Climate commitment. EWU affords itself of any training and expertise available through this organization.
- Eastern Washington University is a member of the U.S. Green Building Council and uses that organizations training resources when funding is available.
- Eastern Washington University is anticipating funding to be available to add LEED credentials to our Construction and Planning staff.

Lessons Learned

Eastern Washington University has a long history of major and minor works focusing on energy conservation projects. That is because EWU staff, as well as supporting profession design firms, understands the requirement and the university's dedication to the process.

Lesson Learned have led to requiring our architectural and engineering consultants to have certification and experience with LEED design project implementation. For major projects a Sustainable Building Design sub consultant in conjunction with our normal list of architectural consultants are required. This specialty consultant should be brought on at the pre design stage of the project when the cost is sustainable and energy conservation design is more effective.

Recommended Improvements to the Legislation

Recommendations would be to fully fund secondary projects (Minor Works Preservation) that supports measurement and verification processes on campus. Also, operational and backlog maintenance funding would allow for upgrades of those systems that do not meet the current efficiencies that the campus is targeting to attain.

Additional recommendations would be that mandated conservation sustainability requirement is given priory as funding is approved from the legislature. Washington State's commitment to sustainability and conservation is well documented across the nation. More implementation would take place sooner if new and creative funding mechanisms were available.

Metering Efforts and Challenges

On the Patterson Hall project, the largest academic building on Eastern's campus, we are providing a building metering and sub metering design within the facility so that we have a more detailed analysis of the true energy usage. As with all capital enhancements, the cost of operations and maintenance of these metering systems are not always considered when the project is funded for operations.

Eastern is currently implementing a campus wide upgrade of utility meters through the state ESCO process. If funding is available we see a broader and more detailed level of campus wide metering being installed over the next year. This project will automate the reading of meters as well as tying back the data to our Energy Management systems to better track building performance and the potential success of building operational routines.

LEED-NC

LEED-NC Version 2.2 Registered Project Checklist

Hargreaves Hall Renovation
Eastern Washington University

Yes	?	No			
9	3	2	**Sustainable Sites**		14 Points
Y			Prereq 1	**Construction Activity Pollution Prevention**	Required
1			Credit 1	**Site Selection**	1
	1		Credit 2	**Development Density & Community Connectivity**	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**, Low-Emitting and Fuel-Efficient Vehicles	1
1			Credit 4.4	**Alternative Transportation**, Parking Capacity	1
	1		Credit 5.1	**Site Development,** Protect of Restore Habitat	1
1			Credit 5.2	**Site Development,** Maximize Open Space	1
1			Credit 6.1	**Stormwater Design,** Quantity Control	1
1			Credit 6.2	**Stormwater Design,** Quality Control	1
1			Credit 7.1	**Heat Island Effect,** Non-Roof	1
1			Credit 7.2	**Heat Island Effect,** Roof	1
	1		Credit 8	**Light Pollution Reduction**	1

Yes	?	No			
2	1	2	**Water Efficiency**		5 Points
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

Yes	?	No			
6	3	1	**Energy & Atmosphere**		17 Points
Y			Prereq 1	**Fundamental Commissioning of the Building Energy Systems**	Required
Y			Prereq 2	**Minimum Energy Performance**	Required
Y			Prereq 3	**Fundamental Refrigerant Management**	Required
4	1		Credit 1	**Optimize Energy Performance**	1 to 10
		1	Credit 2	**On-Site Renewable Energy**	1 to 3
1			Credit 3	**Enhanced Commissioning**	1
	1		Credit 4	**Enhanced Refrigerant Management**	1
1			Credit 5	**Measurement & Verification**	1
	1		Credit 6	**Green Power**	1

continued...

Yes	?	No			
8	3	2	**Materials & Resources**		13 Points
Y			Prereq 1	**Storage & Collection of Recyclables**	Required
1			Credit 1.1	**Building Reuse**, Maintain 75% of Existing Walls, Floors & Roof	1
1			Credit 1.2	**Building Reuse**, Maintain 100% of Existing Walls, Floors & Roof	1
	1		Credit 1.3	**Building Reuse**, Maintain 50% of Interior Non-Structural Elements	1
1			Credit 2.1	**Construction Waste Management**, Divert 50% from Disposal	1
1			Credit 2.2	**Construction Waste Management**, Divert 75% from Disposal	1
		1	Credit 3.1	**Materials Reuse**, 5%	1
		1	Credit 3.2	**Materials Reuse**,10%	1
1			Credit 4.1	**Recycled Content**, 10% (post-consumer + ½ pre-consumer)	1
	1		Credit 4.2	**Recycled Content**, 20% (post-consumer + ½ pre-consumer)	1
1			Credit 5.1	**Regional Materials**, 10% Extracted, Processed & Manufactured Regiona	1
1			Credit 5.2	**Regional Materials**, 20% Extracted, Processed & Manufactured Regiona	1
1			Credit 6	**Rapidly Renewable Materials**	1
	1		Credit 7	**Certified Wood**	1

Yes	?	No			
13	2		**Indoor Environmental Quality**		15 Points
Y			Prereq 1	**Minimum IAQ Performance**	Required
Y			Prereq 2	**Environmental Tobacco Smoke** (ETS) **Control**	Required
1			Credit 1	**Outdoor Air Delivery Monitoring**	1
1			Credit 2	**Increased Ventilation**	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 & Coatings	1
1			Credit 4.3	**Low-Emitting Materials**, Carpet Systems	1
1			Credit 4.4	**Low-Emitting Materials**, Composite Wood & Agrifiber Products	1
	1		Credit 5	**Indoor Chemical & Pollutant Source Control**	1
1			Credit 6.1	**Controllability of Systems**, Lighting	1
1			Credit 6.2	**Controllability of Systems**, Thermal Comfort	1
1			Credit 7.1	**Thermal Comfort**, Design	1
1			Credit 7.2	**Thermal Comfort**, Verification	1
	1		Credit 8.1	**Daylight & Views**, Daylight 75% of Spaces	1
1			Credit 8.2	**Daylight & Views**, Views for 90% of Spaces	1

Yes	?	No			
3			**Innovation & Design Process**		5 Points
1			Credit 1.1	**Innovation in Design**: TBD	1
1			Credit 1.2	**Innovation in Design**: TBD	1
			Credit 1.3	**Innovation in Design**:	1
			Credit 1.4	**Innovation in Design**:	1
1			Credit 2	**LEED® Accredited Professional**	1

Yes	?	No		
41	12		**Project Totals** **(pre-certification estimates)**	69 Points

Certified 26-32 points **Silver** 33-38 points **Gold** 39-51 points **Platinum** 52-69 points

LEED-NC

LEED-NC Version 2.2 Registered Project Checklist

EWU Patterson Hall Renovation and Addition, 111-06139 - 4Fg
Cheney, Washington

Yes	?	No			
10			**Sustainable Sites**		14 Points
Y			Prereq 1	**Construction Activity Pollution Prevention**	Required
1			Credit 1	**Site Selection**	1
1			Credit 2	**Development Density & Community Connectivity**	1
		N	Credit 3	**Brownfield Redevelopment**	1
1			Credit 4.1	**Alternative Transportation**, Public Transportation Access	1
		N	Credit 4.2	**Alternative Transportation**, Bicycle Storage & Changing Rooms	1
		N	Credit 4.3	**Alternative Transportation**, Low-Emitting and Fuel-Efficient Vehicles	1
1			Credit 4.4	**Alternative Transportation**, Parking Capacity	1
1			Credit 5.1	**Site Development,** Protect of Restore Habitat (designate Turnbull)	1
1			Credit 5.2	**Site Development,** Maximize Open Space	1
1			Credit 6.1	**Stormwater Design,** Quantity Control	1
		N	Credit 6.2	**Stormwater Design,** Quality Control	1
1			Credit 7.1	**Heat Island Effect,** Non-Roof	1
1			Credit 7.2	**Heat Island Effect,** Roof	1
1			Credit 8	**Light Pollution Reduction**	1

Yes	?	No			
3			**Water Efficiency**		5 Points
1			Credit 1.1	**Water Efficient Landscaping**, Reduce by 50%	1
		N	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
		N	Credit 3.2	**Water Use Reduction**, 30% Reduction	1

Yes	?	No			
7			**Energy & Atmosphere**		17 Points
Y			Prereq 1	**Fundamental Commissioning of the Building Energy Systems**	Required
Y			Prereq 2	**Minimum Energy Performance**	Required
Y			Prereq 3	**Fundamental Refrigerant Management**	Required
4			Credit 1	**Optimize Energy Performance**	1 to 10
		N	Credit 2	**On-Site Renewable Energy**	1 to 3
1			Credit 3	**Enhanced Commissioning**	1
1			Credit 4	**Enhanced Refrigerant Management**	1
1			Credit 5	**Measurement & Verification**	1
		N	Credit 6	**Green Power**	1

continued

Yes	?	No			
7			**Materials & Resources**		13 Points
Y			Prereq 1	**Storage & Collection of Recyclables**	Required
		N	Credit 1.1	**Building Reuse**, Maintain 75% of Existing Walls, Floors & Roof	1
		N	Credit 1.2	**Building Reuse**, Maintain 100% of Existing Walls, Floors & Roof	1
		N	Credit 1.3	**Building Reuse**, Maintain 50% of Interior Non-Structural Elements	1
1			Credit 2.1	**Construction Waste Management**, Divert 50% from Disposal	1
1			Credit 2.2	**Construction Waste Management**, Divert 75% from Disposal	1
		N	Credit 3.1	**Materials Reuse**, 5%	1
		N	Credit 3.2	**Materials Reuse**,10%	1
1			Credit 4.1	**Recycled Content**, 10% (post-consumer + ½ pre-consumer)	1
1			Credit 4.2	**Recycled Content**, 20% (post-consumer + ½ pre-consumer)	1
1			Credit 5.1	**Regional Materials**, 10% Extracted, Processed & Manufactured Regic	1
1			Credit 5.2	**Regional Materials**, 20% Extracted, Processed & Manufactured Regic	1
		N	Credit 6	**Rapidly Renewable Materials**	1
1			Credit 7	**Certified Wood**	1

Yes	?	No			
11			**Indoor Environmental Quality**		15 Points
Y			Prereq 1	**Minimum IAQ Performance**	Required
Y			Prereq 2	**Environmental Tobacco Smoke** (ETS) **Control**	Required
1			Credit 1	**Outdoor Air Delivery Monitoring**	1
1			Credit 2	**Increased Ventilation**	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 & Coatings	1
1			Credit 4.3	**Low-Emitting Materials**, Carpet Systems	1
1			Credit 4.4	**Low-Emitting Materials**, Composite Wood & Agrifiber Products	1
1			Credit 5	**Indoor Chemical & Pollutant Source Control**	1
1			Credit 6.1	**Controllability of Systems**, Lighting	1
		N	Credit 6.2	**Controllability of Systems**, Thermal Comfort	1
1			Credit 7.1	**Thermal Comfort**, Design	1
		N	Credit 7.2	**Thermal Comfort**, Verification	1
		N	Credit 8.1	**Daylight & Views**, Daylight 75% of Spaces	1
		N	Credit 8.2	**Daylight & Views**, Views for 90% of Spaces	1

Yes	?	No			
4			**Innovation & Design Process**		5 Points
1			Credit 1.1	**Innovation in Design**: Green Educational Features in Building	1
1			Credit 1.2	**Innovation in Design**: Green Housekeeping Plan	1
1			Credit 1.3	**Innovation in Design**: Dedicated Outside Air System	1
	?		Credit 1.4	**Innovation in Design**:	1
1			Credit 2	**LEED® Accredited Professional**	1

Yes	?	No		
42			**Project Totals (pre-certification estimates)**	69 Points

Certified 26-32 points **Silver** 33-38 points **Gold** 39-51 points **Platinum** 52-69 points

LEED-NC

LEED-NC Version 2.2 Registered Project Checklist

Eastern Washington University Martin/Williamson Hall
Cheney, Washington

Yes	?	No			
8	5	1	**Sustainable Sites**		14 Points
Y			Prereq 1	**Construction Activity Pollution Prevention**	Required
Y			Credit 1	**Site Selection**	1
	Y?		Credit 2	**Development Density & Community Connectivity**	1
		N	Credit 3	**Brownfield Redevelopment**	1
Y			Credit 4.1	**Alternative Transportation**, Public Transportation Access	1
Y			Credit 4.2	**Alternative Transportation**, Bicycle Storage & Changing Rooms	1
Y			Credit 4.3	**Alternative Transportation**, Low-Emitting and Fuel-Efficient Vehicles	1
Y			Credit 4.4	**Alternative Transportation**, Parking Capacity	1
	Y?		Credit 5.1	**Site Development,** Protect of Restore Habitat	1
	Y?		Credit 5.2	**Site Development,** Maximize Open Space	1
Y			Credit 6.1	**Stormwater Design,** Quantity Control	1
	Y?		Credit 6.2	**Stormwater Design,** Quality Control	1
	Y?		Credit 7.1	**Heat Island Effect,** Non-Roof	1
Y			Credit 7.2	**Heat Island Effect,** Roof	1
Y			Credit 8	**Light Pollution Reduction**	1

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

Yes	?	No			
6	2		**Energy & Atmosphere**		17 Points
Y			Prereq 1	**Fundamental Commissioning of the Building Energy Systems**	Required
Y			Prereq 2	**Minimum Energy Performance**	Required
Y			Prereq 3	**Fundamental Refrigerant Management**	Required
Y			Credit 1	**Optimize Energy Performance**	1 to 10
	Y?		Credit 2	**On-Site Renewable Energy**	1 to 3
Y			Credit 3	**Enhanced Commissioning**	1
	Y?		Credit 4	**Enhanced Refrigerant Management**	1
Y			Credit 5	**Measurement & Verification**	1
Y			Credit 6	**Green Power**	1

continued...

Yes	?	No			
7	4	2	**Materials & Resources**		13 Points
Y			Prereq 1	**Storage & Collection of Recyclables**	Required
Y			Credit 1.1	**Building Reuse**, Maintain 75% of Existing Walls, Floors & Roof	1
	Y?		Credit 1.2	**Building Reuse**, Maintain 100% of Existing Walls, Floors & Roof	1
		N	Credit 1.3	**Building Reuse**, Maintain 50% of Interior Non-Structural Elements	1
Y			Credit 2.1	**Construction Waste Management**, Divert 50% from Disposal	1
Y			Credit 2.2	**Construction Waste Management**, Divert 75% from Disposal	1
	Y?		Credit 3.1	**Materials Reuse**, 5%	1
		N	Credit 3.2	**Materials Reuse**,10%	1
Y			Credit 4.1	**Recycled Content**, 10% (post-consumer + ½ pre-consumer)	1
Y			Credit 4.2	**Recycled Content**, 20% (post-consumer + ½ pre-consumer)	1
Y			Credit 5.1	**Regional Materials**, 10% Extracted, Processed & Manufactured Regior	1
	Y?		Credit 5.2	**Regional Materials**, 20% Extracted, Processed & Manufactured Regior	1
	Y?		Credit 6	**Rapidly Renewable Materials**	1
Y			Credit 7	**Certified Wood**	1

Yes	?	No			
7	7	1	**Indoor Environmental Quality**		15 Points
Y			Prereq 1	**Minimum IAQ Performance**	Required
Y			Prereq 2	**Environmental Tobacco Smoke** (ETS) **Control**	Required
Y			Credit 1	**Outdoor Air Delivery Monitoring**	1
	N?		Credit 2	**Increased Ventilation**	1
	Y?		Credit 3.1	**Construction IAQ Management Plan**, During Construction	1
Y	Y?		Credit 3.2	**Construction IAQ Management Plan**, Before Occupancy	1
Y			Credit 4.1	**Low-Emitting Materials**, Adhesives & Sealants	1
Y			Credit 4.2	**Low-Emitting Materials**, Paints & Coatings	1
Y			Credit 4.3	**Low-Emitting Materials**, Carpet Systems	1
Y			Credit 4.4	**Low-Emitting Materials**, Composite Wood & Agrifiber Products	1
	Y?		Credit 5	**Indoor Chemical & Pollutant Source Control**	1
	Y?		Credit 6.1	**Controllability of Systems**, Lighting	1
	Y?		Credit 6.2	**Controllability of Systems**, Thermal Comfort	1
	Y?		Credit 7.1	**Thermal Comfort**, Design	1
Y			Credit 7.2	**Thermal Comfort**, Verification	1
	Y?		Credit 8.1	**Daylight & Views**, Daylight 75% of Spaces	1
		N	Credit 8.2	**Daylight & Views**, Views for 90% of Spaces	1

Yes	?	No			
5			**Innovation & Design Process**		5 Points
Y			Credit 1.1	**Innovation in Design**: Education about building systems	1
Y			Credit 1.2	**Innovation in Design**: Divert 95% of construction waste	1
Y			Credit 1.3	**Innovation in Design**: Green cleaning program	1
Y			Credit 1.4	**Innovation in Design**: Enhanced acoustical performance	1
Y			Credit 2	**LEED® Accredited Professional**	1

Yes	?	No		
35	20	4	**Project Totals** (pre-certification estimates)	69 Points

Certified 26-32 points **Silver** 33-38 points **Gold** 39-51 points **Platinum** 52-69 points

EASTERN
WASHINGTON UNIVERSITY

39	4	26	Total Project Score	EWU Sport and Recreation Center 4/20/06	Possible Points 69

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

Sustainable Sites

8	1	5	Sustainable Sites		Possible Points 14
Y	?	N			
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

Water Efficiency

3	1	2	Water Efficiency		Possible Points 5
Y	?	N			
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

Energy & Atmosphere

6	1	9	Energy & Atmosphere		Possible Points 17
Y	?	N			
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

Materials & Resources

7		6	Materials & Resources		Possible Points 13
Y	?	N			
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

Indoor Environmental Quality

12		3	Indoor Environmental Quality		Possible Points 15
Y	?	N			
Y			Prereq 1	**Minimum IAQ Performance**	
Y			Prereq 2	**Environmental Tobacco Smoke (ETS) Control**	
1			Credit 1	**Carbon Dioxide (CO_2) 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

Innovation & Design Process

3	1	1	Innovation & Design Process		Possible Points 5
Y	?	N			
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 Design Charette Summary

LEED® Certification: Under RCW 39.35D Science I will be designed to achieve a Leadership in Energy and Environmental Design (LEED®) certification at the silver level or higher. During the predesign study an eco-charrette was conducted that was intended to determine potential sustainable strategies for the project. Using LEED® 3.0 NC, an initial checklist was established to determine the LEED® credits that might be achieved through sustainable strategies. The following table represents how the project can meet or exceed the minimum LEED® silver standard.

Yes	?	No		Sustainable Sites	Possible Points: 26
16	9	1			
Y			Prereq 1	Construction Activity Pollution Prevention	
1			Credit 1	Site Selection	
	5		Credit 2	Development Density & Community Connectivity	
		1	Credit 3	Brownfield Redevelopment	
6			Credit 4.1	Alternative Transportation - Public Transportation Access	
1			Credit 4.2	Alternative Transportation - Bicycle Storage & Changing Rooms	
3			Credit 4.3	Alternative Transportation - Low-Emitting & Fuel-Efficient Vehicles	
2			Credit 4.4	Alternative Transportation - Parking Capacity	
	1		Credit 5.1	Site Development - Protect or Restore Habitat	
	1		Credit 5.2	Site Development - Maximize Open Space	
	1		Credit 6.1	Stormwater Design - Quantity Control	
	1		Credit 6.2	Stormwater Design - Quality Control	
1			Credit 7.1	Heat Island Effect - Non-Roof	
1			Credit 7.2	Heat Island Effect - Roof	
1			Credit 8	Light Pollution Reduction	

Yes	?	No		Water Efficiency	Possible Points: 10
4	6				
Y			Prereq 1	Water Use Reduction - 20% Reduction	
2	2		Credit 1	Water Efficient Landscaping	
	2		Credit 2	Innovative Wastewater Technologies	
2	2		Credit 3	Water Use Reduction	

Yes	?	No		Energy & Atmosphere	Possible Points: 35
12	15	8			
Y			Prereq 1	Fundamental Commissioning of Building Energy Systems	
Y			Prereq 2	Minimum Energy Performance	
Y			Prereq 3	Fundamental Refrigerant Management	
8	7	4	Credit 1	Optimize Energy Performance	
	3	4	Credit 2	On-Site Renewable Energy	
2			Credit 3	Enhanced Commissioning	
2			Credit 4	Enhanced Refrigerant Management	
	3		Credit 5	Measurement & Verification	
	2		Credit 6	Green Power	

Yes	?	No		Materials & Resources	Possible Points: 14
5	2	7			
Y			Prereq 1	Storage & Collection of Recyclables	

Facilities and Planning
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Yes	?	No		
		3	Credit 1.1	Building Reuse - Maintain Existing Walls, Floors & Roof
		1	Credit 1.2	Building Reuse - Maintain 50% of Interior Non-Structural Elements
2			Credit 2	Construction Waste Management
		2	Credit 3	Materials Reuse
2			Credit 4	Recycled Content
1	1		Credit 5	Regional Materials
		1	Credit 6	Rapidly Renewable Materials
	1		Credit 7	Certified Wood

Indoor Environmental Quality

Possible Points: 15

12	3			
Yes	?	No		
Y			Prereq 1	Minimum IAQ Performance
Y			Prereq 2	Environmental Tobacco Smoke Control
1			Credit 1	Outdoor Air Delivery Monitoring
1			Credit 2	Increased Ventilation
1			Credit 3.1	Construction IAQ Management Plan - During Construction
1			Credit 3.2	Construction IAQ Management Plan - Before Occupancy
1			Credit 4.1	Low-Emitting Materials - Adhesives & Sealants
1			Credit 4.2	Low-Emitting Materials - Paints & Coatings
1			Credit 4.3	Low-Emitting Materials – Flooring Systems
1			Credit 4.4	Low-Emitting Materials - Composite Wood & Agrifiber Products
1			Credit 5	Indoor Chemical & Pollutant Source Control
1			Credit 6.1	Controllability of Systems - Lighting
	1		Credit 6.2	Controllability of Systems - Thermal Comfort
1			Credit 7.1	Thermal Comfort - Design
1			Credit 7.2	Thermal Comfort - Verification
	1		Credit 8.1	Daylight & Views - Daylight
	1		Credit 8.2	Daylight & Views, Views

Innovation & Design Process

Possible Points: 6

6				
Yes	?	No		
1			Credit 1.1	Innovation in Design: Green Housekeeping
1			Credit 1.2	Innovation in Design: Specific Title TBD
1			Credit 1.3	Innovation in Design: Specific Title TBD
1			Credit 1.4	Innovation in Design: Specific Title TBD
1			Credit 1.5	Innovation in Design: Specific Title TBD
1			Credit 2	LEED* Accredited Professional

Regional Priority Credits

Possible Points: 4

6				
Yes	?	No		
1			Credit 1.1	Regional Priority – SSc1
	1		Credit 1.2	Regional Priority – WEc1
	1		Credit 1.3	Regional Priority – WEc3
	1		Credit 1.4	Regional Priority – MRc7

Total

Possible Points: 110

56	38	16

Certified 40 to 49 pts Silver 50 to 59 pts Gold 60 to 79 pts Platinum 80 to 110 pts

Facilities and Planning
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Sustainable Building Report

Reported by: Ed Simpson
(360) 650-3231
Ed.Simpson@wwu.edu

Overview

Sustainable Building Report

Overview

Western Washington University continues to strive to be at the forefront of sustainable practices in Higher Education. Western was the first Higher Education institution in the country to purchase 100% of its electricity in the form of renewable energy through Renewable Energy Credits (RECs). Despite intense development in the area of campus REC purchases nationally, WWU is still listed in the top 20 nationally (#17) for purchase of green power. Recently, WWU students have approved an additional funding stream (~$280,000/year) to be used for campus efficiency and conservation projects. The first cycle of completed projects included building enhancements such as a 5kw solar array, high-speed hand driers, paper towel composting, and water bottle refilling stations.

In 2004, Western dedicated the first LEED certified Recreation Center (w/ Pool). This certification was the direct result of a request by the Associated Students who were funding the project by a quarterly fee on all students at Western. The LEED certification of the Wade King Student Recreation Center encouraged staff project managers at Western to require LEED design elements in the Academic Instructional Center (AIC) even though the state had not passed the LEED silver requirement for all new construction. As a consequence, when the state did pass the requirement Western was able to submit for and receive LEED certification even though, technically, the construction was ‘grandfathered’ and not required to be LEED certified at any level.

Western is entering its sixth year with a cross-campus sustainability committee with representation on staff, student and faculty levels. 2012 also marks the fourth year of the Office of Sustainability, the coordinating body of campus sustainability measures. Both entities are committed to making Western a national leader in campus sustainability in operations and academics. In 2010, the Office of Sustainability presented to, and received acceptance from, the WWU Board of Trustees the Western Climate Action Plan. This guidance plan specifies a 36% reduction by 2020 and a carbon-neutral campus by 2050. Additionally the campus has recently funded the “10x12” Initiative aimed at producing a 10% drop in utility expenditures by the end of 2012. Real-time energy use monitoring devices are currently being installed at a number of campus buildings which will assist in assessing effectiveness of various strategies on behavioral and operational levels. Additionally a $3.4 million ESCO project is hoped to gain significant savings in utility use campus-wide.

Sustainable Building Report
Western Washington University
June 1, 2012

Projects

Wade King Student Recreation Center – 2004 – LEED Certified

Academic Instruction Center – 2009 – LEED Certified.

Buchanan Towers Addition (Student Residence Hall) – Project is complete, while designed to be LEED Gold certified the contractor for this project was terminated. None of the construction phase documentation was received and because of this the project was unable to be certified.

Miller Hall Renovation – Construction is complete and LEED certification is in review stage. Certification is expected summer 2012. The project is targeting LEED Silver or higher.

Carver Academic Renovation – This project is in design and is targeting LEED Silver or higher. Construction is scheduled for 2013 – 2015.

Training Efforts

All of our Facilities Design and Construction Management staff has had at least some introductory training on LEED and building sustainability. 6 of the staff have had USGBC LEED training with 2 of these individuals receiving LEED Certification.

Lessons Learned

The challenge continues to be to keep educating construction workers that all materials incorporated into the work must be reviewed and approved to assure that they do not install products that jeopardize LEED points. LEED status is a standing weekly project meeting agenda item so that issues such as this are brought up and the importance of the LEED process can be made known to all project participants.

Western continues to strengthen its process for assuring LEED certification goals on projects.

Recommended Improvements to the Legislation

As university campuses are seen as learning laboratories for development of sustainable practices, and LEED Silver is becoming almost commonplace in the green building arena, we recommend looking into higher levels of LEED certification as the state standard. With the emergence of cutting edge green building frameworks, such as the Living Building Challenge, the state will need to reassess what it means to be a leader in green building practices, esp. in the area of energy conservation. Looking into energy-conservation specific standards for both new and existing construction may be of use as well. Raising the bar will necessitate increased capital funding; however long-term operational costs of state buildings far outweigh the upfront expenses.

Sustainable Building Report Template

Reported by: *Azeem Hoosein*
Phone: 360 -867 - 6041
E-mail: hooseina@evergreen.edu

Overview

Short paragraph explaining the commitment to designing, building, and certifying to LEED Silver.
The Evergreen State College has established and committed to the goal of being carbon and waste neutrality by the year 2020. This sustainability focus has informed a process that is rethinking Campus operations and facilities planning at the College. The College 2007 strategic plan outlined the sustainability initiatives set by the College. Additionally, the College's new Campus Master Plan considers a wide range of opportunities to set the stage for making significant contributions towards balancing both carbon and waste production and includes transportation modes and patterns, energy production and use, food production, construction practices, waste stream management and student life and housing.

The College is committed to environmental sustainability and a comprehensive approach in regard to new and existing buildings. This includes sustainable design, building operating efficiencies, energy consumption, and water usage reduction. The College strives to make continuous improvements to provide a greener and sustainable Campus.

The CAB Renovation project was conceived under a student vote that dictated the project achieves LEED Gold certification. Day lighting, natural ventilation, rain water harvesting, energy efficient equipment, use of recycled materials are a few of the elements that will be incorporated into the building.

Projects

Project completed

Seminar II – 2004 – Achieved LEED Gold Certification.
Lab I – First Floor Renovation – 2007 – Achieved LEED Silver Certification
Campus Activities Building –2010 - Achieved LEED Gold Certification

Project Certification in Process

NA

Project in Bidding Phase

Lab I – Second Floor Renovation – 2012 – in process for LEED silver

Training Efforts

Short paragraph describing the training efforts provided for project management staff.

The project management staffs are trained on many aspects of sustainable construction including viewing Webcasts put on by various groups

Lessons Learned

What lessons were learned by your agency regarding the implementation of the LEED Silver requirement? What changes were made to your process that helped make your agency successful? Provide attachments as appropriate (samples of documents, spreadsheets, specs, etc.)

- Begin the LEED process as early as possible, preferably in the pre-design phase.
- Include the LEED cost for both design and construction as line item on the project budget spreadsheet.
- Move all LEED documentation parallel with the different phases of the project.
- Educate the Contractor early in the construction process to meet the requirements of LEED submittal to USGBC.

Recommended Improvements to the Legislation

Describe what improvements could be made to make achieving LEED Silver easier. This might include incentives, disincentives, or (others?).

- Create incentives for projects less than 5,000 sq ft. that meet the requirement of RCW 39.35D
- Provide an incentive for projects that do not meet RCW 39.35D due to the project complexity but attain LEED certification (became a LEED certified bldg.) e.g., historical buildings, existing bldg that cannot meet one or more prerequisite in one area.

New **Metering Efforts and Challenges**

Describe the standards or strategies established to meter energy and water in all LEED buildings. Include a description of the challenges encountered in getting meters installed and operational, and in establishing an on-going tracking and reporting system.

The college has meters to measure steam and chilled water from the central plant, electrical energy and domestic water to all major campus buildings. Staff read and record data from approximately 200 meters each month. There is an obvious commitment in terms of capital and labor to install meters and use the information, but sustainability was not the only driver. We have always kept meter data for charges to auxiliaries and for general management of buildings.

The problem has been how the data are recorded. We use our own spreadsheets to record data, but we must use Utility/Manager as required by our Resource Conservation Management contract with our utility (PSE). In addition, the Department of Enterprise Services requires reporting using EPA's Portfolio Manager. Having one, economical software package that allowed us to record sub-meter data and perform reporting functions to our regulated utility provider and DES would be more efficacious.

****

Submit this report to Stuart Simpson, GA Sustainable Building Advisor, by e-mail.
stuart.simpson@des.wa.gov.
This will satisfy annual reporting requirements dictated by RCW 39.35D.

Sustainable Building Report Template

Reported by: Stuart Simpson, Green Building Advisor
Department of Enterprise Services
Telephone: (360) 407-9376
Email: stuart.simpson@des.wa.gov

Overview

The Department of Enterprise Services (DES), as the lead agency for the implementation of the State Agency and Higher Education portion of the High-Performance Green Building statute is very committed to its success. DES has the highest concentration of Project Managers in the state responsible for management of the design and construction of State capital projects. Since the beginning of the LEED Silver requirement, DES is managing or has managed the design and construction of 54 out of the 125 projects being tracked (this includes exempted projects and projects currently on hold).

Several DES managed projects were certified prior to the requirement to meet or exceed LEED Silver certification. Many projects managed by DES have achieved LEED Gold and one LEED Platinum. The majority of the new projects are pursuing LEED Gold. This is a testament to DES's commitment to High-Performance Green building as well as the commitment by our clients to this goal. DES's Project Managers will continue to improve their knowledge of LEED in an effort to design and construct better and better buildings while minimizing the cost impacts of LEED.

Training Efforts

LEED training to project management staff has suffered due to agency cut backs in Green Building support and due to training budget cut backs. The project management staff, however, remains committed to the "at a minimum of LEED Silver" requirement.

DES's Green Building Advisor continues to provide free training to contractors selected for the State LEED projects upon request. This training helps to ensure successful completion of the project through the LEED certification process.

Projects

The projects that follow on the next page are DES managed projects required to meet the LEED Silver requirement. These projects are a mix of projects under design, construction, completed, and certified (exempt projects and projects "on hold" are not listed here).

LEED Projects in Design/Construction	Projected/Actual Completion Date	LEED Level Targeted or Achieved
Bellevue College - Science & Tech Bldg	11/1/2008	Gold
Bellevue College – Health Sciences Bldg	4/1/2013	Target-Silver
Bellingham TC – Campus Center	3/1/2012	Target-Gold
Cascadia CC - Center for the Arts, Tech, & Global Interact	4/1/2009	Target-Platinum
Columbia Basin C - Social Science Center - Visual Arts Bldg.	9/1/2012	Target-Gold
Columbia Basin C - Business Education	6/30/2009	Gold
Columbia Basin C - V Building Career & Tech Ed Center	6/1/2010	Target-Platinum
Edmonds CC - Meadowdale Hall Renovation	7/21/2009	Target-Silver
Everett CC - Undergraduate Education Center	11/5/2007	Silver
Everett CC – Student Fitness & Health Center	8/13/2010	Gold
Everett CC – Index Hall Replacement	4/1/2013	Target-Gold
Green River CC - General Classroom Bldg.	8/1/2011	Gold
Lake WA Tech - Allied Health Bldg.	4/1/2011	Silver
Grays Harbor College – Child Care Building	2/4/2010	Gold
North Seattle CC - Integrated Services Center	3/25/11	Gold
North Seattle CC – Technology Building Renewal	5/1/2013	Target-Silver
Seattle Central CC - Wood Construction Center	10/1/2011	Target-Gold
Skagit Valley CC - Science Bldg.	11/1/2008	Platinum
Skagit Valley CC - Academic & Student Support Building	10/1/2011	Target-Silver
Spokane CC – Tech Ed Building	3/6/2011	Target-Silver
Spokane CC – Building 7	11/10/2010	Target-Silver
Spokane Falls CC - Music Building	9/3/2010	Target-Silver
Spokane Falls CC - Classroom Bldg.	4/15/2011	Target-Silver
Spokane Falls CC - Business and Social Science	6/1/08	Gold
Spokane Falls CC - Early Learning Center	1/1/2011	Target-Gold
Spokane Falls CC – Science Building	2/25/2011	Gold
Walla Walla CC - Center for Water and Environ. Studies	4/1/2008	Silver
Military - Washington Youth Academy	11/1/2008	Silver
Centralia College-Science Complex	12/15/2008	Gold
Clark College - East County Satelite Campus	11/26/2008	Gold
Clover Park TC - Allied Heath Care Facility	12/1/2010	Target-Silver
Olympic College - Humanities Building	1/8/2010	Gold
Olympic College – Sophia Bremer Child Development Center	10/1/2010	Target-Silver
Peninsula College - Business & Humanities Center	3/28/2011	Gold
Lower Columbia College – Myklebust Gym Renovation	9/1/2013	Target-Silver
Lower Columbia College – Health Sciences	2/1/2013	Target-Silver
Pierce College - Ft. Steilacoom - Science & Tech Center	6/1/2009	Gold
Pierce Coll. - Puy - Communication, Arts & Allied Health	6/1/2009	Gold
South Puget Sound CC - Science Complex	8/1/2008	Gold
South Puget Sound CC – Vocational Tech Building	1/1/2011	Gold
South Puget Sound CC – Instructional Building 23	9/1/2010	Gold
South Puget Sound CC - Building 22 Renovation	1/2/2013	Target-Silver
Yakima Valley CC – Grandview Library	6/30/2011	Target-Silver
Tacoma CC-Early Childhood Edu. & Child Care Center	7/18/2008	Gold
Tacoma CC-Health Careers Center	1/1/2013	Target-Gold
Capitol Campus – O'Brien Building	10/12/2012	Target-Silver
WA School for the Deaf, New Voc. Ed. & Support Bldg	8/1/2009	Gold
WA School for the Blind, New Phys. Ed. Center	3/1/2009	Silver

Lessons Learned

- Make LEED experience part of the selection criteria for the Architect.
- Establish the LEED goals early in the design process through the use of an Eco-Charrette process. This half day process includes the design team, owner's representative, maintenance staff, future occupant representation, and the state project manager, and should be facilitated by someone knowledgeable about LEED.
- Participate in the DES LEED QA process to keep the project on track to achieve LEED Silver or better, and provide the data necessary for reporting progress to the Legislature.
- Establish the LEED Champion and Administrator for the project early in the design process. This person will be responsible for tracking LEED goals and assigning responsibilities related to LEED documentation and compliance.
- Share project experiences with other Project Managers related to LEED, good and bad, and learn from them.
- Continue to improve experience and knowledge base regarding LEED. LEED is continually being updated and it is necessary to keep up with the improvements.
- Make sure metering requirements are included in the project during the design phase.
- Hire the Commissioning (Cx) Agent no later that the Design Development phase to ensure their input in the design. Make sure the Cx Agent reviews the Construction Documents prior to 90% to incorporate Cx comments.
- Include meter design, installation and trend set-up as part of the Cx Agent's scope.
- DES continues to refine LEED Project Management Guidelines and provide these to DES's and other State Project Managers.

Recommended Improvements to the Legislation

Provide funding assistance to projects between 5,000 and 10,000 square feet. Implementation of the LEED certification process for projects between 5,000 and 10,000 square feet is very challenging given the limited design and construction budgets. The impact to these smaller projects, as a percentage, is far greater than for the larger projects. A similar level of effort is needed for LEED regardless of project size.

Provide incentives for cost effective energy improvements to projects. Some of the cost effective energy efficient design features have a higher first cost than traditional design. These features can have a payback that is under ten years, however, they compete with program requirements. DES could help implement such an incentive program through the Energy Life Cycle Cost Analysis (ELCCA) process. This could help to leverage utility incentives that could pay for a portion of the additional cost of the energy efficient item.

Require 0.5% of the MACC for a renewable energy system for State LEED buildings. At this time it is difficult to justify the expense of a renewable energy system on a State building, however, the benefits would be many:

- Contributes to the LEED Energy Optimization score,
- Contributes to the LEED Renewable Energy score,
- Creates a more stable renewable energy market that will create green jobs and increases competition,
- It will position Washington State well for the future as the costs for renewable energy systems become more cost effective by helping to create an infrastructure of designers and installers,

- State facilities would be positioned to help utilities meet their renewable energy goals set by I-937. This could leverage additional utility incentives to State facilities and income to the State facilities from the sale of renewable energy,
- It would increase the understanding of operational issues associated with renewable energy systems among State maintenance staff, and
- It would help to reduce CO_2 emissions that contribute to Climate Change.

New Metering Efforts and Challenges

DES, as the Design and Construction Project Manager for State projects is not the owner in most cases. As such, DES doesn't deal with the on-going challenges of using meters to track energy and water consumption. There have been difficulties ensuring the meters are installed properly and then proper interface is established with building automation systems to ensure trending and easy collection of consumption data. Because the focus is on getting the building up and operational, proper meter trending is often overlooked or takes a secondary position of importance.

DES Project Managers will continue to emphasize the importance of metering and to overcome the challenges of implementation.

Sustainable Building Report

Reported by: *Michael Kendall*
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E-mail – mike.kendall@commerce.wa.gov

Overview

Community Capital Facilities strongly urges all of its Competitive and Direct Appropriation recipients to achieve the LEED Silver Status whenever possible. However, Direct Appropriation recipients and their legislative sponsors continue to need greater education and understanding of the requirements mandated by the statute.

Projects

Active contracts overview: *74 projects have certified that they are going through the LEED process since its inception. Of those, 22 have been completed and achieved LEED Silver, 14 have achieved the higher LEED Gold certification, and 38 have not yet completed the LEED certification process. It was a pleasant surprise to see so many projects achieve the higher Gold status. See attachment for specific project details.*

Competitive grants overview: *With the completion of our 2013-2015 application intake on July 19, 2012, a total of 66 projects have applied for grant funding. Of those, 32 (48%) plan to achieve at least the LEED Silver certification - compared to 34% in 2011-2013, 23% in 2009-2011 and 20% in 2007-2009. Of those who received exemptions, 16 received a facility-type exemption, and 18 received a "not practicable" exemption. Any projects recommended for funding at the conclusion of the agency's review process will be submitted to the Governor for possible inclusion in the agency's 2013-2015 Capital Budget request. The Legislature will make the final determination concerning funding.*

Direct appropriations overview: *Capital Programs has been asked to administer 46 projects placed in the 2011-2013 Capital and 2012 Supplemental Capital Budgets by legislators or the Governor. We have no role in selecting these projects, and generally have no contact with the grantee until the budget is approved. As of the reporting date, 21 have executed contracts and provided us with information about their compliance with the LEED statute: one plans to achieve at least the LEED Silver certification, 12 have received a facility-type exemption, and eight have received a "not practicable" exemption. Not practicable exemptions are only issued when a project is completed, considered "piecemeal" or otherwise ineligible for LEED Certification. Cost of certification is not an eligible reason for receiving a not practicable exemption.*

Training Efforts

After two cycles (four years) of offering green building workshops to our applicants, this program was discontinued due to budgetary constraints.

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 these organizations must usually 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 higher.*
- *Projects in rural parts of the state were less familiar with LEED and often have fewer resources with which to comply with the law. This, however, is changing with time and awareness seems to be growing.*
- *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 have received a number of complaints from pro-green building architects and other professionals that the LEED process is not the most cost-effective approach for "greening-up" their projects.*

Recommended Improvements to the Legislation

Recommend a thorough examination of other sustainability efforts and programs in order to determine the cost-effectiveness of the LEED system.

New **Metering Efforts and Challenges**

N/A

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Submit this report to Stuart Simpson, DES Sustainable Building Advisor, by e-mail.
stuart.simpson@des.wa.gov & sustainableBA@des.wa.gov

This report should be no more than three pages. No photographs or LEED Checklists please. LEED Certified projects should have a Case Study prepared with photos and LEED Checklist submitted separately. See the Case Study Template, and completed case studies and previous Sustainable Building Reports in the 2010 Green Building Report:
http://www.ga.wa.gov/eas/green/

Due date: July 6, 2012

This will satisfy some of the annual reporting requirements dictated by RCW 39.35D.

Commerce CCF LEED Projects

Project Title	Grantee	City	Biennium	Achieved LEED Silver	Achieved LEED Gold	Achieved LEED Platinum	Not Yet LEED Certified
A Home for Opportunity	CASA Latina	Seattle	09-11	FALSE	FALSE	FALSE	**TRUE**
Allen Place	Allen Renaissance, Inc.	Tacoma	09-11	FALSE	FALSE	FALSE	**TRUE**
Arc of Tri-Cities	Arc of Tri-Cities	Richland	09-11	FALSE	**TRUE**	FALSE	FALSE
Arc of Tri-Cities Facility	ARC of Tri-Cities	Richland	11-13	FALSE	**TRUE**	FALSE	FALSE
Auburn Activity Center	Boys & Girls Clubs of King County	Seattle	11-13	FALSE	FALSE	FALSE	**TRUE**
Auburn Boys & Girls Club	Boys & Girls Clubs of King County	Seattle	09-11	FALSE	FALSE	FALSE	**TRUE**
Auditorium and Classrooms	Bainbridge Art Museum	Bainbridge Island	11-13	FALSE	FALSE	FALSE	**TRUE**
Bellevue Clinic - Seattle Children's Hospital	Seattle Children's Hospital	Seattle	09-11	FALSE	FALSE	FALSE	**TRUE**
Bellingham Art & Children's Museum	Whatcom Museum Society	Bellingham	07-09	**TRUE**	FALSE	FALSE	FALSE
Bellingham Food Bank	Alternatives to Hunger	Bellingham	07-09	FALSE	FALSE	FALSE	**TRUE**
Burien Town Square	City of Burien	Burien	07-09	FALSE	**TRUE**	FALSE	FALSE
Central Kitsap Community Campus YMCA	YMCA of Tacoma-Pierce County	Tacoma	09-11	**TRUE**	FALSE	FALSE	FALSE
Chief Seattle Club Day Center & Lofts	Chief Seattle Club	Seattle	07-09	**TRUE**	FALSE	FALSE	FALSE
City of Kent Event Center	City of Kent	Kent	07-09	FALSE	**TRUE**	FALSE	FALSE
Coal Creek Family YMCA	YMCA of Greater Seattle	Seattle	09-11	FALSE	**TRUE**	FALSE	FALSE
Coal Creek YMCA (Newcastle)	YMCA of Greater Seattle	Seattle	09-11	FALSE	**TRUE**	FALSE	FALSE
Convert Key Bank To Everett's Plaza Theatre	Village Theatre	Issaquah	09-11	FALSE	FALSE	FALSE	**TRUE**
Donald G. Topping HOPE Center	Boys & Girls Clubs of South Puget Sound	Tacoma	09-11	**TRUE**	FALSE	FALSE	FALSE
East Whatcom Regional Resource Center	Whatcom County	Bellingham	05-07	FALSE	FALSE	FALSE	**TRUE**
Everett YMCA (SE YMCA)	YMCA of Snohomish County	Everett	07-09	**TRUE**	FALSE	FALSE	FALSE
Evergreen School District Health and Biosciences Academy	Evergreen School District 114	Vancouver	07-09	FALSE	FALSE	FALSE	**TRUE**
Federal Way Performing Arts Center	City of Federal Way	Federal Way	09-11	FALSE	FALSE	FALSE	**TRUE**
Ferndale Boys & Girls Club	Boys & Girls Clubs of Whatcom County	Bellingham	07-09	**TRUE**	FALSE	FALSE	FALSE
Ferndale Boys & Girls Club	Boys & Girls Clubs of Whatcom County	Bellingham	09-11	**TRUE**	FALSE	FALSE	FALSE
Greenbridge Early Learning Center	PSESD Foundation	Renton	09-11	FALSE	**TRUE**	FALSE	FALSE
Haselwood Family YMCA	YMCA of Pierce and Kitsap Counties	Tacoma	11-13	**TRUE**	FALSE	FALSE	FALSE
High Point Neighborhood Center	Neighborhood House	Seattle	07-09	FALSE	FALSE	FALSE	**TRUE**
High Point Neighborhood Center in West Seattle	Neighborhood House	Seattle	07-09	FALSE	FALSE	FALSE	**TRUE**
Highline YMCA	YMCA of Greater Seattle	Seattle	09-11	FALSE	**TRUE**	FALSE	FALSE
Highline YMCA	YMCA of Greater Seattle	Seattle	09-11	FALSE	**TRUE**	FALSE	FALSE
Jim Parsley Community Center	Boys & Girls Clubs of Southwest Washington	Vancouver	09-11	FALSE	FALSE	FALSE	**TRUE**
Junior Achievement	Junior Achievement of Washington	Seattle	09-11	FALSE	FALSE	FALSE	**TRUE**
Junior Achievement	Junior Achievement of Washington	Seattle	09-11	FALSE	FALSE	FALSE	**TRUE**
Kirkland Public Safety Campus Land Acquisition and Preconstruction Activities	City of Kirkland	Kirkland	07-09	FALSE	**TRUE**	FALSE	FALSE
Link Youth Recreation Facility	Toutle River Ranch	Longview	07-09	**TRUE**	FALSE	FALSE	FALSE
Lummi Gateway Center	Lummi Nation Service Organization	Bellingham	09-11	FALSE	FALSE	FALSE	**TRUE**
Maryhill Museum Expansion	Maryhill Museum of Art	Goldendale	09-11	FALSE	FALSE	FALSE	**TRUE**
Mental Health & Wellness Center	Navos	Seattle	11-13	FALSE	FALSE	FALSE	**TRUE**

Mercer Slough Environmental Center	City of Bellevue	Bellevue	07-09	FALSE	**TRUE**	FALSE	FALSE
Milgard Work Opportunity Center	Tacoma Goodwill Industries	Tacoma	09-11	FALSE	**TRUE**	FALSE	FALSE
Mukilteo YMCA	YMCA of Snohomish County	Everett	07-09	**TRUE**	FALSE	FALSE	FALSE
Multi-Use Social Services Facility	Jewish Family Service	Seattle	11-13	**TRUE**	FALSE	FALSE	FALSE
Museum of Flight Space Gallery	Museum of Flight	Seattle	09-11	FALSE	**TRUE**	FALSE	FALSE
New Hands On Children's Museum	Hands On Children's Museum	Olympia	09-11	FALSE	FALSE	FALSE	**TRUE**
Non-Profit Community Center	United Way of Kitsap County	Bremerton	11-13	FALSE	FALSE	FALSE	**TRUE**
Nordic Heritage Museum preconstruction activities	Nordic Heritage Museum Foundation	Seattle	07-09	FALSE	FALSE	FALSE	**TRUE**
North Spokane YMCA	YMCA of the Inland Northwest	Spokane	07-09	FALSE	**TRUE**	FALSE	FALSE
Northeast Community Center Expansion	Northeast Community Center Association	Spokane	09-11	FALSE	FALSE	FALSE	**TRUE**
Performing Arts Center Eastside Preconstruction Activities	Performing Arts Center Eastside	Bellevue	07-09	FALSE	FALSE	FALSE	**TRUE**
Pickford Film Center	Whatcom Film Association	Bellingham	07-09	FALSE	FALSE	FALSE	**TRUE**
Puget Sound Industrial Excellence Center	South Seattle Community College	Seattle	07-09	FALSE	FALSE	FALSE	**TRUE**
Rainier Beach Medical & Dental Clinic	Neighborcare Health	Seattle	09-11	**TRUE**	FALSE	FALSE	FALSE
Rainier Beach Medical & Dental Clinic (Neighborcare Health)	Neighborcare Health	Seattle	09-11	**TRUE**	FALSE	FALSE	FALSE
Rainier Valley Boys and Girls Club	Boys & Girls Clubs of King County	Seattle	07-09	**TRUE**	FALSE	FALSE	FALSE
Rainier Vista Boys & Girls Club	Boys & Girls Clubs of King County	Seattle	07-09	**TRUE**	FALSE	FALSE	FALSE
Reconstruction of First Stage	Village Theatre	Issaquah	09-11	FALSE	FALSE	FALSE	**TRUE**
Relocation of NAVOS Mental Health Center in Burien	NAVOS	Seattle	09-11	FALSE	FALSE	FALSE	**TRUE**
Restoration of Historic Pickford Theater	Pickford Film Center	Bellingham	09-11	FALSE	FALSE	FALSE	**TRUE**
Rotary Support Center for Families	Family Services	Seattle	09-11	**TRUE**	FALSE	FALSE	FALSE
Share Service Center	Share	Vancouver	11-13	FALSE	FALSE	FALSE	**TRUE**
Snoqualmie Valley YMCA	YMCA of Greater Seattle	Seattle	11-13	FALSE	FALSE	FALSE	**TRUE**
South Kitsap Community Services Center	Kitsap Community Resources	Bremerton	11-13	**TRUE**	FALSE	FALSE	FALSE
South Tacoma Community Center	Metro Parks of Tacoma	Tacoma	09-11	FALSE	FALSE	FALSE	**TRUE**
Spokane Central YMCA	YMCA of the Inland Northwest	Spokane	09-11	**TRUE**	FALSE	FALSE	FALSE
Spokane Northeast Community Center	Northeast Community Center Association	Spokane	07-09	FALSE	FALSE	FALSE	**TRUE**
Spokane YWCA/YMCA Joint Project	YMCA of the Inland Northwest	Spokane	07-09	**TRUE**	FALSE	FALSE	FALSE
Stage Two	Whidbey Island Center for the Arts	Seattle	09-11	FALSE	FALSE	FALSE	**TRUE**
Suquamish Inviting House Construction	Suquamish Foundation	Suquamish	07-09	**TRUE**	FALSE	FALSE	FALSE
Suquamish Longhouse	Suquamish Foundation	Suquamish	07-09	**TRUE**	FALSE	FALSE	FALSE
Tacoma Hilltop Health Center	Community Health Care	Tacoma	11-13	FALSE	FALSE	FALSE	**TRUE**
TAF Community Learning Space	Technology Access Foundation	Seattle	09-11	FALSE	FALSE	FALSE	**TRUE**
Toutle River Ranch Phase 3	Toutle River Ranch	Longview	09-11	**TRUE**	FALSE	FALSE	FALSE
Vashon Arts Center	Vashon Allied Arts	Vashon	09-11	FALSE	FALSE	FALSE	**TRUE**
Visual Arts Education Center	Arts Council of Snohomish County	Everett	09-11	FALSE	FALSE	FALSE	**TRUE**

Sustainable Building Report Template

Reported by:
Dena Harris, Evergreen Program Manager
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Overview

As noted in RCW 39.35D.080, affordable housing projects funded out of the state capital budget are exempt from the LEED Silver requirement but they must meet a sustainable building standard adapted in collaboration with stakeholders. The Evergreen Sustainable Development Standard (ESDS) is the product of that collaboration; it applies to projects funded with capital bond proceeds in the Washington State Housing Trust Fund (Housing Trust Fund).

While developing the ESDS, it was decided that projects could exceed the energy requirements of the Washington State Energy Code (WSEC). Subsequently, the mandatory requirements in the ESDS were written to significantly increase energy efficiency as compared to multifamily buildings just built to the WSEC.

The Evergreen Criteria, forms and instructions, and other information can be found at www.commerce.wa.gov/evergreen.

Projects

The projects listed below have been built under the ESDS. Projects that complied with the ESDS v1.3 were required to achieve a minimum of 15 percent energy efficiency over the 2006 WSEC as noted in the "ESDS Version" column. New construction and substantial rehab projects that complied with ESDS v2.0 were required to achieve a minimum of 7 percent energy efficiency over the 2009 WSEC.

ProjectName	County	# of Units	ESDS Version	Status
12th Avenue Arts	King	88	2.0	Awarded
4251 Aurora	King	71	2.0	Awarded
Appleway Court II	Spokane	40	2.0	Awarded
Cedarstone Apartments	King	15	2.0	Under Development
Cherry Park Apartments	Clark	14	2.0	Under Development
Clare View Senior	Spokane	185	2.0	Awarded
Cosecha Court-Granger Seasonal Housing	Yakima	76	1.3	Under Development
Delridge Supportive Housing	King	75	2.0	Awarded
Des Moines Family Housing	King	43	2.0	Awarded
East Oroville Harvest Park	Okanogan	76	1.3	Completed
Eklund Heights	Clallam	50	2.0	Awarded
Esperanza	Grant	128	2.0	Awarded

Evergreen Homes I	Whatcom	3	2.0	Under Development
Father Bach Haven (formerly Valor Haven)	Spokane	51	1.3	Under Development
Filbert Road	Snohomish	20	2.0	Awarded
Frances Haddon Morgan Center	Kitsap	10	2.0	Under Development
Hillside Terrace Apartments	Pierce	70	2.0	Awarded
Hoffman Apartments	Spokane	16	2.0	Awarded
Hudesman House Apartments	Stevens	14	2.0	Awarded
Impact Family Village	King	61	2.0	Awarded
Lariat Gardens	Walla Walla	50	2.0	Awarded
Mason County Shelter and Shelton Creek Apts	Mason	15	2.0	Under Development
MLK Family Housing at the Sound Transit Site	King	86	2.0	Awarded
Mt Baker Station Lofts	King	57	2.0	Awarded
Pine Meadows	Okanogan	10	2.0	Under Development
Pioneer Park Place	Spokane	29	2.0	Awarded
Plaza Roberto Maestas - Beloved Community	King	114	2.0	Awarded
Providence John Gabriel House	King	70	2.0	Awarded
Quincy Family Housing	Grant	51	2.0	Awarded
RD Preservation Portfolio	Snohomish	130	2.0	Awarded
Sail River Longhouse	Clallam	21	2.0	Awarded
Seventh Adult Family Home	King	5	2.0	Under Development
South Kirkland TOD	King	70	2.0	Awarded
Sprague Union Terrace	Spokane	37	2.0	Under Development
Spring Street	King	18	2.0	Under Development
Stratford Arms Rehab	Cowlitz	24	2.0	Awarded
Sunny View Village	Island	26	2.0	Awarded
Sylvan Place Apartments	Spokane	15	2.0	Under Development
Terry Home II	King	12	1.3	Awarded
Terry Home II	King	12	2.0	Under Development
Williams Apartments (was Pontius Apartments)	King	84	1.3	Under Development
Woods Creek Village	Snohomish	14	2.0	Awarded
Youth Haven	King	17	2.0	Awarded

Training Efforts

- The Housing Trust Fund presently has one dedicated staff member to manage ESDS policies and procedures, the evergreen program manager. The evergreen program manager attended the National Sustainable Building Advisor Institute, a nine-month course on areas of sustainable building and design such as energy and water efficiency, green materials, indoor environmental quality and health, job site operations and buildings operations and maintenance.
- The Evergreen project manager conducted a series of trainings on the principles of sustainable development as it relates to the ESDS in the spring of 2012 for ESDS support staff, stakeholders, public funders and construction verifiers.

Lessons Learned

1. In 2011, the ESDS criteria were revised to incorporate the changes to the WSEC. Through stakeholder collaboration, ESDS policies and procedures were also revised. The following are significant changes:
   - The ESDS now differentiates between substantial rehabilitation projects and moderate rehabilitation projects. Moderate rehabilitation projects under ESDS 1.3 were required to conduct improvements outside of their scope of work that could have required replacing systems that were in good working order and added significant cost. The new version of the ESDS requires moderate rehabilitation projects to only comply with ESDS measures within their scope of work.
   - Stakeholders expressed concern that the third party verification process did not have enough definition and clarity. Consequently, the Housing Trust Fund created Evergreen Binder Instructions to help facilitate a stronger verification process to ensure that the designated green building lead (Evergreen Coordinator) provides adequate information for the third party verifier to review.
2. The ESDS requirements are evaluated on the job site throughout construction and verified by a third party contractor. This allows the Housing Trust Fund to ensure that the sustainable building practices required are actually achieved in the project and as issues arise during development, the Housing Trust Fund can work with the project owner to ensure compliance with ESDS measures. This has proven to be a valuable tool for the Housing Trust Fund as well as the project owners in guaranteeing compliance.
3. The ESDS was created with mandatory criteria that produce buildings that are more energy efficient than the Washington State Energy Code, thus resulting in operating savings. However, the Housing Trust Fund does not have complete and accurate data for each specific project to generate potential operating savings calculations. For projects funded after Fall 2012, Commerce will incorporate more detailed report requirements that will help us identify potential savings.
4. As sustainable building practices become more routine, the ESDS should be updated to reflect what is realistically attainable and cost effective for our projects. For example, Energy Star appliances are now commonplace, so our current version of ESDS requires Energy Star appliances whereas it was optional in the previous version.

Recommended Improvements to the Legislation

None

New **Metering Efforts and Challenges**

Under the previous version of the ESDS, electricity metering was not mandatory but projects did receive optional points for metering. However, with the new revision of ESDS v2.0, electricity metering is now required for all new construction and substantial rehab projects. However, we do exempt shelters, single room occupancy and designated supportive housing dwelling units and seasonal farmworker projects from this requirement given the high turnover in these projects and the cost and administrative burden it creates for the owner.

Although most ESDS projects are individually metered, Commerce does not own or operate affordable housing units so we do not collect and analyze actual energy usage data. Additionally, the Environmental Protection Agency Energy Star program has not established an energy performance baseline for multifamily housing because the range of activity in multifamily buildings can cause operations to vary.

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Submit this report to Stuart Simpson, DES Sustainable Building Advisor, by e-mail.
stuart.simpson@des.wa.gov & sustainableBA@des.wa.gov

This report should be no more than three pages. No photographs or LEED Checklists please. LEED Certified projects should have a Case Study prepared with photos and LEED Checklist submitted separately. See the Case Study Template, and completed case studies and previous Sustainable Building Reports in the 2010 Green Building Report: http://www.ga.wa.gov/eas/green/

Due date: July 6, 2012

This will satisfy some of the annual reporting requirements dictated by RCW 39.35D.

Sustainable Building Report
Department of Corrections – Capital Programs/Team C
August 2012

Reported by: Jack A Olson, Environmental manager
Phone: 360 725-8342
E-Mail: jaolson@doc1.wa.gov

Overview

Capital Programs' commitment to designing, building, and certifying to LEED Silver – Sustainability is part of the Department of Corrections' Strategic Plan as a means to develop more effective and efficient business practices, and to support the Priority of Government to protect the environment.

In 2004, Capital Programs established a policy to design and construct all new occupied buildings over 5,000 square feet and all major building renovations to at least LEED Silver Standards. This policy was in response to the Department's Sustainability Plan that included a goal of building green. The 2005 Legislature passed a law requiring these same two provisions for all state-funded building projects.

Projects

Projects Completed and Achieved LEED Certification

1. MONROE CORRECTIONAL COMPLEX – SOU Maintenance Building – Completed 2005 – Achieved LEED Silver.
2. MONROE CORRECTIONAL COMPLEX – Training Center – Completed 2005 – Achieved LEED Gold.
3. WASHINGTON STATE PENITENTIARY – Warehouse – Completed 2005 – Achieved LEED Silver.
4. MONROE CORRECTIONAL COMPLEX – IMU/Segregation Unit – Completed in 2006 – Achieved LEED Silver.
5. CORRECTIONAL INDUSTRIES – Warehouse/Headquarters – Completed 2006 – Achieved LEED Silver.
6. WASHINGTON STATE PENITENTIARY – North Close Security Complex. Seven separate buildings were individually certified at Silver – Completed August 2007 – Achieved LEED Silver
7. CEDAR CREEK CORRECTIONS CENTER – Perimeter Control Office (PCO) Building – Completed February 2009 –Achieved LEED Silver
8. AIRWAY HEIGHTS CORRECTIONS CENTER New Visitation Building – Completed June 2008 – Achieved LEED Silver
9. AIRWAY HEIGHTS CORRECTIONS CENTER Treatment Program Building –Completed May 2009 – Achieved LEED Silver

10. COYOTE RIDGE CORRECTIONS CENTER – Expansion – October 2008 – Achieved campus-wide LEED Gold; 22 buildings total.
11. MISSION CREEK CORRECTIONS CENTER for WOMEN – 100-Bed Expansion – Completed March 2010 – Achieved LEED Silver.
12. WASHINGTON CORRECTIONS CENTER FOR WOMEN- Health Care Facility – Completed January 2010 – Achieve LEED Silver.
13. WASHINGTON STATE PENITENTIARY - South Close Custody Expansion / Correctional Industries Warehouse – Completed September 2009 – Expect to achieve LEED Silver.
14. WASHINGTON STATE PENITENTIARY - South Close Custody Expansion / Health Services Building – Completed June 2010 – Achieve LEED Silver.
15. STAFFORD CREEK CORRECTIONAL CENTER – Furniture Factory – Construction underway – Expected completion date June 2011 – Expect to achieve LEED Silver.

Projects in Design or Construction

1. WASHINGTON STATE PENITENTIARY – Two housing units – in design. Projected completion date is January 2013. Expect to achieve LEED silver.

Training Efforts

Capital Programs has two employees who are LEED Certified, down from six due to staff moves. All of the project managers have taken some LEED modules/training. Management encourages all project managers to achieve certification, because we believe it is a valuable credential.

Lessons Learned

What lessons were learned by your agency regarding the implementation of the LEED Silver requirement? What changes were made to your process that helped make your agency successful? Provide attachments as appropriate (samples of documents, spreadsheets, specs, etc.)

- Obtaining LEED certification is becoming more and more complex; encourage project managers to take the training for certification at the earliest possible time.
- When constructing a “Green Building” – or LEED is a goal from day one, it becomes much easier and less expensive to achieve the goal. It is similar to our trying to meet ADA 15 years ago – we would do a typical design and then try and adjust or fix things so they were ADA compliant. It caused problems and increased the expense. Nowadays designers just design to ADA; it has become part of the standards. We saw this same process play out on the Coyote

Ridge Corrections Center project; it was designed to be energy and water efficient from day one, so there was no retrofitting or re-designing of systems.

- Obtaining LEED Silver was a priority on the Coyote Ridge Corrections Center Expansion project from the first day. Everyone bought into the concept. No special training of project management staff was necessary. Hiring the best available LEED professionals for design was a focus.
- It is a challenge, due to security requirements, on a small corrections campus to acquire necessary LEED points to achieve Site Development, Protect or Maintain Open Space, Restore Habitat and Development, and Maximize Open Space, these are all elements that make it challenging.
- The majority of structural wood is solid sawn and should be able to get FSC certification. The LSL studs (such as for mezzanine support and gable walls in which normal studs won't work) are not FSC certified. The frustration is LSL studs are more sustainable than FSC solid lumber because they are made out of wood "pieces" and glued together, in lieu of old growth. Unfortunately, LEED doesn't recognize the LSLs yet.
- The cost to implement/document LEED in smaller projects is larger than big projects from a percentage standpoint, largely because some of the same efforts are needed regardless of square footage.

Recommended Improvements to the Legislation

Describe what improvements could be made to make achieving LEED Silver easier. This might include incentives, disincentives, or (others?).

- Additional funding would be incentive to allow for inclusion of more green technology.
- Establish a funding pool for LEED green power points – for when the Owner has submitted for LEED and is close but has no additional funding available – as incentive to complete Silver.

Metering Efforts and Challenges

Describe the standards or strategies established to meter energy and water in all LEED buildings. Included a description of the challenges encountered in getting meters installed and operational, and in establishing an on-going tracking and reporting system.

- Metering has been a problem. Most of DOC's LEED Buildings were constructed prior to the metering requirement and therefore, individual meters were not installed. Correctional facilities typically have central meters for the entire campus. Even when meters are installed as part of the construction, DOC has not had the resources to monitor, operate and maintain the meters. If systems or resources are not in place to track the information it soon becomes useless. Experience has shown that meters require maintenance – especially electrical metering.

Sustainable Building Report
Department of Corrections – Capital Programs/Team C
August 2012

- DOC has included within their Capital Budget requests for funding to install individual building meters tied to a central computer monitor for most of their facilities. Due to the size and complexity of correctional facilities, individual metering is very expensive. Budget constraints have reduced the priority of metering and funding has not been available for installation, maintenance, or monitoring.

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Submit this report to Stuart Simpson, GA Sustainable Building Advisor, by e-mail.
ssimpso@ga.wa.gov & GAsustainableBA@ga.wa.gov

This will satisfy annual reporting requirements dictated by RCW 39.35D.

Sustainable Building Report Template

Reported by: Robert J. Hubenthal, Assistant Director, Capital Facilities MAnagement
Nancy K. Deakins, P.E., Deputy Assistant Director, DES/DSHS Team
Phone: Bob – (360) 902-8168, Nancy – (360) 902-8161.
E-mail: hubenbj@dshs.wa.gov, deakink@dshs.wa.gov

Overview

The Department of Social and Health Services Sustainability Plan states: *[We are] committed to the Principles of Sustainability as described in Executive Orders 02-03, 04-01, 05-01, and 07-02, and RCW 39.35D 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.*

The DES/DSHS Team uses the processes developed with Department of Enterprise Services for managing projects with LEED requirements.

While we are committed to sustainable design, construction, and facility operations, we occasionally find ourselves without adequate financial resources to satisfy all LEED certification requirements. We embrace sustainable principles and we incorporate sustainable practices wherever practicable, but we struggle with LEED certification obstacles.

Projects	Current Phase	Size (GSF)	LEED Level	Status
Echo Glen Children's Center Housing Units Remodel, Phase 2A-2B	Occupied 6/23/09 2A 4/20/10 2B	26,088	LEED NC Silver	Awarded LEED Silver Feb. 2012
Echo Glen Children's Center Housing Units Remodel, Phase 3	Construction	27,240	LEED NC Silver	Goal
Green Hill School New Intensive Management Unit	Occupied 9/17/09	22,407	Not practicable	Exemption
Green Hill School New Health Center & Administration	Occupied 9/17/09	20,657	LEED NC Silver	Awarded LEED Silver July 2011
Western State Hospital New Kitchen & Commissary	Design	53,000	LEED NC Silver	Project not funded for construction

Sustainable Building Report
Department of Social and Health Services
Office of Capital Programs
July 27, 2012

Training Efforts

Three project managers have attended the LEED New Construction Technical Review Workshops provided by Stuart Simpson. Two project managers were hired within the last seven months and this training

Lessons Learned

- Select design consultants with staff experienced in LEED design and certification.
- Start reviewing sustainable design opportunities and potential LEED credits early in the design process.
- Take a firm stand on the department's intent to meet LEED certification requirements and reinforce that message frequently with building users, consultants, and other stakeholders.
- Utilize eco-charettes.
- Review existing Credit Interpretation Requests (CIRs), and submit CIRs early in the process, if necessary.
- Budget $60,000-$100,000 for LEED documentation and processes to achieve LEED Silver.
- Plan for Enhanced Commissioning for building systems, measurement and verification, with an estimated budget of $23,000.
- Schedule should allow two months document review time with USGBC at the time of project closeout.

Recommended Improvements to the Legislation

Provide enough funding in the DSHS projects to review concepts that can incorporate long term savings for mechanical and utility systems.

Metering Efforts and Challenges

Submeters were installed to measure amount of gas, water and electrical usage for the new buildings, but the dollar cost is based on the campus meter rate. Green Hill School & Echo Glen Children's Center are not able to separate the building usage cost from the campus cost. They will be prorated. The hot water at Green Hill School is a campus system and is unable to be segregated.

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Submit this report to Stuart Simpson, DES Sustainable Building Advisor, by e-mail.
stuart.simpson@des.wa.gov & sustainableBA@des.wa.gov

Due date: July 6, 2012

This will satisfy annual reporting requirements dictated by RCW 39.35D.

<u>Sustainable Building Report Template</u>

Reported by: Terri Sinclair-Olson, R.A., LEED AP
Project Delivery Manager, WSDOT HQ Facilities Office
Phone: 360-705-7360
E-mail: Sinclat@wsdot.wa.gov

Overview

The Washington State Department of Transportation's policy goals state that we "will enhance Washington's quality of life through transportation investments that promote energy conservation, enhance healthy communities, and protect the environment; and continuously improve the quality, effectiveness, and efficiency of the transportation system." This includes the construction of facilities that support the transportation system. We are committed to the principles of sustainability as described in RCW 47.04.280 and RCW 39.35D. We strive to design and deliver energy efficient and sustainable facilities and programs.

Projects

Alaska Way Viaduct Tunnel Operations Building – Status: Design-Build Contract issued Goal: Exemption request submitted 7/2/2012 – Projected Completion Date: June 2015.

SR 520 Bridge Maintenance Facilities – Status: Design Build Contract issued – Goal: LEED Silver – Projected Completion Date July 2014.

Eagle Harbor Maintenance Facilities – Status: Exemption Granted 7/30/2007 – Completion Date: May 2011.

Anacortes Ferry Terminal – Status: Schematic Design – Goal: LEED Silver – Projected Completion Date: Currently funded for design only.

Mukilteo Ferry Terminal – Status: EIS – Goal LEED Silver – Projected Completion Date: 2019

Seattle Ferry Terminal – Status: EA – Goal LEED Silver – Projected Completion Date: 2020

Bainbridge Island Ferry Terminal – Status: Design – Goal: TBD – Projected Completion Date: Currently funded for design only.

Olympic Region Headquarters – Status: Not Funded – Goal LEED Silver

Training Efforts

Two of six project delivery staff are LEED accredited professionals. Sustainability education is included in staff training plans. Project managers are encouraged to seek accreditation. The costs for training and testing are covered by the Agency.

Lessons Learned

Planning for LEED goals should to occur in the pre-design phase. Stakeholder awareness of the importance of the process and goals is critical for success. Funding needs to be identified for LEED planning, documentation and certification. Allow appropriate time for evaluation of design options.

Recommended Improvements to the Legislation

None.

Metering Efforts and Challenges

For LEED buildings WSDOT uses the DES guidelines for metering. Challenges include the ability to gather data in a format that can be readily used for agency reporting and funding approval for staff to accurately monitor and report utility usage.

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Submit this report to Stuart Simpson, GA Sustainable Building Advisor, by e-mail.
stuart.simpson@des.wa.gov

Due date: August 3, 2012

This will satisfy some of the annual reporting requirements dictated by RCW 39.35D.

State LEED Project **LEED Level Achieved:** Gold **Date:** 24-Jul-12 Submit by email to: SustainableBA@ga.wa.gov

Energy and Water Consumption and Savings Reporting Form Complete all applicable yellow boxes. Submit as an Excel Spreadsheet

Required per RCW 39.35D.030 (3)(b) **Due: June 1, 2012**

To print use legal size paper

Building Name: Floyd & Delores Jones Playhouse
Institution Name: University of Washington, School of Drama
Location: Seattle, Washington
University/Agency: University of Washington
Approx. Occupancy Date: Dec-08
Building Use: Performing Arts Theater
Primary HVAC: Heating only: Natural gas fired boiler, two pipe hydronic system to VAV boxes. AC for
Building Square Footage: 12,692
No. of Lab Hoods: none
Other High Energy Using Equipment(describe): Theater lighting and sound systems used approximately 300 hours/year
Renewable Energy Systems (describe): none

Submitted By: Norm Menter, Energy Manager, UW Facilities Services
Phone: 206-221-4269
Email: nmenter@u.washington.edu

		%/Year
Average Hours/Wk:	84	70%
No. of People:	20	
Average Hours/Wk:	28	15%
No. of People:	150	

Value from Renewables ($/yr): $ -
Melded Electric Rate ($/kWh): $ 0.055
Melded Gas Rate ($/therm):
Other Fuel Rate ($/MMBtu): N/A
List Other Fuel: N/A
Metered Data: E/G/W
Prorated Data: None

Year:

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
ENERGY													
Electricity (kWh)	10640	11960	10560	9040	10160	9080	8560	8800	9840	14360	14120	8436	125556
Electricity ($)	$ 585	$ 658	$ 581	$ 497	$ 559	$ 499	$ 471	$ 484	$ 541	$ 790	$ 777	$ 464	$ 6,906
Gas (therms)	959.79	739.68	611.73	526	221.16	113.45	75.07	48.05	108.77	418.72	556.92	703.72	5083.06
Gas ($)	$ 1,075	$ 836	$ 700	$ 615	$ 279	$ 160	$ 118	$ 88	$ 155	$ 493	$ 621	$ 776	$ 5,916
Other: (KBtu)	N/A												0
Other: ($)	$ -												$ -
Chilled Water (KBtu)*	N/A												0
Hot Water (KBtu)**	N/A												0
Steam (KBtu)**	N/A												0
Domestic HW (KBtu)**	N/A												0
RENEWABLES													
Solar Thermal (KBtu)	N/A												0
Electrical (kWh)	N/A												0
WATER													
Interior water (gals)	39644												39644
Interior water/sewer ($)	$ 1,785												$ 1,785
Domestic HW (gals)	N/A												0
Water captured (in)(gals)	N/A												0
Reclaimed water (in)(gals)	N/A												0
Reclaimed water (in)($)	N/A												$ -
Irrigation (gals)	N/A												0
Irrigation ($)	N/A												$ -
Water captured (out)(gals)	N/A												0
Reclaimed water(out)(gals)	N/A												0
Reclaimed water (out)($)	N/A												$ -

Water Usage/Person: 1086.1 KBtu/SF/Year (EUI): 73.8 Energy $/SF/Year: $ 1.01 Total Cost/SF/Year: $ 1.15

See Below for Explanations regarding data for each of the cells

*Chiller and distribution systems combined efficiency calculated at 2 KW/Ton.

**Central plant and distribution systems combined annual average efficiency calculated at 65%.

State LEED Project — **LEED Level Achieved:** Gold — **Date:** 31-May-12 — Submit by email to: SustainableBA@ga.wa.gov

Energy and Water Consumption and Savings Reporting Form

Complete all applicable yellow boxes.

Required per RCW 39.35D.030 (3)(b)

Submit as an Excel Spreadsheet

Due: June 1, 2012

To print use legal size paper

Building Name: Vancouver Undergraduate Building
Institution Name: Washington State University Vancouver
Location: Vancouver
University/Agency: Washington State University
Approx. Occupancy Date: Aug-09
Building Use: Instruction and Departmental Offices
Primary HVAC: Gas-Fired Hot Water Boilers w/Radiant Panels & Central Cooling Plant
Building Square Footage: 58,811
No. of Lab Hoods: 0
Other High Energy Using Equipment(describe): Rm 100 Instructional PC Lab, x3 IDF Rooms, x1 MCF Room - Combined Area = 4,304 square feet
Renewable Energy Systems (describe): N/A

Submitted By: Kevin G. Crowley, EH&S Coordinator
Phone: (360) 546-9706
Email: kevin.g.crowley@vancouver.wsu.edu

		%/Year
Average Hours/Wk:	75	69
No. of People:	400	
Average Hours/Wk:	75	31
No. of People:	110	

Value from Renewables ($/yr): $ -
Melded Electric Rate ($/kWh): $ 0.059
Melded Gas Rate ($/therm): $ 0.81
Other Fuel Rate ($/MMBtu): $ -
List Other Fuel: N/A
Metered Data: E
Prorated Data: G/W

Year:	2011	2011	2011	2011	2011	2011	2011	2011	2011	2011	2011	2011	
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
ENERGY													
Electricity (kWh)	43,093.43	38,175.66	41,079.50	39,351.41	37,999.97	36,697.50	36,468.80	38,465.40	40,007.61	37,323.62	35,876.59	36,838.93	461378.42
Electricity ($)	$ 2,684	$ 2,378	$ 2,285	$ 2,202	$ 2,016	$ 1,922	$ 1,941	$ 2,163	$ 2,486	$ 2,407	$ 2,336	$ 2,354	$ 27,175
Gas (therms)	1,777.30	1,815.50	1,527.30	1,227	578.1	243.4	153.4	103.8	162	686.7	1,605.50	1,944.12	11824.12
Gas ($)	$ 1,377	$ 1,412	$ 1,218	$ 1,006	$ 505	$ 236	$ 151	$ 105	$ 158	$ 586	$ 1,234	$ 1,466	$ 9,452
Other: (KBtu)	0	0	0	0	0	0	0	0	0	0	0	0	0
Other: ($)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Chilled Water (KBtu)*	0	0	0	0	0	0	0	0	0	0	0	0	0
Hot Water (KBtu)**	0	0	0	0	0	0	0	0	0	0	0	0	0
Steam (KBtu)**	0	0	0	0	0	0	0	0	0	0	0	0	0
Domestic HW (KBtu)**	0	0	0	0	0	0	0	0	0	0	0	0	0
RENEWABLES													
Solar Thermal (KBtu)	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical (kWh)	0	0	0	0	0	0	0	0	0	0	0	0	0
WATER													
Interior water (gals)	4284.4	4498.26	3749.77	5396.15	4051.51	5656.88	8325.66	9184	13384.91	8117.66	4372.29	2982.11	74003.6
Interior water/sewer ($)	$ 641	$ 598	$ 605	$ 650	$ 610	$ 505	$ 549	$ 565	$ 1,060	$ 576	$ 514	$ 426	$ 7,298
Domestic HW (gals)	0	0	0	0	0	0	0	0	0	0	0	0	0
Water captured (in)(gals)	0	0	0	0	0	0	0	0	0	0	0	0	0
Reclaimed water (in)(gals)	0	0	0	0	0	0	0	0	0	0	0	0	0
Reclaimed water (in)($)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Irrigation (gals)	0	0	840	300	120	120	1700	2280	4500	700	220	0	10780
Irrigation ($)	$ 26	$ 26	$ 39	$ 30	$ 28	$ 28	$ 53	$ 62	$ 98	$ 37	$ 29	$ 26	$ 480
Water captured (out)(gals)	0	0	0	0	0	0	0	0	0	0	0	0	0
Reclaimed water(out)(gals)	0	0	0	0	0	0	0	0	0	0	0	0	0
Reclaimed water (out)($)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -

Water Usage/Person: 2.4 — KBtu/SF/Year (EUI): 46.9 — Energy $/SF/Year: $ 0.62 — Total Cost/SF/Year: $ 0.75

See Below for Explanations regarding data for each of the cells

*Chiller and distribution systems combined efficiency calculated at 2 KW/Ton.

**Central plant and distribution systems combined annual average efficiency calculated at 65%.

State LEED Project **LEED Level Achieved:** Gold **Date:** 23-Jul-12 Submit by email to: SustainableBA@ga.wa.gov

Energy and Water Consumption and Savings Reporting Form

Complete all applicable yellow boxes.

Submit as an Excel Spreadsheet

Required per RCW 39.35D.030 (3)(b)

Due: June 1, 2012

To print use legal size paper

Building Name: Dean Hall
Institution Name: Central Washington University
Location: Ellensburg, Washington
University/Agency: CWU
Approx. Occupancy Date: Sept, 2008
Building Use: Classrooms, Science Labs, Offices, Museum
Primary HVAC: Dual Duct System
Building Square Footage: 79,095
No. of Lab Hoods: 6
Other High Energy Using Equipment(describe): Two computer labs
Renewable Energy Systems (describe): None

Submitted By: Mickey Parker
Phone: 509-963-1275
Email: parkerm@cwu.edu

		%/Year
Average Hours/Wk:	72.5	75
No. of People:	397	
Average Hours/Wk:	45	25
No. of People:	99	

Value from Renewables ($/yr):
Melded Electric Rate ($/kWh): $ 0.041
Melded Gas Rate ($/therm): $ 0.73
Other Fuel Rate ($/MMBtu):
List Other Fuel:
Metered Data: E/G/W
Prorated Data:

Year:	2011	2011	2011	2011	2011	2011	2011	2011	2011	2011	2011	2011	
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
ENERGY													
Electricity (kWh)	70,636.93	62,057.25	69,752.75	67,959.75	72,736.38	72,578.88	74,437.00	76,775.50	74,670.62	74,910.50	68,281.30	62,846.25	847,643.11
Electricity ($)	$ 2,896	$ 2,544	$ 2,860	$ 2,786	$ 2,982	$ 2,976	$ 3,052	$ 3,148	$ 3,061	$ 3,071	$ 2,800	$ 2,577	$ 34,753
Gas (therms)	2,952.16	2,585.62	2,189.45	1,632.15	1,070.34	167.63	898.55	816.94	880.35	1,178.80	2,389.05	2,870.12	19,631.16
Gas ($)	$ 2,155	$ 1,888	$ 1,598	$ 1,191	$ 781	$ 122	$ 656	$ 596	$ 643	$ 861	$ 1,744	$ 2,095	$ 14,331
Other: Nat Gas - ccf - Labs	115.99	104.06	110.57	110.57	130.08	106.23	101.90	133.33	88.00	116.00	114.00	106.00	1,336.73
Other: ($)	$ 219	$ 195	$ 209	$ 179	$ 202	$ 179	$ 172	$ 230	$ 141	$ 179	$ 179	$ 176	$ 2,261
Chilled Water (KBtu)*													0
Hot Water (KBtu)**													0
Steam (KBtu)**													0
Domestic HW (KBtu)**													0
RENEWABLES													
Solar Thermal (KBtu)													0
Electrical (kWh)													0
WATER													
Interior water (gals)	30,000	40,000	20,000	40,000	40,000	30,000	20,000	40,000	20,000	40,000	40,000	20,000	380,000
Interior water/sewer ($)	$ 499	$ 456	$ 457	$ 485	$ 513	$ 471	$ 443	$ 614	$ 371	$ 499	$ 485	$ 457	$ 5,751
Domestic HW (gals)													0
Water captured (in)(gals)													0
Reclaimed water (in)(gals)													0
Reclaimed water (in)($)													$ -
Irrigation (gals)													0
Irrigation ($)													$ -
Water captured (out)(gals)													0
Reclaimed water(out)(gals)													0
Reclaimed water (out)($)													$ -

Water Usage/Person: 11.8 KBtu/SF/Year (EUI): 61.4 Energy $/SF/Year: $ 0.65 Total Cost/SF/Year: $ 0.72

See Below for Explanations regarding data for each of the cells

*Chiller and distribution systems combined efficiency calculated at 2 KW/Ton.
**Central plant and distribution systems combined annual average efficiency calculated at 65%.

State LEED Project | **LEED Level Achieved:** GOLD | **Date:** 27-Jul-12 | Submit by email to: SustainableBA@ga.wa.gov

Energy and Water Consumption and Savings Reporting Form

Complete all applicable yellow boxes.

Submit as an Excel Spreadsheet

Required per RCW 39.35D.030 (3)(b)

Due: June 1, 2012

To print use legal size paper

Building Name:	Hargreaves	**Submitted By:**	Shawn King
Institution Name:	Eastern Washington University	**Phone:**	509-359-6878
Location:	616 7th Street, Cheney, WA 99004	**Email:**	sking@ewu.edu
University/Agency:	Eastern Washington University	**Value from Renewables ($/yr):**	
Approx. Occupancy Date:	Mar-10		
Building Use:	Classroom/Office	**Average Hours/Wk:**	50 (%/Year: 100%)
Primary HVAC:	Primary AHU, VAV hot water perimeter heat, Chilled water cooling	**No. of People:**	1500
Building Square Footage:	57502	**Average Hours/Wk:**	
No. of Lab Hoods:		**No. of People:**	
Other High Energy Using Equipment(describe):			
Renewable Energy Systems (describe):			

Melded Electric Rate ($/kWh):	$ 0.053
Melded Gas Rate ($/therm):	$ 0.92
Other Fuel Rate ($/MMBtu):	
List Other Fuel:	
Metered Data:	E,S,W and I
Prorated Data:	

Year:

	11-Jan	11-Feb	11-Mar	11-Apr	11-May	11-Jun	11-Jul	11-Aug	11-Sep	11-Oct	11-Nov	11-Dec	Total
ENERGY													
Electricity (kWh)	43,264	52,838	39,438	46,178	37,782	33,371	32,897	39,799	34,734	31,139	47,822	35,511	474773
Electricity ($)	$ 2,293	$ 2,800	$ 2,090	$ 2,447	$ 2,002	$ 1,769	$ 1,744	$ 2,109	$ 1,841	$ 1,650	$ 2,535	$ 1,882	$ 25,163
Gas (therms)													0
Gas ($)													$ -
Other: (KBtu)													0
Other: ($)													$ -
Chilled Water (KBtu)*													0
Hot Water (KBtu)**													0
Steam (KBtu)**	246,846	279,452	179,665	136,445	114,032	63,494	54,144	57,676	56,615	98,709	245,274	262,323	1794676.341
Domestic HW (KBtu)**													0
RENEWABLES													
Solar Thermal (KBtu)													0
Electrical (kWh)													0
WATER													
Interior water (gals)	6153	5860	5600	5317	5002	4773	4462	4179	3896	3543	3262	3027	55074
Interior water/sewer ($)	$ 62	$ 59	$ 56	$ 53	$ 50	$ 48	$ 45	$ 42	$ 39	$ 35	$ 33	$ 30	$ 551
Domestic HW (gals)													0
Water captured (in)(gals)													0
Reclaimed water (in)(gals)													0
Reclaimed water (in)($)													$ -
Irrigation (gals)	0	0	0	0	554	871	557	120	0	0	0	0	2102
Irrigation ($)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Water captured (out)(gals)													0
Reclaimed water(out)(gals)													0
Reclaimed water (out)($)													$ -

Water Usage/Person:	36.7	KBtu/SF/Year (EUI):	59.4	Energy $/SF/Year:	$ 44.56	Total Cost/SF/Year:	$ 44.57

See Below for Explanations regarding data for each of the cells

*Chiller and distribution systems combined efficiency calculated at 2 KW/Ton.

**Central plant and distribution systems combined annual average efficiency calculated at 65%.

State LEED Project **LEED Level Achieved:** GOLD **Date:** 27-Jul-12 Submit by email to: SustainableBA@ga.wa.gov

Energy and Water Consumption and Savings Reporting Form

Complete all applicable yellow boxes.

Submit as an Excel Spreadsheet

Required per RCW 39.35D.030 (3)(b)

Due: June 1, 2012

To print use legal size paper

Building Name:	University Recreation Center
Institution Name:	Eastern Washington University
Location:	1017 Elm Street, Cheney, WA 99004
University/Agency:	Eastern Washington University
Approx. Occupancy Date:	Sep-08
Building Use:	Student Recreation
Primary HVAC:	AHU units with VAV
Building Square Footage:	117000
No. of Lab Hoods:	
Other High Energy Using Equipment(describe):	
Renewable Energy Systems (describe):	

Submitted By:	Shawn King
Phone:	509-359-6878
Email:	sking@ewu.edu

		%/Year
Average Hours/Wk:	95	100%
No. of People:	800	
Average Hours/Wk:		
No. of People:		

Value from Renewables ($/yr):	
Melded Electric Rate ($/kWh):	$ 0.053
Melded Gas Rate ($/therm):	$ 0.92
Other Fuel Rate ($/MMBtu):	
List Other Fuel:	
Metered Data:	E,S, W and I
Prorated Data:	

Year:	Jan-12	Feb-11	11-Mar	11-Apr	11-May	11-Jun	11-Jul	11-Aug	11-Sep	11-Oct	11-Nov	11-Dec	Total
ENERGY													
Electricity (kWh)	194,577	180,872	191,610	124,437	151,986	145,030	170,999	235,599	87,272	200,880	232.628	193,722	1877216.628
Electricity ($)													$ -
Gas (therms)	972	876	630	936	966	287	29	333	748	1047	912	438	8174
Gas ($)	$ 896	$ 810	$ 588	$ 864	$ 891	$ 280	$ 173	$ 313	$ 676	$ 935	$ 832	$ 412	$ 7,669
Other: (KBtu)													0
Other: ($)													$ -
Chilled Water (KBtu)*													0
Hot Water (KBtu)**													0
Steam (KBtu)**	815,426.1	1,029,788.0	348,894.2	251,781.1	166,117.3	177,015.7	271,649.3	367,004.1	795,177.0	1,644,189.5	1,702,538.4	3,290,874.7	10,860,455.3
Domestic HW (KBtu)**													0
RENEWABLES													
Solar Thermal (KBtu)													0
Electrical (kWh)													0
WATER													
Interior water (gals)	143103	127673	196515	196369	248750	358942	244793	169656	44347	155452	167762	190608	2243970
Interior water/sewer ($)	$ 1,431	$ 1,277	$ 1,965	$ 1,964	$ 2,488	$ 3,589	$ 2,448	$ 1,697	$ 443	$ 1,555	$ 1,678	$ 1,906	$ 22,440
Domestic HW (gals)													0
Water captured (in)(gals)													0
Reclaimed water (in)(gals)													0
Reclaimed water (in)($)													$ -
Irrigation (gals)	925	158	162	325	87272	160788	122951	61809	18	7	9	22	434446
Irrigation ($)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Water captured (out)(gals)													0
Reclaimed water(out)(gals)													0
Reclaimed water (out)($)													$ -

Water Usage/Person: 2805.0 KBtu/SF/Year (EUI): 154.6 Energy $/SF/Year: $ 131.30 Total Cost/SF/Year: $ 131.50

See Below for Explanations regarding data for each of the cells

*Chiller and distribution systems combined efficiency calculated at 2 KW/Ton.

**Central plant and distribution systems combined annual average efficiency calculated at 65%.

State LEED Project | **LEED Level Achieved:** Gold | **Date:** 29-May-12 | Submit by email to: SustainableBA@ga.wa.gov

Energy and Water Consumption and Savings Reporting Form

Complete all applicable yellow boxes.

Submit as an Excel Spreadsheet

Required per RCW 39.35D.030 (3)(b)

Due: June 1, 2012

To print use legal size paper

Building Name: Science and Technology, Building S

Institution Name: Bellevue College

Location: 3000 Landerholm Circle SE, Bellevue, WA 98007

University/Agency: WACTC

Approx. Occupancy Date: Jun-09

Building Use: Classrooms, Offices, and Science Labs

Primary HVAC: 2 ea. Rooftop Supply/Exhaust Units

Building Square Footage: 64238

No. of Lab Hoods: 34

Other High Energy Using Equipment(describe):

Renewable Energy Systems (describe): Heat exchanger: Heat recovered from Exhaust Air Units pre-heats incoming air in the Supply Units during Winter

Submitted By: Deric Gruen

Phone: 425.564.2720

Email: deric.gruen@bellevuecollege.edu

		%/Year
Average Hours/Wk:	96	75%
No. of People:	500	
Average Hours/Wk:	65	25%
No. of People:	250	

Value from Renewables ($/yr):

Melded Electric Rate ($/kWh): $ 0.087

Melded Gas Rate ($/therm): $ 1.04

Other Fuel Rate ($/MMBtu): NA

List Other Fuel:

Metered Data: E/G

Prorated Data: W

Year:

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
ENERGY	2012	2012	2012	2011	2011	2011	2011	2011	2011	2011	2011	2011	
Electricity (kWh)	93637	93148	93148	90775	91590	99552	121545	133801	120678	91662	91279	81701	1202516
Electricity ($)	$ 8,146	$ 8,104	$ 8,104	$ 7,897	$ 7,968	$ 8,661	$ 10,574	$ 11,641	$ 10,499	$ 7,975	$ 7,941	$ 7,108	$ 104,619
Gas (therms)	11223	9776	10767	8320	6482	5557	4714	5000	4796	6616	9989	11917	95157
Gas ($)	$ 11,730	$ 10,223	$ 11,250	$ 9,074	$ 7,128	$ 6,118	$ 5,195	$ 5,510	$ 5,285	$ 7,207	$ 10,528	$ 12,455	$ 101,703
Other: (KBtu)													0
Other: ($)													$ -
Chilled Water (KBtu)*													0
Hot Water (KBtu)**													0
Steam (KBtu)**													0
Domestic HW (KBtu)**													0
RENEWABLES													
Solar Thermal (KBtu)													0
Electrical (kWh)													0
WATER													
Interior water (gals)	39471	45413	36818	60320	60692	69180	76077	79366	73318	72575	47163	36818	697211
Interior water/sewer ($)	$ 715	$ 843	$ 709	$ 1,037	$ 907	$ 874	$ 833	$ 783	$ 970	$ 1,195	$ 812	$ 661	$ 10,340
Domestic HW (gals)													0
Water captured (in)(gals)													0
Reclaimed water (in)(gals)													0
Reclaimed water (in)($)													$ -
Irrigation (gals)													0
Irrigation ($)													$ -
Water captured (out)(gals)													0
Reclaimed water(out)(gals)													0
Reclaimed water (out)($)													$ -

Water Use/Person/Yr: 1593.62 | KBtu/SF/Year (EUI): 212.00 | Energy $/SF/Year: $ 3.21 | Total Cost/SF/Year: $ 3.37

See Below for Explanations regarding data for each of the cells

*Chiller and distribution systems combined efficiency calculated at 2 KW/Ton.

**Central plant and distribution systems combined annual average efficiency calculated at 65%.

State LEED Project **LEED Level Achieved:** Gold **Date:** 21-May-12 Submit by email to: SustainableBA@ga.wa.gov

Energy and Water Consumption and Savings Reporting Form

Complete all applicable yellow boxes.

Submit as an Excel Spreadsheet

Required per RCW 39.35D.030 (3)(b)

Due: June 1, 2012

To print use legal size paper

Building Name: New Science Center

Institution Name: Centralia College

Location: 600 Centralia College Blvd, Centralia, WA 98531

University/Agency: Centralia College

Approx. Occupancy Date: 1-Apr-09

Building Use: Classroom, Offices, and Labs

Primary HVAC: Gas Fired Hot Water w/Chiller

Building Square Footage: 70,000

No. of Lab Hoods: 37

Other High Energy Using Equipment(describe): Labs, Computer Lab

Renewable Energy Systems (describe): NA

Submitted By: Gil Elder

Phone: 360-736-9391 x. 434

Email: gelder@centralia.edu

		%/Year
Average Hours/Wk:	90	75
No. of People:	930	
Average Hours/Wk:	60	25
No. of People:	400	

Value from Renewables ($/yr): $ -

Melded Electric Rate ($/kWh): $ 0.066

Melded Gas Rate ($/therm): $ 1.05

Other Fuel Rate ($/MMBtu):

List Other Fuel: -

Metered Data: G/W

Prorated Data: E

Year:	2010	2010	2010	2010	2010	2010	2010	2010	2010	2010	2010	2010	
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
ENERGY													
Electricity (kWh)	78624	82080	72576	77760	78624	73440	76896	73440	67392	75168	70848	76032	902880
Electricity ($)	$ 4,873	$ 4,996	$ 4,509	$ 4,783	$ 4,943	$ 4,947	$ 5,514	$ 5,177	$ 4,734	$ 5,306	$ 4,727	$ 4,819	$ 59,328
Gas (therms)	10365.5	6852.1	9962.3	5847.1	4108.5	3038.4	1481.1	788.6	2333.1	3254.9	5319.5	9550.9	62902
Gas ($)	$ 10,580	$ 7,006	$ 10,242	$ 5,984	$ 4,277	$ 3,334	$ 1,601	$ 867	$ 2,502	$ 3,479	$ 5,742	$ 10,369	$ 65,983
Other: (KBtu)	0	0	0	0	0	0	0	0	0	0	0	0	0
Other: ($)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Chilled Water (KBtu)*	0	0	0	0	0	0	0	0	0	0	0	0	0
Hot Water (KBtu)**	0	0	0	0	0	0	0	0	0	0	0	0	0
Steam (KBtu)**	0	0	0	0	0	0	0	0	0	0	0	0	0
Domestic HW (KBtu)**	0	0	0	0	0	0	0	0	0	0	0	0	0
RENEWABLES													
Solar Thermal (KBtu)	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical (kWh)	0	0	0	0	0	0	0	0	0	0	0	0	0
WATER													
Interior water (gals)	14212	14960	31416	17952	32912	27676	14212	20944	11968	20944	30668	26928	264792
Interior water/sewer ($)	$ 340	$ 354	$ 659	$ 410	$ 687	$ 590	$ 340	$ 465	$ 299	$ 465	$ 645	$ 576	$ 5,830
Domestic HW (gals)	0	0	0	0	0	0	0	0	0	0	0	0	0
Water captured (in)(gals)	0	0	0	0	0	0	0	0	0	0	0	0	0
Reclaimed water (in)(gals)	0	0	0	0	0	0	0	0	0	0	0	0	0
Reclaimed water (in)($)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Irrigation (gals)	0	0	0	0	0	0	748	144364	179520	27676	0	0	352308
Irrigation ($)	$ 52	$ 52	$ 52	$ 52	$ 52	$ 52	$ 56	$ 787	$ 966	$ 193	$ 52	$ 52	$ 2,419
Water captured (out)(gals)	0	0	0	0	0	0	0	0	0	0	0	0	0
Reclaimed water(out)(gals)	0	0	0	0	0	0	0	0	0	0	0	0	0
Reclaimed water (out)($)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -

Water Usage/Person: 3.3 KBtu/SF/Year (EUI): 133.9 Energy $/SF/Year: $ 1.79 Total Cost/SF/Year: $ 1.87

See Below for Explanations regarding data for each of the cells

*Chiller and distribution systems combined efficiency calculated at 2 KW/Ton.

**Central plant and distribution systems combined annual average efficiency calculated at 65%.

State LEED Project **LEED Level Achieved:** Gold **Date:** 18-May-12 Submit by email to: SustainableBA@ga.wa.gov

Energy and Water Consumption and Savings Reporting Form Complete all applicable yellow boxes. Submit as an Excel Spreadsheet

Required per RCW 39.35D.030 (3)(b) **Due: June 1, 2012**

To print use legal size paper

Building Name: New Science Center
Institution Name: Centralia College
Location: Centralia, WA
University/Agency: CC
Approx. Occupancy Date: 1-Apr-09
Building Use: Classroom, Offices, and Labs
Primary HVAC: Gas Fired Hot Water with Chiller
Building Square Footage: 70000
No. of Lab Hoods: 37
Other High Energy Using Equipment(describe): Labs, Computer Lab
Renewable Energy Systems (describe): N/A

Submitted By: Gil Elder
Phone: 360-736-9391 x. 434
Email: gelder@centralia.edu

		%/Year
Average Hours/Wk:	90	75
No. of People:	930	
Average Hours/Wk:	60	25
No. of People:	400	

Value from Renewables ($/yr): $ -
Melded Electric Rate ($/kWh): $ 0.070
Melded Gas Rate ($/therm): $ 1.29
Other Fuel Rate ($/MMBtu): $ -
List Other Fuel: 0
Metered Data: G/W
Prorated Data: E

Year:	2011	2011	2011	2011	2011	2011	2011	2011	2011	2011	2011	2011	
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
ENERGY													
Electricity (kWh)	76032	78624	76032	73440	76032	69984	54432	55296	54432	59616	63072	65664	802656
Electricity ($)	$ 4,835	$ 5,058	$ 4,886	$ 4,728	$ 5,065	$ 5,164	$ 4,275	$ 4,151	$ 4,162	$ 4,543	$ 4,496	$ 4,628	$ 55,992
Gas (therms)	900.6	7321.1	8711.6	5565.7	4159.1	2377.4	588.8	341.5	468	1928.2	4543.1	6856.6	43761.7
Gas ($)	$ 9,789	$ 7,963	$ 9,469	$ 6,123	$ 4,620	$ 2,660	$ 685	$ 412	$ 551	$ 2,164	$ 4,907	$ 7,244	$ 56,586
Other: (KBtu)	0	0	0	0	0	0	0	0	0	0	0	0	0
Other: ($)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Chilled Water (KBtu)*	0	0	0	0	0	0	0	0	0	0	0	0	0
Hot Water (KBtu)**	0	0	0	0	0	0	0	0	0	0	0	0	0
Steam (KBtu)**	0	0	0	0	0	0	0	0	0	0	0	0	0
Domestic HW (KBtu)**	0	0	0	0	0	0	0	0	0	0	0	0	0
RENEWABLES													
Solar Thermal (KBtu)	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical (kWh)	0	0	0	0	0	0	0	0	0	0	0	0	0
WATER													
Interior water (gals)	8976	28424	24684	20944	39644	26928	15708	22440	11220	31416	29172	25432	284988
Interior water/sewer ($)	$ 263	$ 646	$ 572	$ 498	$ 866	$ 616	$ 396	$ 538	$ 307	$ 704	$ 660	$ 587	$ 6,654
Domestic HW (gals)	0	0	0	0	0	0	0	0	0	0	0	0	0
Water captured (in)(gals)	0	0	0	0	0	0	0	0	0	0	0	0	0
Reclaimed water (in)(gals)	0	0	0	0	0	0	0	0	0	0	0	0	0
Reclaimed water (in)($)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Irrigation (gals)	0	0	0	0	1496	0	27676	0	74800	121924	0	0	225896
Irrigation ($)	$ 59	$ 59	$ 59	$ 59	$ 68	$ 59	$ 221	$ 59	$ 496	$ 772	$ 59	$ 59	$ 2,030
Water captured (out)(gals)	0	0	0	0	0	0	0	0	0	0	0	0	0
Reclaimed water(out)(gals)	0	0	0	0	0	0	0	0	0	0	0	0	0
Reclaimed water (out)($)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -

Water Usage/Person: 3.6 KBtu/SF/Year (EUI): 101.6 Energy $/SF/Year: $ 1.61 Total Cost/SF/Year: $ 1.70

See Below for Explanations regarding data for each of the cells

*Chiller and distribution systems combined efficiency calculated at 2 KW/Ton.

**Central plant and distribution systems combined annual average efficiency calculated at 65%.

State LEED Project **LEED Level Achieved:** Silver **Date:** 30-May-12 Submit by email to: SustainableBA@ga.wa.gov

Energy and Water Consumption and Savings Reporting Form

Complete all applicable yellow boxes.

Submit as an Excel Spreadsheet

Required per RCW 39.35D.030 (3)(b)

Due: June 1, 2012

To print use legal size paper

Building Name: B Business Building
Institution Name: Columbia Basin College
Location: 2600 N. 20th Avenue, Pasco, WA
University/Agency: Columbia Basin College
Approx. Occupancy Date: Fall 2009
Building Use: Classroom instruction, computer labs, office areas
Primary HVAC: 4 pipe fan coil sytem with dedicated outdoor air system, water cooled chiller, gas boiler
Building Square Footage: 22,500
No. of Lab Hoods: 0
Other High Energy Using Equipment(describe): Computer lab, 1 server room
Renewable Energy Systems (describe): Viesmann, Model #DN 20 62 SF solar hot water panels

Submitted By: BILL SARACENO
Phone: 509 542 5546
Email: bsaraceno@columbiabasin.edu

		%/Year
Average Hours/Wk:	30	75%
No. of People:	350	
Average Hours/Wk:	20	25%
No. of People:	100	

Value from Renewables ($/yr): $ -
Melded Electric Rate ($/kWh): $ 0.060
Melded Gas Rate ($/therm): $ 1.75
Other Fuel Rate ($/MMBtu):
List Other Fuel:
Metered Data: E G W
Prorated Data:

Year:	2011	2011	2011	2011	2011	2011	2011	2011	2011	2011	2011	2011	
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
ENERGY													
Electricity (kWh)	15,820	14,118	14,331	13,573	14,283	12,586	12,131	12,188	12,884	14,798	16,368	14,029	167,109
Electricity ($)	$ 949	$ 847	$ 860	$ 814	$ 857	$ 755	$ 728	$ 731	$ 773	$ 888	$ 982	$ 842	$ 10,027
Gas (therms)	723.73	622.07	339.52	210.37	25.74	10.29	7.74	8.47	9.65	61.89	509.02	1007.43	3535.92
Gas ($)	$ 1,267	$ 1,089	$ 594	$ 368	$ 45	$ 18	$ 14	$ 15	$ 17	$ 108	$ 891	$ 1,763	$ 6,188
Other: (KBtu)													0
Other: ($)													$ -
Chilled Water (KBtu)*													0
Hot Water (KBtu)**													0
Steam (KBtu)**													0
Domestic HW (KBtu)**													0
RENEWABLES													
Solar Thermal (KBtu)													0
Electrical (kWh)													0
WATER													
Interior water (gals)	3,206	2,418	2,041	2,759	2,757	1,296	863	433	1,692	2,951	2,400	309	23125
Interior water/sewer ($)	$ 26	$ 19	$ 16	$ 22	$ 22	$ 10	$ 7	$ 3	$ 14	$ 24	$ 19	$ 2	$ 185
Domestic HW (gals)													0
Water captured (in)(gals)													0
Reclaimed water (in)(gals)													0
Reclaimed water (in)($)													$ -
Irrigation (gals)													0
Irrigation ($)													$ -
Water captured (out)(gals)													0
Reclaimed water(out)(gals)													0
Reclaimed water (out)($)													$ -

Water Usage/Person: 80.43 KBtu/SF/Year (EUI): 41.06 Energy $/SF/Year: $ 0.72 Total Cost/SF/Year: $ 0.73

See Below for Explanations regarding data for each of the cells

*Chiller and distribution systems combined efficiency calculated at 2 KW/Ton.
**Central plant and distribution systems combined annual average efficiency calculated at 65%.

State LEED Project **LEED Level Achieved:** Gold anticipated **Date:** 30-May-12 Submit by email to: SustainableBA@ga.wa.gov

Energy and Water Consumption and Savings Reporting Form

Complete all applicable yellow boxes.

Submit as an Excel Spreadsheet

Required per RCW 39.35D.030 (3)(b)

Due: June 1, 2012

To print use legal size paper

Building Name: CENTER FOR CAREER AND TECHNICAL EDUCATION
Submitted By: BILL SARACENO
Institution Name: COLUMBIA BASIN COLLEGE
Phone: 509 542 5546
Location: 2600 N. 20TH AVENUE
Email: bsaraceno@columbiabasin.edu
University/Agency: COLUMBIA BASIN COLLEGE
Value from Renewables ($/yr): $ -
Approx. Occupancy Date: Dec-10
Building Use: Career Education / welding / automotive / nuclear tech programs and instruction
Primary HVAC: 4 pipe fan coil system with dedicated outdoor air system, air cooled chiller, gas boiler
Building Square Footage: 72,241

		%/Year
Average Hours/Wk:	50	75%
No. of People:	225	
Average Hours/Wk:	40	25%
No. of People:	100	

Melded Electric Rate ($/kWh): $ 0.062
Melded Gas Rate ($/therm): $ 1.13
Other Fuel Rate ($/MMBtu): $ -
List Other Fuel:
No. of Lab Hoods: 32
Other High Energy Using Equipment(describe): Welding and automotive equipment, 3 server rooms
Metered Data: E G W
Renewable Energy Systems (describe): Viesmann, Model #DN 20 31 SF solar hot water panel
Prorated Data:

Year:	2011	2011	2011	2011	2011	2011	2011	2011	2011	2011	2011	2011	
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
ENERGY													
Electricity (kWh)	138,400	99,600	100,400	97,200	88,000	110,800	104,800	123,600	116,400	105,200	99,200	119,600	1303200
Electricity ($)	$ 8,554	$ 6,151	$ 6,369	$ 5,535	$ 5,207	$ 6,252	$ 6,499	$ 6,996	$ 7,911	$ 7,171	$ 6,757	$ 7,582	$ 80,984
Gas (therms)	20,098	17,130	10,129	6,290	2,256	272	103	79	289	2,381	13,335	19,377	91739
Gas ($)	$ 35,254	$ 17,144	$ 10,142	$ 6,302	$ 2,267	$ 283	$ 114	$ 90	$ 300	$ 2,392	$ 12,746	$ 16,948	$ 103,982
Other: (KBtu)													0
Other: ($)													$ -
Chilled Water (KBtu)*													0
Hot Water (KBtu)**													0
Steam (KBtu)**													0
Domestic HW (KBtu)**													0
RENEWABLES													
Solar Thermal (KBtu)													0
Electrical (kWh)													0
WATER													
Interior water (gals)	10,818	6,904	10,332	15,569	52,499	91,602	197,601	199,109	225,218	335,234	193,268	62,581	1400735
Interior water/sewer ($)	$ 87	$ 55	$ 83	$ 125	$ 421	$ 735	$ 1,585	$ 1,597	$ 1,807	$ 2,689	$ 1,550	$ 502	$ 11,236
Domestic HW (gals)													0
Water captured (in)(gals)													0
Reclaimed water (in)(gals)													0
Reclaimed water (in)($)													$ -
Irrigation (gals)													0
Irrigation ($)													$ -
Water captured (out)(gals)													0
Reclaimed water(out)(gals)													0
Reclaimed water (out)($)													$ -

Water Use/Person/Yr: 7229.60 KBtu/SF/Year (EUI): 188.54 Energy $/SF/Year: $ 2.56 Total Cost/SF/Year: $ 2.72

See Below for Explanations regarding data for each of the cells

*Chiller and distribution systems combined efficiency calculated at 2 KW/Ton.

**Central plant and distribution systems combined annual average efficiency calculated at 65%.

State LEED Project | **LEED Level Achieved:** silver | **Date:** Arpril 2012 | Submit by email to: SustainableBA@ga.wa.gov

Energy and Water Consumption and Savings Reporting Form

Complete all applicable yellow boxes.

Submit as an Excel Spreadsheet

Required per RCW 39.35D.030 (3)(b)

Due: June 1, 2012

To print use legal size paper

Building Name: Meadowdale Hall

Institution Name: Edmonds Community College

Location: 20000 68th ave W. Lynnwood WA 98036

University/Agency: Edmonds Community College

Approx. Occupancy Date: Apr-11

Building Use: Art

Primary HVAC: Variable Frequesncy forced air (2 air handling units)

Building Square Footage: 36,100

No. of Lab Hoods: 3

Other High Energy Using Equipment(describe):

Renewable Energy Systems (describe):

Submitted By: Kao Saeteurn

Phone: (425) 471-0389

Email: kao.saeteurn@edcc.edu

		%/Year
Average Hours/Wk:	75	75
No. of People:	800	
Average Hours/Wk:	30	25
No. of People:	200	

Value from Renewables ($/yr):

Melded Electric Rate ($/kWh): $ 0.068

Melded Gas Rate ($/therm): $ 0.59

Other Fuel Rate ($/MMBtu):

List Other Fuel:

Metered Data: E/HW/CW

Prorated Data:

Year:	2011	2011	2011	2011	2011	2011	2011	2011	2011	2011	2011		
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
ENERGY													
Electricity (kWh)	138,207	133,618	141,101	135,429	170,383	137,644	108,376	109,087	90,431	143,044	142,519	129,228	1,579,067
Electricity ($)	$ 2,962	$ 2,752	$ 2,916	$ 2,839	$ 3,586	$ 2,856	$ 2,268	$ 2,261	$ 1,878	$ 3,072	$ 2,959	$ 2,666	$ 33,015
Gas (therms)													0
Gas ($)													$ -
Other: (KBtu)													0
Other: ($)													$ -
Chilled Water (KBtu)*													0
Hot Water (KBtu)**													0
Steam (KBtu)**													0
Domestic HW (KBtu)**													0
RENEWABLES													
Solar Thermal (KBtu)													0
Electrical (kWh)													0
WATER													
Interior water (gals)	16456	17204	22440	31416	28424	32164	29920	46376	37400	41888	28424	22440	354552
Interior water/sewer ($)	$ 46	$ 49	$ 63	$ 89	$ 80	$ 91	$ 84	$ 131	$ 105	$ 118	$ 80	$ 63	$ 1,000
Domestic HW (gals)													0
Water captured (in)(gals)													0
Reclaimed water (in)(gals)													0
Reclaimed water (in)($)													$ -
Irrigation (gals)													0
Irrigation ($)													$ -
Water captured (out)(gals)													0
Reclaimed water(out)(gals)													0
Reclaimed water (out)($)													$ -

Water Usage/Person: 5.45 | KBtu/SF/Year (EUI): 149.2 | Energy $/SF/Year: $ 0.91 | Total Cost/SF/Year: $ 0.94

See Below for Explanations regarding data for each of the cells

*Chiller and distribution systems combined efficiency calculated at 2 KW/Ton.

**Central plant and distribution systems combined annual average efficiency calculated at 65%.

State LEED Project **LEED Level Achieved:** SILVER **Date:** 24-Jul-12 Submit by email to: SustainableBA@ga.wa.gov

Energy and Water Consumption and Savings Reporting Form

Complete all applicable yellow boxes.

Submit as an Excel Spreadsheet

Required per RCW 39.35D.030 (3)(b)

Due: June 1, 2012

To print use legal size paper

Building Name:	GRAYWOLF HALL	**Submitted By:**	MOLLY BEEMAN
Institution Name:	EVERETT COMMUNITY COLLEGE	**Phone:**	425-388-9070
Location:	EVERETT, WASHINGTON (SNOHO COUNTY)	**Email:**	mbeeman@everettcc.edu
University/Agency:	EVERETT COMMUNITY COLLEGE		
Approx. Occupancy Date:	2009		
Building Use:	classrooms/computer labs/office space		
Primary HVAC:	Hydronic Loop w/ DX on Roof		
Building Square Footage:	77000		
No. of Lab Hoods:	0		
Other High Energy Using Equipment(describe):	Computer lab/classrooms 35 comp ea x 5		
Renewable Energy Systems (describe):	n/a		

		%/Year
Average Hours/Wk:	85.25	100
No. of People:	250	
Average Hours/Wk:		
No. of People:		

Value from Renewables ($/yr):	
Melded Electric Rate ($/kWh):	
Melded Gas Rate ($/therm):	
Other Fuel Rate ($/MMBtu):	
List Other Fuel:	
Metered Data:	
Prorated Data:	E/G/W

Year:	2011	2011	2011	2011	2011	2011	2010	2010	2010	2010	2010	2010	
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
ENERGY													
Electricity (kWh)	58418.7	53528.43	57478.77	55913.72	58270.01	53767.17	50830.26	49517.69	49441.16	54438.5	51965.56	55831.3	649401.27
Electricity ($)	$ 4,545	$ 4,145	$ 4,396	$ 3,971	$ 4,003	$ 3,736	$ 3,568	$ 5,261	$ 5,446	$ 4,209	$ 4,062	$ 4,377	$ 51,720
Gas (therms)	1144	10675	2711	2596	1304	834	568	696	970	1631	1657	0	24786
Gas ($)	$ 1,071	$ 9,719	$ 2,959	$ 2,945	$ 1,509	$ 970	$ 626	$ 757	$ 1,045	$ 1,740	$ 1,794	$ 34	$ 25,169
Other: (KBtu)													0
Other: ($)													$ -
Chilled Water (KBtu)*													0
Hot Water (KBtu)**													0
Steam (KBtu)**													0
Domestic HW (KBtu)**													0
RENEWABLES													
Solar Thermal (KBtu)													0
Electrical (kWh)													0
WATER													
Interior water (gals)	127	130	144	153	146	65	115	189	188	109	102	125	1593
Interior water/sewer ($)	$ 212	$ 227	$ 253	$ 275	$ 274	$ 193	$ 200	$ 314	$ 312	$ 185	$ 175	$ 206	$ 2,826
Domestic HW (gals)													0
Water captured (in)(gals)													0
Reclaimed water (in)(gals)													0
Reclaimed water (in)($)													$ -
Irrigation (gals)													0
Irrigation ($)													$ -
Water captured (out)(gals)													0
Reclaimed water(out)(gals)													0
Reclaimed water (out)($)													$ -

Water Usage/Person:	KBtu/SF/Year (EUI):	Energy $/SF/Year:	Total Cost/SF/Year:
0.1	61.0	$ 1.00	$ 1.04

See Below for Explanations regarding data for each of the cells

*Chiller and distribution systems combined efficiency calculated at 2 KW/Ton.

**Central plant and distribution systems combined annual average efficiency calculated at 65%.

State LEED Project **LEED Level Achieved:** Silver **Date:** 4-May-12 Submit by email to: SustainableBA@ga.wa.gov

Energy and Water Consumption and Savings Reporting Form Complete all applicable yellow boxes. Submit as an Excel Spreadsheet

Required per RCW 39.35D.030 (3)(b)

Due: June 1, 2012

To print use legal size paper

Building Name: *LWIT Redmond Building*

Institution Name: *6505 76th Ave NE*

Location: *Redmond*

University/Agency: Lake Washington Institute of Technology

Approx. Occupancy Date: 2005

Building Use: College Classes and Staff Offices

Primary HVAC: RTUs cooling and vent, Rooftop boilers provide hot water to warm the air

Building Square Footage: *20000*

No. of Lab Hoods: 0

Other High Energy Using Equipment(describe):

Renewable Energy Systems (describe):

Submitted By: Casey Huebner

Phone: 425 739-8100 ext 8460

Email: casey.huebner@lwtech.edu

		%/Year
Average Hours/Wk:	52	80
No. of People:	217	
Average Hours/Wk:	52	20
No. of People:	12	

Value from Renewables ($/yr):

Melded Electric Rate ($/kWh): $ 0.102

Melded Gas Rate ($/therm): $ 1.08

Other Fuel Rate ($/MMBtu):

List Other Fuel:

Metered Data: E, G, W

Prorated Data:

Period Ending Date	12/31/2011												
		Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
ENERGY													
Electricity (kWh)	*185,909*												185,909
Electricity ($)	*$ 18,826*												$ 18,826
Gas (therms)	*8,697*												8,697
Gas ($)	*$ 9,834*												$ 9,834
Other: (KBtu)													0
Other: ($)													$ -
Chilled Water (KBtu)*													0
Hot Water (KBtu)**													0
Steam (KBtu)**													0
Domestic HW (KBtu)**													0
RENEWABLES													
Solar Thermal (KBtu)													0
Electrical (kWh)													0
WATER													
Interior water (gals)	*834,000*												834,000
Interior water/sewer ($)	*$ 11,569*												$ 11,569
Domestic HW (gals)													0
Water captured (in)(gals)													0
Reclaimed water (in)(gals)													0
Reclaimed water (in)($)													$ -
Irrigation (gals)													0
Irrigation ($)													$ -
Water captured (out)(gals)													0
Reclaimed water(out)(gals)													0
Reclaimed water (out)($)													$ -

75.2

Water/Person (gal): 47.4 **kBtu/SF/Year (EUI):** 75.2 **Energy $/SF/Year:** $ 1.43 **Total Cost/SF/Year:** $ 2.01

See Below for Explanations regarding data for each of the cells

*Chiller and distribution systems combined efficiency calculated at 2 KW/Ton.

**Central plant and distribution systems combined annual average efficiency calculated at 65%.

State LEED Project **LEED Level Achieved:** Gold **Date:** 25-May-12 Submit by email to: SustainableBA@ga.wa.gov

Energy and Water Consumption and Savings Reporting Form

Complete all applicable yellow boxes.

Submit as an Excel Spreadsheet

Required per RCW 39.35D.030 (3)(b)

Due: June 1, 2012

To print use legal size paper

Building Name: Humanities & Student Services
Institution Name: Olympic College
Location: Bremerton
University/Agency: Olympic College
Approx. Occupancy Date: Mar-10
Building Use: Classrooms and Offices
Primary HVAC: Chilled Water
Building Square Footage: 80956
No. of Lab Hoods: 0
Other High Energy Using Equipment(describe): None
Renewable Energy Systems (describe): None

Submitted By: Bill Wilkie
Phone: 360.475.7835
Email: bwilkie@olympic.edu

		%/Year
Average Hours/Wk:	112	75
No. of People:	2800	
Average Hours/Wk:	112	25
No. of People:	2800	

Value from Renewables ($/yr): $ -
Melded Electric Rate ($/kWh): $ 0.090
Melded Gas Rate ($/therm): $ 1.04
Other Fuel Rate ($/MMBtu): $ 8.35
List Other Fuel:
Metered Data: E/G/HW/W
Prorated Data:

Year:	2011	2011	2011	2011	2011	2011	2011	2011	2011	2011	2011	2011	
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
ENERGY													
Electricity (kWh)				94087	103185	107440	113177	123779	115905	113453	122545	119284	1012855
Electricity ($)				$ 7,644	$ 8,592	$ 9,277	$ 9,618	$ 10,357	$ 9,454	$ 9,499	$ 12,024	$ 11,356	$ 87,821
Gas (therms)													0
Gas ($)													$ -
Other: (KBtu)													0
Other: ($)													$ -
Chilled Water (KBtu)*													0
Hot Water (KBtu)**				142.9	134	107	88.4	87	154	245.9	268	251	1478.2
Steam (KBtu)**													0
Domestic HW (KBtu)**													0
RENEWABLES													
Solar Thermal (KBtu)													0
Electrical (kWh)													0
WATER													
Interior water (gals)	57987	57987	46238	46238	58366	58366	64051	64051	64051	64051	30320	30320	642026
Interior water/sewer ($)	$ 757	$ 757	$ 670	$ 670	$ 759	$ 759	$ 801	$ 801	$ 801	$ 801	$ 558	$ 558	$ 8,692
Domestic HW (gals)													0
Water captured (in)(gals)													0
Reclaimed water (in)(gals)													0
Reclaimed water (in)($)													$ -
Irrigation (gals)	0	0	0	0	6443	6443	53439	53439	20466	20466	0	0	160696
Irrigation ($)	$ 12	$ 12	$ 12	$ 12	$ 23	$ 23	$ 101	$ 101	$ 46	$ 46	$ 13	$ 13	$ 416
Water captured (out)(gals)													0
Reclaimed water(out)(gals)													0
Reclaimed water (out)($)													$ -

Water Usage/Person: 2.29 KBtu/SF/Year (EUI): 42.71 Energy $/SF/Year: $ 1.11 Total Cost/SF/Year: $ 1.22

See Below for Explanations regarding data for each of the cells

*Chiller and distribution systems combined efficiency calculated at 2 KW/Ton.

**Central plant and distribution systems combined annual average efficiency calculated at 65%.

State LEED Project **LEED Level Achieved:** | **Date:** 24-May-12 | Submit by email to: SustainableBA@ga.wa.gov

Energy and Water Consumption and Savings Reporting Form

Required per RCW 39.35D.030 (3)(b)

Complete all applicable yellow boxes.

Submit as an Excel Spreadsheet
Due: June 1, 2012
To print use legal size paper

Building Name:	Sophia Bremer Child Development Center
Institution Name:	SBCDC
Location:	Bremerton
University/Agency:	Olympic College
Approx. Occupancy Date:	Jan-11
Building Use:	Classrooms
Primary HVAC:	Heat Pumps
Building Square Footage:	16523
No. of Lab Hoods:	0
Other High Energy Using Equipment(describe):	None
Renewable Energy Systems (describe):	None

Submitted By:	Bill Wilkie
Phone:	360.475.7835
Email:	bwilkie@olympic.edu

		%/Year
Average Hours/Wk:	105	65
No. of People:	250	
Average Hours/Wk:	105	35
No. of People:	205	

Value from Renewables ($/yr):	$ -
Melded Electric Rate ($/kWh):	$ 0.090
Melded Gas Rate ($/therm):	$ 1.04
Other Fuel Rate ($/MMBtu):	
List Other Fuel:	
Metered Data:	
Prorated Data:	

Year:	2011	2011	2011	2011	2011	2011	2011	2011	2011	2011	2011	2011	
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
ENERGY													
Electricity (kWh)			16009	14585	11773	9050	8521	9374	8941	11248	14373	14761	118635
Electricity ($)			$ 1,447	$ 1,185	$ 980	$ 781	$ 724	$ 784	$ 729	$ 917	$ 1,410	$ 1,405	$ 10,365
Gas (therms)	418	488	513	400	301	259	204	147	115	205	357	398	3805
Gas ($)	$ 430	$ 497	$ 523	$ 409	$ 308	$ 266	$ 210	$ 153	$ 120	$ 211	$ 351	$ 363	$ 3,842
Other: (KBtu)													0
Other: ($)													$ -
Chilled Water (KBtu)*													0
Hot Water (KBtu)**													0
Steam (KBtu)**													0
Domestic HW (KBtu)**													0
RENEWABLES													
Solar Thermal (KBtu)													0
Electrical (kWh)													0
WATER													
Interior water (gals)	26530	26530	22740	22740	23877	23877	18571	18571	23119	23119	13644	13644	256962
Interior water/sewer ($)	$ 269	$ 269	$ 241	$ 241	$ 249	$ 249	$ 210	$ 210	$ 243	$ 243	$ 173	$ 173	$ 2,770
Domestic HW (gals)													0
Water captured (in)(gals)													0
Reclaimed water (in)(gals)													0
Reclaimed water (in)($)													$ -
Irrigation (gals)	0	0	0	0	18950	18950	23119	23119	18192	18192	0	0	120522
Irrigation ($)	$ 17	$ 17	$ 17	$ 17	$ 49	$ 49	$ 104	$ 104	$ 48	$ 48	$ 18	$ 18	$ 507
Water captured (out)(gals)													0
Reclaimed water(out)(gals)													0
Reclaimed water (out)($)													$ -

Water Usage/Person:	KBtu/SF/Year (EUI):	Energy $/SF/Year:	Total Cost/SF/Year:
10.97	47.53	$ 0.86	$ 1.03

See Below for Explanations regarding data for each of the cells

*Chiller and distribution systems combined efficiency calculated at 2 KW/Ton.

**Central plant and distribution systems combined annual average efficiency calculated at 65%.

State LEED Project **LEED Level Achieved:** Gold **Date:** 1-Jun-12 Submit by email to: SustainableBA@ga.wa.gov

Energy and Water Consumption and Savings Reporting Form

Complete all applicable yellow boxes.

Submit as an Excel Spreadsheet

Required per RCW 39.35D.030 (3)(b)

Due: June 1, 2012

To print use legal size paper

Building Name: Rainier
Institution Name: Pierce College Fort Steilacoom
Location: 9401 Farwest Drive SW, Lakewood, WA
University/Agency: Pierce College
Approx. Occupancy Date: 2/25/2010
Building Use: Science Instruction
Primary HVAC: See Note Below
Building Square Footage: 69,996.00
No. of Lab Hoods: 23
Other High Energy Using Equipment(describe): 3 boilers, 2 hot water heaters, 23 exhaust fans, 8 A/C units, 10 pumps, 1 cooling tower
Renewable Energy Systems (describe): Photo Voltaic Panels

Submitted By: Debby Aleckson
Phone: 253-964-6565
Email: daleckson@pierce.ctc.edu

		%/Year
Average Hours/Wk:	68	100
No. of People:	550	
Average Hours/Wk:		
No. of People:		

Value from Renewables ($/yr):
Melded Electric Rate ($/kWh):
Melded Gas Rate ($/therm): $ 1.02
Other Fuel Rate ($/MMBtu):
List Other Fuel:
Metered Data: Gas, Solar kWh
Prorated Data:

Year:	2011	2011	2011	2011	2011	2011	2011	2011	2011	2011	2011	2011	
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
ENERGY													
Electricity (kWh)													0
Electricity ($)													$ -
Gas (therms)	9903.8	7709.7	6102.9	5224.4	4370.7	3005.2	1177.4	575.9	630	1756.2	5582.9	7406.4	53445.5
Gas ($)	$ 10,107	$ 7,877	$ 6,242	$ 5,405	$ 4,561	$ 3,151	$ 1,254	$ 630	$ 686	$ 1,855	$ 5,643	$ 7,349	$ 54,760
Other: (KBtu)													0
Other: ($)													$ -
Chilled Water (KBtu)*													0
Hot Water (KBtu)**													0
Steam (KBtu)**													0
Domestic HW (KBtu)**													0
RENEWABLES													
Solar Thermal (KBtu)													0
Electrical (kWh)		38.5	60.2	99.4	122	126	135	127	89.7	44.4	28.7	17.4	888.3
WATER													
Interior water (gals)													0
Interior water/sewer ($)													$ -
Domestic HW (gals)													0
Water captured (in)(gals)													0
Reclaimed water (in)(gals)													0
Reclaimed water (in)($)													$ -
Irrigation (gals)													0
Irrigation ($)													$ -
Water captured (out)(gals)													0
Reclaimed water(out)(gals)													0
Reclaimed water (out)($)													$ -

Water Usage/Person: 0 KBtu/SF/Year (EUI): 76.3 Energy $/SF/Year: $ 0.78 Total Cost/SF/Year: $ 0.78

See Below for Explanations regarding data for each of the cells

*Chiller and distribution systems combined efficiency calculated at 2 KW/Ton.
**Central plant and distribution systems combined annual average efficiency calculated at 65%.

HVAC is a combination of types:

- Lab areas with fume hoods are served by a make-up air unit operating on 100% OSA and a central exhaust fan with reheat coil. The AHU includes HW and CHW coils and reheat air supplements heating needs. Individual room temperatures are controlled by duct mounted heating and cooling coils and Venturi control valves modulate supply and return airflow based on fume hood sash position to maintain negative air pressure within the
- Perimeter office areas and conference rooms utilize operable windows for ventilation and radiant floor heating/cooling to maintain temperature.
- Most other areas (without fume hoods) are served by central AHU that includes heating and cooling coils. Individual rooms are controlled by fan powered VAV boxes with supplemental heating coils. Many of these spaces include operable windows for user controlled ventilation and additional comfort cooling.
- South facing Classrooms on level 3 of Pod B are served by radiant floor heating/cooling and include radiant convector units with exhaust fans to provide ventilation. These rooms have wall mounted convector units with heating coils to temper outside air during cold outside temperatures.

State LEED Project — **LEED Level Achieved:** Gold — **Date:** 1-Jun-12 — Submit by email to: SustainableBA@ga.wa.gov

Energy and Water Consumption and Savings Reporting Form

Required per RCW 39.35D.030 (3)(b)

Complete all applicable yellow boxes.

Submit as an Excel Spreadsheet

Due: June 1, 2012

To print use legal size paper

Building Name:	Arts and Allied Health
Institution Name:	Pierce College
Location:	1601 39th Ave SE, Puyallup, WA 98374
University/Agency:	Pierce College
Approx. Occupancy Date:	7/15/2010
Building Use:	Performing Arts and Health Care Instruction
Primary HVAC:	Gas powered boilers with radiant floor heating and cooling and natural ventilation
Building Square Footage:	61,594
No. of Lab Hoods:	None
Other High Energy Using Equipment(describe):	None
Renewable Energy Systems (describe):	None

Submitted By:	Debby Aleckson
Phone:	253-964-6565
Email:	dalerkson@pierce.ctc.edu

		%/Year
Average Hours/Wk:	70	100
No. of People:	370	
Average Hours/Wk:		
No. of People:		

Value from Renewables ($/yr):	$ -
Melded Electric Rate ($/kWh):	
Melded Gas Rate ($/therm):	$ 1.20
Other Fuel Rate ($/MMBtu):	
List Other Fuel:	
Metered Data:	Gas, Interior water, Irrigation
Prorated Data:	

Year:	2011	2011	2011	2011	2011	2011	2011	2011	2011	2011	2011	2011	
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
ENERGY													
Electricity (kWh)													0
Electricity ($)													$ -
Gas (therms)	4690.9	2407	2644.9	1978.8	827.7		774.9	458.2	49.63	50	2403.3	2646.1	18931.43
Gas ($)	$ 4,913	$ 2,538	$ 2,785	$ 2,107	$ 2,617		$ 856	$ 520	$ 86	$ 4,082		$ 2,208	$ 22,711
Other: (KBtu)													0
Other: ($)													$ -
Chilled Water (KBtu)*													0
Hot Water (KBtu)**													0
Steam (KBtu)**													0
Domestic HW (KBtu)**													0
RENEWABLES													
Solar Thermal (KBtu)													0
Electrical (kWh)													0
WATER													
Interior water (gals)		41888		42636		34408		37400		67320		40392	264044
Interior water/sewer ($)		$ 459		$ 466		$ 390		$ 417		$ 655		$ 361	$ 2,747
Domestic HW (gals)													0
Water captured (in)(gals)													0
Reclaimed water (in)(gals)													0
Reclaimed water (in)($)													$ -
Irrigation (gals)		0		0		280500		335104		284988		0	900592
Irrigation ($)		$ 25		$ 25		$ 842		$ 988		$ 844		$ 25	$ 2,748
Water captured (out)(gals)													0
Reclaimed water(out)(gals)													0
Reclaimed water (out)($)													$ -

Water Usage/Person:	KBtu/SF/Year (EUI):	Energy $/SF/Year:	Total Cost/SF/Year:
7.1	30.7	$ 0.37	$ 0.41

See Below for Explanations regarding data for each of the cells

*Chiller and distribution systems combined efficiency calculated at 2 KW/Ton.

**Central plant and distribution systems combined annual average efficiency calculated at 65%.

State LEED Project **LEED Level Achieved:** Platinum **Date:** 1-Jun-12 Submit by email to: SustainableBA@ga.wa.gov

Energy and Water Consumption and Savings Reporting Form

Complete all applicable yellow boxes.

Submit as an Excel Spreadsheet

Required per RCW 39.35D.030 (3)(b)

Due: June 1, 2012

To print use legal size paper

Building Name: Angst Hall

Institution Name: Skagit Valley College

Location: 2405 E. College Way, Mt. Vernon, WA 98273

University/Agency: SBCTC

Approx. Occupancy Date: Sep-09

Building Use: Classrooms, offices, science labs

Primary HVAC: VAV Terminal Units, local chiller, centralized steam plant

Building Square Footage: 67,942

No. of Lab Hoods: 41

Other High Energy Using Equipment(describe):

Renewable Energy Systems (describe): 35 KW Rooftop photovoltaic system

Submitted By: Dave Scott

Phone: 360-416-7751

Email: dave.scott@skagit.edu

		%/Year
Average Hours/Wk:	65	75%
No. of People:	520	
Average Hours/Wk:	40	25%
No. of People:	200	

Value from Renewables ($/yr): $ 1,973.54

Melded Electric Rate ($/kWh): $ 0.089

Melded Gas Rate ($/therm): $ 0.73

Other Fuel Rate ($/MMBtu):

List Other Fuel:

Metered Data: E/S/W

Prorated Data:

Year:	2012	2012	2012	2011	2011	2011	2011	2011	2011	2011	2011	2011	
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
ENERGY													
Electricity (kWh)	74497	79009	78197	68730	76388	79795	82284	79253	85263	75673	69917	79033	928039
Electricity ($)	$ 4,470	$ 4,741	$ 4,692	$ 4,124	$ 4,583	$ 4,788	$ 4,937	$ 4,755	$ 5,116	$ 4,540	$ 4,195	$ 4,742	$ 55,682
Gas (therms)	0	0	0	0	0	0	0	0	0	0	0		0
Gas ($)													$ -
Other: (KBtu)													0
Other: ($)													$ -
Chilled Water (KBtu)*													0
Hot Water (KBtu)**													0
Steam (KBtu)**	530000	475000	395000	205000	95000	54184	27127	5889	46159	103677	300953	405391	2643380
Domestic HW (KBtu)**													0
RENEWABLES													
Solar Thermal (KBtu)													0
Electrical (kWh)	868	1896	2343	3111	3398	3640	4223	4512	3869	2257	1539	1235	32891
WATER													
Interior water (gals)	14420	22928	17527	18632	20656	7058	20251	11092	11876	24439	16451	6320	191650
Interior water/sewer ($)	$ 58	$ 93	$ 71	$ 75	$ 83	$ 28	$ 82	$ 45	$ 48	$ 99	$ 72	$ 26	$ 779
Domestic HW (gals)													0
Water captured (in)(gals)													0
Reclaimed water (in)(gals)													0
Reclaimed water (in)($)													$ -
Irrigation (gals)													0
Irrigation ($)													$ -
Water captured (out)(gals)													0
Reclaimed water(out)(gals)													0
Reclaimed water (out)($)													$ -

Water Use/Person/Yr: 435.6 KBtu/SF/Year (EUI): 83.86 Energy $/SF/Year: $ 44.49 Total Cost/SF/Year: $ 44.50

See Below for Explanations regarding data for each of the cells

*Chiller and distribution systems combined efficiency calculated at 2 KW/Ton.

**Central plant and distribution systems combined annual average efficiency calculated at 65%.

State LEED Project **LEED Level Achieved:** gold **Date:** 2-May-12 Submit by email to: SustainableBA@ga.wa.gov

Energy and Water Consumption and Savings Reporting Form Complete all applicable yellow boxes. Submit as an Excel Spreadsheet

Required per RCW 39.35D.030 (3)(b) **Due: June 1, 2012**

To print use legal size paper

Building Name:	*TCC Bldg 3 Early Learning Center*	**Submitted By:**	Dave Moffat
Institution Name:	*6501 South 19th Street*	**Phone:**	253-566-6047
Location:	*Tacoma*	**Email:**	dmoffat@tacomacc.edu
University/Agency:	Tacoma Community College	**Value from Renewables ($/yr):**	$0.00
Approx. Occupancy Date:	9/1/2008		
Building Use:	Day Care	**Melded Electric Rate ($/kWh):**	$ 0.056
Primary HVAC:	Gas Fired Hot Water Boiler, Hydronic Heat, No Air Conditioning	**Melded Gas Rate ($/therm):**	$ 1.12
Building Square Footage:	*13000*	**Other Fuel Rate ($/MMBtu):**	n/a
No. of Lab Hoods:	0	**List Other Fuel:**	none
Other High Energy Using Equipment(describe):	n/a	**Metered Data:**	E/G/W
Renewable Energy Systems (describe):	none	**Prorated Data:**	E$

		%/Year
Average Hours/Wk:	50	96%
No. of People:	57	
Average Hours/Wk:	0	4%
No. of People:	0	

Period Ending Date	12/31/2011	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
ENERGY													
Electricity (kWh)	*99131*												99131
Electricity ($)	*$ 5,565*												$ 5,565
Gas (therms)	*11610*												11610
Gas ($)	*$ 13,021*												$ 13,021
Other: (KBtu)	0												0
Other: ($)	$ -												$ -
Chilled Water (KBtu)*	0												0
Hot Water (KBtu)**	0												0
Steam (KBtu)**	0												0
Domestic HW (KBtu)**	0												0
RENEWABLES													0
Solar Thermal (KBtu)	0												0
Electrical (kWh)	0												0
WATER													
Interior water (gals)	273,600												273600
Interior water/sewer ($)	$ 2,282												$ 2,282
Domestic HW (gals)													0
Water captured (in)(gals)													0
Reclaimed water (in)(gals)													0
Reclaimed water (in)($)													$ -
Irrigation (gals)	929948												929948
Irrigation ($)	$ 3,361												$ 3,361
Water captured (out)(gals)													0
Reclaimed water(out)(gals)													0
Reclaimed water (out)($)													$ -

115.3

Water/Person (gal): 5000 **kBtu/SF/Year (EUI):** 115.3 **Energy $/SF/Year:** $ 1.43 **Total Cost/SF/Year:** $ 1.61

See Below for Explanations regarding data for each of the cells

*Chiller and distribution systems combined efficiency calculated at 2 KW/Ton.

**Central plant and distribution systems combined annual average efficiency calculated at 65%.

State LEED Project **LEED Level Achieved:** Gold **Date:** 1-Jun-12 Submit by email to: SustainableBA@ga.wa.gov

Energy and Water Consumption and Savings Reporting Form

Complete all applicable yellow boxes.

Submit as an Excel Spreadsheet

Required per RCW 39.35D.030 (3)(b)

Due: June 1, 2012

To print use legal size paper

Building Name: College Activities Building (CAB)
Institution Name: The Evergreen State College
Location: 2700 Evergreen Parkway, Olympia, WA
University/Agency: The Evergreen State College
Approx. Occupancy Date: 9/1/2010
Building Use: Food Service, Kitchens, Student Affairs, Campus Radio, Bike Shop, lounges
Primary HVAC:
Building Square Footage: 100,000
No. of Lab Hoods: 0
Other High Energy Using Equipment(describe): Kitchen exhaust hoods, food service heat lamps, loading dock open garage door, three commercial kitchens, coolers, fre
Renewable Energy Systems (describe): solar hot water, composting toilets, native landscaping, rainwater harvesting, natural ventilation, on-site wastewater treatr

Submitted By: Irene Hinkle, Resouce Conservation Coordinator
Phone: 360-867-5073
Email: hinklei@evergreen.edu

		%/Year
Average Hours/Wk:	20	75
No. of People:	415	
Average Hours/Wk:	40	100
No. of People:	55	

Value from Renewables ($/yr):
Melded Electric Rate ($/kWh): $ 0.086
Melded Gas Rate ($/therm): $ 0.71
Other Fuel Rate ($/MMBtu):
List Other Fuel:
Metered Data:
Prorated Data:

Year:													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
ENERGY													
Electricity (kWh)	76200	69600	73200	73800	82200	80400	135741	52366	64806	56349	59687	39544	863893
Electricity ($)	$ 6,541	$ 5,975	$ 6,314	$ 5,994	$ 6,726	$ 7,569	$ 11,596	$ 4,451	$ 5,542	$ 4,891	$ 5,181	$ 3,532	$ 74,310
Gas (therms)	192.11	216.57	220.1	172.81	234.46	122.42	91.45	74.27	131.85	240.86	225.75	147.67	2070
Gas ($)	$ 143	$ 161	$ 166	$ 131	$ 87	$ 97	$ 75	$ 61	$ 107	$ 188	$ 167	$ 104	$ 1,487
Other: (KBtu)	0												0
Other: ($)	$ -												$ -
Chilled Water (KBtu)*	n/a												0
Hot Water (KBtu)**	n/a												0
Steam (KBtu)**	3811.61	3844.89	4579	21376	4752	1948	696	507	653	2493	7561	6587	58808
Domestic HW (KBtu)**	381161	383289	457900	335400	201780	91030	35820	27490	36490	100740	314370	283150	2648620
RENEWABLES													
Solar Thermal (KBtu)													0
Electrical (kWh)													0
WATER													
Interior water (gals)	6980	8810	8310	8760	9920	4520	12490	4870	8940	15230	13620	7610	110060
Interior water/sewer ($)	n/a												$ 1,074
Domestic HW (gals)	n/a												0
Water captured (in)(gals)	n/a												0
Reclaimed water (in)(gals)	n/a												0
Reclaimed water (in)($)	n/a												$ -
Irrigation (gals)	n/a												0
Irrigation ($)	n/a												$ -
Water captured (out)(gals)	n/a												0
Reclaimed water(out)(gals)	n/a												0
Reclaimed water (out)($)	n/a												$ -

Water Usage/Person: 3.01 KBtu/SF/Year (EUI): 59 Energy $/SF/Year: $ 1.03 Total Cost/SF/Year: $1.04

See Below for Explanations regarding data for each of the cells

*Chiller and distribution systems combined efficiency calculated at 1 KW/Ton.

**Central plant and distribution systems combined annual average efficiency calculated at 70%.

State LEED Project **LEED Level Achieved:** Gold **Date:** 1-Jun-12 Submit by email to: SustainableBA@ga.wa.gov

Energy and Water Consumption and Savings Reporting Form

Complete all applicable yellow boxes.

Submit as an Excel Spreadsheet

Required per RCW 39.35D.030 (3)(b)

Due: June 1, 2012

To print use legal size paper

Building Name: Seminar II

Institution Name: The Evergreen State College

Location: 2700 Evergreen Parkway, Olympia, WA

University/Agency: The Evergreen State College

Approx. Occupancy Date: Nov-04

Building Use: offices, classrooms, lecture

Primary HVAC:

Building Square Footage: 168,000

No. of Lab Hoods: 0

Other High Energy Using Equipment(describe): n/a

Renewable Energy Systems (describe): roof top gardens, bioswale, waterless urinals, rainwater gardens, natural ventilation, hydronic heat, automatic shading, lo

Submitted By: Irene Hinkle, Resource Conservation Coordinator

Phone: 360-867-5073

Email: hinklei@evergreen.edu

		%/Year
Average Hours/Wk:	10 hrs./wk	0.75%
No. of People:	1200	
Average Hours/Wk:	40 hrs./wk	100
No. of People:	130	

Value from Renewables ($/yr):

Melded Electric Rate ($/kWh): $ 0.086

Melded Gas Rate ($/therm): $ 0.71

Other Fuel Rate ($/MMBtu):

List Other Fuel:

Metered Data: steam, electricity, chilled water

Prorated Data: not applicable

Year:	2011	2011	2011	2011	2011	2011	2011	2011	2011	2011	2011	2011	
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
ENERGY													
Electricity (kWh)	91387	71734	76883	68647	68433	58465	42600	42818	57419	70979	85905	56466	791736
Electricity ($)	$ 7,845	$ 6,158	$ 6,632	$ 5,575	$ 5,599	$ 5,000	$ 3,621	$ 3,640	$ 4,910	$ 6,161	$ 7,456	$ 5,044	$ 67,641
Gas (therms)	0												0
Gas ($)	$ -												$ -
Other: (KBtu)	0												0
Other: ($)	$ -												$ -
Chilled Water (KBtu)*	500	2000	190	60	280	3650	9300	15020	17490	3790	730	320	50830
Hot Water (KBtu)**	n/a												0
Steam (KBtu)**	983620	727460	837750	577710	414820	189440	41850	26080	68320	352850	760100	644930	5624930
Domestic HW (KBtu)**	n/a												0
RENEWABLES													
Solar Thermal (KBtu)	0												0
Electrical (kWh)	0												0
WATER													
Interior water (gals)	4300	4200	4100	4600	5200	6500	2700	3100	4100	4600	4500	3400	51300
Interior water/sewer ($)	n/a												$ 500
Domestic HW (gals)	n/a												0
Water captured (in)(gals)	n/a												0
Reclaimed water (in)(gals)	n/a												0
Reclaimed water (in)($)	n/a												$ -
Irrigation (gals)	n/a												0
Irrigation ($)	n/a												$ -
Water captured (out)(gals)	n/a												0
Reclaimed water(out)(gals)	n/a												0
Reclaimed water (out)($)	n/a												$ -

Water Usage/Person: 3.94 KBtu/SF/Year (EUI): 50 Energy $/SF/Year: $ 0.74 Total Cost/SF/Year: $0.75

See Below for Explanations regarding data for each of the cells

*Chiller and distribution systems combined efficiency calculated at 1 KW/Ton.

**Central plant and distribution systems combined annual average efficiency calculated at 70%.

State LEED Project **LEED Level Achieved:** Gold **Date:** 23-May-12 Submit by email to: SustainableBA@ga.wa.gov

Energy and Water Consumption and Savings Reporting Form

Complete all applicable yellow boxes.

Submit as an Excel Spreadsheet

Required per RCW 39.35D.030 (3)(b)

Due: June 1, 2012

To print use legal size paper

Building Name:	Medium Security Complex	**Submitted By:**	Sam Harris
Institution Name:	Coyote Ridge Corrections Center	**Phone:**	(509) 544-3520
Location:	Connell, WA	**Email:**	samuel.harris@doc.wa.gov
University/Agency:	Department of Corrections		
Approx. Occupancy Date:	12/31/2008		
Building Use:	Medium security housing		
Primary HVAC:	Gas boiler, VAV, compressorized DX cooling, natural gas heat exchanger		
Building Square Footage:	565649		
No. of Lab Hoods:	0		
Other High Energy Using Equipment(describe):	Two 3.188 MMBTU/hr steam boilers, welders, IT servers		
Renewable Energy Systems (describe):	71 kW photovoltaic roof		

		%/Year
Average Hours/Wk:	168	100%
No. of People:	2500	
Average Hours/Wk:		
No. of People:		

Value from Renewables ($/yr):	
Melded Electric Rate ($/kWh):	$ 0.055
Melded Gas Rate ($/therm):	$ 0.68
Other Fuel Rate ($/MMBtu):	
List Other Fuel:	
Metered Data:	E/G/W/PV
Prorated Data:	

Year:	2011	2011	2011	2011	2011	2011	2011	2011	2011	2011	2011	2011	
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
ENERGY													
Electricity (kWh)	950400	878400	972000	950400	892800	993600	1022400	1245600	1051200	986400	892800	1029600	11865600
Electricity ($)	$ 52,871	$ 48,553	$ 52,464	$ 46,794	$ 43,061	$ 46,620	$ 50,458	$ 58,168	$ 57,212	$ 55,225	$ 50,253	$ 56,142	$ 617,821
Gas (therms)	91536	80268	83371	64934	53104	49198	39094	39279	40021	43408	70143	101055	755411
Gas ($)	$ 69,436	$ 60,900	$ 63,251	$ 49,284	$ 40,322	$ 37,363	$ 29,059	$ 28,959	$ 29,504	$ 31,993	$ 52,192	$ 69,040	$ 561,305
Other: (KBtu)													0
Other: ($)													$ -
Chilled Water (KBtu)*													0
Hot Water (KBtu)**													0
Steam (KBtu)**													0
Domestic HW (KBtu)**													0
RENEWABLES													
Solar Thermal (KBtu)													0
Electrical (kWh)	1519	3146	5412	8385	10351	11642	12329	10451	7000	4264	2328	1304	78131
WATER													
Interior water (gals)	5710232	3681656	4186556	5319402	4623848	7409254	4357023	5760362	4753411	5961973	4964476	5154468	61882661
Interior water/sewer ($)	$ 9,420	$ 7,413	$ 7,912	$ 8,073	$ 8,220	$ 10,869	$ 7,914	$ 9,231	$ 8,379	$ 9,595	$ 8,682	$ 8,870	$ 104,578
Domestic HW (gals)													0
Water captured (in)(gals)													0
Reclaimed water (in)(gals)													0
Reclaimed water (in)($)													$ -
Irrigation (gals)	0	0	0	0	126872	234064	169345	241244	95989	74465	0	0	941979
Irrigation ($)	$ 820	$ 820	$ 820	$ 820	$ 1,759	$ 2,552	$ 2,073	$ 2,605	$ 1,530	$ 1,371	$ 820	$ 820	$ 16,810
Water captured (out)(gals)	0	0	0	0	0	0	0	0	0	0	0	0	0
Reclaimed water(out)(gals)													0
Reclaimed water (out)($)													$ -

Water Use/Person/Yr: 24,753 KBtu/SF/Year (EUI): 204.6 Energy $/SF/Year: $ 2.08 Total Cost/SF/Year: $ 2.27

See Below for Explanations regarding data for each of the cells

*Chiller and distribution systems combined efficiency calculated at 2 KW/Ton.

**Central plant and distribution systems combined annual average efficiency calculated at 65%.

State LEED Project **LEED Level Achieved:** Silver **Date:** July 27,2012 Submit by email to: SustainableBA@ga.wa.gov

Energy and Water Consumption and Savings Reporting Form

Complete all applicable yellow boxes.

Submit as an Excel Spreadsheet

Required per RCW 39.35D.030 (3)(b)

~~Due: June 1, 2012~~

To print use legal size paper

Building Name:	Health Center and Administration Building	**Submitted By:**	Diana Peeples, Project Manager
Institution Name:	Green Hill School	**Phone:**	(360) 902-8347
Location:	Chehalis, WA	**Email:**	peepldu@dshs.wa.gov
University/Agency:	Department of Social and Health Services		
Approx. Occupancy Date:	Jul-09		
Building Use:	Health Care services and Business Offices		
Primary HVAC:	Served by a Variable Air Volume System (VAV)		
Building Square Footage:	20,275		
No. of Lab Hoods:	0		
Other High Energy Using Equipment(describe):	0		
Renewable Energy Systems (describe):	0		

		%/Year
Average Hours/Wk:	40	90
No. of People:	31.25	
Average Hours/Wk:	40	
No. of People:	66	

Value from Renewables ($/yr):	
Melded Electric Rate ($/kWh):	$ 0.032
Melded Gas Rate ($/therm):	$ 0.03
Other Fuel Rate ($/MMBtu):	
List Other Fuel:	
Metered Data:	
Prorated Data:	E/W/G/HW

Year:	1/3/2012	2/1/2012	3/1/2011	4/1/2012	5/1/2012	Jun-11	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
ENERGY													
Electricity (kWh)	11.458	11.458	11.458	11.458	11.458	11.458	11.458	11.458	11.458	11.458	11.458	11.458	137.496
Electricity ($)	$ 356	$ 356	$ 356	$ 356	$ 356	329.65	329.65	329.65	329.65	$ 356	$ 356	$ 356	$ 4,167
Gas (therms)5% of use	1202	1202	1217	1217	1030	749	749	749	573	836	836	1120	11480
Gas ($)	$ 3,606	$ 3,606	$ 3,651	$ 3,651	$ 3,090	$ 2,247	$ 2,247	$ 2,247	$ 1,719	$ 2,508	$ 2,508	$ 3,360	$ 34,440
Other: (KBtu)													0
Other: ($)													$ -
Chilled Water (KBtu)*					6,000,000	12,000,000	12,000,000	12,000,000	6,000,000				48000000
Hot Water (KBtu)** heating	24,460,000	24,460,000	24,460,000	24,460,000	12,230,000				12,230,000	24,460,000	24,460,000	24,460,000	195680000
Steam (KBtu)**													0
Domestic HW (KBtu)**	6,060,000	6,060,000	6,060,000	6,060,000	6,060,000	6,060,000	6,060,000	6,060,000	6,060,000	6,060,000	6,060,000	6,060,000	72720000
RENEWABLES													
Solar Thermal (KBtu)													0
Electrical (kWh)													0
WATER													
Interior water (gals)	28,490	28,490	28,490	28,490	28,490	28,490	28,490	28,490	28,490	28,490	28,490	28,490	341880
Interior water/sewer ($)	$ 655	$ 655	$ 655	$ 655	$ 655	$ 655	$ 655	$ 655	$ 655	655	655	655	$ 7,863
Domestic HW (gals)													0
Water captured (in)(gals)													0
Reclaimed water (in)(gals)													0
Reclaimed water (in)($)													$ -
Irrigation (gals)													0
Irrigation ($)													$ -
Water captured (out)(gals)													0
Reclaimed water(out)(gals)													0
Reclaimed water (out)($)													$ -

Water Usage/Person: 121.557333 KBtu/SF/Year (EUI): 15662.06999 Energy $/SF/Year: $ 625.51 Total Cost/SF/Year: 625.901955

See Below for Explanations regarding data for each of the cells

*Chiller and distribution systems combined efficiency calculated at 2 KW/Ton.

**Central plant and distribution systems combined annual average efficiency calculated at 65%.

State LEED Project **LEED Level Achieved:** Silver **Date:** 8-May-12 Submit by email to: SustainableBA@ga.wa.gov

Energy and Water Consumption and Savings Reporting Form

Complete all applicable yellow boxes.

Submit as an Excel Spreadsheet

Required per RCW 39.35D.030 (3)(b)

Due: June 1, 2012

To print use legal size paper

Building Name:	Dormitory / Office
Institution Name:	Washington Youth Academy
Location:	1207 Carver St - Bremerton, WA
University/Agency:	WA State Military Department
Approx. Occupancy Date:	Jan-09
Building Use:	Dormitory / Office
Primary HVAC:	Forced air gas
Building Square Footage:	18050
No. of Lab Hoods:	0
Other High Energy Using Equipment(describe):	Laundry for the dormitory.
Renewable Energy Systems (describe):	N/A

Submitted By:	Adriana Bunker
Phone:	(253) 512-7992
Email:	Adriana.Bunker@mil.wa.gov

		%/Year
Average Hours/Wk:	70	84
No. of People:	175	
Average Hours/Wk:	50	16
No. of People:	25	

Value from Renewables ($/yr):	$ -
Melded Electric Rate ($/kWh):	$ 0.099
Melded Gas Rate ($/therm):	$ 0.86
Other Fuel Rate ($/MMBtu):	$ -
List Other Fuel:	N/A
Metered Data:	Yes
Prorated Data:	No

Year:

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
ENERGY													
Electricity (kWh)	13,679	19,115	18,965	19,718	17,283	16,803	16,325	18,081	17,067	18,445	18,465	19,279	213225
Electricity ($)	$ 1,365	$ 1,839	$ 1,884	$ 1,861	$ 1,684	$ 1,645	$ 1,601	$ 1,757	$ 1,668	$ 1,843	$ 1,823	$ 1,954	$ 20,924
Gas (therms)	1,325	1,782	2,074	1,594	1,187	612	404	553	677	1,063	1,484	1,679	14434
Gas ($)	$ 1,305	$ 1,752	$ 2,037	$ 1,568	$ 1,170	$ 609	$ 406	$ 551	$ 672	$ 1,032	$ 1,369	$ 1,467	$ 13,938
Other: (KBtu)	-	-	-	-	-	-	-	-	-	-	-	-	0
Other: ($)	-	-	-	-	-	-	-	-	-	-	-	-	$ -
Chilled Water (KBtu)*	-	-	-	-	-	-	-	-	-	-	-	-	0
Hot Water (KBtu)**	-	-	-	-	-	-	-	-	-	-	-	-	0
Steam (KBtu)**	-	-	-	-	-	-	-	-	-	-	-	-	0
Domestic HW (KBtu)**	-	-	-	-	-	-	-	-	-	-	-	-	0
RENEWABLES													
Solar Thermal (KBtu)	-	-	-	-	-	-	-	-	-	-	-	-	0
Electrical (kWh)	-	-	-	-	-	-	-	-	-	-	-	-	0
WATER													
Interior water (gals)	83,851	114,661	131,543	136,645	113,105	80,462	91,735	127,534	128,357	141,447	112,200	77,680	1339220
Interior water/sewer ($)	$ 216	$ 265	$ 303	$ 313	$ 269	$ 204	$ 228	$ 296	$ 294	$ 318	$ 271	$ 224	$ 3,203
Domestic HW (gals)	-	-	-	-	-	-	-	-	-	-	-	-	0
Water captured (in)(gals)	-	-	-	-	-	-	-	-	-	-	-	-	0
Reclaimed water (in)(gals)	-	-	-	-	-	-	-	-	-	-	-	-	0
Reclaimed water (in)($)	-	-	-	-	-	-	-	-	-	-	-	-	$ -
Irrigation (gals)	-	-	-	-	-	-	-	-	-	-	-	-	0
Irrigation ($)	-	-	-	-	-	-	-	-	-	-	-	-	$ -
Water captured (out)(gals)	-	-	-	-	-	-	-	-	-	-	-	-	0
Reclaimed water(out)(gals)	-	-	-	-	-	-	-	-	-	-	-	-	0
Reclaimed water (out)($)	-	-	-	-	-	-	-	-	-	-	-	-	$ -

Water Usage/Person:	88.7
KBtu/SF/Year (EUI):	120.3
Energy $/SF/Year:	$ 1.93
Total Cost/SF/Year:	$ 2.11

See Below for Explanations regarding data for each of the cells

*Chiller and distribution systems combined efficiency calculated at 2 KW/Ton.

**Central plant and distribution systems combined annual average efficiency calculated at 65%.

State LEED Project **LEED Level Achieved:** Gold **Date:** 25-May-12 Submit by email to: SustainableBA@ga.wa.gov

Energy and Water Consumption and Savings Reporting Form

Complete all applicable yellow boxes.

Submit as an Excel Spreadsheet

Required per RCW 39.35D.030 (3)(b)

Due: June 1, 2012

To print use legal size paper

Building Name: Oliver Kastel Vocational Education & Facilities Support Building
Submitted By: Warren H. Pratt - Facilities Manager
Institution Name: Washington School for the Deaf
Phone: (360) 418-4293
Location: 611 Grand Blvd., Vancouver, Washington 98661
Email: Warren.pratt@wsd.wa.gov
University/Agency: Center for Childhood Deafness & Hearing Loss
Value from Renewables ($/yr):
Approx. Occupancy Date: 9/25/2009
Building Use: Kitchen, Cafeteria, Auto, Grounds, Custodial, and Maintenance shops
Primary HVAC: Ground Source Heat Pump
Building Square Footage: 21,700
No. of Lab Hoods: none
Other High Energy Using Equipment(describe):
Renewable Energy Systems (describe):

		%/Year
Average Hours/Wk:	40	75%
No. of People:	150	
Average Hours/Wk:	40	25%
No. of People:	10	

Melded Electric Rate ($/kWh):
Melded Gas Rate ($/therm):
Other Fuel Rate ($/MMBtu):
List Other Fuel:
Metered Data: E/G/W (Deduct Meters used)
Prorated Data:

Year:	2011	2011	2011	2011	2011	2011	2011	2011	2011	2011	2011	2011	
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
ENERGY													
Electricity (kWh)	33163.33	27643.33	30523.33	32203.33	26203.33	21403.33	14923.33	16363.33	26203.33	25723.33	26923.33	33883.33	315159.96
Electricity ($)	$ 2,409	$ 2,106	$ 2,267	$ 2,121	$ 1,820	$ 1,531	$ 943	$ 1,072	$ 1,902	$ 1,878	$ 2,034	$ 2,467	$ 22,550
Gas (therms)	1991.28	2394.18	1563.96	1024.06	527.23	321.70	147.80	229.70	673.40	1032.83	3243.73	3799.73	16949.6
Gas ($)	$2,094	$2,554	$3,423	$1,084	$565	$351	$169	$255	$719	$207	$2,435	$3,870	$ 17,725
Other: (KBtu)													0
Other: ($)													$ -
Chilled Water (KBtu)*													0
Hot Water (KBtu)**													0
Steam (KBtu)**													0
Domestic HW (KBtu)**													0
RENEWABLES													
Solar Thermal (KBtu)													0
Electrical (kWh)													0
WATER													
Interior water (gals)	53856		136136		9724		101728		50864		55352		407660
Interior water/sewer ($)	$ 498		$ 963		$ 316		$ 775		$ 498		$ 522		$ 3,572
Domestic HW (gals)													0
Water captured (in)(gals)													0
Reclaimed water (in)(gals)													0
Reclaimed water (in)($)													$ -
Irrigation (gals)													0
Irrigation ($)													$ -
Water captured (out)(gals)													0
Reclaimed water(out)(gals)													0
Reclaimed water (out)($)													$ -

Water Usage/Person: 3544.9 KBtu/SF/Year (EUI): 127.7 Energy $/SF/Year: $ 1.86 Total Cost/SF/Year: $ 2.02

See Below for Explanations regarding data for each of the cells

*Chiller and distribution systems combined efficiency calculated at 2 KW/Ton.

**Central plant and distribution systems combined annual average efficiency calculated at 65%.

State LEED Project **LEED Level Achieved:** Silver **Date:** 3-May-12 Submit by email to: SustainableBA@ga.wa.gov

Energy and Water Consumption and Savings Reporting Form Complete all applicable yellow boxes. Submit as an Excel Spreadsheet

Required per RCW 39.35D.030 (3)(b) **Due: June 1, 2012**

To print use legal size paper

Building Name:	Kennedy Fitness Center	**Submitted By:**	Robert Tracey
Institution Name:	WA State School for the Blind	**Phone:**	360-696-6321 ext 131
Location:	Vancouver	**Email:**	rob.tracey@wssb.wa.gov
University/Agency:	WSSB	**Value from Renewables ($/yr):**	$ -
Approx. Occupancy Date:	Jun-09		
Building Use:	Gym	**Melded Electric Rate ($/kWh):**	$ 0.090
Primary HVAC:	gas fired hot water boilers with pool based heat exchanger	**Melded Gas Rate ($/therm):**	$ 1.05
Building Square Footage:	29000	**Other Fuel Rate ($/MMBtu):**	
No. of Lab Hoods:	0	**List Other Fuel:**	
Other High Energy Using Equipment(describe):	Pool filters and pumps	**Metered Data:**	gas, annual water
Renewable Energy Systems (describe):	NA	**Prorated Data:**	

		%/Year
Average Hours/Wk:	70	80
No. of People:	150	
Average Hours/Wk:	12	20
No. of People:	45	

Year:	2011	2011	2011	2011	2011	2011	2011	2011	2011	2011	2011	2011	
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
ENERGY													
Electricity (kWh)	31440	29400	32280	33200	28440	25200	20560	18640	20640	28840	28800	36040	333,480.00
Electricity ($)	$ 2,830	$ 2,646	$ 2,905	$ 2,988	$ 2,560	$ 2,268	$ 1,850	$ 1,678	$ 1,858	$ 2,596	$ 2,592	$ 3,244	$ 30,013
Gas (therms)	3311.4	3553.6	4267.4	3500.1	3437.5	2087.9	1234	635.2	24.6	1225.5	2639.3	4285.8	30,202.30
Gas ($)	$ 3,490	$ 3,745	$ 4,498	$ 3,689	$ 3,623	$ 2,201	$ 1,301	$ 670	$ 26	$ 1,292	$ 2,782	$ 4,517	$ 31,833
Other: (KBtu)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0
Other: ($)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	$ -
Chilled Water (KBtu)*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0
Hot Water (KBtu)**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0
Steam (KBtu)**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0
Domestic HW (KBtu)**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0
RENEWABLES													
Solar Thermal (KBtu)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0
Electrical (kWh)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0
WATER													
Interior water (gals)	2655	2655	2655	2655	2655	2655	2655	2655	2655	2655	2655	2655	31860
Interior water/sewer ($)	$ 9	$ 9	$ 9	$ 9	$ 9	$ 9	$ 9	$ 9	$ 9	$ 9	$ 9	$ 9	$ 102
Domestic HW (gals)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0
Water captured (in)(gals)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0
Reclaimed water (in)(gals)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0
Reclaimed water (in)($)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	$ -
Irrigation (gals)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0
Irrigation ($)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	$ -
Water captured (out)(gals)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0
Reclaimed water(out)(gals)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0
Reclaimed water (out)($)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	$ -

Water Usage/Person: 2.5 KBtu/SF/Year (EUI): 143.4 Energy $/SF/Year: $ 2.13 Total Cost/SF/Year: $ 2.14

See Below for Explanations regarding data for each of the cells

*Chiller and distribution systems combined efficiency calculated at 2 KW/Ton.

**Central plant and distribution systems combined annual average efficiency calculated at 65%.

Electrical Production and Consumption at the William A. Grant Water & Environmental Center

July 2011-June 2012

		Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	TOTAL
1	Solar Produced	3,020	3,219	6,010	9,731	12,230	12,039	13,367	12,544	8,978	5,127	3,348	2,268	91,881
2	Solar to PP&L	-240	-720	-1,520	-3,440	-2,960	-3,920	-560	-1,600	-800	-720	-400	-80	-16,960
3	Diff/Amount Used by WEC	2,780	2,499	4,490	6,291	9,270	8,119	12,807	10,944	8,178	4,407	2,948	2,188	74,921
4	Electricity Purchased from PP&L	38,000	32,000	25,920	20,320	15,120	10,320	35,600	24,400	20,160	24,960	47,200	53,600	347,600
5	Total Electricity Used in Building	40,780	34,499	30,410	26,611	24,390	18,439	48,407	35,344	28,338	29,367	50,148	55,788	422,521
	% of Total Consumption from solar	6.82%	7.24%	14.76%	23.64%	38.01%	44.03%	26.46%	30.96%	28.86%	15.01%	5.88%	3.92%	17.73%

Note: Solar generated renewable energy used in the building (row 3) is the total solar electricity generated (row 1) less the amount that was returned to the public utility (row 2).

Total electricity used in the building (row 5) is that which was purchased from the public utility (row 4) plus that which came form the solar array (row 3).

In addition to all of the electricity used in the building the solar array sent 16,960 kWh to the utility for which the College was reimbursed the marginal cost of electricity, $0.06 / kWh. At lowest consumption, marginal savings is $0.0699/kWh.

State LEED Project

LEED Level Achieved: Silver

Date: 30-Jul-12

Submit by email to: SustainableBA@ga.wa.gov

Energy and Water Consumption and Savings Reporting Form

Complete all applicable yellow boxes.

Submit as an Excel Spreadsheet

Required per RCW 39.35D.030 (3)(b)

Due: June 1, 2012

To print use legal size paper

Building Name: William A. Grant Water & Environmental Center

Institution Name: Walla Walla Community College

Location: Walla Walla, WA

University/Agency: Walla Walla Community College/State of Washington

Approx. Occupancy Date: 7/1/2011

Building Use: Classrooms, Office , Labs

Primary HVAC: Electricity

Building Square Footage: 26,000

No. of Lab Hoods: 3

Other High Energy Using Equipment(describe): 100% air exchange for labs

Renewable Energy Systems (describe): 75 kW solar array

Submitted By: James R. Peterson

Phone: 509-527-4686

Email: james.peterson@wwcc.edu

		%/Year
Average Hours/Wk:	60	75
No. of People:	50	
Average Hours/Wk:	40	25
No. of People:	15	

Value from Renewables ($/yr): $ 5,512.86

Melded Electric Rate ($/kWh): $ 0.097 7 mo. Avera

Melded Gas Rate ($/therm): $ 0.86 7 mo. Avera

Other Fuel Rate ($/MMBtu):

List Other Fuel:

Metered Data: Yes GEW

Prorated Data:

Year:	2012	2012	2012	2012	2012	2012	2011	2011	2011	2011	2011	2011	
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
ENERGY													
Electricity (kWh)	40780	34499	30410	26611	24390	18439	48407	35344	28338	29367	50148	55788	422521
Electricity ($)	$ 3,233	$ 2,838	$ 2,403	$ 1,911	$ 1,590	$ 1,157	$ 2,920	$ 1,964	$ 1,909	$ 2,317	$ 3,750	$ 4,085	$ 30,078
Gas (therms)	1357	1108	578	237	110	76	63	55	66	224	1164	2154	7192
Gas ($)	$ 1,162	$ 951	$ 501	$ 212	$ 104	$ 75	$ 72	$ 64	$ 75	$ 228	$ 1,071	$ 1,839	$ 6,356
Other: (KBtu)													0
Other: ($)													$ -
Chilled Water (KBtu)*													0
Hot Water (KBtu)**													0
Steam (KBtu)**													0
Domestic HW (KBtu)**													0
RENEWABLES													
Solar Thermal (KBtu)													0
Electrical (kWh)	3020	3219	6010	9731	12230	12039	13367	12544	8978	5127	3348	2268	91881
WATER													
Interior water (gals)	2244	2992	2992	2244	5236	2244	1496	2244	2244	2992	2244	2992	32164
Interior water/sewer ($)	$ 413	$ 416	$ 416	$ 415	$ 419	$ 415	$ 195	$ 390	$ 390	$ 391	$ 391	$ 391	$ 4,643
Domestic HW (gals)													0
Water captured (in)(gals)													0
Reclaimed water (in)(gals)													0
Reclaimed water (in)($)													$ -
Irrigation (gals)	0	0	0	0	9724	167552	73304	145860	198968	104720	0	0	700128
Irrigation ($)	$ 24	$ 24	$ 24	$ 24	$ 37	$ 248	$ 113	$ 204	$ 270	$ 152	$ 22	$ 22	$ 1,163
Water captured (out)(gals)													0
Reclaimed water(out)(gals)													0
Reclaimed water (out)($)													$ -

Water Usage/Person: 7.8

KBtu/SF/Year (EUI): 71.1

Energy $/SF/Year: $ 1.19

Total Cost/SF/Year: $ 1.37

See Below for Explanations regarding data for each of the cells

*Chiller and distribution systems combined efficiency calculated at 2 KW/Ton.

**Central plant and distribution systems combined annual average efficiency calculated at 65%.

Metering and Measurement Report (Template)

This purpose of this report is to document issues related to the gathering of energy and water consumption data.

It is required in the event that the Energy and Water Consumption and Savings Reporting Form cannot be completed for a LEED Building or if some of the data in the reporting form is "prorated". Complete one of these Reports for each LEED building that is not represented by an Energy and Water Consumption and Savings Reporting Form (Excel Spreadsheet), or where some of the data is prorated. This report will be included in the Green Building Report to the Legislature.

Submit completed report(s) to: SustainableBA@ga.wa.gov Due Date: June 1, 2012.

Building Name: Clark Hall
Institution Name: University of Washington
Approximate Occupancy Date: December 2008
Submitted By: Norm Menter, Energy Manager, UW, Facilities Services Date: July 27, 2012
Phone: 206.221.4269 Email: nmenter@uw.edu

(X) This building will not be participating in reporting energy and water data per RCW 39.35D. (check if applicable).

Provide an explanation of the metering and/or measurement systems established. Indicate if there have been any problems collecting the needed data. Also indicate when problems will be resolved:

Electricity: Electrical meter installed and commissioned in June 2012. Meter data now flowing to Smart Grid data warehouse. UW will comply with reporting requirements starting September 2012.

Gas/Steam/HW: The steam meter originally installed in the building does not have a sufficient turn down. We installed a new condensate meter that is being monitored through a PLC. Data is now available from 3/27/12 forward.

Water (interior): *Meters are installed and operational but historical data has been lost. The meters are reporting to the BAS controller. The controller displays meter use but does not store data beyond the last 24 hour period. UW Smart Grid Project to be complete in September 2012 will provide a data warehouse repository for interval data. UW is committed have this data available for submittal starting with January 2013.*

Other: *Irrigation deduct meter, same status as water meter above.*

Metering and Measurement Report (Template)

This purpose of this report is to document issues related to the gathering of energy and water consumption data.

It is required in the event that the Energy and Water Consumption and Savings Reporting Form cannot be completed for a LEED Building or if some of the data in the reporting form is "prorated". Complete one of these Reports for each LEED building that is not represented by an Energy and Water Consumption and Savings Reporting Form (Excel Spreadsheet), or where some of the data is prorated. This report will be included in the Green Building Report to the Legislature.

Submit completed report(s) to: SustainableBA@ga.wa.gov Due Date: June 1, 2012.

Building Name: Savery Hall
Institution Name: University of Washington
Approximate Occupancy Date: May 2010
Submitted By: Norm Menter, Energy Manager, UW, Facilities Services Date: July 27, 2012
Phone: 206.221.4269 Email: nmenter@uw.edu

(X) This building will not be participating in reporting energy and water data per RCW 39.35D. (check if applicable).

Provide an explanation of the metering and/or measurement systems established. Indicate if there have been any problems collecting the needed data. Also indicate when problems will be resolved:

Electricity: Electrical meter installed and commissioned in July 2012. Meter data now flowing to Smart Grid data warehouse. UW will comply with reporting requirements starting September 2012.

Gas/Steam/HW: The condensate meter did connect to a data repository. Thus historical data has been lost. *UW Smart Grid Project to be complete in September 2012 will provide a data warehouse repository for interval data. UW is committed have this data available for submittal starting with January 2013.*

Water (interior): *Meters are installed and operational but historical data has been lost. The meters are reporting to the BAS controller. The controller displays meter use but does not store data beyond the last 24 hour period. UW Smart Grid Project to be complete in September 2012 will provide a data warehouse repository for interval data. UW is committed have this data available for submittal starting with January 2013.*

Other: *Irrigation deduct meter, same status as water meter above.*

Metering and Measurement Report

This purpose of this report is to document issues related to the gathering of energy and water consumption data.

It is required in the event that the Energy and Water Consumption and Savings Reporting Form cannot be completed for a LEED Building or if some of the data in the reporting form is "prorated". Complete one of these Reports for each LEED building that is not represented by an Energy and Water Consumption and Savings Reporting Form (Excel Spreadsheet), or where some of the data is prorated. This report will be included in the Green Building Report to the Legislature.

Submit completed report(s) to: SustainableBA@ga.wa.gov Due Date: June 1, 2012.

Building Name: __Joy Building________________
Institution Name: ___University of Washington Tacoma______________
Approximate Occupancy Date: ________________3/2011 ____________
Submitted By: _____Milt Tremblay______________________________ Date: __7/24/12_________
Phone: __(253) 692-4754________________ Email: ______________milt@uw.edu_______________

(___) This building will not be participating in reporting energy and water data per RCW 39.35D. (check if applicable).

Provide and explanation of the metering and/or measurement systems established. Indicate if there have been any problems collecting the needed data. Also indicate when problems will be resolved:

Electricity:

Gas/Steam/HW:

Water (interior):

Other: Due to organizational shifts and resource allocation issues we are unable to provide data at this time. UWT will be installing its' own server and program for processing data from meters this summer. (This function was previously performed by the Seattle campus). We will provide this information as well as any historical data that we can obtain from utility providers.

Metering and Measurement Report

This purpose of this report is to document issues related to the gathering of energy and water consumption data.

It is required in the event that the Energy and Water Consumption and Savings Reporting Form cannot be completed for a LEED Building or if some of the data in the reporting form is "prorated". Complete one of these Reports for each LEED building that is not represented by an Energy and Water Consumption and Savings Reporting Form (Excel Spreadsheet), or where some of the data is prorated. This report will be included in the Green Building Report to the Legislature.

Submit completed report(s) to: SustainableBA@ga.wa.gov Due Date: June 1, 2012.

Building Name: _William Philip Hall ________________
Institution Name: ___University of Washington Tacoma______________
Approximate Occupancy Date: ____8/2008____________________________
Submitted By: _____Milt Tremblay______________________________ Date: __7/24/12_________
Phone: __(253) 692-4754________________ Email: ______________milt@uw.edu_______________

(___) This building will not be participating in reporting energy and water data per RCW 39.35D. (check if applicable).

Provide and explanation of the metering and/or measurement systems established. Indicate if there have been any problems collecting the needed data. Also indicate when problems will be resolved:

Electricity:

Gas/Steam/HW:

Water (interior):

Other: Due to organizational shifts and resource allocation issues we are unable to provide data at this time. UWT will be installing its' own server and program for processing data from meters this summer. (This function was previously performed by the Seattle campus). We will provide this information as well as any historical data that we can obtain from utility providers.

Metering and Measurement Report (Template)

This purpose of this report is to document issues related to the gathering of energy and water consumption data.

It is required in the event that the Energy and Water Consumption and Savings Reporting Form cannot be completed for a LEED Building or if some of the data in the reporting form is "prorated". Complete one of these Reports for each LEED building that is not represented by an Energy and Water Consumption and Savings Reporting Form (Excel Spreadsheet), or where some of the data is prorated. This report will be included in the Green Building Report to the Legislature.

Submit completed report(s) to: SustainableBA@ga.wa.gov Due Date: June 1, 2012.

Building Name: Vancouver Undergraduate Building
Institution Name: Washington State University Vancouver
Approximate Occupancy Date: 31 August 2009
Submitted By: Kevin G. Crowley, EH&S Coordinator, WSU Vancouver Date: 31 May 2012
Phone: (360) 546-9706 Email: kevin.g.crowley@vancouver.wsu.edu

(___) This building will not be participating in reporting energy and water data per RCW 39.35D. (check if applicable).

Provide and explanation of the metering and/or measurement systems established. Indicate if there have been any problems collecting the needed data. Also indicate when problems will be resolved:

Electricity: kWhrs and kW demand are retrieved from the main electrical meter in the LEED building. This information is then cross-referenced to a monthly report that is generated automatically.

Gas/Steam/HW: The building is equipped with a natural gas meter which is read monthly. The readings from all building gas meters on campus are collected and the contribution of each building is calculated as a percentage of the whole campus. These percentages are multiplied by either the number of therms or the dollar value on the campus' monthly natural gas bill to determine the natural gas costs and therms associated with the LEED building.

Water (interior): Water (interior) totals are calculated by dividing the volume of water used per month into the square footage of all occupied space on campus and then multiplying the quotient by the square footage of the LEED building. The campus is looking toward water meters in each building. Implementation date is unknown but LEED buildings will be prioritized.

Other: Interior water/sewer ($) values were calculated using the same procedure for Water (interior). In this case, the monthly costs are a sum of the monthly sewer and water bills prorated for the square footage of the LEED building.

Metering and Measurement Report (Template)

This purpose of this report is to document issues related to the gathering of energy and water consumption data.

It is required in the event that the Energy and Water Consumption and Savings Reporting Form cannot be completed for a LEED Building or if some of the data in the reporting form is "prorated". Complete one of these Reports for each LEED building that is not represented by an Energy and Water Consumption and Savings Reporting Form (Excel Spreadsheet), or where some of the data is prorated. This report will be included in the Green Building Report to the Legislature.

Submit completed report(s) to: SustainableBA@ga.wa.gov Due Date: June 1, 2012.

Building Name: ______Hargreaves Hall_______________________________
Institution Name: _Eastern Washington University____________________
Approximate Occupancy Date: ___________________________________
Submitted By: _Shawn King____ Date: ___July 27, 2012_
Phone: ___509-359-6878_____ Email: _____sking@ewu.edu_______________________________

(___) This building will not be participating in reporting energy and water data per RCW 39.35D. (check if applicable).

Provide and explanation of the metering and/or measurement systems established. Indicate if there have been any problems collecting the needed data. Also indicate when problems will be resolved:

Electricity:
Electricity is distributed to the building through university high voltage system to individual house meters. Sub metering electrical was not part of the Hargreaves project.

Gas/Steam/HW:
This building is connected to EWU Central Steam plant which provides saturated steam at various pressures for building use. HVAC heating water and domestic hot water production is complete through steam to hot water heat exchanges and then distributed through the building. No secondary metering is accomplished on these systems

Water (interior):
Domestic water is metered at the service entry. Irrigation water is metered separately and is not included in building use totals.

Other:

Sanitary Sewer – Sanitary Sewer is calculated from Domestic water use at the building minus irrigation usage.

Eastern is currently working with our ESP contractor in developing a campus wide utility metering project that will automate the entire campus for utility metering. Current metering recording develops some error during the year through operator errors and judgment. In the future those errors will be reduced through this new system which will assist in better conservation and identification of need equipment repairs.

Metering and Measurement Report (Template)

This purpose of this report is to document issues related to the gathering of energy and water consumption data.

It is required in the event that the Energy and Water Consumption and Savings Reporting Form cannot be completed for a LEED Building or if some of the data in the reporting form is "prorated". Complete one of these Reports for each LEED building that is not represented by an Energy and Water Consumption and Savings Reporting Form (Excel Spreadsheet), or where some of the data is prorated. This report will be included in the Green Building Report to the Legislature.

Submit completed report(s) to: SustainableBA@ga.wa.gov Due Date: June 1, 2012.

Building Name: ___University Student Recreation Center__(URC)____________
Institution Name: ___Eastern Washington University_____________
Approximate Occupancy Date: __March 2010________________________
Submitted By: ___Shawn King_______________________ Date: __July 27, 2012__________
Phone: _509-359-6878____ Email: ___sking@ewu.edu______________________________

(___) This building will not be participating in reporting energy and water data per RCW 39.35D. (check if applicable).

Provide and explanation of the metering and/or measurement systems established. Indicate if there have been any problems collecting the needed data. Also indicate when problems will be resolved:

Electricity:
Electricity is distributed to the building through university high voltage system to individual house meters. Sub metering electrical was not part of the URC project.

Gas/Steam/HW:
This building is connected to EWU Central Steam plant which provides saturated steam at various pressures for building use. HVAC heating water and domestic hot water production is complete through steam to hot water heat exchanges and then distributed through the building. No secondary metering is accomplished on these systems

Water (interior):
Domestic water is metered at the service entry. Irrigation water is metered separately and is not included in building use totals.

Other:

Sanitary Sewer – Sanitary Sewer is calculated from Domestic water use at the building minus irrigation usage.

Eastern is currently working with our ESP contractor in developing a campus wide utility metering project that will automate the entire campus for utility metering. Current metering recording develops some error during the year through operator errors and judgment. In the future those errors will be reduced through this new system which will assist in better conservation and identification of need equipment repairs.

Metering and Measurement Report – The Evergreen State College 2011

This purpose of this report is to document issues related to the gathering of energy and water consumption data as an extension of the data in the attached spreadsheet.

Building Name: _Seminar II Building_____________
Institution Name: __The Evergreen State College
Approximate Occupancy Date: ___November 2004
Submitted By: Irene Hinkle, Resource Conservation Coordinator__ Date __June 1, 2011
Phone: (360-867-5073___________ Email: _hinklei@evergreen.edu

(___) This building will not be participating in reporting energy and water data per RCW 39.35D. (check if applicable).

Explanation of the metering and/or measurement systems established:

Electricity: We were a penny different on the "melded" electrical rate, so we made them equal.

Gas/Steam/HW: This building is connected to the central plant which provides HW to the building and the figures are folded into the steam metering. We corrected the cost of steam to account for cost in therms instead of kbtu.

Chilled Water: Change chiller system energy use to 1 kW per ton. Chillers are modern vsd equipped machines with performance in the range of 0.45 kW/ton. We assumed pumping energy makes the 1 KW per ton figure reasonable.

Water (interior): Used $7.30 as a combined average cost for water and sewer.

Other:
-We meter incoming piped water. We do not have calculations for the amount of rainwater diverted to our roof gardens, bioswales or holding tanks.
-Changed boiler efficiency to account for non-condensing economizers and condensate return rate at approximately 98%.

-We reduced the digits displayed in the spreadsheet based on a reasonable assessment of significant digits. There are still some violations of conventions, but the egregious ones are gone.

Metering and Measurement Report

This purpose of this report is to document issues related to the gathering of energy and water consumption data.

It is required in the event that the Energy and Water Consumption and Savings Reporting Form cannot be completed for a LEED Building or if some of the data in the reporting form is "prorated". Complete one of these Reports for each LEED building that is not represented by an Energy and Water Consumption and Savings Reporting Form (Excel Spreadsheet), or where some of the data is prorated. This report will be included in the Green Building Report to the Legislature.

Submit completed report(s) to: SustainableBA@ga.wa.gov Due Date: June 1, 2012.

Building Name: NEW SCIENCE CENTER
Institution Name: CENTRALIA COLLEGE
Approximate Occupancy Date: 1 APRIL 2009
Submitted By: GIL ELDER Date: MAY 18, 2012
Phone: 360.736.9391 X. 434 Email: GELDER@CENTRALIA.EDU

(___) This building will not be participating in reporting energy and water data per RCW 39.35D. (check if applicable).

Provide and explanation of the metering and/or measurement systems established. Indicate if there have been any problems collecting the needed data. Also indicate when problems will be resolved:

Electricity: The data for the electricity is prorated due to three buildings share the same meter. There is a sub-meter installed for the building but at this time, the bugs are being worked out to achieve more accuracy in reporting.

Gas/Steam/HW: The Gas consumption is pulled off the monthly utility bills. This gas meter is unique to this building.

Water (interior): The water consumption is pulled off the monthly utility bills. This water bill is unique to this building and does not include outside irrigation.

Other: *N/A*

Metering and Measurement Report (Template)

This purpose of this report is to document issues related to the gathering of energy and water consumption data.

It is required in the event that the Energy and Water Consumption and Savings Reporting Form cannot be completed for a LEED Building or if some of the data in the reporting form is "prorated". Complete one of these Reports for each LEED building that is not represented by an Energy and Water Consumption and Savings Reporting Form (Excel Spreadsheet), or where some of the data is prorated. This report will be included in the Green Building Report to the Legislature.

Submit completed report(s) to: SustainableBA@ga.wa.gov Due Date: June 1, 2012.

Building Name: Meadowdale Hall
Institution Name: Edmonds Community college
Approximate Occupancy Date: March 2010
Submitted By: ___Kao Saeteurn_____________ Date: _July 23 (resubmitted from May 2012)___
Phone: __(425) 640-1520____ Email: Kao.saeteurn@edcc.edu___________________

(___) This building will not be participating in reporting energy and water data per RCW 39.35D. (check if applicable).

Provide and explanation of the metering and/or measurement systems established. Indicate if there have been any problems collecting the needed data. Also indicate when problems will be resolved:

Electricity: Electrical data is individually submetered.

Gas/Steam/HW: Gas is individually submetered along with Hot and Cold heating/cooling water usage.

Water (interior): ***Domestic Water metered through the Lynnwood Utilities***

Other: ***Chilled and Hot water demand is also being metered although a full year's information will not be available until November 2012 since it was just installed December of 2012. We have encountered problems with submetering KWH because exterior lighting and parking lot lighting is also tied into the building. Plans are being made to ensure that only the building energy usage itself is being reported. Currently the information is incorrect due to this reason. We recently discovered this while compiling this report.***

Metering and Measurement Report (Template)

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Submit completed report(s) to: SustainableBA@ga.wa.gov Due Date: June 1, 2012.

Building Name: ___GRAYWOLF HALL____
Institution Name: ___________EVERETT COMMUNITY COLLEGE_______________________________
Approximate Occupancy Date: _____2009______________________________
Submitted By: ________MOLLY BEEMAN__________________________Date: __07/23/12________
Phone: ____425-388-9070__________________ Email: __mbeeman@everettcc.edu_____________

(___) This building will not be participating in reporting energy and water data per RCW 39.35D. (check if applicable).

Provide and explanation of the metering and/or measurement systems established. Indicate if there have been any problems collecting the needed data. Also indicate when problems will be resolved:

Electricity: Sub metering not possible at this time secondary to 1. Failure of installed "metering" system (which is actually a condo sub billing report, not suitable for this report). System failed and is not currently repairable. Building electrical meter serves 17 other buildings on campus. Electrical data is averaged by square footage.

Gas/Steam/HW: Able to report actual figures—building is appropriately metered for gas (individually)

Water (interior): Unable to determine actual data: water meter serves 7 other buildings on campus. Information submitted is averaged data by square foot.

Other: EVCC is currently working with both Allerton and CCI to determine whether utilizing the campus DDC controls in order to trend this data is applicable, and what cost to the campus would be incurred. Lack of funding for this mandate is a serious detriment to reporting accurate and consistent data.

Metering and Measurement Report (Template)

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Submit completed report(s) to: SustainableBA@ga.wa.gov Due Date: June 1, 2012.

Building Name: ___GRAYWOLF HALL____
Institution Name: ___________EVERETT COMMUNITY COLLEGE________________________________
Approximate Occupancy Date: _____2009______________________________
Submitted By: ________MOLLY BEEMAN__________________________Date: __07/23/12________
Phone: ____425-388-9070__________________ Email: __mbeeman@everettcc.edu_____________

(___) This building will not be participating in reporting energy and water data per RCW 39.35D. (check if applicable).

Provide and explanation of the metering and/or measurement systems established. Indicate if there have been any problems collecting the needed data. Also indicate when problems will be resolved:

Electricity: Sub metering not possible at this time secondary to 1. Failure of installed "metering" system (which is actually a condo sub billing report, not suitable for this report). System failed and is not currently repairable. Building electrical meter serves 17 other buildings on campus. Electrical data is averaged by square footage.

Gas/Steam/HW: Able to report actual figures—building is appropriately metered for gas (individually)

Water (interior): Unable to determine actual data: water meter serves 7 other buildings on campus. Information submitted is averaged data by square foot.

Other: EVCC is currently working with both Allerton and CCI to determine whether utilizing the campus DDC controls in order to trend this data is applicable, and what cost to the campus would be incurred. Lack of funding for this mandate is a serious detriment to reporting accurate and consistent data.

Metering and Measurement Report (Template)

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Submit completed report(s) to: SustainableBA@ga.wa.gov Due Date: June 1, 2012.

Building Name:	Childcare Center (1400 Building)	
Institution Name:	Grays Harbor College	
Approximate Occupancy Date:	May 2010	
Submitted By:	Tony Simone	Date: 7/25/2012
Phone:	360-538-4154	Email: tsimone@ghc.edu

(x) This building will not be participating in reporting energy and water data per RCW 39.35D. (check if applicable).

Provide and explanation of the metering and/or measurement systems established. Indicate if there have been any problems collecting the needed data. Also indicate when problems will be resolved:

Electricity:
The electricity is tracked thru the building EMCS, and thru the PUD utility bill. The results are inputted into Portfolio Manager.

Gas/Steam/HW:
The Gas usage is also tracked thru the building EMCS and the utility bill. That also is inputted into Portfolio Manager.

Water (interior):
The Water is tracked thru building EMCS and the utility. We are still having difficulty with the monitoring device that inputs to the EMCS. It has never worked correctly and we are in the process of trying to get it fixed. This is inputted into Portfolio Manager using the utility info.

Other:

Metering and Measurement Report (Template)

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Submit completed report(s) to: SustainableBA@ga.wa.gov Due Date: June 1, 2012.

Building Name: Humanities & Student Services
Institution Name: Olympic College
Approximate Occupancy Date: 3/1/2010
Submitted By: Bill Wilkie Date: July 9, 2012
Phone: 360.475.7835 Email: bwilkie@olympic.edu

(___) This building will not be participating in reporting energy and water data per RCW 39.35D. (check if applicable).

Provide and explanation of the metering and/or measurement systems established. Indicate if there have been any problems collecting the needed data. Also indicate when problems will be resolved:

Electricity: We did not have the building's electrical meter operational until March of 2011 so the approved readings started in April of 2011.

Gas/Steam/HW: We did not have the BTU meter operational until March of 2011 also so we could not get good readings until that time.

Water (interior):

Other:

Metering and Measurement Report (Template)

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It is required in the event that the Energy and Water Consumption and Savings Reporting Form cannot be completed for a LEED Building or if some of the data in the reporting form is "prorated". Complete one of these Reports for each LEED building that is not represented by an Energy and Water Consumption and Savings Reporting Form (Excel Spreadsheet), or where some of the data is prorated. This report will be included in the Green Building Report to the Legislature.

Submit completed report(s) to: SustainableBA@ga.wa.gov Due Date: June 1, 2012.

Building Name: Sophia Bremer Child Development Center
Institution Name: Olympic College
Approximate Occupancy Date: January, 2011
Submitted By: Bill Wilkie Date: July 9, 2012
Phone: 360.475.7835 Email: bwilkie@olympic.edu

(___) This building will not be participating in reporting energy and water data per RCW 39.35D. (check if applicable).

Provide and explanation of the metering and/or measurement systems established. Indicate if there have been any problems collecting the needed data. Also indicate when problems will be resolved:

Electricity: We did not have the Electrical meters operational until February of 2011 so we were not able to report usage until then.

Gas/Steam/HW:

Water (interior):

Other:

Metering and Measurement Report

This purpose of this report is to document issues related to the gathering of energy and water consumption data.

It is required in the event that the Energy and Water Consumption and Savings Reporting Form cannot be completed for a LEED Building or if some of the data in the reporting form is "prorated". Complete one of these Reports for each LEED building that is not represented by an Energy and Water Consumption and Savings Reporting Form (Excel Spreadsheet), or where some of the data is prorated. This report will be included in the Green Building Report to the Legislature.

Submit completed report(s) to: SustainableBA@ga.wa.gov   Due Date: June 1, 2012.

Building Name: ________Rainier___________________________________
Institution Name: ______Pierce College______________________________
Approximate Occupancy Date: ____________2-25-10_______________________
Submitted By: __________Debby Aleckson__________________________ Date: _______6-1-10__
Phone: _____253-964-6565_______ Email: ________daleckson@pierce.ctc.edu______________

(___) This building will not be participating in reporting energy and water data per RCW 39.35D. (check if applicable).

Provide and explanation of the metering and/or measurement systems established. Indicate if there have been any problems collecting the needed data. Also indicate when problems will be resolved:

Electricity: The main building switchboard is equipped for interface to the EMCS system. A factory representative provided programming for trending through the EMCS system. Further work still required.
Gas/Steam/HW: The building is equipped with dedicated gas meter. A pulse transmitter was provided and installed by PSE and trends via the EMCS system. Further work still required. We are using utility statements for reports.
Water (interior): The building is equipped with a dedicated water meter and pulse transmitter that is programmed to trend via the EMCS system. Irrigation water is metered along with domestic water. There is a deduct meter for irrigation water, but it does not appear to be connected. There is also a deduct meter for the cooling tower domestic water use, but it also is not hooked up at this time. Further work still required.

Solar PV: Solar PV is metered and trended via a web-based system. This system is not interfaced with EMCS system. We are using Enphase statements for reports.
Fixed array: http://www.sunnyportal.com

Rotating array: https://enlighten.enphaseenergy.com/

Metering and Measurement Report

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Submit completed report(s) to: SustainableBA@ga.wa.gov Due Date: June 1, 2012.

Building Name: ________Arts and Allied Health Building___
Institution Name: ______Pierce College_____________________________
Approximate Occupancy Date: ____________7-15-10_______________________
Submitted By: __________Debby Aleckson__________________________ Date: _______6-1-10__
Phone: _____253-964-6565_______ Email: ________daleckson@pierce.ctc.edu______________

(___) This building will not be participating in reporting energy and water data per RCW 39.35D. (check if applicable).

Provide and explanation of the metering and/or measurement systems established. Indicate if there have been any problems collecting the needed data. Also indicate when problems will be resolved:

Electricity: As of June 2012 meter readings through the JCI metasys system have been made available. Utility invoice for entire campus at this time.

Gas/Steam/HW: PSE utility invoices are used as the source for monthly information on therm use and cost.

Water (interior): As of June 2012 meter readings through the JCI metasys system have been made available. Water use and cost information is taken from the utility invoices.

Other:

Metering and Measurement Report

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Submit completed report(s) to: SustainableBA@ga.wa.gov Due Date: June 1, 2012.

Building Name: **Jenkins Wellness Center # 171-007**
Institution Name: **Community Colleges of Spokane (SCC)**
Approximate Occupancy Date: **December 2010**
Submitted By: Dennis **Dunham, District Director of Facilities Date: May 23, 2012**
Phone: **509-533-8630 Email: facilities@ccs.spokane.edu**

(**X**)This building will not be participating in reporting energy and water data per RCW 39.35D. (check if applicable).

Provide and explanation of the metering and/or measurement systems established. Indicate if there have been any problems collecting the needed data. Also indicate when problems will be resolved:

Electricity: CCS Campus buildings are singularly metered by the electric utility. Sub meters (data loggers) have been installed on recent projects including this building. As funds permit, the sub-meters/data loggers are being linked to a Universal Network Controller for determining HVAC equipment/system malfunctions. This system has proven to be unreliable for monitoring long term energy use and management. CCS is currently exploring true energy management systems and is seeking grant money to connect sub-meters/data loggers to an EMS "Dash Board" that will provide accurate reporting in a usable format. CCS hopes to have an energy management system under development sometime in the next fiscal year.

Gas: CCS Campus buildings are singularly metered by the natural gas utility. Sub meters/data loggers have been installed on recent projects including this building. Similar to electricity monitoring explained in the forgoing paragraph, the sub-meters/data loggers are being linked to an HVAC Universal Network Controller as funding permits, however, building energy usage is unreliable and difficult to accurately determine using this system. CCS is seeking grant money to connect sub-meters/data loggers to an energy management system "Dash Board" that will provide accurate reporting in a usable format.

Water (interior): CCS Campuses are singularly metered by the water utility. Building sub meters/data loggers have been installed on recent projects; however, due to funding issues, systems for collecting and aggregating usage have not been integrated into an energy management system. Similar to the electric and gas usage data collection, water usage will be monitored as funding permits and a system is developed.

Metering and Measurement Report

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Submit completed report(s) to: SustainableBA@ga.wa.gov Due Date: June 1, 2012.

Building Name: **Stannard Technical Education (Tech ED Building) # 171-028**
Institution Name: **Community Colleges of Spokane (SCC)**
Approximate Occupancy Date: **August 2011**
Submitted By: Dennis **Dunham, District Director of Facilities Date: May 23, 2012**
Phone: **509-533-8630 Email: facilities@ccs.spokane.edu**

(**X**)This building will not be participating in reporting energy and water data per RCW 39.35D. (check if applicable).

Provide and explanation of the metering and/or measurement systems established. Indicate if there have been any problems collecting the needed data. Also indicate when problems will be resolved:

Electricity: CCS Campus buildings are singularly metered by the electric utility. Sub meters (data loggers) have been installed on recent projects including this building. As funds permit, the sub-meters/data loggers are being linked to a Universal Network Controller for determining HVAC equipment/system malfunctions. This system has proven to be unreliable for monitoring long term energy use and management. CCS is currently exploring true energy management systems and is seeking grant money to connect sub-meters/data loggers to an EMS "Dash Board" that will provide accurate reporting in a usable format. CCS hopes to have an energy management system under development sometime in the next fiscal year.

Gas: CCS Campus buildings are singularly metered by the natural gas utility. Sub meters/data loggers have been installed on recent projects including this building. Similar to electricity monitoring explained in the forgoing paragraph, the sub-meters/data loggers are being linked to an HVAC Universal Network Controller as funding permits, however, building energy usage is unreliable and difficult to accurately determine using this system. CCS is seeking grant money to connect sub-meters/data loggers to an energy management system "Dash Board" that will provide accurate reporting in a usable format.

Water (interior): CCS Campuses are singularly metered by the water utility. Building sub meters/data loggers have been installed on recent projects; however, due to funding issues, systems for collecting and aggregating usage have not been integrated into an energy management system. Similar to the electric and gas usage data collection, water usage will be monitored as funding permits and a system is developed.

Metering and Measurement Report

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Submit completed report(s) to: SustainableBA@ga.wa.gov Due Date: June 1, 2012.

Building Name: ***sn-w'ey'-mn (Business and Social Sciences)*# 172-024**
Institution Name: **Community Colleges of Spokane (SFCC)**
Approximate Occupancy Date: **January 2008**
Submitted By: Dennis **Dunham, District Director of Facilities Date: May 23, 2012**
Phone: **509-533-8630 Email: facilities@ccs.spokane.edu**

(**X**)This building will not be participating in reporting energy and water data per RCW 39.35D. (check if applicable).

Provide and explanation of the metering and/or measurement systems established. Indicate if there have been any problems collecting the needed data. Also indicate when problems will be resolved:

Electricity: CCS Campus buildings are singularly metered by the electric utility. Sub meters (data loggers) have been installed on recent projects including this building. As funds permit, the sub-meters/data loggers are being linked to a Universal Network Controller for determining HVAC equipment/system malfunctions. This system has proven to be unreliable for monitoring long term energy use and management. CCS is currently exploring true energy management systems and is seeking grant money to connect sub-meters/data loggers to an EMS “Dash Board” that will provide accurate reporting in a usable format. CCS hopes to have an energy management system under development sometime in the next fiscal year.

Gas: CCS Campus buildings are singularly metered by the natural gas utility. Sub meters/data loggers have been installed on recent projects including this building. Similar to electricity monitoring explained in the forgoing paragraph, the sub-meters/data loggers are being linked to an HVAC Universal Network Controller as funding permits, however, building energy usage is unreliable and difficult to accurately determine using this system. CCS is seeking grant money to connect sub-meters/data loggers to an energy management system “Dash Board” that will provide accurate reporting in a usable format.

Water (interior): CCS Campuses are singularly metered by the water utility. Building sub meters/data loggers have been installed on recent projects; however, due to funding issues, systems for collecting and aggregating usage have not been integrated into an energy management system. Similar to the electric and gas usage data collection, water usage will be monitored as funding permits and a system is developed.

Metering and Measurement Report

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Submit completed report(s) to: SustainableBA@ga.wa.gov Due Date: June 1, 2012.

Building Name: **Music # 172-015**
Institution Name: **Community Colleges of Spokane (SFCC)**
Approximate Occupancy Date: **August 2010**
Submitted By: Dennis **Dunham, District Director of Facilities Date: May 23, 2012**
Phone: **509-533-8630 Email: facilities@ccs.spokane.edu**

(**X**)This building will not be participating in reporting energy and water data per RCW 39.35D. (check if applicable).

Provide and explanation of the metering and/or measurement systems established. Indicate if there have been any problems collecting the needed data. Also indicate when problems will be resolved:

Electricity: CCS Campus buildings are singularly metered by the electric utility. Sub meters (data loggers) have been installed on recent projects including this building. As funds permit, the sub-meters/data loggers are being linked to a Universal Network Controller for determining HVAC equipment/system malfunctions. This system has proven to be unreliable for monitoring long term energy use and management. CCS is currently exploring true energy management systems and is seeking grant money to connect sub-meters/data loggers to an EMS "Dash Board" that will provide accurate reporting in a usable format. CCS hopes to have an energy management system under development sometime in the next fiscal year.

Gas: CCS Campus buildings are singularly metered by the natural gas utility. Sub meters/data loggers have been installed on recent projects including this building. Similar to electricity monitoring explained in the forgoing paragraph, the sub-meters/data loggers are being linked to an HVAC Universal Network Controller as funding permits, however, building energy usage is unreliable and difficult to accurately determine using this system. CCS is seeking grant money to connect sub-meters/data loggers to an energy management system "Dash Board" that will provide accurate reporting in a usable format.

Water (interior): CCS Campuses are singularly metered by the water utility. Building sub meters/data loggers have been installed on recent projects; however, due to funding issues, systems for collecting and aggregating usage have not been integrated into an energy management system. Similar to the electric and gas usage data collection, water usage will be monitored as funding permits and a system is developed.

Metering and Measurement Report

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Submit completed report(s) to: SustainableBA@ga.wa.gov Due Date: June 1, 2012.

Building Name: **Science Building # 172-028**
Institution Name: **Community Colleges of Spokane (SFCC)**
Approximate Occupancy Date: **April 2011**
Submitted By: Dennis **Dunham, District Director of Facilities Date: May 23, 2012**
Phone: **509-533-8630 Email: facilities@ccs.spokane.edu**

(**X**)This building will not be participating in reporting energy and water data per RCW 39.35D. (check if applicable).

Provide and explanation of the metering and/or measurement systems established. Indicate if there have been any problems collecting the needed data. Also indicate when problems will be resolved:

Electricity: CCS Campus buildings are singularly metered by the electric utility. Sub meters (data loggers) have been installed on recent projects including this building. As funds permit, the sub-meters/data loggers are being linked to a Universal Network Controller for determining HVAC equipment/system malfunctions. This system has proven to be unreliable for monitoring long term energy use and management. CCS is currently exploring true energy management systems and is seeking grant money to connect sub-meters/data loggers to an EMS “Dash Board” that will provide accurate reporting in a usable format. CCS hopes to have an energy management system under development sometime in the next fiscal year.

Gas: CCS Campus buildings are singularly metered by the natural gas utility. Sub meters/data loggers have been installed on recent projects including this building. Similar to electricity monitoring explained in the forgoing paragraph, the sub-meters/data loggers are being linked to an HVAC Universal Network Controller as funding permits, however, building energy usage is unreliable and difficult to accurately determine using this system. CCS is seeking grant money to connect sub-meters/data loggers to an energy management system “Dash Board” that will provide accurate reporting in a usable format.

Water (interior): CCS Campuses are singularly metered by the water utility. Building sub meters/data loggers have been installed on recent projects; however, due to funding issues, systems for collecting and aggregating usage have not been integrated into an energy management system. Similar to the electric and gas usage data collection, water usage will be monitored as funding permits and a system is developed.

Metering and Measurement Report

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Submit completed report(s) to: SustainableBA@ga.wa.gov Due Date: June 1, 2012.

Building Name: ___Annette B. Weyerhaeuser Early Learning Center
Institution Name: _Tacoma Community College___________________
Approximate Occupancy Date: ___8-1-2008______________________
Submitted By: ___Dave Moffat______________________________________ Date: _7-24-12_____
Phone: _253-566-6047________ Email: ____dmoffat@tacomacc.edu_______________________

(___) This building will not be participating in reporting energy and water data per RCW 39.35D. (check if applicable).

Provide and explanation of the metering and/or measurement systems established. Indicate if there have been any problems collecting the needed data. Also indicate when problems will be resolved:

Electricity: The electric meter is read and recorded 1 time per month, the demand is reset at the same time.

Gas: Natural gas readings are requested for the prior 12 month period from the gas utility for accuracy.

Water (interior): The Potable water meter is read and recorded 1 time per month. The Irrigation deduct meter is read and recorded 1 time per month.

Other: Additionally included is a water deduct meter for the Hydronic system. The total Potable water consumption is calculated by deducting the Hydronic system consumption from the potable consumption reading.

Metering and Measurement Report (Template)

This purpose of this report is to document issues related to the gathering of energy and water consumption data.

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Submit completed report(s) to: SustainableBA@ga.wa.gov Due Date: June 1, 2012.

Building Name: __William A. Grant Water & Environmental Center____
Institution Name: _Walla Walla Community College_______________
Approximate Occupancy Date: __October 12, 2007________________
Submitted By: __James R. Peterson_________________________________ Date: __7/23/12_____
Phone: __509-527-4686__________ Email: __james.peterson@wwcc.edu__________________

(__) This building will not be participating in reporting energy and water data per RCW 39.35D. (check if applicable).

Provide and explanation of the metering and/or measurement systems established. Indicate if there have been any problems collecting the needed data. Also indicate when problems will be resolved:

Electricity: Net electricity consumed is metered by Pacific Power on a monthly basis. This metering measures electricity received from PP&L. It also measures electricity returned to PP&L from solar generation when production exceeds use in the building. Total electricity used is the amount metered from PP&L plus what is generated by PV solar array less what is returned to PP&L.

Gas/Steam/HW: Natural gas is metered by Cascade Natural Gas on a monthly basis.

Water (interior): Two water meters serve the William A. Grant Water and Environmental Center. These meters are read monthly by the City of Walla Walla. Spread sheet reflects sum of the two meters.

Other:
PV Solar Renewable: Electricity is measured by a vendor-provided dashboard/kiosk. Much of the electricity generated is used in the building. At lower occupancy times, electricity is returned to the grid.

Metering and Measurement Report (Template)

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Submit completed report(s) to: SustainableBA@ga.wa.gov Due Date: June 1, 2012.

Building Name: Perimeter Control Office
Institution Name: Cedar Creek Corrections Center
Approximate Occupancy Date: 2009
Submitted By: Julie Vanneste Date: 5/23/2012
Phone: (360)725-8396 Email: javanneste@doc1.wa.gov

(X) This building will not be participating in reporting energy and water data per RCW 39.35D. (check if applicable).

Provide and explanation of the metering and/or measurement systems established. Indicate if there have been any problems collecting the needed data. Also indicate when problems will be resolved:

Electricity: The campus where the building resides is centrally metered for electricity. There is no separate meter on this building. There is not sufficient data to meaningfully prorate the electricity use of individual of campus buildings. There are no current plans to install a metering system.

Gas/Steam/HW: The campus where the building resides is centrally metered for Gas. There is no separate meter on this building. There is not sufficient data to meaningfully prorate the gas use of individual of campus buildings. There are no current plans to install a metering system. If applicable to this campus steam is centrally metered. Hot water is not metered. There are no plans to install a separate metering system.

Water (interior): The campus where the building resides is centrally metered for Water. There is no separate meter on this building. There is not sufficient data to meaningfully prorate the water use of individual of campus buildings. There are no current plans to install a metering system.

Other:

Metering and Measurement Report (Template)

This purpose of this report is to document issues related to the gathering of energy and water consumption data.

It is required in the event that the Energy and Water Consumption and Savings Reporting Form cannot be completed for a LEED Building or if some of the data in the reporting form is "prorated". Complete one of these Reports for each LEED building that is not represented by an Energy and Water Consumption and Savings Reporting Form (Excel Spreadsheet), or where some of the data is prorated. This report will be included in the Green Building Report to the Legislature.

Submit completed report(s) to: SustainableBA@ga.wa.gov Due Date: June 1, 2012.

Building Name: Warehouse
Institution Name: Washington State Penitentary
Approximate Occupancy Date: 2005
Submitted By: Julie Vanneste Date: 5/23/2012
Phone: (360)725-8396 Email: javanneste@doc1.wa.gov

(X) This building will not be participating in reporting energy and water data per RCW 39.35D. (check if applicable).

Provide and explanation of the metering and/or measurement systems established. Indicate if there have been any problems collecting the needed data. Also indicate when problems will be resolved:

Electricity: The campus where the building resides is centrally metered for electricity. There is no separate meter on this building. There is not sufficient data to meaningfully prorate the electricity use of individual of campus buildings. There are no current plans to install a metering system.

Gas/Steam/HW: The campus where the building resides is centrally metered for Gas. There is no separate meter on this building. There is not sufficient data to meaningfully prorate the gas use of individual of campus buildings. There are no current plans to install a metering system. If applicable to this campus steam is centrally metered. Hot water is not metered. There are no plans to install a separate metering system.

Water (interior): The campus where the building resides is centrally metered for Water. There is no separate meter on this building. There is not sufficient data to meaningfully prorate the water use of individual of campus buildings. There are no current plans to install a metering system.

Other:

Metering and Measurement Report (Template)

This purpose of this report is to document issues related to the gathering of energy and water consumption data.

It is required in the event that the Energy and Water Consumption and Savings Reporting Form cannot be completed for a LEED Building or if some of the data in the reporting form is "prorated". Complete one of these Reports for each LEED building that is not represented by an Energy and Water Consumption and Savings Reporting Form (Excel Spreadsheet), or where some of the data is prorated. This report will be included in the Green Building Report to the Legislature.

Submit completed report(s) to: SustainableBA@ga.wa.gov Due Date: June 1, 2012.

Building Name: North Close Security Complex
Institution Name: Washington State Penitentiary
Approximate Occupancy Date: 2007
Submitted By: Julie Vanneste Date: 5/23/2012
Phone: (360)725-8396 Email: javanneste@doc1.wa.gov

(X) This building will not be participating in reporting energy and water data per RCW 39.35D. (check if applicable).

Provide and explanation of the metering and/or measurement systems established. Indicate if there have been any problems collecting the needed data. Also indicate when problems will be resolved:

Electricity: The campus where the building resides is centrally metered for electricity. There is no separate meter on this building. There is not sufficient data to meaningfully prorate the electricity use of individual of campus buildings. There are no current plans to install a metering system.

Gas/Steam/HW: The campus where the building resides is centrally metered for Gas. There is no separate meter on this building. There is not sufficient data to meaningfully prorate the gas use of individual of campus buildings. There are no current plans to install a metering system. If applicable to this campus steam is centrally metered. Hot water is not metered. There are no plans to install a separate metering system.

Water (interior): The campus where the building resides is centrally metered for Water. There is no separate meter on this building. There is not sufficient data to meaningfully prorate the water use of individual of campus buildings. There are no current plans to install a metering system.

Other:

Metering and Measurement Report (Template)

This purpose of this report is to document issues related to the gathering of energy and water consumption data.

It is required in the event that the Energy and Water Consumption and Savings Reporting Form cannot be completed for a LEED Building or if some of the data in the reporting form is "prorated". Complete one of these Reports for each LEED building that is not represented by an Energy and Water Consumption and Savings Reporting Form (Excel Spreadsheet), or where some of the data is prorated. This report will be included in the Green Building Report to the Legislature.

Submit completed report(s) to: SustainableBA@ga.wa.gov Due Date: June 1, 2012.

Building Name: South Close Expansion – Correctional l Industries Warehouse
Institution Name: Washington State Penitentiary
Approximate Occupancy Date: 2009
Submitted By: Julie Vanneste Date: 5/23/2012
Phone: (360)725-8396 Email: javanneste@doc1.wa.gov

(X) This building will not be participating in reporting energy and water data per RCW 39.35D. (check if applicable).

Provide and explanation of the metering and/or measurement systems established. Indicate if there have been any problems collecting the needed data. Also indicate when problems will be resolved:

Electricity: The campus where the building resides is centrally metered for electricity. There is no separate meter on this building. There is not sufficient data to meaningfully prorate the electricity use of individual of campus buildings. There are no current plans to install a metering system.

Gas/Steam/HW: The campus where the building resides is centrally metered for Gas. There is no separate meter on this building. There is not sufficient data to meaningfully prorate the gas use of individual of campus buildings. There are no current plans to install a metering system. If applicable to this campus steam is centrally metered. Hot water is not metered. There are no plans to install a separate metering system.

Water (interior): The campus where the building resides is centrally metered for Water. There is no separate meter on this building. There is not sufficient data to meaningfully prorate the water use of individual of campus buildings. There are no current plans to install a metering system.

Other:

Metering and Measurement Report (Template)

This purpose of this report is to document issues related to the gathering of energy and water consumption data.

It is required in the event that the Energy and Water Consumption and Savings Reporting Form cannot be completed for a LEED Building or if some of the data in the reporting form is "prorated". Complete one of these Reports for each LEED building that is not represented by an Energy and Water Consumption and Savings Reporting Form (Excel Spreadsheet), or where some of the data is prorated. This report will be included in the Green Building Report to the Legislature.

Submit completed report(s) to: SustainableBA@ga.wa.gov Due Date: June 1, 2012.

Building Name: South Close Expansion – Health Services Building
Institution Name: Washington State Penitentiary
Approximate Occupancy Date: 2010
Submitted By: Julie Vanneste Date: 5/23/2012
Phone: (360)725-8396 Email: javanneste@doc1.wa.gov

(X) This building will not be participating in reporting energy and water data per RCW 39.35D. (check if applicable).

Provide and explanation of the metering and/or measurement systems established. Indicate if there have been any problems collecting the needed data. Also indicate when problems will be resolved:

Electricity: The campus where the building resides is centrally metered for electricity. There is no separate meter on this building. There is not sufficient data to meaningfully prorate the electricity use of individual of campus buildings. There are no current plans to install a metering system.

Gas/Steam/HW: The campus where the building resides is centrally metered for Gas. There is no separate meter on this building. There is not sufficient data to meaningfully prorate the gas use of individual of campus buildings. There are no current plans to install a metering system. If applicable to this campus steam is centrally metered. Hot water is not metered. There are no plans to install a separate metering system.

Water (interior): The campus where the building resides is centrally metered for Water. There is no separate meter on this building. There is not sufficient data to meaningfully prorate the water use of individual of campus buildings. There are no current plans to install a metering system.

Other:

Metering and Measurement Report (Template)

This purpose of this report is to document issues related to the gathering of energy and water consumption data.

It is required in the event that the Energy and Water Consumption and Savings Reporting Form cannot be completed for a LEED Building or if some of the data in the reporting form is “prorated”. Complete one of these Reports for each LEED building that is not represented by an Energy and Water Consumption and Savings Reporting Form (Excel Spreadsheet), or where some of the data is prorated. This report will be included in the Green Building Report to the Legislature.

Submit completed report(s) to: SustainableBA@ga.wa.gov Due Date: June 1, 2012.

Building Name: New Visitation Building
Institution Name: Airway Heights Corrections Center
Approximate Occupancy Date: 2008
Submitted By: Julie Vanneste Date: 5/23/2012
Phone: (360)725-8396 Email: javanneste@doc1.wa.gov

(X) This building will not be participating in reporting energy and water data per RCW 39.35D. (check if applicable).

Provide and explanation of the metering and/or measurement systems established. Indicate if there have been any problems collecting the needed data. Also indicate when problems will be resolved:

Electricity: The campus where the building resides is centrally metered for electricity. There is no separate meter on this building. There is not sufficient data to meaningfully prorate the electricity use of individual of campus buildings. There are no current plans to install a metering system.

Gas/Steam/HW: The campus where the building resides is centrally metered for Gas. There is no separate meter on this building. There is not sufficient data to meaningfully prorate the gas use of individual of campus buildings. There are no current plans to install a metering system. If applicable to this campus steam is centrally metered. Hot water is not metered. There are no plans to install a separate metering system.

Water (interior): The campus where the building resides is centrally metered for Water. There is no separate meter on this building. There is not sufficient data to meaningfully prorate the water use of individual of campus buildings. There are no current plans to install a metering system.

Other:

Metering and Measurement Report (Template)

This purpose of this report is to document issues related to the gathering of energy and water consumption data.

It is required in the event that the Energy and Water Consumption and Savings Reporting Form cannot be completed for a LEED Building or if some of the data in the reporting form is “prorated”. Complete one of these Reports for each LEED building that is not represented by an Energy and Water Consumption and Savings Reporting Form (Excel Spreadsheet), or where some of the data is prorated. This report will be included in the Green Building Report to the Legislature.

Submit completed report(s) to: SustainableBA@ga.wa.gov Due Date: June 1, 2012.

Building Name: Treatment Program Building
Institution Name: Airway Heights Corrections Center
Approximate Occupancy Date: 2009
Submitted By: Julie Vanneste Date: 5/23/2012
Phone: (360)725-8396 Email: javanneste@doc1.wa.gov

(X) This building will not be participating in reporting energy and water data per RCW 39.35D. (check if applicable).

Provide and explanation of the metering and/or measurement systems established. Indicate if there have been any problems collecting the needed data. Also indicate when problems will be resolved:

Electricity: The campus where the building resides is centrally metered for electricity. There is no separate meter on this building. There is not sufficient data to meaningfully prorate the electricity use of individual of campus buildings. There are no current plans to install a metering system.

Gas/Steam/HW: The campus where the building resides is centrally metered for Gas. There is no separate meter on this building. There is not sufficient data to meaningfully prorate the gas use of individual of campus buildings. There are no current plans to install a metering system. If applicable to this campus steam is centrally metered. Hot water is not metered. There are no plans to install a separate metering system.

Water (interior): The campus where the building resides is centrally metered for Water. There is no separate meter on this building. There is not sufficient data to meaningfully prorate the water use of individual of campus buildings. There are no current plans to install a metering system.

Other:

Metering and Measurement Report (Template)

This purpose of this report is to document issues related to the gathering of energy and water consumption data.

It is required in the event that the Energy and Water Consumption and Savings Reporting Form cannot be completed for a LEED Building or if some of the data in the reporting form is "prorated". Complete one of these Reports for each LEED building that is not represented by an Energy and Water Consumption and Savings Reporting Form (Excel Spreadsheet), or where some of the data is prorated. This report will be included in the Green Building Report to the Legislature.

Submit completed report(s) to: SustainableBA@ga.wa.gov Due Date: June 1, 2012.

Building Name: IMU/Segregation Unit
Institution Name: Monroe Correction Complex
Approximate Occupancy Date: 2006
Submitted By: Julie Vanneste Date: 5/23/2012
Phone: (360)725-8396 Email: javanneste@doc1.wa.gov

(X) This building will not be participating in reporting energy and water data per RCW 39.35D. (check if applicable).

Provide and explanation of the metering and/or measurement systems established. Indicate if there have been any problems collecting the needed data. Also indicate when problems will be resolved:

Electricity: The campus where the building resides is centrally metered for electricity. There is no separate meter on this building. There is not sufficient data to meaningfully prorate the electricity use of individual of campus buildings. There are no current plans to install a metering system.

Gas/Steam/HW: The campus where the building resides is centrally metered for Gas. There is no separate meter on this building. There is not sufficient data to meaningfully prorate the gas use of individual of campus buildings. There are no current plans to install a metering system. If applicable to this campus steam is centrally metered. Hot water is not metered. There are no plans to install a separate metering system.

Water (interior): The campus where the building resides is centrally metered for Water. There is no separate meter on this building. There is not sufficient data to meaningfully prorate the water use of individual of campus buildings. There are no current plans to install a metering system.

Other:

Metering and Measurement Report (Template)

This purpose of this report is to document issues related to the gathering of energy and water consumption data.

It is required in the event that the Energy and Water Consumption and Savings Reporting Form cannot be completed for a LEED Building or if some of the data in the reporting form is "prorated". Complete one of these Reports for each LEED building that is not represented by an Energy and Water Consumption and Savings Reporting Form (Excel Spreadsheet), or where some of the data is prorated. This report will be included in the Green Building Report to the Legislature.

Submit completed report(s) to: SustainableBA@ga.wa.gov   Due Date: June 1, 2012.

Building Name: SOU Maintenance
Institution Name: Monroe Correction Complex
Approximate Occupancy Date: 2005
Submitted By: Julie Vanneste   Date: 5/23/2012
Phone: (360)725-8396 Email: javanneste@doc1.wa.gov

(X) This building will not be participating in reporting energy and water data per RCW 39.35D. (check if applicable).

Provide and explanation of the metering and/or measurement systems established. Indicate if there have been any problems collecting the needed data. Also indicate when problems will be resolved:

Electricity: The campus where the building resides is centrally metered for electricity. There is no separate meter on this building. There is not sufficient data to meaningfully prorate the electricity use of individual of campus buildings. There are no current plans to install a metering system.

Gas/Steam/HW: The campus where the building resides is centrally metered for Gas. There is no separate meter on this building. There is not sufficient data to meaningfully prorate the gas use of individual of campus buildings. There are no current plans to install a metering system. If applicable to this campus steam is centrally metered. Hot water is not metered. There are no plans to install a separate metering system.

Water (interior): The campus where the building resides is centrally metered for Water. There is no separate meter on this building. There is not sufficient data to meaningfully prorate the water use of individual of campus buildings. There are no current plans to install a metering system.

Other:

Metering and Measurement Report (Template)

This purpose of this report is to document issues related to the gathering of energy and water consumption data.

It is required in the event that the Energy and Water Consumption and Savings Reporting Form cannot be completed for a LEED Building or if some of the data in the reporting form is "prorated". Complete one of these Reports for each LEED building that is not represented by an Energy and Water Consumption and Savings Reporting Form (Excel Spreadsheet), or where some of the data is prorated. This report will be included in the Green Building Report to the Legislature.

Submit completed report(s) to: SustainableBA@ga.wa.gov Due Date: June 1, 2012.

Building Name: Training Center
Institution Name: Monroe Correction Complex
Approximate Occupancy Date: 2005
Submitted By: Julie Vanneste Date: 5/23/2012
Phone: (360)725-8396 Email: javanneste@doc1.wa.gov

(X) This building will not be participating in reporting energy and water data per RCW 39.35D. (check if applicable).

Provide and explanation of the metering and/or measurement systems established. Indicate if there have been any problems collecting the needed data. Also indicate when problems will be resolved:

Electricity: The campus where the building resides is centrally metered for electricity. The meter placed at this building is inoperable. Budget constraints have delayed the replacement of the meter. There are no current plans to install a new metering system.

Gas/Steam/HW: The campus where the building resides is centrally metered for Gas. There is no separate meter on this building. There is not sufficient data to meaningfully prorate the gas use of individual of campus buildings. There are no current plans to install a metering system. If applicable to this campus steam is centrally metered. Hot water is not metered. There are no plans to install a separate metering system.

Water (interior): The campus where the building resides is centrally metered for Water. There is no separate meter on this building. There is not sufficient data to meaningfully prorate the water use of individual of campus buildings. There are no current plans to install a metering system.

Other:

Metering and Measurement Report (Template)

This purpose of this report is to document issues related to the gathering of energy and water consumption data.

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Submit completed report(s) to: SustainableBA@ga.wa.gov Due Date: June 1, 2012.

Building Name: 100-Bed Expansion
Institution Name: Mission Creek Corrections Center for Women
Approximate Occupancy Date: 2010
Submitted By: Julie Vanneste Date: 5/23/2012
Phone: (360)725-8396 Email: javanneste@doc1.wa.gov

(X) This building will not be participating in reporting energy and water data per RCW 39.35D. (check if applicable).

Provide and explanation of the metering and/or measurement systems established. Indicate if there have been any problems collecting the needed data. Also indicate when problems will be resolved:

Electricity: The campus where the building resides is centrally metered for electricity. There is no separate meter on this building. There is not sufficient data to meaningfully prorate the electricity use of individual of campus buildings. There are no current plans to install a metering system.

Gas/Steam/HW: The campus where the building resides is centrally metered for Gas. There is no separate meter on this building. There is not sufficient data to meaningfully prorate the gas use of individual of campus buildings. There are no current plans to install a metering system. If applicable to this campus steam is centrally metered. Hot water is not metered. There are no plans to install a separate metering system.

Water (interior): The campus where the building resides is centrally metered for Water. There is no separate meter on this building. There is not sufficient data to meaningfully prorate the water use of individual of campus buildings. There are no current plans to install a metering system.

Other:

Metering and Measurement Report (Template)

This purpose of this report is to document issues related to the gathering of energy and water consumption data.

It is required in the event that the Energy and Water Consumption and Savings Reporting Form cannot be completed for a LEED Building or if some of the data in the reporting form is “prorated”. Complete one of these Reports for each LEED building that is not represented by an Energy and Water Consumption and Savings Reporting Form (Excel Spreadsheet), or where some of the data is prorated. This report will be included in the Green Building Report to the Legislature.

Submit completed report(s) to: SustainableBA@ga.wa.gov Due Date: June 1, 2012.

Building Name: Health Care
Institution Name: Mission Creek Corrections Center for Women
Approximate Occupancy Date: 2010
Submitted By: Julie Vanneste Date: 5/23/2012
Phone: (360)725-8396 Email: javanneste@doc1.wa.gov

(X) This building will not be participating in reporting energy and water data per RCW 39.35D. (check if applicable).

Provide and explanation of the metering and/or measurement systems established. Indicate if there have been any problems collecting the needed data. Also indicate when problems will be resolved:

Electricity: The campus where the building resides is centrally metered for electricity. There is no separate meter on this building. There is not sufficient data to meaningfully prorate the electricity use of individual of campus buildings. There are no current plans to install a metering system.

Gas/Steam/HW: The campus where the building resides is centrally metered for Gas. There is no separate meter on this building. There is not sufficient data to meaningfully prorate the gas use of individual of campus buildings. There are no current plans to install a metering system. If applicable to this campus steam is centrally metered. Hot water is not metered. There are no plans to install a separate metering system.

Water (interior): The campus where the building resides is centrally metered for Water. There is no separate meter on this building. There is not sufficient data to meaningfully prorate the water use of individual of campus buildings. There are no current plans to install a metering system.

Other:

Metering and Measurement Report (Template)

This purpose of this report is to document issues related to the gathering of energy and water consumption data.

It is required in the event that the Energy and Water Consumption and Savings Reporting Form cannot be completed for a LEED Building or if some of the data in the reporting form is “prorated”. Complete one of these Reports for each LEED building that is not represented by an Energy and Water Consumption and Savings Reporting Form (Excel Spreadsheet), or where some of the data is prorated. This report will be included in the Green Building Report to the Legislature.

Submit completed report(s) to: SustainableBA@ga.wa.gov Due Date: June 1, 2012.

Building Name: Phase 2-Residential Housing Unit Renovation for: Cottages 9, 10, 12, & 13 and Classroom
Institution Name: Echo Glen Children’s Center

Approximate Occupancy Date: **Substantial Completion date April, 2010**
Submitted By: Diana Peeples Date: August 2, 2012
Phone: (360)902-8347 Email: peepldu@dshs.wa.gov

(___) This building will not be participating in reporting energy and water data per RCW 39.35D. (check if applicable).
Provide and explanation of the metering and/or measurement systems established. Indicate if there have been any problems collecting the needed data. Also indicate when problems will be resolved:

Electricity:
Customer meters on all renovated buildings. The classroom is serviced by an electric heat pump. Circuit transformers installed on the electrical panel meters the building’s power usage in “KW”.

Gas/Steam/HW: Natural gas flow meter installed on the incoming gas line measures the building gas consumption in “cubic feet per hour”.

Water (interior):
Water is supplied by domestic on-site campus wells. Water flow meter installed on the incoming domestic water line meter the building water consumption in “gallons per minute”. Waste water is piped to a municipal sewer and the amount generated affects the costs.

Domestic Hot Water: BTU meter is installed at the hot water piping from the hot water heater measures energy used to heat water based on the gallon per minute flow rate and the temperature delta.

Metering and Measurement Report (Template)

This purpose of this report is to document issues related to the gathering of energy and water consumption data.

It is required in the event that the Energy and Water Consumption and Savings Reporting Form cannot be completed for a LEED Building or if some of the data in the reporting form is "prorated". Complete one of these Reports for each LEED building that is not represented by an Energy and Water Consumption and Savings Reporting Form (Excel Spreadsheet), or where some of the data is prorated. This report will be included in the Green Building Report to the Legislature.

Submit completed report(s) to: SustainableBA@ga.wa.gov Due Date: June 1, 2012.

Building Name: Health Center & Administration Building
Institution Name: DSHS/ Green Hill School
Approximate Occupancy Date: September 2009
Submitted By: Diana Peeples Date: August 3, 2012
Phone: (360)902-8347 Email: peepldu@dshs.wa.gov

(___) This building will not be participating in reporting energy and water data per RCW 39.35D. (check if applicable).

Provide and explanation of the metering and/or measurement systems established. Indicate if there have been any problems collecting the needed data. Also indicate when problems will be resolved:

Electricity: Electrical rates are prorated due to the bulk rate campus meter. The building meter is tied into the EMCS control system. There has been programming problems to work out issues in the system. More segregation is needed for readings.

Gas/Steam/HW: This building is connected to a central power plant for hot water to the buildings for heating and HW use. Numbers are prorated base on a campus meter for gas.

Water (interior): Water is supplied by the City of Chehalis and waste water discharges to municipal system. A water flow meter is installed on the incoming domestic water line read in gallons per minute. Water and Sewer are combined in the billing and has not been segregated from the campus usage.

Other:

Metering and Measurement Report (Template)

This purpose of this report is to document issues related to the gathering of energy and water consumption data.

It is required in the event that the Energy and Water Consumption and Savings Reporting Form cannot be completed for a LEED Building or if some of the data in the reporting form is “prorated”. Complete one of these Reports for each LEED building that is not represented by an Energy and Water Consumption and Savings Reporting Form (Excel Spreadsheet), or where some of the data is prorated. This report will be included in the Green Building Report to the Legislature.

Submit completed report(s) to: SustainableBA@ga.wa.gov Due Date: June 1, 2012.

Building Name: Oliver Kastel Vocational Education & Facilities Support Building
Institution Name: Washington School for the Deaf (CDHL)
Approximate Occupancy Date: 9/25/2009
Submitted By: Warren H. Pratt – Facilities Manager Date: 5/25/2012
Phone: (360) 418-4293 Email: warren.pratt@wsd.wa.gov

(___) This building will not be participating in reporting energy and water data per RCW 39.35D. (check if applicable).

Provide and explanation of the metering and/or measurement systems established. Indicate if there have been any problems collecting the needed data. Also indicate when problems will be resolved:

Electricity: The electricity supplies the Kastel building (leed building) as well as an older building called the Northrop building. We have a deduct meter for the Northrop building which is monitored by our Johnson Control DDC system. The DDC controls system showed a total of 83,000 KWH for the year 2011 for the Northrop building and is not recorded monthly. We deducted the 83,000 KWH from the Kastel building subtracting it in 12 equal parts.

Gas/Steam/HW: The gas supplies the Kastel building (leed building) as well as an older building called the Northrop building. We have a deduct meter for the Northrop building which is monitored by our Johnson Control DDC system. We had trouble retrieving gas data for the Northrop building due to an upgrade to our DDC control system. We were able to retrieve the data from past bill records and subtracted the Northrop gas usage from the Kastel building.

Water (interior): We had a lot of trouble figuring out all the different water meters on campus. The correct meters were entered for this report. We will be meeting with the City of Vancouver to go over all the water meter locations and what each one supplies.

High-Performance Green Buildings

Post Construction Submittal (submit at substantial completion)

Received by GA:

Date: 7/1/2012

Submit to: sustainableba@ga.wa.gov

Project Name	Business School, Phase 2 (Balmer Hall)	Agency/Institution	360 - University of Washington
Project Number	201838	GA H-P Green Bldg.#	GA 08-011
Final Square Footage	70,518		

	Name	Agency or Firm	Phone	E-Mail
Submitted By	Clara Simon	UW Capital Projects	206-543-2258	simonch@uw.edu

	Name	Company	Phone	E-Mail
General Contractor	Kurt Winje	Sellen	206-805-7118	kurt.winje@sellen.com

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	Consultant Fees
C) Commissioning	
D) ELCCA	
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!

Energy and Water/Sewer Savings and Consumption Est.s (Taken from the LEED Submittal)	
Est. Annual Energy Savings (% $)	
Est. Annual Energy Savings ($/Yr)	
Est. Total Energy Use (kBtu/Yr)	
Est. Total Energy Use ($/Yr)	
Est. Renew. Energy Generated (kWh/yr)	$ -
Est. Renew. Energy Generated (Btuh/yr)	$ -
Est. Annual 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	$ -

Est.Gas Use (therms/yr)	Est.Electric Use (kWh/yr)

Construction Waste Recycled (%)	Construction Waste Recycled (tons)
91	3657

* 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:

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

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

Form Last Updated
October 2007

LEED Building Cost and Performance Data

Please complete this form to the best of your ability. This information is best completed by the State Project Manager responsible for the project and/or the Architect. Input data into yellow boxes.

Building Name/City:	Business Hall (formerly Balmer)
Building Gross Square Footage:	70,518
Number of Occupants:	598
Institution/University or Agency Name:	University of Washington
Submitted By Name/Phone:	Clara Simon 206-543-2258
LEED Level Achieved or (Expected)/Date:	Gold
LEED Version Used (e.g. V 2.2 or V 3.0)	LEED-NC v2.2

Building Cost Data

Consultant Costs	Costs*
Overall Consultant Fees:	$ 2,150,573.00
LEED Related Consultant Fees:	$ 72,069.00
Commissioning Fees:	$ 77,302.00
ELCCA Preparation Fees:	$ 29,838.00
* Use the Application for Payment, Agreement Invoice	

Overall Cost of LEED
$ (174,485.10)

Overall Project Cost (Consultant + Construction)
$ 25,510,595.90

Cost of LEED Compared to Overall Costs (%)
-0.7%

LEED Submittal Fees: $ 4,428.90

Building Construction Cost Per Square Foot
$ 300.63

Soft Cost of LEED/Overall Consultant Fees (%): 3.6%

Construction Costs	Costs**		
Building Demolistion Cost (if applicable):	$ 1,735,120.00		
Site Work & Related Costs:	$ 466,210.00		
Building Construction Costs:	$ 21,199,999.00		
Max. Allowable Construction Costs (MACC):	$ 23,355,594.00		LEED Elements Description
Cost of LEED Element***:	$ 18,016.00	>	FSC Certified Wood
Cost of LEED Element***:	$ -	>	
Cost of LEED Element***:	$ -	>	
Cost of LEED Element***:	$ -	>	
Cost of LEED Element***:	$ -	>	
Cost of LEED Element***:	$ -	>	
Added LEED Construction Cost:	$ 18,016.00		List Elements not Installed or downsized due to LEED
Savings, Didn't Install Something****	$ 268,999.00	>	Construction Waste Recycling
Savings, Didn't Install Something****	$ -	>	
Savings, Didn't Install Something****	$ -	>	
LEED Related Construction Savings:	$ 268,999.00		

Total Added LEED Construction Costs: $ (250,983.00)

Hard Cost of LEED/Overall Construction Costs (%): -1%

**Use the Schedule of Values from Construction Invoice and Best Estimates

***Provide a best guess for cost. This could include solar panels, rain water capture system, or other feature that normally won't be pursued if not a LEED project.

****Didn't install something, such as a cooling system or greatly reduced the size due to natural ventilation.

Utility Incentives	Amount ($)
Gas:	$ -
Electric:	$ -
Water:	$ -
Other:	$ -
Total Incentives:	$ -

Utility Incentives as % of Building Costs
0.0%

Describe
> Not Pursued Due to Consultant Cost Premium

LEED Building Performance Information

Total Savings Over Baseline (energy & water)	
$	679,270.00

Payback (Yrs)***
-0.256871494

LEED Attribute	Capture this data from the LEED submittal (LEED OnLine)					
Energy Effciency and Renewable Energy	**Proposed Building**				**Baseline Building**	
	Units	$	% Savings	$ Savings	Units	$
Electricity (kWh)	315,338	$ 17,345	31.0%	$ 8,701	459,114	$26,046
Gas (Therms)	9,867	$ 13,124	22.1%	$ 3,729	12,668	$ 16,853
Renewable Energy, Electricity (kWh)	-	$ -	#DIV/0!	$ -		
Renewable Energy, Heat (Btu)	-	$ -	#DIV/0!	$ -		
Total Btus, Dollars & Percents	2,062,949	$ 30,469	40.8%	$ 12,430		$ 42,899
Water Efficiency						
	Gallons/Yr	$	% Savings	$ Savings	Gallons/Yr	$
Water Use Reduction (water/sewer*)	149,106	$ 894,636	42.7%	$ 666,840.00	260,246	$ 1,561,476
Landscape Watering (irrigation water**)	-	$ -	#DIV/0!	$ -	-	$ -
Captured Water (irrigation or interior water)	-	$ -	Calculate >>	$ -		
Total Water Saving	149,106	$ 894,636	42.7%	$666,840	260,246	$ 1,561,476

Stormwater Management		
	Points 0-2	
Stormwater Control Quality and Quantity		
Alt. Transportation Sources & Walkability		
	Points	
Density & Community Connectivity	1	
Public Transportation	1	
Bike Racks & Showers	1	
Total Points	3	
Construction Waste Recycling		
	Tons	%
Construction Waste Recycled	3657	0.9
Use of Recycled Content Materials		
	$	%
Recycled Content Materials	$ 1,393,836.00	26.0
Use of Regional Materials		
	$	%
Regional Materials	$ 1,169,190.00	22.0
Protect Forests, Support Sustainable Forestry		
	Points	
Ceterified Wood	1	
Good Indoor Air Quality		
	Points	
Const. IAQ Management Plan	2	
Low-Emitting Materials	4	
Indoor Chemical & Pollutant Source Control	1	
Total Points	7	
Access to Natural Light		
	Points 0-2	
Daylight & Views	0	

* Default value used for water/sewer costs of $6/1000 gallons

**Default value used for irrigation water only $2.50/1000 gallons

*** Payback doesn't include many of the intangibles. These can result in greater savings than from energy and water alone. Increased productivity, reductions in sick leave, and worker retention can far outway utility savings. Also environmental benefits can be substantial in moving Washington to its goals. Government must lead by example.

Foster School of Business Phase 2—Balmer Hall

April 2012
Project Manager: Steve Tatge
Construction Manager: Dave Myers

PROJECT DESCRIPTION
This project replaced Balmer Hall with a new facility, primarily housing undergraduate classrooms, for the Michael G. Foster School of Business. The project also includes student organization offices; undergraduate and MBA program offices; specialized program offices with support spaces; and a multipurpose/dining room and catering kitchen. The Foster Library book stack space previously located in the Balmer basement has been rebuilt in the new building. A new loading dock/trash and recycling area were provided to serve the entire business school complex.

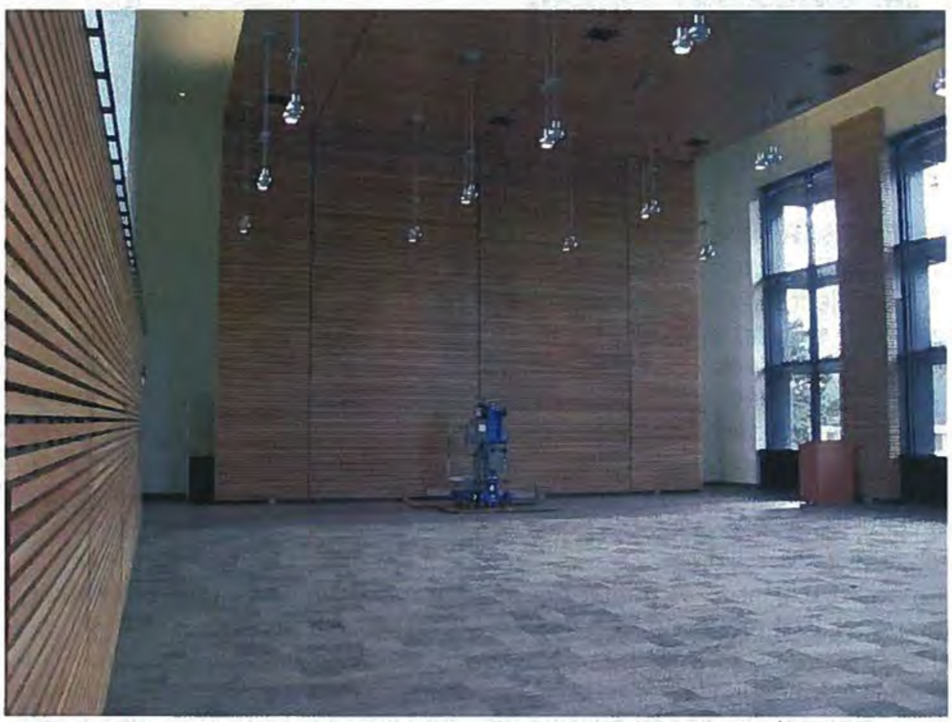
The new facility, currently named 'Business Hall' and totaling approximately 63,000 gross square feet, follows and connects to the privately-funded, first-phase PACCAR Hall project. Mackenzie Hall and the Bank of America Executive Education Center (BAEEC) comprise the rest of the Foster School complex.

In accordance with the requirements of the state of Washington, the project is designed to achieve Leadership in Energy and Environmental Design (LEED) Silver certification.

The architect is LMN Architects, the landscape architect is Swift and Company, and the general contractor/construction manager (GC/CM) is Sellen Construction. These three firms, all located in Seattle, had the same roles on the PACCAR Hall project.

Completed pedestrian bridge linking Business Hall with the Bank of America Executive Center

Newly expanded N3 Parking area at Mackenzie Hall, adjacent to project site



Anthony's Forum, the multipurpose/dining room

WELCOME CLARA
10101135 - UW - Business Hall (formerly Balmer)
LEED NC 2.2

SCORECARD

CONSTRUCTION APPLICATION REVIEW

Registration | Design Application | Design Review | Design Appeal | Design Appeal Review | Construction Application | Construction Review | Construction Appeal | Construction Appeal Review | Certification /Denial

MY ACTION ITEMS

Displays the next steps for the project. Depending on your project role, the project status and number of points anticipated or awarded; different action items will appear.

Your Project is currently under review. You will be notified via email when the review is complete. You may be asked for more information during this process.

You have 21 new Notifications

POTENTIAL LEED RATING

Displays LEED level which is based on number of points attempted. *

CERTIFIED SILVER GOLD PLATINUM

This Project has not achieved enough points for Certification.

* Actual Certification Level will be based on the number of points awarded and successful completion of all Prerequisites.

WORKFLOW STAGE HISTORY

Displays Workflow Stage History timeline.

Stage	Date Entered
Design & Construction Preliminary Application Submitted	5/18/2012 1:25:30 PM

PAYMENT SUMMARY

Displays payment status timeline.

Payment Type	Invoice Date	Sales Order	Status	Date Cleared
LEED-NC 2.2 Certification Design and Construction	05/18/2012	0011423071	Cleared	05/18/2012

ATTEMPTED CREDIT SUMMARY

Displays attempted points for the project by status.

Status	Points: Design	Construction	Total
Not Awarded:	Under Review	Under Review	Under Review
Earned:	Under Review	Under Review	Under Review
Denied:	Under Review	Under Review	Under Review
Total Attempted:	Under Review	Under Review	Under Review

DOWNLOAD ALL

The "Download All" feature can be used to download a .zip file that includes all templates, file uploads, and review comments for this project. The .zip file can be requested for a project once the project has achieved certification.

The Download All feature is not yet available for this project. Upon completion of the certification process, this feature will become available.

CREDIT SCORECARD

Displays all credits and points per LEED sections. Depending on project access, one can attach team members, view attempted credits or click credits to display template.

Collapse All Credit Categories

design construction

= Marked Complete | = Not Marked Complete | = Needs Attention | = Credit Assigned to You

24 **Points Documented** — **Points Available: 69**

7 Sustainable Sites — Possible Points: 14

SS	Prerequisite 1	Construction Activity Pollution Prevention	Civil Engineer	UnderReview	0
SS	Credit 1	Site Selection	Project Team Administrator	UnderReview	1
SS	Credit 2	Development Density & Community Connectivity	Architect	UnderReview	1

	SS	Credit 3	Brownfield Redevelopment	Project Team Administrator	UnderReview	1
	SS	Credit 4.1	Alternative Transportation: Public Transportation Access	Architect	UnderReview	1
	SS	Credit 4.2	Alternative Transportation: Bicycle Storage & Changing Rooms	Architect	UnderReview	1
	SS	Credit 4.3	Alternative Transportation: Low-Emitting & Fuel Efficient Vehicles	Not Attempted		1
	SS	Credit 4.4	Alternative Transportation: Parking Capacity	Architect	UnderReview	1
	SS	Credit 5.1	Site Development: Protect or Restore Habitat	Not Attempted		1
	SS	Credit 5.2	Site Development: Maximize Open Space	Architect	UnderReview	1
	SS	Credit 6.1	Stormwater Management: Quantity Control	Not Attempted		1
	SS	Credit 6.2	Stormwater Management: Quality Control	Not Attempted		1
	SS	Credit 7.1	Heat Island Effect: Non-Roof	Not Attempted		1
	SS	Credit 7.2	Heat Island Effect: Roof	Not Attempted		1
	SS	Credit 8	Light Pollution Reduction	Electrical	UnderReview	1
2		Water Efficiency			Possible Points:	5
	WE	Credit 1.1-1.2	Water Efficient Landscaping	Not Attempted		2
	WE	Credit 2	Innovative Wastewater Technologies	Not Attempted		1
	WE	Credit 3.1-3.2	Water Use Reduction	Mechanical	UnderReview	2
0		Energy & Atmosphere			Possible Points:	17
	EA	Prerequisite 1	Fundamental Commissioning of the Building Energy Systems	Commissioning Agent	UnderReview	0
	EA	Prerequisite 2	Minimum Energy Performance	Mechanical	UnderReview	0
	EA	Prerequisite 3	Fundamental Refrigerant Management	Mechanical	UnderReview	0
	EA	Credit 1	Optimize Energy Performance	Mechanical	UnderReview	10
	EA	Credit 2	On-Site Renewable Energy	Not Attempted		3
	EA	Credit 3	Enhanced Commissioning	Commissioning Agent	UnderReview	1
	EA	Credit 4	Enhanced Refrigerant Management	Not Attempted		1
	EA	Credit 5	Measurement & Verification	Not Attempted		1
	EA	Credit 6	Green Power	Not Attempted		1
5		Materials & Resources			Possible Points:	13
	MR	Prerequisite 1	Storage & Collection of Recyclables	Architect	UnderReview	0
	MR	Credit 1.1-1.2	Building Reuse	Not Attempted		2
	MR	Credit 1.3	Building Reuse, Non-Structural	Not Attempted		1
	MR	Credit 2	Construction Waste Management	Contractor	UnderReview	2
	MR	Credit 3	Resource Reuse	Not Attempted		2
	MR	Credit 4	Recycled Content	Contractor	UnderReview	2

	MR	Credit 4	Recycled Content		Contractor	UnderReview	2
	MR	Credit 5	Regional Materials		Contractor	UnderReview	2
	MR	Credit 6	Rapidly Renewable Materials		Not Attempted		1
	MR	Credit 7	Certified Wood		Contractor	UnderReview	1
7		Indoor Environmental Quality				Possible Points:	15
	EQ	Prerequisite 1	Minimum IAQ Performance		Mechanical	UnderReview	0
	EQ	Prerequisite 2	Environmental Tobacco Smoke (ETS) Control	★	Project Team Administrator	UnderReview	0
	EQ	Credit 1	Outdoor Air Delivery Monitoring		Mechanical	UnderReview	1
	EQ	Credit 2	Increased Ventilation		Mechanical	UnderReview	1
	EQ	Credit 3.1	Construction IAQ Management Plan: During Construction		Contractor	UnderReview	1
	EQ	Credit 3.2	Construction IAQ Management Plan: Before Occupancy		Contractor	UnderReview	1
	EQ	Credit 4.1	Low-Emitting Materials: Adhesives & Sealants		Contractor	UnderReview	1
	EQ	Credit 4.2	Low-Emitting Materials: Paints & Coatings		Contractor	UnderReview	1
	EQ	Credit 4.3	Low-Emitting Materials: Carpet Systems		Contractor	UnderReview	1
	EQ	Credit 4.4	Low-Emitting Materials: Composite Wood & Agrifiber		Contractor	UnderReview	1
	EQ	Credit 5	Indoor Chemical & Pollutant Source Control		Mechanical	UnderReview	1
	EQ	Credit 6.1	Controllability of Systems: Lighting		Electrical	UnderReview	1
	EQ	Credit 6.2	Controllability of Systems: Thermal Comfort		Not Attempted		1
	EQ	Credit 7.1	Thermal Comfort: Design		Mechanical	UnderReview	1
	EQ	Credit 7.2	Thermal Comfort: Verification	★	Project Team Administrator	UnderReview	1
	EQ	Credit 8.1	Daylighting & Views: Daylight 75% of Spaces		Not Attempted		1
	EQ	Credit 8.2	Daylighting & Views: Views for 90% of Spaces		Not Attempted		1
3		Innovation & Design Process				Possible Points:	5
	ID	Credit 1.1	Innovation in Design		Mechanical	UnderReview	1
	ID	Credit 1.2	Innovation in Design	★	Project Team Administrator	UnderReview	1
	ID	Credit 1.3	Innovation in Design	★	Project Team Administrator	UnderReview	1
	ID	Credit 1.4	Innovation in Design	★	Project Team Administrator	UnderReview	1
	ID	Credit 2	LEED Accredited Professional	★	Project Team Administrator	UnderReview	1

State LEED Project
Energy and Water Metering Plan

Submit to: GASustainableBA@ga.wa.gov
& Stuart Simpson: ssimpso@ga.wa.gov

Project Name: UW Business School, Phase 2 (Balmer Hall) Date: 4/26/11
Project Number: 201838/G 08-011
Institution or Agency Name: University of Washington
Submitted By: Clara Simon Phone: 206-543-2258
Email: simonch@uw.edu
State Project Manager: Stuart Simpson Phone: (360) 902-7199
Email: ssimpso@ga.wa.gov

Provide a brief description of how the following will be measured in the proposed LEED building. If the project will not be using a form of energy or irrigation shown below, simply indicate "NA" in that space. The description should be adequate to describe how the owner will measure the energy and water use on a monthly basis. The owner will in turn report that usage to General Administration on an annual basis per RCW 39.35D. This plan is to ensure that a monitoring strategy has been developed for each State LEED project. This plan must be submitted as part of the Construction Documents submittal in the GA LEED QA process.

Electricity: At the main building service switchboard is a multifunction owner meter that connections with existing campus power monitoring system. Power loads have been separated into different distribution systems. Large mechanical units have individual sub meters, smaller mechanical equipment are circuited to dedicated panelboards that are sub metered, elevator has separate sub meter, lighting loads has been separated to lighting only panelboards that are sub metered, large equipment such as trash compactors are sub metered and 120/208 volt receptacle and general use power have been separated and sub metered. All the sub meters are connected to the main building meter.

Gas: NA

Other heating fuel (oil, propane, wood, steam, or hot water): Campus steam is supplied to Paccar Hall (central plant) and converted to hot water for heating at Phase 2. A meter is provided at the steam main connection to the central plant. Metering for Phase 2 heating hot water is provided through DDC system.

Chilled water: Metered by DDC system with flow meter

Domestic Hot Water: Metered by DDC system with flow meter

Water: Metered by DDC system with flow meter

Irrigation: The irrigation flow sensor transmits water flow data via the building irrigation controller to the University of Washington central irrigation controller, where the data is compiled.

Reclaimed or captured water:NA

Renewable Energy Generated: NA

High-Performance Green Buildings

Post Construction Submittal (submit at substantial completion)

Received by GA:

Date: 12-Oct-09

Submit to: sustainableba@ga.wa.gov

Project Name	Floyd and Delores Jones Playhouse Theatre		Agency/Institution	University of Washington
Project Number	200912	GA H-P Green Bldg.#	G 05-064	
Final Square Footage	12,692			
	Name	Agency or Firm	Phone	E-Mail
Submitted By	Clara Simon	UW	206-543-2258	simonch@uw.edu
	Name	Company	Phone	E-Mail
General Contractor	George Mason	Wick Constructors	425-653-9425	georgem@wickconstructors.com

Construction Related Costs	
Facility Construction Costs (Est.)	7,722,731
Site Work & Related Costs* (Est.)	544,000
Max.Allowable Construct.Costs(MACC)	$ 8,266,731.00

Consultant Related Costs		
A) A/E Fees (Base)		655,368
B) Additional A/E Fees		$ 603,451
Other Consultant Services		Consultant Fees
C) Commissioning		$ 32,790
D) Other		128,129
F) Est.LEED Related from (B,C &D)		77,574
Total Consultant Fees (A,B,C &D)		1,419,738

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

Payback for LEED	0

Energy and Water/Sewer Savings and Consumption Est.s (Taken from the LEED Submittal)	
Est. Annual Energy Savings (% $)	46%
Est. Annual Energy Savings ($/Yr)	$ 10,509.00
Est. Total Energy Use (kBtu/Yr)	979778
Est. Total Energy Use ($/Yr)	$ 12,145.00
Est. Renew. Energy Generated (kWh/yr)	$ -
Est. Renew. Energy Generated (Btuh/yr)	$ -
Est. Annual Water Savings (% $)	44%
Est. Annual Water Savings ($/Yr)	$ -
Est. Annual Water Use (Gals/Yr)	$ 13,421.00
Est. Annual Water Cost ($/Yr)	$ -
Est. Annual Sewer Savings ($/yr)	$ 10,561.00
Est. Annual Sewer Savings (Gals/yr)	
Total Estimated Annual Savings	$ 21,070.00

Est.Gas Use (therms/yr)	Est.Electric Use (kWh/yr)
6000	82290

Construction Waste Recycled (%)	Construction Waste Recycled (tons)
95%	124

* 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:

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

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

Form Last Updated
October 2007

State LEED Project
Energy and Water Metering Plan

Submit to: GASustainableBA@ga.wa.gov
& Stuart Simpson: ssimpso@ga.wa.gov

Project Name: Playhouse Theater   Date: August 27, 2009
Project Number: 200912
Institution or Agency Name: University of Washington
Submitted By: Clara Simon   Phone: 206-543-2258
Email: simonch@u.washington.edu
State Project Manager: Stu Simpson   Phone: 360-902-7199
Email: ssimpso@ga.wa.gov

Provide a brief description of how the following will be measured in the proposed LEED building. If the project will not be using a form of energy or irrigation shown below, simply indicate "NA" in that space. The description should be adequate to describe how the owner will measure the energy and water use on a monthly basis. The owner will in turn report that usage to General Administration on an annual basis per RCW 39.35D. This plan is to ensure that a monitoring strategy has been developed for each State LEED project. This plan must be submitted as part of the Construction Documents submittal in the GA LEED QA process.

Electricity: Electric meters will be used to monitor electrical energy. A meter is installed at the main switchboard to measure total building energy usage and submeters are installed at distribution boards and panelboards to measure lighting and mechanical loads. Receptacle loads can be determined by a deduction process from the information above.

Gas:
Gas meter installed at the building supply main with DDC trending.

Other heating fuel (oil, propane, wood, steam, or hot water): fuel
NA

Chilled water:
NA

Domestic Hot Water:
Gas, not segregated from total gas consumption

Water:
Flow meter installed at the building supply main with DDC trending

Irrigation: NA

Reclaimed or captured water: NA

Renewable Energy Generated: NA

WELCOME CLARA
10003054 - UW Floyd and Delores Jones Playhouse
LEED NC 2.1

LEED-Online Home | Credit Scorecard & Status | Project Summary | Team Admin | Documents | Public Rulings | Project CIR | Help | Project Selector | Sign Out

SCORECARD

CERTIFIED

Registration | Design Application | Design Review | Design Appeal | Design Appeal Review | Construction Application | Construction Review | Construction Appeal | Construction Appeal Review

MY ACTION ITEMS

Displays the next steps for the project. Depending on your project role, the project status and number of points anticipated or awarded; different action items will appear.

This Project has achieved LEED Certification.

Customer Satisfaction Survey

You have 0 new Notifications

LEED RATING

Displays LEED level which is based on number of points attempted. *

GOLD

This Project has achieved enough points for Gold Rating.

* Actual Certification Level will be based on the number of points awarded and successful completion of all Prerequisites.

View Review Summary

WORKFLOW STAGE HISTORY

Displays Workflow Stage History timeline.

Stage	Date Entered
Design & Construction Preliminary Application Submitted	2/25/2009 5:33:14 PM
Preliminary Design & Construction Review Completed	4/28/2009 10:59:57 AM
Final Design & Construction Application Submitted	6/15/2009 3:41:13 PM
Final Design & Construction Review Completed	7/6/2009 9:26:27 AM

PAYMENT SUMMARY

Displays payment status timeline.

Payment Type	Invoice Date	Sales Order	Status	Date Cleared
LEED-NC 2.1 CIR	10/16/2006	0010065153	Cleared	10/16/2006
LEED-NC 2.1 Certification Design and Construction	02/25/2009	0010622524	Cleared	02/25/2009

ATTEMPTED CREDIT SUMMARY

Displays attempted points for the project by status.

Status	Points Design	Points Construction	Total
Earned:	29	12	41
Total Attempted:	29	12	41

CREDIT SCORECARD

Displays all credits and points per LEED sections. Depending on project access, one can attach team members, view attempted credits or click credits to display template.

Collapse All Credit Categories

design construction — = Marked Complete — = Not Marked Complete — = Needs Attention — = Credit Assigned to You

41	Points Documented					Points Available:	69
9	Sustainable Sites					Possible Points:	14
Yes	SS	Prerequisite 1	C Erosion & Sedimentation Control	Construction Manager		Earned	0
1	SS	Credit 1	d Site Selection	Project Team Administrator		Earned	1
1	SS	Credit 2	d Urban Redevelopment	Architect		Earned	1

1	SS	Credit 3	Brownfield Redevelopment	Project Team Administrator		Earned	1
1	SS	Credit 4.1	Alternative Transportation, Public Transportation Access	Architect		Earned	1
1	SS	Credit 4.2	Alternative Transportation, Bicycle Storage & Changing Rooms	Architect		Earned	1
	SS	Credit 4.3	Alternative Transportation, Alternative Fuel Refueling Stations	Not Attempted			1
1	SS	Credit 4.4	Alternative Transportation, Parking Capacity	Project Team Administrator		Earned	1
	SS	Credit 5.1	Reduced Site Disturbance, Protect or Restore Open Space	Not Attempted			1
	SS	Credit 5.2	Reduced Site Disturbance, Development Footprint	Not Attempted			1
	SS	Credit 6.1	Stormwater Management, Rate or Quantity	Not Attempted			1
	SS	Credit 6.2	Stormwater Management, Treatment	Not Attempted			1
1	SS	Credit 7.1	Landscape & Exterior Design to Reduce Heat Islands, Non-Roof	Architect		Earned	1
1	SS	Credit 7.2	Landscape & Exterior Design to Reduce Heat Islands, Roof	Architect		Earned	1
1	SS	Credit 8	Light Pollution Reduction	Electrical/Lighting		Earned	1
4		Water Efficiency			Possible Points:		5
1	WE	Credit 1.1	Water Efficient Landscaping, reduce by 50%	Landscape Architect		Earned	1
1	WE	Credit 1.2	Water Efficient Landscaping, No Potable Use or No Irrigation	Landscape Architect		Earned	1
	WE	Credit 2	Innovative Wastewater Technologies	Not Attempted			1
2	WE	Credit 3.1-3.2	Water Use Reduction	Mechanical Engineer		Earned	2
12		Energy & Atmosphere			Possible Points:		17
Yes	EA	Prerequisite 1	Fundamental Building Systems Commissioning	Commissioning Agent		Earned	0
Yes	EA	Prerequisite 2	Minimum Energy Performance	Mechanical Engineer		Earned	0
Yes	EA	Prerequisite 3	CFC Reduction in HVAC&R Equipment	Mechanical Engineer		Earned	0
9	EA	Credit 1.1-1.10	Optimize Energy Performance	Mechanical Engineer		Earned	10
	EA	Credit 2.1-2.3	Renewable Energy	Not Attempted			3
1	EA	Credit 3	Additional Commissioning	Commissioning Agent		Earned	1
1	EA	Credit 4	Ozone Depletion	Mechanical Engineer		Earned	1
	EA	Credit 5	Measurement & Verification	Not Attempted			1
1	EA	Credit 6	Green Power	Owner		Earned	1
4		Materials & Resources			Possible Points:		13
Yes	MR	Prerequisite 1	Storage & Collection of Recyclables	Project Team Administrator		Earned	0
	MR	Credit 1.1-1.3	Building Reuse	Not Attempted			3
2	MR	Credit 2.1-2.2	Construction Waste Management	Construction Manager		Earned	2
	MR	Credit 3.1-3.2	Resource Reuse	Not Attempted			2

	MR	Credit 3.1-3.2	C	Resource Reuse		Not Attempted		2
2	MR	Credit 4.1-4.2	C	Recycled Content		Construction Manager	Earned	2
	MR	Credit 5.1-5.2	C	Local/Regional Materials		Not Attempted		2
	MR	Credit 6	C	Rapidly Renewable Materials		Not Attempted		1
	MR	Credit 7	C	Certified Wood		Not Attempted		1
7		Indoor Environmental Quality					Possible Points:	15
Yes	EQ	Prerequisite 1		Minimum IAQ Performance		Mechanical Engineer	Earned	0
Yes	EQ	Prerequisite 2		Environmental Tobacco Smoke (ETS) Control	★	Project Team Administrator	Earned	0
1	EQ	Credit 1		Carbon Dioxide (CO2) Monitoring		Mechanical Engineer	Earned	1
	EQ	Credit 2		Increase Ventilation Effectiveness		Not Attempted		1
1	EQ	Credit 3.1	C	Construction IAQ Management Plan, During Construction		Construction Manager	Earned	1
1	EQ	Credit 3.2	C	Construction IAQ Management Plan, Before Occupancy		Contractor	Earned	1
3	EQ	Credit 4.1-4.4	C	Low-Emitting Materials		Contractor	Earned	4
1	EQ	Credit 5		Indoor Chemical & Pollutant Source Control		Architect	Earned	1
	EQ	Credit 6.1-6.2		Controllability of Systems		Not Attempted		2
	EQ	Credit 7.1		Thermal Comfort, Comply with ASHRAE 55-1992		Not Attempted		1
	EQ	Credit 7.2		Thermal Comfort, Permanent Monitoring System		Not Attempted		1
	EQ	Credit 8.1		Daylight & Views, Daylight 75% of Spaces		Not Attempted		1
	EQ	Credit 8.2		Daylight & Views, Views for 90% of Spaces		Not Attempted		1
5		Innovation & Design Process					Possible Points:	5
1	ID	Credit 1		Innovation in Design 1.1	★	Project Team Administrator	Earned	1
1	ID	Credit 1		Innovation in Design 1.2	★	Project Team Administrator	Earned	1
1	ID	Credit 1		Innovation in Design 1.3	★	Project Team Administrator	Earned	1
1	ID	Credit 1		Innovation in Design 1.4	★	Project Team Administrator	Earned	1
1	ID	Credit 2		LEED Accredited Professional	★	Project Team Administrator	Earned	1

University of Washington
Floyd & Delores Jones Playhouse Theater
USGBC LEED-NC v2.1
February 23, 2009

Post-Construction Documents Reporting Phase
LEED Project Strategies Update

Project Description

The Floyd & Delores Jones Playhouse Theater was originally constructed in 1931, with the first renovation in 1968 and second renovation completed in December 2008, totals 12,692 gross square feet. With 204 fixed seats, the theater is assigned to the University of Washington's School of Drama, one of the most renowned drama departments in the United States. The facility is a mainstay of the school's teaching program and offers students an intensively used venue to stage at least two student productions per quarter.

The project scope included upgrading all major building systems; correcting accessibility, seismic deficiencies, computer/communication infrastructure and life/safety code conditions; performing asbestos abatement; restoring the building envelope; and updating facilities for instruction and performance programs.

The scope included a) raising the roof of the theater auditorium for improved seating, acoustics, and lighting; b) improving the lobby and entrances; and c) providing additional theatrical equipment essential for training students in modern theatrical technology. The purpose of the project is to completely renovate and preserve the core facility while improving the current academic space.

Unique feature to the project include the removal of an elm tree at the front of the building, to expand the front lobby area and to shore up building foundation systems, which was used to make benches for the lobby area; and extensive salvage of all usable building items prior to demolition by the contractor.

1. Sustainable Sites
    - An Erosion and Sedimentation Control Plan has been implemented on the site to meet City of Seattle control standards, project drawings were prepared and the established measures are being documented through a photo journal.
    - The selected site is promotes urban development and does not infringe on prime farmland, and is not located in a 100 year flood plain zone, within 100 feet of a wetland, within 50 feet of an established body of water or previously a developed park.
    - Classified as a Brownfield Redevelopment due to asbestos removal during renovation.
    - Connects on an urban level to a community.
    - FTE 7, 30 bicycle storage racks and 1 shower area.
    - Within ¼ mile of multiple bus stops.
    - On a campus with multiple open spaces, as established in the campus master plan.
    - No new parking planned.
    - Energy Star rated roof.

2. Water Efficiency

- Water efficient landscape with water use reduction of over 50% and no permanent potable water used for the landscape.
- Water use reduction within the building of 30.9%.

3. Energy & Atmosphere
   - A third party commissioning authority has been hired to work with the design team and will verify the building is operating efficiently after construction.
   - The building meets ASHRAE 90.1 – 2004 standards and is targeted to reduce energy consumption.
   - No CFC refrigerants are used in the building.
   - Metering devices to report building water, gas, electricity, and steam usage.

4. Materials & Resources
   - The building will have distribution collection sites for recycling of paper, bottles, cans, cardboard and media equipment and well as a central building collection location. Building recycling totals will be added to the campus wide recycling and surplus report published annually at the end of July.
   - A Construction Waste Management Plan has been established and the current construction recycling rate is at 96.13%.
   - Division 2-10 materials were selected to reflect recycled content, local/regional materials, rapidly renewable materials and certified wood.

5. Indoor Environmental Quality
   - The project complies with ASHRAE 62.1-2004 ventilation for acceptable indoor air quality.
   - No smoking is permitted in the building and only in designated smoking areas on campus.
   - The project complies with SMACNA IAQ guidelines for occupied buildings under construction (chapter 3). The campus standard for MERV filters is 13.
   - The building will be flushed out prior to occupancy.
   - Product was selected for the building to meet low VOC requirements of SCAQMD Rule 1168 for adhesives and sealants and Rule 1113 for paints and coatings, GS-36 for aerosol commercial adhesives, Carpet Label Plus Program, GC-03 for anti-corrosive paints, and no added urea-formaldehyde.
   - Cleanable walk off mats are placed at each building entrance, janitor closet areas and copy rooms are separately filtered and, where necessary, drains are plumbed to accommodate chemicals.
   - The building occupants will be surveyed after occupancy as to the thermal comfort of the building and steps will be taken to assure personal comfort.

6. Innovation & Design Process
   - The building will be cleaned through a green housekeeping plan.
   - UW Comprehensive Transportation Program.
   - UW Comprehensive Recycling Program.
   - Exemplary Construction Recycling
   - UW Capital Project Office's Sustainability Manager is a LEED AP and is the USGBC on-line Project Team Administrator.

High-Performance Green Buildings

Post Construction Submittal (submit at substantial completion)

Received by GA:

Date: 5/7/2010

Submit to: sustainableba@ga.wa.gov

Project Name	Savery Hall	Agency/Institution	University of Washington
Project Number	200911	GA H-P Green Bldg.#	G 06-065
Final Square Footage	104,590		

	Name	Agency or Firm	Phone	E-Mail
Submitted By	Clara Simon	University of Washington	206-543-2258	simonch@uw.edu

	Name	Company	Phone	E-Mail
General Contractor	Bob Vincent	Hoffman	puja.shaw@kpff.com	bob-vincent@Hoffmancorp.com

Construction Related Costs	
Facility Construction Costs (Est.)	$ 60,137,466.00
Site Work & Related Costs* (Est.)	$ 886,470.00
Max.Allowable Construct.Costs(MACC)	$ 61,023,936.00

Estimated Construction Costs Associated with LEED**	
Costs Assoc. w/LEED (Est.)	$ 148,873.00
Savings Assoc. w/LEED (Est.)	$ -
Total Project Cost	$ 67,177,493.00
Total Added LEED Cost	$ 407,905.00

Consultant Related Costs	
A) A/E Fees (Base)	$ 5,894,525.00
B) Additional A/E Fees	$ 133,823.00
Other Consultant Services	Consultant Fees
C) Commissioning	$ 125,209.00
D)	$ -
F) Est.LEED Related from (B,C &D)	$ 259,032.00
Total Consultant Fees (A,B,C &D)	$ 6,153,557.00

Payback for LEED	7.580211931

Energy and Water/Sewer Savings and Consumption Est.s (Taken from the LEED Submittal)	
Est. Annual Energy Savings (% $)	38%
Est. Annual Energy Savings ($/Yr)	$ 48,002.00
Est. Total Energy Use (kBtu/Yr)	3345800
Est. Total Energy Use ($/Yr)	$ 79,208.00
Est. Renew. Energy Generated (kWh/yr)	$ -
Est. Renew. Energy Generated (Btuh/yr)	$ -
Est. Annual Water Savings (% $)	31%
Est. Annual Water Savings ($/Yr)	$ 1,629.36
Est. Annual Water Use (Gals/Yr)	$ 348,218.00
Est. Annual Water Cost ($/Yr)	$ 3,607.03
Est. Annual Sewer Savings ($/yr)	$ 4,180.46
Est. Annual Sewer Savings (Gals/yr)	
Total Estimated Annual Savings	$ 53,811.82

Est.Gas Use (therms/yr)	Est.Electric Use (kWh/yr)
0	3345800

Construction Waste Recycled (%)	Construction Waste Recycled (tons)
96.14	181.92

* 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:

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

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

Form Last Updated
October 2007

State LEED Project
Energy and Water Metering Plan

Submit to: GASustainableBA@ga.wa.gov
& Stuart Simpson: ssimpso@ga.wa.gov

Project Name:	Savery Hall	Date: August 27, 2009
Project Number:	200911	
Institution or Agency Name:	University of Washington	
Submitted By:	Clara Simon	Phone: 206-543-2258
	Email: simonch@u.washington.edu	
State Project Manager:	Stu Simpson	Phone: 360-902-7199
	Email: ssimpso@ga.wa.gov	

Provide a brief description of how the following will be measured in the proposed LEED building. If the project will not be using a form of energy or irrigation shown below, simply indicate "NA" in that space. The description should be adequate to describe how the owner will measure the energy and water use on a monthly basis. The owner will in turn report that usage to General Administration on an annual basis per RCW 39.35D. This plan is to ensure that a monitoring strategy has been developed for each State LEED project. This plan must be submitted as part of the Construction Documents submittal in the GA LEED QA process.

Electricity: Main electrical service will be monitored. Data will be available on a monthly basis.

Gas: NA

Other heating fuel (oil, propane, wood, steam, or hot water): Steam condensate meter connected to building direct digital control (DDC). System has ability but currently owner is not set up to measure this information on a monthly basis.

Chilled water: NA

Domestic Hot Water: NA.

Water: Water meter connected to building DDC system for monitoring. System has ability but currently owner is not set up to measure this information on a monthly basis.

Irrigation: Irrigation water meter connected to building DDC for monitoring. Irrigation also has deduct meter connected to irrigation controller. System has ability but currently owner is not set up to measure this information on a monthly basis.

Reclaimed or captured water: NA

Renewable Energy Generated: NA

University of Washington
Savery Hall
USGBC LEED-NC v2.1
August 28, 2008

Construction Documents Phase
LEED Project Strategies Update

Per the requirements of RCW 39.35D – High Performance Public Buildings, this project is seeking at least a LEED-NC Silver rating and is pursuing the following approaches to meet LEED intent and documentation requirements through the processes of design, construction and operation through the following approaches. In addition, the GCCM on the project was trained by the WA GA's office in Build It LEED and is following the processes established through the Build It LEED Toolkit.

Credits following the LEED-NC v2.2 compliance path are: SSc2, 7.2; MRc1.1, 1.2.

1. Sustainable Sites
   - An Erosion and Sedimentation Control Plan has been implemented on the site to meet City of Seattle control standards, project drawings were prepared and the established measures are being documented through a photo journal.
   - The selected site is promotes urban development and does not infringe on prime farmland, and is not located in a 100 year flood plain zone, within 100 feet of a wetland, within 50 feet of an established body of water or previously a developed park.
   - Classified as a Brownfield Redevelopment due to asbestos removal during renovation.
   - Connects on an urban level to a community.
   - FTE count of 281 with 64 bicycle storage racks and 3 showers.
   - With ¼ mile of multiple bus stops.
   - On a campus with multiple open spaces, as established in the campus master plan.
   - No new parking planned.

2. Water Efficiency
   - Water use reduction within the building of 31.05%.

3. Energy & Atmosphere
   - A third party commissioning authority has been hired to work with the design team and will verify the building is operating efficiently after construction.
   - The building meets ASHRAE 90.1 – 1999 standards and is targeted to reduce energy consumption by 30.3%.
   - No CFC refrigerants are used in the building.
   - Metering devices to report building water, gas, electricity, and steam usage.

4. Materials & Resources
   - The building will have distribution collection sites for recycling of paper, bottles, cans, cardboard and media equipment and well as a central building collection location. Building recycling totals will be added to the campus wide recycling and surplus report published annually at the end of July.

- A Construction Waste Management Plan has been established and the current construction recycling rate is at 95.12%.
- Division 2-10 materials were selected to reflect recycled content, local/regional materials, rapidly renewable materials and certified wood.

5. Indoor Environmental Quality
   - The project complies with ASHRAE 62.1-2004 ventilation for acceptable indoor air quality.
   - No smoking is permitted in the building and only in designated smoking areas on campus.
   - The project complies with SMACNA IAQ guidelines for occupied buildings under construction (chapter 3). The campus standard for MERV filters is 13.
   - The building will be flushed out prior to occupancy.
   - Product was selected for the building to meet low VOC requirements of SCAQMD Rule 1168 for adhesives and sealants and Rule 1113 for paints and coatings, GS-36 for aerosol commercial adhesives, Carpet Label Plus Program, GC-03 for anti-corrosive paints, and no added urea-formaldehyde.
   - Cleanable walk off mats are placed at each building entrance, janitor closet areas and copy rooms are separately filtered and, where necessary, drains are plumbed to accommodate chemicals.
   - The building occupants will be surveyed after occupancy as to the thermal comfort of the building and steps will be taken to assure personal comfort.

6. Innovation & Design Process
   - Divert 90% of construction waste.
   - Comprehensive recycling program.
   - Comprehensive transportation program.
   - Green housekeeping program.
   - UW Capital Project Office's Sustainability Manager is a LEED AP and will be the Project Team Administrator on-line with the USGBC.

WELCOME CLARA
10003124 - UW - Savery Hall
LEED NC 2.1

LEED-Online Home | Credit Scorecard & Status | Project Summary | Team Admin | Documents | Public Ratings Project List | Help | Project Selector | Sign Out

SCORECARD **CERTIFIED**

Registration | Design Application | Design Review | Design Appeal | Design Appeal Review | Construction Application | Construction Review | Construction Appeal | Construction Appeal Review

MY ACTION ITEMS

Displays the next steps for the project. Depending on your project role, the project status and number of points anticipated or awarded; different action items will appear.

This Project has achieved LEED Certification.

Customer Satisfaction Survey

You have 14 new Notifications

LEED RATING

Displays LEED level which is based on number of points attempted. *

GOLD

This Project has achieved enough points for Gold Rating.

* Actual Certification Level will be based on the number of points awarded and successful completion of all Prerequisites.

View Review Summary

WORKFLOW STAGE HISTORY

Displays Workflow Stage History timeline.

Stage	Date Entered
Preliminary Design Application Submitted	10/8/2008 10:10:16 PM
Preliminary Design Review Completed	2/9/2009 1:38:23 PM
Final Design Application Submitted	3/22/2010 2:06:42 PM
Final Design Review Completed	4/12/2010 12:52:53 PM
Design Appeal Application Submitted	5/28/2010 12:29:47 PM
Design Appeal Review Completed	6/22/2010 9:18:54 PM
Preliminary Construction Application Submitted	6/23/2010 8:04:28 PM
Preliminary Construction Review Completed	7/15/2010 10:46:29 AM
Final Construction Application Submitted	9/8/2010 7:30:52 PM
Final Construction Review Completed	9/27/2010 4:18:25 PM

PAYMENT SUMMARY

Displays payment status timeline.

Payment Type	Invoice Date	Sales Order	Status	Date Cleared
LEED-NC 2.1 Certification Design	10/08/2008	0010501585	Cleared	10/30/2008
LEED-NC 2.1 Appeal	05/28/2010	0010987397	Cleared	05/28/2010
LEED-NC 2.1 Certification Construction	06/23/2010	0011002917	Cleared	06/23/2010

ATTEMPTED CREDIT SUMMARY

Displays attempted points for the project by status.

Status	Points: Design	Construction	Total
Earned:	29	14	43
Denied:	0	1	1
Total Attempted:	29	15	44

CREDIT SCORECARD

Displays all credits and points per LEED sections. Depending on project access, one can attach team members, view attempted credits or click credits to display template.

Collapse All Credit Categories

design construction | = Marked Complete | = Not Marked Complete | = Needs Attention | = Credit Assigned to You

43 Points Documented **Points Available: 69**

7		Sustainable Sites				Possible Points:	14
Yes	SS	Prerequisite 1	C	Erosion & Sedimentation Control	General Contractor	Earned	0
1	SS	Credit 1	d	Site Selection	Project Team Administrator	Earned	1
1	SS	Credit 2	d	Urban Redevelopment	Architect	Earned	1
1	SS	Credit 3	d	Brownfield Redevelopment	Project Team Administrator	Earned	1
	SS	Credit 4.1	d	Alternative Transportation, Public Transportation Access	Project Team Administrator	Earned	1

1	SS	Credit 4.1	Alternative Transportation, Public Transportation Access	Project Team Administrator	Earned	1
1	SS	Credit 4.2	Alternative Transportation, Bicycle Storage & Changing Rooms	Architect	Earned	1
	SS	Credit 4.3	Alternative Transportation, Alternative Fuel Refueling Stations	Not Attempted		1
1	SS	Credit 4.4	Alternative Transportation, Parking Capacity	Project Team Administrator	Earned	1
	SS	Credit 5.1	Reduced Site Disturbance, Protect or Restore Open Space	Not Attempted		1
1	SS	Credit 5.2	Reduced Site Disturbance, Development Footprint	Project Team Administrator	Earned	1
	SS	Credit 6.1	Stormwater Management, Rate or Quantity	Not Attempted		1
	SS	Credit 6.2	Stormwater Management, Treatment	Not Attempted		1
	SS	Credit 7.1	Landscape & Exterior Design to Reduce Heat Islands, Non-Roof	Not Attempted		1
	SS	Credit 7.2	Landscape & Exterior Design to Reduce Heat Islands, Roof	Not Attempted		1
	SS	Credit 8	Light Pollution Reduction	Not Attempted		1
2		Water Efficiency			Possible Points:	5
	WE	Credit 1.1	Water Efficient Landscaping, reduce by 50%	Not Attempted		1
	WE	Credit 1.2	Water Efficient Landscaping, No Potable Use or No Irrigation	Not Attempted		1
	WE	Credit 2	Innovative Wastewater Technologies	Not Attempted		1
2	WE	Credit 3.1-3.2	Water Use Reduction	Mechanical Engineer	Earned	2
9		Energy & Atmosphere			Possible Points:	17
Yes	EA	Prerequisite 1	Fundamental Building Systems Commissioning	Commissioning Agent	Earned	0
Yes	EA	Prerequisite 2	Minimum Energy Performance	Mechanical Engineer	Earned	0
Yes	EA	Prerequisite 3	CFC Reduction in HVAC&R Equipment	Mechanical Engineer	Earned	0
7	EA	Credit 1.1-1.10	Optimize Energy Performance	Mechanical Engineer	Earned	10
	EA	Credit 2.1-2.3	Renewable Energy	Not Attempted		3
1	EA	Credit 3	Additional Commissioning	Commissioning Agent	Earned	1
1	EA	Credit 4	Ozone Depletion	Mechanical Engineer	Earned	1
	EA	Credit 5	Measurement & Verification	Not Attempted		1
	EA	Credit 6	Green Power	Not Attempted		1
8		Materials & Resources			Possible Points:	13
Yes	MR	Prerequisite 1	Storage & Collection of Recyclables	Architect	Earned	0
2	MR	Credit 1.1-1.3	Building Reuse	Architect	Earned	3
2	MR	Credit 2.1-2.2	Construction Waste Management	General Contractor	Earned	2
	MR	Credit 3.1-3.2	Resource Reuse	Not Attempted		2
2	MR	Credit 4.1-4.2	Recycled Content	General Contractor	Earned	2
2	MR	Credit 5.1-5.2	Local/Regional Materials	General Contractor	Earned	2
	MR	Credit 6	Rapidly Renewable Materials	Not Attempted		1
	MR	Credit 7	Certified Wood	Not Attempted		1
12		Indoor Environmental Quality			Possible Points:	15
Yes	EQ	Prerequisite 1	Minimum IAQ Performance	Mechanical Engineer	Earned	0
	EQ	Prerequisite 2	Environmental Tobacco Smoke (ETS) Control	Project Team Administrator	Earned	0

Yes	EQ	Prerequisite 2	Environmental Tobacco Smoke (ETS) Control	★	Project Team Administrator	Earned	0
1	EQ	Credit 1	Carbon Dioxide (CO2) Monitoring		Mechanical Engineer	Earned	1
1	EQ	Credit 2	Increase Ventilation Effectiveness		Mechanical Engineer	Earned	1
1	EQ	Credit 3.1	Construction IAQ Management Plan, During Construction		General Contractor	Earned	1
0	EQ	Credit 3.2	Construction IAQ Management Plan, Before Occupancy		General Contractor	Denied	1
4	EQ	Credit 4.1-4.4	Low-Emitting Materials		General Contractor	Earned	4
1	EQ	Credit 5	Indoor Chemical & Pollutant Source Control	★	Project Team Administrator	Earned	1
2	EQ	Credit 6.1-6.2	Controllability of Systems		Mechanical Engineer	Earned	2
1	EQ	Credit 7.1	Thermal Comfort, Comply with ASHRAE 55-1992		Mechanical Engineer	Earned	1
1	EQ	Credit 7.2	Thermal Comfort, Permanent Monitoring System	★	Project Team Administrator	Earned	1
	EQ	Credit 8.1	Daylight & Views, Daylight 75% of Spaces		Not Attempted		1
	EQ	Credit 8.2	Daylight & Views, Views for 90% of Spaces		Not Attempted		1
5		Innovation & Design Process				Possible Points:	5
1	ID	Credit 1	Innovation in Design 1.1		General Contractor	Earned	1
1	ID	Credit 1	Innovation in Design 1.2	★	Project Team Administrator	Earned	1
1	ID	Credit 1	Innovation in Design 1.3	★	Project Team Administrator	Earned	1
1	ID	Credit 1	Innovation in Design 1.4	★	Project Team Administrator	Earned	1
1	ID	Credit 2	LEED Accredited Professional	★	Project Team Administrator	Earned	1

 Powered by Adobe LiveCycle LEED-Online Version 2.0

LEED Building Cost Data and Information

Return to: stuart.simpson@ga.wa.gov

Please complete this form to the best of your ability. This information is best completed by the State Project Manager responsible for the project and/or the Architect. Input data into yellow boxes.

Building Name/City:	Clark Hall - Seattle, WA
Building Gross Square Footage:	30,568
Institution/University or Agency Name:	University of Washington
Submitted By (Name/Phone):	Clara Simon 206-543-2258
LEED Level Achieved:	LEED-NC v2.1 Gold

Consultant Costs*	Costs
LEED Related Consultant Fees:	$98,010
Commissioning Fees:	$51,855
ELCCA Preparation Fees:	$16,000
Overall Consultant Fees:	$2,228,282

* Use the Application for Payment

Overall Cost of LEED
$ (213,012.00)

Overall Project Cost (Consultant + Construction)
$ 15,619,920.00

Cost of LEED Compared to Overall Costs (%)
-1.4%

LEED Submittal Fees: $1,978.00

Building Construction Cost Per Square Foot
$ 562.65

Cost of LEED/Overall Consultant Fees (%): 4.4%

Construction Costs**	Costs		List LEED Elements
Building Demolistion Cost:	$ 784,200.00		
Site Work & Related Costs:	$230,582		
Facility Construction Costs:	$17,199,162		
Max. Allowable Construction Costs (MACC):	$13,389,660		
Cost of LEED Element***:	$7,000.00	>	Air Chemical Testing
Cost of LEED Element***:	$150,000	>	Mechanically Operated Skylights
Cost of LEED Element***:	$ -	>	
Cost of LEED Element***:	$ -	>	
Cost of LEED Element***:	$ -	>	
Cost of LEED Element***:	$ -	>	
Added Cost:	$ 157,000.00		List Elements not Installed due to LEED
Savings, Didn't Install Something****	$450,000	>	Air Conditioning
Savings, Didn't Install Something****	$20,000	>	Electric Vehicle Charging Station
Savings, Didn't Install Something****	$ -	>	
Savings:	$ 470,000.00		

**Use the Schedule of Values and best estimates

Total Added Costs:	$ (313,000.00)

Cost of LEED/Overall Construction Fees (%): -2.3%

***Provide a best guess for cost. This could include solar panels, rain water capture system, or other feature that normally won't be pursued if not a LEED project.

****Didn't install something, such as a cooling system or greatly reduced the size due to natural ventilation.

Utility Incentives	Amount ($)
Gas:	$ -
Electric:	$ -
Water:	$ -
Other:	$ -
Total Incentives:	$ -

Utility Incentives as % of Building Costs
0.0%

Describe

LEED Building Cost and Performance Data

Please complete this form to the best of your ability. This information is best completed by the State Project Manager responsible for the project and/or the Architect. Input data into yellow boxes.

Building Name/City:	UWT - Joy Building/Tacoma
Building Gross Square Footage:	46,238
Number of Occupants:	1,034
Institution/University or Agency Name:	University of Washington
Submitted By Name/Phone:	Clara Simon
LEED Level Achieved or (Expected)/Date:	Platinum
LEED Version Used (e.g. V 2.2 or V 3.0)	LEED-NC v2.2

Building Cost Data

Consultant Costs	Costs*
Overall Consultant Fees:	$ 2,500,000.00
LEED Related Consultant Fees:	$ 80,000.00
Commissioning Fees:	$ 130,000.00
ELCCA Preparation Fees:	$ 15,000.00
* Use the Application for Payment, Agreement Invoice	

Overall Cost of LEED
$ 223,011.09

Overall Project Cost (Consultant + Construction)
$ 19,103,011.09

Cost of LEED Compared to Overall Costs (%)
1.2%

LEED Submittal Fees: $ 3,011.09

Building Construction Cost Per Square Foot
$ 313.33

Soft Cost of LEED/Overall Consultant Fees (%): 3.3%

Construction Costs	Costs**		
Building Demolition Cost (if applicable):	$ 1,500,000.00		
Site Work & Related Costs:	$ 612,058.00		
Building Construction Costs:	$ 14,487,942.00		
Max. Allowable Construction Costs (MACC):	$ 16,600,000.00		LEED Elements Description
Cost of LEED Element***:	$ 15,000.00	>	Installed low flow water fixtures
Cost of LEED Element***:	$ 325,000.00	>	Energy Savings Strategies: Spray Foam Insulation,
Cost of LEED Element***:	$ -	>	Window Upgrade, Operable Storefront Windows with
Cost of LEED Element***:	$ -	>	Natural Ventilation, VRF Mechanical with Heat
Cost of LEED Element***:	$ -	>	Recovery, Central Stair with Roof Monitor, Exterior
Cost of LEED Element***:	$ -	>	Exit Stair
Added LEED Construction Cost:	$ 340,000.00		List Elements not Installed or downsized due to LEED
Savings, Didn't Install Something****	$ 200,000.00	>	Reuse of masonry and timber, Heritage Artifacts,
Savings, Didn't Install Something****	$ -	>	exterior storefront shading from dock canopy
Savings, Didn't Install Something****	$ -	>	
LEED Related Construction Savings:	$ 200,000.00		

Total Added LEED Construction Costs:	$ 140,000.00

Hard Cost of LEED/Overall Construction Costs (%): 0.8%

**Use the Schedule of Values from Construction Invoice and Best Estimates

***Provide a best guess for cost. This could include solar panels, rain water capture system, or other feature that normally won't be pursued if not a LEED project.

****Didn't install something, such as a cooling system or greatly reduced the size due to natural ventilation.

Utility Incentives	Amount ($)
Gas:	$ -
Electric:	$ 75,000.00
Water:	$ -
Other:	$ -
Total Incentives:	$ 75,000.00

Utility Incentives as % of Building Costs
0.5%

Describe

LEED Building Performance Information

Total Savings Over Baseline (energy & water)	Payback (Yrs)***
$ 30,180.95	4.9

LEED Attribute	Capture this data from the LEED submittal (LEED OnLine)					
Energy Effciency and Renewable Energy	**Proposed Building**				**Baseline Building**	
	Units	$	% Savings	$ Savings	Units	$
Electricity (kWh)	424,299	$ 24,880	46.6%	$ 21,682	895,951	$ 46,562
Gas (Therms)	4,783	$ 5,299	59.3%	$ 7,732	11,997	$ 13,031
Renewable Energy, Electricity (kWh)	-	$ -	#DIV/0!	$ -		
Renewable Energy, Heat (Btu)	-	$ -	#DIV/0!	$ -	0	$ -
Total Btus, Dollars & Percents	1,926,432	$ 30,179	49.4%	$ 29,414	4,257,581	$ 59,593
Water Efficiency						
	Gallons/Yr	$	% Savings	$ Savings	Gallons/Yr	$
Water Use Reduction (water/sewer*)	163,936	$ 984	43.7%	$ 762.91	291,042	$ 1,747
Landscape Watering (irrigation water**)	1,356	$ 3	54.4%	$ 4.04	2,972	$ 7
Captured Water (irrigation or interior water)	-	$ -	Calculate >>	$ -		
Total Water Saving	165,292	$ 987	43.7%	$ 766.95	294,014	$ 1,754
Stormwater Management						
	Points 0-2					
Stormwater Control Quality and Quantity	1					
Alt. Transportation Sources & Walkability						
	Points					
Density & Community Connectivity	1					
Public Transportation	1					
Bike Racks & Showers	1					
Total Points	3					
Construction Waste Recycling						
	Tons	%				
Construction Waste Recycled	367.99	95.1				
Use of Recycled Content Materials						
	$	%				
Recycled Content Materials	$ 74,951.07	23.7				
Use of Regional Materials						
	$	%				
Regional Materials	$ 636,171.39	20.3				
Protect Forests, Support Sustainable Forestry						
	Points					
Ceterified Wood	1					
Good indoor Air Quality						
	Points					
Const. IAQ Management Plan	2					
Low-Emitting Materials	4					
Indoor Chemical & Pollutant Source Control	1					
Total Points	7					
Access to Natural Light						
	Points 0-2					
Daylight & Views	1					

* Default value used for water/sewer costs of $6/1000 gallons

**Default value used for irrigation water only $2.50/1000 gallons

*** Payback doesn't include many of the intangibles. These can result in greater savings than from energy and water alone. Increased productivity, reductions in sick leave, and worker retention can far outway utility savings. Also environmental benefits can be substantial in moving Washington to its goals. Government must lead by example.

RESENT 7/5/12

High-Performance Green Buildings

Post Construction Submittal (submit at substantial completion)

Received by GA:

Date: 11/30/2010

Submit to: sustainableba@ga.wa.gov

Project Name	William W. Philip Hall		Agency/Institution	University of Washington - Tacoma
Project Number	10686	GA H-P Green Bldg.#	G 05-067	
Final Square Footage	20,250			
	Name	Agency or Firm	Phone	E-Mail
Submitted By	Clara Simon	University of Washington	206-543-2258	simonch@uw.edu
	Name	Company	Phone	E-Mail
General Contractor	Chad Wirth	Korsmo	253-582-6712	ChadW@Korsmo.com

Construction Related Costs		
Facility Construction Costs (Est.)	$	10,653,966.00
Site Work & Related Costs* (Est.)	$	147,218.00
Max.Allowable Construct.Costs(MACC)	$	10,801,184.00

Estimated Construction Costs Associated with LEED**		
Costs Assoc. w/LEED (Est.)	$	96,528.00
Savings Assoc. w/LEED (Est.)	$	-
Total Project Cost	$	12,281,835.00
Total Added LEED Cost	$	244,326.00

Consultant Related Costs		
A) A/E Fees (Base)	$	1,332,853.00
B) Additional A/E Fees	$	95,551.00
Other Consultant Services	Consultant Fees	
C) Commissioning	$	52,247.00
D)	$	-
F) Est.LEED Related from (B,C &D)	$	147,798.00
Total Consultant Fees (A,B,C &D)	$	1,480,651.00

Payback for LEED	24.07899989

Energy and Water/Sewer Savings and Consumption Est.s (Taken from the LEED Submittal)		
Est. Annual Energy Savings (% $)		29%
Est. Annual Energy Savings ($/Yr)	$	9,694.00
Est. Total Energy Use (kBtu/Yr)		1919000
Est. Total Energy Use ($/Yr)	$	25,114.00
Est. Renew. Energy Generated (kWh/yr)	$	-
Est. Renew. Energy Generated (Btuh/yr)	$	-
Est. Annual Water Savings (% $)		51%
Est. Annual Water Savings ($/Yr)	$	101.29
Est. Annual Water Use (Gals/Yr)	$	64,755.00
Est. Annual Water Cost ($/Yr)	$	95.65
Est. Annual Sewer Savings ($/yr)	$	351.56
Est. Annual Sewer Savings (Gals/yr)	$	64,755.00
Total Estimated Annual Savings	$	10,146.85

* Include demolition costs as part of site work.

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

Est.Gas Use (therms/yr)	Est.Electric Use (kWh/yr)
1203000	209640

Construction Waste Recycled (%)	Construction Waste Recycled (tons)
96.913	114.6

This submittal includes the following:

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

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

WELCOME CLARA
10003089 - UW Tacoma - William W. Philip Hall
LEED NC 2.2

LEED-Online Home | Credit Scorecard & Status | Project Summary | Team Admin | Documents | Public Buildings Project CIR | Help | Project Selector | Sign Out

SCORECARD

CERTIFIED

Registration | Design Application | Design Review | Design Appeal | Design Appeal Review | Construction Application | Construction Review | Construction Appeal | Construction Appeal Review

MY ACTION ITEMS

Displays the next steps for the project. Depending on your project role, the project status and number of points anticipated or awarded; different action items will appear.

This Project has achieved LEED Certification.

Customer Satisfaction Survey

You have 6 new Notifications

LEED RATING

Displays LEED level which is based on number of points attempted. *

GOLD

This Project has achieved enough points for Gold Rating.

* Actual Certification Level will be based on the number of points awarded and successful completion of all Prerequisites.

View Review Summary

WORKFLOW STAGE HISTORY

Displays Workflow Stage History timeline.

Stage	Date Entered
Design & Construction Preliminary Application Submitted	10/15/2009 4:58:17 PM
Preliminary Design & Construction Review Completed	11/17/2009 7:28:07 PM
Final Design & Construction Application Submitted	5/26/2010 12:00:41 PM
Final Design & Construction Review Completed	6/16/2010 10:21:08 AM
Design & Construction Appeal Application Submitted	9/15/2010 3:32:06 PM
Design & Construction Appeal Review Completed	11/17/2010 11:16:31 AM

PAYMENT SUMMARY

Displays payment status timeline.

Payment Type	Invoice Date	Sales Order	Status	Date Cleared
LEED-NC 2.2 Certification Design and Construction	10/15/2009	0010830271	Cleared	10/15/2009
LEED-NC 2.2 Appeal	09/15/2010	0011058523	Cleared	09/15/2010

ATTEMPTED CREDIT SUMMARY

Displays attempted points for the project by status.

Status	Points Design	Points Construction	Points Total
Earned:	25	15	40
Denied:	1	0	1
Total Attempted:	26	15	41

CREDIT SCORECARD

Displays all credits and points per LEED sections. Depending on project access, one can attach team members, view attempted credits or click credits to display template.

Collapse All Credit Categories

design construction | = Marked Complete | = Not Marked Complete | = Needs Attention | = Credit Assigned to You

40 Points Documented — **Points Available: 69**

8 Sustainable Sites — Possible Points: 14

Yes	SS	Prerequisite 1	C	Construction Activity Pollution Prevention	Project Team Administrator	Earned	0
1	SS	Credit 1	d	Site Selection	LEED Consultant	Earned	1
1	SS	Credit 2	d	Development Density & Community Connectivity	LEED Consultant	Earned	1
	SS	Credit 3	d	Brownfield Redevelopment	Project Team Administrator	Earned	1

1	SS	Credit 3	Brownfield Redevelopment	Project Team Administrator	Earned	1
1	SS	Credit 4.1	Alternative Transportation: Public Transportation Access	Project Team Administrator	Earned	1
1	SS	Credit 4.2	Alternative Transportation: Bicycle Storage & Changing Rooms	LEED Consultant	Earned	1
	SS	Credit 4.3	Alternative Transportation: Low-Emitting & Fuel Efficient Vehicles	Not Attempted		1
1	SS	Credit 4.4	Alternative Transportation: Parking Capacity	LEED Consultant	Earned	1
	SS	Credit 5.1	Site Development: Protect or Restore Habitat	Not Attempted		1
	SS	Credit 5.2	Site Development: Maximize Open Space	Not Attempted		1
	SS	Credit 6.1	Stormwater Management: Quantity Control	Not Attempted		1
	SS	Credit 6.2	Stormwater Management: Quality Control	Not Attempted		1
1	SS	Credit 7.1	Heat Island Effect: Non-Roof	LEED Consultant	Earned	1
1	SS	Credit 7.2	Heat Island Effect: Roof	LEED Consultant	Earned	1
	SS	Credit 8	Light Pollution Reduction	Not Attempted		1
4		Water Efficiency			Possible Points:	5
2	WE	Credit 1.1-1.2	Water Efficient Landscaping	Civil Engineer	Earned	2
	WE	Credit 2	Innovative Wastewater Technologies	Not Attempted		1
2	WE	Credit 3.1-3.2	Water Use Reduction	LEED Consultant	Earned	2
7		Energy & Atmosphere			Possible Points:	17
Yes	EA	Prerequisite 1	Fundamental Commissioning of the Building Energy Systems	Commissioning Agent	Earned	0
Yes	EA	Prerequisite 2	Minimum Energy Performance	LEED Consultant	Earned	0
Yes	EA	Prerequisite 3	Fundamental Refrigerant Management	Mechanical Engineer	Earned	0
5	EA	Credit 1	Optimize Energy Performance	LEED Consultant	Earned	10
	EA	Credit 2	On-Site Renewable Energy	Not Attempted		3
1	EA	Credit 3	Enhanced Commissioning	Commissioning Agent	Earned	1
1	EA	Credit 4	Enhanced Refrigerant Management	Mechanical Engineer	Earned	1
	EA	Credit 5	Measurement & Verification	Not Attempted		1
	EA	Credit 6	Green Power	Not Attempted		1
6		Materials & Resources			Possible Points:	13
Yes	MR	Prerequisite 1	Storage & Collection of Recyclables	LEED Consultant	Earned	0
	MR	Credit 1.1-1.2	Building Reuse	Not Attempted		2
	MR	Credit 1.3	Building Reuse, Non-Structural	Not Attempted		1
2	MR	Credit 2	Construction Waste Management	Contractor	Earned	2
	MR	Credit 3	Resource Reuse	Not Attempted		2
	MR	Credit 4	Recycled Content	Contractor	Earned	2

2	MR	Credit 4	Recycled Content		Contractor	Earned	2
2	MR	Credit 5	Regional Materials		Contractor	Earned	2
	MR	Credit 6	Rapidly Renewable Materials		Not Attempted		1
	MR	Credit 7	Certified Wood		Not Attempted		1
11		Indoor Environmental Quality				Possible Points:	15
No	EQ	Prerequisite 1	Minimum IAQ Performance	★	Project Team Administrator	Earned	0
Yes	EQ	Prerequisite 2	Environmental Tobacco Smoke (ETS) Control	★	Project Team Administrator	Earned	0
1	EQ	Credit 1	Outdoor Air Delivery Monitoring		Mechanical Engineer	Earned	1
0	EQ	Credit 2	Increased Ventilation		Mechanical Engineer	Denied	1
1	EQ	Credit 3.1	Construction IAQ Management Plan: During Construction		Contractor	Earned	1
1	EQ	Credit 3.2	Construction IAQ Management Plan: Before Occupancy		Contractor	Earned	1
1	EQ	Credit 4.1	Low-Emitting Materials: Adhesives & Sealants		Contractor	Earned	1
1	EQ	Credit 4.2	Low-Emitting Materials: Paints & Coatings		Contractor	Earned	1
1	EQ	Credit 4.3	Low-Emitting Materials: Carpet Systems		Contractor	Earned	1
1	EQ	Credit 4.4	Low-Emitting Materials: Composite Wood & Agrifiber		Contractor	Earned	1
1	EQ	Credit 5	Indoor Chemical & Pollutant Source Control		Architect	Earned	1
	EQ	Credit 6.1	Controllability of Systems: Lighting		Not Attempted		1
	EQ	Credit 6.2	Controllability of Systems: Thermal Comfort		Not Attempted		1
1	EQ	Credit 7.1	Thermal Comfort: Design		Mechanical Engineer	Earned	1
1	EQ	Credit 7.2	Thermal Comfort: Verification	★	Project Team Administrator	Earned	1
	EQ	Credit 8.1	Daylighting & Views: Daylight 75% of Spaces		Not Attempted		1
1	EQ	Credit 8.2	Daylighting & Views: Views for 90% of Spaces		LEED Consultant	Earned	1
4		Innovation & Design Process				Possible Points:	5
1	ID	Credit 1.1	Innovation in Design	★	Project Team Administrator	Earned	1
	ID	Credit 1.2	Innovation in Design		Not Attempted		1
1	ID	Credit 1.3	Innovation in Design	★	Project Team Administrator	Earned	1
1	ID	Credit 1.4	Innovation in Design	★	Project Team Administrator	Earned	1
1	ID	Credit 2	LEED Accredited Professional	★	Project Team Administrator	Earned	1

State LEED Project
Energy and Water Metering Plan

Submit to: GASustainableBA@ga.wa.gov
& Stuart Simpson: ssimpso@ga.wa.gov

Project Name:	UWT – William W. Philip Hall (Assembly Hall)	
	Date: August 27, 2008	
Project Number:	10686	
Institution or Agency Name:	University of Washington	
Submitted By:	Clara Simon	Phone: 206-543-2258
	Email: simonch@u.washington.edu	
State Project Manager:	Stu Simpson	Phone: 360-902-7199
	Email: ssimpso@ga.wa.gov	

Provide a brief description of how the following will be measured in the proposed LEED building. If the project will not be using a form of energy or irrigation shown below, simply indicate "NA" in that space. The description should be adequate to describe how the owner will measure the energy and water use on a monthly basis. The owner will in turn report that usage to General Administration on an annual basis per RCW 39.35D. This plan is to ensure that a monitoring strategy has been developed for each State LEED project. This plan must be submitted as part of the Construction Documents submittal in the GA LEED QA process.

Electricity: Electric meters will be used to monitor electrical energy. A meter is installed at the main switchboard to measure total building energy usage and submeters are installed at distribution boards and panel boards to measure lighting and mechanical loads. Receptacle loads can be determined by a deduction process from the information above. Meters are also provided at emergency panels to measure emergency power usage.

Gas: NA

Other heating fuel (oil, propane, wood, steam, or hot water): Heating hot water is supplied to the Assembly Hall from the UWT Campus heating hot water utility distribution loop. A BTU meter is installed on the 2 ½ inch service piping to the Assembly Hall.

Chilled water: Chilled water is supplied to the Assembly Hall from a rooftop chiller. A BTU meter is installed on the 4 inch building chilled water service.

Domestic Hot Water: Domestic hot water is supplied to the Assembly Hall from the adjacent Walsh Gardner building water heater. A water meter is installed on the 1 ¼ inch domestic hot water service to the Assembly Hall. (Note: The hot water circulating line is not metered)

Water: Domestic cold water is supplied to the Assembly Hall from the adjacent Walsh Gardner building. A water meter is installed on the 2 ½ inch domestic cold water service to the Assembly Hall.

Irrigation: NA

Reclaimed or captured water: NA

Renewable Energy Generated: NA

William W. Philip Hall
LEED-NC v2.2
Project Narrative

The University of Washington's (UW) http://www.tacoma.washington.edu/ William W. Philip Hall is a new 20,250 gross square foot assembly hall on the UW's Tacoma, Washington campus to meet the need for a large multi-purpose gathering space. The site is east of the library, flanked on the south by the Cherry Parkes building (LEED-NC v2.0 certified project), to the north by the Walsh Gardner building and to the east by Pacific Avenue.

University of Washington, Tacoma Campus

The building will function as an assembly space for lecture events, banquets, career fairs, and student exhibits. At other times the space will be used as a student commons for studying and as a student gathering place. Three multi-purpose collaboration rooms are included. The facility will include storage space, service kitchen, toilet rooms and audio visual facilities necessary to support various gatherings of about 350 to 500 persons. The ground floor space on Pacific Avenue will be constructed as a pedestrian-oriented retail space.

Project Accomplishments

1. Sustainable Sites – Created and implemented an erosion control plan during construction, met site selection requirements, connected to at least 10 basic services within 0.5 mile radius, participated in a voluntary clean-up process for soils, is within requirements for transportation for bus and rail, has a shower and bike storage, has no vehicle parking within the LEED project boundary , has bus and rail transportation accessible to the project site, hardscapes with an SRI of at least 29, and a low sloped roof with material with an SRI of at least 78.

Rail service on Pacific Street

2. Water Efficiency – Landscaping with no permanent irrigation system and an overall 51.4% water reduction.
3. Energy and Atmosphere – A fundamental and enhanced commissioning process was pursued on the project, ASHRAE 90.1-2004 requirements were met, zero use of CFC-based refrigerants were used on the project, an Energy Star Target Finder score of 77 is estimated with a 26.9% energy savings.
4. Materials & Resources – Building is equipped with recyclable containers throughout, construction waste recycling was documented at 97.132%, recycled content at 24.761%, and regional materials at 20.861%.
5. Indoor Air Quality – Project met minimum IAQ requirements of ASHRAE 62.1-2004, no smoking was permitted on the jobsite, installed CO2 sensors and met minimal outflow rates of ASHRAE 62.1-2004, increased air ventilation rates to occupied areas by 30%, construction indoor air management during construction, a building flush out prior to occupation, low emitting adhesives, paints, carpet and composite wood products, MERV 13 filters, thermal comfort design and verification, daylight view for over 75% of spaces and views for over 90% of spaces.
6. Innovation & Design – Documented through an educational program, green housekeeping program, exemplary water reduction and exemplary construction waste recycling.

University of Washington
William W. Philip Hall

Interior Student Gathering Space

Conference Space

LEED Building Cost Data and Information

Return to: stuart.simpson@ga.wa.gov

Please complete this form to the best of your ability. This information is best completed by the State Project Manager responsible for the project and/or the Architect. Input data into yellow boxes.

Building Name/City:	Dean Hall
Building Gross Square Footage:	79,553
Institution/University or Agency Name:	Central Washington University
Submitted By (Name/Phone):	Joanne Hillemann
LEED Level Achieved:	Pending Gold

Consultant Costs*	Costs
LEED Related Consultant Fees:	$ 94,668.00
Commissioning Fees:	$ 100,637.00
ELCCA Preparation Fees:	$ 28,450.00
Overall Consultant Fees:	$ 1,278,124.00

* Use the Application for Payment

LEED Submittal Fees:	$ 4,800.00
Cost of LEED/Overall Consultant Fees (%):	7.8%

Overall Cost of LEED
$ 272,268.00

Overall Project Cost (Consultant + Construction)
$ 24,112,093.00

Cost of LEED Compared to Overall Costs (%)
1.1%

Building Construction Cost Per Square Foot
$ 286.97

Construction Costs**	Costs		
Building Demolistion Cost:	$ -		
Site Work & Related Costs:	$ -		
Facility Construction Costs:	$ 22,829,169.00		
Max. Allowable Construction Costs (MACC):	$ 22,829,169.00		List LEED Elements
Cost of LEED Element***:	$25,000.00	>	Bike Racks, Shower Rooms & AFV Refueling
Cost of LEED Element***:	$13,200.00	>	Temperature and humidity sensors
Cost of LEED Element***:	$ 30,000.00	>	Isolated copier exhaust
Cost of LEED Element***:	$ 45,000.00	>	Stormwater Treatment Vault
Cost of LEED Element***:	$ 20,000.00	>	Recycling Stations
Cost of LEED Element***:	$ 39,600.00	>	CO2 Monitoring
Added Cost:	$ 172,800.00		List Elements not Installed due to LEED
Savings, Didn't Install Something****		>	
Savings, Didn't Install Something****		>	
Savings, Didn't Install Something****	$ -	>	
Savings:	$ -		

**Use the Schedule of Values and best estimates

Total Added Costs:	$ 172,800.00
Cost of LEED/Overall Construction Fees (%):	0.8%

***Provide a best guess for cost. This could include solar panels, rain water capture system, or other feature that normally won't be pursued if not a LEED project.

****Didn't install something, such as a cooling system or greatly reduced the size due to natural ventilation.

Utility Incentives	Amount ($)		
Gas:	$ -		
Electric:	$ -		
Water:	$ -		Describe
Other:	$ -	>	
Total Incentives:	$ -		

Utility Incentives as % of Building Costs
0.0%

LEED Building Cost Data and Information

Return to: stuart.simpson@ga.wa.gov

Please complete this form to the best of your ability. This information is best completed by the State Project Manager responsible for the project and/or the Architect. Input data into yellow boxes.

Building Name/City:	IET/Hogue Technology Addition
Building Gross Square Footage:	49,280
Institution/University or Agency Name:	Central Washington University
Submitted By (Name/Phone):	Peter Richmond 509-963-1195
LEED Level Achieved:	In construction

Consultant Costs*	Costs
LEED Related Consultant Fees:	$ 81,730.00
Commissioning Fees:	$ 128,367.00
ELCCA Preparation Fees:	$ 22,550.00
Overall Consultant Fees:	$ 2,383,587.00

* Use the Application for Payment

LEED Submittal Fees:	$ 4,000.00
Cost of LEED/Overall Consultant Fees (%):	3.6%

Overall Cost of LEED
$ 556,730.00

Overall Project Cost (Consultant + Construction)
$ 14,526,587.00

Cost of LEED Compared to Overall Costs (%)
3.8%

Building Construction Cost Per Square Foot
$ 246.33

Construction Costs**	Costs		List LEED Elements
Building Demolition Cost:	$ -		
Site Work & Related Costs:	$ 264,815.00		
Facility Construction Costs:	$ 12,139,000.00		
Max. Allowable Construction Costs (MACC):	$ 12,139,000.00		
Cost of LEED Element***:	$ 35,000.00	>	Transpired Air Collector (solar wall)
Cost of LEED Element***:	$ 47,000.00	>	Solar Water Heating
Cost of LEED Element***:	$ 87,000.00	>	Radiant Floor Slabs
Cost of LEED Element***:	$ 100,000.00	>	Chilled Beams
Cost of LEED Element***:	$ 112,000.00	>	Heat Recovery Air Handling Units
Cost of LEED Element***:	$ 90,000.00	>	Enhanced Commisioning
Added Cost:	$ 471,000.00		List Elements not Installed due to LEED
Savings, Didn't Install Something****	$ -	>	None
Savings, Didn't Install Something****	$ -	>	None
Savings, Didn't Install Something****	$ -	>	None
Savings:	$ -		

**Use the Schedule of Values and best estimates

Total Added Costs:	$ 471,000.00

Cost of LEED/Overall Construction Fees (%):	3.9%

***Provide a best guess for cost. This could include solar panels, rain water capture system, or other feature that normally won't be pursued if not a LEED project.

****Didn't install something, such as a cooling system or greatly reduced the size due to natural ventilation.

Utility Incentives	Amount ($)		Describe
Gas:	$ -		
Electric:	$ -		
Water:	$ -		
Other:	$ -	>	
Total Incentives:	$ -		

Utility Incentives as % of Building Costs
0.0%

LEED Building Cost Data and Information

Return to: stuart.simpson@ga.wa.gov

Please complete this form to the best of your ability. This information is best completed by the State Project Manager responsible for the project and/or the Architect. Input data into yellow boxes.

Building Name/City:	College Activities Building/Olympia
Building Gross Square Footage:	95,798
Institution/University or Agency Name:	The Evergreen State College
Submitted By (Name/Phone):	Azeem Hoosein/ 360-867-6041
LEED Level Achieved:	(Target Gold)

Consultant Costs*	Costs
LEED Related Consultant Fees:	$ 75,000.00
Commissioning Fees:	$ 103,000.00
ELCCA Preparation Fees:	$ 19,720.00
Overall Consultant Fees:	$ 1,880,000.00

* Use the Application for Payment

LEED Submittal Fees:	$ 5,000.00
Cost of LEED/Overall Consultant Fees (%):	4.0%

Overall Cost of LEED
$ 312,055.00

Overall Project Cost (Consultant + Construction)
$ 15,555,000.00

Cost of LEED Compared to Overall Costs (%)
2.0%

Building Construction Cost Per Square Foot
$ 145.54

Construction Costs**	Costs		List LEED Elements
Building Demolition Cost:	$ 330,000.00		
Site Work & Related Costs:	$ 170,000.00		
Facility Construction Costs:	$ 13,942,000.00		
Max. Allowable Construction Costs (MACC):	$ 13,670,000.00		
Cost of LEED Element***:	$ 153,888.00	>	heat recovery unit
Cost of LEED Element***:	$ 78,167.00	>	cistern
Cost of LEED Element***:	$ -	>	
Cost of LEED Element***:	$ -	>	
Cost of LEED Element***:	$ -	>	
Cost of LEED Element***:	$ -	>	
Added Cost:	$ 232,055.00		List Elements not Installed due to LEED
Savings, Didn't Install Something****	$ -	>	
Savings, Didn't Install Something****	$ -	>	
Savings, Didn't Install Something****	$ -	>	
Savings:	$ -		

**Use the Schedule of Values and best estimates

Total Added Costs:	$ 232,055.00
Cost of LEED/Overall Construction Cost (%):	1.7%

***Provide a best guess for cost. This could include solar panels, rain water capture system, or other feature that normally won't be pursued if not a LEED project.

****Didn't install something, such as a cooling system or greatly reduced the size due to natural ventilation.

Utility Incentives	Amount ($)		Describe
Gas:	$ -		
Electric:	$ -		
Water:	$ -		
Other:	$ -	>	
Total Incentives:	$ -		

Utility Incentives as % of Building Costs
0.0%

LEED Building Cost Data and Information

Return to: stuart.simpson@ga.wa.gov

Please complete this form to the best of your ability. This information is best completed by the State Project Manager responsible for the project and/or the Architect. Input data into yellow boxes.

Building Name/City:	Seminar II
Building Gross Square Footage:	159,524
Institution/University or Agency Name:	The Evergreen State College
Submitted By (Name/Phone):	Azeem Hoosein/ 360-867-6041
LEED Level Achieved:	Gold

Consultant Costs*	Costs
LEED Related Consultant Fees:	$ 95,000.00
Commissioning Fees:	$ 125,000.00
ELCCA Preparation Fees:	$ 32,000.00
Overall Consultant Fees:	$ 3,117,000.00

* Use the Application for Payment

LEED Submittal Fees:	$ 5,000.00
Cost of LEED/Overall Consultant Fees (%):	3.0%

Overall Cost of LEED
$ 590,000.00

Overall Project Cost (Consultant + Construction)
$ 35,075,000.00

Cost of LEED Compared to Overall Costs (%)
1.7%

Building Construction Cost Per Square Foot
$ 186.69

Construction Costs**	Costs		List LEED Elements
Building Demolistion Cost:	$ 5,000.00		
Site Work & Related Costs:	$ 2,171,000.00		
Facility Construction Costs:	$ 29,782,000.00		
Max. Allowable Construction Costs (MACC):	$ 31,953,000.00		
Cost of LEED Element***:	$ 150,000.00	>	Natural ventilation
Cost of LEED Element***:	$ 180,000.00	>	Green roofs
Cost of LEED Element***:	$ 120,000.00	>	Daylighting
Cost of LEED Element***:	$ 25,000.00	>	Resource-efficient materials
Cost of LEED Element***:	$ 15,000.00	>	Low-toxic materials
Cost of LEED Element***:	$ -	>	
Added Cost:	$ 490,000.00		List Elements not Installed due to LEED
Savings, Didn't Install Something****	$ -	>	
Savings, Didn't Install Something****	$ -	>	
Savings, Didn't Install Something****	$ -	>	
Savings:	$ -		

**Use the Schedule of Values and best estimates

Total Added Costs:	$ 490,000.00

Cost of LEED/Overall Construction Fees (%):	1.5%

***Provide a best guess for cost. This could include solar panels, rain water capture system, or other feature that normally won't be pursued if not a LEED project.

****Didn't install something, such as a cooling system or greatly reduced the size due to natural ventilation.

Utility Incentives	Amount ($)		Describe
Gas:	$ -		
Electric:	$ -		
Water:	$ -		
Other:	$ -	>	
Total Incentives:	$ -		

Utility Incentives as % of Building Costs
0.0%

LEED Building Cost and Performance Data

Please complete this form to the best of your ability. This information is best completed by the State Project Manager responsible for the project and/or the Architect. Input data into yellow boxes.

Building Name/City:	Science and Technology Building / Bellevue
Building Gross Square Footage:	62,882
Number of Occupants:	640
Institution/University or Agency Name:	Bellevue College
Submitted By Name/Phone:	Bob Colasurdo / (206)510 8147
LEED Level Achieved or (Expected)/Date:	Gold
LEED Version Used (e.g. V 2.2 or V 3.0)	LEED V2.2

Building Cost Data

Consultant Costs	Costs*
Overall Consultant Fees:	$ 2,071,579.00
LEED Related Consultant Fees:	$ 128,948.00
Commissioning Fees:	$ 66,360.00
ELCCA Preparation Fees:	$ 33,872.00
* Use the Application for Payment, Agreement Invoice	

LEED Submittal Fees:	$ 7,500.00
Soft Cost of LEED/Overall Consultant Fees (%):	6.6%

Overall Cost of LEED
$ 588,948.00

Overall Project Cost (Consultant + Construction)
$ 29,634,094.00

Cost of LEED Compared to Overall Costs (%)
2.0%

Building Construction Cost Per Square Foot
$ 414.97

Construction Costs	Costs**		
Building Demolistion Cost (if applicable):	$ -		
Site Work & Related Costs:	$ 1,460,639.00		
Building Construction Costs:	$ 26,094,376.00		
Max. Allowable Construction Costs (MACC):	$ 27,555,015.00		LEED Elements Description
Cost of LEED Element***:	$ 60,000.00	>	Exterior Sunshades
Cost of LEED Element***:	$ 10,000.00	>	Contractor's LEED Administration
Cost of LEED Element***:	$ 65,000.00	>	Contractor's Comissioning Costs
Cost of LEED Element***:	$ 60,000.00	>	Skylights and Light Shelves for Daylighting
Cost of LEED Element***:	$ 35,000.00	>	Entry Grilles
Cost of LEED Element***:	$ 17,500.00	>	Separate Metering for power and water
Cost of LEED Element***:	$ 45,000.00	>	Lighting Controls
Cost of LEED Element***:	$ 160,000.00	>	Heat Recovery Systems
Added LEED Construction Cost:	$ 452,500.00		List Elements not Installed or downsized due to LEED
Savings, Didn't Install Something****	$ -	>	
Savings, Didn't Install Something****	$ -	>	
Savings, Didn't Install Something****	$ -	>	
LEED Related Construction Savings:	$ -		

Total Added LEED Construction Costs:	$ 452,500.00
Hard Cost of LEED/Overall Construction Costs (%):	2%

**Use the Schedule of Values from Construction Invoice and Best Estimates

***Provide a best guess for cost. This could include solar panels, rain water capture system, or other feature that normally won't be pursued if not a LEED project.

****Didn't install something, such as a cooling system or greatly reduced the size due to natural ventilation.

Utility Incentives	Amount ($)
Gas:	$ -
Electric:	$ -

Utility Incentives as % of Building Costs
0.0%

Water:	$ -
Other:	$ -
Total Incentives:	$ -

>

Describe

LEED Building Performance Information

Total Savings Over Baseline (energy & water)
$ 33,744.00

Payback (Yrs)***
17.45341394

LEED Attribute	Capture this data from the LEED submittal (LEED OnLine)					
Energy Efficiency and Renewable Energy	**Proposed Building**				**Baseline Building**	
	Units	$	% Savings	$ Savings	Units	$
Electricity (kWh)	1,124,264	$ 88,548	-30.1%	$ (20,490)	870,300	$ 68,058
Gas (Therms)	63,695	$ 67,490	44.3%	$ 53,706	114,688	$ 121,196
Renewable Energy, Electricity (kWh)	-	$ -	0.0%	$ -		
Renewable Energy, Heat (Btu)	-	$ -	0.0%	$ -		
Total Btus, Dollars & Percents	10,206,613	$ 156,038	21.3%	$ 33,216	14,439,134	$ 189,254
Water Efficiency						
	Gallons/Yr	$	% Savings	$ Savings	Gallons/Yr	$
Water Use Reduction (water/sewer*)	88,666	$ 532	49.8%	$ 528.00	176,721	$ 1,060
Landscape Watering (irrigation water**)	-	$ -	0.0%	$ -	-	$ -
Captured Water (irrigation or interior water)	-	$ -	0.0%	$ -		
Total Water Saving	88,666	$ 532	99.2%	$ 528.00	176,721	$ 1,060
Stormwater Management						
	Points 0-2					
Stormwater Control Quality and Quantity	0					
Alt. Transportation Sources & Walkability						
	Points					
Density & Community Connectivity	1					
Public Transportation	1					
Bike Racks & Showers	1					
Total Points	3					
Construction Waste Recycling						
	Tons	%				
Construction Waste Recycled	1149.73	98.0				
Use of Recycled Content Materials						
	$	%				
Recycled Content Materials	$ 1,146,427.00	21.2				
Use of Regional Materials						
	$	%				
Regional Materials	$ 626,985.00	11.6				
Protect Forests, Support Sustainable Forestry						
	Points					
Ceterified Wood	0					
Good indoor Air Quality						
	Points					
Const. IAQ Management Plan	1					
Low-Emitting Materials	4					
Indoor Chemical & Pollutant Source Control	1					
Total Points	6					
Access to Natural Light						
	Points 0-2					
Daylight & Views	1					

* Default value used for water/sewer costs of $6/1000 gallons

**Default value used for irrigation water only $2.50/1000 gallons

*** Payback doesn't include many of the intangibles. These can result in greater savings than from energy and water alone. Increased productivity, reductions in sick leave, and worker retention can far outway utility savings. Also environmental benefits can be substantial in moving Washington to its goals. Government must lead by example.

LEED Building Cost and Performance Data

Please complete this form to the best of your ability. This information is best completed by the State Project Manager responsible for the project and/or the Architect. Input data into yellow boxes.

Building Name/City:	Classroom Building #2 (GLA) Bothell
Building Gross Square Footage:	54,300
Number of Occupants:	800 FTE
Institution/University or Agency Name:	State Board of Community & Technical Colleges - Cascadia Community College
Submitted By Name/Phone:	Bob Kacel
LEED Level Achieved or (Expected)/Date:	Tracking Platinum 2012 or 2013
LEED Version Used (e.g. V 2.2 or V 3.0)	Ver 2.2

Building Cost Data

Consultant Costs	Costs*
Overall Consultant Fees:	$ 3,139,000.00
LEED Related Consultant Fees:	$ 117,301.00
Commissioning Fees:	$ 86,600.00
ELCCA Preparation Fees:	$ 50,215.00
* Use the Application for Payment, Agreement Invoice	

LEED Submittal Fees:	$ -
Soft Cost of LEED/Overall Consultant Fees (%):	3.7%

Overall Cost of LEED
$ 245,594.01

Overall Project Cost (Consultant + Construction)
$ 28,439,000.01

Cost of LEED Compared to Overall Costs (%)
0.9%

Building Construction Cost Per Square Foot
$ 417.13

Construction Costs	Costs**		LEED Elements Description
Building Demolition Cost (if applicable):	$ 0.01		
Site Work & Related Costs:	$ 2,649,609.00		
Building Construction Costs:	$ 22,650,391.00		
Max. Allowable Construction Costs (MACC):	$ 25,300,000.01		LEED Elements Description
Cost of LEED Element***:	$ 80,000.00	>	Rainwater Collection/Storage System
Cost of LEED Element***:	$ -	>	Gray Water distribution system
Cost of LEED Element***:	$ 48,293.00	>	"Green" roofs
Cost of LEED Element***:		>	Exemplary Open Space
Cost of LEED Element***:	$ 0.01	>	Green Houskeeping
Cost of LEED Element***:	$ -	>	Integrated Pest Management
Added LEED Construction Cost:	$ 128,293.01		List Elements not Installed or downsized due to LEED
Savings, Didn't Install Something****	$ -	>	
Savings, Didn't Install Something****	$ -	>	
Savings, Didn't Install Something****	$ -	>	
LEED Related Construction Savings:	$ -		

Total Added LEED Construction Costs:	$ 128,293.01
Hard Cost of LEED/Overall Construction Costs (%):	1%

**Use the Schedule of Values from Construction Invoice and Best Estimates

***Provide a best guess for cost. This could include solar panels, rain water capture system, or other feature that normally won't be pursued if not a LEED project.

****Didn't install something, such as a cooling system or greatly reduced the size due to natural ventilation.

Utility Incentives	Amount ($)	
Gas:	$ -	
Electric:	$ -	
Water:	$ -	
Other:	$ -	>
Total Incentives:	$ -	

Utility Incentives as % of Building Costs
0.0%

Describe

LEED Building Performance Information

Total Savings Over Baseline (energy & water)	Payback (Yrs)***
$ -	#DIV/0!

LEED Attribute	Capture this data from the LEED submittal (LEED OnLine)					
Energy Effciency and Renewable Energy	**Proposed Building**				**Baseline Building**	
	Units	$	% Savings	$ Savings	Units	$
Electricity (kWh)	-	$ -	#DIV/0!	$ -	-	$ -
Gas (Therms)	-	$ -	#DIV/0!	$ -	-	$ -
Renewable Energy, Electricity (kWh)	-	$ -	#DIV/0!	$ -		
Renewable Energy, Heat (Btu)	-	$ -	#DIV/0!	$ -		
Total Btus, Dollars & Percents	-	$ -	#DIV/0!	$ -	-	$ -
Water Efficiency						
	Gallons/Yr	$	% Savings	$ Savings	Gallons/Yr	$
Water Use Reduction (water/sewer*)	-	$ -	#DIV/0!	$ -	-	$ -
Landscape Watering (irrigation water**)	-	$ -	#DIV/0!	$ -	-	$ -
Captured Water (irrigation or interior water)	-	$ -	Calculate >>	$ -		
Total Water Saving	-	$ -	#DIV/0!	$ -	-	$ -

Stormwater Management		
	Points 0-2	
Stormwater Control Quality and Quantity	2	
Alt. Transportation Sources & Walkability		
	Points	
Density & Community Connectivity	2	
Public Transportation	1	
Bike Racks & Showers	1	
Total Points	4	
Construction Waste Recycling		
	Tons	%
Construction Waste Recycled		
Use of Recycled Content Materials		
	$	%
Recycled Content Materials		
Use of Regional Materials		
	$	%
Regional Materials		
Protect Forests, Support Sustainable Forestry		
	Points	
Ceterified Wood	1	
Good indoor Air Quality		
	Points	
Const. IAQ Management Plan	2	
Low-Emitting Materials	4	
Indoor Chemical & Pollutant Source Control	1	
Total Points	7	
Access to Natural Light		
	Points 0-2	
Daylight & Views	1	

* Default value used for water/sewer costs of $6/1000 gallons

**Default value used for irrigation water only $2.50/1000 gallons

*** Payback doesn't include many of the intangibles. These can result in greater savings than from energy and water alone. Increased productivity, reductions in sick leave, and worker retention can far outway utility savings. Also environmental benefits can be substantial in moving Washington to its goals. Government must lead by example.

LEED Building Cost Data and Information

Return to: stuart.simpson@ga.wa.gov

Please complete this form to the best of your ability. This information is best completed by the State Project Manager responsible for the project and/or the Architect. Input data into yellow boxes.

Building Name/City:	New Science Center Centralia, Washington
Building Gross Square Footage:	69,984
Institution/University or Agency Name:	Centralia College
Submitted By (Name/Phone):	Andrew Rovelstad, Leavengood Architects 206-780-0786
LEED Level Achieved:	Gold

Consultant Costs*	Costs
LEED Related Consultant Fees:	$ 63,188.00
Commissioning Fees:	$ 70,202.00
ELCCA Preparation Fees:	$ 23,740.00
Overall Consultant Fees:	$ 2,439,468.00

* Use the Application for Payment

Overall Cost of LEED
$ 358,268.00

Overall Project Cost (Consultant + Construction)
$ 24,190,252.00

Cost of LEED Compared to Overall Costs (%)
1.5%

LEED Submittal Fees:	$ 3,784.00
Cost of LEED/Overall Consultant Fees (%):	2.6%

Building Construction Cost Per Square Foot
$ 336.25

Construction Costs**	Costs		List LEED Elements
Building Demolistion Cost:			
Site Work & Related Costs:	$ 448,340.00		
Facility Construction Costs:	$ 23,532,233.00		
Max. Allowable Construction Costs (MACC):	$ 21,747,000.00		
Cost of LEED Element***:	$ 52,010.00	>	General Conditions
Cost of LEED Element***:	$ 140,000.00	>	Passive Solar Shading
Cost of LEED Element***:	$ 32,270.00	>	Green Roof @ Astronomy Deck
Cost of LEED Element***:	$ 25,016.00	>	High Efficiency Boilers
Cost of LEED Element***:	$ 32,000.00	>	Lighting Controls
Cost of LEED Element***:	$ 260,000.00	>	Storm Water System/Pervious Paving/Rain Gardens
Added Cost:	$ 541,296.00		List Elements not Installed due to LEED
Savings, Didn't Install Something****	$ 250,000.00	>	Sub Surface Storm Water Containment
Savings, Didn't Install Something****	$ -	>	
Savings, Didn't Install Something****	$ -	>	
Savings:	$ 250,000.00		

**Use the Schedule of Values and best estimates

Total Added Costs:	$ 291,296.00

Cost of LEED/Overall Consultant Fees (%):	1.3%

***Provide a best guess for cost. This could include solar panels, rain water capture system, or other feature that normally won't be pursued if not a LEED project.

****Didn't install something, such as a cooling system or greatly reduced the size due to natural ventilation.

Utility Incentives	Amount ($)
Gas:	$ -
Electric:	$ -
Water:	$ -
Other:	$ -
Total Incentives:	$ -

Utility Incentives as % of Building Costs
0.0%

Describe

State LEED Building - Costs and Benefits of LEED

Building Name	Agency Name
New Science Center	Centralia Comm. College
Square Footage	69,984
Number of Occupants	
Total Project Cost (construction and consultants)	24190252
Added Construction & Consultant Costs Due to LEED	358268
Percent Added Costs Due to LEED	1.5%
Utility and Other Incentives/Grants	

Payback (Yrs)***
$ 10.78

Total Savings Over Baseline (energy & water)
$ 33,239.95

Energy Effciency and Renewable Energy Production	Proposed Building				Baseline Building	
	Units	$	% Savings	$ Savings	Units	$
Electricity (kWh)	1,043,684	$ 52,389.00	22.2%	$ 14,950.00	1,301,900	$ 67,339.00
Gas (Therms)	19,249	$ 20,798.00	46.7%	$ 18,221.00	36,259	$ 39,019.00
Generated Electricity (kWh)	-	$ -	0	$ -		
Renewable Heat (Btu)	-	$ -	-	$ -		
Total Btus, Dollars & Percents	5,486,993.5	$ 73,187.00	31.2%	$ 33,171.00	8,069,284.7	$ 106,358.00
Water Efficiency						
	Gallons/Yr	$	% Savings	$ Savings	Gallons/Yr	$
Water Use Reduction (water sewer savings*)	92,469	$ 92.47	42.7%	$ 68.95	161,421	$ 161.42
Landscape Watering (water savings**)		$ -	#DIV/0!	$ -		$ -
Captured Water (Wastewater Technologies)	-		0%			
Total Water Saving	92,469	$ 92.47	42.7%	$ 68.95	161,421	$ 161.42

Stormwater Management	
	Points 0-2
Stormwater Control Quality and Quantity	2
Alternative Transportation Sources & Walkability	
	Points
Density & Community Connectivity	1
Public Transportation	1
Bike Racks & Showers	1
Total Points	3

Construction Waste Recycling		
	Tons	%
Construction Waste Recycled	311.74	96.5
Use of Recycled Content Materials		
	$	%
Recycled Content Materials	$ 1,589,364.36	29.7
Use of Regional Materials		
	$	%
Regional Materials	$ 2,932,638.20	54.8

Protect Forests by Supporting Sustainable Forestry	
	Points
Ceterified Wood	1
Good indoor Air Quality	
	Points
Const. IAQ Management Plan	2
Low-Emitting Materials	4
Indoor Chemical & Pollutant Source Control	0
Total	6
Access to Natural Light	
	Points 0-2
Daylight & Views	2

* Default value used for water/sewer costs of $6/1000 gallons

**Default value used for irrigation water only $2.50/1000 gallons

*** Payback doesn't include many of the intangibles. These can result in greater savings than from energy and water alone. Increased productivity, reductions in sick leave, and worker retention can far outway utility savings. Also environmental benefits can be substantial in moving Washington to its goals. Government must lead by example.

LEED Building Cost Data and Information

Return to: stuart.simpson@ga.wa.gov

Please complete this form to the best of your ability. This information is best completed by the State Project Manager responsible for the project and/or the Architect. Input data into yellow boxes.

Building Name/City:	Business Education building/ Pasco, WA
Building Gross Square Footage:	24,000
Institution/University or Agency Name:	Columbia Basin College
Submitted By (Name/Phone):	David Combs, 360-902-0922
LEED Level Achieved:	Gold

Consultant Costs*	Costs
LEED Related Consultant Fees:	$ 69,000.00
Commissioning Fees:	$ 35,000.00
ELCCA Preparation Fees:	$ 12,000.00
Overall Consultant Fees:	$ 701,647.56

* Use the Application for Payment

LEED Submittal Fees:	$ 5,335.00
Cost of LEED/Overall Consultant Fees (%):	9.8%

Overall Cost of LEED
$ 171,903.35

Overall Project Cost (Consultant + Construction)
$ 7,381,611.86

Cost of LEED Compared to Overall Costs (%)
2.3%

Building Construction Cost Per Square Foot
$ 271.43

Construction Costs**	Costs		List LEED Elements
Building Demolition Cost:	$ 152,285.00		
Site Work & Related Costs:	$ 8,112.00		
Facility Construction Costs:	$ 6,514,232.30		
Max. Allowable Construction Costs (MACC):	$ 4,559,600.00		
Cost of LEED Element***:	$ 13,733.00	>	Translucent Sandwich Panels
Cost of LEED Element***:	$ 13,416.00	>	Solor Water Heating
Cost of LEED Element***:	$ 24,000.00	>	skylights
Cost of LEED Element***:	$ 46,419.35	>	Extra contractor tracking and reporting 1%
Cost of LEED Element***:	$ -	>	
Cost of LEED Element***:	$ -	>	
Added Cost:	$ 97,568.35		List Elements not Installed due to LEED
Savings, Didn't Install Something****	$ -	>	
Savings, Didn't Install Something****	$ -	>	
Savings, Didn't Install Something****	$ -	>	
Savings:	$ -		

**Use the Schedule of Values and best estimates

Total Added Costs:	$ 97,568.35
Cost of LEED/Overall Construction Fees (%):	2.1%

***Provide a best guess for cost. This could include solar panels, rain water capture system, or other feature that normally won't be pursued if not a LEED project.

****Didn't install something, such as a cooling system or greatly reduced the size due to natural ventilation.

Utility Incentives	Amount ($)	
Gas:	$ -	
Electric:	$ -	
Water:	$ -	
Other:	$ -	>
Total Incentives:	$ -	

Utility Incentives as % of Building Costs
0.0%

Describe

State LEED Building - Costs and Benefits of LEED

Building Name	Agency Name
Undergraduate Education Center	Everett Community College
Square Footage	86,000
Number of Occupants	
Total Project Cost (construction and consultants)	20999480
Added Construction & Consultant Costs Due to LEED	
Percent Added Costs Due to LEED	0%
Utility and Other Incentives/Grants	

Payback (Yrs)***
$ -

Total Savings Over Baseline (energy & water)
$ 20,489.36

Energy Effciency and Renewable Energy Production	Proposed Building				Baseline Building	
	Units	$	% Savings	$ Savings	Units	$
Electricity (kWh)	588,684	$ 46,501.00	14.6%	$ 7,919.00	697,092	$ 54,420.00
Gas (Therms)	8,417	$ 9,785.00	55.3%	$ 12,093.00	18,966	$ 21,878.00
Generated Electricity (kWh)	-	$ -	0	$ -		
Renewable Heat (Btu)	-	$ -	-	$ -		
Total Btus, Dollars & Percents	2,850,878.5	$ 56,286.00	26.2%	$ 20,012.00	4,275,775.0	$ 76,298.00

Water Efficiency	Gallons/Yr	$	% Savings	$ Savings	Gallons/Yr	$
Water Use Reduction (water sewer savings*)	275,018	$ 275.02	30.4%	$ 120.22	395,237	$ 395.24
Landscape Watering (water savings**)	79,547	$ 198.87	64.2%	$ 357.14	222,403	$ 556.01
Captured Water (Wastewater Technologies)	-		0%			
Total Water Saving	354,565	$ 473.89	50.2%	$ 477.36	617,640	$ 951.24

Stormwater Management	Points 0-2
Stormwater Control Quality and Quantity	0

Alternative Transportation Sources & Walkability	Points
Density & Community Connectivity	0
Public Transportation	1
Bike Racks & Showers	1
Total Points	2

Construction Waste Recycling	Tons	%
Construction Waste Recycled	963.54	97.1

Use of Recycled Content Materials	$	%
Recycled Content Materials	$ 873,977.14	18.3

Use of Regional Materials	$	%
Regional Materials	$ 1,262,504.20	26.4

Protect Forests by Supporting Sustainable Forestry	Points
Ceterified Wood	0

Good indoor Air Quality	Points
Const. IAQ Management Plan	0
Low-Emitting Materials	4
Indoor Chemical & Pollutant Source Control	1
Total	5

Access to Natural Light	Points 0-2
Daylight & Views	1

* Default value used for water/sewer costs of $6/1000 gallons

**Default value used for irrigation water only $2.50/1000 gallons

*** Payback doesn't include many of the intangibles. These can result in greater savings than from energy and water alone. Increased productivity, reductions in sick leave, and worker retention can far outway utility savings. Also environmental benefits can be substantial in moving Washington to its goals. Government must lead by example.

LEED Building Cost Data and Information

Return to: stuart.simpson@ga.wa.gov

Please complete this form to the best of your ability. This information is best completed by the State Project Manager responsible for the project and/or the Architect. Input data into yellow boxes.

Building Name/City:	Childcare Center/ Aberdeen
Building Gross Square Footage:	6,200
Institution/University or Agency Name:	Gray Harbor College
Submitted By (Name/Phone):	Stacy Simpson/360-902-0921
LEED Level Achieved:	Going for Gold

Consultant Costs*	Costs
LEED Related Consultant Fees:	$ 40,700.00
Commissioning Fees:	$ 39,580.00
ELCCA Preparation Fees:	$ -
Overall Consultant Fees:	$ 300,466.13

* Use the Application for Payment

LEED Submittal Fees:	$ 1,750.00
Cost of LEED/Overall Consultant Fees (%):	14.1%

Overall Cost of LEED
$ 41,508.00

Overall Project Cost (Consultant + Construction)
$ 1,988,037.13

Cost of LEED Compared to Overall Costs (%)
2.1%

Building Construction Cost Per Square Foot
$ 265.96

Construction Costs**	Costs		List LEED Elements
Building Demolistion Cost:	$ -		
Site Work & Related Costs:	$ 36,900.00		
Facility Construction Costs:	$ 1,648,921.00		
Max. Allowable Construction Costs (MACC):	$ 1,685,821.00		
Cost of LEED Element***:	$ 15,300.00	>	Radiant Slab with heat recovery
Cost of LEED Element***:	$ 3,932.00	>	Water Meter
Cost of LEED Element***:	$ 2,000.00	>	Construction Waist Management recycling costs
Cost of LEED Element***:	$ 2,250.00	>	Recycled content casework upgrade to recycled
Cost of LEED Element***:	$ -	>	
Cost of LEED Element***:	$ -	>	
Added Cost:	$ 23,482.00		List Elements not Installed due to LEED
Savings, Didn't Install Something****	$ 24,424.00	>	No irrigation landscaping
Savings, Didn't Install Something****		>	
Savings, Didn't Install Something****		>	
Savings:	$ 24,424.00		

**Use the Schedule of Values and best estimates

Total Added Costs:	$ (942.00)
Cost of LEED/Overall Construction Fees (%):	-0.1%

***Provide a best guess for cost. This could include solar panels, rain water capture system, or other feature that normally won't be pursued if not a LEED project.
****Didn't install something, such as a cooling system or greatly reduced the size due to natural ventilation.

Utility Incentives	Amount ($)		Describe
Gas:	$ -		
Electric:	$ -		
Water:	$ -		
Other:	$ -	>	
Total Incentives:	$ -		

Utility Incentives as % of Building Costs
0.0%

LEED Building Cost and Performance Data

Please complete this form to the best of your ability. This information is best completed by the State Project Manager responsible for the project and/or the Architect. Input data into yellow boxes.

Building Name/City:	GRCC Health & Science Replacement Building (Salish Hall) / Auburn, WA
Building Gross Square Footage:	82,792
Number of Occupants:	948
Institution/University or Agency Name:	Green River Community College
Submitted By Name/Phone:	Jim Shanahan/206-682-8300
LEED Level Achieved or (Expected)/Date:	LEED Silver/June 26, 2012
LEED Version Used (e.g. V 2.2 or V 3.0)	V2.2

Building Cost Data

Consultant Costs	Costs*
Overall Consultant Fees:	$ 3,588,383.51
LEED Related Consultant Fees:	$ 93,930.00
Commissioning Fees:	$ 22,205.80
ELCCA Preparation Fees:	$ 42,813.00
* Use the Application for Payment, Agreement Invoice	

LEED Submittal Fees:	$ 6,452.00
Soft Cost of LEED/Overall Consultant Fees (%):	2.8%

Overall Cost of LEED
$ 221,382.00

Overall Project Cost (Consultant + Construction)
$ 25,024,169.19

Cost of LEED Compared to Overall Costs (%)
0.9%

Building Construction Cost Per Square Foot
$ 214.09

Construction Costs	Costs**		
Building Demolistion Cost (if applicable):	$ 247,518.10		
Site Work & Related Costs:	$ 3,456,532.03		
Building Construction Costs:	$ 17,725,283.55		
Max. Allowable Construction Costs (MACC):	$ 21,429,333.68		LEED Elements Description
Cost of LEED Element***:	$ 12,000.00	>	Alternative Transporation - Bike Racks
Cost of LEED Element***:	$ 54,000.00	>	External SunShades
Cost of LEED Element***:	$ 25,000.00	>	Solar Leaf Demonstration Project
Cost of LEED Element***:	$ 10,000.00	>	Contractors LEED Documentation
Cost of LEED Element***:	$ 45,000.00	>	Lighting Controls (Daylight zoneing and occupancy)
Cost of LEED Element***:	$ 40,000.00	>	Skylights and Additional Windows for Daylighting
Added LEED Construction Cost:	$ 186,000.00		List Elements not Installed or downsized due to LEED
Savings, Didn't Install Something****	$ 15,000.00	>	No Airconditioning in Faculty offices
Savings, Didn't Install Something****	$ 30,000.00	>	Reduced Ceilings/Floor Coverings/Finishes
Savings, Didn't Install Something****	$ 20,000.00	>	Omit Irrigation at Woodland Enhancement Planting
LEED Related Construction Savings:	$ 65,000.00		

Total Added LEED Construction Costs:	$ 121,000.00
Hard Cost of LEED/Overall Construction Costs (%):	0.56%

**Use the Schedule of Values from Construction Invoice and Best Estimates

***Provide a best guess for cost. This could include solar panels, rain water capture system, or other feature that normally won't be pursued if not a LEED project.

****Didn't install something, such as a cooling system or greatly reduced the size due to natural ventilation.

Utility Incentives	Amount ($)
Gas:	$ -
Electric:	$ -
Water:	$ -
Other:	$ -
Total Incentives:	$ -

Utility Incentives as % of Building Costs
0.0%

Describe
>

LEED Building Performance Information

Total Savings Over Baseline (energy & water)	Payback (Yrs)***
$ 34,388.16	6.4

LEED Attribute	Capture this data from the LEED submittal (LEED OnLine)					
Energy Effciency and Renewable Energy	**Proposed Building**				**Baseline Building**	
	Units	$	% Savings	$ Savings	Units	$
Electricity (kWh)	872,907	$ 78,932	11.6%	$ 10,395	1,005,746	$ 89,327
Gas (Therms)	6,287	$ 7,484	75.5%	$ 23,080	28,530	$ 30,564
Renewable Energy, Electricity (kWh)	-	$ -	#DIV/0!	$ -		
Renewable Energy, Heat (Btu)	-	$ -	#DIV/0!	$ -		
Total Btus, Dollars & Percents	3,607,932	$ 86,416	27.9%	$ 33,475	6,285,611	$ 119,891
Water Efficiency						
	Gallons/Yr	$	% Savings	$ Savings	Gallons/Yr	$
Water Use Reduction (water/sewer*)	249,340	$ 1,496	33.3%	$ 746.77	373,802	$ 2,243
Landscape Watering (irrigation water**)	65,431	$ 164	50.4%	$ 166.39	131,986	$ 330
Captured Water (irrigation or interior water)	-	$ -	Calculate >>	$ -		
Total Water Saving	314,771	$ 1,660	35.5%	$ 913.16	505,788	$ 2,573
Stormwater Management						
	Points 0-2					
Stormwater Control Quality and Quantity	1					
Alt. Transportation Sources & Walkability						
	Points					
Density & Community Connectivity	0					
Public Transportation	1					
Bike Racks & Showers	1					
Total Points	2					
Construction Waste Recycling						
	Tons	%				
Construction Waste Recycled	353	98.8				
Use of Recycled Content Materials						
	$	%				
Recycled Content Materials	$ 1,767,439.00	34.9				
Use of Regional Materials						
	$	%				
Regional Materials	$ 760,690.00	15.0				
Protect Forests, Support Sustainable Forestry						
	Points					
Ceterified Wood	1					
Good indoor Air Quality						
	Points					
Const. IAQ Management Plan	1					
Low-Emitting Materials	4					
Indoor Chemical & Pollutant Source Control	0					
Total Points	5					
Access to Natural Light						
	Points 0-2					
Daylight & Views	1					

* Default value used for water/sewer costs of $6/1000 gallons

**Default value used for irrigation water only $2.50/1000 gallons

*** Payback doesn't include many of the intangibles. These can result in greater savings than from energy and water alone. Increased productivity, reductions in sick leave, and worker retention can far outway utility savings. Also environmental benefits can be substantial in moving Washington to its goals. Government must lead by example.

LEED Building Cost and Performance Data

Please complete this form to the best of your ability. This information is best completed by the State Project Manager responsible for the project and/or the Architect. Input data into yellow boxes.

Building Name/City:	Allied Health Building Kirkland
Building Gross Square Footage:	83,554
Number of Occupants:	
Institution/University or Agency Name:	Lake Washington Institute of Technology
Submitted By Name/Phone:	Ross Whitehead, Schreiber Starling & Lane / 206-682-8300
LEED Level Achieved or (Expected)/Date:	Silver anticipated 8/2012
LEED Version Used (e.g. V 2.2 or V 3.0)	Ver 2.2

Building Cost Data

Consultant Costs	Costs*
Overall Consultant Fees:	$ 3,015,389.80
LEED Related Consultant Fees:	$ 29,000.00
Commissioning Fees:	$ 162,700.00
ELCCA Preparation Fees:	$ 24,343.00

* Use the Application for Payment, Agreement Invoice

LEED Submittal Fees:	$ -
Soft Cost of LEED/Overall Consultant Fees (%):	1.0%

Overall Cost of LEED
$ 327,294.00

Overall Project Cost (Consultant + Construction)
$ 24,205,873.20

Cost of LEED Compared to Overall Costs (%)
1.4%

Building Construction Cost Per Square Foot
$ 239.59

Construction Costs	Costs**		LEED Elements Description
Building Demolition Cost (if applicable):	$ 36,000.00		
Site Work & Related Costs:	$ 1,135,672.00		
Building Construction Costs:	$ 20,018,811.40		
Max. Allowable Construction Costs (MACC):	$ 21,190,483.40		
Cost of LEED Element***:	$ 76,500.00	>	Certified Wood
Cost of LEED Element***:	$ 38,838.00	>	Daylighting Light Louvers (interior)
Cost of LEED Element***:	$ 90,706.00	>	Louver Window Shade (exterior)
Cost of LEED Element***:	$ 83,500.00	>	Enhanced Commissioning
Cost of LEED Element***:	$ 32,000.00	>	Entrance Grate & Mats
Cost of LEED Element***:	$ 0.00	>	Low VOC materials
Added LEED Construction Cost:	$ 321,544.00		List Elements not Installed or downsized due to LEED
Savings, Didn't Install Something****	$ 23,250.00	>	Irrigation System (260,000 gal/yr savings)
Savings, Didn't Install Something****	$ -	>	
Savings, Didn't Install Something****	$ -	>	
LEED Related Construction Savings:	$ 23,250.00		

Total Added LEED Construction Costs:	$ 298,294.00
Hard Cost of LEED/Overall Construction Costs (%):	1.4%

**Use the Schedule of Values from Construction Invoice and Best Estimates

***Provide a best guess for cost. This could include solar panels, rain water capture system, or other feature that normally won't be pursued if not a LEED project.

****Didn't install something, such as a cooling system or greatly reduced the size due to natural ventilation.

Utility Incentives	Amount ($)	
Gas:	$ 0.00	
Electric:	$ 0.00	
Water:	$ -	
Other:	$ -	>
Total Incentives:	$ -	

Utility Incentives as % of Building Costs
0.0%

Describe

LEED Building Performance Information

Total Savings Over Baseline (energy & water)	Payback (Yrs)***
$ 29,800.00	11.0

LEED Attribute	Capture this data from the LEED submittal (LEED OnLine)					
Energy Effciency and Renewable Energy	**Proposed Building**				**Baseline Building**	
	Units	$	% Savings	$ Savings	Units	$
Electricity (kWh)	868,377	$ 61,018	32.1%	$ 28,832	1,272,191	$ 89,850
Gas (Therms)	-	$ -	#DIV/0!	$ -	-	$ -
Renewable Energy, Electricity (kWh)	-	$ -	#DIV/0!	$ -		
Renewable Energy, Heat (Btu)	-	$ -	#DIV/0!	$ -		
Total Btus, Dollars & Percents	2,963,771	$ 61,018	32.1%	$ 28,832	4,341,988	$ 89,850
Water Efficiency						
	Gallons/Yr	$	% Savings	$ Savings	Gallons/Yr	$
Water Use Reduction (water/sewer*)	48,546	$ 291	52.3%	$ 319.00	101,715	$ 610
Landscape Watering (irrigation water**)	-	$ -	100.0%	$ 649.00	259,546	$ 649
Captured Water (irrigation or interior water)	-	$ -	Calculate >>	$ -	0	$ -
Total Water Saving	48,546	$ 291	76.9%	$ 968.00	361,261	$ 1,259

Stormwater Management		
	Points 0-2	
Stormwater Control Quality and Quantity	0	
Alt. Transportation Sources & Walkability		
	Points	
Density & Community Connectivity	1	
Public Transportation	1	
Bike Racks & Showers	1	
Total Points	3	
Construction Waste Recycling		
	Tons	%
Construction Waste Recycled	702	91.0
Use of Recycled Content Materials		
	$	%
Recycled Content Materials	$ 1,869,816.94	41.6
Use of Regional Materials		
	$	%
Regional Materials	$ 1,106,017.00	22.8
Protect Forests, Support Sustainable Forestry		
	Points	
Certified Wood	1	
Good indoor Air Quality		
	Points	
Const. IAQ Management Plan	1	
Low-Emitting Materials	1	
Indoor Chemical & Pollutant Source Control	0	
Total Points	2	
Access to Natural Light		
	Points 0-2	
Daylight & Views	0	

* Default value used for water/sewer costs of $6/1000 gallons

**Default value used for irrigation water only $2.50/1000 gallons

*** Payback doesn't include many of the intangibles. These can result in greater savings than from energy and water alone. Increased productivity, reductions in sick leave, and worker retention can far outway utility savings. Also environmental benefits can be substantial in moving Washington to its goals. Government must lead by example.

LEED Building Cost and Performance Data

Please complete this form to the best of your ability. This information is best completed by the State Project Manager responsible for the project and/or the Architect. Input data into yellow boxes.

Building Name/City:	Integrated Resource Center / Seattle
Building Gross Square Footage:	47,500
Number of Occupants:	
Institution/University or Agency Name:	SBCTC/ North Seattle Community College
Submitted By Name/Phone:	
LEED Level Achieved or (Expected)/Date:	Gold October 2011
LEED Version Used (e.g. V 2.2 or V 3.0)	Ver 2.2

Building Cost Data

Consultant Costs	Costs*
Overall Consultant Fees:	$ 2,053,223.00
LEED Related Consultant Fees:	$ 112,985.00
Commissioning Fees:	$ 60,320.00
ELCCA Preparation Fees:	$ 31,968.00
* Use the Application for Payment, Agreement Invoice	

LEED Submittal Fees:	$ 1,980.00
Soft Cost of LEED/Overall Consultant Fees (%):	5.6%

Overall Cost of LEED
$ 231,565.00

Overall Project Cost (Consultant + Construction)
$ 16,622,807.00

Cost of LEED Compared to Overall Costs (%)
1.4%

Building Construction Cost Per Square Foot
$ 216.04

Construction Costs	Costs**		
Building Demolistion Cost (if applicable):	$ 233,069.00		
Site Work & Related Costs:	$ 858,543.00		
Building Construction Costs:	$ 10,261,888.00		
Max. Allowable Construction Costs (MACC):	$ 14,567,604.00		LEED Elements Description
Cost of LEED Element***:	$ 60,000.00	>	Green roof
Cost of LEED Element***:	$ 280,000.00	>	Raised access floor system
Cost of LEED Element***:	$ 20,000.00	>	Enhanced commissioning
Cost of LEED Element***:	$ 5,000.00	>	High Efficiency Boiler
Cost of LEED Element***:		>	
Cost of LEED Element***:	$ -	>	
Added LEED Construction Cost:	$ 365,000.00		List Elements not Installed or downsized due to LEED
Savings, Didn't Install Something****	$ 150,000.00	>	Less supply air ductwork
Savings, Didn't Install Something****	$ 7,200.00	>	Smaller pumps required
Savings, Didn't Install Something****	$ 91,200.00	>	Smaller AHU
LEED Related Construction Savings:	$ 248,400.00		

Total Added LEED Construction Costs:	$ 116,600.00
Hard Cost of LEED/Overall Construction Costs (%):	1%

**Use the Schedule of Values from Construction Invoice and Best Estimates

***Provide a best guess for cost. This could include solar panels, rain water capture system, or other feature that normally won't be pursued if not a LEED project.

****Didn't install something, such as a cooling system or greatly reduced the size due to natural ventilation.

Utility Incentives	Amount ($)	
Gas:	$ -	
Electric:	$ -	
Water:	$ -	
Other:	$ -	>
Total Incentives:	$ -	

Utility Incentives as % of Building Costs
0.0%

Describe

LEED Building Performance Information

Total Savings Over Baseline (energy & water)	Payback (Yrs)***
$ 6,967.27	33.2

LEED Attribute	Capture this data from the LEED submittal (LEED OnLine)					
Energy Effciency and Renewable Energy	**Proposed Building**				**Baseline Building**	
	Units	$	% Savings	$ Savings	Units	$
Electricity (kWh)	293,392	$ 16,760	12.0%	$ 2,284	330,661	$ 19,044
Gas (Therms)	1,328	$ 1,947	58.2%	$ 2,709	3,685	$ 4,656
Renewable Energy, Electricity (kWh)	-	$ -	#DIV/0!	$ -		
Renewable Energy, Heat (Btu)	-	$ -	#DIV/0!	$ -		
Total Btus, Dollars & Percents	1,134,140	$ 18,707	21.1%	$ 4,993	1,497,007	$ 23,700
Water Efficiency						
	Gallons/Yr	$	% Savings	$ Savings	Gallons/Yr	$
Water Use Reduction (water/sewer*)	325,539	$ 1,953	46.3%	$ 1,685.73	606,494	$ 3,639
Landscape Watering (irrigation water**)	32,014	$ 80	78.3%	$ 288.54	147,429	$ 369
Captured Water (irrigation or interior water)	-	$ -	Calculate >>	$ -		
Total Water Saving	357,553	$ 2,033	49.3%	$ 1,974.27	753,923	$ 4,008

Stormwater Management		
	Points 0-2	
Stormwater Control Quality and Quantity	0	
Alt. Transportation Sources & Walkability		
	Points	
Density & Community Connectivity	1	
Public Transportation	1	
Bike Racks & Showers	1	
Total Points	3	
Construction Waste Recycling		
	Tons	%
Construction Waste Recycled	200.69	95.7
Use of Recycled Content Materials		
	$	%
Recycled Content Materials	$ 721,935.00	24.5
Use of Regional Materials		
	$	%
Regional Materials	$ -	0.0
Protect Forests, Support Sustainable Forestry		
	Points	
Ceterified Wood	0	
Good indoor Air Quality		
	Points	
Const. IAQ Management Plan	2	
Low-Emitting Materials	3	
Indoor Chemical & Pollutant Source Control	1	
Total Points	6	
Access to Natural Light		
	Points 0-2	
Daylight & Views	2	

* Default value used for water/sewer costs of $6/1000 gallons

**Default value used for irrigation water only $2.50/1000 gallons

*** Payback doesn't include many of the intangibles. These can result in greater savings than from energy and water alone. Increased productivity, reductions in sick leave, and worker retention can far outway utility savings. Also environmental benefits can be substantial in moving Washington to its goals. Government must lead by example.

LEED Building Cost Data and Information

Return to: stuart.simpson@ga.wa.gov

Please complete this form to the best of your ability. This information is best completed by the State Project Manager responsible for the project and/or the Architect. Input data into yellow boxes.

Building Name/City:	Humanities and Student Services Building, Bremerton
Building Gross Square Footage:	85,012
Institution/University or Agency Name:	Olympic College
Submitted By (Name/Phone):	Yost Grube Hall Architecture, John Blumthal, (503) 221-0150
LEED Level Achieved:	Gold (not yet certified)

Consultant Costs*	Costs
LEED Related Consultant Fees:	$ 100,854.00
Commissioning Fees:	$ 80,240.00
ELCCA Preparation Fees:	$ 26,475.00
Overall Consultant Fees:	$ 2,643,011.00

* Use the Application for Payment

Overall Cost of LEED
$ 104,406.84

Overall Project Cost (Consultant + Construction)
$ 24,282,597.84

Cost of LEED Compared to Overall Costs (%)
0.4%

LEED Submittal Fees:	$ 3,552.84
Cost of LEED/Overall Consultant Fees (%):	4.0%

Building Construction Cost Per Square Foot
$ 241.04

Construction Costs**	Costs		
Building Demolistion Cost:	$ -		
Site Work & Related Costs:	$ 1,144,912.00		
Facility Construction Costs:	$ 20,491,122.00		
Max. Allowable Construction Costs (MACC):	$ 21,636,034.00		List LEED Elements
Cost of LEED Element***:	$ -	>	
Cost of LEED Element***:	$ -	>	
Cost of LEED Element***:	$ -	>	
Cost of LEED Element***:	$ -	>	
Cost of LEED Element***:	$ -	>	
Cost of LEED Element***:	$ -	>	
Added Cost:	$ -		List Elements not Installed due to LEED
Savings, Didn't Install Something****	$ -	>	
Savings, Didn't Install Something****	$ -	>	
Savings, Didn't Install Something****	$ -	>	
Savings:	$ -		

**Use the Schedule of Values and best estimates

Total Added Costs:	$ -
Cost of LEED/Overall Consultant Fees (%):	0.0%

***Provide a best guess for cost. This could include solar panels, rain water capture system, or other feature that normally won't be pursued if not a LEED project.

****Didn't install something, such as a cooling system or greatly reduced the size due to natural ventilation.

Utility Incentives	Amount ($)	
Gas:	$ -	
Electric:	$ -	
Water:	$ -	
Other:	$ -	>
Total Incentives:	$ -	

Utility Incentives as % of Building Costs
0.0%

Describe

LEED Building Cost and Performance Data

Please complete this form to the best of your ability. This information is best completed by the State Project Manager responsible for the project and/or the Architect. Input data into yellow boxes.

Building Name/City:	Business & Humanities Center - Maier Hall / Port Angeles
Building Gross Square Footage:	63,221
Number of Occupants:	790
Institution/University or Agency Name:	Peninsula College
Submitted By Name/Phone:	Carl Dominguez/ 206-443-3448
LEED Level Achieved or (Expected)/Date:	LEED Gold/ May 21, 2012
LEED Version Used (e.g. V 2.2 or V 3.0)	V 2.2

Building Cost Data

Consultant Costs	Costs*
Overall Consultant Fees:	$ 4,487,262.00
LEED Related Consultant Fees:	$ 109,649.00
Commissioning Fees:	$ 113,670.00
ELCCA Preparation Fees:	$ 18,288.00

* Use the Application for Payment, Agreement Invoice

LEED Submittal Fees:	$ 3,097.00
Soft Cost of LEED/Overall Consultant Fees (%):	2.5%

Overall Cost of LEED
$ 402,746.00

Overall Project Cost (Consultant + Construction)
$ 27,390,359.00

Cost of LEED Compared to Overall Costs (%)
1.5%

Building Construction Cost Per Square Foot
$ 281.55

Construction Costs	Costs**		LEED Elements Description
Building Demolition Cost (if applicable):	$ 440,000.00		
Site Work & Related Costs:	$ 2,260,000.00		
Building Construction Costs:	$ 17,800,000.00		
Max. Allowable Construction Costs (MACC):	$ 22,900,000.00		
Cost of LEED Element***:	$ 76,000.00	>	Operable windows - manual/ motorized
Cost of LEED Element***:	$ 44,000.00	>	Ceiling fans
Cost of LEED Element***:	$ 500,000.00	>	Geothermal well field
Cost of LEED Element***:	$ 50,000.00	>	Epiphytic (moss) roof
Cost of LEED Element***:	$ 70,000.00	>	Chilled beams
Cost of LEED Element***:		>	
Added LEED Construction Cost:	$ 740,000.00		List Elements not Installed or downsized due to LEED
Savings, Didn't Install Something****	$ 250,000.00	>	Reduced mech cooling - smaller HVAC system due to ventilat
Savings, Didn't Install Something****	$ 200,000.00	>	Stormwater discharge to wetland - no detention tank
Savings, Didn't Install Something****	$ -	>	
LEED Related Construction Savings:	$ 450,000.00		

Total Added LEED Construction Costs:	$ 290,000.00
Hard Cost of LEED/Overall Construction Costs (%):	1.3%

**Use the Schedule of Values from Construction Invoice and Best Estimates

***Provide a best guess for cost. This could include solar panels, rain water capture system, or other feature that normally won't be pursued if not a LEED project.

****Didn't install something, such as a cooling system or greatly reduced the size due to natural ventilation.

Utility Incentives	Amount ($)
Gas:	$ -
Electric:	$ -
Water:	$ -
Other:	$ -
Total Incentives:	$ -

Utility Incentives as % of Building Costs
0.0%

Describe
>

LEED Building Performance Information

Total Savings Over Baseline (energy & water)	Payback (Yrs)***
$ 17,064.51	23.6

LEED Attribute	Capture this data from the LEED submittal (LEED OnLine)					
Energy Effciency and Renewable Energy	**Proposed Building**				**Baseline Building**	
	Units	$	% Savings	$ Savings	Units	$
Electricity (kWh)	625,685	$ 32,176	32.8%	$ 15,740	901,674	$ 47,916
Gas (Therms)	2,479	$ 3,328	0.0%	$ -	2,479	$ 3,328
Renewable Energy, Electricity (kWh)	-	$ -	#DIV/0!	$ -		
Renewable Energy, Heat (Btu)	-	$ -	#DIV/0!	$ -		
Total Btus, Dollars & Percents	2,383,363	$ 35,504	30.7%	$ 15,740	3,325,313	$ 51,244
Water Efficiency						
	Gallons/Yr	$	% Savings	$ Savings	Gallons/Yr	$
Water Use Reduction (water/sewer*)	67,446	$ 67	91.9%	$ 762.51	138,327	$ 830
Landscape Watering (irrigation water**)	163,965	$ 410	57.8%	$ 562.00	388,888	$ 972
Captured Water (irrigation or interior water)	-	$ -	Calculate >>	$ -		
Total Water Saving	231,411	$ 477	73.5%	$ 1,324.51	527,215	$ 1,802

Stormwater Management		
	Points 0-2	
Stormwater Control Quality and Quantity	2	
Alt. Transportation Sources & Walkability		
	Points	
Density & Community Connectivity	0	
Public Transportation	1	
Bike Racks & Showers	1	
Total Points	2	
Construction Waste Recycling		
	Tons	%
Construction Waste Recycled	315	84.0
Use of Recycled Content Materials		
	$	%
Recycled Content Materials	$ 1,160,642.00	22.0
Use of Regional Materials		
	$	%
Regional Materials	$ 923,568.00	17.0
Protect Forests, Support Sustainable Forestry		
	Points	
Ceterified Wood	1	
Good indoor Air Quality		
	Points	
Const. IAQ Management Plan	2	
Low-Emitting Materials	3	
Indoor Chemical & Pollutant Source Control	1	
Total Points	6	
Access to Natural Light		
	Points 0-2	
Daylight & Views	2	

* Default value used for water/sewer costs of $6/1000 gallons

**Default value used for irrigation water only $2.50/1000 gallons

*** Payback doesn't include many of the intangibles. These can result in greater savings than from energy and water alone. Increased productivity, reductions in sick leave, and worker retention can far outway utility savings. Also environmental benefits can be substantial in moving Washington to its goals. Government must lead by example.

LEED Building Cost Data and Information

Return to: stuart.simpson@ga.wa.gov

Please complete this form to the best of your ability. This information is best completed by the State Project Manager responsible for the project and/or the Architect. Input data into yellow boxes.

Building Name/City:	Rainier Building/Lakewood
Building Gross Square Footage:	80,645
Institution/University or Agency Name:	Pierce College, Ft. Steilacoom
Submitted By (Name/Phone):	Todd Flynn/360-902-7251
LEED Level Achieved:	Gold

Consultant Costs*	Costs
LEED Related Consultant Fees:	$ 97,050.00
Commissioning Fees:	$ 130,367.00
ELCCA Preparation Fees:	$ 37,950.00
Overall Consultant Fees:	$ 3,443,581.00

* Use the Application for Payment

LEED Submittal Fees:	$ 5,000.00
Cost of LEED/Overall Consultant Fees (%):	2.8%

Overall Cost of LEED
$ 276,050.00

Overall Project Cost (Consultant + Construction)
$ 26,651,581.00

Cost of LEED Compared to Overall Costs (%)
1.0%

Building Construction Cost Per Square Foot
$ 262.77

Construction Costs**	Costs		List LEED Elements
Building Demolistion Cost:	$ -		
Site Work & Related Costs:	$ 2,012,000.00		
Facility Construction Costs:	$ 21,191,000.00		
Max. Allowable Construction Costs (MACC):	$ 23,203,000.00		
Cost of LEED Element***:	$ 112,000.00	>	PV Array
Cost of LEED Element***:	$ 20,000.00	>	Reheat Coil
Cost of LEED Element***:	$ 42,000.00	>	Green Roof
Cost of LEED Element***:	$ -	>	
Cost of LEED Element***:	$ -	>	
Cost of LEED Element***:	$ -	>	
Added Cost:	$ 174,000.00		List Elements not Installed due to LEED
Savings, Didn't Install Something****	$ -	>	
Savings, Didn't Install Something****	$ -	>	
Savings, Didn't Install Something****	$ -	>	
Savings:	$ -		

**Use the Schedule of Values and best estimates

Total Added Costs:	$ 174,000.00

Cost of LEED/Overall Construction Fees (%):	0.7%

***Provide a best guess for cost. This could include solar panels, rain water capture system, or other feature that normally won't be pursued if not a LEED project.

****Didn't install something, such as a cooling system or greatly reduced the size due to natural ventilation.

Utility Incentives	Amount ($)		Describe
Gas:	$ -		
Electric:	$ -		
Water:	$ -		
Other:	$ 157,500.00	>	PV Grant Money
Total Incentives:	$ 157,500.00		

Utility Incentives as % of Building Costs
0.7%

LEED Building Cost and Performance Data

Please complete this form to the best of your ability. This information is best completed by the State Project Manager responsible for the project and/or the Architect. Input data into yellow boxes.

Building Name/City:	SCCC Wood Construction Center; Seattle
Building Gross Square Footage:	58,700
Number of Occupants:	200
Institution/University or Agency Name:	Seattle Central Community College
Submitted By Name/Phone:	Stephen J. Starling
LEED Level Achieved or (Expected)/Date:	Mar-13
LEED Version Used (e.g. V 2.2 or V 3.0)	V2.2

Building Cost Data

Consultant Costs	Costs*
Overall Consultant Fees:	$ 2,661,810.70
LEED Related Consultant Fees:	$ 98,411.00
Commissioning Fees:	$ 71,865.00
ELCCA Preparation Fees:	$ 11,210.00
* Use the Application for Payment, Agreement Invoice	

Overall Cost of LEED
$ 177,761.00

Overall Project Cost (Consultant + Construction)
$ 19,513,281.14

Cost of LEED Compared to Overall Costs (%)
0.9%

LEED Submittal Fees: $ 3,972.00

Building Construction Cost Per Square Foot
$ 266.34

Soft Cost of LEED/Overall Consultant Fees (%): 3.8%

Construction Costs	Costs**		LEED Elements Description
Building Demolition Cost (if applicable):	$ 186,380.06		
Site Work & Related Costs:	$ 1,027,000.00		
Building Construction Costs:	$ 15,634,118.38		
Max. Allowable Construction Costs (MACC):	$ 16,847,498.44		LEED Elements Description
Cost of LEED Element***:	$ 3,500.00	>	Alt. Transporat. - Bike Storage
Cost of LEED Element***:	$ 4,000.00	>	Alt. Transporat. - Low Emitting & Fuel Eff. Vehicles
Cost of LEED Element***:	$ 30,000.00	>	Enhanced Commissioning
Cost of LEED Element***:	$ 10,000.00	>	Store/Collect. of Recyclables (Waste wood Recycling)
Cost of LEED Element***:	$ 15,000.00	>	Measurement and Verificatons - Separate Metering
Cost of LEED Element***:	$ 22,878.00	>	Contractor's Commissioning Costs
Cost of LEED Element***:	$ 50,000.00	>	Heat Recovery
Cost of LEED Element***:	$ 10,000.00	>	Contractor LEED Adminstration
Cost of LEED Element***:	$ 25,000.00	>	Rapidly Renewable Materials (Ipe Wood Decking/Siding)
Added LEED Construction Cost:	$ 170,378.00		List Elements not Installed or downsized due to LEED
Savings, Didn't Install Something****	$ 50,000.00	>	No Air Conditioning in Shop Wing
Savings, Didn't Install Something****	$ 45,000.00	>	Reduced Ceilings/Floor Coverings/Finishes
Savings, Didn't Install Something****	$ -	>	
LEED Related Construction Savings:	$ 95,000.00		

Total Added LEED Construction Costs:	$ 75,378.00

Hard Cost of LEED/Overall Construction Costs (%): 0.45%

**Use the Schedule of Values from Construction Invoice and Best Estimates

***Provide a best guess for cost. This could include solar panels, rain water capture system, or other feature that normally won't be pursued if not a LEED project.

****Didn't install something, such as a cooling system or greatly reduced the size due to natural ventilation.

Utility Incentives	Amount ($)
Gas:	$ -
Electric:	$ -

Utility Incentives as % of Building Costs
0.0%

Water:	$ -	>	Describe
Other:	$ -		
Total Incentives:	$ -		

LEED Building Performance Information

Total Savings Over Baseline (energy & water)	Payback (Yrs)***
$ 8,016.92	22.2

LEED Attribute	Capture this data from the LEED submittal (LEED OnLine)					
Energy Effciency and Renewable Energy	**Proposed Building**				**Baseline Building**	
	Units	$	% Savings	$ Savings	Units	$
Electricity (kWh)	285,141	$ 29,572	17.9%	$ 6,438	-	$ 36,010
Gas (Therms)	992	$ 843	60.1%	$ 1,270	2,413	$ 2,113
Renewable Energy, Electricity (kWh)	-	$ -	#DIV/0!	$ -		
Renewable Energy, Heat (Btu)	-	$ -	#DIV/0!	$ -		
Total Btus, Dollars & Percents	1,072,386	$ 30,415	20.2%	$ 7,708	241,300	$ 38,123
Water Efficiency						
	Gallons/Yr	$	% Savings	$ Savings	Gallons/Yr	$
Water Use Reduction (water/sewer*)	38,562	$ 231	47.7%	$ 210.82	73,698	$ 442
Landscape Watering (irrigation water**)	34,091	$ 85	53.5%	$ 98.11	73,333	$ 183
Captured Water (irrigation or interior water)	-	$ -	Calculate >>	$ -		
Total Water Saving	72,653	$ 317	49.4%	$ 308.92	147,031	$ 626
Stormwater Management						
	Points 0-2					
Stormwater Control Quality and Quantity	0					
Alt. Transportation Sources & Walkability						
	Points					
Density & Community Connectivity	1					
Public Transportation	1					
Bike Racks & Showers	1					
Total Points	3					
Construction Waste Recycling						
	Tons	%				
Construction Waste Recycled	236	97.0				
Use of Recycled Content Materials						
	$	%				
Recycled Content Materials	$ 1,185,000	35.0				
Use of Regional Materials						
	$	%				
Regional Materials	$ 510,000.00	15.0				
Protect Forests, Support Sustainable Forestry						
	Points					
Ceterified Wood	1					
Good indoor Air Quality						
	Points					
Const. IAQ Management Plan	1					
Low-Emitting Materials	1					
Indoor Chemical & Pollutant Source Control	1					
Total Points	3					
Access to Natural Light						
	Points 0-2					
Daylight & Views	0					

* Default value used for water/sewer costs of $6/1000 gallons

**Default value used for irrigation water only $2.50/1000 gallons

*** Payback doesn't include many of the intangibles. These can result in greater savings than from energy and water alone. Increased productivity, reductions in sick leave, and worker retention can far outway utility savings. Also environmental benefits can be substantial in moving Washington to its goals. Government must lead by example.

LEED Building Cost and Performance Data

Please complete this form to the best of your ability. This information is best completed by the State Project Manager responsible for the project and/or the Architect. Input data into yellow boxes.

Building Name/City:	Angst Hall, Mount Vernon, WA
Building Gross Square Footage:	65,900
Number of Occupants:	678
Institution/University or Agency Name:	Skagit Valley College
Submitted By Name/Phone:	Keith Schreiber, Schreiber Starling& Lane Architects (206) 682-8300
LEED Level Achieved or (Expected)/Date:	Platinum
LEED Version Used (e.g. V 2.2 or V 3.0)	LEED 2.2

Building Cost Data

Consultant Costs	Costs*
Overall Consultant Fees:	$ 2,587,013.00
LEED Related Consultant Fees:	$ 118,868.00
Commissioning Fees:	$ 72,996.00
ELCCA Preparation Fees:	$ 19,364.00
* Use the Application for Payment, Agreement Invoice	

LEED Submittal Fees:	$ 7,660.00
Soft Cost of LEED/Overall Consultant Fees (%):	4.9%

Overall Cost of LEED
$ 532,667.00

Overall Project Cost (Consultant + Construction)
$ 25,136,700.00

Cost of LEED Compared to Overall Costs (%)
2.1%

Building Construction Cost Per Square Foot
$ 315.30

Construction Costs	Costs**		
Building Demolition Cost (if applicable):	$ 191,900.00		
Site Work & Related Costs:	$ 1,571,977.00		
Building Construction Costs:	$ 20,778,150.00		
Max. Allowable Construction Costs (MACC):	$ 22,542,027.00		LEED Elements Description
Cost of LEED Element***:	$ 231,389.00	>	35 KW Photovoaltic Array
Cost of LEED Element***:	$ -	>	
Cost of LEED Element***:	$ 10,000.00	>	Contractor's LEED Administration
Cost of LEED Element***:	$ -	>	
Cost of LEED Element***:	$ 66,400.00	>	Skylight for daylighting of interior offices
Cost of LEED Element***:	$ 36,000.00	>	Entry foot grilles
Cost of LEED Element***:	$ 17,400.00	>	Separate metering of power and water
Cost of LEED Element***:	$ 44,950.00	>	Lighting Controls (Daylight zoning & occupancy)
Cost of LEED Element***:	$ -	>	
Added LEED Construction Cost:	$ 406,139.00		List Elements not Installed or downsized due to LEED
Savings, Didn't Install Something****	$ -	>	
Savings, Didn't Install Something****	$ -	>	
Savings, Didn't Install Something****	$ -	>	
LEED Related Construction Savings:	$ -		

Total Added LEED Construction Costs:	$ 406,139.00
Hard Cost of LEED/Overall Construction Costs (%):	2%

**Use the Schedule of Values from Construction Invoice and Best Estimates

***Provide a best guess for cost. This could include solar panels, rain water capture system, or other feature that normally won't be pursued if not a LEED project.

****Didn't install something, such as a cooling system or greatly reduced the size due to natural ventilation.

Utility Incentives	Amount ($)
Gas:	$ -

Utility Incentives as % of Building Costs
1.3%

Electric:	$ -
Water:	$ -
Other:	$ 264,650.00
Total Incentives:	$ 264,650.00

>

Describe
Grant for PV system design and installation

LEED Building Performance Information

Total Savings Over Baseline (energy & water)
$ 44,920.00

Payback (Yrs)***
5.966540516

LEED Attribute	Capture this data from the LEED submittal (LEED OnLine)					
Energy Effciency and Renewable Energy	**Proposed Building**				**Baseline Building**	
	Units	$	% Savings	$ Savings	Units	$
Electricity (kWh)	397,500	$ 29,372	47.5%	$ 26,559	696,433	$ 55,931
Gas (Therms)	23,549	$ 25,179	33.9%	$ 12,886	35,776	$ 38,065
Renewable Energy, Electricity (kWh)	35,108.00	$ 2,601	100.0%	$ 2,601		
Renewable Energy, Heat (Btu)	-	$ -	0.0%	$ -	0	$ -
Total Btus, Dollars & Percents	3,591,744	$ 51,950	80.9%	$ 42,046	5,954,526	$ 93,996
Water Efficiency						
	Gallons/Yr	$	% Savings	$ Savings	Gallons/Yr	$
Water Use Reduction (water/sewer*)	117,200	$ 702	48.0%	$ 648.00	225,524	$ 1,350
Landscape Watering (irrigation water**)	172,352	$ 1,032	38.3%	$ 2,226.00	543,148	$ 3,258
Captured Water (irrigation or interior water)	-	$ -	0.0%	$ -	0	$ -
Total Water Saving	289,552	$ 1,734	165.7%	$ 2,874.00	768,672	$ 4,608

Stormwater Management		
	Points 0-2	
Stormwater Control Quality and Quantity	2	
Alt. Transportation Sources & Walkability		
	Points	
Density & Community Connectivity	1	
Public Transportation	1	
Bike Racks & Showers	1	
Total Points	3	
Construction Waste Recycling		
	Tons	%
Construction Waste Recycled	749.1	97.1
Use of Recycled Content Materials		
	$	%
Recycled Content Materials	$ 1,039,281.83	23.8
Use of Regional Materials		
	$	%
Regional Materials	$ 1,090,424.13	25.0
Protect Forests, Support Sustainable Forestry		
	Points	
Ceterified Wood	1	
Good indoor Air Quality		
	Points	
Const. IAQ Management Plan	1	
Low-Emitting Materials	1	
Indoor Chemical & Pollutant Source Control	1	
Total Points	3	
Access to Natural Light		
	Points 0-2	
Daylight & Views	1	

* Default value used for water/sewer costs of $6/1000 gallons

**Default value used for irrigation water only $2.50/1000 gallons

*** Payback doesn't include many of the intangibles. These can result in greater savings than from energy and water alone. Increased productivity, reductions in sick leave, and worker retention can far outway utility savings. Also environmental benefits can be substantial in moving Washington to its goals. Government must lead by example.

State LEED Building - Costs and Benefits of LEED

Building Name	Agency Name
Natural Sciences Complex	South Puget Sound Comm. College
Square Footage	66,990
Number of Occupants	
Total Project Cost (construction and consultants)	18546500
Added Construction & Consultant Costs Due to LEED	
Percent Added Costs Due to LEED	0%
Utility and Other Incentives/Grants	

Payback (Yrs)***
$ -

Total Savings Over Baseline (energy & water)
$ 47,985.35

Energy Effciency and Renewable Energy Production	Proposed Building				Baseline Building	
	Units	$	% Savings	$ Savings	Units	$
Electricity (kWh)	1,255,912	$ 95,323.72	-15.1%	$ (12,484.95)	1,108,953	$ 82,838.77
Gas (Therms)	14,446	$ 15,601.68	79.5%	$ 60,424.58	72,850	$ 76,026.26
Generated Electricity (kWh)	-	$ -	0	$ -		
Renewable Heat (Btu)	-	$ -	-	$ -		
Total Btus, Dollars & Percents	5,731,027.7	$ 110,925.40	30.2%	$ 47,939.63	11,069,856.6	$ 158,865.03
Water Efficiency						
	Gallons/Yr	$	% Savings	$ Savings	Gallons/Yr	$
Water Use Reduction (water sewer savings*)	48,582	$ 48.58	48.5%	$ 45.72	94,303	$ 94.30
Landscape Watering (water savings**)	-	$ -	#DIV/0!	$ -	-	$ -
Captured Water (Wastewater Technologies)	-		0%			
Total Water Saving	48,582	$ 48.58	48.5%	$ 45.72	94,303	$ 94.30

Stormwater Management	
	Points 0-2
Stormwater Control Quality and Quantity	1
Alternative Transportation Sources & Walkability	
	Points
Density & Community Connectivity	0
Public Transportation	1
Bike Racks & Showers	1
Total Points	2

Construction Waste Recycling		
	Tons	%
Construction Waste Recycled	418.3	96.3
Use of Recycled Content Materials		
	$	%
Recycled Content Materials	$ 488,484.93	10.4
Use of Regional Materials		
	$	%
Regional Materials	$ 417,898.51	35.0

Protect Forests by Supporting Sustainable Forestry	
	Points
Ceterified Wood	0
Good indoor Air Quality	
	Points
Const. IAQ Management Plan	2
Low-Emitting Materials	4
Indoor Chemical & Pollutant Source Control	1
Total	7
Access to Natural Light	
	Points 0-2
Daylight & Views	1

* Default value used for water/sewer costs of $6/1000 gallons

**Default value used for irrigation water only $2.50/1000 gallons

*** Payback doesn't include many of the intangibles. These can result in greater savings than from energy and water alone. Increased productivity, reductions in sick leave, and worker retention can far outway utility savings. Also environmental benefits can be substantial in moving Washington to its goals. Government must lead by example.

LEED Building Cost Data and Information

Return to: stuart.simpson@ga.wa.gov

Please complete this form to the best of your ability. This information is best completed by the State Project Manager responsible for the project and/or the Architect. Input data into yellow boxes.

Building Name/City:	sn-'w'ey'-mn, Spokane, WA
Building Gross Square Footage:	70,533
Institution/University or Agency Name:	Spokane Falls Community College
Submitted By (Name/Phone):	Doug Kearsley
LEED Level Achieved:	Gold

Consultant Costs*	Costs
LEED Related Consultant Fees:	$ 76,715.00
Commissioning Fees:	$ 115,360.00
ELCCA Preparation Fees:	$ 10,500.00
Overall Consultant Fees:	$ 1,318,348.00

* Use the Application for Payment

Overall Cost of LEED
$ 80,339.00

Overall Project Cost (Consultant + Construction)
$ 15,321,972.00

Cost of LEED Compared to Overall Costs (%)
0.5%

Building Construction Cost Per Square Foot
$ 181.51

LEED Submittal Fees:	$ 3,624.00
Cost of LEED/Overall Consultant Fees (%):	5.8%

Construction Costs**	Costs		List LEED Elements
Building Demolition Cost:	$ -		
Site Work & Related Costs:	$ 1,605,582.00		
Facility Construction Costs:	$ 12,802,413.00		
Max. Allowable Construction Costs (MACC):	$ 14,000,000.00		
Cost of LEED Element***:	$ -	>	
Cost of LEED Element***:	$ -	>	
Cost of LEED Element***:	$ -	>	
Cost of LEED Element***:	$ -	>	
Cost of LEED Element***:	$ -	>	
Cost of LEED Element***:	$ -	>	
Added Cost:	$ -		List Elements not Installed due to LEED
Savings, Didn't Install Something****	$ -	>	
Savings, Didn't Install Something****	$ -	>	
Savings, Didn't Install Something****	$ -	>	
Savings:	$ -		

**Use the Schedule of Values and best estimates

Total Added Costs:	$ -
Cost of LEED/Overall Construction Fees (%):	0.0%

***Provide a best guess for cost. This could include solar panels, rain water capture system, or other feature that normally won't be pursued if not a LEED project.

****Didn't install something, such as a cooling system or greatly reduced the size due to natural ventilation.

Utility Incentives	Amount ($)		Describe
Gas:	$ -		
Electric:	$ -		
Water:	$ -		
Other:	$ -	>	
Total Incentives:	$ -		

Utility Incentives as % of Building Costs
0.0%

State LEED Building - Costs and Benefits of LEED

Building Name	Agency Name
sn-'wey'-mn	Spokane Falls Comm. College
Square Footage	70,533
Number of Occupants	
Total Project Cost (construction and consultants)	15321972
Added Construction & Consultant Costs Due to LEED	80339
Percent Added Costs Due to LEED	0.5%
Utility and Other Incentives/Grants	

Payback (Yrs)***
$ 2.42

Total Savings Over Baseline (energy & water)
$ 33,166.95

Energy Effciency and Renewable Energy Production						
	Proposed Building				**Baseline Building**	
	Units	$	% Savings	$ Savings	Units	$
Electricity (kWh)	498,095	$ 40,168.00	37.8%	$ 24,456.00	836,536	$ 64,624.00
Gas (Therms)	17,991	$ 15,123.00	35.7%	$ 8,384.00	28,136	$ 23,507.00
Generated Electricity (kWh)	-	$ -	0	$ -		
Renewable Heat (Btu)	-	$ -	-	$ -		
Total Btus, Dollars & Percents	3,499,098.2	$ 55,291.00	37.3%	$ 32,840.00	5,668,697.4	$ 88,131.00
Water Efficiency						
	Gallons/Yr	$	% Savings	$ Savings	Gallons/Yr	$
Water Use Reduction (water sewer savings*)	480,675	$ 480.68	40.5%	$ 326.95	807,625	$ 807.63
Landscape Watering (water savings**)	-	$ -	#DIV/0!	$ -	-	$ -
Captured Water (Wastewater Technologies)	-		0%			
Total Water Saving	480,675	$ 480.68	40.5%	$ 326.95	807,625	$ 807.63

Stormwater Management		
	Points 0-2	
Stormwater Control Quality and Quantity	1	
Alternative Transportation Sources & Walkability		
	Points	
Density & Community Connectivity	1	
Public Transportation	1	
Bike Racks & Showers	1	
Total Points	3	
Construction Waste Recycling		
	Tons	%
Construction Waste Recycled	1600.9	90.5
Use of Recycled Content Materials		
	$	%
Recycled Content Materials	$ 638,787.53	18.2
Use of Regional Materials		
	$	%
Regional Materials	$ 791,412.00	62.3
Protect Forests by Supporting Sustainable Forestry		
	Points	
Ceterified Wood	1	
Good indoor Air Quality		
	Points	
Const. IAQ Management Plan	2	
Low-Emitting Materials	4	
Indoor Chemical & Pollutant Source Control	1	
Total	7	
Access to Natural Light		
	Points 0-2	
Daylight & Views	2	

* Default value used for water/sewer costs of $6/1000 gallons

**Default value used for irrigation water only $2.50/1000 gallons

*** Payback doesn't include many of the intangibles. These can result in greater savings than from energy and water alone. Increased productivity, reductions in sick leave, and worker retention can far outway utility savings. Also environmental benefits can be substantial in moving Washington to its goals. Government must lead by example.

LEED Building Cost Data and Information

Return to: stuart.simpson@ga.wa.gov

Please complete this form to the best of your ability. This information is best completed by the State Project Manager responsible for the project and/or the Architect. Input data into yellow boxes.

Building Name/City:	Early Learning Center
Building Gross Square Footage:	12,962
Institution/University or Agency Name:	Tacoma Community College
Submitted By (Name/Phone):	Matt Lane, McGranahan Architects (253) 383-3084
LEED Level Achieved:	Gold

Consultant Costs*	Costs
LEED Related Consultant Fees:	$ 72,000.00
Commissioning Fees:	$ 23,000.00
ELCCA Preparation Fees:	$ -
Overall Consultant Fees:	$ 785,000.00

* Use the Application for Payment

LEED Submittal Fees:	$ 3,500.00
Cost of LEED/Overall Consultant Fees (%):	9.2%

Overall Cost of LEED
$ 191,321.00

Overall Project Cost (Consultant + Construction)
$ 5,661,665.00

Cost of LEED Compared to Overall Costs (%)
3.4%

Building Construction Cost Per Square Foot
$ 305.46

Construction Costs**	Costs		List LEED Elements
Building Demolistion Cost:	$ 69,000.00		
Site Work & Related Costs:	$ 844,838.00		
Facility Construction Costs:	$ 3,959,327.00		
Max. Allowable Construction Costs (MACC):	$ 4,873,165.00		
Cost of LEED Element***:	$ 18,578.00	>	Energy Monitoring
Cost of LEED Element***:	$ 20,243.00	>	Metal Framed Skylights
Cost of LEED Element***:	$ 152,000.00	>	Hydronic Heating at concrete slabs
Cost of LEED Element***:	$ -	>	
Cost of LEED Element***:	$ -	>	
Cost of LEED Element***:	$ -	>	
Added Cost:	$ 190,821.00		List Elements not Installed due to LEED
Savings, Didn't Install Something****	$ 75,000.00	>	Natural Ventilation - saved HVAC & ductwork
Savings, Didn't Install Something****	$ -	>	
Savings, Didn't Install Something****	$ -	>	
Savings:	$ 75,000.00		

**Use the Schedule of Values and best estimates

Total Added Costs:	$ 115,821.00

Cost of LEED/Overall Construction Fees (%):	2.4%

***Provide a best guess for cost. This could include solar panels, rain water capture system, or other feature that normally won't be pursued if not a LEED project.

****Didn't install something, such as a cooling system or greatly reduced the size due to natural ventilation.

Utility Incentives	Amount ($)		Describe
Gas:	$ -		
Electric:	$ -		
Water:	$ -		
Other:	$ -	>	
Total Incentives:	$ -		

Utility Incentives as % of Building Costs
0.0%

State LEED Building - Costs and Benefits of LEED

Building Name	Agency Name
Early Childhood Education Center	Tacoma Community College
Square Footage	12,962
Number of Occupants	
Total Project Cost (construction and consultants)	5661665
Added Construction & Consultant Costs Due to LEED	191321
Percent Added Costs Due to LEED	3%
Utility and Other Incentives/Grants	

Payback (Yrs)***	
$	64.91

Total Savings Over Baseline (energy & water)	
$	2,947.60

Energy Effciency and Renewable Energy Production						
	Proposed Building				Baseline Building	
	Units	$	% Savings	$ Savings	Units	$
Electricity (kWh)	112,253	$ 12,230.00	7.9%	$ 1,051.00	126,602	$ 13,281.00
Gas (Therms)	1,885	$ 2,398.00	35.2%	$ 1,304.00	2,999	$ 3,702.00
Generated Electricity (kWh)	-	$ -	0%	$ -		
Renewable Heat (Btu)	51,705.00	$ 3,470.00	9%	$ 0.62		
Total Btus, Dollars & Percents	571,567.8	$ 14,628.00	13.9%	$ 2,355.00	731,992.6	$ 16,983.00

Water Efficiency						
	Gallons/Yr	$	% Savings	$ Savings	Gallons/Yr	$
Water Use Reduction (water sewer savings*)	57,300	$ 57.30	71.0%	$ 140.35	197,652	$ 197.65
Landscape Watering (water savings**)	144,241	$ 360.60	55.6%	$ 452.25	325,142	$ 812.86
Captured Water (Wastewater Technologies)	-		0%			
Total Water Saving	201,541	$ 417.90	58.6%	$ 592.60	522,794	$ 1,010.51

Stormwater Management	
	Points 0-2
Stormwater Control Quality and Quantity	1

Alternative Transportation Sources & Walkability	
	Points
Density & Community Connectivity	1
Public Transportation	1
Bike Racks & Showers	0
Total Points	2

Construction Waste Recycling		
	Tons	%
Construction Waste Recycled	250	99.7

Use of Recycled Content Materials		
	$	%
Recycled Content Materials	$ 67,223.48	13.5

Use of Regional Materials		
	$	%
Regional Materials	$ 162,562.32	32.7

Protect Forests by Supporting Sustainable Forestry	
	Points
Ceterified Wood	0

Good indoor Air Quality	
	Points
Const. IAQ Management Plan	2
Low-Emitting Materials	4
Indoor Chemical & Pollutant Source Control	1
Total	7

Access to Natural Light	
	Points 0-2
Daylight & Views	2

* Default value used for water/sewer costs of $6/1000 gallons

**Default value used for irrigation water only $2.50/1000 gallons

*** Payback doesn't include many of the intangibles. These can result in greater savings than from energy and water alone. Increased productivity, reductions in sick leave, and worker retention can far outway utility savings. Also environmental benefits can be substantial in moving Washington to its goals. Government must lead by example.

LEED Building Cost Data and Information

Return to: stuart.simpson@ga.wa.gov

Please complete this form to the best of your ability. This information is best completed by the State Project Manager responsible for the project and/or the Architect. Input data into yellow boxes.

Building Name/City:	William A. Grant Water & Environmental Center Walla Walla
Building Gross Square Footage:	18,500
Institution/University or Agency Name:	Walla Walla Community College
Submitted By (Name/Phone):	David Combs, 360-902-0922
LEED Level Achieved:	Silver

Consultant Costs*	Costs
LEED Related Consultant Fees:	$ 35,000.00
Commissioning Fees:	$ 20,000.00
ELCCA Preparation Fees:	$ 12,000.00
Overall Consultant Fees:	$ 674,103.00

* Use the Application for Payment

LEED Submittal Fees:	$ 3,500.00
Cost of LEED/Overall Consultant Fees (%):	5.2%

Overall Cost of LEED
$ 56,705.00

Overall Project Cost (Consultant + Construction)
$ 3,526,390.98

Cost of LEED Compared to Overall Costs (%)
1.6%

Building Construction Cost Per Square Foot
$ 142.07

Construction Costs**	Costs		List LEED Elements
Building Demolition Cost:	$ -		
Site Work & Related Costs:	$ 220,440.98		
Facility Construction Costs:	$ 2,628,347.00		
Max. Allowable Construction Costs (MACC):	$ 1,500,000.00		
Cost of LEED Element***:	$ 15,805.00	>	Contractor tracking and reporting 1%
Cost of LEED Element***:	$ 2,400.00	>	Green power
Cost of LEED Element***:	$ -	>	
Cost of LEED Element***:	$ -	>	
Cost of LEED Element***:	$ -	>	
Cost of LEED Element***:	$ -	>	
Added Cost:	$ 18,205.00		List Elements not Installed due to LEED
Savings, Didn't Install Something****	$ -	>	
Savings, Didn't Install Something****	$ -	>	
Savings, Didn't Install Something****	$ -	>	
Savings:	$ -		

**Use the Schedule of Values and best estimates

Total Added Costs:	$ 18,205.00
Cost of LEED/Overall Construction Fees (%):	1.2%

***Provide a best guess for cost. This could include solar panels, rain water capture system, or other feature that normally won't be pursued if not a LEED project.

****Didn't install something, such as a cooling system or greatly reduced the size due to natural ventilation.

Utility Incentives	Amount ($)		Describe
Gas:	$ -		
Electric:	$ -		
Water:	$ -		
Other:	$ -	>	
Total Incentives:	$ -		

Utility Incentives as % of Building Costs
0.0%

High-Performance Green Buildings

Post Construction Submittal (submit at substantial completion)

Received by GA:

Date: 8/30/2011

Submit to: sustainableba@ga.wa.gov

Project Name	Grandview Library		Agency/Institution	Yakima Valley College
Project Number	2009-172	GA H-P Green Bldg.#		
Final Square Footage (Gross)	12,109			
	Name	Agency or Firm	Phone	E-Mail
Submitted By	Amanda Ryan	Green Building Services	503 546 4610	amandar@greenbuildingservices.com
	Name	Company	Phone	E-Mail
General Contractor	Karl Croft	Blew's Construction	509-928-6227	karl@blewsconstruction.com

Construction Related Costs	
Facility Construction Costs (Est.)	$ 2,470,000.00
Site Work & Related Costs* (Est.)	$ 1,530,000.00
Max.Allowable Construct.Costs(MACC)	$ 4,000,000.00

Estimated Construction Costs Associated with LEED**	
Costs Assoc. w/LEED (Est.)	$ 10,000.00
Savings Assoc. w/LEED (Est.)	$ -
Total Project Cost	$ 4,356,020.00
Total Added LEED Cost	$ 91,020.00

Consultant Related Costs	
A) A/E Fees (Base)	$ 250,000.00
B) Additional A/E Fees	$ -
C) Commissioning	$ 25,000.00
LEED Related Fees including Consultants* **	
D) LEED Related Consultant Fees	$ 77,520.00
E) USGBC LEED Fees	$ 3,500.00
Total Consultant Fees (A,B,C,D & E)	$ 356,020.00

Payback for LEED	18.3

Energy and Water/Sewer Savings and Consumption Est.s (Taken from the LEED Submittal)	
Est. Annual Energy Savings (% $)	29%
Est. Annual Energy Savings ($/Yr)	$ 4,855.00
Est. Total Energy Use (kBtu/Yr)	618643
Est. Total Energy Use ($/Yr)	$ 12,035.00
Est. Renew. Energy Generated (kWh/	$ -
Est. Renew. Energy Generated (Btuh/	$ -
Est. Annual Water Savings (% $)	14%
Est. Annual Water Savings ($/Yr)	$ 66.12
Est. Annual Water Use (Gals/Yr)	39877
Est. Annual Water Cost ($/Yr)	$ 402.24
Est. Annual Sewer Savings ($/yr)	$ 45.00
Est. Annual Sewer Savings (Gals/yr)	$ 32,444.00
Total Estimated Annual Savings	$ 4,966.12

* Include demolition costs as part of site work.
** Make a best guess. Use conventional construction techniques as a base for comparison. Provide description of items included on separate attachment.
*** Provide description on attachment.

Heating Energy (convert)	
Est.Gas Use (therms/yr)	Est.Electric Use (kWh/yr)
461	180852
Est.Gas Svg (therms/yr)	Est.Electric Svg (kWh/yr)
0	52092

Construction Waste Recycled (%)	Construction Waste Recycled (tons)
66.469	872.22

This submittal includes the following:

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

CO2 tons saved	25.7

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

Form Last Updated
October 2008

State LEED Building - Costs and Benefits of LEED

Building Name	Agency Name
Coyote Ridge	Departement of Corrections
Square Footage	564
Number of Occupants	
Total Project Cost (construction and consultants)	189994680
Added Construction & Consultant Costs Due to LEED	
Percent Added Costs Due to LEED	0.0%
Utility and Other Incentives/Grants	

Payback (Yrs)***
$ -

Total Savings Over Baseline (energy & water)
$ 376,626.19

Energy Effciency and Renewable Energy Production	Proposed Building				Baseline Building	
	Units	$	% Savings	$ Savings	Units	$
Electricity (kWh)	9,110,282	$ 555,363.00	12.8%	$ 81,872.00	10,219,549	$ 637,235.00
Gas (Therms)	272,225	$ 285,651.00	42.2%	$ 208,639.00	469,960	$ 494,290.00
Generated Electricity (kWh)	105,525.00	$ 6,432.00	0.0115816	$ 6,432.00		
Renewable Heat (Btu)	6,580,000,000.00	$ 74,012.00	128.08	$ 78,960.00		
Total Btus, Dollars & Percents	51,375,735.6	$ 760,570.00	32.8%	$ 370,955.00	81,875,320.7	$ 1,131,525.00

Water Efficiency						
	Gallons/Yr	$	% Savings	$ Savings	Gallons/Yr	$
Water Use Reduction (water sewer savings*)	12,204,504	$ 12,204.50	31.7%	$ 5,671.19	17,875,692	$ 17,875.69
Landscape Watering (water savings**)	-	$ -	#DIV/0!	$ -	-	$ -
Captured Water (Wastewater Technologies)	-		0%			
Total Water Saving	12,204,504	$ 12,204.50	31.7%	$ 5,671.19	17,875,692	$ 17,875.69

Stormwater Management	
	Points 0-2
Stormwater Control Quality and Quantity	2

Alternative Transportation Sources & Walkability	
	Points
Density & Community Connectivity	0
Public Transportation	1
Bike Racks & Showers	1
Total Points	2

Construction Waste Recycling		
	Tons	%
Construction Waste Recycled	6206.38	96.2

Use of Recycled Content Materials		
	$	%
Recycled Content Materials	$ 6,033,971.92	33.1

Use of Regional Materials		
	$	%
Regional Materials	$ 8,901,376.00	47.1

Protect Forests by Supporting Sustainable Forestry	
	Points
Ceterified Wood	1

Good indoor Air Quality	
	Points
Const. IAQ Management Plan	2
Low-Emitting Materials	4
Indoor Chemical & Pollutant Source Control	1
Total	7

Access to Natural Light	
	Points 0-2
Daylight & Views	0

* Default value used for water/sewer costs of $6/1000 gallons

**Default value used for irrigation water only $2.50/1000 gallons

*** Payback doesn't include many of the intangibles. These can result in greater savings than from energy and water alone. Increased productivity, reductions in sick leave, and worker retention can far outway utility savings. Also environmental benefits can be substantial in moving Washington to its goals. Government must lead by example.

LEED Building Cost and Performance Data

Please complete this form to the best of your ability. This information is best completed by the State Project Manager responsible for the project and/or the Architect. Input data into yellow boxes.

Building Name/City:	Phase ll - Renovation of Housing Units, 9,10,12,13 & Classroom
Building Gross Square Footage:	28,140
Number of Occupants:	64 residents/12/staff/4 edu
Institution/University or Agency Name:	DSHS/Echo Glen Children's Center
Submitted By Name/Phone:	Diana Peeples, Project Manager/ 360-902-8347
LEED Level Achieved or (Expected)/Date:	Silver Rating
LEED Version Used (e.g. V 2.2 or V 3.0)	LEED v2.2

Building Cost Data

Consultant Costs	Costs*
Overall Consultant Fees:	$ 727,398.00
LEED Related Consultant Fees:	$ 39,760.00
Commissioning Fees:	$ 35,500.00
ELCCA Preparation Fees:	$ 8,800.00
* Use the Application for Payment, Agreement Invoice	

Overall Cost of LEED
$ 230,760.00

Overall Project Cost (Consultant + Construction)
$ 7,667,398.00

Cost of LEED Compared to Overall Costs (%)
3.0%

Building Construction Cost Per Square Foot
$ 286.07

LEED Submittal Fees:	$ 40,000.00
Soft Cost of LEED/Overall Consultant Fees (%):	11.0%

Construction Costs	Costs**		
Building Demolition Cost (if applicable):	$ 447,763.00		
Site Work & Related Costs:	$ 1,578,900.00		
Building Construction Costs:	$ 8,049,900.00		
Max. Allowable Construction Costs (MACC):	$ 6,900,000.00		LEED Elements Description
Cost of LEED Element***:	$ 32,000.00	>	EPA Engery Star roof system
Cost of LEED Element***:	$ 96,000.00	>	Low flow metered plumbing fixtures
Cost of LEED Element***:	$ 23,000.00	>	Measurement & Verification plan
Cost of LEED Element***:	$ -	>	No HCFC & Halons in HVAC system
Cost of LEED Element***:	$ -	>	Heat Islands, roof
Cost of LEED Element***:	$ -	>	
Added LEED Construction Cost:	$ 151,000.00		List Elements not Installed or downsized due to LEED
Savings, Didn't Install Something****	$ -	>	
Savings, Didn't Install Something****	$ -	>	
Savings, Didn't Install Something****	$ -	>	
LEED Related Construction Savings:	$ -		

Total Added LEED Construction Costs:	$ 151,000.00
Hard Cost of LEED/Overall Construction Costs (%):	2%

**Use the Schedule of Values from Construction Invoice and Best Estimates

***Provide a best guess for cost. This could include solar panels, rain water capture system, or other feature that normally won't be pursued if not a LEED project.

****Didn't install something, such as a cooling system or greatly reduced the size due to natural ventilation.

Utility Incentives	Amount ($)
Gas:	$ -
Electric:	$ -
Water:	$ -
Other:	$ -
Total Incentives:	$ -

Utility Incentives as % of Building Costs
0.0%

Describe
>

LEED Building Performance Information

Total Savings Over Baseline (energy & water)	
$	8,095.00

Payback (Yrs)***
28.5

LEED Attribute	Capture this data from the LEED submittal (LEED OnLine)					
Energy Effciency and Renewable Energy	**Proposed Building**				**Baseline Building**	
	Units	$	% Savings	$ Savings	Units	$
Electricity (kWh)	167,456	$ 13,305	8.0%	$ 1,217	182,425	$ 14,522
Gas (Therms)	32,415	$ 39,609	13.6%	$ 5,908	37,518	$ 45,517
Renewable Energy, Electricity (kWh)	-	$ -	#DIV/0!	$ -		
Renewable Energy, Heat (Btu)	-	$ -	#DIV/0!	$ -		
Total Btus, Dollars & Percents	3,813,027	$ 52,914	11.9%	$ 7,125	4,374,417	$ 60,039
Water Efficiency						
	Gallons/Yr	$	% Savings	$ Savings	Gallons/Yr	$
Water Use Reduction (water/sewer*)	411,720	$ 3,882	28.3%	$ 970.00	578,160	$ 4,852
Landscape Watering (irrigation water**)	-	$ -	#DIV/0!	$ -	-	$ -
Captured Water (irrigation or interior water)	-	$ -	Calculate >>	$ -		
Total Water Saving	411,720	$ 3,882	20.0%	$ 970.00	578,160	$ 4,852
Stormwater Management						
	Points 0-2					
Stormwater Control Quality and Quantity	1					
Alt. Transportation Sources & Walkability						
	Points					
Density & Community Connectivity	0					
Public Transportation	0					
Bike Racks & Showers	1					
Total Points	1					
Construction Waste Recycling						
	Tons	%				
Construction Waste Recycled	135.57	97.6				
Use of Recycled Content Materials						
	$	%				
Recycled Content Materials		12.4				
Use of Regional Materials						
	$	%				
Regional Materials		59.9				
Protect Forests, Support Sustainable Forestry						
	Points					
Ceterified Wood						
Good indoor Air Quality						
	Points					
Const. IAQ Management Plan	1					
Low-Emitting Materials	4					
Indoor Chemical & Pollutant Source Control						
Total Points	5					
Access to Natural Light						
	Points 0-2					
Daylight & Views	2					

* Default value used for water/sewer costs of $6/1000 gallons

**Default value used for irrigation water only $2.50/1000 gallons

*** Payback doesn't include many of the intangibles. These can result in greater savings than from energy and water alone. Increased productivity, reductions in sick leave, and worker retention can far outway utility savings. Also environmental benefits can be substantial in moving Washington to its goals. Government must lead by example.

LEED Building Cost and Performance Data

Please complete this form to the best of your ability. This information is best completed by the State Project Manager responsible for the project and/or the Architect. Input data into yellow boxes.

Building Name/City:	Health Center & Administration Building (HCA)
Building Gross Square Footage:	19,250
Number of Occupants:	97
Institution/University or Agency Name:	DSHS/Green Hill School
Submitted By Name/Phone:	Diana Peeples, Project Manager/ 360-902-8347
LEED Level Achieved or (Expected)/Date:	Silver Rating
LEED Version Used (e.g. V 2.2 or V 3.0)	LEED v2.2

Building Cost Data

Consultant Costs	Costs*
Overall Consultant Fees:	$ 916,281.00
LEED Related Consultant Fees:	$ 45,000.00
Commissioning Fees:	$ 57,000.00
ELCCA Preparation Fees:	
* Use the Application for Payment, Agreement Invoice	

Overall Cost of LEED
$ 293,297.00

Overall Project Cost (Consultant + Construction)
$ 10,892,941.00

Cost of LEED Compared to Overall Costs (%)
2.7%

Building Construction Cost Per Square Foot
$ 494.39

LEED Submittal Fees:	$ 20,000.00
Soft Cost of LEED/Overall Consultant Fees (%):	7.1%

Construction Costs	Costs**		LEED Elements Description
Building Demolition Cost (if applicable):	$ 128,622.00		
Site Work & Related Costs:	$ 305,992.00		
Building Construction Costs:	$ 9,517,000.00		
Max. Allowable Construction Costs (MACC):	$ 9,956,660.00		
Cost of LEED Element***:		>	
Cost of LEED Element***:	$ -	>	
Cost of LEED Element***:	$ 40,000.00	>	Plumbing fixtures& Dual flush toilets & urinals
Cost of LEED Element***:	$ 37,000.00	>	Measurement & Verification plan & Daylight controls, sensor
Cost of LEED Element***:	$ -	>	No Irrigation
Cost of LEED Element***:	$ 151,297.00	>	Heat Islands, roof
Added LEED Construction Cost:	$ 228,297.00		List Elements not Installed or downsized due to LEED
Savings, Didn't Install Something****	$ -	>	
Savings, Didn't Install Something****	$ -	>	
Savings, Didn't Install Something****	$ -	>	
LEED Related Construction Savings:	$ -		

Total Added LEED Construction Costs:	$ 228,297.00
Hard Cost of LEED/Overall Construction Costs (%):	2%

**Use the Schedule of Values from Construction Invoice and Best Estimates

***Provide a best guess for cost. This could include solar panels, rain water capture system, or other feature that normally won't be pursued if not a LEED project.

****Didn't install something, such as a cooling system or greatly reduced the size due to natural ventilation.

Utility Incentives	Amount ($)	
Gas:	$ -	
Electric:	$ -	
Water:	$ -	
Other:	$ -	>
Total Incentives:	$ -	

Utility Incentives as % of Building Costs
0.0%

Describe

LEED Building Performance Information

Total Savings Over Baseline (energy & water)	Payback (Yrs)***
$ 2,991.96	98.0

LEED Attribute	Capture this data from the LEED submittal (LEED OnLine)					
Energy Effciency and Renewable Energy	**Proposed Building**				**Baseline Building**	
	Units	$	% Savings	$ Savings	Units	$
Electricity (kWh)	202,575	$ 6,827	16.6%	$ 1,362	242,999	$ 8,189
Gas (Therms)	3,373	$ 3,453	29.2%	$ 1,425	4,764	$ 4,878
Renewable Energy, Electricity (kWh)	-	$ -	0.0%	$ -		
Renewable Energy, Heat (Btu)	-	$ -	#DIV/0!	$ -		
Total Btus, Dollars & Percents	1,028,688	$ 10,280	21.3%	$ 2,787	1,305,756	$ 13,067
Water Efficiency						
	Gallons/Yr	$	% Savings	$ Savings	Gallons/Yr	$
Water Use Reduction (water/sewer*)	47,307	$ 239	36.0%	$ 204.96	73,961	$ 444
Landscape Watering (irrigation water**)	-	$ -	#DIV/0!	$ -	-	$ -
Captured Water (irrigation or interior water)	-	$ -	Calculate >>	$ -		
Total Water Saving	47,307	$ 239	46.2%	$ 204.96	73,961	$ 444
Stormwater Management						
	Points 0-2					
Stormwater Control Quality and Quantity						
Alt. Transportation Sources & Walkability						
	Points					
Density & Community Connectivity	1					
Public Transportation	1					
Bike Racks & Showers	1					
Total Points	3					
Construction Waste Recycling						
	Tons	%				
Construction Waste Recycled	6852	98.6				
Use of Recycled Content Materials						
	$	%				
Recycled Content Materials						
Use of Regional Materials						
	$	%				
Regional Materials						
Protect Forests, Support Sustainable Forestry						
	Points					
Ceterified Wood						
Good indoor Air Quality						
	Points					
Const. IAQ Management Plan	1					
Low-Emitting Materials	4					
Indoor Chemical & Pollutant Source Control	1					
Total Points	6					
Access to Natural Light						
	Points 0-2					
Daylight & Views	2					

* Default value used for water/sewer costs of $6/1000 gallons

**Default value used for irrigation water only $2.50/1000 gallons

*** Payback doesn't include many of the intangibles. These can result in greater savings than from energy and water alone. Increased productivity, reductions in sick leave, and worker retention can far outway utility savings. Also environmental benefits can be substantial in moving Washington to its goals. Government must lead by example.

LEED Building Cost Data and Information

Return to: stuart.simpson@ga.wa.gov

Please complete this form to the best of your ability. This information is best completed by the State Project Manager responsible for the project and/or the Architect. Input data into yellow boxes.

Building Name/City:	Washington Youth Academy, Bremerton, WA
Building Gross Square Footage:	18,050
Institution/University or Agency Name:	Washington Military Dept.
Submitted By (Name/Phone):	
LEED Level Achieved:	Silver

Consultant Costs*	Costs
LEED Related Consultant Fees:	$ 68,400.00
Commissioning Fees:	$ -
ELCCA Preparation Fees:	$ -
Overall Consultant Fees:	$ 459,379.00

* Use the Application for Payment

LEED Submittal Fees:	$ 3,500.00
Cost of LEED/Overall Consultant Fees (%):	14.9%

Overall Cost of LEED
$ 92,400.00

Overall Project Cost (Consultant + Construction)
$ 4,057,873.00

Cost of LEED Compared to Overall Costs (%)
2.3%

Building Construction Cost Per Square Foot
$ 190.79

Construction Costs**	Costs		List LEED Elements
Building Demolistion Cost:	$ -		
Site Work & Related Costs:	$ 151,265.00		
Facility Construction Costs:	$ 3,443,729.00		
Max. Allowable Construction Costs (MACC):	$ 3,594,994.00		
Cost of LEED Element***:	$ 10,000.00	>	Heat recovery unit
Cost of LEED Element***:	$ 5,500.00	>	Water efficient fixtures
Cost of LEED Element***:	$ 3,000.00	>	Premium efficieny furnaces
Cost of LEED Element***:	$ 2,000.00	>	Premium efficiency condensing units
Cost of LEED Element***:	$ -	>	
Cost of LEED Element***:	$ -	>	
Added Cost:	$ 20,500.00		List Elements not Installed due to LEED
Savings, Didn't Install Something****	$ -	>	
Savings, Didn't Install Something****	$ -	>	
Savings, Didn't Install Something****	$ -	>	
Savings:	$ -		

**Use the Schedule of Values and best estimates

Total Added Costs:	$ 20,500.00

Cost of LEED/Overall Construction Fees (%):	0.6%

***Provide a best guess for cost. This could include solar panels, rain water capture system, or other feature that normally won't be pursued if not a LEED project.

****Didn't install something, such as a cooling system or greatly reduced the size due to natural ventilation.

Utility Incentives	Amount ($)		Describe
Gas:	$ -		
Electric:	$ -		
Water:	$ -		
Other:	$ -	>	
Total Incentives:	$ -		

Utility Incentives as % of Building Costs
0.0%

State LEED Building - Costs and Benefits of LEED

Building Name	Agency Name
Youth Academy	Miltary
Square Footage	18,050
Number of Occupants	
Total Project Cost (construction and consultants)	4057873
Added Construction & Consultant Costs Due to LEED	92400
Percent Added Costs Due to LEED	2%
Utility and Other Incentives/Grants	

Payback (Yrs)***
$ 43.67

Total Savings Over Baseline (energy & water)
$ 2,115.90

Energy Effciency and Renewable Energy Production	Proposed Building				Baseline Building	
	Units	$	% Savings	$ Savings	Units	$
Electricity (kWh)	373	$ 6,120.00	14.8%	$ 1,060.00	470	$ 7,180.00
Gas (Therms)	143	$ 1,412.00	31.9%	$ 661.00	222	$ 2,073.00
Generated Electricity (kWh)		$ -	0	$ -		
Renewable Heat (Btu)	-	$ -	-	$ -		
Total Btus, Dollars & Percents	15,573.0	$ 7,532.00	18.6%	$ 1,721.00	23,804.1	$ 9,253.00

Water Efficiency						
	Gallons/Yr	$	% Savings	$ Savings	Gallons/Yr	$
Water Use Reduction (water sewer savings*)	951,187	$ 951.19	29.3%	$ 394.90	1,346,086	$ 1,346.09
Landscape Watering (water savings**)	-	$ -	#DIV/0!	$ -	-	$ -
Captured Water (Wastewater Technologies)	-		0%			
Total Water Saving	951,187	$ 951.19	29.3%	$ 394.90	1,346,086	$ 1,346.09

Stormwater Management	
	Points 0-2
Stormwater Control Quality and Quantity	0

Alternative Transportation Sources & Walkability	
	Points
Density & Community Connectivity	0
Public Transportation	0
Bike Racks & Showers	1
Total Points	1

Construction Waste Recycling		
	Tons	%
Construction Waste Recycled	71.21	95.0

Use of Recycled Content Materials		
	$	%
Recycled Content Materials	$ 35,280.29	4.6

Use of Regional Materials		
	$	%
Regional Materials	$ 290,757.84	51.7

Protect Forests by Supporting Sustainable Forestry	
	Points
Ceterified Wood	0

Good indoor Air Quality	
	Points
Const. IAQ Management Plan	2
Low-Emitting Materials	4
Indoor Chemical & Pollutant Source Control	1
Total	7

Access to Natural Light	
	Points 0-2
Daylight & Views	1

* Default value used for water/sewer costs of $6/1000 gallons

**Default value used for irrigation water only $2.50/1000 gallons

*** Payback doesn't include many of the intangibles. These can result in greater savings than from energy and water alone. Increased productivity, reductions in sick leave, and worker retention can far outway utility savings. Also environmental benefits can be substantial in moving Washington to its goals. Government must lead by example.

State LEED Building - Costs and Benefits of LEED

Building Name	Agency Name
Vocational Education & Support Bldg.	WA School for the Deaf
Square Footage	
Number of Occupants	
Total Project Cost (construction and consultants)	
Added Construction & Consultant Costs Due to LEED	
Percent Added Costs Due to LEED	#DIV/0!
Utility and Other Incentives/Grants	

Payback (Yrs)***
$ -

Total Savings Over Baseline (energy & water)
$ 11,037.43

Energy Effciency and Renewable Energy Production						
	Proposed Building				**Baseline Building**	
	Units	$	% Savings	$ Savings	Units	$
Electricity (kWh)	303,941	$ 18,655.00	-4.6%	$ (828.00)	289,703	$ 17,827.00
Gas (Therms)	4,388	$ 5,571.00	67.3%	$ 11,464.00	13,628	$ 17,035.00
Generated Electricity (kWh)	-	$ -	0	$ -		
Renewable Heat (Btu)	-	$ -	-	$ -		
Total Btus, Dollars & Percents	1,476,150.6	$ 24,226.00	30.5%	$ 10,636.00	2,351,556.3	$ 34,862.00
Water Efficiency						
	Gallons/Yr	$	% Savings	$ Savings	Gallons/Yr	$
Water Use Reduction (water sewer savings*)	57,316	$ 57.32	31.8%	$ 26.69	84,009	$ 84.01
Landscape Watering (water savings**)	71,295	$ 178.24	67.8%	$ 374.74	221,191	$ 552.98
Captured Water (Wastewater Technologies)	-		0%			
Total Water Saving	128,611	$ 235.55	63.0%	$ 401.43	305,200	$ 636.99

Stormwater Management	
	Points 0-2
Stormwater Control Quality and Quantity	1
Alternative Transportation Sources & Walkability	
	Points
Density & Community Connectivity	1
Public Transportation	1
Bike Racks & Showers	1
Total Points	3

Construction Waste Recycling		
	Tons	%
Construction Waste Recycled	2218.64	96.5
Use of Recycled Content Materials		
	$	%
Recycled Content Materials	$ 447,263.76	25.1
Use of Regional Materials		
	$	%
Regional Materials	$ 469,730.12	26.4

Protect Forests by Supporting Sustainable Forestry	
	Points
Ceterified Wood	1
Good indoor Air Quality	
	Points
Const. IAQ Management Plan	2
Low-Emitting Materials	4
Indoor Chemical & Pollutant Source Control	1
Total	7
Access to Natural Light	
	Points 0-2
Daylight & Views	1

* Default value used for water/sewer costs of $6/1000 gallons

**Default value used for irrigation water only $2.50/1000 gallons

*** Payback doesn't include many of the intangibles. These can result in greater savings than from energy and water alone. Increased productivity, reductions in sick leave, and worker retention can far outway utility savings. Also environmental benefits can be substantial in moving Washington to its goals. Government must lead by example.

LEED Building Cost Data and Information

Return to: stuart.simpson@ga.wa.gov

Please complete this form to the best of your ability. This information is best completed by the State Project Manager responsible for the project and/or the Architect. Input data into yellow boxes.

Building Name/City:	New Physical Education Center, Vancouver
Building Gross Square Footage:	28,902
Institution/University or Agency Name:	Washington State School for the Blind
Submitted By (Name/Phone):	Dwayne E. Harkness
LEED Level Achieved:	Target Gold

Consultant Costs*	Costs
LEED Related Consultant Fees:	$ 36,500.00
Commissioning Fees:	$ 26,621.00
ELCCA Preparation Fees:	$ -
Overall Consultant Fees:	$ 321,357.00

* Use the Application for Payment

LEED Submittal Fees:	$ 5,000.00
Cost of LEED/Overall Consultant Fees (%):	11.4%

Overall Cost of LEED
$ 41,500.00

Overall Project Cost (Consultant + Construction)
$ 7,528,357.00

Cost of LEED Compared to Overall Costs (%)
0.6%

Building Construction Cost Per Square Foot
$ 217.91

Construction Costs**	Costs		List LEED Elements
Building Demolistion Cost:	$ 246,000.00		
Site Work & Related Costs:	$ 1,423,000.00		
Facility Construction Costs:	$ 6,298,000.00		
Max. Allowable Construction Costs (MACC):	$ 7,202,000.00		
Cost of LEED Element***:	$ -	>	
Cost of LEED Element***:	$ -	>	
Cost of LEED Element***:	$ -	>	
Cost of LEED Element***:	$ -	>	
Cost of LEED Element***:	$ -	>	
Cost of LEED Element***:	$ -	>	
Added Cost:	$ -		List Elements not Installed due to LEED
Savings, Didn't Install Something****	$ -	>	
Savings, Didn't Install Something****	$ -	>	
Savings, Didn't Install Something****	$ -	>	
Savings:	$ -		

**Use the Schedule of Values and best estimates

Total Added Costs:	$ -

Cost of LEED/Overall Construction Fees (%):	0.0%

***Provide a best guess for cost. This could include solar panels, rain water capture system, or other feature that normally won't be pursued if not a LEED project.

****Didn't install something, such as a cooling system or greatly reduced the size due to natural ventilation.

Utility Incentives	Amount ($)	
Gas:	$ -	
Electric:	$ -	
Water:	$ -	
Other:	$ -	>
Total Incentives:	$ -	

Utility Incentives as % of Building Costs
0.0%

Describe

WESTERN WASHINGTON UNIVERSITY

Business and Financial Affairs
Office of Facilities Development and Capital Budget

516 High Street, MS 9122
Bellingham, Washington 98225
360-650-3350

June 4, 2012

Stuart Simpson
Green Building Advisor
Department of Enterprise Services
P.O. Box 41012
Olympia, WA 98504-1012

Re: Exemption Declaration for Buchanan Towers Addition

Dear Stuart:

This letter is to notify you of Western's need to seek an exemption from the LEED certificate requirement for our Buchanan Towers Addition project (Student Residence Hall). While the project was designed to be LEED Gold certified, the contractor for this project was terminated due to non-performance. None of the construction phase documentation was received and because of this the project was unable to be certified.

This project was bond funded through our Housing and Dining System and was not funded by the state.

Sincerely,

Ed Simpson, AIA
Assistant Director Facilities Development
360-650-3231
Ed.Simpson@wwu.edu

July 2, 2012

Mr. Stuart Simpson
Sustainability Coordinator
Department of General Administration
PO Box 41012
Olympia, WA 98504

Re: Alaskan Way Viaduct Replacement Program - SR 99 Tunnel Project
North Operations Building, Design Development – Request for Exemption

Dear Mr. Simpson:

This letter is to advise your office that the Washington State Department of Transportation is seeking an exemption from the LEED Silver Certification requirement on the SR 99 Tunnel Project north operations building. Due to the specialized nature of the building it isn't possible to meet the Energy & Atmosphere Prerequisite 2 which requires demonstrating a 10% improvement in the building performance rating. This building provides power for not only the basic building systems, but in addition all the tunnel systems located in the building and the tunnel systems located in the two-mile long tunnel. The majority of the building will be used for tunnel electrical, mechanical, and communications equipment. Approximately 12% of the space is for tunnel maintenance staff and 32% is for tunnel maintenance shops. The systems located in the building are in operation every day, 24 hours a day, 7 days a week supporting the tunnel.

Although WSDOT is asking for this exemption, please be assured that we are performing the work required to meet the requirements for 52 LEED credits. Some of the ways the LEED credits are being met and other design considerations include:

- Siting: The building was sited to make use of a parcel of land that due to the tunnel location would have been unusable by a private developer.
- Square footage: Through a value engineering exercise and the design/builder's design, the building's square footage has been reduced.
- Limited parking / use of alternative transportation modes: Since the building is located in an urban area and is within walking distance of numerous bus routes we are only providing parking for the WSDOT fleet vehicles and car/van pools.
- Landscaping: We have worked with the City of Seattle to maximize the plantings around the building and along the streets. The plantings have been selected for their durability and low water usage. Even though they're not on the site and can't count towards the credit for reduction of heat gain, we are providing funding for 181 trees for the north portal area (81 replacement trees and 100 new trees).
- Other credits: We are meeting many of the credit requirements for ventilation, air quality, day lighting for staff offices and crew rooms, and use of recycled materials.

- Commissioning: The design and construction of the building is through a WSDOT design/build contract. For project commissioning the design/builder is required to meet one of the following guidelines: GSA – General Service Administration Commissioning Guidelines, ACG – Associated Commissioning Group Guidelines, or BCx – Building Commissioning Guidelines. The design/builder is required to provide the commissioning agent (CxA), who shall be certified and registered by ACG or BCx. The CxA must be separate from the designer. All tunnel and building systems are required by contract to be commissioned. Other than the CxA being contracted through the design/build contractor, our project requirements meet the LEED EA Credit 3 requirements.

I am attaching the following documents for your review:

- Exemption Declaration
- Updated LEED checklist
- Environmental Design Considerations.

If you have any questions, please call me at 206-440-4399 or email hilmod@wsdot.wa.gov.

Sincerely,

Diane M Hilmo

Diane M. Hilmo, P.E.
Project Manager

Cc: sustainable@ga.wa.gov
Terri Sinclair-Olson
Susan Everett

SR 99 Alaskan Way Viaduct Replacement - Tunnel, North Tunnel Operations Building

LEED-NC v 3

Draft JUNE 26, 2012

	CREDIT INTENT & DESCRIPTION	POSSIBLE POINTS	YES	??	NO	STRATEGY
	SUSTAINABLE SITES					
Prerequisite 1	**Construction Activity Pollution Prevention** **Intent: To reduce pollution from construction activities by controlling soil erosion, waterway sedimentation and airborne dust generation.**					
	Create and implement an erosion and sedimentation control plan for all construction activities associated with the project. The plan must conform to the erosion and sedimentation requirements of the 2003 EPA Construction General Permit OR local standards and codes, whichever is more stringent. The plan must describe the measures implemented to accomplish the following objectives: Prevent loss of soil during construction by storm water run-off and/or wind erosion, including protecting topsoil by stock-piling for reuse. Prevent sedimentation of storm sewer or receiving streams. Prevent polluting the air with dust and particulate matter. See reference guide for further information.	REQ	YES			An erosion and sedimentation control plans have been developed for all construction activities. Stabilization strategies may include (seeding, mulching) and structural strategies (earth dikes, silt fencing, sediment traps and/or sediment basins). The site does not contain existing topsoil. Storm water will not be discharged into a stream, dust and particulate matter permit requirements will be complied with.
Credit 1	**Site Selection** **Intent: To avoid development of inappropriate sites and reduce the environmental impact from the location of a building on a site.**					
	Do not develop buildings, hardscapes, roads or parking area on portions of sites that meet any one of the following criteria:	1	1			LEED boundary is the property line. The site was previously an office building and parking lot.
	.. Prime farmland as defined by the USDA in United States Code of Federal Regulations Title 7, Volume 6, Parts 400 to 699, Section 657.5 (citation 7CFR657.5).					Not farmland
	.. Previously undeveloped land whose elevation is lower than 5 feet above the elevation of the 100-year flood as defined by FEMA.					Previously developed
	.. Land specifically identified as habitat for any species on the Federal or State threatened or endangered lists					Previously developed
	.. Within 100 feet of any wetlands as defined by United State Code of Federal Regulations 40 CFR, Parts 230-233 and Part 22, and isolated wetlands or areas of special concern identified by state or local rule, OR within setback distances from wetlands prescribed in state or local regulations, as defined by local or state rule or law, whichever is more stringent.					Not near wetland
	.. Previously undeveloped land that is within 50 feet of a water body, defined as seas, lakes, rivers, streams and tributaries which support or could support fish, recreation or industrial use, consistent with the terminology of the Clean Water Act.					Previously developed
	.. Land which prior to acquisition for the project was public parkland, unless land of equal or greater value as parkland is accepted in trade by the public land (Park Authority projects are exempt)					Not parkland
Credit 2	**Development Density & Community Connectivity** **Intent: To channel development to urban areas with existing infrastructure, protecting green fields and preserve habitat and natural resources.**					
	OPTION 1. DEVELOPMENT DENSITY - Construct or renovate building on a previously developed site AND in a community with a minimum density of 60,000 sq. ft... per acre net. (Note: density calculation must include the area of the project being built and is based on a typical two-story downtown development.)					
	OPTION 2. COMMUNITY CONNECTIVITY - Construct or renovate building on a site that meets the following criteria: Is located on a previously developed site, is within 1/2 mile of a residential zone or neighborhood with an average density of 10 units per acre net, is within 1/2 mile of at least 10 Basic Services and has pedestrian access between the building and the services. See reference guide for further information.	5	5			The site is located on a previously developed site, is within 1/2 mile of a residential zone with an average density of 10 units per acre net, it is within 1/2 mile of at least 10 Basic Services and has pedestrian access between the building and the services.
Credit 3	**Brownfield Redevelopment** **Intent: To rehabilitate damaged sites where development is complicated by environmental contamination, reducing pressure on undeveloped land.**					
	OPTION 1. Develop on a site documented as contaminated (by means of an ASTM E1903-97 Phase II Environmental Site Assessment or a local Voluntary Cleanup Program)	1	1			Either Option 1 or Option 2 will be met. Per the project Environmental Baseline Report PCE, TCE and VOCs have been

SR 99 Alaskan Way Viaduct Replacement - Tunnel, North Tunnel Operations Building						Draft JUNE 26, 2012
LEED-NC v 3						
	CREDIT INTENT & DESCRIPTION	POSSIBLE POINTS	YES	??	NO	STRATEGY
	OPTION 2: Develop on a site defined as a brown field by a local state or federal government agency.					found in the vicinity due to several dry cleaners previously located
Credit 4	**Alternative Transportation** **Intent: To reduce pollution and land development impacts from automobile use.**					
	4.1 OPTION 1: Locate project within 1/2 mile walking distance (measured from main building entrance) of an existing-or planned and funded-commuter rail, light rail or subway station. OPTION 2: Locate project within 1/4 mile walking distance of 1 or more stops for two or more public or campus or private bus lines usable by building occupants.	6	6			Option 2 Documentation will be provided showing the location of the multiple bus lines and stops within 1/4 mile walking distance.
	4.2 For commercial or institutional buildings, provide secure bicycle racks and/or storage (within 200 yards of a building entrance) for 5% or more of all bldg. users (measured at peak periods), AND, provide shower and changing facilities in the building, or within 200 yards of a building entrance, for 0.5% of Full-Time Equivalent (FTE) occupants. OR For residential buildings, provide covered storage facilities for securing bicycles for 15% or more of building occupants in lieu of changing/shower facilities.	1	1			Shower and changing facilities will be provided (4 showers (2-Men, 2-Women) and secure bike parking to be provided within the building. 17 FTEs will report on a daily basis to the building. (Regional Priority Credit)
	4.3 OPTION 1: Provide preferred parking for low-emitting and fuel-efficient vehicles for 5% of the total vehicle parking capacity of the site. Providing a discounted parking rate is an acceptable substitute for preferred parking for low-emitting and fuel-efficient vehicles. Incentive: Parking rate must be discounted at least 20%, available to all customers, publicly posted and available for a minimum of 2 yrs. OPTION 2: Install alternative-fuel refueling stations for 3% of the total vehicle parking capacity of the site (liquid or gaseous fueling facilities must be separately ventilated or located outdoors.)	3		3		Option 1: Parking is only provided for WSDOT maintenance vehicle fleet. The majority of WSDOT maintenance vehicles use diesel which is required to have a minimum of 10% ethanol. Newer vehicles can use E85. Electrical plug-ins for tunnel maintenance vehicles are provided in the building.
	4.4 OPTION 1: Size parking capacity to meet but not exceed minimum local zoning requirements and provide preferred parking for carpools or van pools for 5% of the total provided parking spaces. OPTION 2: For projects that provide parking for less than 5% of FTE building occupants - provide preferred parking for carpools or van pools, marked as such, for 5% of total provided parking spaces. Providing a discounted parking rate is an acceptable substitute for preferred parking for low-emitting and fuel-efficient vehicles. Incentive: Parking rate must be discounted at least 20%, available to all customers, publicly posted and available for a minimum of 2 yrs. OPTION 3: Provide no new parking.	2	2			Option 1: City of Seattle Municipal Code SMC 23.54.015, minimum parking requirements are up to the discretion of the Director for unique building uses not shown on the SMC parking tables. Off street parking shall be provided for all fleet vehicles. These spaces do not count toward the minimum parking requirements. The parking lot is for WSDOT maintenance vehicle fleet. 2 spaces will be provided for car/van pool vehicles. (Regional Priority Credit)
Credit 5	**Site Development** **Intent: To conserve existing natural areas and restore damaged areas to provide habitat and promote biodiversity.**					
	5.1 PROTECT OR RESTORE HABITAT - On Greenfield sites, limit all site disturbance to the following parameters: 40 feet beyond the building perimeter, 10 feet beyond surface walkways, patios, surface parking and utilities less than 12 inches in diameter; 15 feet beyond primary roadway curbs and main utility branch trenches; and 25 feet beyond constructed areas with permeable surface (such as pervious paving areas, storm water detention facilities and playing fields) that require additional staging areas to limit compaction in the constructed area -OR - on previously developed or graded sites, restore or protect a minimum of 50% of the site area (excluding the building footprint) or 20% of the total site (including building footprint) whichever is greater with native or adapted vegetation. Projects earning SS Credit 2: Development Density & Community Connectivity may include vegetated roof surface in this calculation if the plants are native or adapted, provide habitat and promote biodiversity	1			1	
	Intent: Provide a high ration of open space to development footprint to promote biodiversity.					
	5.2 MAXIMIZE OPEN SPACE - Sites with local zoning open space requirements: Reduce the development footprint (defined as the total area of the building footprint, hardscape, access roads and parking) and/or provide vegetated open space within the project boundary such that the amount of open space exceeds local zoning requirements by 25% -OR- Sites with no local zoning requirements (i.e., some university campuses, military bases): Provide vegetated open space area adjacent to building that is equal to the building footprint -OR- Sites with zoning ordinance but no open space requirement: Provide vegetated open space equal to 20% of the project's site area. For projects that earn SS Credit 2, vegetated roof areas and pedestrian oriented hardscape can contribute to credit compliance. A minimum of 25% of the open space counted must be vegetated	1	1			Total open space on site is 31% of total area within property lines, which includes pedestrian oriented hardscape, and vegetated portion of this open space is 40% Documentation: The project asbuilts and calculations will be provided.

	CREDIT INTENT & DESCRIPTION	POSSIBLE POINTS	YES	??	NO	STRATEGY
Credit 6	**Storm water Design** **Intent: To limit disruption of natural hydrology by reducing impervious cover, increasing on-site infiltration, reducing or eliminating pollution from storm water runoff and eliminating contaminants.**					
	6.1 **QUANTITY CONTROL** : CASE 1, OPTION 1: Sites with EXISTING IMPERVIOUSNESS 50% OR LESS - Implement a storm water management plan that prevents the post-development peak discharge rate and quantity from exceeding the pre-development peak discharge rate and quantity for the one-and two-year, 24-hour design storms -OR- OPTION 2:Implement a storm water management plan that protects receiving stream channels from excessive erosion. The storm water management plan must include a stream channel protection strategy and quantity control strategies. CASE 2. EXISTING IMPERVIOUSNESS IS GREATER THAN 50% - Implement a storm water management plan that results in a 25% decrease in the volume of storm water runoff from the two-year, 24-hour design storm.	1	1			CASE 2 detention vault provided under building
	Intent: Reduce or eliminate water pollution of natural water flows by managing storm water runoff.					
	6.2 QUALITY CONTROL: Implement a storm water management plan that reduces impervious cover, promotes infiltration, and captures and treats the storm water runoff from 90% of the average annual rainfall using acceptable best management practices (BMPs). BMPs used to treat runoff must be capable of removing 80% of the average annual post development total suspended solids (TSS) load based on existing monitoring reports. BMPs are considered to meet these criteria if: (1) they are designed in accordance with standards and specifications from a state or local program that has adopted these performance standards, OR (2) there exists in-field performance monitoring data demonstrating compliance with the criteria. Data must conform to accepted protocol (e.g., Technology Acceptance Reciprocity Partnership [TARP], Washington State Department of Ecology) for BMP monitoring.	1			1	
Credit 7	**Heat Island Effect** **Intent: To reduce heat islands (thermal gradient differences between developed and undeveloped areas) to minimize impacts to microclimates and human and wildlife habitats.**					
	7.1 **NON-ROOF**: OPTION 1 - Use any combination of the following strategies for 50% of the site hardscape (including roads, sidewalks, courtyards and parking lots): shade (from existing tree canopy or within 5 years of installation), shade from structures covered by solar panels that produce energy used to offset some nonrenewable resource use, shade from architectural devices or structures that have a solar reflectance index (SRI) of at least 29, hardscape materials with a SRI of at least 29, use of an open grid pavement system (at least 50% pervious) -OR: OPTION 2 - Place a minimum of 50% of parking spaces under cover (defined as underground, under deck, under roof, or under a building). Any roof used to shade or cover parking must have an SRI of at least 29, be a vegetated roof or covered by solar panels that produce energy used to offset some nonrenewable resource use.	1	1			Achieve with use of SRI 29 hardscape and shade trees for 50% of hardscape.
	7.2 **ROOF**: OPTION 1: Use roofing materials having a Solar Reflectance Index (SRI) equal to or greater than the values in the reference guide table for a minimum of 75% of the roof surface. OPTION 2: Install a vegetated roof for at least 50% of the roof area. OPTION 3: Install high albedo and vegetated room surfaces that, in combination, meet the criteria shown in the reference guide	1	1			Option 1: Roof material to be selected to meet SRI requirements.
Credit 8	**Light Pollution Reduction** **Intent: Minimize light trespass from the building and site, reduce sky-glow to increase night sky access, improve nighttime visibility through glare reduction, and reduce development impact on nocturnal environments.**					

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SR 99 Alaskan Way Viaduct Replacement - Tunnel, North Tunnel Operations Building						
LEED-NC v 3						
	CREDIT INTENT & DESCRIPTION	POSSIBLE POINTS	YES	??	NO	STRATEGY
	Project teams must comply with 1 of the 2 options for interior lighting and the requirement for exterior lighting. INTERIOR LIGHTING: OPTION 1: Reduce the input power (by automatic device) of all nonemergency interior luminaries with a direct line of sight to any openings in the envelope (translucent or transparent) by at least 50% between 11 p.m and 5 a.m. After-hours override may be provided by a manual or occupant-sensing device provided the override lasts no more than 30 minutes. OR - OPTION 2: All openings in the envelope (translucent or transparent) with a direct line of sight to any nonemergency luminaries must have shielding (controlled/closed by automatic device for a resultant transmittance of less than 10% between 11 p.m. and 5 a.m.) AND EXTERIOR LIGHTING: Light areas only as required for safety and comfort. Lighting power densities must not exceed ANSI/ASHRAE/ IESNA Standard 90.1-2007, without amendments. See reference guide for further information.	1	1			Interior Lighting - Option 1. Exterior Lighting - only areas required to be lit for safety and comfort will be lit.
	SUSTAINABLE SITES TOTAL	26	21	3	2	
	WATER EFFICIENCY					
Prerequisite 1	**Water Use Reduction** **Intent: To increase water efficiency within buildings to reduce the burden on municipal water supply and wastewater systems.**					
	Employee strategies that in aggregate use 20% less water than the water use baseline calculated for the building (not including irrigation). Calculate the baseline according to the commercial baselines indicated in the reference guide.	REQ	YES			Install flow restrictors and/or reduced flow aerators on lavatory sinks and shower fixtures; install automatic faucet sensors, install low flow, high efficiency fixtures.
Credit 1	**Water Efficient Landscaping** **Intent: To limit or eliminate the use of potable water, or other natural surface or subsurface water resources available on or near the project site, for landscape irrigation.**					
	OPTION 1: REDUCE BY 50%: Reduce potable water consumption for irrigation by 50% from calculated mid-summer baseline case. Reductions must be attributed to any combination of the following items: Plant species, density & microclimate factor, irrigation efficiency, use of captured rainwater, recycled wastewater or water treated and conveyed by a public agency specifically for non-potable uses.	2	2			Plantings are being provided to meet this credit. WSDOT policy is to turn off irrigation once plantings are established.
	OPTION 2: Achieve Option 1 and: Use only captured rainwater, recycled wastewater, recycled gray water, or water treated and conveyed by a public agency specifically for non-potable uses for irrigation -OR- Install landscaping that does not require permanent irrigation systems. Temporary irrigation systems used for plant establishment are allowed only if removed within one year of installation.	2			2	
Credit 2	**Innovative Wastewater Technologies** **Intent: To reduce wastewater generation and potable water demand while increasing the local aquifer recharge.**					
	OPTION 1: Reduce potable water use for building sewage conveyance by 50% through the use of water-conserving fixtures (water closets, urinals) or non-potable water (captured rainwater, recycled gray water, and on-site or municipally treated wastewater). -OR OPTION 2 - Treat 50% of wastewater on-site to tertiary standards. Treated water must be infiltrated or used on-site.	2			2	
Credit 3	**Water Use Reduction** **Intent: To further increase water efficiency within buildings to reduce the burden on municipal water supply and wastewater systems.**					
	Employ strategies that in aggregate use **30%** less water than the water use baseline calculated for the building (not including irrigation) after meeting Energy Policy Act of 1992, 2005 and UBC or IBC 2006 fixture performance requirements. Calculations are based on estimated occupant usage and must include only the following fixtures and fixture fittings (as applicable to the project scope): water closets, urinals, lavatory faucets, showers, kitchen sink faucets and pre-rinse spray valves.	2	2			Use ultra-low flow fixtures with sensors.

	CREDIT INTENT & DESCRIPTION	POSSIBLE POINTS	YES	??	NO	STRATEGY
	Employ strategies that in aggregate use **35%** less water than the water use baseline calculated for the building (not including irrigation) after meeting the Energy Policy Act of 1992 fixture performance requirements. Calculations are based on estimated occupant usage and shall include only the following fixtures: water closets, urinals, lavatory faucets, showers and kitchen sinks.	1			1	
	Employ strategies that in aggregate use **40%** less water than the water use baseline calculated for the building (not including irrigation) after meeting the Energy Policy Act of 1992 fixture performance requirements. Calculations are based on estimated occupant usage and shall include only the following fixtures: water closets, urinals, lavatory faucets, showers and kitchen sinks.	1			1	
	WATER EFFICIENCY TOTAL					
		10	4	0	6	
	ENERGY & ATMOSPHERE					
Prerequisite 1	**Fundamental Commissioning of the Building Energy Systems** **Intent: To verify that the project's energy related systems are installed, calibrated and perform according to the WSDOT's project requirements, basis of design, and construction documents.**					
	1) Benefits of commissioning include reduced energy use, lower operating costs, reduced contractor callbacks, better building documentation, improved occupant productivity and verification that the systems perform in accordance with the WSDOT's project requirements.	REQ	YES			Commissioning agent will be provided by contractor. Building GSF is under 50,000 GSF so the commissioning agent can be on the design or construction team if they have experience on at least 2 previous projects. The Design/Builder will provide a commissioning agent in conformance with the contract requirements.
Prerequisite 2	**Minimum Energy Performance** **Intent: To establish the minimum level of energy efficiency for the proposed building and systems to reduce environmental and economic impacts associated with excessive energy use.**					
	OPTION 1: WHOLE BUILDING ENERGY SIMULATION - Demonstrate a 10% improvement in the proposed building performance rating for new buildings, or a 5% improvement in the proposed building performance rating for major renovations to existing buildings, compared with the baseline building performance. Calculate the baseline building performance rating according to the building performance rating method in Appendix G of ANSI/ASHRAE/IESNA 90.1-2007 (with errata but without addenda) using a computer simulation model for the whole building project.	REQ			NO	Option 1 can not be met. The building provides electricity for the tunnel equipment located inside the building, 2 miles of tunnel systems, tunnel maintenance shops, and tunnel crew offices and support spaces. Final electrical connected load calculations have not been completed. However based on tunnel systems connected loads compared to the building systems connected loads it isn't possible to demonstrate a 10% improvement in the building's performance rating.
	OPTION 2: PRESCRIPTIVE COMPLIANCE PATH: Appendix Advanced Energy Design Guide - Comply with the prescriptive measures of the Advanced Energy Design Guide appropriate to the project scope. See reference guide for compliance paths.	REQ			NO	Option 2 can not be met because there is no ASHRAE Advanced Energy Design Guide that applies to this unique building type.
	OPTION 3: PRESCRIPTIVE COMPLIANCE PATH: Advanced Buildings Core Performance Guide - Comply with the prescriptive measures identified in the Advanced Buildings Core Performance Guide developed by the New Buildings Institute. See reference guide for requirements.	REQ			NO	Option 3 can not be met because there is no Advanced Building Core Performance Guide that applies to this unique building type.
Prerequisite 3	**CFC Reduction in HVAC&R Equipment** **Intent: To reduce stratospheric ozone depletion.**					
	Zero use of CFC-based refrigerants in new base building HVAC&R systems. When reusing existing base building HVAC equipment, complete a comprehensive CFC phase-out conversion prior to project completion. Phase-out plans extending beyond the project completion date will be considered on their merits.	REQ	YES			No CFC based refrigerants will be used.
Credit 1	**Optimize Energy Performance** **Intent: To achieve increasing levels of energy performance beyond the prerequisite standard to reduce environmental and economic impacts associated with excessive energy use.**					

	CREDIT INTENT & DESCRIPTION	POSSIBLE POINTS	YES	??	NO	STRATEGY
	Select one of the three compliance paths described in the reference guide. OPTION 1: WHOLE BUILDING ENERGY SIMULATION (1-19 points) Calculate baseline building performance according to Appendix G of ANSI/ASHRAE/IESNA standard 90.1-2007 (with errata but without addenda). OPTION 2: PRESCRIPTIVE COMPLIANCE PATH: ASHRAE Advanced Energy Design Guide (1 point) OPTION 3: PRESCRIPTIVE COMPLIANCE PATH: Advanced Buildings Core Performance Guide (1-3 points)	19			19	The building provides electricity for the tunnel equipment located inside the building, 2 miles of tunnel systems, tunnel maintenance shops, and tunnel crew offices and support spaces. Final electrical connected load calculations have not been completed. However based on tunnel systems connected loads compared to the building systems connected loads it isn't possible to demonstrate the following improvements in the building's performance rating to gain these points. 12% - 1 point, 14% - 2 points, 16% - 3 points, 18% - 4 points, 20% - 5 points, etc. up to 48% - 19 points, (Regional Priority Credit - Option 1 48%)
Credit 2	**On-Site Renewable Energy** **Intent: To encourage and recognize increasing levels of on-site renewable energy self-supply in order to reduce environmental and economical impacts associated with fossil fuel energy use.**					
	Use on-site renewable energy systems to offset building energy cost. Calculate project performance by expressing the energy produced by the renewable systems as a percentage of the building's annual energy cost and using the table in the reference guide to determine the number of points achieved. %RENEWABLE ENERGY: 1%=1 POINT, 3%=2 POINTS, 5%=3 POINTS, 7%=4 POINTS, 9%= 5 POINTS, 11%= 6 POINTS, 13%= 7 POINTS. See reference guide for further information.	7			7	(Regional Priority Credit - 13%)
Credit 3	**Enhanced Commissioning** **Intent: To begin the commissioning process early in the design process and execute additional activities after systems performance verification is completed.**					
	Implement or have a contract in place to implement the following additional commissioning process activities in addition to the requirements of EA Prerequisite 1 and in accordance with this LEED-V3 Reference Guide, 2009 Edition: 1. Prior to the start of the construction documents phase, designate an independence Commissioning Authority to lead, review, and oversee the completion of all commissioning process activities. See reference guide. 2. CxA must conduct, at a minimum, one commissioning design review of the WSDOT's Project Requirements, Basis of Design, and design documents prior to mid-construction documents phase and back-check the review comments in the subsequent design submission. 3. CxA must review contractor submittals applicable to systems being commissioned. 4. Develop a systems manual. 5. Verify the requirements for training operating personnel and building occupants are completed. 6. The CxA must be involved in reviewing building operation with O&M staff and occupants within 10 months after substantial completion.	2				Under the WSDOT design/build contract requirements commissioning will be done by the Design/Builder's CxA.
Credit 4	**Enhanced Refrigerant Management** **Intent: To reduce ozone depletion and support early compliance with the Montreal Protocol while minimizing direct contributions to global warming.**					
	Option 1: Do not use refrigerants. **Option 2**: Select refrigerants and HVAC&R that minimize or eliminate the emission of compounds that contribute to ozone depletion and global climate change AND do not install fire suppression systems that contain ozone-depleting substances (CFC's, HCFCs or Halons. See reference guide for further information.	2	2			Option 2.
Credit 5	**Measurement and Verification** **Intent: To provide for the ongoing accountability of building energy consumption over time.**					

SR 99 Alaskan Way Viaduct Replacement - Tunnel, North Tunnel Operations Building

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	CREDIT INTENT & DESCRIPTION	POSSIBLE POINTS	YES	??	NO	STRATEGY
	Option1: Develop and implement a Measurement & Verification (M&V) Plan consistent with Option D: Calibrated Simulation (Savings Estimation Method 2), or **Option 2**: Develop and implement a Measurement & Verification (M&V) Plan consistent with Option B: Energy Conservation Measure Isolation, as specified in the International Performance Measurement & Verification Protocol. The M&V period shall cover a period of no less than one year of post-construction occupancy.	3			3	Metering is being provided in compliance with Code requirements.
Credit 6	**Green Power** **Intent: To encourage the development and use of grid-source, renewable energy technologies on a net zero pollution basis.**					
	Engage in at least a two year renewable energy contract to provide at least 35% of the building's electricity from renewable sources as defined by the Center for Resource Solutions (CRS) Green-e product certification requirements. All purchases of green power shall be based on the quantity of energy consumed, not the cost. DETERMINE THE BASELINE ELECTRICITY USE: Use the annual electricity consumption from the results of EA Credit 1 OR ESTIMATE BASELINE ELECTRICITY USE: use the Dept. of Energy Commercial Buildings Energy Consumption Survey database to determine the estimated electricity use.	2			2	
	ENERGY & ATMOSPHERE TOTAL					
		35	**2**	**0**	**31**	
	MATERIALS & RESOURCES					
Prerequisite 1	**Storage & collection of recyclables** **Intent: To facilitate the reduction of waste generated by building occupants that is hauled to and disposed of in landfills.**					
	Provide an easily accessible dedicated area that serves the entire building and is dedicated to the collection and storage of non-hazardous materials for recycling including (at a minimum) paper, corrugated cardboard, glass, plastics, and metals.	**REQ**	**YES**			An area located in the receiving area will be dedicated to the collection and storage of non-hazardous materials for recycling including paper, corrugated cardboard, plastics, and metals.
Credit 1	**Building Reuse - Maintain Existing Walls, Floors and Roof** **Intent: To extend the life cycle of existing building stock, conserve resources, retain cultural resources, reduce waste and reduce environmental impacts of new buildings as they relate to materials manufacturing and transport.**					
	1.1 Building Reuse - Maintain Existing Walls, Floors and Roof. Maintain at least **55%** of the existing building structure (including structural floor and roof decking) and envelope (exterior skin and framing, excluding window assemblies and non-structural roofing material). Hazardous materials that are remediated as a part of the project scope shall be excluded from the calculation of the percentage maintained. If the project includes an addition to an existing building that is more than 2 times the sq. ft. of the existing building, this credit is not applicable	1			1	(Regional Priority Credit - 55%)
	1.1 Building Reuse - Maintain Existing Walls, Floors and Roof. Maintain at least **75%** of the existing building structure (including structural floor and roof decking) and envelope (exterior skin and framing, excluding window assemblies and non-structural roofing material). Hazardous materials that are remediated as a part of the project scope shall be excluded from the calculation of the percentage maintained. If the project includes an addition to an existing building that is more than 2 times the sq. ft. of the existing building, this credit is not applicable.	1			1	
	1.1 Building Reuse - Maintain Existing Walls, Floors and Roof. Maintain at least **95%** of the existing building structure (including structural floor and roof decking) and envelope (exterior skin and framing, excluding window assemblies and non-structural roofing material). Hazardous materials that are remediated as a part of the project scope shall be excluded from the calculation of the percentage maintained. If the project includes an addition to an existing building that is more than 2 times the sq. ft. of the existing building, this credit is not applicable.	1			1	
	1.2 Building Reuse - Maintain Interior Nonstructural Elements: Use existing interior nonstructural elements (e.g., interior walls, doors, floor coverings and ceiling systems) in at least 50% (by area) of the competed building, including additions. If the project includes an addition with square footage more than 2 times the square footage of the existing building, this credit is not applicable	1			1	

	CREDIT INTENT & DESCRIPTION	POSSIBLE POINTS	YES	??	NO	STRATEGY
Credit 2	**Const Waste Management** **Intent: To divert construction, demolition, and land clearing debris from disposal in landfills and incineration facilities. Redirect recyclable recovered resources back to the manufacturing process and reusable materials to appropriate sites.**					
	(Divert 50% from Disposal) Recycle and/or salvage at least **50%** of non-hazardous construction and demolition debris. Develop and implement a construction waste management plan that, at a minimum, identifies the materials to be diverted from disposal and whether the materials will be sorted on-site or commingled. Excavated soil and land clearing debris does not contribute to this credit. Calculations can be done by weight or volume, but must be consistent throughout.	1	1			Construction waste disposal firm will sort and recycle or salvage construction waste or debris.
	(Divert 75% from Disposal) Recycle and/or salvage an additional 25% beyond MR Credit 2.1 (75% total) of non-hazardous construction and demolition debris.	1	1			Construction waste disposal firm will sort and recycle or salvage construction waste or debris.
Credit 3	**Materials Reuse** **Intent: To reuse building materials and products to reduce demand for virgin materials and reduce waste, thereby reducing impacts associated with the extraction and processing of virgin resources**					
	3.1 (5%) Use salvaged, refurbished or reused materials, the sum of which constitutes at least **5%**, based on cost, of the total value of materials on the project. Mechanical, electrical and plumbing components and specialty items such as elevators and equipment cannot be included in this calculation. Only include materials permanently installed in the project. Furniture may be included, providing it is included consistently in MR credits 3-7.	1			1	Concrete rubble to be reused through project. Furniture will be reused from other WSDOT locations.
	3.1 (10%) Use salvaged, refurbished or reused materials for an additional 5% beyond MR Credit 3.1 (**10%** total, based on cost).	1			1	
Credit 4	**Recycled Content** **Intent: To increase demand for building products that incorporate recycled content materials, thereby reducing impacts resulting from the extraction and processing of virgin materials.**					
	(10% post consumer + 1/2 pre-consumer) Use materials with recycled content such that the sum of post-consumer recycled content plus one-half of the pre-consumer content constitutes at least **10%** (based on cost) of the total value of the materials in the project. The recycled content value of a material assembly shall be determined by weight. The recycled fraction of the assembly is then multiplied by the cost of the assembly to determine the recycled content value. Mechanical, electrical and plumbing components and specialty items such as elevators shall not be included in this calculation. Only include materials permanently installed in the project. Furniture may be included providing it is included consistently in MR credits 3-7. Recycled content shall be defined in accordance with the ISO 14021.	1	1			Establish a project goal for recycled content materials and identify material suppliers that can achieve this goal. Materials that could assist in reaching this goal: steel, rebar (90% recycled content), concrete, CMU, carpeting, ceiling tiles, metal panels.
	(20% post consumer + 1/2 pre-consumer) Use materials with recycled content such that the sum of post-consumer recycled content plus one-half of the pre-consumer content constitutes an additional **10%** beyond MR Credit 4.1 (total 20%, based on cost) of the total materials in the project.	1			1	
Credit 5	**Local/Regional materials** **Intent: To increase demand for building materials and products that are extracted and manufactured within the region, thereby supporting the use of indigenous resources and reducing the environmental impacts resulting from transportation.**					
	(10% Extracted, Processed & Manufactured Regionally) Use building materials or products that have been extracted, harvested or recovered and manufactured, within 500 miles of the project site for a minimum of **10%** (based on costs) of the total materials value. If only a fraction of a product or material is extracted/harvested/recovered and manufactured locally, then only that percentage (by weight) must contribute to the regional value. Mechanical, electrical and plumbing components and specialty items such as elevators and equipment shall not be included in this calculation. Only include materials permanently installed in the project. Furniture may be included, providing it is included consistently in MR credits 3-7.	1	1			Concrete will be locally manufactured. Other possible materials include: precast, concrete, gypsum, glass, millwork, carpet, plantings, compost, and signage.
	(20% Extracted, Processed & Manufactured Regionally) Use building materials or products that have been extracted, harvested or recovered and manufactured, within a radius of 500 miles of the project site for an additional 10% beyond MR Credit 5.1 (total of **20%** based on cost) of the materials value.	1			1	

	CREDIT INTENT & DESCRIPTION	POSSIBLE POINTS	YES	??	NO	STRATEGY
Credit 6	**Rapidly renewable materials** **Intent: Reduce the use and depletion of finite raw, and long life-cycle renewable materials by replacing them with rapidly renewable materials.**					
	Use rapidly renewable building materials and products for 2.5% of the total value of all building materials and products used in the project, based on cost. Rapidly renewable building materials and products are made from plants that are typically harvested with a ten-year cycle or shorter.	1			1	
Credit 7	**Certified Wood** **Intent: To encourage environmentally responsible forest management.**					
	Use a minimum of 50% (based on cost) of wood-based materials and products that are certified in accordance with the Forest Stewardship Council's (FSC) Principles and Criteria, for wood building components. These components include, but are not limited to, structural framing and general dimensional framing, flooring, sub-flooring, wood doors and finishes. Only include materials permanently installed in the project. Wood products purchased for temporary use on the project (e.g., formwork, bracing, scaffolding, sidewalk protection and guard rails) may be included in the calculation at the project team's discretion. If any such materials are included, all such materials must be included in the calculation. Furniture may be included, providing it is included consistently in MR Credits 3-7.	1	1			Obtaining credit will depend on market availability and costs
	MATERIALS & RESOURCES TOTAL					
		14	5	0	9	
	INDOOR ENVIRONMENTAL QUALITY					
Prerequisite 1	**Minimum Indoor Air Quality Performance** **Intent: To establish minimum indoor air quality (IAQ) performance to enhance indoor air quality in buildings, thus contributing to the comfort and well being of the occupants**					
	Meet the minimum requirements of Sections 4 through 7 of ASHRAE 62 1 - 2007, Ventilation for Acceptable Indoor Air Quality (with errata but without addenda). Mechanical ventilation systems must be designed using the Ventilation Rate Procedure or the applicable local code, whichever is more stringent. Naturally ventilated buildings shall comply with ASHRAE 62.1-2007, paragraph 5.1 (with errata but without addenda	REQ	YES			
Prerequisite 2	**Environmental Tobacco Smoke Control** **Intent: To minimize exposure of building occupants, indoor surfaces, and ventilation air distribution systems to Environmental Tobacco Smoke (ETS).**					
	OPTION 1: Prohibit smoking in the building. Locate any exterior designated smoking areas at least 25 ft. away from entries, outdoor air intakes and operable windows. Provide signage to allow smoking in designated areas.	REQ	YES			WSDOT does not allow smoking in state buildings, and will designate exterior smoking area in accordance with state and local laws.
	OPTION 2: Prohibit smoking in the building except in designated smoking areas. Locate any exterior designated smoking areas at least 25 ft. away from entries, outdoor air intakes and operable windows. Provide designated smoking rooms designed to contain, capture and remove ETS from the building. At a minimum, the smoking room must be directly exhausted to the outdoors, away from air intakes and building entry paths, with no re-circulation of ETS-containing air to non-smoking areas and enclosed with impermeable deck -to-deck partitions. (See reference manual for additional requirements.)					
	OPTION 3: (for residential buildings only) Prohibit smoking in all common areas of the building. Locate any exterior designated smoking areas at least 25 ft away from entries, outdoor air intakes and operable windows opening to common areas. Minimize uncontrolled pathways for ETS transfer between individual residential units by sealing penetrations in walls, ceilings and floors in the residential units, and by sealing vertical chases adjacent to the units. All doors in the residential units leading to common hallways shall be weather-stripped or pressurized to minimize air leakage into the hallway. (See reference manual for additional requirements.)					
Credit 1	**Outdoor Air Delivery Monitoring** **Intent: To provide capacity for ventilation system monitoring to help promote occupant comfort and well being.**					

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	Install permanent monitoring systems to ensure that ventilation systems maintain design minimum requirements. Configure all monitoring equipment to generate an alarm when the airflow values or carbon dioxide (CO_2) levels vary by 10% or more from the design values via, either a building automation system alarm to the building operator or a visual or audible alert to the building occupants. (See reference manual for requirements for mechanically ventilated and naturally ventilated spaces.)	1	1			
Credit 2	**Increase Ventilation** **Intent: To provide additional outdoor air ventilation to improve indoor air quality and promote occupant comfort, well-being and productivity.**					
	For mechanically ventilated spaces - increase breathing zone outdoor air ventilation rates to all occupied spaces by at least 30% above the minimum rates required by ASHRAE standard 62.1-2007 (with errata but without addenda) as determined by IEQ Prerequisite 1. For naturally ventilated spaces - design natural ventilation systems for occupied spaces to meet the recommendations set forth in the Carbon Trust Good Practice Guide 237 (1998). Determine that natural ventilation is an effective strategy for the project by following the flow diagram process shown in Figure 1.18 of the CIBSE Applications Manual 10:2005, Natural ventilation in non-domestic buildings. See reference manual for additional requirements)	1			1	Could create an energy penalty. Mechanical system is only 100% OSA below 70 F when in cooling mode.
Credit 3	**Construction IAQ Management Plan** **Intent: To reduce indoor air quality problems resulting from construction or renovation and promote the comfort and well-being of construction workers and building occupants.**					
	3.1 **During Construction**: Develop and implement an Indoor Air Quality (IAQ) Management Plan for the construction and pre-occupancy phases of the building as follows: During construction meet or exceed the recommended Control Measures of the Sheet Metal and Air Conditioning National Contractors Association (SMACNA) IAQ Guideline for Occupied Buildings under Construction, 2nd Edition 2007, ANSI/SMACNA 008-2008 (Chapter 3) AND protect stored on-site or installed absorptive materials from moisture damage, AND if permanently installed air handlers are used during construction, filtration media with a Minimum Efficiency Reporting Value (MERV) of 8 must be used at each return air grille, as determined by ASHRAE 52.2 - 1999. Replace all filtration media immediately prior to occupancy.	1	1			IAQ will be developed.
	3.2 **Before Occupancy** (OPTION 1, FLUSH-OUT): After construction, prior to occupancy and with all interior finishes installed, install new filtration media and perform a building flush-out by supplying a total air volume of 14,000 cu. ft... of outdoor air per sq. ft... of floor area while maintaining an internal temperature of at least 60 degrees and relative humidity no higher than 60%. OR If occupancy is desired prior to completion of the flush-out, the space may be occupied following delivery of a minimum of 3500 cu. ft... of outdoor air per sq. ft... of floor area to the space. (See reference guide for further information)	1	1			Option 1 : Building will be flushed out.
	3.2 **Before Occupancy** (OPTION 2, AIR QUALITY TESTING): Conduct baseline IAQ testing, after construction ends and prior to occupancy, using testing protocols consistent with the US EPA Compendium of Methods for the Determination of Air Pollutants in Indoor Air and as additionally detailed in the LEED reference guide for Green Building Design and Construction, 2009 Edition. See reference guide for additional requirements.					
Credit 4	**Low-Emitting Materials** **Intent: To reduce the quantity of indoor air contaminants that are odorous, irritating and/or harmful to the comfort and well-being of installers and occupants.**					
	4.1 Adhesives & Sealants: All adhesives and sealants used on the interior of the building (defined as inside of the weatherproofing system and applied on-site) shall comply with the requirements of the following reference standards. (See reference guide for further information.)	1	1			Specify low-VOC materials in construction documents. Ensure that VOC limits are clearly stated in each section of the specifications where adhesives and sealants are addressed. Common products to evaluate include general construction adhesives, flooring adhesives, fire-stopping sealants, caulking, duct sealants, plumbing adhesives, and cove base adhesives.

	CREDIT INTENT & DESCRIPTION	POSSIBLE POINTS	YES	??	NO	STRATEGY
	4.2 Paints & Coatings: Paints and coatings used on the interior of the building (defined as inside of the weatherproofing system and applied on-site) shall comply with the following criteria. (See reference guide for additional requirements)	1	1			Specify low-VOC paints and coatings in construction documents. Ensure that VOC limits are clearly stated in each section of the specifications where paints and coatings are addressed. Track the VOC content of all interior paints and coatings during construction.
	4.3 Carpet Systems: All carpet installed in the building interior must meet the testing and product requirements of the Carpet and Rug Institute's Green Label Plus program. All carpet cushion installed in the building interior shall meet the requirements of the Carpet and Rug Institute's Green Label Plus program. All carpet adhesive shall meet the requirements of EQ Credit 4.1: VOC limit of 50 g/L. See reference guide for hard flooring, setting adhesives and grout.	1	1			Clearly specify requirements for product testing and/or certification in the construction documents. Select products that are either certified under the Green Label Plus program or for which testing has been done by qualified independent laboratories in accordance with the appropriate requirements.
	4.4 Composite Wood & Agri-fiber Products: Composite wood or agrifiber products used on the interior of the building (defined as inside of the weatherproofing system) shall contain no added urea-formaldehyde resins. Laminating adhesives used to fabricate on-site and shop-applied composite wood and agrifiber assemblies shall contain no added urea-formaldehyde resins. Composite wood and agrifiber products are defined as: particleboard, medium density fiberboard (MDF), plywood, wheat board, strawboard, panel substrates and door cores. Materials considered fixtures, furniture, and equipment (FF&E) are not considered base building elements and are not included.	1	1			Specify wood and agrifiber products that contain no added urea-formaldehyde resins. Specify laminating adhesives for field and shop applied assemblies that contain no added urea-formaldehyde resins.
Credit 5	**Indoor chemical & pollutant source control** **Intent: To minimize building occupant exposure to potentially hazardous particulates and chemical pollutants.**					
	Design to minimize & control pollutant entry into buildings and later cross-contamination of regularly occupied areas.					
	Employ permanent entryway systems at least ten feet long in the primary direction of travel to capture dirt & particulates entering the building at regularly used exterior entrances. Acceptable entryway systems include permanently installed grates, grilles or slotted systems that allow for cleaning undemeath. Roll-out mats are acceptable only when maintained on a weekly basis by a contracted service organization . Sufficiently exhaust each space where hazardous gases or chemicals may be present or used (including garages, housekeeping/laundry areas, shops of any kind, science labs, prep rooms and copying/printing rooms), to create negative pressure with respect to adjacent spaces with the doors to the room closed. For each of these spaces, provide self-closing doors and deck to deck partitions or a hard lid ceiling. (See reference guide for further information). In mechanically ventilated buildings, install new air filtration media in regularly occupied areas prior to occupancy; these filters must provide a Minimum Efficiency Reporting Value of 13 or better. Filtration should be applied to process both return and outside air that is to be delivered as supply air.	1			1	An entryway system will be installed in entry vestibules. Janitor's closets will have dedicated ventilation.
	Provide containment (i.e. a closed container for storage for off-site disposal in a regulatory compliant storage area, preferably outside the building) for appropriate disposal of hazardous liquid wastes in places where water and chemical concentrate mixing occurs (e.g., housekeeping, janitorial and science labs)					All hazardous liquid wastes scheduled for disposal will be contained in the appropriate container.
Credit 6	**Controllability of systems** **Intent: To provide a high level of lighting system control and/or thermal comfort system control by individual occupants or groups in multi-occupant spaces (i.e., classrooms or conference areas) to promote their productivity, comfort and well-being.**					
	6.1 **Lighting**: Provide individual lighting controls for 90% (minimum) of the building occupants to enable adjustments to suit individual task needs and preferences. AND Provide lighting system controls for all shared multi-occupant spaces to enable adjustment that meets group needs and preferences.	1	1			Occupant control of systems will be used where applicable.

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	6.2 **Thermal Comfort**: Provide individual comfort controls for 50% (minimum) of the building occupants to enable adjustments to meet individual needs and preferences Operable windows can be used in lieu of controls for occupants located 20 feet inside and 10 feet to either side of the operable part of a window. (See reference guide for further information). AND Provide comfort system controls for all shared multi-occupant spaces to enable adjustments to meet group needs and preferences. (See reference guide for further information)	1	1			Building will have 17 FTEs. Occupant control of systems will be used where applicable. In multi-occupant spaces, provide one accessible means of control over thermal comfort in the space. Thermal comfort controls will be provided for 50% of occupants.
Credit 7	**Thermal Control** **Intent: To provide a comfortable thermal environment that supports occupant productivity and well-being. Provide for the assessment of building thermal comfort over time.**					
	7.1 **Design:** Design HVAC systems and the building envelope to meet the requirements of ASHRAE Standard 55-2004, Thermal Comfort Conditions for Human Occupancy. Demonstrate design compliance in accordance with the Section 6.1.1 Documentation.	1	1			Will meet ASHRAE 55.
	7.2 **Verification:** Agree to conduct a thermal comfort survey of building occupants within a period of six to 18 months after occupancy. This survey should collect anonymous responses about thermal comfort in the building including an assessment of overall satisfaction with thermal performance and identification of thermal comfort-related problems. Agree to develop a plan for corrective action if the survey results indicate that more than 20% of occupants are dissatisfied with thermal comfort in the building. This plan should include measurement of relevant environmental variables in problem areas in accordance with ASHRAE Standard 55-2004.	1	1			WSDOT to send out survey to meet this credit and will follow up on items identified by at least 20% of the survey respondents.
Credit 8	**Daylight and Views** **Intent: To provide for the building occupants a connection between indoor spaces and the outdoors through the introduction of daylight and views into the regularly occupied areas of the building.**					
	8.1 - OPTION 1: Simulation - Demonstrate through computer simulations that 75% or more of all regularly occupied areas achieving daylight luminance levels of a minimum of 25 foot-candles. See reference guide for further information.	1				
	8.1 - OPTION 2: Prescriptive - For side lighting daylight zone - See reference guide for further information. For Top -lighting daylight Zone - See reference guide for further information.		1			Will be verified in final design, only spaces regularly occupied, shops will not be included in the evaluation.
	8.1 - OPTION 3: DAYLIGHT MEASUREMENT - Demonstrate, through records of indoor light measurements, that a minimum daylight illumination level of 25 foot-candles has been achieved in at least 75% (1 point) or 90% (2 points) of all regularly occupied areas. See reference guide for further information					
	8.1 - OPTION 4: COMBINATION - Any of the above calculation methods may be combined to document the minimum daylight illumination in at least 75% (1 point) or 90% (2 points) of all regularly occupied spaces. See reference guide for further information					
	8.2 Views for 90% of Spaces: Achieve direct line of sight to the outdoor environment via vision glazing between 30" and 90" above the finish floor for building occupants in 90% of all regularly occupied areas. Determine the area with direct line of sight by totaling the regularly occupied square footage that meets the following criteria: See reference guide for further information.	1	1			Only spaces regularly occupied to be included in the evaluation.
	INDOOR ENVIRONMENTAL QUALITY TOTAL	15	13	0	2	

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	CREDIT INTENT & DESCRIPTION	POSSIBLE POINTS	YES	??	NO	STRATEGY
	INNOVATION & DESIGN/BUILD PROCESS					
	Intent: To provide design teams and projects the opportunity to be awarded points for exceptional performance above requirements set by the LEED-NC Green Building Rating System and/or innovative performance in Green Building categories not specifically addressed by the LEED Green Building Rating System. Note, innovations credits do not apply, if product/strategy aids in achievement of an existing LEED credit.					
Credit 1.1	**Innovation/Process**	1			1	
Credit 1.2	**Innovation/Process**	1	1			Green building operations/ housekeeping - exclusive use of non-toxic cleaning products to maintain building. Product MSDS will be provided.
Credit 1.3	**Innovation/Process**	1	1			Provide an educational program on the environmental and human health benefits of the green building practices implemented; which might include 1) displays on benefits of green buildings, windows viewing green features, real-time energy consumption data displays, 2) events or tours focused on educational outreach.
Credit 1.4	**Innovation/Process**	1	1			Buildings serving bored tunnel - demonstrate intent to reduce site disturbance through implementing a tunnel boring strategy. Create a narrative that describes the environmental benefits and significance of tunnel boring versus extensive trenching.
Credit 1.5	**Innovation/Process**	1			1	Operational strategies - Tunnel's energy use and air quality monitoring systems for the tunnel will be controlled remotely by facilities management system.
Credit 2	**Accredited Professional**	1	1			A LEED accredited architect prepared the LEED Checklist. The Design/Builder will provide a LEED accredited person during construction
	At least one principal participant of the project team shall be a LEED Accredited Professional (AP)					
	INNOVATION & DESIGN/BUILD PROCESS TOTAL	6	4	0	2	

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	Regional Priority					
	Through USGBC's regional councils, chapters and affiliates, regionally specific environmental priorities were identified. Depending on a project's specific location, six LEED credits that address regionally prioritized environmental issues have been assigned "bonus points." That means that a project can be awarded up to four extra points – one point each – for up to four of the priority credits.					
Credit 1.1	Regional Priority	1	1			SS c3 - Brownfield Redevelopment
Credit 1.2	Regional Priority	1	1			SS c4.2 - Alternative Transportation - showers and bike racks
Credit 1.3	Regional Priority	1	1			SS c4.4 - Alternative Transportation - Parking Capacity
Credit 1.4	Regional Priority	1			1	EA c1 - Optimize Energy Performance
Credit 1.5	Regional Priority	1			1	EA c2 - On-Site Energy Performance
Credit 1.6	Regional Priority	1			1	MR c1.1 - Building Reuse
	REGIONAL PRIORITY TOTAL - 4 points maximum	6	3	0	3	
	SUSTAINABLE SITES TOTAL	26	21	3	2	
	WATER EFFICIENCY TOTAL	10	4	0	6	
	ENERGY & ATMOSPHERE TOTAL	35	2	0	31	
	MATERIALS & RESOURCES TOTAL	14	5	0	9	
	INDOOR ENVIRONMENTAL QUALITY TOTAL	15	13	0	2	
	INNOVATION & DESIGN/BUILD PROCESS TOTAL	6	4	0	2	
	REGIONAL PRIORITY TOTAL - 4 points maximum	6	3	0	3	
	TOTAL PROJECT LEED POINTS:	112	52	3	55	

CERTIFICATION LEVELS: (100 base points; 6 possible I in D, and 4 Regional Priority points)

- **Certified 40-49 points**
- **Silver 50-59 points**
- **Gold 60-79 points**
- **Platinum 80 points and above**

July 2, 2012

Mr. Stuart Simpson
Sustainability Coordinator
Department of General Administration
PO Box 41012
Olympia, WA 98504

Re: Alaskan Way Viaduct Replacement Program - SR 99 Tunnel Project
South Operations Building, Design Development – Request for Exemption

Dear Mr. Simpson:

This letter is to advise your office that the Washington State Department of Transportation is seeking exemption from the LEED Silver Certification requirement on the SR 99 Tunnel Project south operations building. This exemption is requested due to the building will be unoccupied. In addition, due to the specialized nature of the building, it isn't possible to meet the Energy & Atmosphere Prerequisite 2 which requires demonstrating a 10% improvement in the building performance rating. This building provides power for not only the basic building systems, but in addition all the tunnel systems located in the building and the tunnel systems located in the two-mile long tunnel. The majority of the building will be used for tunnel electrical, mechanical, and communications equipment. The systems located in the building are in operation every day, 24 hours a day, 7 days a week supporting the tunnel. Although WSDOT is asking for this exemption, please be assured that we are performing the work required to meet the requirements for 48 LEED credits. Some of the ways the LEED credits are being met and other design considerations include:

- Siting: The building was sited to make use of a triangular parcel of land that would have been difficult for a commercial development, leaving four parcels of land available for future private development.
- Square footage: Tunnel management and crew offices and maintenance shops were located in the north building allowing the south building size to be minimized. Through a value engineering exercise and the design/builder's design the building's square footage has been reduced.
- Limited parking / use of alternative transportation modes: Since the building is located in an urban area and is within walking distance of numerous bus routes, a light rail station, and a commuter rail station we are providing parking for only 7 WSDOT fleet vehicles.
- Landscaping: We have worked with the City of Seattle to maximize the plantings around the building and along the streets. The plantings have been selected for their durability and low water usage. Even though they're not on the site and can't count towards the credit for reduction of heat gain we are planting 500 trees in the south portal area (135 replacement trees and 365 new trees).

- Other credits: We are meeting many of the credit requirements for ventilation and air quality, and use of recycled materials.
- Commissioning: The design and construction of the building is through a WSDOT design/build contract. For project commissioning, the design/builder is required to meet one of the following guidelines: GSA – General Service Administration Commissioning Guidelines, ACG – Associated Commissioning Group Guidelines, or BCx – Building Commissioning Guidelines. The design/builder is required to provide the commissioning agent (CxA), who shall be certified and registered by ACG or BCx. The CxA must be separate from the designer. All systems, tunnel and building, are required by contract to be commissioned. Other than the CxA being contracted through the design/builder, our project requirements meet the LEED EA Credit 3 requirements.

I am attaching the following documents for your review:

- Exemption Declaration
- Updated LEED checklist.
- Environmental Design Considerations.

If you have any questions, please call me at 206-440-4399 or email hilmod@wsdot.wa.gov.

Sincerely,

Diane M. Hilmo

Diane M. Hilmo, P.E.
Project Manager

Cc: sustainable@ga.wa.gov
Terri Sinclair-Olson
Susan Everett

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	CREDIT INTENT & DESCRIPTION	POSSIBLE POINTS	YES	??	NO	STRATEGY
	SUSTAINABLE SITES					
Prerequisite 1	**Construction Activity Pollution Prevention** **Intent: To reduce pollution from construction activities by controlling soil erosion, waterway sedimentation and airborne dust generation.**					
	Create and implement an erosion and sedimentation control plan for all construction activities associated with the project. The plan must conform to the erosion and sedimentation requirements of the 2003 EPA Construction General Permit OR local standards and codes, whichever is more stringent. The plan must describe the measures implemented to accomplish the following objectives: Prevent loss of soil during construction by storm water run-off and/or wind erosion, including protecting topsoil by stock-piling for reuse. Prevent sedimentation of storm sewer or receiving streams. Prevent polluting the air with dust and particulate matter. See reference guide for further information.	REQ	YES			An erosion and sedimentation control plans have been developed for all construction activities. Stabilization strategies may include (seeding, mulching) and structural strategies (earth dikes, silt fencing, sediment traps and/or sediment basins). The site does not contain existing topsoil. Storm water will not be discharged into a stream, dust and particulate matter permit requirements will be complied with.
Credit 1	**Site Selection** **Intent: To avoid development of inappropriate sites and reduce the environmental impact from the location of a building on a site.**					
	Do not develop buildings, hardscapes, roads or parking area on portions of sites that meet any one of the following criteria:	1	1			LEED boundary is the property line. The site was previously an office building and parking lot.
	.. Prime farmland as defined by the USDA in United States Code of Federal Regulations Title 7, Volume 6, Parts 400 to 699, Section 657.5 (citation 7CFR657.5).					Not farmland
	.. Previously undeveloped land whose elevation is lower than 5 feet above the elevation of the 100-year flood as defined by FEMA.					Previously developed
	.. Land specifically identified as habitat for any species on the Federal or State threatened or endangered lists					Previously developed
	.. Within 100 feet of any wetlands as defined by United State Code of Federal Regulations 40 CFR, Parts 230-233 and Part 22, and isolated wetlands or areas of special concern identified by state or local rule, OR within setback distances from wetlands prescribed in state or local regulations, as defined by local or state rule or law, whichever is more stringent.					Not near wetland
	.. Previously undeveloped land that is within 50 feet of a water body, defined as seas, lakes, rivers, streams and tributaries which support or could support fish, recreation or industrial use, consistent with the terminology of the Clean Water Act.					Previously developed
	.. Land which prior to acquisition for the project was public parkland, unless land of equal or greater value as parkland is accepted in trade by the public land (Park Authority projects are exempt)					Not parkland
Credit 2	**Development Density & Community Connectivity** **Intent: To channel development to urban areas with existing infrastructure, protecting green fields and preserve habitat and natural resources.**					
	OPTION 1: DEVELOPMENT DENSITY - Construct or renovate building on a previously developed site AND in a community with a minimum density of 60,000 sq. ft... per acre net. (Note: density calculation must include the area of the project being built and is based on a typical two-story downtown development.)					
	OPTION 2: COMMUNITY CONNECTIVITY - Construct or renovate building on a site that meets the following criteria: Is located on a previously developed site, is within 1/2 mile of a residential zone or neighborhood with an average density of 10 units per acre net, is within 1/2 mile of at least 10 Basic Services and has pedestrian access between the building and the services. See reference guide for further information.	5	5			The site is located on a previously developed site, is within 1/2 mile of a residential zone with an average density of 10 units per acre net, it is within 1/2 mile of at least 10 Basic Services and has pedestrian access between the building and the services.
Credit 3	**Brownfield Redevelopment** **Intent: To rehabilitate damaged sites where development is complicated by environmental contamination, reducing pressure on undeveloped land.**					
	OPTION 1: Develop on a site documented as contaminated (by means of an ASTM E1903-97 Phase II Environmental Site Assessment or a local Voluntary Cleanup Program).	1	1			Either Option 1 or Option 2 will be met. Per the project Environmental Baseline Report contaminants found in the ground

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	OPTION 2: Develop on a site defined as a brown field by a local state or federal government agency.					water are petroleum hydrocarbons, PAHs,and metals. Ground
Credit 4	**Alternative Transportation** **Intent: To reduce pollution and land development impacts from automobile use.**					
	4.1 OPTION 1: Locate project within 1/2 mile walking distance (measured from main building entrance) of an existing-or planned and funded-commuter rail, light rail or subway station. OPTION 2: Locate project within 1/4 mile walking distance of 1 or more stops for two or more public or campus or private bus lines usable by building occupants.	6	6			Option 1: The site is located within 1/2 mile of a commuter rail station and a light rail station.
	4.2 For commercial or institutional buildings, provide secure bicycle racks and/or storage (within 200 yards of a building entrance) for 5% or more of all bldg users (measured at peak periods), AND, provide shower and changing facilities in the building, or within 200 yards of a building entrance, for 0.5% of Full-Time Equivalent (FTE) occupants. OR For residential buildings, provide covered storage facilities for securing bicycles for 15% or more of building occupants in lieu of changing/shower facilities.	1			1	This building is not an occupied building. FTEs = 0. Tunnel Maintenance staff will come from off site to perform tunnel maintenance activities as needed. (Regional Priority Credit)
	4.3 OPTION 1: Provide preferred parking for low-emitting and fuel-efficient vehicles for 5% of the total vehicle parking capacity of the site. Providing a discounted parking rate is an acceptable substitute for preferred parking for low-emitting and fuel-efficient vehicles. Incentive: Parking rate must be discounted at least 20%, available to all customers, publicly posted and available for a minimum of 2 yrs. OPTION 2: Install alternative-fuel refueling stations for 3% of the total vehicle parking capacity of the site (liquid or gaseous fueling facilities must be separately ventilated or located outdoors.)	3		3		Option 1: Parking is only provided for WSDOT maintenance vehicle fleet (7 vehicles). The majority of WSDOT maintenance vehicles use diesel which is required to have a minimum of 10% ethanol. Newer vehicles can use E85. Electrical plug-ins for tunnel maintenance vehicles are provided in the building.
	4.4 OPTION 1: Size parking capacity to meet but not exceed minimum local zoning requirements and provide preferred parking for carpools or van pools for 5% of the total provided parking spaces. OPTION 2: For projects that provide parking for less than 5% of FTE building occupants - provide preferred parking for carpools or van pools, marked as such, for 5% of total provided parking spaces. Providing a discounted parking rate is an acceptable substitute for preferred parking for low-emitting and fuel-efficient vehicles. Incentive: Parking rate must be discounted at least 20%, available to all customers, publicly posted and available for a minimum of 2 yrs. OPTION 3: Provide no new parking.	2	2			Option 1: City of Seattle Municipal Code SMC 23.54.015, minimum parking requirements are up to the discretion of the Director for unique building uses not shown on the SMC parking tables. Off street parking shall be provided for all fleet vehicles. These spaces do not count toward the minimum parking requirements. Or Option 3: No parking will be provided for employees. (Regional Priority Credit)
Credit 5	**Site Development** **Intent: To conserve existing natural areas and restore damaged areas to provide habitat and promote biodiversity.**					
	5.1 PROTECT OR RESTORE HABITAT - On Greenfield sites, limit all site disturbance to the following parameters: 40 feet beyond the building perimeter, 10 feet beyond surface walkways, patios, surface parking and utilities less than 12 inches in diameter; 15 feet beyond primary roadway curbs and main utility branch trenches; and 25 feet beyond constructed areas with permeable surface (such as pervious paving areas, storm water detention facilities and playing fields) that require additional staging areas to limit compaction in the constructed area -OR - on previously developed or graded sites, restore or protect a minimum of 50% of the site area (excluding the building footprint) or 20% of the total site (including building footprint) whichever is greater with native or adapted vegetation. Projects earning SS Credit 2: Development Density & Community Connectivity may include vegetated roof surface in this calculation if the plants are native or adapted, provide habitat and promote biodiversity.	1			1	
	Intent: Provide a high ration of open space to development footprint to promote biodiversity.					

	CREDIT INTENT & DESCRIPTION	POSSIBLE POINTS	YES	??	NO	STRATEGY
	5.2 MAXIMIZE OPEN SPACE - Sites with local zoning open space requirements: Reduce the development footprint (defined as the total area of the building footprint, hardscape, access roads and parking) and/or provide vegetated open space within the project boundary such that the amount of open space exceeds local zoning requirements by 25% -OR- Sites with no local zoning requirements (i.e., some university campuses, military bases): Provide vegetated open space area adjacent to building that is equal to the building footprint -OR- Sites with zoning ordinance but no open space requirement: Provide vegetated open space equal to 20% of the project's site area. For projects that earn SS Credit 2, vegetated roof areas and pedestrian oriented hardscape can contribute to credit compliance. A minimum of 25% of the open space counted must be vegetated.	1			1	
Credit 6	**Storm water Design** **Intent: To limit disruption of natural hydrology by reducing impervious cover, increasing on-site infiltration, reducing or eliminating pollution from storm water runoff and eliminating contaminants.**					
	6.1 **QUANTITY CONTROL**: CASE 1, OPTION 1: Sites with EXISTING IMPERVIOUSNESS 50% OR LESS - Implement a storm water management plan that prevents the post-development peak discharge rate and quantity from exceeding the pre-development peak discharge rate and quantity for the one-and two-year, 24-hour design storms -OR- OPTION 2:Implement a storm water management plan that protects receiving stream channels from excessive erosion. The storm water management plan must include a stream channel protection strategy and quantity control strategies. CASE 2: EXISTING IMPERVIOUSNESS IS GREATER THAN 50% - Implement a storm water management plan that results in a 25% decrease in the volume of storm water runoff from the two-year, 24-hour design storm.	1			1	
	Intent: Reduce or eliminate water pollution of natural water flows by managing storm water runoff.					
	6.2 QUALITY CONTROL: Implement a storm water management plan that reduces impervious cover, promotes infiltration, and captures and treats the storm water runoff from 90% of the average annual rainfall using acceptable best management practices (BMPs). BMPs used to treat runoff must be capable of removing 80% of the average annual post development total suspended solids (TSS) load based on existing monitoring reports. BMPs are considered to meet these criteria if: (1) they are designed in accordance with standards and specifications from a state or local program that has adopted these performance standards, OR (2) there exists in-field performance monitoring data demonstrating compliance with the criteria. Data must conform to accepted protocol (e.g., Technology Acceptance Reciprocity Partnership [TARP], Washington State Department of Ecology) for BMP monitoring.	1			1	
Credit 7	**Heat Island Effect** **Intent: To reduce heat islands (thermal gradient differences between developed and undeveloped areas) to minimize impacts to microclimates and human and wildlife habitats.**					
	7.1 **NON-ROOF**: OPTION 1 - Use any combination of the following strategies for 50% of the site hardscape (including roads, sidewalks, courtyards and parking lots): shade (from existing tree canopy or within 5 years of installation), shade from structures covered by solar panels that produce energy used to offset some nonrenewable resource use, shade from architectural devices or structures that have a solar reflectance index (SRI) of at least 29, hardscape materials with a SRI of at least 29, use of an open grid pavement system (at least 50% pervious) -OR- OPTION 2 - Place a minimum of 50% of parking spaces under cover (defined as underground, under deck, under roof, or under a building). Any roof used to shade or cover parking must have an SRI of at least 29, be a vegetated roof or covered by solar panels that produce energy used to offset some nonrenewable resource use.	1	1			Achieve with use of SRI 29 hardscape and shade trees for 50% of hardscape.
	7.2 **ROOF**: OPTION 1: Use roofing materials having a Solar Reflectance Index (SRI) equal to or greater than the values in the reference guide table for a minimum of 75% of the roof surface. OPTION 2: Install a vegetated roof for at least 50% of the roof area. OPTION 3: Install high albedo and vegetated room surfaces that, in combination, meet the criteria shown in the reference guide.	1	1			Option 1: Roof material to be selected to meet SRI requirements.
Credit 8	**Light Pollution Reduction**					

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	Intent: Minimize light trespass from the building and site, reduce sky-glow to increase night sky access, improve nighttime visibility through glare reduction, and reduce development impact on nocturnal environments.					
	Project teams must comply with 1 of the 2 options for interior lighting and the requirement for exterior lighting. INTERIOR LIGHTING. OPTION 1: Reduce the input power (by automatic device) of all nonemergency interior luminaries with a direct line of sight to any openings in the envelope (translucent or transparent) by at least 50% between 11 p.m. and 5 a.m. After-hours override may be provided by a manual or occupant-sensing device provided the override lasts no more than 30 minutes. OR - OPTION 2: All openings in the envelope (translucent or transparent) with a direct line of sight to any nonemergency luminaries must have shielding (controlled/closed by automatic device for a resultant transmittance of less than 10% between 11 p.m. and 5 a.m.) AND EXTERIOR LIGHTING: Light areas only as required for safety and comfort. Lighting power densities must not exceed ANSI/ASHRAE/ IESNA Standard 90.1-2007, without amendments. See reference guide for further information.	1	1			Interior Lighting - Option 1. Exterior Lighting - only areas required to be lit for safety and comfort will be lit.
	SUSTAINABLE SITES TOTAL	26	18	3	5	
	WATER EFFICIENCY					
Prerequisite 1	**Water Use Reduction** **Intent: To increase water efficiency within buildings to reduce the burden on municipal water supply and wastewater systems.**					
	Employee strategies that in aggregate use 20% less water than the water use baseline calculated for the building (not including irrigation). Calculate the baseline according to the commercial baselines indicated in the reference guide.	REQ	YES			Install flow restrictors and/or reduced flow aerators on lavatory sinks and shower fixtures; install automatic faucet sensors, install low flow, high efficiency fixtures.
Credit 1	**Water Efficient Landscaping** **Intent: To limit or eliminate the use of potable water, or other natural surface or subsurface water resources available on or near the project site, for landscape irrigation.**					
	OPTION 1. REDUCE BY 50%: Reduce potable water consumption for irrigation by 50% from calculated mid-summer baseline case. Reductions must be attributed to any combination of the following items: Plant species, density & microclimate factor, irrigation efficiency, use of captured rainwater, recycled wastewater or water treated and conveyed by a public agency specifically for non-potable uses.	2	2			Plantings are being provided to meet this credit. WSDOT policy is to turn off irrigation once plantings are established.
	OPTION 2: Achieve Option 1 and: Use only captured rainwater, recycled wastewater, recycled gray water, or water treated and conveyed by a public agency specifically for non-potable uses for irrigation -OR- Install landscaping that does not require permanent irrigation systems. Temporary irrigation systems used for plant establishment are allowed only if removed within one year of installation.	2			2	
Credit 2	**Innovative Wastewater Technologies** **Intent: To reduce wastewater generation and potable water demand while increasing the local aquifer recharge.**					
	OPTION 1: Reduce potable water use for building sewage conveyance by 50% through the use of water-conserving fixtures (water closets, urinals) or non-potable water (captured rainwater, recycled gray water, and on-site or municipally treated wastewater). -OR OPTION 2 - Treat 50% of wastewater on-site to tertiary standards. Treated water must be infiltrated or used on-site.	2			2	
Credit 3	**Water Use Reduction** **Intent: To further increase water efficiency within buildings to reduce the burden on municipal water supply and wastewater systems.**					

	CREDIT INTENT & DESCRIPTION	POSSIBLE POINTS	YES	??	NO	STRATEGY
	Employ strategies that in aggregate use **30%** less water than the water use baseline calculated for the building (not including irrigation) after meeting Energy Policy Act of 1992, 2005 and UBC or IBC 2006 fixture performance requirements. Calculations are based on estimated occupant usage and must include only the following fixtures and fixture fittings (as applicable to the project scope): water closets, urinals, lavatory faucets, showers, kitchen sink faucets and pre-rinse spray valves.	2	2			Use ultra-low flow fixtures with sensors.
	Employ strategies that in aggregate use **35%** less water than the water use baseline calculated for the building (not including irrigation) after meeting the Energy Policy Act of 1992 fixture performance requirements. Calculations are based on estimated occupant usage and shall include only the following fixtures: water closets, urinals, lavatory faucets, showers and kitchen sinks.	1			1	
	Employ strategies that in aggregate use **40%** less water than the water use baseline calculated for the building (not including irrigation) after meeting the Energy Policy Act of 1992 fixture performance requirements. Calculations are based on estimated occupant usage and shall include only the following fixtures: water closets, urinals, lavatory faucets, showers and kitchen sinks.	1			1	
	WATER EFFICIENCY TOTAL	10	4	0	6	
	ENERGY & ATMOSPHERE					
Prerequisite 1	**Fundamental Commissioning of the Building Energy Systems** **Intent: To verify that the project's energy related systems are installed, calibrated and perform according to the WSDOT's project requirements, basis of design, and construction documents.**					
	1) Benefits of commissioning include reduced energy use, lower operating costs, reduced contractor callbacks, better building documentation, improved occupant productivity and verification that the systems perform in accordance with the WSDOT's project requirements.	REQ	YES			Commissioning agent will be provided by contractor. Building GSF is under 50,000 GSF so the commissioning agent can be on the design or construction team if they have experience on at least 2 previous projects. The Design/Builder will provide a commissioning agent in conformance with the contract requirements.
Prerequisite 2	**Minimum Energy Performance** **Intent: To establish the minimum level of energy efficiency for the proposed building and systems to reduce environmental and economic impacts associated with excessive energy use.**					
	OPTION 1: WHOLE BUILDING ENERGY SIMULATION - Demonstrate a 10% improvement in the proposed building performance rating for new buildings, or a 5% improvement in the proposed building performance rating for major renovations to existing buildings, compared with the baseline building performance. Calculate the baseline building performance rating according to the building performance rating method in Appendix G of ANSI/ASHRAE/IESNA 90.1-2007 (with errata but without addenda) using a computer simulation model for the whole building project.	REQ			NO	Option 1 can not be met. The building provides electricity for the tunnel equipment located inside the building, 2 miles of tunnel systems, a lay down shop for repairing/maintaining tunnel systems, an office, break room, restrooms (for use by employees performing tunnel maintenance/repairs), and a garage for 7 WSDOT fleet maintenance vehicles. The building is not occupied on a daily basis. The draft electrical connected load calculations show only 10% of the building's load is for the garage, lay down room, office, and small break room. It won't be possible to demonstrate a 10% improvement in the building's performance rating.
	OPTION 2: PRESCRIPTIVE COMPLIANCE PATH: Appendix Advanced Energy Design Guide - Comply with the prescriptive measures of the Advanced Energy Design Guide appropriate to the project scope. See reference guide for compliance paths.					Option 2 can not be met because there is no ASHRAE Advanced Energy Design Guide that applies to this unique building type.
	OPTION 3: PRESCRIPTIVE COMPLIANCE PATH: Advanced Buildings Core Performance Guide - Comply with the prescriptive measures identified in the Advanced Buildings Core Performance Guide developed by the New Buildings Institute. See reference guide for requirements.					Option 3 can not be met because there is no Advanced Building Core Performance Guide that applies to this unique building type.
Prerequisite 3	**CFC Reduction in HVAC&R Equipment**					

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	Intent: To reduce stratospheric ozone depletion.					
	Zero use of CFC-based refrigerants in new base building HVAC&R systems. When reusing existing base building HVAC equipment, complete a comprehensive CFC phase-out conversion prior to project completion. Phase-out plans extending beyond the project completion date will be considered on their merits.	REQ	YES			No CFC based refrigerants will be used.
Credit 1	**Optimize Energy Performance** **Intent: To achieve increasing levels of energy performance beyond the prerequisite standard to reduce environmental and economic impacts associated with excessive energy use.**					
	Select one of the three compliance paths described in the reference guide. OPTION 1: WHOLE BUILDING ENERGY SIMULATION (1-19 points) Calculate baseline building performance according to Appendix G of ANSI/ASHRAE/IESNA standard 90.1-2007 (with errata but without addenda). OPTION 2: PRESCRIPTIVE COMPLIANCE PATH: ASHRAE Advanced Energy Design Guide (1 point) OPTION 3. PRESCRIPTIVE COMPLIANCE PATH: Advanced Buildings Core Performance Guide (1-3 points)	19			19	The building provides electricity for the tunnel equipment located inside the building, 2 miles of tunnel systems, a lay down shop for repairing/maintaining tunnel systems, an office, break room, restrooms (for use by employees performing tunnel maintenance/repairs), and a garage for 7 WSDOT fleet maintenance vehicles. The building is not occupied on a daily basis. The draft electrical connected load calculations show only 10% of the building's load is for the garage, lay down room, office, and break room. It won't be possible to demonstrate the following improvements in the building's performance rating to gain these points. 12% - 1 point, 14% - 2 points, 16% - 3 points, 18% - 4 points, 20% - 5 points, etc. up to 48% - 19 points; (Regional Priority Credit - Option 1 48%)
Credit 2	**On-Site Renewable Energy** **Intent: To encourage and recognize increasing levels of on-site renewable energy self-supply in order to reduce environmental and economical impacts associated with fossil fuel energy use.**					
	Use on-site renewable energy systems to offset building energy cost. Calculate project performance by expressing the energy produced by the renewable systems as a percentage of the building's annual energy cost and using the table in the reference guide to determine the number of points achieved. %RENEWABLE ENERGY: 1%=1 POINT, 3%=2 POINTS, 5%=3 POINTS, 7%=4 POINTS, 9%= 5 POINTS, 11%= 6 POINTS, 13%= 7 POINTS. See reference guide for further information.	7			7	(Regional Priority Credit - 13%)
Credit 3	**Enhanced Commissioning** **Intent: To begin the commissioning process early in the design process and execute additional activities after systems performance verification is completed.**					
	Implement or have a contract in place to implement the following additional commissioning process activities in addition to the requirements of EA Prerequisite 1 and in accordance with this LEED-V3 Reference Guide, 2009 Edition: 1. Prior to the start of the construction documents phase, designate an independence Commissioning Authority to lead, review, and oversee the completion of all commissioning process activities. See reference guide. 2. CxA must conduct, at a minimum, one commissioning design review of the WSDOT's Project Requirements, Basis of Design, and design documents prior to mid-construction documents phase and back-check the review comments in the subsequent design submission. 3. CxA must review contractor submittals applicable to systems being commissioned. 4. Develop a systems manual. 5. Verify the requirements for training operating personnel and building occupants are completed. 6. The CxA must be involved in reviewing building operation with O&M staff and occupants within 10 months after substantial completion.	2				Under the WSDOT design/build contract requirements commissioning will be done by the Design/Builder's CxA.
Credit 4	**Enhanced Refrigerant Management**					

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	Intent: To reduce ozone depletion and support early compliance with the Montreal Protocol while minimizing direct contributions to global warming.					
	Option 1: Do not use refrigerants. **Option 2**: Select refrigerants and HVAC&R that minimize or eliminate the emission of compounds that contribute to ozone depletion and global climate change AND do not install fire suppression systems that contain ozone-depleting substances (CFC's, HCFCs or Halons. See reference guide for further information.	2	2			Option 2.
Credit 5	**Measurement and Verification** **Intent: To provide for the ongoing accountability of building energy consumption over time.**					
	Option1: Develop and implement a Measurement & Verification (M&V) Plan consistent with Option D: Calibrated Simulation (Savings Estimation Method 2), or **Option 2**. Develop and implement a Measurement & Verification (M&V) Plan consistent with Option B: Energy Conservation Measure Isolation, as specified in the International Performance Measurement & Verification Protocol. The M&V period shall cover a period of no less than one year of post-construction occupancy.	3			3	Metering is being provided in compliance with Code requirements.
Credit 6	**Green Power** **Intent: To encourage the development and use of grid-source, renewable energy technologies on a net zero pollution basis.**					
	Engage in at least a two year renewable energy contract to provide at least 35% of the building's electricity from renewable sources as defined by the Center for Resource Solutions (CRS) Green-e product certification requirements. All purchases of green power shall be based on the quantity of energy consumed, not the cost. DETERMINE THE BASELINE ELECTRICITY USE: Use the annual electricity consumption from the results of EA Credit 1 OR ESTIMATE BASELINE ELECTRICITY USE: use the Dept. of Energy Commercial Buildings Energy Consumption Survey database to determine the estimated electricity use.	2			2	
	ENERGY & ATMOSPHERE TOTAL					
		35	2	0	31	
	MATERIALS & RESOURCES					
Prerequisite 1	**Storage & collection of recyclables** **Intent: To facilitate the reduction of waste generated by building occupants that is hauled to and disposed of in landfills.**					
	Provide an easily accessible dedicated area that serves the entire building and is dedicated to the collection and storage of non-hazardous materials for recycling including (at a minimum) paper, corrugated cardboard, glass, plastics, and metals.	REQ	YES			An area located in the receiving area will be dedicated to the collection and storage of non-hazardous materials for recycling including paper, corrugated cardboard, plastics, and metals.
Credit 1	**Building Reuse - Maintain Existing Walls, Floors and Roof** **Intent: To extend the life cycle of existing building stock, conserve resources, retain cultural resources, reduce waste and reduce environmental impacts of new buildings as they relate to materials manufacturing and transport.**					
	1.1 Building Reuse - Maintain Existing Walls, Floors and Roof. Maintain at least **55%** of the existing building structure (including structural floor and roof decking) and envelope (exterior skin and framing, excluding window assemblies and non-structural roofing material). Hazardous materials that are remediated as a part of the project scope shall be excluded from the calculation of the percentage maintained. If the project includes an addition to an existing building that is more than 2 times the sq. ft. of the existing building, this credit is not applicable.	1			1	(Regional Priority Credit - 55%)
	1.1 Building Reuse - Maintain Existing Walls, Floors and Roof. Maintain at least **75%** of the existing building structure (including structural floor and roof decking) and envelope (exterior skin and framing, excluding window assemblies and non-structural roofing material). Hazardous materials that are remediated as a part of the project scope shall be excluded from the calculation of the percentage maintained. If the project includes an addition to an existing building that is more than 2 times the sq. ft. of the existing building, this credit is not applicable.	1			1	

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	1.1 Building Reuse - Maintain Existing Walls, Floors and Roof. Maintain at least **95%** of the existing building structure (including structural floor and roof decking) and envelope (exterior skin and framing, excluding window assemblies and non-structural roofing material). Hazardous materials that are remediated as a part of the project scope shall be excluded from the calculation of the percentage maintained. If the project includes an addition to an existing building that is more than 2 times the sq. ft. of the existing building, this credit is not applicable.	1			1	
	1.2 Building Reuse - Maintain Interior Nonstructural Elements: Use existing interior nonstructural elements (e.g., interior walls, doors, floor coverings and ceiling systems) in at least 50% (by area) of the competed building, including additions. If the project includes an addition with square footage more than 2 times the square footage of the existing building, this credit is not applicable.	1			1	
Credit 2	**Const Waste Management** **Intent: To divert construction, demolition, and land clearing debris from disposal in landfills and incineration facilities. Redirect recyclable recovered resources back to the manufacturing process and reusable materials to appropriate sites.**					
	(Divert 50% from Disposal) Recycle and/or salvage at least **50%** of non-hazardous construction and demolition debris. Develop and implement a construction waste management plan that, at a minimum, identifies the materials to be diverted from disposal and whether the materials will be sorted on-site or commingled. Excavated soil and land clearing debris does not contribute to this credit. Calculations can be done by weight or volume, but must be consistent throughout.	1	1			Construction waste disposal firm will sort and recycle or salvage construction waste or debris
	(Divert 75% from Disposal) Recycle and/or salvage an additional 25% beyond MR Credit 2.1 (75% total) of non-hazardous construction and demolition debris.	1	1			Construction waste disposal firm will sort and recycle or salvage construction waste or debris.
Credit 3	**Materials Reuse** **Intent: To reuse building materials and products to reduce demand for virgin materials and reduce waste, thereby reducing impacts associated with the extraction and processing of virgin resources**					
	3.1 (5%) Use salvaged, refurbished or reused materials, the sum of which constitutes at least **5%**, based on cost, of the total value of materials on the project. Mechanical, electrical and plumbing components and specialty items such as elevators and equipment cannot be included in this calculation. Only include materials permanently installed in the project. Furniture may be included, providing it is included consistently in MR credits 3-7.	1			1	Concrete rubble to be reused through project. Furniture will be reused from other WSDOT locations.
	3.1 (10%) Use salvaged, refurbished or reused materials for an additional 5% beyond MR Credit 3.1 (**10%** total, based on cost)	1			1	
Credit 4	**Recycled Content** **Intent: To increase demand for building products that incorporate recycled content materials, thereby reducing impacts resulting from the extraction and processing of virgin materials.**					
	(10% post consumer + 1/2 pre-consumer) Use materials with recycled content such that the sum of post-consumer recycled content plus one-half of the pre-consumer content constitutes at least **10%** (based on cost) of the total value of the materials in the project. The recycled content value of a material assembly shall be determined by weight. The recycled fraction of the assembly is then multiplied by the cost of the assembly to determine the recycled content value. Mechanical, electrical and plumbing components and specialty items such as elevators shall not be included in this calculation. Only include materials permanently installed in the project. Furniture may be included providing it is included consistently in MR credits 3-7. Recycled content shall be defined in accordance with the ISO 14021.	1	1			Establish a project goal for recycled content materials and identify material suppliers that can achieve this goal. Materials that could assist in reaching this goal. steel, rebar (90% recycled content), concrete, CMU, carpeting, ceiling tiles, metal panels.
	(20% post consumer + 1/2 pre-consumer) Use materials with recycled content such that the sum of post-consumer recycled content plus one-half of the pre-consumer content constitutes an additional **10%** beyond MR Credit 4.1 (total 20% based on cost) of the total materials in the project	1			1	
Credit 5	**Local/Regional materials** **Intent: To increase demand for building materials and products that are extracted and manufactured within the region, thereby supporting the use of indigenous resources and reducing the environmental impacts resulting from transportation.**					

	CREDIT INTENT & DESCRIPTION	POSSIBLE POINTS	YES	??	NO	STRATEGY
	(10% Extracted, Processed & Manufactured Regionally) Use building materials or products that have been extracted, harvested or recovered and manufactured, within 500 miles of the project site for a minimum of **10%** (based on costs) of the total materials value. If only a fraction of a product or material is extracted/harvested/recovered and manufactured locally, then only that percentage (by weight) must contribute to the regional value. Mechanical, electrical and plumbing components and specialty items such as elevators and equipment shall not be included in this calculation. Only include materials permanently installed in the project. Furniture may be included, providing it is included consistently in MR credits 3-7.	1	1			Concrete will be locally manufactured. Other possible materials include: precast, concrete, gypsum, glass, millwork, carpet, plantings, compost, and signage.
	(20% Extracted, Processed & Manufactured Regionally) Use building materials or products that have been extracted, harvested or recovered and manufactured, within a radius of 500 miles of the project site for an additional 10% beyond MR Credit 5.1 (total of **20%** based on cost) of the materials value.	1			1	
Credit 6	**Rapidly renewable materials** **Intent: Reduce the use and depletion of finite raw, and long life-cycle renewable materials by replacing them with rapidly renewable materials.**					
	Use rapidly renewable building materials and products for 2.5% of the total value of all building materials and products used in the project, based on cost. Rapidly renewable building materials and products are made from plants that are typically harvested with a ten-year cycle or shorter.	1			1	
Credit 7	**Certified Wood** **Intent: To encourage environmentally responsible forest management.**					
	Use a minimum of 50% (based on cost) of wood-based materials and products that are certified in accordance with the Forest Stewardship Council's (FSC) Principles and Criteria, for wood building components. These components include, but are not limited to, structural framing and general dimensional framing, flooring, sub-flooring, wood doors and finishes. Only include materials permanently installed in the project. Wood products purchased for temporary use on the project (e.g., formwork, bracing, scaffolding, sidewalk protection and guard rails) may be included in the calculation at the project team's discretion. If any such materials are included, all such materials must be included in the calculation. Furniture may be included, providing it is included consistently in MR Credits 3-7	1	1			Obtaining credit will depend on market availability and costs.
	MATERIALS & RESOURCES TOTAL	14	5	0	9	
	INDOOR ENVIRONMENTAL QUALITY					
Prerequisite 1	**Minimum Indoor Air Quality Performance** **Intent: To establish minimum indoor air quality (IAQ) performance to enhance indoor air quality in buildings, thus contributing to the comfort and well being of the occupants**					
	Meet the minimum requirements of Sections 4 through 7 of ASHRAE 62.1 - 2007, Ventilation for Acceptable Indoor Air Quality (with errata but without addenda). Mechanical ventilation systems must be designed using the Ventilation Rate Procedure or the applicable local code, whichever is more stringent. Naturally ventilated buildings shall comply with ASHRAE 62.1-2007, paragraph 5.1 (with errata but without addenda	REQ	YES			
Prerequisite 2	**Environmental Tobacco Smoke Control** **Intent: To minimize exposure of building occupants, indoor surfaces, and ventilation air distribution systems to Environmental Tobacco Smoke (ETS).**					
	OPTION 1: Prohibit smoking in the building. Locate any exterior designated smoking areas at least 25 ft. away from entries, outdoor air intakes and operable windows. Provide signage to allow smoking in designated areas.	REQ	YES			WSDOT does not allow smoking in state buildings, and will designate exterior smoking area in accordance with state and local laws.

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	OPTION 2: Prohibit smoking in the building except in designated smoking areas. Locate any exterior designated smoking areas at least 25 ft. away from entries, outdoor air intakes and operable windows. Provide designated smoking rooms designed to contain, capture and remove ETS from the building. At a minimum, the smoking room must be directly exhausted to the outdoors, away from air intakes and building entry paths, with no re-circulation of ETS-containing air to non-smoking areas and enclosed with impermeable deck -to-deck partitions. (See reference manual for additional requirements.)					
	OPTION 3: (for residential buildings only) Prohibit smoking in all common areas of the building. Locate any exterior designated smoking areas at least 25 ft away from entries, outdoor air intakes and operable windows opening to common areas. Minimize uncontrolled pathways for ETS transfer between individual residential units by sealing penetrations in walls, ceilings and floors in the residential units, and by sealing vertical chases adjacent to the units. All doors in the residential units leading to common hallways shall be weather-stripped or pressurized to minimize air leakage into the hallway (See reference manual for additional requirements.)					
Credit 1	**Outdoor Air Delivery Monitoring** **Intent: To provide capacity for ventilation system monitoring to help promote occupant comfort and well being.**					
	Install permanent monitoring systems to ensure that ventilation systems maintain design minimum requirements. Configure all monitoring equipment to generate an alarm when the airflow values or carbon dioxide (CO_2) levels vary by 10% or more from the design values via, either a building automation system alarm to the building operator or a visual or audible alert to the building occupants. (See reference manual for requirements for mechanically ventilated and naturally ventilated spaces.)	1	1			
Credit 2	**Increase Ventilation** **Intent: To provide additional outdoor air ventilation to improve indoor air quality and promote occupant comfort, well-being and productivity.**					
	For mechanically ventilated spaces - increase breathing zone outdoor air ventilation rates to all occupied spaces by at least 30% above the minimum rates required by ASHRAE standard 62.1-2007 (with errata but without addenda) as determined by IEQ Prerequisite 1. For naturally ventilated spaces - design natural ventilation systems for occupied spaces to meet the recommendations set forth in the Carbon Trust Good Practice Guide 237 (1998). Determine that natural ventilation is an effective strategy for the project by following the flow diagram process shown in Figure 1.18 of the CIBSE Applications Manual 10:2005, Natural ventilation in non-domestic buildings. See reference manual for additional requirements)	1			1	
Credit 3	**Construction IAQ Management Plan** **Intent: To reduce indoor air quality problems resulting from construction or renovation and promote the comfort and well-being of construction workers and building occupants.**					
	3.1 **During Construction**: Develop and implement an Indoor Air Quality (IAQ) Management Plan for the construction and pre-occupancy phases of the building as follows: During construction meet or exceed the recommended Control Measures of the Sheet Metal and Air Conditioning National Contractors Association (SMACNA) IAQ Guideline for Occupied Buildings under Construction, 2nd Edition 2007, ANSI/SMACNA 008-2008 (Chapter 3) AND protect stored on-site or installed absorptive materials from moisture damage, AND if permanently installed air handlers are used during construction, filtration media with a Minimum Efficiency Reporting Value (MERV) of 8 must be used at each return air grille, as determined by ASHRAE 52.2 - 1999. Replace all filtration media immediately prior to occupancy.	1	1			IAQ will be developed.
	3.2 **Before Occupancy** (OPTION 1, FLUSH-OUT): After construction, prior to occupancy and with all interior finishes installed, install new filtration media and perform a building flush-out by supplying a total air volume of 14,000 cu. ft... of outdoor air per sq. ft... of floor area while maintaining an internal temperature of at least 60 degrees and relative humidity no higher than 60%. OR If occupancy is desired prior to completion of the flush-out, the space may be occupied following delivery of a minimum of 3500 cu. ft... of outdoor air per sq. ft... of floor area to the space. (See reference guide for further information)	1	1			Option 1 : Building will be flushed out.

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	CREDIT INTENT & DESCRIPTION	POSSIBLE POINTS	YES	??	NO	STRATEGY
	3.2 **Before Occupancy** (OPTION 2, AIR QUALITY TESTING): Conduct baseline IAQ testing, after construction ends and prior to occupancy, using testing protocols consistent with the US EPA Compendium of Methods for the Determination of Air Pollutants in Indoor Air and as additionally detailed in the LEED reference guide for Green Building Design and Construction, 2009 Edition. See reference guide for additional requirements					
Credit 4	**Low-Emitting Materials** **Intent: To reduce the quantity of indoor air contaminants that are odorous, irritating and/or harmful to the comfort and well-being of installers and occupants.**					
	4.1 Adhesives & Sealants: All adhesives and sealants used on the interior of the building (defined as inside of the weatherproofing system and applied on-site) shall comply with the requirements of the following reference standards. (See reference guide for further information.)	1	1			Specify low-VOC materials in construction documents. Ensure that VOC limits are clearly stated in each section of the specifications where adhesives and sealants are addressed. Common products to evaluate include general construction adhesives, flooring adhesives, fire-stopping sealants, caulking, duct sealants, plumbing adhesives, and cove base adhesives.
	4.2 Paints & Coatings: Paints and coatings used on the interior of the building (defined as inside of the weatherproofing system and applied on-site) shall comply with the following criteria: (See reference guide for additional requirements)	1	1			Specify low-VOC paints and coatings in construction documents. Ensure that VOC limits are clearly stated in each section of the specifications where paints and coatings are addressed. Track the VOC content of all interior paints and coatings during construction.
	4.3 Carpet Systems: All carpet installed in the building interior must meet the testing and product requirements of the Carpet and Rug Institute's Green Label Plus program. All carpet cushion installed in the building interior shall meet the requirements of the Carpet and Rug Institute's Green Label Plus program. All carpet adhesive shall meet the requirements of EQ Credit 4.1: VOC limit of 50 g/L. See reference guide for hard flooring, setting adhesives and grout	1	1			Clearly specify requirements for product testing and/or certification in the construction documents. Select products that are either certified under the Green Label Plus program or for which testing has been done by qualified independent laboratories in accordance with the appropriate requirements.
	4.4 Composite Wood & Agri-fiber Products: Composite wood or agrifiber products used on the interior of the building (defined as inside of the weatherproofing system) shall contain no added urea-formaldehyde resins. Laminating adhesives used to fabricate on-site and shop-applied composite wood and agrifiber assemblies shall contain no added urea-formaldehyde resins. Composite wood and agrifiber products are defined as: particleboard, medium density fiberboard (MDF), plywood, wheat board, strawboard, panel substrates and door cores. Materials considered fixtures, furniture, and equipment (FF&E) are not considered base building elements and are not included.	1	1			Specify wood and agrifiber products that contain no added urea-formaldehyde resins. Specify laminating adhesives for field and shop applied assemblies that contain no added urea-formaldehyde resins.
Credit 5	**Indoor chemical & pollutant source control** **Intent: To minimize building occupant exposure to potentially hazardous particulates and chemical pollutants.**					
	Design to minimize & control pollutant entry into buildings and later cross-contamination of regularly occupied areas:					
	Employ permanent entryway systems at least ten feet long in the primary direction of travel to capture dirt & particulates entering the building at regularly used exterior entrances. Acceptable entryway systems include permanently installed grates, grilles or slotted systems that allow for cleaning underneath. Roll-out mats are acceptable only when maintained on a weekly basis by a contracted service organization. Sufficiently exhaust each space where hazardous gases or chemicals may be present or used (including garages, housekeeping/laundry areas, shops of any kind, science labs, prep rooms and copying/printing rooms), to create negative pressure with respect to adjacent spaces with the doors to the room closed. For each of these spaces, provide self-closing doors and deck to deck partitions or a hard lid ceiling. (See reference guide for further information). In mechanically ventilated buildings, install new air filtration media in regularly occupied areas prior to occupancy; these filters must provide a Minimum Efficiency Reporting Value of 13 or better. Filtration should be applied to process both return and outside air that is to be delivered as supply air.	1			1	An entryway system will be installed in entry vestibules. Janitor's closets will have dedicated ventilation.

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	CREDIT INTENT & DESCRIPTION	POSSIBLE POINTS	YES	??	NO	STRATEGY
	Provide containment (i.e. a closed container for storage for off-site disposal in a regulatory compliant storage area, preferably outside the building) for appropriate disposal of hazardous liquid wastes in places where water and chemical concentrate mixing occurs (e g , housekeeping, janitorial and science labs).					All hazardous liquid wastes scheduled for disposal will be contained in the appropriate container.
Credit 6	**Controllability of systems** **Intent: To provide a high level of lighting system control and/or thermal comfort system control by individual occupants or groups in multi-occupant spaces (i.e., classrooms or conference areas) to promote their productivity, comfort and well-being.**					
	6.1 **Lighting**: Provide individual lighting controls for 90% (minimum) of the building occupants to enable adjustments to suit individual task needs and preferences. AND Provide lighting system controls for all shared multi-occupant spaces to enable adjustment that meets group needs and preferences.	1	1			Occupant control of systems will be used where applicable.
	6 2 **Thermal Comfort**: Provide individual comfort controls for 50% (minimum) of the building occupants to enable adjustments to meet individual needs and preferences Operable windows can be used in lieu of controls for occupants located 20 feet inside and 10 feet to either side of the operable part of a window. (See reference guide for further information) AND Provide comfort system controls for all shared multi-occupant spaces to enable adjustments to meet group needs and preferences (See reference guide for further information).	1	1			Building is unoccupied. Controls will be placed where applicable.
Credit 7	**Thermal Control** **Intent: To provide a comfortable thermal environment that supports occupant productivity and well-being. Provide for the assessment of building thermal comfort over time.**					
	7.1 **Design:** Design HVAC systems and the building envelope to meet the requirements of ASHRAE Standard 55-2004, Thermal Comfort Conditions for Human Occupancy. Demonstrate design compliance in accordance with the Section 6.1.1 Documentation.	1	1			Will meet ASHRAE 55.
	7 2 **Verification:** Agree to conduct a thermal comfort survey of building occupants within a period of six to 18 months after occupancy. This survey should collect anonymous responses about thermal comfort in the building including an assessment of overall satisfaction with thermal performance and identification of thermal comfort-related problems. Agree to develop a plan for corrective action if the survey results indicate that more than 20% of occupants are dissatisfied with thermal comfort in the building. This plan should include measurement of relevant environmental variables in problem areas in accordance with ASHRAE Standard 55-2004.	1	1			WSDOT to send out survey to meet this credit and will follow up on items identified by at least 20% of the survey respondents.
Credit 8	**Daylight and Views** **Intent: To provide for the building occupants a connection between indoor spaces and the outdoors through the introduction of daylight and views into the regularly occupied areas of the building.**					
	8.1 - OPTION 1: Simulation - Demonstrate through computer simulations that 75% or more of all regularly occupied areas achieving daylight luminance levels of a minimum of 25 foot-candles. See reference guide for further information.	1				
	8.1 - OPTION 2: Prescriptive - For side lighting daylight zone - See reference guide for further information. For Top -lighting daylight Zone - See reference guide for further information		1			Will be verified in final design, only spaces regularly occupied, shops will not be included in the evaluation.
	8.1 - OPTION 3: DAYLIGHT MEASUREMENT - Demonstrate, through records of indoor light measurements, that a minimum daylight illumination level of 25 foot-candles has been achieved in at least 75% (1 point) or 90% (2 points) of all regularly occupied areas. See reference guide for further information					
	8.1 - OPTION 4: COMBINATION - Any of the above calculation methods may be combined to document the minimum daylight illumination in at least 75% (1 point) or 90% (2 points) of all regularly occupied spaces. See reference guide for further information.					
	8.2 Views for 90% of Spaces: Achieve direct line of sight to the outdoor environment via vision glazing between 30" and 90" above the finish floor for building occupants in 90% of all regularly occupied areas. Determine the area with direct line of sight by totaling the regularly occupied square footage that meets the following criteria: See reference guide for further information.	1	1			**So Ops** - The Shop and the Office are the only (intermittently) occupied spaces in this building. This credit can be met by providing re-lights between Shop and Vehicle bays for direct line of sight through glazed garage bay doors to the outdoors.
	INDOOR ENVIRONMENTAL QUALITY TOTAL	15	13	0	2	

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	CREDIT INTENT & DESCRIPTION	POSSIBLE POINTS	YES	??	NO	STRATEGY
	INNOVATION & DESIGN/BUILD PROCESS					
	Intent: To provide design teams and projects the opportunity to be awarded points for exceptional performance above requirements set by the LEED-NC Green Building Rating System and/or innovative performance in Green Building categories not specifically addressed by the LEED Green Building Rating System. Note, Innovations credits do not apply, if product/strategy aids in achievement of an existing LEED credit.					
Credit 1.1	**Innovation/Process**	1			1	
Credit 1.2	**Innovation/Process**	1	1			Green building operations/ housekeeping - exclusive use of non-toxic cleaning products to maintain building. Product MSDS will be provided.
Credit 1.3	**Innovation/Process**	1	1			Provide an educational program on the environmental and human health benefits of the green building practices implemented; which might include 1) displays on benefits of green buildings, windows viewing green features, real-time energy consumption data displays, 2) events or tours focused on educational outreach.
Credit 1.4	**Innovation/Process**	1	1			Buildings serving bored tunnel - demonstrate intent to reduce site disturbance through implementing a tunnel boring strategy. Create a narrative that describes the environmental benefits and significance of tunnel boring versus extensive trenching.
Credit 1.5	**Innovation/Process**	1			1	Operational strategies - Tunnel's energy use and air quality monitoring systems for the tunnel will be controlled remotely by facilities management system.
Credit 2	**Accredited Professional**	1	1			A LEED accredited architect prepared the LEED Checklist. The Design/Builder will provide a LEED accredited person during construction.
	At least one principal participant of the project team shall be a LEED Accredited Professional (AP).					
	INNOVATION & DESIGN/BUILD PROCESS TOTAL	6	4	0	2	

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	CREDIT INTENT & DESCRIPTION	POSSIBLE POINTS	YES	??	NO	STRATEGY
	Regional Priority					
	Through USGBC's regional councils, chapters and affiliates, regionally specific environmental priorities were identified. Depending on a project's specific location, six LEED credits that address regionally prioritized environmental issues have been assigned "bonus points." That means that a project can be awarded up to four extra points – one point each – for up to four of the priority credits.					
Credit 1.1	Regional Priority	1	1			SS c3 - Brownfield Redevelopment
Credit 1.2	Regional Priority	1			1	SS c4 2 - Alternative Transportation - showers and bike racks
Credit 1.3	Regional Priority	1	1			SS c4.4 - Alternative Transportation - Parking Capacity
Credit 1.4	Regional Priority	1			1	EA c1 - Optimize Energy Performance
Credit 1.5	Regional Priority	1			1	EA c2 - On-Site Energy Performance
Credit 1.6	Regional Priority					MR c1.1 - Building Reuse
	REGIONAL PRIORITY TOTAL - 4 points maximum	5	2	0	3	
	SUSTAINABLE SITES TOTAL	26	18	3	5	
	WATER EFFICIENCY TOTAL	10	4	0	6	
	ENERGY & ATMOSPHERE TOTAL	35	2	0	31	
	MATERIALS & RESOURCES TOTAL	14	5	0	9	
	INDOOR ENVIRONMENTAL QUALITY TOTAL	15	13	0	2	
	INNOVATION & DESIGN/BUILD PROCESS TOTAL	6	4	0	2	
	REGIONAL PRIORITY TOTAL - 4 points maximum	5	2	0	3	
	TOTAL PROJECT LEED POINTS:	111	48	3	58	

CERTIFICATION LEVELS: (100 base points; 6 possible I in D, and 4 Regional Priority points)

Certified 40-49 points
Silver 50-59 points
Gold 60-79 points
Platinum 80 points and above

Appendix 8

Annotated Table of Contents

1. **DES LEED Quality Assurance (QA) Process Guidelines**
   Explains the DES LEED QA process which is required for all State funded building projects that are also operated by the State. It includes discussion the DES LEED QA processes related to the Exemption Declaration, Pre-Design, Schematic Design, Design Development, Construction Documents, and Post-Construction. The Submittal Forms that follow are the documents submitted to DES by the project teams. Also available on the DES Green Building website.
2. **DES LEED QA Submittal Forms**
   These are the actual forms to be completed during the different phases of design and at the end of construction. Each of the forms also indicates what additional documentation is required. The forms and documentation is submitted by email attachment to DES. The forms are typically completed and submitted by the Architect or sub consultant. Also available on the DES Green Building website.
3. **Metering Plan Template**
   The Metering Plan template was developed to ensure that metering is included in the State LEED projects. It is submitted with the DES LEED QA form at the Construction Documents phase of design. Also available on the DES Green Building website.
4. **Contact List for Energy and Water Consumption and Savings Reporting**
   List of contacts that have State LEED facilities that have been in operation for at least one year.
5. **Energy and Water Consumption and Savings Reporting Form**
   This form is used by the State LEED facility operators to report their energy and water use annually. Also available on the DES Green Building website.
6. **Metering and Measurement Report Form**
   This form is used by the LEED facility operators to report on-going metering challenges. It is required when no Energy and Water Consumption and Savings (E&W) Reporting form is submitted, OR when some of the data on the E&W Reporting form is prorated. This form is submitted annually. Also available on the DES Green Building website.
7. **Contact List for Agency and University Sustainable Building Reports**
   List of contacts which typically include a back-up contact for preparing the Sustainable Building Reports that are included in the Biennial High-Performance Green Building report to the Legislature.
8. **Sustainable Building Report Template**
   Used for preparing the Sustainable Building Reports to be completed by the Agency and University contacts. The reports are included in the Biennial High-Performance Green Building report to the Legislature.

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 Enterprise Services

September 2007

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) (now the Department of Enterprise Services (DES)) 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 (DES), 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.

DES 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. DES 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

DES Contact: Stuart Simpson, Sustainable Building Advisor, Program Lead
Phone: (360) 407-9376 E-Mail: stuart.simpson@des.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 on agency letterhead explaining 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 cannot 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 DES 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 DES 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 DES-SBA along with identification of free technical and financial assistance, including utility incentive programs and contact names and phone numbers. There may also be discussion regarding the Environmental Design Considerations. Attachments may include utility incentive applications.

Design Development Submittal

The Architect or owner's representative will complete the DES 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 DES 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 DES 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 submittal must also include an Energy and Water Metering Plan. A template for this plan is provided on the DES Green Building website. This DES LEED™ QA Submittal must occur at 90% through the Construction Documents phase.

GA Response

Comments will be provided by the DES-SBA as appropriate. This will include suggested activities for successful LEED™ implementation concerning the contractor, and securing utility incentives. Free two hour training for the selected General Contractor and the major Subcontractors regarding the LEED Submittal process to the Green Building Certification Institute (GBCI) will be offered by the DES-SBA.

Post Construction Submittal

The Architect or owner's representative will complete the DES LEED™ QA Submittal for Post Construction and associated forms and information. This QA Submittal includes an updated LEED™ Checklist, a LEED Building Cost and Performance Data report (template provided), and a case study (template is provided). This QA Submittal must occur at Substantial Completion or soon thereafter.

GA Response

Comments will be provided by the DES-SBA as appropriate. The LEED Building Cost and Performance Data report template, and a case study template is available on the DES Green Building website.

Closing Comment

The information submitted in this DES LEED™ Quality Assurance Process is needed for determining project status to achieve the LEED™ Silver standard. The DES 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

DES 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 DES:

Date:

Submit to: sustainableba@ga.wa.gov

Project Name:			Agency/Institution	
Project Number:				

	Name	Agency	Phone	E-Mail
Submitted By:				

Conceptual Construction Cost Estimate

Total Facility Square Footage Estimate

Project Location/Address

Facility Type Exemption*	Exempt Space Approx. %	Agency Representative Signature Block
Transmitter Building		
Pumping Station		
Hospital (not including skilled nursing)		Signature
Research Facilities with Laboratories		Name:
		Title:

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

This Exemption Submittal includes the following:

Provide a one page description of why the exemption is being sought on Agency Letterhead. ☐

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 DES LEED QA process and subsequent annual reporting of the energy and water/sewer consumption to DES. This will demonstrate a "Good Faith" effort consistent with the intent of RCW 39.35D. Complete the appropriate DES LEED QA forms as the project progresses through the design and construction process. Feedback from DES 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 DES LEED QA process.

Form Last Updated
April 2006

High-Performance Green Buildings

Received by DES:

Date:

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

Submit to: sustainableba@ga.wa.gov

Project Name			Agency/Institution	
Project Number				
Building Use				

	Name	Agency or Firm	Phone	E-Mail
Submitted By				

Conceptual Construction Cost Estimate

Total Facility Square Footage Estimate

Project Location/Address

	Yes / No
Has the project been registered with the US Green Building Council?	

	Begin SD (Date)	Begin DD (Date)	Begin CD (Date)		Begin Construction (Date)	End Construction (Date)
Project Schedule						

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				
Agency Representative				
Architect				
LEED Submittal Preparation By				

Form Last Updated
April 2006

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:	☐ New	☐ Remodel	☐ Addition

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

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

* Represents ELCCA prescriptive elements

	Renewable Energy		Yes	No	N/A
14)	Incorporate solar photovoltaic (PV) technology:		☐	☐	☐
	a)	for general building power	☐	☐	☐
	b)	for isolated loads in remote locations (e.g. crosswalks)	☐	☐	☐
15)	Solar water heater		☐	☐	☐
16)	Wind power		☐	☐	☐
17)	Heat recovery systems		☐	☐	☐
18)	Geothermal		☐	☐	☐
	Water Conservation				
19)	Waterless Urinals		☐	☐	☐
20)	Rain water/gray water collection systems		☐	☐	☐
21)	Water efficient landscaping		☐	☐	☐
22)	Water efficient fixtures		☐	☐	☐
23)	Automated lavatory faucets		☐	☐	☐
	HVAC & Electrical				
24)	Natural ventilation in lieu of mechanical cooling or partly so		☐	☐	☐
25)	Displacement ventilation		☐	☐	☐
26)	Thermal Storage		☐	☐	☐
27)	Premium efficiency motors		☐	☐	☐
28)	Independent Building Commissioning Agent hired by owner		☐	☐	☐
29)	Variable flow fans and pumping systems		☐	☐	☐
30)	Heat recovery systems (between supply and exhaust)		☐	☐	☐
31)	Evaporative cooling to augment or replace mechanical cooling		☐	☐	☐
32)	High efficiency boilers		☐	☐	☐
33)	High efficiency chillers		☐	☐	☐
	Controls				
34)	Building automation system		☐	☐	☐
35)	Carbon Dioxide monitoring (gym/multipurpose/commons, etc.)		☐	☐	☐
36)	Demand control ventilation		☐	☐	☐
	Uninterruptible Power				
37)	Fuel cells for uninterruptible power systems		☐	☐	☐

List other energy efficient items or strategies that will be considered:

Submit to GA by FAX: (360) 586-9186
or by E-Mail: ELCCA@ga.wa.gov

High-Performance Green Buildings

Received by DES:

Date:

Design Development Submittal **(submit at the end of DD)**

Submit to: sustainableba@ga.wa.gov

Project Name			Agency/Institution	
Project Number				

	Name	Agency or Firm	Phone	E-Mail
Submitted By				

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

Construction Documents Submittal **(submit at 90% CD)**

Received by DES:

Date:

Submit to: sustainableba@ga.wa.gov

Project Name:			Agency/Institution:	
Project Number:				

	Name	Agency or Firm	Phone	E-Mail
Submitted By:				

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

3 Provide the Energy and Water Metering Plan

Form Last Updated
April 2006

LEED Building Cost and Performance Data

Please complete this form to the best of your ability. This information is best completed by the State Project Manager responsible for the project and/or the Architect. Input data into yellow boxes.

Building Name/City:	
Building Gross Square Footage:	
Number of Occupants:	
Institution/University or Agency Name:	
Submitted By Name/Phone:	
LEED Level Achieved or (Expected)/Date:	
LEED Version Used (e.g. V 2.2 or V 3.0)	

Building Cost Data

Consultant Costs	Costs*
Overall Consultant Fees:	$ -
LEED Related Consultant Fees:	$ -
Commissioning Fees:	$ -
ELCCA Preparation Fees:	$ -
* Use the Application for Payment, Agreement Invoice	

LEED Submittal Fees:	$ -
Soft Cost of LEED/Overall Consultant Fees (%):	#DIV/0!

Overall Cost of LEED
$ -

Overall Project Cost (Consultant + Construction)
$ -

Cost of LEED Compared to Overall Costs (%)
#DIV/0!

Building Construction Cost Per Square Foot
#VALUE!

Construction Costs	Costs**		
Building Demolition Cost (if applicable):	$ -		
Site Work & Related Costs:	$ -		
Building Construction Costs:	$ -		
Max. Allowable Construction Costs (MACC):	$ -		LEED Elements Description
Cost of LEED Element***:	$ -	>	
Cost of LEED Element***:	$ -	>	
Cost of LEED Element***:	$ -	>	
Cost of LEED Element***:	$ -	>	
Cost of LEED Element***:	$ -	>	
Cost of LEED Element***:	$ -	>	
Added LEED Construction Cost:	$ -		List Elements not Installed or downsized due to LEED
Savings, Didn't Install Something****	$ -	>	
Savings, Didn't Install Something****	$ -	>	
Savings, Didn't Install Something****	$ -	>	
LEED Related Construction Savings:	$ -		

Total Added LEED Construction Costs:	$ -
Hard Cost of LEED/Overall Construction Costs (%):	#DIV/0!

**Use the Schedule of Values from Construction Invoice and Best Estimates

***Provide a best guess for cost. This could include solar panels, rain water capture system, or other feature that normally won't be pursued if not a LEED project.

****Didn't install something, such as a cooling system or greatly reduced the size due to natural ventilation.

Utility Incentives	Amount ($)	
Gas:	$ -	
Electric:	$ -	
Water:	$ -	
Other:	$ -	>
Total Incentives:	$ -	

Utility Incentives as % of Building Costs
#DIV/0!

Describe

Form Last Updated
August 2012

LEED Building Performance Information

Total Savings Over Baseline (energy & water)
$ -

Payback (Yrs)***
#DIV/0!

LEED Attribute	Capture this data from the LEED submittal (LEED OnLine)					
Energy Effciency and Renewable Energy	**Proposed Building**				**Baseline Building**	
	Units	$	% Savings	$ Savings	Units	$
Electricity (kWh)	-	$ -	#DIV/0!	$ -	-	$ -
Gas (Therms)	-	$ -	#DIV/0!	$ -	-	$ -
Renewable Energy, Electricity (kWh)	-	$ -	#DIV/0!	$ -		
Renewable Energy, Heat (Btu)	-	$ -	#DIV/0!	$ -		
Total Btus, Dollars & Percents	-	$ -	#DIV/0!	$ -	-	$ -
Water Efficiency						
	Gallons/Yr	$	% Savings	$ Savings	Gallons/Yr	$
Water Use Reduction (water/sewer*)	-	$ -	#DIV/0!	$ -	-	$ -
Landscape Watering (irrigation water**)	-	$ -	#DIV/0!	$ -	-	$ -
Captured Water (irrigation or interior water)	-	$ -	Calculate >>	$ -		
Total Water Saving	-	$ -	#DIV/0!	$ -	-	$ -

Stormwater Management		
	Points 0-2	
Stormwater Control Quality and Quantity		
Alt. Transportation Sources & Walkability		
	Points	
Density & Community Connectivity		
Public Transportation		
Bike Racks & Showers		
Total Points	0	
Construction Waste Recycling		
	Tons	%
Construction Waste Recycled		
Use of Recycled Content Materials		
	$	%
Recycled Content Materials		
Use of Regional Materials		
	$	%
Regional Materials		
Protect Forests, Support Sustainable Forestry		
	Points	
Ceterified Wood		
Good indoor Air Quality		
	Points	
Const. IAQ Management Plan		
Low-Emitting Materials		
Indoor Chemical & Pollutant Source Control		
Total Points	0	
Access to Natural Light		
	Points 0-2	
Daylight & Views		

Also Submit:

A Case Study (Template Provided @ ga.wa.gov/eas/green)	
Final LEED Scorecard	

* Default value used for water/sewer costs of $6/1000 gallons

**Default value used for irrigation water only $2.50/1000 gallons

*** Payback doesn't include many of the intangibles. These can result in greater savings than from energy and water alone. Increased productivity, reductions in sick leave, and worker retention can far outway utility savings. Also environmental benefits can be substantial in moving Washington to its goals. Government must lead by example.

Form Last Updated
August 2012

High-Performance Green Buildings

Alternative LEED Point Compliance Form: Use of Sustainable Forest Initiative 3rd Party Certified or Washington Wood

Received by DES:	

Date:

Submit to: sustainableba@ga.wa.gov

Project Name			Agency/Institution	
Project Number				

	Name	Agency or Firm	Phone	E-Mail
Submitted By				

Compliance Path Selected (check box):

1) Credible 3rd Party (SFI Certified Wood)

2) Washington Forest Practices Act

Required submittal information:

Complete, print, scan and submit the LEED Template for MR c 7 Certified Wood as if the project was going to comply with the LEED MR c 7 credit. This is to provide the value ($) compliance calculation. This must be accompanied by the credible 3rd party documentation or documentation demonstrating that the wood came from forests regulated under the Washington Forest Practices Act.

This information should also be scanned and submitted to DES. Submit information by email attachment to: sustainableba@ga.wa.gov

State LEED Project
Energy and Water Metering Plan

Submit to: GASustainableBA@ga.wa.gov
& Stuart Simpson: stuart.simpson@des.wa.gov

Project Name: project name Date: date
Project Number: project number
Institution or Agency Name: Institution or Agency Name
Submitted By: Name Phone: phone #
Email: email address
State Project Manager: Name Phone: phone #
Email: email address

Provide a brief description of how the following will be measured in the proposed LEED building. If the project will not be using a form of energy or irrigation shown below, simply indicate "NA" in that space. The description should be adequate to describe how the owner will measure the energy and water use on a monthly basis. The owner will in turn report that usage to General Administration on an annual basis per RCW 39.35D. This plan is to ensure that a monitoring strategy has been developed for each State LEED project. This plan must be submitted as part of the Construction Documents submittal in the GA LEED QA process.

Electricity:

Gas:

Other heating fuel (oil, propane, wood, steam, or hot water): fuel

Chilled water:

Domestic Hot Water:

Water:

Irrigation:

Reclaimed or captured water:

Renewable Energy Generated:

ESSB 5509 Last Update: August 8, 2012

Energy and Water Reporting Contacts

Agency/Inst.	Name	Phone	Position	E-mail	Facilities Managed
UW	Norm Menter	206-221-4269	Energy Manager	nmenter@u.washington.edu	UW Seattle
UWT	Milt Trembly		Energy Manager	milt@u.washington.edu	UW Tacoma
WSU	Jude Durfey	509-335-5572	Assist. to VP Facilities	jkdurfey@wsu.edu	WSU, WSUS & WSUV
WSU-V	Kevin Crowley	360-546-9706	EH&S Coordinator	kevin.g.crowley@vancouver.wsu.edu	WSUV
WWU	Ed Simpson	360-650-3231	Capital Construction Mgr.	ed.simpson@wwu.edu	WWU
EWU	Shawn King	509-359-4333	Director of Construction	ktraver@facilities.ewu.edu	EWU
CWU	Bill Vertrees	509-963-1013	AVP for Faciltities	vertreeb@cwu.edu	CWU
CWU	Bill Yarwood	509-963-1120		yarwoodb@cwu.edu	CWU
CWU	Mickey Parker	509-963-1275	Assist. to VP Facilities	parkerm@cwu.edu	CWU
TESC	Paul Smith	(360) 867-6115	Director of Facilities	smithpa@evergreen.edu	The Evergreen State College
TESC	Azeem Hoosein	360-867-6041		hoosenia@evergreen.edu	The Evergreen State College
DOC	Kent Nugen	360.725.8353	Deputy Ass. Director	kdnugen@doc.wa.gov	DOC
DOC	Julie Vanesste	(360) 725-8396	RCM	julie.vanneste@doc.wa.gov	DOC
DOC	Sam Harris	509-544-3520		samuel.harris@doc.wa.gov	Coyote Ridge Corrections Center
DSHS	Nancy Deakins	360-902-8161	Deputy Ass. Director	deakink@dshs.wa.gov	DSHS
Bellevue Coll.	Deric Gruen	425-564-2720		deric.gruen@bellevuecollege.edu	Bellevue College
Centralia CC	Gil Elder	360-736-9391 X434	Facilities Director	gelder@centralia.edu	Centralia CC
Clark College	Jim Green	360-992-2408	Facilities Director	jgreen@clark.edu	Clark Coll. & E. Co. Sat. Campus
Columbia Basin C	Bill Saraceno	509-542-5546		bsaraceno@columbiabasin.edu	Columbia Basin College
Everett CC	Molly Beeman	425-388-9070	RCM	mbeeman@everettcc.edu	Everett Community College
Lk WA Inst. Tech	Casey Huebner	425-739-8100 X8460		casey.huebner@lwtech.edu	Lk WA Institute of Technology
Skagit Valley Coll.	Dave Scott	360-416-7751	Director of Facilities	dave.scott@skagit.edu	Skagit Valley College
Tacoma CC	Dave Moffat	253-566-6047		dmoffat@tacomacc.edu	Tacoma CC
Walla Walla CC	James Peterson	509-527-4686		james.peterson@wwcc.edu	Walla Walla CC
WA St.Sch. Blind	Robert Tracey	360-696-6321 X131	Maintenance Supervisor	rob.tracey@wssb.wa.gov	WA State School for the Blind
WA Sch.for the Deaf	Warren Pratt	360-418-4293	Facilities Manager	warren.pratt@wsd.wa.gov	WA School for the Deaf
WA St. Military Dept.	Adriana Bunker	253-512-7992	RCM	adriana.bunker@mil.wa.gov	Youth Acdy, Armories, Cp. Murray
State Parks	Billie-Gwen Russell	360-902-8541	RCM	Billie-Gwen.Russell@Parks.wa.gov	State Parks

State LEED Project | **LEED Level Achieved:** | **Date:** | Submit by email to: SustainableBA@ga.wa.gov

Energy and Water Consumption and Savings Reporting Form

Complete all applicable yellow boxes.

Submit as an Excel Spreadsheet

Required per RCW 39.35D.030 (3)(b)

Due: June 1, 2012

To print use legal size paper

Building Name:

Institution Name:

Location:

University/Agency:

Approx. Occupancy Date:

Building Use:

Primary HVAC:

Building Square Footage:

Submitted By:

Phone:

Email:

Value from Renewables ($/yr):

%/Year

Average Hours/Wk:

No. of People:

Average Hours/Wk:

No. of People:

Melded Electric Rate ($/kWh):

Melded Gas Rate ($/therm):

Other Fuel Rate ($/MMBtu):

List Other Fuel:

Metered Data:

Prorated Data:

No. of Lab Hoods:

Other High Energy Using Equipment(describe):

Renewable Energy Systems (describe):

Year:	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
ENERGY													
Electricity (kWh)													0
Electricity ($)													$ -
Gas (therms)													0
Gas ($)													$ -
Other: (KBtu)													0
Other: ($)													$ -
Chilled Water (KBtu)*													0
Hot Water (KBtu)**													0
Steam (KBtu)**													0
Domestic HW (KBtu)**													0
RENEWABLES													
Solar Thermal (KBtu)													0
Electrical (kWh)													0
WATER													
Interior water (gals)													0
Interior water/sewer ($)													$ -
Domestic HW (gals)													0
Water captured (in)(gals)													0
Reclaimed water (in)(gals)													0
Reclaimed water (in)($)													$ -
Irrigation (gals)													0
Irrigation ($)													$ -
Water captured (out)(gals)													0
Reclaimed water(out)(gals)													0
Reclaimed water (out)($)													$ -

Water Use/Person/Yr: #DIV/0! | KBtu/SF/Year (EUI): #DIV/0! | Energy $/SF/Year: #DIV/0! | Total Cost/SF/Year: #DIV/0!

See Below for Explanations regarding data for each of the cells

*Chiller and distribution systems combined efficiency calculated at 2 KW/Ton.

**Central plant and distribution systems combined annual average efficiency calculated at 65%.

Explanations

Building Name: Name of the building
Institution Name: Prison name, college name, institution site name, etc.
Location: Nearest city or town
University/Agency: Name of University or Agency; ie. UW, CWU, DSHS, DOC, etc.
Approx. Occupancy Date: The date the building became occupied. This is important when determining if the building is still in the first year of operation.
Submitted By: Person completing this form
Phone: Phone number for the person completing this form
Email: Email address of the person completing this form

Building Use: Describe the major uses of the building; ie. Classrooms, Offices and Science Labs; Gym, Classroom and Lockers; Medium Security Housing; etc.
Primary HAVC: Describe the primary HVAC system serving most or all of the building.
Building SF: Square footage of conditioned space. Covered parking would not be included.
No. Lab Hoods: Hoods have a big impact on energy use. Show the number of lab hoods in the building.
Other High Energy Equip.: Welding equipment, server rooms, computer labs, etc. Show number and size of equipment load and/or square footage as appropriate.
Renewable Systems: Describe the renewable energy systems installed on and in the building (ie. 10KW Solar PV panels, 100 SF of solar hot water panels, 5KW wind turbine, etc.)
Hours/Wk Use: Average normal hours of use; ie. 50 hours/week, 24/7 = 168 hours/week, etc.
No. of People Average number of people occupying the building during the occupied hours. Two different periods are provided in case of lower use periods, such summer quarter at colleges and universities.

Value from Renewables Calculated energy cost savings based on sales of electricity, electricity offset, and/or thermal energy generated. Use energy cost per unit of energy to calculate savings.
Melded Elec. Rate ($/kWh): The melded rate is calculated by taking the total electric bill divided by the total kWhs consumed. It would include the demand charge and any base charges.
Melded Gas Rate ($/therm): The melded rate is calculated by taking the total gas bill divided by the total therms consumed. It would include the demand charge and any base charges.
Other Fuel Rate ($/MMBtu): For central plants that use a fuel besides natural gas, calculate the cost per MMBtu. ($/Million Btu)
Metered Data: List the following letters to indicate metered commodities: E=Electricity, G=Gas, S=Steam, HW=Hot Water, O=Other, W=Water (I.E. **E/G/W**)
Prorated Data: List the following letters to indicate prorated commodities: E=Electricity, G=Gas, S=Steam, HW=Hot Water, O=Other, W=Water (I.E. **E/HW**)

ENERGY	Not all energy units below will be used in any one building. Only fill in the fuels that pertain to the facility.
Electricity (kWh)	Electricity usage in the building by month from the bill or submeter
Electricity ($)	Electricity cost from the bill or multiply the usage times the average cost per kWh taken from the overall campus bill
Gas (therms)	Gas usage in the building by month from the bill or submeter
Gas ($)	Gas cost from the bill or multiply the usage times the average cost per therm taken from the overall campus bill
Other: (KBtu)	Other usage such as propane, oil, wood, coal, etc. Provide usage in Btus. Convert gallons, cords, tons, etc. into KBtus (Thousands of Btus).
Other: ($)	Monthly cost of the "other" fuel
Chilled Water (KBtu)	Monthly KBtus of chilled water used in the facility when served by a central plant. Leave blank if the chiller is included in the electric units above.
Hot Water (KBtu)	Monthly KBtus of hot water used in the facility when served by a central plant. Leave blank if the hot water is included in the energy units above (gas, "other" or electric).
Steam (KBtu)	Monthly KBtus of steam used in the facility when served by a central plant. Leave blank if the steam is included in the energy units above (gas, "other" or electric).
Domestic HW (KBtu)	Enter the domestic hot water use only if provided by a central plant or from another building.
RENEWABLES	Renewable energy projects generating heat or electricity to the building. Electrical energy used may be reduced by the electricity generating renewable.
Solar Thermal (KBtu)	Monthly KBtus generated by the solar hot water heater and used in the facility.
Electrical (kWh)	Monthly kWhs generated by the photovoltaic panels, wind turbines or other renewable energy generating units
WATER	Collect measurements of all the different water resources being used or captured.
Interior water (gals)	Water used in the building for toilets, urinals, sinks, showers, etc. (total all water sources used IN the building)
Interior water/sewer ($)	Costs for water and sewer.
Domestic HW (gals)	Only provide this if domestic hot water is provided by a central plant or other outside the building.
Water captured (in)(gals)	Gallons of rain water, gray water or site water captured and used in the building for flushing toilets and urinals.
Reclaimed water (in)(gals)	Reclaimed water purchased from a city or sewer utility that is used **in** the building for flushing toilets and urinals.
Reclaimed water (in)($)	Cost of reclaimed water used in the building. Calculated based on water costs from provider.
Irrigation (gals)	Irrigation usage for the area defined by the LEED project area around the building. If this is not separated for the LEED project area, do not include this here.
Irrigation ($)	Cost of the water used for irrigation of the LEED project area.
Water captured (out)(gals)	Gallons of captured water used for irrigation. Rain water, gray water or other site water captured.
Reclaimed water(out)(gals)	Reclaimed water purchased from a city or sewer utility that is used for irrigation or other purposes outside the building.
Reclaimed water (out)($)	Cost of reclaimed water used outside the building (irrigation or other).

Metering and Measurement Report (Template)

This purpose of this report is to document issues related to the gathering of energy and water consumption data.

It is required in the event that the Energy and Water Consumption and Savings Reporting Form cannot be completed for a LEED Building or if some of the data in the reporting form is "prorated". Complete one of these Reports for each LEED building that is not represented by an Energy and Water Consumption and Savings Reporting Form (Excel Spreadsheet), or where some of the data is prorated. This report will be included in the Green Building Report to the Legislature.

Submit completed report(s) to: SustainableBA@ga.wa.gov Due Date: June 1, 2012.

Building Name: ____
Institution Name: ____
Approximate Occupancy Date: ___________________________________
Submitted By: ____ Date: ______________
Phone: ______________________ Email: ____

(___) This building will not be participating in reporting energy and water data per RCW 39.35D. (check if applicable).

Provide and explanation of the metering and/or measurement systems established. Indicate if there have been any problems collecting the needed data. Also indicate when problems will be resolved:

Electricity:

Gas/Steam/HW:

Water (interior):

Other:

ESSB 5509 Last Update: August 8, 2012

Affected Agency Contacts

Agency/Inst.	Name	Phone	Position	E-mail	Projects Managed
DES	Paul Szulanski	360-407-9333	Acting E&AS Supervisor	paul.szumlanski@des.wa.gov	GA, Community & Tech Colleges, Agencies
DES	Bob Dixon	360-407-9346	Deputy EAS Supervisor	bob.dixon@des.wa.gov	GA, Community & Tech Colleges, Agencies
DES	Stuart Simpson	360-407-9376	Green Building Advisor	stuart.simpson@des.wa.gov	Tracks All State LEED Projects
DOT	Mark Scott	360-705-7367	Project Manager	scottm@wsdot.wa.gov	DOT Ferries facilities
DOT	Terrie Sinclair-Olson	360-705-7360	Project Delivery Mgr	sinclat@wsdot.wa.gov	DOT facilities
DNR	Dennis Flynn	360-902-1163	Facilities Manager	dennis.flynn@drn.wa.gov	DNR facilities
DFW		360 902-2200			DFW facilities
Parks	Richard Brown	360-902-0932	Construction Mgr.	richard.brown@parks.wa.gov	Parks facilities
Parks	Billie-Gwen Russel	360-902-8541	RCM	Billie-Gwen.Russell@Parks.wa.	State Parks
UW	Clara Simon	206-543-2258	Sustainability Manager	simonch@u.washington.edu	UW, UWT & UWB facilities
WSU	Jude Durfey	509-335-5572	Assist. to VP Facilities	jkdurfey@wsu.edu	WSU, WSUS & WSUV
WSU	Jeff Lannigan	509-335-3766		jeff.lannigan@wsu.edu	WSU
WWU	Ed Simpson	360-650-3231	Capital Construction Mgr.	ed.simpson@wwu.edu	WWU facilities
EWU	Shawn King	509-359-4333	Director of Construction	ktraver@facilities.ewu.edu	EWU fatilities
CWU	Mickey Parker	509-963-1275	Assist. to VP Facilities	parkerm@cwu.edu	CWU facilties
CWU	Bill Vertrees	509-963-1013	AVP for Faciltities	vertreeb@cwu.edu	CWU facilties
CWU	Bill Yarwood	509-963-1120		yarwoodb@cwu.edu	CWU facilties
TESC	Paul Smith	(360) 867-6115	Director of Facilities	smithpa@evergreen.edu	Evergreen State College facilities
DOC	Kent Nugen	360.725.8353	Deputy Ass. Director	kdnugen@doc.wa.gov	DOC facilities
DOC	Julie Vanesste	(360) 725-8396	RCM	julie.vanneste@doc.wa.gov	DOC facilities
DSHS	Nancy Deakins	360-902-8161	Deputy Ass. Director	deakink@dshs.wa.gov	DSHS facilities
Commerce	Dena Harris	(360) 725-2902	Program Manager	dena.harris@commerce.wa.gov	CTED - Affordable Housing Grants
Commerce	Mike Kendall	(360) 725-3073	Program Coodinator	michaelk@cted.wa.gov	CTED - Local Gov & Non-Profits Grants

Sustainable Building Report
University/Department of *Name*
Date

Sustainable Building Report Template

Reported by: *Name*
Phone
E-mail

Overview

Short paragraph explaining the commitment to designing, building, and certifying to LEED Silver.

Projects

Project Name – Substantial Completion or Occupancy Date – Achieved LEED Level.
Project Name – Substantial Completion or Occupancy Date – Achieved LEED Level.
Project Name – Phase of Design or Const. – Projected Completion Date – Expected LEED Level.
Project Name – Phase of Design or Const. – Projected Completion Date – Expected LEED Level.

Training Efforts

Short paragraph describing the LEED/High Performance training efforts provided for project management staff.

Lessons Learned

What lessons were learned by your agency regarding the implementation of the LEED Silver requirement? What changes were made to your process that helped make your agency successful? Provide attachments as appropriate (samples of documents, spreadsheets, specs, etc.)

Recommended Improvements to the Legislation

Describe what improvements could be made to make achieving LEED Silver easier. This might include incentives, disincentives, or (others?).

New Metering Efforts and Challenges

Describe the standards or strategies established to meter energy and water in all LEED buildings. Include a description of the challenges encountered in getting meters installed and operational, and in establishing an on-going tracking and reporting system.

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Submit this report to Stuart Simpson, DES Sustainable Building Advisor, by e-mail.
stuart.simpson@des.wa.gov & sustainableBA@des.wa.gov

This report should be no more than three pages. No photographs or LEED Checklists please. LEED Certified projects should have a Case Study prepared with photos and LEED Checklist submitted separately. See the Case Study Template, and completed case studies and previous Sustainable Building Reports in the 2010 Green Building Report: http://www.ga.wa.gov/eas/green/

Due date: July 6, 2012

This will satisfy some of the annual reporting requirements dictated by RCW 39.35D.