

Captain Jimmy Evans Performance Center

Monroe Correctional Complex, Monroe, WA



LEED Version 2.0 Gold



Owner:	WA Dept. of Corrections	
Project Team:	Architect:	Ambia, Inc.
	Contractor:	Graham Contracting, Ltd.
	Engineers & Consultants:	Hultz/BHU/Cross, Hatton Godat Pantier, Sargent Engineers, Eagle Harbor Associates, Mastercraft Electric
Building Statistics:	Completion Date:	September, 2005
	Cost:	\$209 per ft²
	Size:	10,972 gross ft²
	Construction Type:	Commercial
	Annual Energy Use:	501 MBtu/yr

Sustainable Sites:

- **Alternative Transportation:** Two bus lines within ¼ mile, bicycle storage and changing area/showers nearby. No new parking capacity added to site other than preferred parking for car/vanpools and handicapped.
- **Stormwater Management:** No increase in stormwater runoff due to very limited parking, roof rainwater capture system, and use of existing detention pond.
- **Reduction of Heat Islands:** 100% of roof surface covered by Energy Star rated membrane with an emissivity of at least 0.9.

Water Efficiency:

- **Water Efficient Landscaping:** No irrigation system installed. Landscape includes only native or regionally acclimated vegetation.
- **Innovative Wastewater Technologies:** Roof rainwater harvesting for toilet flushing and waterless urinals reduced potable water usage for sewage conveyance by 74% over a baseline design.



Rainwater Harvesting System

- **Water Use Reduction:** A combined water usage reduction of 37% through the installation of low-flow plumbing fixtures, waterless urinals and rainwater harvesting.

Energy & Atmosphere:

- **Optimize Energy Performance:** This building performs 27% better than the baseline design. This was accomplished by high boiler efficiencies, improved insulation for roof and walls, HVAC types, reduced lighting power densities, lighting motion sensors, and building operation scheduling.
- **Additional Commissioning:** Additional commissioning was contracted and completed.

- **Ozone Protection**: Selection of cooling systems included no HCFC's or halons.
- **Measurement & Verification**: A building control and monitoring system was installed and trends all operational parameters. A Measurement & Verification Plan was written to address the data collection and analysis of these parameters.
- **Green Power**: Purchased green tags representing 100% of the baseload electricity requirements for 2 years.

Materials & Resources:

- **Construction Waste Management**: By using a commingled trash hauler and recycler, this project accomplished a 82% recycled rate for construction waste.
- **Recycled Content**: 15.6% of the building materials were manufactured using recycled material.
- **Local/Regional Materials**: Over 43% of the total building materials, by cost, were manufactured locally.

Indoor Environmental Quality:

- **Carbon Dioxide Monitoring**: CO₂ monitors were installed in all return air ducts for outside air control.
- **Construction IAQ Management**: A post-construction two week flushout, using MERV 13 filters was conducted before occupancy.
- **Low Emitting Materials**: All adhesives, paints, sealants, carpets and composite wood products were selected based upon their low to no VOC or formaldehyde content.
- **Indoor Chemical and Pollutant Source Control**: This credit was accomplished by installing walk-off mats, independently vented janitor room, a ventilation fan for the copy machine area, and non-toxic cleaning chemicals for everyday use.
- **Thermal Comfort**: All office windows have operable controls and also include zone thermostats for additional heating or cooling. All zones are permanently monitored for temperature, humidity, and CO₂.
- **Daylight and Views**: 90% of all normally occupied spaces have line-of-sight views to the outside.

Innovation & Design Process:

- **Green Seal Cleaning, Construction**: Green Seal certified cleaning chemicals were used during and post-construction.
- **Ongoing Facility Sustainability Education Program**: All facility staff receive sustainability and green building education in mandatory annual training.
- **Green Power**: Exemplary performance for the purchase of 100% green power for the baseload electricity purchased.

Revised Project Scorecard

LEED™ Scorecard of 9/26/2005

39	30	Total Project Score	Possible Points 69
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Certified 26 to 32 points Silver 33 to 38 points Gold 39 to 51 points Platinum 52 or more points

8	6	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

5	8	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 25% 1
1			Credit 4.2	Recycled Content, Specify 50% 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

5	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

10	5	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 (CO₂) Monitoring 1
		1	Credit 2	Increase Ventilation Effectiveness 1
		1	Credit 3.1	Construction IAQ Management Plan, During Construction 1
1			Credit 3.2	Construction IAQ Management Plan, Before Occupancy 1
1			Credit 4.1	Low-Emitting Materials, Adhesives & Sealants 1
1			Credit 4.2	Low-Emitting Materials, Paints 1
1			Credit 4.3	Low-Emitting Materials, Carpet 1
1			Credit 4.4	Low-Emitting Materials, Composite Wood 1
1			Credit 5	Indoor Chemical & Pollutant Source Control 1
		1	Credit 6.1	Controllability of Systems, Perimeter 1
		1	Credit 6.2	Controllability of Systems, Non-Perimeter 1
1			Credit 7.1	Thermal Comfort, Comply with ASHRAE 55-1992 1
1			Credit 7.2	Thermal Comfort, Permanent Monitoring System 1
		1	Credit 8.1	Daylight & Views, Daylight 75% of Spaces 1
1			Credit 8.2	Daylight & Views, Views for 90% of Spaces 1

7	10	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
			Credit 3	Additional Commissioning 1
1			Credit 4	Ozone Depletion 1
1			Credit 5	Measurement & Verification 1
1			Credit 6	Green Power 1

4	1	Innovation & Design Process		Possible Points 5
Y	?	N		
1			Credit 1.1	Innovation in Design: Green Cleaning Products 1
1			Credit 1.2	Innovation in Design: Green Training Program 1
1			Credit 1.3	Innovation in Design: 100% Green Power 1
		1	Credit 1.4	Innovation in Design: Water Reclaim System Education 1
1			Credit 2	LEED™ Accredited Professional 1