

LEED - NC

Version 2

How to Interpret this Report

- Purpose The Leadership in Energy and Environmental Design (LEED) Rating System was designed by the US Green Building Council to encourage and facilitate the development of more sustainable buildings. The Rosa Parks Elementary School project was evaluated according to this system and the Final Rating is totaled below.
- Environmental The report is organized into five environmental categories as defined by Categories LEED including: Sustainable Sites, Water Efficiency, Energy and Atmosphere, Materials and Resources and Indoor Environmental Quality. The category of Innovation and Design Process is also included.
- LEED Prerequisites must be achieved. Non-compliant prerequisites must be Prerequisites resolved before a certification can be awarded.
- LEED Credits The environmental categories are subdivided into the established LEED credits, which are based on desired performance goals within each category. An assessment of whether the credit is earned, pending, or rejected is made and a narrative describes the basis for the assessment.
  - Achieved The applicant has provided the mandatory documentation which supports the achievement of the credit requirements, achieving the associated points. Currently the project has scored the adjacent points in this category.
    - Denied The applicant has applied for a point in a particular credit, but has misinterpreted the credit intent or cannot substantiate meeting the requirements. Currently the project has the adjacent points in this category.

# Rating Final Rating is Gold

Official LEED v2 Scores: Certified: 26-32 Silver Rating: 33-38 Gold Rating: 39-51 Platinum Rating: 52 +



LEED Project 10002892





#### Reduced Site Disturbance, Development Footprint

Preliminary Review: The signed LEED Letter Template has been provided declaring that the project has provided open space to exceed local zoning requirements by a minimum of 25%. The project has provided 32,563 s.f. of open space. This is 25.3% more than the minimum code requirements.



#### Stormwater Management, Rate and Quantity

Preliminary Review: The LEED Submittal Template has been provided declaring that the project has implemented a stormwater management plan that results in no net increase (rate and quantity) in runoff from calculated pre-project conditions, for a 1.5 year, 24 hour peak discharge.

A narrative has been provided describing the project's stormwater management plan and pre/post development stormwater rate and quantity calculations to support this claim.



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#### Stormwater Management, Treatment

Preliminary Review: The signed LEED Letter Template has been provided declaring that the project has been designed in accordance with the refenenced EPA Standard's best management practices for removal of TSS and TP. The project is reporting a minimum 80% TSS and 40% TP removal based on estimated loading from a 2-year / 24-hour storm event.

A narrative describing the project's stormwater management plan and pre/post development stormwater rate and quantity calculations have been provided to support this claim. Calculations have been provided to demonstrate compliance with the requirements of this credit.

#### Landscape & Exterior Design to Reduce Heat Islands, Non-Roof Surfaces

Preliminary Review: The signed LEED Letter Template has been provided declaring that a minimum of 30% of the non-roof impervious surfaces on-site have been paved with highly reflective materials. Calculations provided in the submittal claim that of the 29,855 s.f. of total non-roof impervious surfaces, 18,445 s.f. (62%) have been paved with non-colored concrete. A site plan showing the extents of the paved areas, has been provided.

#### Landscape & Exterior Design to Reduce Heat Islands, Roof Surfaces

Preliminary Review: The LEED v2.2 Submittal Template has been provided verifying that the roofing materials used on the project are compliant with SRI values for a minimum of 75% of the roof surface.

#### Light Pollution Reduction

#### Credit 8-Version 2.1

Credit 7.2-Version 2.1

Preliminary Review: The signed LEED Letter Template has been provided declaring that the project's exterior lighting has been designed in accordance with the referenced IESNA guidelines. A site illumination plan, with summary calculations, has been provided to support achievement of this credit.

The project team has provided a narrative explaining that due to zero lot line conditions, the exterior lighting design has exceeded project boundary candela restrictions of the credit in certain areas. The narrative states that in those areas it was not possible to comply with the credit's light spill restrictions, while simultaneously providing security and egress lighting. These areas are adjacent to an illuminated street. Given these conditions, exceeding the illuminance levels at the project boundary is deemed acceptable here.

Credit 6.1-Version 2.1

Credit 6.2-Version 2.1

Credit 7.1-Version 2.1

Credit 5.2-Version 2.1

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A - Achieved

D - Denied

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D Α 2 Water Efficiency **Possible Points 5** Water Efficient Landscaping, Reduce by 50% Credit 1.1-Version 2.1 1 Preliminary Review: The signed LEED Letter Template has been provided declaring that the installed irrigation systems reduce potable water consumption by 60% from a calculated baseline case. A narrative has also been included describing the installed irrigation systems and landscape species. Credit 1.2-Version 2.1 Water Efficient Landscaping, No Potable Use or No Irrigation Not Attempting Preliminary Review: No Comments. Credit 2-Version 2.1 **Innovative Wastewater Technologies** Not Attempting Preliminary Review: No Comments. Water Use Reduction, 20% Reduction Credit 3.1-Version 2.1 1 Preliminary Review: The signed LEED Letter Template and water use calculations have been provided declaring that the project has reduced potable water use by 24% from a calculated baseline design through the installation of low-flow lavatories with 10-second auto control. Credit 3.2-Version 2.1 Water Use Reduction, 30% Reduction Not Attempting Preliminary Review: No Comments.

#### LEED <sup>™</sup>Certification A - Achieved 8/30/2007 D - Denied Α D Energy & Atmosphere 1 **Possible Points 17** 6 Fundamental Building Systems Commissioning Prerequisite 1-Version 2.1 0 Preliminary Review: The signed LEED Letter Template has been provided declaring that the fundamental commissioning requirements have been completed or are under contract. Prerequisite 2-Version 2.1 Minimum Energy Performance 0 Preliminary Review: The signed LEED Letter Template has been provided declaring that the project complies with the minimum energy performance requirements of ASHRAE 90.1-1999. CFC Reduction in HVAC&R Equipment Prerequisite 3-Version 2.1 0 Preliminary Review: The signed LEED Letter Template has been provided declaring that base building HVAC&R systems use no CFC-based refrigerants.

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Final LEED v2 Review



# A D

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#### Optimize Energy Performance, 20% New /10% Existing

Credit 1.1-Version 2.1

Preliminary Review: The signed LEED Letter Template and supporting documentation have been submitted claiming that the project performs 22.6% better than ASHRAE 90.1-1999 requirements using the LEED ECB method. However, further documentation is required to support this claim:

The project submittal must include a quantitative summary table showing the energy savings measures incorporated in the building design; this table must include detailed data on both design and budget assumptions. This table should include both budget case and design energy case descriptions for [1] wall, roof, and floor assemblies including framing type, assembly R-values, assembly U-values, and roof reflectivity; [2] fenestration window-to-gross wall ratio, assembly U-values (including the impact of the frame on the assembly in accordance with ASHRAE 90.1-1999 Table A-17) and SHGCs; [3] HVAC system type(s) and efficiencies; [4] fan volume, power, and controls; [5] description of service water heating system type(s), efficiency, and storage tank size(s) [6] lighting power densities, and any lighting control credits taken; [7] process or equipment loads modeled for the building. [8] Building operating schedule summary. The table should provide sufficient information to justify all energy savings.

Energy Simulation Output summaries were not provided with the submitted documentation.

#### **TECHNICAL ADVICE:**

1. Include a quantitative summary table. A sample EAc1 submittal that includes the quantitative summary table and Energy Cost Budget table is located on the USGBC website. It is recommended that the project team refer to this sample while preparing the final EAC1 documentation. To view this document, go to www.usgbc.org and click on LEED in the upper right of that page. Click on New Commercial Construction and Major Renovation projects. Scroll down to LEED for New Construction Version 2.1 Rating System Resources, and select Sample EAc1 Documentation.

Please provide the following simulation output summary printouts from the simulation software: ASHRAE 90.1-1999 or LEED compliance summaries (if available from the simulation software) OR

Output summaries from the energy simulation software including energy consumption by end use, as well as total building energy consumption and cost by energy type.

The requested simulation output summary data includes BEPS & ES-D reports from DOE-2 simulation output.

Final Review Revised documentation has been submitted declaring that the project performs 24.45% better than ASHRAE 90.1-1999 requirements using the LEED ECB Method. Supporting documentation substantiates the projected level of savings. Energy efficiency measures incorporated into the building design include improved wall and roof insulation, slightly improved window performance, low installed lighting power densities, improved cooling efficiencies, a high performance boiler, and VSD fans.

1	Optimize Energy Performance, 30% New /20% Existing Preliminary Review: See Comments under EAc1.1.	Credit 1.2-Version 2.1
Final Review	See Comments under EAc1.1.	
Not Attempting	Optimize Energy Performance, 40% New /30% Existing Preliminary Review: No Comments.	Credit 1.3-Version 2.1
Not Attempting	Optimize Energy Performance, 50% New /40% Existing Preliminary Review: No Comments.	Credit 1.4-Version 2.1

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A - Achieved D - Denied		LEED	8/30/2007
A D Not Attempting	Optimize Energy Performance, 60% New /50% Existing Preliminary Review: No Comments.	Cr	edit 1.5-Version 2.1
Not Attempting	Renewable Energy, 5% Contribution Preliminary Review: No Comments.	Cr	edit 2.1-Version 2.1
Not Attempting	Renewable Energy, 10% Contribution Preliminary Review: No Comments.	Cr	edit 2.2-Version 2.1
Not Attempting	Renewable Energy, 20% Contribution Preliminary Review: No Comments.	Cr	edit 2.3-Version 2.1
1	Additional Commissioning Preliminary Review: The signed LEED Letter Template has been provided der additional commissioning elements have been completed or are under contract	claring tha	
	Ozone Protection Preliminary Review: The signed LEED Letter Template has been provided dee HVAC&R systems use no HCFC-based refrigerants or Halons.		Credit 4-Version 2.1 It base building

A - Achieved D - Denied



#### Measurement & Verification

#### Credit 5-Version 2.1

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Preliminary Review: The signed LEED Letter Template has been provided declaring that the project has developed and implemented a measurement and verification plan consistent with Option C of the IPMVP. A copy of the project's M&V plan has been provided.

The plan does not include all of the elements required to comply with this credit. Guidance on M&V plan requirements is presented in the LEED NCv2.1 Reference Guide page 176.

#### TECHNICAL ADVICE:

Please provide a revised copy of the project's M&V plan. The revised plan should include the following information:

- 1- Indicate who will conduct the M&V.
- 2- State key assumptions about significant variables or unknowns.
- 3- Create an accurate baseline using techniques appropriate to the project.
- 4- Describe the method of ensuring accurate energy savings determination.
- 5- Define a post installation inspection plan.
- 6- Specify criteria for equipment metering, calibration, measurement period.
- 7- Define the level of accuracy to be achieved for all key components.
- 8- Indicate quality assurance measures.
- 9- Describe the contents of reports to be prepared, along with a schedule.
- 10- IPMVP standard language and terminology should be employed.

#### Requirements Install continuous metering equipment for the following end-uses: Lighting systems and controls Constant and variable motor loads Variable frequency drive (VFD) operation Chiller efficiency at variable loads (kW/ton) Cooling load Air and water economizer and heat recovery cycles Air distribution static pressures and ventilation air volumes Boiler efficiencies Building-related process energy systems and equipment Indoor water risers and outdoor irrigation systems Develop a Measurement and Verification plan that incorporates the monitoring information from the above enduses and is consistent with Option B, C or D of the 2001 International Performance Measurement & Verification Protocol (IPMVP) Volume I: Concepts and Options for Determining Energy and Water Savings.

Submittals Provide the LEED Letter Template, signed by the licensed engineer or other responsible party, indicating that metering equipment has been installed for each end-use and declaring the option to be followed under IPMVP version 2001. Provide a copy of the M&V plan following IPMVP, 2001 version, including an executive summary.

Final Review This credit application has been withdrawn.



#### Green Power

#### Credit 6-Version 2.1

Preliminary Review: The signed LEED Letter Template has been provided declaring that the project has a 1-year purchase agreement to procure 100% of the project's regulated annual electric energy from a power supply company. The submitted documentation includes a copy of the one-year contract with PGE to provide green power equal to 346,384 kWh of the building's total annual electric energy usage. However, further clarification is needed for EA Credit 1 to confirm that the total regulated electric energy consumption is correctly reported before credit can be awarded for Green Power.

### TECHNICAL ADVICE

After responding to the EAc1 documentation clarification requests, confirm that the Green Power purchased is at least 50% of the regulated electric energy consumption, as reported in the final EAc1 submittal.

Final Review The signed LEED letter template has been provided declaring that the project has a 1-year purchase agreement to procure more than 100% of the project's regulated annual electric energy from a power supply company. The submitted documentation includes a copy of a one-year contract with PGE to provide green power equal to 346,384 kWh of the building's total regulated annual electric energy usage. This meets the requirements of this credit.

Rosa Parks Elementary School Portland Public Schools

A - Achieved D - Denied

A D

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A - Achieved D - Denied	LEE	D <sup>™</sup> Certification 8/30/2007
A D		
6	Materials & Resources Po	ossible Points 13
0	Storage & Collection of Recyclables Pre	erequisite 1-Version 2.1
	Preliminary Review: The signed LEED Letter Template has been provided declaring only provided appropriately sized dedicated areas for the collection and storage of cematerials.	
	Not all of the materials cited in the prerequisite requirements are able to be collected site.	and stored on-
	Per Reference Guide requirements, the project must provide collection and storage a recycling of cardboard, paper, plastic, glass, and metals.	areas for the
	r the collection and , have been	
	If special circumstances exist that prevent the project from meeting these requirement a detailed narrative describing the special circumstances requiring omission of these	
Final Review	Clarification documentation has been provided, which states that Portland public schools make every attempt to eliminate glass waste from their operations. A letter has been provided declaring that glass recycling receptacles will be provided for the small amount of glass waste that might still be generated due to staff or student usage.	
Not Attempting	Building Reuse, Maintain 75% of Existing Shell	Credit 1.1-Version 2.1
	Preliminary Review: No Comments.	
Not Attempting	Building Reuse, Maintain 100% of Shell	Credit 1.2-Version 2.1
	Preliminary Review: No Comments.	
Not Attempting	Building Reuse, Maintain 100% Shell and 50% Non-Shell	Credit 1.3-Version 2.1
	Preliminary Review: No Comments.	
1	Construction Waste Management, Divert 50%	Credit 2.1-Version 2.1
	Preliminary Review: The signed LEED Letter Template has been provided declaring diverted 224,415 tons (97%) of on-site generated construction waste from landfill. C been provided to document the waste types and receiving agencies for recycled mate	alculations have
1	Construction Waste Management, Divert 75%	Credit 2.2-Version 2.1
	Preliminary Review: See review under MRc2.1.	
Not Attempting	Resource Reuse, Specify 5% Preliminary Review: No Comments.	Credit 3.1-Version 2.1
Not Attempting	Resource Reuse, Specify 10% Preliminary Review: No Comments.	Credit 3.2-Version 2.1

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A - Achieved D - Denied	L	EED <sup>™</sup> Certification 8/30/2007
A D	Recycled Content, Specify 5% Preliminary Review: The signed LEED Letter Template and calculations have be that 10% of the total building materials content, by value, have been manufactur materials.	
1	Recycled Content, Specify 10% Preliminary Review: See review under MRc4.1.	Credit 4.2-Version 2.1
1	Local/Regional Materials, 20% Manufactured Regionally Preliminary Review: The signed LEED Letter Template and calculation have been that 31% of the total building materials by value have been manufactured within site.	
1	Local/Regional Materials, 50% Extracted Regionally Preliminary Review: The signed LEED Letter Template and calculation have been that 19% of the total building materials value (61% of the locally manufactured m manufactured using raw materials that were harvested, extracted, or recovered project site.	naterials) have been
Not Attempting	Rapidly Renewable Materials Preliminary Review: No Comments.	Credit 6-Version 2.1
Not Attempting	Certified Wood	Credit 7-Version 2.1

Preliminary Review: No Comments.

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A - Achieved

A - Achieved D - Denied		8/30/2007
A D		
12	Indoor Environmental Quality	Possible Points 15
0	Minimum IAQ Performance	Prerequisite 1-Version 2.1
	Preliminary Review: The signed LEED Letter Template has been provide complies with the minimum IAQ performance requirements of ASHRAE 6 Addenda. A supplemental narrative has been provided to document the performance Rate Procedure methods.	62-1999 and all approved
0	Environmental Tobacco Smoke (ETS) Control	Prerequisite 2-Version 2.1
	Preliminary Review: The signed LEED Letter Template has been provide prohibited inside buildings within the project and that designated smoking away from building openings and air intakes.	
1	Carbon Dioxide (CO2) Monitoring	Credit 1-Version 2.1
	Preliminary Review: The signed LEED Letter Template has been provide installed a CO2 monitoring system in accordance with the requirements of design narrative has been provided that describes the operational param The submitted narrative does not indicate the quantity and location of CO	of the credit. Additionally, a leters, and design conditions.
	Per guidance presented in the LEED NCv2.1 Reference Guide (pages 29 locations must be selected so they provide representative readings of the occupied spaces. CO2 monitors should be positioned in locations that p for the HVAC system to adequately ventilate. There is no documentation individual sensors have been located in these occupied spaces to monitor concentrations.	e CO2 concentrations in resent the greatest challenges provided to confirm that
	TECHNICAL ADVICE: Please provide drawings highlighting the locations Please include specific information to confirm that high/variable occupan- served by individual sensors as indicated by the noted Reference Guide	cy spaces within the project are
Final Review	<ul> <li>Drawings and a supplemental narrative have been provided highlighting CO2 sensors and their operational parameters. The sensors have been occupancy spaces, including each classroom and other group multi-occu</li> </ul>	installed in all high/variable
Not Attempting	Increase Ventilation Effectiveness	Credit 2-Version 2.1
	Preliminary Review: No Comments.	
1	Construction IAQ Management Plan, During Construction	Credit 3.1-Version 2.1
•	Preliminary Review: The signed LEED Letter Template has been submitted eveloped and implemented a construction IAQ management plan that for SMACNA Guidelines. The plan indicates that the air handling equipment during construction, and that MERV 13 filtration media was installed prior	ollowed the referenced t was sealed and not operated
	Photographs, taken on a minimum of 3 different occasions, and a narrati IAQ measures have also been provided.	ve describing the implemented
1	Construction IAQ Management Plan, Before Occupancy	Credit 3.2-Version 2.1
	Preliminary Review: The signed LEED Letter Template has been submitt conducted a two-week flushout prior to occupancy. The flush-out was co 9/16/2006. The Submittal Template further states that new MERV13 filtr to the flushout	onducted between 9/1/2006 and

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to the flushout.

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D - Denied A D

A D		
1	Low-Emitting Materials, Adhesives & Sealants	Credit 4.1-Version 2.1
	Preliminary Review: The signed LEED Letter Template has been provided declaring and sealant products comply with the VOC limits of the referenced standards for this of all interior adhesive and sealant products has been provided along with VOC data confirming that they comply with the referenced VOC limits.	s credit. A summary
1	Low-Emitting Materials, Paints	Credit 4.2-Version 2.1
	Preliminary Review: The signed LEED Letter Template has been provided declaring paints comply with the VOC limits of Green Seal GS-11. A summary of all interior pa provided along with VOC data for each product confirming that they comply with the limits.	iints has been
1	Low-Emitting Materials, Carpet	Credit 4.3-Version 2.1
	Preliminary Review: The signed LEED Letter Template has been provided declaring carpet systems comply with the VOC limits of the CRI Green Label Testing Program Shaw Color Play EW24 as the installed product.	
	The reviewer was not able to verify that the installed carpet system complies with the CRI Green Label Testing Program	e VOC limits of the
	TECHNICAL ADVICE: Please provide a summary of all installed carpet systems alo manufactuer's information confirming that they comply with the referenced standard.	
Final Review	The project team has provided a listing of the installed carpet systems for the project manufacturer has been provided clarifying that the product installed meets the Carpo Institute's Green Label Plus testing program requirements.	
Not Attempting	Low-Emitting Materials, Composite Wood	Credit 4.4-Version 2.1
	Preliminary Review: No Comments.	
1	Indoor Chemical and Pollutant Source Control	Credit 5-Version 2.1
	Preliminary Review: The signed LEED Letter Template has been provided declaring installed the required indoor chemical and pollutant source control measures require	
1	Controllability of Systems, Perimeter	Credit 6.1-Version 2.1
	Preliminary Review: The LEED v2.2 Submittal Template has been provided listing th available for individual workstations and shared group spaces. A narrative has also describing the project's lighting control strategy with a description of the type and loc controls.	been provided
Not Attempting	Controllability of Systems, Non-perimeter Preliminary Review: No Comments.	Credit 6.2-Version 2.1
1	Thermal Comfort, Compliance with ASHRAE 55-1992	Credit 7.1-Version 2.1
	Preliminary Review: The LEED Submittal Template has been provided declaring that been designed to maintain indoor comfort within the ranges established by ASHRAE Addenda 1995. A table listing the control ranges and installed control methods has	Standard 55-1992,

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A - Achieved D - Denied	LEI	ED <sup>™</sup> Certification 8/30/2007
A D	Thermal Comfort, Permanent Monitoring System Preliminary Review: The signed LEED Letter Template has been provided declaring installed a permanent temperature and humidity monitoring system that will provide building zones within the thermal comfort ranges defined in ASHRAE 55-1992, Add controls have been commissioned under the scope for Eap1, Fundamental System	e control of the denda 1995. These
1	Daylight and Views, Daylight 75% of Spaces Preliminary Review: This credit was not attempted during the preliminary review.	Credit 8.1-Version 2.1
Final Review	The LEED Submittal Template has been provided declaring that the project has ac 2% daylight factor in 75% of all space occupied for critical visual tasks. Calculation drawings to support this claim have also been provided.	
1	Daylight and Views, Views for 90% of Spaces	Credit 8.2-Version 2.1
	Preliminary Review: The signed LEED Letter Template has been provided declarir provided direct line of sight views from a minimum of 90% of all space occupied fo Floor plans highlighting the direct line of sight and supporting calculations have als	r critical visual tasks.

A - Achieved D - Denied

D - Denied		8/30/2007
A D		
5	Innovation & Design Process	Possible Points 5
1	Educational Outreach Program Preliminary Review: The signed LEED Letter Template has been provided declari program has been developed to present the project's sustainable design practices visitors to the facility. The program includes at least two educational components brochure describing the project's design features and the LEED program, and put	s to occupants and , including a published
1	Green Housekeeping Program	Credit 1.2-Version 2.1
	Preliminary Review: The project team has provided an ID credit proposal for dever implementation of a green housekeeping program. The proposal and supporting statement and list of cleaning chemicals) meet the requirements set forth in poste achievement of an ID point for a Green Housekeeping program.	documentation (policy
1	Integrated Pest Management	Credit 1.3-Version 2.1
	Preliminary Review: The project team has provided an ID credit proposal for dever implementation of an integrated pest management program. The proposal and su documentation demonstrate a comprehensive and innovative program to minimize harmful pest management and is eligible for an Innovation point.	upporting
1	Exemplary Performance in MRc2 Construction Waste Management	Credit 1.4-Version 2.1
	Preliminary Review: The signed LEED Letter Template has been provided declari achieved exemplary performance with Construction Waste Management through construction waste from landfill.	
1	LEED <sup>™</sup> Accredited Professional	Credit 2-Version 2.1

Preliminary Review: The signed LEED Letter Template has been provided declaring that a LEED AP has been a participant on the project development team. A copy of the LEED AP award certification for Katrina Shum Miller has been included as required

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