

**LEED-NC Version 2.2 Registered Project Checklist**

**Project:** CSU Academic Village Residence Hall, Building D  
**Last Updated:** 9-Apr-09

**c** = Construction Submittal  
**d** = Design Submittal

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Yes	Strong ?	Weak ?	No	
41	4	4	20	<b>Project Totals (pre-certification estimates)</b> 69 Points
Certified 26-32 points Silver 33-38 points Gold 39-51 points Platinum 52-69 points				

Yes	Strong ?	Weak ?	No		Points					
8	2		4	<b>Sustainable Sites</b>	14	<b>Champion</b>	<b>Requirement</b>	<b>Action Items</b>	<b>Hard Costs</b>	<b>Soft Costs</b>

Y				Prereq 1	<b>Construction Activity Pollution Prevention</b>	P	c	Whiting-Turner	Create and implement an Erosion and Sedimentation Control (ESC) Plan for all construction activities associated with the project. The ESC Plan shall conform to the erosion and sedimentation requirements of the 2003 EPA Construction General Permit OR local erosion and sedimentation control standards and codes, whichever is more stringent. The Plan shall describe the measures implemented to accomplish the following objectives: 1) Prevent loss of soil during construction by stormwater runoff and/or wind erosion, including protecting topsoil by stockpiling for reuse, 2) Prevent sedimentation of storm sewer or receiving streams, 3) Prevent polluting the air with dust and particulate matter.	Create and execute an erosion and sedimentation control plan. Provide erosion and sedimentation control measures in Construction Documents. Consider BioFence, Straw Bale or alternatives, Jute Mesh and other biobased products. ambient energy to send sample spec language to Jim Sell Design.	None.	None.
1				Credit 1	<b>Site Selection</b>	1	d	ambient energy	Do not develop buildings, hardscape, roads or parking areas on portions of sites that meet any one of the following criteria: • Prime farmland as defined by the United States Department of Agriculture • Previously undeveloped land in which elevation is lower than 5 feet above the elevation of the 100-year flood as defined by FEMA • Land that is specifically identified as habitat for any species on Federal or State threatened or endangered lists • Within 100 feet of any wetlands as defined by United States Code of Federal Regulations 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 • 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 • Land which prior to acquisition for the project was public parkland.	Credit template complete.	None.	None.
1				Credit 2	<b>Development Density &amp; Community Connectivity</b>	1	d	ambient energy	Construct or renovate building on a previously developed site AND within 1/2 mile of a residential zone or neighborhood with an average density of 10 units per acre net AND within 1/2 mile of at least 10 Basic Services AND with pedestrian access between the building and the services. Basic Services include, but are not limited to: 1) Bank; 2) Place of Worship; 3) Convenience Grocery; 4) Day Care; 5) Cleaners; 6) Fire Station; 7) Beauty; 8) Hardware; 9) Laundry; 10) Library; 11) Medical/Dental; 12) Senior Care Facility; 13) Park; 14) Pharmacy; 15) Post Office; 16) Restaurant; 17) School; 18) Supermarket; 19) Theater; 20) Community Center; 21) Fitness Center; 22) Museum.	Credit template complete.	None.	None.
			1	Credit 3	<b>Brownfield Redevelopment</b>	1	d		NA- Site is not a brownfield			
1				Credit 4.1	<b>Alternative Transportation, Public Transportation Access</b>	1	d	ambient energy	Locate project within 1/2 mile of an existing, or planned and funded, commuter rail, light rail or subway station. OR Locate project within 1/4 mile of one or more stops for two or more public or campus bus lines usable by building occupants.	Credit template complete.	None.	None.
1				Credit 4.2	<b>Alternative Transportation, Bicycle Storage &amp; Changing Rooms</b>	1	c	Jim Sell Design	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 building 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.	FTE occupants for standard 8 hour period: 220. Provide covered storage for bicycles for 15% (33 bikes) via bike hooks in each room. CSU considering building covered shelter over bikes to the east, outside the site boundary. Credit deferred.	Bike racks, showers	None.
	1			Credit 4.3	<b>Alternative Transportation, Low-Emitting and Fuel-Efficient Vehicles</b>	1	d	CSU	Provide preferred parking for low-emitting and fuel-efficient vehicles for 5% of the total vehicle parking capacity of the site.	CSU to determine the number of building occupants that will be parking in existing lots within 1/4 mile. Provide signage for low-emitting/fuel-efficient vehicles for 5% of these in the existing lots. Credit deferred.	Signage.	None.
1				Credit 4.4	<b>Alternative Transportation, Parking Capacity</b>	1	d	Aller-Lingle	Option 4 - Provide no new parking	Provide no new parking associated with building. (New spaces being constructed near Thermal Plant will be less than number of spaces being removed.)	None.	None.
1				Credit 5.1	<b>Site Development, Protect or Restore Habitat</b>	1	c	Jim Sell Design	OPTION 2: On previously developed or graded sites, restore or protect a minimum of 50% of the site area (excluding the building footprint) with native or adapted vegetation. Native/adapted plants are plants indigenous to a locality or cultivars of native plants that are adapted to the local climate and are not considered invasive species or noxious weeds. Projects earning SSc2 may apply the vegetated roof surface.	Complete credit template.	None.	None.
1				Credit 5.2	<b>Site Development, Maximize Open Space</b>	1	d	Jim Sell Design	OPTION 2: For areas with no local zoning requirements (e.g., some university campuses, military bases), provide vegetated open space area adjacent to the building that is equal to the building footprint.	Credit template complete.	None.	None.
			1	Credit 6.1	<b>Stormwater Design, Quantity Control</b>	1	d		N/A -- There is not a water quality detention pond onsite. Stormwater credits are purchased to offset the increased runoff associated with the increased impervious area. Majority of the site runoff will not be intercepted by the proposed regional detention pond. Therefore when this pond is constructed, the project's runoff will never actually be directed and treated by the regional detention pond. We currently do not know what the design criteria of this pond will be, if it will even account for water quality or just knocking the peak runoff rate down. The bioswale along the east side of the AV building contributes to some water quality effort, but only about 0.37 acres of the 1.32 acres drains to this swale.			
			1	Credit 6.2	<b>Stormwater Design, Quality Control</b>	1	d		N/A - 80% of stormwater will be treated, not 90%. The on-site bioswale does promote a higher water quality than just allowing the runoff to directly leave the site but since only a small amount is treated, and it can not be quantified, and it doesn't provide the required 90% average rainfall storage volume. The swale doesn't provide what is need under the credit requirements.			

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1				Credit 7.1	<b>Heat Island Effect, Non-Roof</b>	1	c	Jim Sell Design	OPTION 1: Provide any combination of the following strategies for 50% of the site hardscape (including roads, sidewalks, courtyards and parking lots): <ul style="list-style-type: none"> <li>Shade (within 5 years of occupancy)</li> <li>Paving materials with a Solar Reflectance Index (SRI) of at least 29</li> <li>Open grid pavement system</li> </ul>	Credit achievable by Jim Sell changing boundaries. Complete credit template.	High-SRI paving materials	LEED template
			1	Credit 7.2	<b>Heat Island Effect, Roof</b>	1	d		N/A - Roof type will not meet reflective value.			
1				Credit 8	<b>Light Pollution Reduction</b>	1	c	Cator Ruma/ ambient energy	FOR INTERIOR LIGHTING The angle of maximum candela from each interior luminaire as located in the building shall intersect opaque building interior surfaces and not exit out through the windows. OR All non-emergency interior lighting shall be automatically controlled to turn off during non-business hours. Provide manual override capability for after hours use. AND FOR EXTERIOR LIGHTING Only light areas as required for safety and comfort. Do not exceed 80% of the lighting power densities for exterior areas and 50% for building facades and landscape features as defined in ASHRAE/IESNA Standard 90.1-2004.	Photometric plan uploaded for submittal to USGBC does not achieve this point - needs to be revised. ambient energy to research if Campus Guide discusses this. Brad will discuss with Joe Leoni at Cator Ruma. Credit deferred.	None.	Photometric plan

Yes	Strong ?	Weak ?	No	Points	Requirement	Action Items	Hard Costs	Soft Costs
3		1	1	5	<b>Water Efficiency</b>	<b>Champion Requirement</b>		

1				Credit 1.1	<b>Water Efficient Landscaping, Reduce by 50%</b>	1	c	Jim Sell Design	Reduce water consumption for irrigation by 50% from a calculated mid-summer baseline case. Reductions shall be attributed to any combination of the following: • Plant species factor • Irrigation efficiency • Use of captured rainwater • Use of recycled wastewater • Use of water treated and conveyed by a public agency specifically for non-potable uses.	Select plant species for reduced irrigation. Use runoff from building downspouts and grading. Credit deferred due to WEc1.2.	High efficiency landscaping - shrubs, moisture sensor, drip system.	Landscape calculations.
		1		Credit 1.2	<b>Water Efficient Landscaping, No Potable Use or No Irrigation</b>	1	c	CSU	Use only captured rainwater, recycled wastewater, recycled greywater, or water treated and conveyed by a public agency specifically for non-potable uses for irrigation.	Per 9/1/06 CIR, surface water does not meet this credit. CSU (Gene) to prepare language for CIR submittal. Credit deferred.	CIR.	None.
			1	Credit 2	<b>Innovative Wastewater Technologies</b>	1	d		N/A - 50% reduction of water use will not be achieved.			
1				Credit 3.1	<b>Water Use Reduction, 20% Reduction</b>	1	d	Cator Ruma	Employ strategies that in aggregate use 20% 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 (as applicable to the building): water closets, urinals, lavatory faucets, showers and kitchen sinks.	Credit template complete. Specified low flow plumbing fixtures per CSU standard products: 0.125 gpm urinals, 1.28 gpf water closets, 1.5 gpm shower heads, and 0.5 gpm faucets.	Plumbing fixtures	Water efficiency calculations.
1				Credit 3.2	<b>Water Use Reduction, 30% Reduction</b>	1	d	Cator Ruma	Employ strategies that in aggregate use 30% 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 (as applicable to the building): water closets, urinals, lavatory faucets, showers and kitchen sinks.	Credit template complete.	Plumbing fixtures	Water efficiency calculations.

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10		2	5	17	<b>Energy &amp; Atmosphere</b>	<b>Champion Requirement</b>		

Y				Prereq 1	<b>Fundamental Commissioning of the Building Energy Systems</b>	P	c	EMC	Commissioning process activities shall be completed by the commissioning team, in accordance with the LEED-NC 2.2 Rating system requirements. Commissioning process activities shall be completed for the following energy-related systems, at a minimum: • Heating, ventilating, air conditioning, and refrigeration (HVAC&R) systems (mechanical and passive) and associated controls • Lighting and daylighting controls • Domestic hot water systems • Renewable energy systems (wind, solar etc.)	Review documents early in CD phase of design and complete LEED credit template.	None.	Commissioning Agent.
Y				Prereq 2	<b>Minimum Energy Performance</b>	P	d	ambient energy	Design the building project to comply with both the mandatory provisions (Sections 5.4, 6.4, 7.4, 8.4, 9.4 and 10.4) of ASHRAE/IESNA Standard 90.1-2004 (without amendments); and the prescriptive requirements (Sections 5.5, 6.5, 7.5 and 9.5) or performance requirements (Section 11) of ASHRAE/IESNA Standard 90.1-2004 (without amendments).	Credit template complete.	None.	Energy Modeling
Y				Prereq 3	<b>Fundamental Refrigerant Management</b>	P	d	Cator Ruma	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.	Credit template complete.	None.	None.
6		2	2	Credit 1	<b>Optimize Energy Performance</b>	10	d	ambient energy	OPTION 1 : WHOLE BUILDING ENERGY SIMULATION (1-10 Points) Demonstrate a percentage improvement in the proposed building performance rating compared to the baseline building performance rating per ASHRAE/IESNA Standard 90.1-2004 (without amendments) by a whole building project simulation using the Building Performance Rating Method in Appendix G of the Standard.	Credit template complete. Energy cost savings of 28.1% and energy use savings of 23.3%.	Efficient systems, daylight and occupancy sensors.	Energy modeling.
			3	Credit 2	<b>On-Site Renewable Energy</b>	3			N/A - Hot water solar collector and photovoltaics may be installed for demonstration on thermal plant roof, but these will not achieve 2.5% of the energy costs.			

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1				Credit 3	<b>Enhanced Commissioning</b>	1	c	EMC	Implement, or have a contract in place to implement, additional commissioning process activities in addition to the requirements of EA Prerequisite 1 and in accordance with the LEED-NC v2.2 Rating System.	Complete LEED credit template.	None.	Commissioning Agent.
1				Credit 4	<b>Enhanced Refrigerant Management</b>	1	d	Cator Ruma	OPTION 2: Select refrigerants and HVAC&R that minimize or eliminate the emission of compounds that contribute to ozone depletion and global warming. The base building HVAC&R equipment shall comply with the formula provided in the LEED-NCv2.2 rating system, which sets a maximum threshold for the combined contributions to ozone depletion and global warming potential. AND Do not install fire suppression systems that contain ozone-depleting substances (CFCs, HCFCs or Halons).	Credit template complete.	None.	None.
1				Credit 5	<b>Measurement &amp; Verification</b>	1	c	EMC	Develop and implement a Measurement & Verification (M&V) Plan consistent with Option D: Calibrated Simulation (Savings Estimation Method 2), or Option B: Energy Conservation Measure Isolation, as specified in the International Performance Measurement & Verification Protocol (IPMVP) Volume III: Concepts and Options for Determining Energy Savings in New Construction, April, 2003. The M&V period shall cover a period of no less than one year of post-construction occupancy.	Review documents early in CD phase of design and complete LEED credit template. There will be separate electrical, gas and water meters for both bldg. D and the thermal plant. Submetering by floor will be an add alternate.	Additional meters.	Commissioning Agent.
1				Credit 6	<b>Green Power</b>	1	c	ambient energy for CSU	Provide at least 35% of the building's electricity from renewable sources by engaging in at least a two-year renewable energy contract. Renewable sources are as defined by the Center for Resource Solutions (CRS) Green-e products certification requirements. Use the annual electricity consumption from the results of EA Credit 1.	CSU Housing currently buying 3.2 megawatts of wind power. CSU to determine green power allocation and if additional must be purchased. Cost for 35% green power is estimate to be \$5,718 by ambient energy from CD energy model or \$11,437 for 70% green power.	None.	Green power purchase

2	2	1	8	<b>Materials &amp; Resources</b>	13 Points	<b>Champion Requirement</b>	<b>Action Items</b>	<b>Hard Costs</b>	<b>Soft Costs</b>
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Y				Prereq 1	<b>Storage &amp; Collection of Recyclables</b>	P	d	ambient energy for CSU	Provide an easily accessible 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.	Credit template complete. 225 sf of recycling storage and collection required.	Recycling area.	Recycling service.
			1	Credit 1.1	<b>Building Reuse</b> , Maintain 75% of Existing Walls, Floors & Roof	1	c		N/A - A building is not currently located on-site.			
			1	Credit 1.2	<b>Building Reuse</b> , Maintain 100% of Existing Walls, Floors & Roof	1	c		N/A - A building is not currently located on-site.			
			1	Credit 1.3	<b>Building Reuse</b> , Maintain 50% of Interior Non-Structural Elements	1	c		N/A - A building is not currently located on-site.			
1				Credit 2.1	<b>Construction Waste Management</b> , Divert 50% from Disposal	1	c	Whiting-Turner	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 do not contribute to this credit. Calculations can be done by weight or volume, but must be consistent throughout.	Track construction waste log throughout construction. Identify regional construction waste recycling companies. Four dumpsters will be located on site: metal, wood, drywall, and trash (trash located furthest away).	Construction waste diversion.	Tracking waste tickets.
	1			Credit 2.2	<b>Construction Waste Management</b> , Divert 75% from Disposal	1	c	Whiting-Turner	Recycle and/or salvage at least 75% 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 do not contribute to this credit. Calculations can be done by weight or volume, but must be consistent throughout.	See above.	Construction waste diversion.	Tracking waste tickets.
			1	Credit 3.1	<b>Materials Reuse</b> , 5%	1	c		N/A - 5% of materials will not be reused.			
			1	Credit 3.2	<b>Materials Reuse</b> , 10%	1	c		N/A - 10% of materials will not be reused.			
1				Credit 4.1	<b>Recycled Content</b> , 10% (post-consumer + ½ pre-consumer)	1	c	Whiting-Turner	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 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 International Organization of Standards document, ISO 14021—Environmental labels and declarations—Self-declared environmental claims (Type II environmental labeling).	Specify recycled content materials such as structural steel, metal decking, metal doors, other metals, flyash and recycled aggregate for concrete, window systems, paving, DensGlass sheathing, EPDM/TPO, gypsum board, batt insulation, ceiling tile, interior glazing, mirrors, countertops, ceramic and porcelain tile, carpet, toilet partitions, tectum finale wall panel and tectum fabri-tough wall panel, Trespa, and site furnishings. Track via submittal process and material tracking worksheets. 10% recycled content is \$380,045 of the materials budget.	None.	Materials tracking.
			1	Credit 4.2	<b>Recycled Content</b> , 20% (post-consumer + ½ pre-consumer)	1	c		N/A - 20% recycled content is \$760,091 of the materials budget. Per July 25, 2008 cost estimate review, only 12.3% of budget is from recycled content.			

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1				Credit 5.1	<b>Regional Materials, 10% Extracted, Processed &amp; Manufactured Regionally</b>	1	c	Whiting-Turner	Use building materials or products that have been extracted, harvested or recovered, as well as manufactured, within 500 miles of the project site for a minimum of 10% (based on cost) 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) shall 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.	Whiting Turner to determine if purchased steel is regional and to change orders on any outstanding materials that can be obtained regionally to ensure achieving this point (ie drywall). 10% regional materials is \$380,045 of the materials budget.	None.	Materials tracking.
		1		Credit 5.2	<b>Regional Materials, 20% Extracted, Processed &amp; Manufactured Regionally</b>	1	c	Whiting-Turner	Use building materials or products that have been extracted, harvested or recovered, as well as manufactured, within 500 miles of the project site for an additional 10% beyond MR Credit 5.1 (total of 20%, based on cost) of the total materials value.	See above. 20% regional materials is \$760,091 of the materials budget.	None.	Materials tracking.
			1	Credit 6	<b>Rapidly Renewable Materials</b>	1	c		N/A- 2.5% of the budget will not come from rapidly renewable materials.			
			1	Credit 7	<b>Certified Wood</b>	1	c		N/A - The additional cost of FSC wood is prohibitive.			

Yes Strong? Weak? No

13			2	<b>Indoor Environmental Quality</b>	15	<b>Champion Requirement</b>	<b>Action Items</b>	<b>Hard Costs</b>	<b>Soft Costs</b>
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Y				Prereq 1	<b>Minimum IAQ Performance</b>	P	d	Cator Ruma	Meet the minimum requirements of Sections 4 through 7 of ASHRAE 62.1-2004, Ventilation for Acceptable Indoor Air Quality. Mechanical ventilation systems shall be designed using the Ventilation Rate Procedure or the applicable local code, whichever is more stringent. Naturally ventilated buildings shall comply with ASHRAE 62.1-2004, paragraph 5.1.	Credit template complete.	None.	None.
Y				Prereq 2	<b>Environmental Tobacco Smoke (ETS) Control</b>	P	d	ambient energy for CSU	For commercial or institutional buildings: OPTION 1: Prohibit smoking in the building. AND Locate any exterior designated smoking areas at least 25 feet away from entries, outdoor air intakes and operable windows.	Credit template complete.	None.	None.
1				Credit 1	<b>Outdoor Air Delivery Monitoring</b>	1	d	Cator Ruma	Install permanent monitoring systems that provide feedback on ventilation system performance to ensure that ventilation systems maintain design minimum ventilation requirements. Configure all monitoring equipment to generate an alarm when the conditions vary by 10% or more from setpoint, via either a building automation system alarm to the building operator or via a visual or audible alert to the building occupants. Monitor carbon dioxide concentrations within all densely occupied spaces (those with a design occupant density greater than or equal to 25 people per 1000 sq.ft.). CO2 monitoring locations shall be between 3 feet and 6 feet above the floor. For each mechanical ventilation system serving non-densely occupied spaces, provide a direct outdoor airflow measurement device capable of measuring the minimum outdoor airflow rate with an accuracy of plus or minus 15% of the design minimum outdoor air rate, as defined by ASHRAE 62.1-2004.	Credit template complete.	Outdoor air monitoring station / CO2 monitoring	None.
1				Credit 2	<b>Increased Ventilation</b>	1	d	Cator Ruma	Increase breathing zone outdoor air ventilation rates to all occupied spaces by at least 30% above the minimum rates required by ASHRAE Standard 62.1-2004 as determined by EQ Prerequisite 1.	Credit template complete.	Increased energy usage and HVAC size	None.
1				Credit 3.1	<b>Construction IAQ Management Plan, During Construction</b>	1	c	Whiting-Turner	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 Guidelines for Occupied Buildings under Construction, 1995, Ch.3. • Protect stored on-site or installed absorptive materials from moisture damage. • If permanently installed air handlers are used during construction, filtration media with a Minimum Efficiency Reporting Value (MERV) of 8 shall be used at each return air grille, as determined by ASHRAE 52.2-1999. Replace all filtration media immediately prior to occupancy.	Create and implement IAQ management plan for construction meeting SMACNA Guidelines. Verify that MERV 8 will be used during construction.	Construction IAQ management	None.
1				Credit 3.2	<b>Construction IAQ Management Plan, Before Occupancy</b>	1	c	Whiting-Turner	OPTION 1 — Flush-Out: After construction ends, prior to occupancy and with all interior finishes installed, perform a building flush-out by supplying 14,000 cu.ft. of outdoor air / sq.ft. of floor area. OR If occupancy is desired prior to completion of the flush-out, the space may be occupied following delivery of a minimum of 3,500 cu.ft. of outdoor air / sq.ft. of floor area to the space. Once a space is occupied, it shall be ventilated at a minimum rate of 0.30 cfm/sq.ft. of outside air or the design minimum outside air rate determined in EQ Prerequisite 1, whichever is greater. These conditions shall be maintained until a total of 14,000 cu.ft./sq.ft. of outside air has been delivered to the space.	Schedule flush-out to be conducted prior to occupation. ambient energy to calculate length of flush out and research if natural ventilation can be included to assist.	Flush out or IAQ testing.	None.

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1				Credit 4.1	<b>Low-Emitting Materials, Adhesives &amp; Sealants</b>	1	c	Whiting-Turner	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: • Adhesives, Sealants and Sealant Primers: South Coast Air Quality Management District (SCAQMD) Rule #1168. VOC limits are listed in the table below and correspond to an effective date of July 1, 2005 and rule amendment date of January 7, 2005. • Aerosol Adhesives: Green Seal Standard for Commercial Adhesives GS-36 requirements in effect on October 19, 2000.	Specify and install low VOC adhesives and sealants that meet SCAQMD Rule 1168 and Green Seal Standard GS-36.	None.	Materials tracking.
1				Credit 4.2	<b>Low-Emitting Materials, Paints &amp; Coatings</b>	1	c	Whiting-Turner	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: • Architectural paints, coatings and primers applied to interior walls and ceilings: Do not exceed the VOC content limits established in Green Seal Standard GS-11, Paints, First Edition, May 20, 1993. • Anti-corrosive and anti-rust paints applied to interior ferrous metal substrates: Do not exceed the VOC content limit of 250 g/L established in Green Seal Standard GC-03, Anti-Corrosive Paints, Second Edition, January 7, 1997. • Clear wood finishes, floor coatings, stains, and shellacs applied to interior elements: Do not exceed the VOC content limits established in South Coast Air Quality Management District (SCAQMD) Rule 1113, Architectural Coatings, rules in effect on January 1, 2004.	Specify and apply low VOC paints and coatings that meet Green Seal Standard GS-11, GC-03, and SCAQMD Rule 1113.	None.	Materials tracking.
1				Credit 4.3	<b>Low-Emitting Materials, Carpet Systems</b>	1	c	Whiting-Turner	All carpet installed in the building interior shall 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 Green Label program. All carpet adhesive shall meet the requirements of EQ Credit 4.1: VOC limit of 50 g/L.	Specify and install carpet that meets CRI Green Label Plus program requirements, carpet pad that meets CRI Green Label program requirements, and adhesives that meet SCAQMD Rule 1168.	None.	Materials tracking.
			1	Credit 4.4	<b>Low-Emitting Materials, Composite Wood &amp; Agrifiber Products</b>	1	c		N/A - There is urea-formaldehyde in the skins of the the 45/60/90 minute rated doors. Maiman does not have any plans to eliminate this chemical from these doors. Because these doors need to be purchased, the credit will not be achieved.			
			1	Credit 5	<b>Indoor Chemical &amp; Pollutant Source Control</b>	1	d		N/A - MERV 13 filters are cost prohibitive and the static pressure of the fan coil units is too high for MERV 13.			
1				Credit 6.1	<b>Controllability of Systems, Lighting</b>	1	d	Cator Ruma	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 controllability for all shared multi-occupant spaces to enable lighting adjustment that meets group needs and preferences.	Credit template complete.	Task lighting	None.
1				Credit 6.2	<b>Controllability of Systems, Thermal Comfort</b>	1	d	Cator Ruma	Provide individual comfort controls for 50% (minimum) of the building occupants to enable adjustments to suit individual task needs and preferences. Operable windows can be used in lieu of comfort controls for occupants of areas that are 20 feet inside of and 10 feet to either side of the operable part of the window. The areas of operable window must meet the requirements of ASHRAE 62.1-2004 paragraph 5.1 Natural Ventilation. AND Provide comfort system controls for all shared multi-occupant spaces to enable adjustments to suit group needs and preferences.	Credit template complete.	None.	None.
1				Credit 7.1	<b>Thermal Comfort, Design</b>	1	d	Cator Ruma	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.	Credit template complete.	Operable windows.	None.
1				Credit 7.2	<b>Thermal Comfort, Verification</b>	1	d	ambient energy for CSU	Agree to implement 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.	Credit template complete.	None.	Thermal comfort study
1				Credit 8.1	<b>Daylight &amp; Views, Daylight 75% of Spaces</b>	1	d	ambient energy	OPTION 2 — SIMULATION: Demonstrate, through computer simulation, that a minimum daylight illumination level of 25 footcandles has been achieved in a minimum of 75% of all regularly occupied areas. Modeling must demonstrate 25 horizontal footcandles under clear sky conditions, at noon, on the equinox, at 30 inches above the floor.	Credit template complete.	None.	Daylighting calculations

**LEED-NC Version 2.2 Registered Project Checklist**

**Project:** CSU Academic Village Residence Hall, Building D  
**Last Updated:** 9-Apr-09

**c** = Construction Submittal  
**d** = Design Submittal

**c** = Construction Submittal  
**d** = Design Submittal



Yes Strong? Weak? No

41	4	4	20	<b>Project Totals (pre-certification estimates)</b>	69 Points
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Certified 26-32 points Silver 33-38 points Gold 39-51 points Platinum 52-69 points

1				Credit 8.2	<b>Daylight &amp; Views</b> , Views for 90% of Spaces	1	d	ambient energy	Achieve direct line of sight to the outdoor environment via vision glazing between 2'6" and 7'6" above finish floor for building occupants in 90% of all regularly occupied areas.	Credit template complete.	Interior glazing	Views calculations
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Yes Strong? Weak? No

5				<b>Innovation &amp; Design Process</b>	5	<b>Champion</b>			<b>Action Items</b>	<b>Hard Costs</b>	<b>Soft Costs</b>
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1				Credit 1.1	<b>Innovation in Design: Exemplary Performance</b>	1	d	ambient energy	An Exemplary Performance credit is awarded for doubling the credit requirements and/or achieving the next incremental percentage threshold.	42% water efficiency. Credit template complete.	None.	None.
1					<b>Innovation in Design: Exemplary Performance</b>	2	c	ambient energy	An Exemplary Performance credit is awarded for doubling the credit requirements and/or achieving the next incremental percentage threshold.	Determine exceedances such as regional materials (budget estimated to be very close to 30%) or green power. Whiting Turner to add \$15,000 to budget for green power.	Green power.	TBD
		0		Credit 1.2b	<b>Innovation in Design: Furniture Sustainability</b>	1	c	CSU	Commit to purchasing furniture that meets the guidelines of LEED for Commercial Interior (CI) Indoor Environmental Quality Credit 4.5, Low-Emitting Materials, Systems Furniture and Seating. The intent of this credit is to reduce the quantity of indoor air contaminants from furniture that is odorous, potentially irritating and/or harmful to the comfort and wellbeing of installers and occupants. All systems furniture and seating introduced into the project space that has been manufactured, refurbished or refinished within one year prior to occupancy must be GREENGUARD Indoor Air Quality Certified. Alternatively, indoor air quality can be tested for chemical pollutants after installation of furniture.	CSU to consider LEED-CI furniture-based credits to apply to project.	TBD	None.
	0			Credit 1.2c	<b>Innovation in Design: Living Laboratory</b>	1	c	CSU	Student monitoring of energy savings, creating a living laboratory. All meters would be located in the first floor lobby, to see each floor's results and compare.	ambient energy to investigate past ID credits and determine if a similar credit has been achieved.	TBD	TBD
1				Credit 1.3	<b>Innovation in Design: Education</b>	1	c	CSU	Provide two of the three following items: 1) a case study 2) regularly scheduled presentations or building tours 3) signage of the environmental features of the building.	Determine which educational options will be completed. Investigate submetering floors to allow energy savings competition among students.	Displays, kiosk.	Printing, graphics.
1				Credit 1.4	<b>Innovation in Design: Operations and Maintenance Policies</b>	1	c	ambient energy/CSU	Create policies to ensure that buildings are operated and maintained in a sustainable manor. It is recommended that at least five of the Sustainable O&M Program policies listed in LEED EB v2.0 be applied to this project in addition to the required prerequisites (recycling and no smoking).	CSU (Susanne Cordery-Cotter) to review and select sustainable operations and maintenance policies.	None.	Policy implementation
1				Credit 2	<b>LEED® Accredited Professional</b>	1	c	ambient energy	At least one principal participant of the project team shall be a LEED Accredited Professional (AP).	ambient energy will have at least 1 LEED-AP on the project.	None.	Sustainable design consultant.