

# **LEED Certification Review Report**

This report contains the results of the technical review of an application for LEED® certification submitted for the specified project. LEED certification is an official recognition that a project complies with the requirements prescribed within the LEED rating systems as created and maintained by the U.S. Green Building Council® (USGBC®). The LEED certification program is administered by the Green Business Certification Inc. (GBCI®).

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# MCC Building 21

Project ID	1000024643			
Rating system & version	LEED-NC v2009			
Project registration date	05/15/2012			



**Certified (Gold)** 

CERTIFIED: 40-49, SILVER: 50-59, GOLD: 60-79, PLATINUM: 80+

# **MALEED 2009 NEW CONSTRUCTION**

ATTEMPTED: 62, DENIED: 0, PENDING: 0, AWARDED: 62 OF 108 POINTS

	SUSTAINABLE SITES	22 OF 26
U	SSp1 Construction Activity Pollution Prevention	Y
	SSc1 Site Selection	1/1
	SSc2 Development Density and Community Connectivity	5/5
	SSc3 Brownfield Redevelopment	0/1
	SSc4.1Alternative Transportation-Public Transportation Access	6/6
	SSc4.2Alternative Transportation-Bicycle Storage and Changing Room	1/1
	SSc4.3Alternative Transportation-Low-Emitting and Fuel-Efficient V	3/3
	SSc4.4Alternative Transportation-Parking Capacity	2/2
	SSc5.1Site Development-Protect or Restore Habitat	0/1
	SSc5.2Site Development-Maximize Open Space	0/1
	SSc6.1Stormwater Design-Quantity Control	1/1
	SSc6.2Stormwater Design-Quality Control	1/1
	SSc7.1Heat Island Effect, Non-Roof	0/1
	SSc7.2Heat Island Effect-Roof	1/1
	SSc8 Light Pollution Reduction	1/1
	WATER EFFICIENCY	7 OF 10
	WEp1 Water Use Reduction-20% Reduction	Y
	WEc1 Water Efficient Landscaping	4/4
	WEc2 Innovative Wastewater Technologies	0/2
	WEc3 Water Use Reduction	3/4
	ENERGY AND ATMOSPHERE	11 OF 35
	EAp1 Fundamental Commissioning of the Building Energy Systems	Y
	EAp2 Minimum Energy Performance	Y
	EAp3 Fundamental Refrigerant Mgmt	Y
	EAc1 Optimize Energy Performance	5 / 19
	EAc2 On-Site Renewable Energy	0/7
	EAc3 Enhanced Commissioning	2/2
	EAc4 Enhanced Refrigerant Mgmt	2/2
	EAc5 Measurement and Verification	0/3
	EAc6 Green Power	2/2
	MATERIALS AND RESOURCES	7 OF 14
	MRp1 Storage and Collection of Recyclables	Y
	MRc1.1Building Reuse-Maintain Existing Walls, Floors and Roof	0/3
	MRc1.2Building Reuse - Maintain 50% of Interior Non-Structural Ele	0/1
	MRc2 Construction Waste Mgmt	2/2
	MRc3 Materials Reuse	0/2
	MRc4 Recycled Content	2/2

MATE	CONTINUED	
MRc5	Regional Materials	2/2
MRc6	Rapidly Renewable Materials	0 / 1
MRc7	Certified Wood	1/1

	INDOOR ENVIRONMENTAL QUALITY	10 OF 15
ļ	IEQp1 Minimum IAQ Performance	Y
	IEQp2 Environmental Tobacco Smoke (ETS) Control	Y
	IEQc1 Outdoor Air Delivery Monitoring	1/1
	IEQc2 Increased Ventilation	1/1
	IEQc3.1Construction IAQ Mgmt Plan-During Construction	1/1
	IEQc3.2Construction IAQ Mgmt Plan-Before Occupancy	1/1
	IEQc4.1Low-Emitting Materials-Adhesives and Sealants	1/1
	IEQc4.2Low-Emitting Materials-Paints and Coatings	1/1
	IEQc4.3Low-Emitting Materials-Flooring Systems	1/1
	IEQc4.4Low-Emitting Materials-Composite Wood and Agrifiber Products	1/1
	IEQc5 Indoor Chemical and Pollutant Source Control	0/1
	IEQc6.1Controllability of Systems-Lighting	1/1
	IEQc6.2Controllability of Systems-Thermal Comfort	1/1
	IEQc7.1Thermal Comfort-Design	0/1
	IEQc7.2Thermal Comfort-Verification	0/1
	IEQc8.1Daylight and Views-Daylight	0/1
	IEQc8.2Daylight and Views-Views	0/1

	INNOVATION IN DESIGN	3 OF 6
9	IDc1.1 Innovation in Design	0/1
	IDc1.1 Green Power: Exemplary Performance	1/1
	IDc1.2 Innovation in Design	0/1
	IDc1.2 Green Cleaning	1/1
	IDc1.3 Innovation in Design	0/1
	IDc1.3 Innovation in Design	0/1
	IDc1.4 Innovation in Design	0/1
	IDc1.4 Innovation in Design	0/1
	IDc1.5 Innovation in Design	0/1
	IDc1.5 Innovation in Design	0/1
	IDc2 LEED® Accredited Professional	1/1
0	REGIONAL PRIORITY CREDITS	2 OF 2
$\bigcirc$	SSc6.1Stormwater Design-Quantity Control	1/1
	SSc7.2Heat Island Effect-Roof	1/1
	TOTAL	62 OF 108

# **CREDIT DETAILS**



## Project Information Forms

## **PIf1: Minimum Program Requirements**

Approved

## 05/13/2014 DESIGN APPEAL REVIEW

A fully executed Confirmation of Agents Authority Form has been provided. The documentation demonstrates compliance.

## 03/18/2014 DESIGN FINAL REVIEW

A Confirmation of Agent's Authority form has been provided in response to the Preliminary Review.

However, the provided Confirmation of Agents Authority Form has not been signed by all three parties (the Owner, Agent, and GBCI) and therefore is not a fully executed, legally-binding agreement.

TECHNICAL ADVICE:

In order to allow GBCI to sign the Confirmation of Agents Authority Form (required for full execution), please email a copy of the form, signed by the Owner and the Agent, to legal@gbci.org for processing and acceptance. Ensure that the fully executed agreement and the email confirming agreement acceptance from the GBCI Legal Department are provided in the Construction review.

For additional information, please see the Required Signatory and Common Issues with Owner Information in LEED Online sections of the LEED Online Help Content.

## 01/07/2014 DESIGN PRELIMINARY REVIEW

The LEED Project Information Form has been submitted stating that the project complies with all Minimum Program Requirements. The project Owner has signed the form. The project will comply with MPR 6: Must Commit to Sharing Whole-Building Energy and Water Usage Data, via Option 3. The project is located in Rochester, New York.

However, it is unclear whether the project Owner information has been reported appropriately within this project. The Registration Details Tab indicates that Stephen Thompson (of Clark Patterson Associates) is the project Owner Primary Contact, is an employee of the project Owner Organization (Monroe County), and has signed the LEED Certification Agreement. The Team Administration Tab, however, indicates another individual who is associated with a different organization as the project Owner (Reinhard Gsellmeier of Monroe County). As such, it is unclear whether both organizations and individuals meet the legal requirements of the project Owner. Note that the LEED definition of Owner refers to the person or entity that holds the legal right to possess, control, and operate the real property for the project being registered. Only qualified individuals should be designated this role within the Team Administration and Registration Tabs and only the Owner or Owner's designated agent can sign the LEED Certification Agreement.

#### TECHNICAL ADVICE:

Please provide a signed and dated narrative on Owner letterhead which confirms that this LEED-NC project is legally jointly owned and operated by Monroe County and Clark Patterson Associates. Revise the Owner Primary Contact fields of the Registration Details Tab and the individual roles within the Team Administration Tab as necessary to ensure that only individuals meeting the LEED definition of Owner have been given the Owner role.

If the project is not jointly owned and operated by Monroe County and Clark Patterson Associates, it appears that the project Owner Information has been completed incorrectly. Please see the Required Signatory and Common Issues with Owner Information in LEED Online sections of the LEED Online Help Content for additional information regarding how to request changes to the project Owner Information. Ensure that all necessary documentation, as outlined in the Help Content and based on the chosen compliance path, is provided within the Special Circumstances section of this form for the Final Review.

## **PIf2: Project Summary Details**

Approved

## 05/13/2014 DESIGN APPEAL REVIEW

This Project Information Form was previously approved in the Design Final Review. No changes have been made.

## 03/14/2014 DESIGN FINAL REVIEW

The area reported in PIf3: Occupant and Usage Data has been revised to be consistent with the area reported in this form. The documentation demonstrates compliance.

## 01/06/2014 DESIGN PRELIMINARY REVIEW

The LEED Project Information Form has been submitted including the following project summary details. There is one building in this LEED-NC application with a total of three stories and 24,953 gross square feet. The project is 100% new construction. The total site area within the LEED-NC project boundary is 101,300 square feet and the building area to site area ratio is 24.63%. The project is located on a campus. There are 81 parking spaces available to the occupants, two floors above grade and one floor below grade (excluding parking levels). The site was previously developed. The building uses energy from natural gas and electricity and uses water from a municipal potable water system. The sewage is conveyed to a municipal sewer system. The total project budget is \$9,500,000.

However, the total building gross square footage presented here (24,953 square feet) is inconsistent with that within PIf3: Occupant and Usage Data (42,475 square feet). All square footage values must be reported consistently across all submittals.

TECHNICAL ADVICE:

Please provide a clarification narrative and revise the form as necessary to ensure that the total gross square footage is consistent across all submittals.

## Plf3: Occupant and Usage Data Approved

#### 05/13/2014 DESIGN APPEAL REVIEW

This Project Information Form was previously approved in the Design Final Review. No changes have been made.

#### 03/14/2014 DESIGN FINAL REVIEW

The area reported in this form has been revised to be consistent with the area reported in PIf2: Project Summary Details. The documentation demonstrates compliance.

## 01/06/2014 DESIGN PRELIMINARY REVIEW

The LEED Project Information Form has been submitted including the following occupant and usage data. The occupant is a local government and the project consists primarily of administrative/professional office spaces. The building is intended to be owner-occupied and owner-managed after project completion. The average users value is 97, the peak users value is 101, the FTE value is 89, and the building is occupied 260 days per year.

However, the total regularly occupied area presented here (42,475 square feet) is inconsistent with the square footage within Plf2: Project Summary Details (24,953 square feet). All square footage values must be reported consistently across all submittals.

TECHNICAL ADVICE:

Revise the form as necessary to ensure that the total regularly occupied area is consistent across all submittals.

## PIf4: Schedule and Overview Documents

Approved

#### 05/13/2014 DESIGN APPEAL REVIEW

This Project Information Form was previously approved in the Design Final Review. No changes have been made.

## 03/14/2014 DESIGN FINAL REVIEW

A revised site plan showing the LEED project boundary has been provided to address the issue raised in the Preliminary Review. The documentation demonstrates compliance.

### 12/30/2013 DESIGN PRELIMINARY REVIEW

The LEED Project Information Form has been submitted including the design and construction schedule, the estimated date of substantial construction completion is noted as January 1, 2015, and the estimated date of occupancy is noted as March 16, 2015. The following required documents have been uploaded: exterior and interior renderings, floor plans, sections, site plan, and mechanical schedules and drawings. Additionally, the building systems narrative and the project narrative have been provided.

However, the site plans provided do not show the LEED Project Boundary. The Special Circumstances narrative in SSc8: Light Pollution Reduction states that project's LEED boundary is undefined due to its location within a campus setting. However, all LEED projects must define a LEED Project Boundary that meets the Minimum Program Requirements.

#### TECHNICAL ADVICE:

Please provide a revised site plan graphically delineating the LEED Project Boundary and labeling it as such.



#### SSp1: Construction Activity Pollution Prevention

## 06/29/2016 CONSTRUCTION PRELIMINARY REVIEW

The LEED Form states that the project has implemented an erosion and sedimentation control (ESC) plan that conforms to local standards and code, which are more stringent than the National Pollutant Discharge Elimination System (NPDES) program requirements.

Awarded

#### SSc1: Site Selection **POSSIBLE POINTS: 1**

Awarded: 1

ATTEMPTED: 1. DENIED: 0. PENDING: 0. AWARDED: 1

## 12/30/2013 DESIGN PRELIMINARY REVIEW

The LEED Credit Form has been provided stating that the project site does not meet any of the prohibited criteria.

SSc2: Development Density and **Community Connectivity** 

Awarded: 5

POSSIBLE POINTS

ATTEMPTED: 5, DENIED: 0, PENDING: 0, AWARDED: 5

## 03/14/2014 DESIGN FINAL REVIEW

A revised LEED Credit Form, narrative and revised area map have been provided to address the issue raised in the Preliminary Review. The documentation demonstrates credit compliance.

## 12/30/2013 DESIGN PRELIMINARY REVIEW

The LEED Credit Form has been provided stating that the project complies with Option 2 and the site is located within one-half mile of a minimum of ten basic community services and a minimum of one residential district (with a minimum density of ten units per acre). The project site condition is noted as previously developed with existing infrastructure. A scaled area plan showing the one-half mile radius, the locations of the basic services, and the residential district has been provided.

However, it is unclear whether all of the basic services are available to the general public due to several of the services being located on the community college campus (MCC Theater, Mercer Gallery, Leroy V. Good Library, and PAC Center). It is the intent of this credit that basic services are available to everyone and are not restricted to campus occupants and staff.

## TECHNICAL ADVICE:

Please provide a clarification narrative which demonstrates that the noted services are accessible to the public. Revise the form and map as necessary to ensure that the documentation highlights ten unique, gualifying basic services (restaurants may be counted twice) that are within the one-half mile radius of the project site which are accessible to the public.

SSc3: Brownfield Redevelopment **POSSIBLE POINTS: 1** 

Not Attempted

#### SSc4.1: Alternative Transportation-Public Awarded: 6 **Transportation Access**

POSSIBLE POINTS: ( ATTEMPTED: 6. DENIED: 0. PENDING: 0. AWARDED: 6

## 03/14/2014 DESIGN FINAL REVIEW

A narrative and revised area map showing the pedestrian routes to the transit stops have been provided to address the issue raised in the Preliminary Review. The documentation demonstrates credit compliance.

### 12/30/2013 DESIGN PRELIMINARY REVIEW

The LEED Credit Form has been provided stating that the project complies with Option 2 and is served by two bus lines within one-quarter mile walking distance of the project site. A scaled map showing the location of the transit stops has been provided.

However, the map provided does not indicate the pedestrian route from the main entrance of the project to the transit

stops. Note that this pedestrian route must be less than one-quarter mile in order to meet credit requirements; a onequarter mile radius is not applicable to this credit.

TECHNICAL ADVICE:

Please provide a revised drawing showing the pedestrian route from the main entrance of the project to each of the transit stops.

#### SSc4.2: Alternative Transportation-Bicycle Storage and Changing Rooms

Awarded: 1

POSSIBLE POINTS: 1 ATTEMPTED: 1, DENIED: 0, PENDING: 0, AWARDED: 1

#### 03/14/2014 DESIGN FINAL REVIEW

A narrative and calculations have been provided to address the issue raised in the Preliminary Review. The documentation demonstrates credit compliance.

#### 12/30/2013 DESIGN PRELIMINARY REVIEW

The LEED Credit Form has been provided stating that the project includes commercial / institutional spaces and that bicycle storage facilities have been provided to serve 15.84% of the LEED-NC project FTE and transient occupants, measured at peak occupancy, and shower facilities have been provided for 3.37% of the LEED-NC project FTE occupants. Bicycle storage facilities must be provided for at least 5% of project FTE and transient occupants, and shower facilities must be provided for at least 0.5% of FTE project occupants. Plans have been provided showing the location of the bicycle storage and shower facilities.

However, it appears that the bicycle storage facilities may be shared with occupants in the connected existing building, and it is unclear how the facilities are being allocated between the projects.

#### TECHNICAL ADVICE:

Please provide a narrative and a revised site plan highlighting how the bicycle storage facilities are part of the project scope and/or will be allocated to the LEED project building.

Alternatively, provide supplemental calculations which confirm that sufficient bicycle storage and shower facilities have been provided to serve all occupants with access to the amenities, including individuals who are not part of this LEED-NC project.

#### SSc4.3: Alternative Transportation-Low-Emitting and Fuel-Efficient Vehicles POSSIBLE POINTS: 3

ATTEMPTED: 3, DENIED: 0, PENDING: 0, AWARDED: 3

## 05/13/2014 DESIGN APPEAL REVIEW

A narrative and revised project drawings have been provided to address the issues raised in the Design Final review. The documentation demonstrates credit compliance.

#### 03/14/2014 DESIGN FINAL REVIEW

A revised site plan and signage details have been provided.

However, the location of the designated spaces for low-emitting and fuel-efficient vehicles has been moved from where they were located on the site plan provided for the Preliminary Review and now does not meet the LEED definition of preferred, as required. Preferred spaces are those spaces located closest to the main entrance of the project (exclusive of spaces designed for handicapped).

The documentation does not demonstrate credit compliance.

For future submittals, please provide documentation, such as a narrative and/or revised site drawings, which confirms that the low-emitting and fuel-efficient vehicle parking spaces are located so as to meet the LEED definition of preferred.

## 01/06/2014 DESIGN PRELIMINARY REVIEW

The LEED Credit Form has been provided stating that the project complies with Option 1 and provides preferred parking spaces for low-emitting and fuel-efficient vehicles for 6.17% of total parking capacity. Preferred parking for low-emitting and fuel-efficient vehicles must be provided for at least 5% of the total parking capacity. A site plan (highlighting the total parking capacity and the preferred parking spaces) has been provided.

However, two issues are pending:

1. The site plan provided only shows four parking spaces for low-emitting and fuel-efficient vehicles, although there are five reported in the credit form.

2. The documentation does not confirm that the preferred low-emitting and fuel-efficient parking spaces are reserved, as required. Photographs or detail drawings of the installed signage have not been provided.

TECHNICAL ADVICE:

1. Please provide documentation confirming that the number of preferred parking spaces for low-emitting and fuelefficient vehicles is sufficient to serve at least 5% of the total parking capacity.

2. Provide photographs or signage details which confirm that the low-emitting and fuel-efficient parking spaces are reserved.

#### SSc4.4: Alternative Transportation-Parking Capacity

ATTEMPTED: 2, DENIED: 0, PENDING: 0, AWARDED: 2

Awarded: 2

05/13/2014 DESIGN APPEAL REVIEW

A narrative and revised project drawings have been provided to address the issues raised in the Design Final review. The documentation demonstrates credit compliance.

## 03/14/2014 DESIGN FINAL REVIEW

A revised site plan and signage details have been provided.

However, the location of the designated spaces for carpool vehicles has been moved from where they were located on the site plan provided for the Preliminary Review and now does not meet the LEED definition of preferred, as required. Preferred spaces are those spaces located closest to the main entrance of the project (exclusive of spaces designed for handicapped).

The documentation does not demonstrate credit compliance.

For future submittals, please provide documentation, such as a narrative and/or revised site drawings, which confirms that the carpool parking spaces are located so as to meet the LEED definition of preferred.

## 01/06/2014 DESIGN PRELIMINARY REVIEW

The LEED Credit Form has been provided stating that the LEED-NC project is non-residential and applies Case 1 - Option 1. The number of parking spaces provided to the base building does not exceed the minimum number required by local zoning regulations and the project provides five preferred parking spaces for car/vanpool vehicles (6.17% of total parking capacity). Preferred parking for car/vanpools must be provided for at least 5% of the total parking capacity. A site plan highlighting the total parking capacity and the preferred parking spaces has been provided.

However, two issues are pending:

1. The site plan provided only shows four parking spaces for carpool vehicles, although there are five reported in the credit form.

2. The documentation does not confirm that the preferred carpool parking spaces are reserved, as required. Photographs or detail drawings of the installed signage have not been provided.

TECHNICAL ADVICE:

1. Please provide documentation confirming that the number of preferred parking spaces for carpool vehicles is sufficient to serve at least 5% of the total parking capacity.

2. Provide photographs or signage details which confirm that the carpool parking spaces are reserved.

SSc5.1: Site Development-Protect or Restore Habitat POSSIBLE POINTS: 1	Not Attempted
SSc5.2: Site Development-Maximize Open Space POSSIBLE POINTS: 1	Not Attempted

## SSc6.1: Stormwater Design-Quantity

Awarded: 1

Control POSSIBLE POINTS: 1 ATTEMPTED: 1, DENIED: 0, PENDING: 0, AWARDED: 1

## 05/15/2014 DESIGN APPEAL REVIEW

The LEED Credit Form has been provided stating that prior to development of this project, the existing site

imperviousness was less than or equal to 50% therefore, Case 1 - Option 2 applies. A storm water management plan has been implemented to protect receiving stream channels from excessive erosion through stream channel protective strategies and quantity control strategies. The pre- and post-development runoff values have been provided within the form. Additional documentation has been provided to demonstrate how runoff volumes are stored and released from the site. In addition, clarification has been provided with respect to the time of concentration calculations and the flow path from the swale to the stream. The documentation demonstrates credit compliance.

## 02/12/2014 DESIGN FINAL REVIEW

The LEED Credit Form has been revised to address the issues outlined in the Preliminary Review comments and states that prior to development of this project, the existing site imperviousness was less than or equal to 50% therefore, Case 1 - Option 2 applies. A storm water management plan has been implemented to protect receiving stream channels from excessive erosion through stream channel protective strategies and quantity control strategies. The pre- and post-development runoff values have been provided within the form. A supplemental narrative and flow calculations have been provided. Although runoff reduction and channel protection volume calculations have been provided, it is not clear how the stormwater system manages those volumes and achieves the allowable discharge rates. In addition, the time of concentration calculations state that flows travel from the swale to the stream, therefore it is not clear how the ponds function to protect the stream. The documentation does not demonstrate credit compliance.

## 12/20/2013 DESIGN PRELIMINARY REVIEW

The LEED Credit Form has been provided stating that prior to development of this project, the existing site imperviousness was less than or equal to 50% therefore, Case 1 - Option 2 applies. A storm water management plan has been implemented to protect receiving stream channels from excessive erosion through stream channel protective strategies and quantity control strategies. The pre- and post-development runoff values have been provided within the form and documented in the submitted narrative. The storm water management plan which includes the description of the quantity control strategies and the stream channel protection strategies has been provided.

However, calculations for both the one and two-year design storms have not been provided. It is also unclear how large the existing storm water management pond is and what type of outlet the pond has.

TECHNICAL ADVICE:

Please provide calculations that document how the runoff rate and quantity for both the one- and two-year design storms were determined. Additionally, clarify the holding capacity for the existing storm water management pond and how the pond outlet is configured and functions to protect the downstream channel from excessive erosion.

SSc6.2: Stormwater Design-Quality Control

POSSIBLE POINTS: 1 ATTEMPTED: 1, DENIED: 0, PENDING: 0, AWARDED: 1

### 12/20/2013 DESIGN PRELIMINARY REVIEW

The LEED Credit Form has been provided stating that storm water runoff from 90% of the average annual rainfall is captured or treated such that 80% of the average annual post-development Total Suspended Solids (TSS) is removed. The form lists the project BMPs and structural controls and describes the contribution to storm water filtration of each, including their TSS removal rate and percent of annual rainfall volume treated.

SSc7.1: Heat Island Effect, Non-Roof POSSIBLE POINTS: 1

Not Attempted

Awarded: 1

#### SSc7.2: Heat Island Effect-Roof POSSIBLE POINTS: 1

ATTEMPTED: 1, DENIED: 0, PENDING: 0, AWARDED: 1

ED: 1

## 03/14/2014 DESIGN FINAL REVIEW

A revised LEED Credit Form has been provided stating that 96.86% of the base building roof surface has a Solar Reflectance Index meeting the credit requirements. A revised roof plan has also been provided. The documentation demonstrates credit compliance.

## 01/06/2014 DESIGN PRELIMINARY REVIEW

The LEED Credit Form has been provided stating that 1,005.21% of the base building roof surface has a Solar Reflectance Index meeting the credit requirements, therefore the project complies with Option 1. A minimum of 75% of the roof area must be SRI-compliant to achieve this credit via Option 1. The table listing the compliant SRI roofing materials, a roof plan, and manufacturer documentation for the installed roofing materials have been provided.

However, it appears that the areas of compliance roofing materials (10,425 square feet) and the total roof area (977 square feet) have been inaccurately reported in the credit form.

## Awarded: 1

TECHNICAL ADVICE:

POSSIBLE POINTS:

Please provide a revised LEED Credit Form that accurately accounts for the required project information. Provide a revise roof plan with area calculations on the drawings to confirm the values reported in the credit form.

## SSc8: Light Pollution Reduction

Awarded: 1

ATTEMPTED: 1, DENIED: 0, PENDING: 0, AWARDED: 1

## 05/13/2014 DESIGN APPEAL REVIEW

A narrative and revised photometric site plan have been provided to address the issue raised in the Design Final review. The documentation demonstrates credit compliance.

## 03/14/2014 DESIGN FINAL REVIEW

A revised LEED Credit Form and revised photometric site plan have been provided in response to the Preliminary Review. However, the photometric site plan shows that the light trespass limits are exceeded at the entry drive to the parking lot to the Southwest of the building.

The documentation does not demonstrates credit compliance.

## 01/06/2014 DESIGN PRELIMINARY REVIEW

The LEED Credit Form has been provided stating that the base building complies with Option 1 and that all nonemergency interior luminaires with a direct line of sight to any openings in the building envelope have had their input power reduced by at least 50% between 11pm and 5am via automatic devices. Additionally, there are exterior lighting devices within the LEED-NC Project Boundary. The site is classified as LZ3: Medium. The exterior lighting power density tables have been completed. The total actual exterior lighting power is less than or equal to total allowable for tradable surfaces and the actual LPD for nontradable surfaces is less than or equal to the allowable for each nontradable surface. The site lumen calculation table has been completed and the percentage of site fixture lumens above 90 degrees from the nadir is less than or equal to the percentage allowed by the lighting zone. Drawings showing the locations of the automatic controls, documentation detailing the sequence of operations of the interior lighting, and an exterior site photometric plan have been provided.

However, three issues are pending:

1. Table SSc8-4 Site Lumen Calculation only includes one fixture type (P1) and does not account for all exterior lighting fixtures shown on the electrical plans provided (WP, PC). All exterior lighting must be accounted for in the credit form.

2. Table 1.4.3B in EAp2: Minimum Energy Performance indicates that there are nontradable exterior lighting applications that have not been accounted for in this credit form.

3. The LEED-NC Project Boundary and the light trespass limit line which is 15 feet beyond the LEED-NC Project Boundary have not been indicated on the photometric plan. Therefore, compliance with the illuminance requirements for LZ3 cannot be confirmed. The Special Circumstances narrative states that the project's LEED boundary is undefined due to its location within a campus setting. As noted in the review comment for PIf4: Schedule and Overview Documents, a LEED Project Boundary must be defined.

### TECHNICAL ADVICE:

1. Revise the site lumen calculation in the credit form to account for all exterior lighting fixtures within the LEED Project Boundary. Ensure that the quantity and nomenclature of fixtures is consistent throughout all documentation.

2. Revise the credit form to account for all exterior lighting applications, including the nontradable exterior lighting reported in Table 1.4.3B in EAp2: Minimum Energy Performance.

3. Provide a revised photometric site plan that indicates the LEED-NC Project Boundary and the light trespass limit line which is 15 feet beyond the LEED-NC Project Boundary in order to confirm compliance with the illuminance requirements of LZ3. For additional guidance, see LEED Interpretations 10236 and 3108 for additional guidance related to projects on a campus.



## WEp1: Water Use Reduction-20% Reduction

Awarded

## 03/14/2014 DESIGN FINAL REVIEW

A revised LEED Prerequisite Form and water use calculations have been provided stating that the potable water usage in the project has been reduced by 39.13% from a calculated baseline design. A narrative and fixture schedule have also been provided in response to the Preliminary Review. The documentation demonstrates prerequisite compliance.

## 01/07/2014 DESIGN PRELIMINARY REVIEW

The LEED Prerequisite Form and water use calculations have been provided stating that the potable water usage in the project has been reduced by 43.95% from a calculated baseline design. A minimum reduction of 20% is required. A plumbing fixture schedule has been provided.

However, four issues are pending:

1. The calculations indicate an occupancy breakdown of 85.8% males and 14.2% females based on historic employment data for the building. The calculations require a balanced, one-to-one gender ratio unless project-specific conditions warrant an alternative ratio for the lifespan of the building. Note that current/historic staffing level is not an acceptable rationale for deviating from the standard usage ratio of 50% male and 50% female.

2. The floor plans provided in Plf4: Schedule and Overview Documents indicates that the project includes four unisex/male restrooms that do not contain urinals (Toilet 150B, Toilet 162, Toilet 234 and Toilet 235). The calculations in the form automatically assume that 100% of male occupants will use restrooms that contain urinals. If a percentage of male occupants will not have access to or will not be expected to use restrooms with urinals, the default Total Daily Uses for water closets and urinals will need to be adjusted in the form accordingly.

3. The fixture schedule and the Prerequisite Form indicate that the lavatories are autocontrol faucets but the flow rates have not been converted from gallons per minute (GPM) to gallons per cycle (GPC) and, although the fixture type has been manually entered as "sensor", the fixture type has not been listed as Metering in Table WEp1-4 Flow Fixture Data. When autocontrol lavatory faucets are used, flow rates may be converted from GPM to GPC based on duration and the metering baseline fixture type should be selected as outlined in USGBC's Water Use Reduction Additional Guidance. Please note that autocontrol faucets have a default 12-second design case duration when converting to GPC per Table 2 within the WEp1 section of the LEED Reference Guide for Green Building Design and Construction, 2009 Edition.

4. The fixture schedule provided does not include the shower fixture.

TECHNICAL ADVICE:

1. Please revise the form to ensure that a balanced, one-to-one gender ratio is utilized for the calculations. If projectspecific conditions exist where an alternative ratio is justified for the lifespan of the building, provide a narrative and supporting documentation to confirm that the ratio applies for the life of the building.

2. Provide a narrative and/or supporting daily use calculations to explain the anticipated urinal usage. Revise the form as necessary to ensure that the Total Daily Uses column for the water closets and urinals have been modified appropriately.

3. Update the form as applicable to ensure that the autocontrol lavatory faucets are converted from GPM to GPC and listed in the form as Metering in Table WEp1-4 Flow Fixture Data. Ensure that the design case calculations use the default 12-second duration when converting to GPC. Note that the duration column is not applicable in this case and therefore should not be modified.

4. Provide a revised fixture schedule showing the flow rates for all applicable fixtures in the project, including showers.

Please refer to the LEED Reference Guide for Green Building Design and Construction, 2009 Edition and the Water Use Reduction Additional Guidance found on the USGBC website for additional information regarding how to document this prerequisite.

#### WEc1: Water Efficient Landscaping POSSIBLE POINTS: 4

Awarded: 4

ATTEMPTED: 4, DENIED: 0, PENDING: 0, AWARDED: 4

### 12/30/2013 DESIGN PRELIMINARY REVIEW

The LEED Credit Form has been provided stating that the landscaping does not utilize permanent irrigation systems and that all temporary irrigation systems used for plant establishment will be removed within one year of installation. The form has been signed as required. The site plan and the narrative describing how the landscape has been designed for no irrigation have been provided.

# WEc3: Water Use Reduction POSSIBLE POINTS: 4

## Awarded: 3

ATTEMPTED: 3, DENIED: 0, PENDING: 0, AWARDED: 3

## 03/14/2014 DESIGN FINAL REVIEW

The LEED Credit Form and water use calculations have been provided stating that the potable water usage in the project has been reduced by 39% from the calculated baseline design fixture performance. A minimum reduction of 30% is required. The documentation demonstrates credit compliance.

## 12/30/2013 DESIGN PRELIMINARY REVIEW

The LEED Credit Form and water use calculations have been provided stating that the potable water usage in the project has been reduced by 44% from the calculated baseline design fixture performance. A minimum reduction of 30% is required.

However, WEp1: Water Use Reduction has been denied pending clarifications.

TECHNICAL ADVICE:

Please see the comments within WEp1 and resubmit this credit.

## **Energy and Atmosphere**

#### EAp1: Fundamental Commissioning of the Building Energy Systems

## 06/29/2016 CONSTRUCTION PRELIMINARY REVIEW

The LEED Form states that fundamental commissioning is complete.

EAp2: Minimum Energy Performance Awarded

06/22/2016 CONSTRUCTION PRELIMINARY REVIEW

### 03/13/2014 DESIGN FINAL REVIEW

The LEED Prerequisite Form has been revised to address the issues outlined in the Preliminary Review and states that the project has achieved an energy cost savings of 20.55% using the ASHRAE 90.1-2007 Appendix G methodology. Revised supporting documentation has been provided including a narrative response to Preliminary Review comments, updated simulation input and output summary files, and an exceptional calculation. Sufficient information has been provided to address all issues raised in the Preliminary Review. The total predicted annual energy consumption for the project is 250,131 kWh/year of electricity and 9,554 therms/year of natural gas. The documentation demonstrates prerequisite compliance.

Awarded

Thank you for using the new Section 1.4 input file. This new input file will be required to be used for all projects registered after September 30, 2013.

## 01/06/2014 DESIGN PRELIMINARY REVIEW

The LEED Prerequisite Form and supporting documentation have been provided stating that the project complies with Option 1. The form is stating that the project has achieved an energy cost savings of 20.92% using the ASHRAE 90.1-2007 Appendix methodology. A minimum energy cost savings of 10% is required for all new construction projects. Energy efficiency measures incorporated into the building design include an improved thermal envelope, high efficiency glazing, reduced interior and exterior lighting power density, occupancy sensors, variable speed fans, enthalpy economizer and high efficiency HVAC equipment.

However, the following eight review comments requiring a project response (marked as Mandatory) must be addressed for the Final Review. For the remaining review comments (marked as Optional), a project response is optional.

Thank you for using the new Section 1.4 input file. This new input file will be required to be used for all projects registered after September 30, 2013.

TECHNICAL ADVICE:

REVIEW COMMENTS REQUIRING A PROJECT RESPONSE (Mandatory):

1. Please provide a narrative response to each Preliminary Review comment below.

2. The claimed window assembly U-value of 0.326 is significantly lower than expected given the window types. Metal framed and curtainwall windows typically have an assembly U-value of 0.4 to 0.5. Provide additional information (product cut sheets, manufacturer's data, calculations, etc.) to confirm that the framed assembly U-value used for the Proposed Case is accurately modeled. Update Table 1.4.2A and the Proposed model as necessary.

3. The exterior lighting power does not appear to be consistent with the information provided in SSc8: Light Pollution Reduction. After making any required changes to SSc8, ensure that no credit is taken in the Proposed Case for lighting reductions on non-tradable surfaces. Additionally, note that additional lighting power allowance cannot be claimed in the Baseline model for surfaces that are not provided with lighting in the actual design and lighting fixtures cannot be double counted for different exterior surfaces. Verify that the Proposed Case exterior lighting reflects the actual building design, and the Baseline Case reflects the allowed lighting power from ASHRAE 90.1-2007 Section 9.4.5. Please note that v4 of the SSc8 Credit Form uses addendum i to 90.1-2007; therefore, that form calculates a more stringent requirement. Based upon the surfaces listed in the SSc8 Form, the total Baseline exterior lighting allowance should be approximately 4.5 kW. Table 1.4.3B indicates some nontradable exterior lighting while the SSc8 form indicates the project does not include any non-tradable lighting power. Please ensure that the same methodology is used for SSc8 and EAp2. Report the tradable and non-tradable surface lighting power separately (in units of Watts or Kilowatts) for both the Baseline and Proposed Case in Supplemental Table 1.4.3B, and verify that these values are appropriately updated in the model.

4. Table 1.4.7A indicates that there are 63 PSZ systems in the Baseline corresponding with the AHU-1 and AHU-2 systems from the Proposed. The mechanical schedules indicate that there are 41 terminal units in the Proposed design. Section G3.1.1 requires that for a system #3 that each thermal block in the Proposed be modeled in the Baseline with its own HVAC system. Please provide an explanation for the disparity or ensure that the same numbers of thermal blocks are included in both models. Update Table 1.4.7A/1.4.7B and the models as necessary.

5. The project is claiming energy savings for the snow melt system based on a difference in boiler efficiency. Please indicate this energy end use in Table EAp2-4 as a Process load. A narrative should describe all Baseline and Proposed case assumptions included for this measure as well as the calculation methodology used to determine the projected savings. The 25.77% savings claimed in Table EAp2-5 is greater than expected given a 14% improvement in the boiler efficiency and all other parameters being modeled identically. Please address this issue in the narrative.

6. The Process energy cost has been incorrectly entered in Table EAp2-9. Based on Table EAp2-7 the Process energy cost is 24.66%. The unregulated receptacle and process energy should not be arbitrarily set to 25% of the total Baseline building cost, but should reflect the actual process loads in the appropriate spaces as required by ASHRAE 90.1-2007 Table G3.1.1(a) and G3.1.12. Revise the Proposed and Baseline models as necessary to reflect the actual unregulated inputs (such as receptacle loads, kitchen loads, elevator loads, etc.) in the appropriate spaces. In addition, revise the Supplemental Table 1.4.4 reflecting the changes. If the process cost is below 25% of the Baseline energy cost after making any necessary changes, provide an additional narrative justification for the low process cost.

7. The energy use values entered in Table EAp2-5 for the Proposed do not match the values from the modeling software output reports. It appears as if the electric space heating energy use from the BEPU report has not been included in Table EAp2-5. Please ensure that the energy use and energy cost values in the form match the corresponding values in the modeling output reports for the final review.

8. Please provide a narrative describing any additional changes made to the energy models between the Preliminary and Final Review phases not addressed by the responses to the review comments. Note that the mandatory comments are perceived to reduce the projected savings for the Proposed design. If the projected savings increase substantially in the Final submission, without implementing any optional comments that may improve performance, a narrative explanation for these results must be provided.

REVIEW COMMENTS THAT DO NOT REQUIRE A PROJECT RESPONSE, BUT MAY LEAD TO AN IMPROVED PERFORMANCE RATING IF ADDRESSED (Optional):

9. It is unclear whether the Baseline case fan power was modeled in accordance with ASHRAE 90.1-2007 Section G3.1.2.9. The fan power for each system reported in the SV-A reports appears to be less than the values calculated correctly for G3.1.2.9. If necessary, revise the sum of the design supply, return, exhaust and relief fans for each Baseline HVAC system to be equal to the power calculated in G3.1.2.9 where CFM refers to the design supply CFM. If the energy simulation tool used for the analysis calculates this Baseline fan power value automatically, manually check the outputs for each system against equation G3.1.2.9 to verify that the fans have been modeled appropriately. Indicate any pressure adjustments reflected in the fan power calculations. Report the total fan power in the Supplemental Table 1.4.7A and update the Baseline energy model as necessary.

### EAp3: Fundamental Refrigerant Management

Awarded

## 12/30/2013 DESIGN PRELIMINARY REVIEW

The LEED Prerequisite Form has been provided stating that there are no CFC-based refrigerants in the HVAC systems which serve the LEED-NC project.

# EAc1: Optimize Energy Performance

ATTEMPTED: 5, DENIED: 0, PENDING: 0, AWARDED: 5

## 03/13/2014 DESIGN FINAL REVIEW

Additional documentation has been provided for EAp2: Minimum Energy Performance claiming an energy cost savings of 20.55%. The clarifications provided are sufficient to verify the savings claimed. The documentation demonstrates credit compliance.

Awarded: 5

### 12/27/2013 DESIGN PRELIMINARY REVIEW

The LEED Credit Form and supporting documentation have been provided stating that the project has achieved an energy cost savings of 20.92% using the ASHRAE 90.1-2007 Appendix G methodology. A minimum energy cost savings of 12% is required for all new construction projects.

However, EAp2: Minimum Energy Performance is pending clarifications.

TECHNICAL ADVICE:

Please see the comments in EAp2 and resubmit this credit.

Not Attempted

## 10/10/2016 CONSTRUCTION FINAL REVIEW

The additional documentation demonstrates compliance.

## 06/29/2016 CONSTRUCTION PRELIMINARY REVIEW

The LEED Form states that enhanced commissioning has been implemented. However, to demonstrate compliance, the following must be addressed.

TECHNICAL ADVICE

1. The commissioning proposal provided does not include an acceptance signature by the owner and does not constitute a fully executed contract between the parties. Provide the fully executed contract between the Owner and the Commissioning Agent which ensures post-construction commissioning activities.

2. The provided systems manual does not contain sufficient detail to confirm that it provides future operating staff with the information needed to understand and optimally operate the commissioned systems. Update the manual to include detail on at least two sections recommended by the LEED BD+C v2009 Reference Guide; final version of the basis of design; system single-line diagrams; as-built sequences of operations, control drawings, and original setpoints; operating instructions for integrated building systems; recommended schedule of maintenance requirements and frequency; recommended schedule for retesting of commissioned systems with blank test forms from the original commissioning plan; recommended schedule for calibrating sensors and actuators; other sections which provide future operating staff with information needed to understand and optimally operate the commissioned systems. If the systems manual is in draft form, it must still contain sufficient detail from at least two of the sections listed above.

## EAc4: Enhanced Refrigerant Management Awarded: 2

POSSIBLE POINTS: 2 ATTEMPTED: 2, DENIED: 0, PENDING: 0, AWARDED: 2

## 12/30/2013 DESIGN PRELIMINARY REVIEW

The LEED Credit Form has been provided stating that the project selected refrigerants and HVACR systems that minimize or eliminate the emission of compounds that contribute to ozone depletion and global climate change. Additionally, all fire suppression systems in the LEED-NC project do not use ozone-depleting substances including CFCs, HCFCs, or halons. The refrigerant impact calculation indicates that the total refrigerant impact of the LEED-NC project is 44 per ton, which is less than the maximum allowable value of 100.

EAc5: Measurement and Verification POSSIBLE POINTS: 3

Not Attempted

Awarded: 2

## EAc6: Green Power

ATTEMPTED: 2, DENIED: 0, PENDING: 0, AWARDED: 2

## **10/07/2016 CONSTRUCTION FINAL REVIEW**

The LEED Form states that the project has a two-year purchase agreement to procure 70.16% of electricity for this LEED project that meets the Green-e definition for renewable power using Option 1: Whole Building Energy Simulation.

### 06/22/2016 CONSTRUCTION PRELIMINARY REVIEW

The LEED Form states that the project has a two-year purchase agreement to procure 69.96% of electricity for this LEED project that meets the Green-e definition for renewable power using Option 1: Whole Building Energy Simulation.

#### MRp1: Storage and Collection of Recyclables

## Awarded

## 03/14/2014 DESIGN FINAL REVIEW

A more detailed narrative has been provided. The documentation demonstrates prerequisite compliance.

### 12/30/2013 DESIGN PRELIMINARY REVIEW

The LEED Prerequisite Form has been provided stating that the project has provided appropriately sized dedicated areas for the collection and storage of materials for recycling, including cardboard, paper, plastic, glass, and metals. The narrative has been provided describing the size, accessibility, and dedication of recycling storage areas in the project building, as well as the expected volume and pick-up frequencies. A floor plan has been provided highlighting the recycling collection and storage area.

However, the narrative states the recycling storage area is located in Janitor Closet 101B. It is not clear how the recycling is collected within the building (collection bins, etc.) and whether this collection and storage area is accessible to the building occupants.

TECHNICAL ADVICE:

Please provide a more detailed narrative describing how the recycling collection and storage areas are accessible to the building occupants. Provide revised project drawings showing the collection areas accessible to the building occupants and any other supporting documentation as appropriate.

Attempted

Not

Not

MRc1.1: Building Reuse-Maintain Existing Walls, Floors and Roof POSSIBLE POINTS: 3

MRc1.2: Building Reuse - Maintain 50% of Interior Non-Structural Elements Attempted POSSIBLE POINTS: 1

#### MRc2: Construction Waste Management Awarded: 2

**POSSIBLE POINTS: 2** ATTEMPTED: 2. DENIED: 0. PENDING: 0. AWARDED: 2

#### 06/29/2016 CONSTRUCTION PRELIMINARY REVIEW

The LEED Form states that the project has diverted 78.15% of the on-site generated construction waste from landfill.

**MRc3: Materials Reuse POSSIBLE POINTS: 2** 

Not Attempted

Awarded: 2

### **MRc4: Recycled Content**

**POSSIBLE POINTS: 2** ATTEMPTED: 2, DENIED: 0, PENDING: 0, AWARDED: 2

## 06/29/2016 CONSTRUCTION PRELIMINARY REVIEW

The LEED Form states that 26.24% of the total building materials content, by value, has been manufactured using recycled materials.

#### **MRc5: Regional Materials** POSSIBLE POINTS: 2

Awarded: 2

ATTEMPTED: 2. DENIED: 0. PENDING: 0. AWARDED: 2

## **10/10/2016 CONSTRUCTION FINAL REVIEW**

The additional documentation states that 21.12% of the total building materials value includes materials and products that have been manufactured and extracted within 500 miles of the project site.

#### 07/05/2016 CONSTRUCTION PRELIMINARY REVIEW

The LEED Form states that 30.95% of the total building materials value includes materials and products that have been

manufactured and extracted within 500 miles of the project site. However, to demonstrate compliance, the following must be addressed.

TECHNICAL ADVICE

1. Rebar from Nucor/Klien, Structural Steel from Steel Dyn.-Columbia City, Cold Form Framing and Metal Framing from Telling, and Toilet Partition from General Parition are all metal products reported as 100% regional or with a regional percentage higher that the total combined recycled content percentage reported for each product in MRc4: Recycled Content. Although it may be reasonable to expect that the recycled content could have been recovered for recycling within 500 miles of the project site, it is not clear that the remaining percentage of raw materials (iron ore, bauxite, etc.) would have been extracted from the earth within 500 miles as well.

Note that in the context of this LEED credit, steel coil used as a feedstock material in the manufacturing of cold formed metal framing, for example, would not be considered a raw material. The raw materials would be the scrap steel recovered for recycling and the iron ore, etc. extracted from the earth to manufacture the steel coil.

Provide calculations for how the raw materials were determined. Information regarding how to document assemblies is provided in the LEED BD+C v2009 Reference Guide. Provide documentation such as letters from the manufacturer or cut sheets specifying that the materials were manufactured and extracted within a 500 mile radius of the project. Revise the form if necessary and provide a detailed narrative describing any changes made to the supporting documentation.

MRc6: Rapidly Renewable Materials POSSIBLE POINTS: 1

ATTEMPTED: 1, DENIED: 0, PENDING: 0, AWARDED: 1

Not Attempted

MRc7: Certified Wood POSSIBLE POINTS: 1 Awarded: 1

06/29/2016 CONSTRUCTION PRELIMINARY REVIEW

The LEED Form states that 53.58% of the total wood-based building materials are certified in accordance with the principles and criteria of the Forest Stewardship Council (FSC).



## **Indoor Environmental Quality**

#### IEQp1: Minimum Indoor Air Quality Performance

## Awarded

## 03/21/2014 DESIGN FINAL REVIEW

The LEED Prerequisite form has been revised and additional documentation has been provided including revised ventilation calculations for AHU-1 and AHU-2 using the ASHRAE 62MZCalc calculator and a summary table comparing the local code ventilation requirements compared to the ASHRAE 62.1-2007 requirements. The documentation demonstrates prerequisite compliance.

### 12/30/2013 DESIGN PRELIMINARY REVIEW

The LEED Prerequisite Form has been provided stating that the project is mechanically ventilated and mechanically conditioned and that the system has been designed using local code which is more stringent than ASHRAE 62.1-2007. The comparison of the local code and ASHRAE 62.1-2007 ventilation rate procedure and ventilation rate calculations have not been provided as required.

However, it does not appear that the ASHRAE VRP calculations have been performed as required for recirculating systems serving multiple ventilation zones.

#### TECHNICAL ADVICE:

Please provide a separate Ventilation Rate Procedure (VRP) calculation for each multiple-zone recirculating system serving the LEED-NC project and revise the comparative summary table as required.

Note that an upgraded version of the IEQp1 Prerequisite Form (Version 5.0) is available, which includes a calculator appropriate for documenting multiple-zone recirculating systems; however, it cannot properly calculate ventilation requirements for multiple zone recirculating systems with recirculation at the zone level (e.g. fan powered induction units). Since the project uses fan powered induction units, the project should provide calculations using the ASHRAE 62MZCalc Calculator, which may be downloaded from LEED Online for this prerequisite through the Credit Resources section. The 62MZCalc also includes the 30% increased ventilation calculations required for compliance with IEQc2. Note that a separate calculation is required for each ventilation system. If this calculator cannot be located within LEED Online, please request the calculator using the feedback button.

## IEQp2: Environmental Tobacco Smoke Awarded (ETS) Control

### 12/30/2013 DESIGN PRELIMINARY REVIEW

The LEED Prerequisite Form has been provided stating that the project minimizes exposure to ETS-containing air by prohibiting smoking on-site. Additionally, smoking is prohibited within the building. The form has been signed as required. A photograph confirming the signage system communicating the exterior smoking policy have been provided.

## IEQc1: Outdoor Air Delivery Monitoring Awarded: 1

ATTEMPTED: 1, DENIED: 0, PENDING: 0, AWARDED: 1

POSSIBLE POINTS:

### 03/18/2014 DESIGN FINAL REVIEW

A revised LEED Credit Form has been provided stating that a CO2 sensor has been installed within each densely occupied space. These devices are programmed to generate an alarm when the conditions vary by 10% or more from the design value. Drawings confirming the location of the CO2 sensors have been provided. The documentation demonstrates credit compliance.

## 01/06/2014 DESIGN PRELIMINARY REVIEW

The LEED Credit Form has been provided stating that the project meets the credit criteria for all mechanically ventilated spaces. An outdoor airflow measurement device has been installed for all systems where 20% or more of the design supply airflow services non-densely occupied spaces. These devices are programmed to generate an alarm when the conditions vary by 10% or more from the design value. Drawings confirming the location of the outdoor airflow measurement devices have been provided.

However, although the credit form states that the project building does not contain densely occupied spaces, the drawings provided throughout the submittal indicate that the project does, in fact, contain densely occupied spaces: Mens Lockers 030, Secure lockers 030B, Womens lockers 020, Secure Lockers 020B, Conference 142, Conference 101, Entry/Waiting 191B, Conference 200, etc.). The form has not been completed to confirm that all spaces with a design occupant density greater than or equal to 25 people per 1000 square feet are monitored by CO2 sensors, and drawings confirming the location of the CO2 sensors in each densely occupied space have not been provided as required.

Please revise the Credit Form to account for all spaces with a design occupant density greater than or equal to 25 people per 1000 square feet and provide drawings which highlight the location of all installed CO2 sensors.

# IEQc2: Increased Ventilation

Awarded: 1

ATTEMPTED: 1, DENIED: 0, PENDING: 0, AWARDED: 1

## 02/12/2014 DESIGN FINAL REVIEW

Additional documentation has been provided for IEQp1: Minimum Indoor Air Quality Performance confirming that the ventilation systems as designed provide at least 30% more ventilation airflow than the minimum required by ASHRAE 62.1-2007. The documentation demonstrates credit compliance.

## 12/30/2013 DESIGN PRELIMINARY REVIEW

The LEED Credit Form has been provided stating that the project AHUs are able to meet the ASHRAE 62.1-2007 outdoor air requirement and therefore applies Case 1. The credit form states that the project has increased breathing zone outdoor air ventilation rates to all occupied spaces by at least 30% above the minimum rates.

However, IEQp1: Minimum Indoor Air Quality Performance has been denied pending clarifications.

**TECHNICAL ADVICE:** 

Please see the comments within IEQp1 and resubmit this credit.

#### IEQc3.1: Construction IAQ Management Awarded: 1 Plan-During Construction

POSSIBLE POINTS: 1

ATTEMPTED: 1, DENIED: 0, PENDING: 0, AWARDED: 1

#### 06/29/2016 CONSTRUCTION PRELIMINARY REVIEW

The LEED Form states that the project reduces air quality problems resulting from construction to promote the comfort and well-being of construction workers and building occupants.

## IEQc3.2: Construction IAQ Management Awarded: 1

Plan-Before Occupancy POSSIBLE POINTS: 1 ATTEMPTED: 1, DENIED: 0, PENDING: 0, AWARDED: 1

## 06/29/2016 CONSTRUCTION PRELIMINARY REVIEW

The LEED Form states that an Indoor Air Quality (IAQ) Management Plan was developed and implemented and that the project complies with Option 1, Path 2: Early occupancy flush-out.

### IEQc4.1: Low-Emitting Materials-Adhesives and Sealants

Awarded: 1

## POSSIBLE POINTS: 1

ATTEMPTED: 1, DENIED: 0, PENDING: 0, AWARDED: 1

## **10/10/2016 CONSTRUCTION FINAL REVIEW**

The additional documentation demonstrates compliance.

#### 07/05/2016 CONSTRUCTION PRELIMINARY REVIEW

The LEED Form states that all adhesive and sealant products used on the inside of the weatherproofing system and applied on-site have been included in the tables and comply with the VOC limits of the referenced standards for this credit. However, to demonstrate compliance, the following must be addressed.

TECHNICAL ADVICE

1. Signatory IEQc4.1-1 has not been completed. Complete Signatory IEQc4.1-1.

#### **10/10/2016 CONSTRUCTION FINAL REVIEW**

The additional documentation demonstrates compliance.

## 06/29/2016 CONSTRUCTION PRELIMINARY REVIEW

The LEED Form states that all paint and coating products used on the inside of the weatherproofing system and applied on-site have been included in the tables and comply with the VOC limits of the referenced standards for this credit. However, to demonstrate compliance, the following must be addressed.

TECHNICAL ADVICE

1. Provide a revised form that has been signed by a project team member.

#### IEQc4.3: Low-Emitting Materials-Flooring Awarded: 1 Systems

POSSIBLE POINTS: 1 ATTEMPTED: 1, DENIED: 0, PENDING: 0, AWARDED: 1

#### 10/10/2016 CONSTRUCTION FINAL REVIEW

The additional documentation demonstrates compliance.

#### 07/05/2016 CONSTRUCTION PRELIMINARY REVIEW

The LEED Form states that all interior flooring materials meet or exceed applicable criteria for the Carpet and Rug Institute, South Coast Air Quality Management District, the California Department of Health Standard, or FloorScore; the carpet adhesives used have a VOC level of less than 50 g/L; all floor finishes meet the requirements of SCAQMD Rule 1113; and all tile setting adhesives and grout meet SCAQMD Rule 1168. However, to demonstrate compliance, the following must be addressed.

TECHNICAL ADVICE

1. The checkbox indicating that all flooring adhesives, sealants, materials and finishes used on the inside of the weatherproofing system and applied on-site have been included in the form tables has not been checked. Revise the form to confirm that all flooring adhesives, sealants, materials and finishes used on the inside of the weatherproofing system and applied on-site have been included in the form tables.

## IEQc4.4: Low-Emitting Materials- Awarded: 1 Composite Wood and Agrifiber Products

ATTEMPTED: 1, DENIED: 0, PENDING: 0, AWARDED: 1

## 10/10/2016 CONSTRUCTION FINAL REVIEW

The additional documentation demonstrates compliance.

#### 07/05/2016 CONSTRUCTION PRELIMINARY REVIEW

The LEED Form states that all composite wood and agrifiber products used on the interior of the building and all laminating adhesives used to fabricate on-site and shop-applied composite wood and agrifiber assemblies contain no added urea-formaldehyde resins. However, to demonstrate compliance, the following must be addressed.

TECHNICAL ADVICE

1. Laminating adhesives have not been included in the table. Revise the form to include all laminating adhesives used to fabricate on-site and shop-applied composite wood and agrifiber assemblies. Provide additional manufacturer documentation and a narrative if necessary.

2. Signatory IEQc4.4-1 has not been completed. Complete Signatory IEQc4.4-1.

IEQc5: Indoor Chemical and Pollutant Source Control POSSIBLE POINTS: 1 Not Attempted

Awarded: 1

IEQc6.1: Controllability of Systems-Lighting POSSIBLE POINTS: 1 ATTEMPTED: 1, DENIED: 0, PENDING: 0, AWARDED: 1

03/18/2014 DESIGN FINAL REVIEW

A revised LEED Credit Form, narrative and electrical details have been provided to address the issues raised in the Preliminary Review. The narrative states that each individual workstation will be provided with a task light. The documentation demonstrates credit compliance.

## 01/07/2014 DESIGN PRELIMINARY REVIEW

The LEED Credit Form has been provided stating that lighting controls are provided to enable 95.45% of occupants to make adjustments to suit individual task needs and preferences. A minimum of 90% of individual workstations must have individual lighting controls. The project includes shared multi-occupant spaces and lighting controls have been provided for 100% of the shared multi-occupant spaces. A minimum of 100% of shared multi-occupant spaces must have lighting controls. Drawings confirming the location of the individual controls and the location of shared multi-occupant spaces, including activities and types of lighting controls have been provided.

However, two issues are pending:

1. The lighting control description in the credit form only includes two descriptions: Occupancy Sensors and Occ. Sensor & Photocell. Note that occupancy and daylight sensors alone do not qualify for credit compliance. Individual spaces must be provided with individual lighting controls or task lighting, and shared multi-occupant spaces must be provided with compliant lighting controls. If on-off controls are used in shared multi-occupant spaces, an additional explanation must be provided to justify that the level of controls is sufficient for the uses of the space. Meeting spaces that can be subdivided must be designed with individual control of each area. If daylighting is used as the lighting control, there should be glare control and lighting level controls (e.g. daylight sensor override). In classrooms, room darkening shades where required by function (e.g. if A/V presentations are anticipated in the space) should also be included.

2. It appears that several spaces are inappropriately classified as shared multi-occupant spaces: Facilities Engineering 240; Work Room 163; Office 156; Reception Admin 230; Facilities/Admin 210; Public Safety 140; and Dispatch 150. Note that in individual occupant spaces, workers use standard workstations to conduct individual tasks. Examples are private offices and open office areas with multiple workers. Shared multi-occupant spaces include conference rooms, classrooms, and other indoor spaces used as places of congregation.

#### TECHNICAL ADVICE:

1. Please revise the lighting control type and description in the credit form to more accurately describe the lighting controls provided and demonstrate credit compliance.

2. Provide a narrative describing the activities that take place within the spaces noted above. Revise the form and documentation as necessary to ensure that spaces are appropriately classified. Provide furniture plans showing the location of all individual workstations (cubicles, desks, etc.) Note that spaces must be classified consistently throughout all submittal documentation.

# IEQc6.2: Controllability of Systems-

Awarded: 1

Thermal Comfort POSSIBLE POINTS: 1 ATTEMPTED: 1. DENIED: 0. PENDING: 0. AWARDED: 1

### 05/13/2014 DESIGN APPEAL REVIEW

A revised LEED Credit Form has been provided stating that the required thermal controls are provided to enable 72.5% of the occupants with the ability to make adjustments to suit individual needs and preferences. A narrative and highlighting project drawings have been provided to address the issues raised in the Design Final Review. The documentation demonstrates credit compliance.

### 03/21/2014 DESIGN FINAL REVIEW

A revised LEED Credit Form, narrative describing the activities in the spaces, and furniture plans have been provided.

However, the documentation provided still does not show the individual thermal comfort controls provided for individual workstations. The credit form indicates that 100% of individual workstations are provided with thermal comfort controls. This credit requires that at least 50% of the individual workstations (private offices, desks in open office spaces, receptionist stations, etc.) be provided with compliant thermal comfort controls. Note that a room thermostat in open office spaces with multiple desks/workstations does not mean that all workstations in that space are provided with thermal comfort controls. Each desk/workstation must be accounted for individually and compliant workstations must have their own thermal comfort control. The documentation does not demonstrate compliance.

For future submittals, please provide a detailed narrative and highlighted project drawings showing the type and location of the thermal comfort controls. The drawing should highlight each individual workstation and the associated thermal comfort control. Revise the form as appropriate.

## 12/30/2013 DESIGN PRELIMINARY REVIEW

The LEED Credit Form has been provided stating that the required thermal controls are provided to enable 100% of the occupants with the ability to make adjustments to suit individual needs and preferences. A minimum of 50% of individual workstations must have individual thermal controls. The project includes shared multi-occupant spaces and thermal controls have been provided for 100% of the shared multi-occupant spaces. A minimum of 100% of shared multi-

occupant spaces must have thermal controls. The project is mechanically ventilated. Drawings confirming the location of the shared multi-occupant spaces thermal controls have been provided.

However, it appears that several spaces are inappropriately classified as shared multi-occupant spaces: Facilities Engineering 240; Work Room 163; Office 156; Reception Admin 230; Facilities/Admin 210; Public Safety 140; and Dispatch 150. Note that to satisfy this portion of the requirement, all open plan workstations, private offices, and reception stations must be included in the calculations. Confirm that 50% or more of individuals occupying these locations have at least one means of individual control over thermal comfort.

TECHNICAL ADVICE:

Please provide a narrative describing the activities that take place within the spaces noted above. Revise the form and documentation as necessary to ensure that spaces are appropriately classified and to demonstrate that at least 50% of occupants are provided with temperature and ventilation adjustments. Provide furniture plans showing the location of all individual workstations (cubicles, desks, etc.) Note that spaces must be classified consistently throughout all submittal documentation.

IEQc7.1: Thermal Comfort-Design	Not
POSSIBLE POINTS: 1	Attempted
IEQc7.2: Thermal Comfort-Verification	Not
POSSIBLE POINTS: 1	Attempted
IEQc8.1: Daylight and Views-Daylight	Not
POSSIBLE POINTS: 1	Attempted
IEQc8.2: Daylight and Views-Views	Not
POSSIBLE POINTS: 1	Attempted



## Innovation in Design

IDc1.1: Innovation in Design POSSIBLE POINTS: 1 Not Attempted

## IDc1.1: Green Power

## Awarded: 1

POSSIBLE POINTS: 1 ATTEMPTED: 1, DENIED: 0, PENDING: 0, AWARDED: 1

## **10/07/2016 CONSTRUCTION FINAL REVIEW**

The LEED Form states that the project achieves exemplary performance for EAc6: Green Power as specified in the LEED BD+C v2009 Reference Guide.

#### 06/22/2016 CONSTRUCTION PRELIMINARY REVIEW

The LEED Form states that the project is pursuing exemplary performance for EAc6: Green Power as specified in the LEED BD+C v2009 Reference Guide. However, the requirement for exemplary performance is 70% and the project has documented 69.96%. To demonstrate compliance, the following must be addressed.

TECHNICAL ADVICE

1. Provide additional documentation to demonstrate the required green power purchase.

Alternatively, the project may pursue a different Innovation in Design strategy for the Final Review.

IDc1.2: Innovation in Design POSSIBLE POINTS: 1 Not Attempted

Awarded: 1

#### IDc1.2: Green Cleaning POSSIBLE POINTS: 1

POSSIBLE POINTS: 1 ATTEMPTED: 1, DENIED: 0, PENDING: 0, AWARDED: 1

## 06/29/2016 CONSTRUCTION PRELIMINARY REVIEW

The LEED Form states that the project team has developed and implemented a Green Housekeeping program. The project must demonstrate compliance with LEED-EBOM 2009 IEQp3: Green Cleaning Policy. The Green Cleaning Policy has been provided.

Awarded: 1

IDc1.3: Innovation in Design	Not
POSSIBLE POINTS: 1	Attempted
IDc1.3: Innovation in Design	Not
POSSIBLE POINTS: 1	Attempted
IDc1.4: Innovation in Design	Not
POSSIBLE POINTS: 1	Attempted
IDc1.4: Innovation in Design	Not
POSSIBLE POINTS: 1	Attempted
IDc1.5: Innovation in Design	Not
POSSIBLE POINTS: 1	Attempted
IDc1.5: Innovation in Design	Not
POSSIBLE POINTS: 1	Attempted

#### IDc2: LEED® Accredited Professional POSSIBLE POINTS: 1

ATTEMPTED: 1, DENIED: 0, PENDING: 0, AWARDED: 1

#### 06/29/2016 CONSTRUCTION PRELIMINARY REVIEW

The LEED Form states that a LEED AP has been a participant on the project development team.



SSc6.1: Stormwater Design-Quantity Control POSSIBLE POINTS: 1 ATTEMPTED: 1, DENIED: , PENDING: , AWARDED: 1

SSc7.2: Heat Island Effect-Roof POSSIBLE POINTS: 1 ATTEMPTED: 1, DENIED: , PENDING: , AWARDED: 1

TOTAL	108	62	0	0	62

# **REVIEW SUMMARY**

Review	SUBMITTED	RETURNED	<b>POINTS:</b> SUBMITTED	DENIED	PENDING	AWARDED
Design Preliminary	12/16/2013	01/07/2014	44	0	36	8
Credit	STATUS	ТҮРЕ	POINTS: ATTEMPTED	DENIED	PENDING	AWARDED
PIf1: Minimum Program Requirements	Not Approv	ed	0	0	0	0
PIf2: Project Summary Details	Not Approv	ed	0	0	0	0
Plf3: Occupant and Usage Data	Not Approv	ed	0	0	0	0
Plf4: Schedule and Overview Documents	Not Approv	ed	0	0	0	0
SSc1: Site Selection	Anticipated	Design	1	0	0	1
SSc2: Development Density and Community Connectivity	y <b>Pending</b>	Design	5	0	5	0
SSc4.1: Alternative Transportation-Public Transportation Access	Pending	Design	6	0	6	0
SSc4.2: Alternative Transportation-Bicycle Storage and Changing Rooms	Pending	Design	1	0	1	0
SSc4.3: Alternative Transportation-Low-Emitting and Fuel Efficient Vehicles	- Pending	Design	3	0	3	0
SSc4.4: Alternative Transportation-Parking Capacity	Pending	Design	2	0	2	0
SSc6.1: Stormwater Design-Quantity Control	Pending	Design	2	0	2	0
SSc6.2: Stormwater Design-Quality Control	Anticipated	Design	1	0	0	1
SSc7.2: Heat Island Effect-Roof	Pending	Design	2	0	2	0
SSc8: Light Pollution Reduction	Pending	Design	1	0	1	0
WEp1: Water Use Reduction-20% Reduction	Pending	Design	0	0	0	0
WEc1: Water Efficient Landscaping	Anticipated	Design	4	0	0	4
WEc3: Water Use Reduction	Pending	Design	4	0	4	0
EAp2: Minimum Energy Performance	Pending	Design	0	0	0	0
EAp3: Fundamental Refrigerant Management	Anticipated	Design	0	0	0	0
EAc1: Optimize Energy Performance	Pending	Design	5	0	5	0
EAc4: Enhanced Refrigerant Management	Anticipated	Design	2	0	0	2
MRp1: Storage and Collection of Recyclables	Pending	Design	0	0	0	0
IEQp1: Minimum Indoor Air Quality Performance	Pending	Design	0	0	0	0
IEQp2: Environmental Tobacco Smoke (ETS) Control	Pending	Design	0	0	0	0
IEQc1: Outdoor Air Delivery Monitoring	Pending	Design	1	0	1	0
IEQc2: Increased Ventilation	Pending	Design	1	0	1	0
IEQc6.1: Controllability of Systems-Lighting	Pending	Design	1	0	1	0
IEQc6.2: Controllability of Systems-Thermal Comfort	Pending	Design	1	0	1	0

Design Final 0	2/04/2014	03/21/2014	35	10	0	25
Credit	STATUS	ТҮРЕ	POINTS: ATTEMPTED	DENIED	PENDING	AWARDED
Plf1: Minimum Program Requirements	Not Approv	ed	0	0	0	0
Plf2: Project Summary Details	Approved		0	0	0	0
Plf3: Occupant and Usage Data	Approved		0	0	0	0
Plf4: Schedule and Overview Documents	Approved		0	0	0	0
SSc2: Development Density and Community Connectivity	Anticipated	Design	5	0	0	5
SSc4.1: Alternative Transportation-Public Transportation Access	Anticipated	Design	6	0	0	6
SSc4.2: Alternative Transportation-Bicycle Storage and Changing Rooms	Anticipated	Design	1	0	0	1
SSc4.3: Alternative Transportation-Low-Emitting and Fuel- Efficient Vehicles	Denied	Design	3	3	0	0
SSc4.4: Alternative Transportation-Parking Capacity	Denied	Design	2	2	0	0
SSc6.1: Stormwater Design-Quantity Control	Denied	Design	2	2	0	0
SSc7.2: Heat Island Effect-Roof	Anticipated	Design	2	0	0	2
SSc8: Light Pollution Reduction	Denied	Design	1	1	0	0
WEp1: Water Use Reduction-20% Reduction	Anticipated	Design	0	0	0	0
WEc3: Water Use Reduction	Anticipated	Design	3	0	0	3
EAp2: Minimum Energy Performance	Anticipated	Design	0	0	0	0
EAc1: Optimize Energy Performance	Anticipated	Design	5	0	0	5
MRp1: Storage and Collection of Recyclables	Anticipated	Design	0	0	0	0
IEQp1: Minimum Indoor Air Quality Performance	Anticipated	Design	0	0	0	0
IEQp2: Environmental Tobacco Smoke (ETS) Control	Anticipated	Design	0	0	0	0
IEQc1: Outdoor Air Delivery Monitoring	Anticipated	Design	1	0	0	1
IEQc2: Increased Ventilation	Anticipated	Design	1	0	0	1
IEQc6.1: Controllability of Systems-Lighting	Anticipated	Design	1	0	0	1
IEQc6.2: Controllability of Systems-Thermal Comfort	Denied	Design	1	1	0	0

Design Appeal	05/01/2014	06/02/2014	10	1	0	9
Credit	STATUS	ТҮРЕ	POINTS: ATTEMPTED	DENIED	PENDING	AWARDED
Plf1: Minimum Program Requirements	Approved		0	0	0	0
SSc4.3: Alternative Transportation-Low-Emitting and Fu Efficient Vehicles	el- Anticipated	Design	3	0	0	3
SSc4.4: Alternative Transportation-Parking Capacity	Anticipated	Design	2	0	0	2
SSc6.1: Stormwater Design-Quantity Control	Anticipated	Design	2	0	0	2
SSc8: Light Pollution Reduction	Anticipated	Design	1	0	0	1
IEQc6.2: Controllability of Systems-Thermal Comfort	Anticipated	Design	1	0	0	1

Construction Preliminary	06/14/2016	07/05/2016	21	0	10	11
Credit	STATUS	ТҮРЕ	POINTS: ATTEMPTED	DENIED	PENDING	AWARDED
SSp1: Construction Activity Pollution Prevention	Awarded	Construction	0	0	0	0
EAp1: Fundamental Commissioning of the Building Energy Systems	gy Awarded	Construction	0	0	0	0
EAp2: Minimum Energy Performance	Awarded	Design	0	0	0	0
EAc3: Enhanced Commissioning	Pending	Construction	2	0	2	0
EAc6: Green Power	Awarded	Construction	2	0	0	2
MRc2: Construction Waste Management	Awarded	Construction	2	0	0	2
MRc4: Recycled Content	Awarded	Construction	2	0	0	2
MRc5: Regional Materials	Pending	Construction	2	0	2	0
MRc7: Certified Wood	Awarded	Construction	1	0	0	1
IEQc3.1: Construction IAQ Management Plan-During Construction	Awarded	Construction	1	0	0	1
IEQc3.2: Construction IAQ Management Plan-Before Occupancy	Awarded	Construction	1	0	0	1
IEQc4.1: Low-Emitting Materials-Adhesives and Sealants	Pending	Construction	1	0	1	0
IEQc4.2: Low-Emitting Materials-Paints and Coatings	Pending	Construction	1	0	1	0
IEQc4.3: Low-Emitting Materials-Flooring Systems	Pending	Construction	1	0	1	0
IEQc4.4: Low-Emitting Materials-Composite Wood and Agrifiber Products	Pending	Construction	1	0	1	0
IDc1.1: Green Power: Exemplary Performance	Pending	Construction	1	0	1	0
IDc1.2: Green Cleaning	Awarded	Construction	1	0	0	1
IDc2: LEED® Accredited Professional	Awarded	Construction	1	0	0	1

Construction Final	09/27/2016	10/14/2016	11	0	0	11
Credit	STATUS	ТҮРЕ	POINTS: ATTEMPTED	DENIED	PENDING	AWARDED
EAc3: Enhanced Commissioning	Awarded	Construction	2	0	0	2
EAc6: Green Power	Awarded	Construction	2	0	0	2
MRc5: Regional Materials	Awarded	Construction	2	0	0	2
IEQc4.1: Low-Emitting Materials-Adhesives and Sealant	s Awarded	Construction	1	0	0	1
IEQc4.2: Low-Emitting Materials-Paints and Coatings	Awarded	Construction	1	0	0	1
IEQc4.3: Low-Emitting Materials-Flooring Systems	Awarded	Construction	1	0	0	1
IEQc4.4: Low-Emitting Materials-Composite Wood and Agrifiber Products	Awarded	Construction	1	0	0	1
IDc1.1: Green Power: Exemplary Performance	Awarded	Construction	1	0	0	1