

MRc3 Materials Reuse

MRc4 Recycled Content

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®).

Monroe Community College Downtown Campus

Project ID 1000054206

Rating system & version LEED-NC v2009

Project registration date 01/30/2015









1/1

64 OF 108

Certified (Gold)

MRc1.1Building Reuse-Maintain Existing Walls, Floors and Roof

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

LEED 2009 NEW CONSTRUCTION

ATTEMPTED: 63, DENIED: 0, PENDING: 0, AWARDED: 64 OF 108 POINTS

SUSTA INA BLE SITES	19 OF 26	MATERIALS AND RESOURCES	CONTINUE
SSp1 Construction Activity Pollution Prevention	Y	MRc5 Regional Materials	0 /
SSc1 Site Selection	1/1	MRc6 Rapidly Renewable Materials	0 /
SSc2 Development Density and Community Connectivity	5/5	MRc7 Certified Wood	1/
SSc3 Brownfield Redevelopment	0/1		
SSc4.1Alternative Transportation-Public Transportation Access	6/6	INDOOR ENVIRONMENTAL QUALITY	12 OF 1
SSc4.2Alternative Transportation-Bicycle Storage and Changing Room	1/1		
SSc4.3Alternative Transportation-Low-Emitting and Fuel-Efficient V	3/3	IEQp1 Minimum IAQ Performance	
SSc4.4Alternative Transportation-Parking Capacity	2/2	IEQp2 Environmental Tobacco Smoke (ETS) Control	1.1
SSc5.1Site Development-Protect or Restore Habitat	0/1	IEQc1 Outdoor Air Delivery Monitoring	1/
SSc5.2Site Development-Maximize Open Space	0/1	IEQc2 Increased Ventilation	0 /
SSc6.1Stormwater Design-Quantity Control	0/1	IEQc3.1Construction IAQ Mgmt Plan-During Construction	1/
SSc6.2Stormwater Design-Quality Control	0/1	IEQc3.2Construction IAQ Mgmt Plan-Before Occupancy	1/
SSc7.1Heat Island Effect, Non-Roof	0/1	IEQc4.1Low-Emitting Materials-Adhesives and Sealants	1/
SSc7.2Heat Island Effect-Roof	1/1	IEQc4.2Low-Emitting Materials-Paints and Coatings	1/
SSc8 Light Pollution Reduction	0/1	IEQc4.3Low-Emitting Materials-Flooring Systems	1/
		IEQc4.4Low-Emitting Materials-Composite Wood and Agrifiber Products	
WATER PERIORNO	0.0510	IEQc5 Indoor Chemical and Pollutant Source Control	1/
WATER EFFICIENCY	8 OF 10	IEQc6.1Controllability of Systems-Lighting	1/
WEp1 Water Use Reduction-20% Reduction	Y	IEQc6.2Controllability of Systems-Thermal Comfort	1/
WEc1 Water Efficient Landscaping	4 / 4	IEQc7.1Thermal Comfort-Design	1/
WEc2 Innovative Wastewater Technologies	0/2	IEQc7.2Thermal Comfort-Verification	1/
WEc3 Water Use Reduction	4 / 4	IEQc8.1Daylight and Views-Daylight	0 /
		IEQc8.2Daylight and Views-Views	0 /
ENERGY AND ATMOSPHERE	13 OF 35		
EAp1 Fundamental Commissioning of the Building Energy Systems	Y	INNOVATION IN DESIGN	3 OF
EAp2 Minimum Energy Performance	Y	IDc1.1 Innovation in Design	0 /
EAp3 Fundamental Refrigerant Mgmt	Y	IDc1.1 Green Building Education	1/
EAc1 Optimize Energy Performance	9 / 19	IDc1.2 EA Credit 6 - Green Power	1/
EAc2 On-Site Renewable Energy	0/7	IDc1.2 Innovation in Design	0 /
EAc3 Enhanced Commissioning	2/2	IDc1.3 Innovation in Design	0 /
EAc4 Enhanced Refrigerant Mgmt	0/2	IDc1.3 Innovation in Design	0 /
EAc5 Measurement and Verification	0/3	IDc1.4 Innovation in Design	0 /
EAc6 Green Power	2/2	IDc1.4 Innovation in Design	0 /
27.00 0.00.77 0.70		IDc1.5 Innovation in Design	0 /
		IDc1.5 Innovation in Design	0 /
MATERIALS AND RESOURCES	7 OF 14	IDc2 LEED® Accredited Professional	1/
MRp1 Storage and Collection of Recyclables	Y		/
MRc1.1Building Reuse-Maintain Existing Walls, Floors and Roof	3/3		
MRc1.2Building Reuse - Maintain 50% of Interior Non-Structural Ele	0/1	REGIONAL PRIORITY CREDITS	2 OF
MRc2 Construction Waste Mgmt	2/2	SSc7.2 Heat Island Effect-Roof	1,
MD-3 M-+	0.73	MD-1 1D vilding David Maintain Eviction Malla Flagge and David	- 1

0/2

TOTAL

CREDIT DETAILS



Project Information Forms

Plf1: Minimum Program Requirements

Approved

02/08/2016 DESIGN FINAL REVIEW

Narratives and drawings have been provided indicating that alternates have been accepted to build out all spaces within the LEED project boundary. Additionally, it was confirmed that the project submission consistently incorporated these alternates across credits. The additional documentation demonstrates compliance.

12/02/2015 DESIGN PRELIMINARY REVIEW

The LEED Form states that the project complies with all Minimum Program Requirements. The project will comply with MPR 6: Must Commit to Sharing Whole-Building Energy and Water Usage Data via Option 1: Third Party Data Source. The project is located in Rochester, NY. However, to demonstrate compliance, the following must be addressed.

TECHNICAL ADVICE

1. The floor plans uploaded under PIf4: Schedule and Overview Documents indicate three options for the design of Area A on the first floor (Sheets A211 and A213), and it is unclear which design has been used in documenting this project. In all three design options, various rooms are labeled as "Future" and are therefore assumed to be incomplete. The treatment of incomplete space in this LEED project has not been addressed; all spaces within the LEED Project Boundary must be considered for compliance, per LEED Interpretation 10102. Additionally, as stated in LEED Interpretation 10102, all projects containing incomplete spaces must be accompanied by a Letter of Commitment that has been signed and dated by the project Owner. Refer to the LEED Interpretation for additional information. Provide a Letter of Commitment, signed by the project Owner, indicating that the remaining incomplete spaces will satisfy the requirements of each prerequisite and credit achieved by this project if and when completed by the project Owner. Additionally, provide a narrative confirming that all completed aspects of the project relevant to the prerequisites and attempted credits have been included in the submittal documentation and calculations. Occupancy values must be determined for all spaces in the building, including both complete and incomplete spaces, and applied to any credits that use occupancy values to calculate compliance. Any features of these incomplete spaces that have not yet been installed should be excluded from the calculations, except in calculations for WEp1: Water Use Reduction and EAp2: Minimum Energy Performance, and the credits dependent upon the calculations in these two prerequisites. Anticipated, but as yet uninstalled, water- and energy-consuming fixtures regulated by WEp1 and EAp2 must be estimated in the Design (i.e. Proposed) case as being equivalent to the Baseline case for the intended use of the space.

For any incomplete space(s) intended for fit-out by one or more tenants (i.e. any party other than the LEED project Owner), the project must provide Tenant Design and Construction Guidelines with language to ensure that future tenants can comply with the requirements of all prerequisites and credits achieved by the LEED project. Tenant Design and Construction Guidelines must include a description of the sustainable design and construction features incorporated in the project and information that enables a tenant to coordinate their space design and construction with the rest of the building systems, as well as information regarding how features of the LEED project building can contribute to certification of the tenant space(s) under the LEED-CI rating system. Refer to the full description of these guidelines in SSc9: Tenant Design and Construction Guidelines of the LEED-CS 2009 rating system for more information.

Plf2: Project Summary Details

Approved

01/10/2016 DESIGN FINAL REVIEW

A narrative has been provided including a breakdown of non-regularly occupied space. Total project square footage is 348,481 square feet. The additional documentation demonstrates compliance .

12/02/2015 DESIGN PRELIMINARY REVIEW

The LEED Form includes the required project summary details. There is one building in this LEED application with a total of eight stories and 348,481 gross square feet. However, to demonstrate compliance, the following must be addressed.

TECHNICAL ADVICE

1. The total area reported here (348,481 square feet) is inconsistent with that within IEQp1: Minimum Indoor Air Quality Performance (223,780 square feet). Square footage values must be reported consistently. Provide a narrative and revise the form to ensure that the total gross square footage is consistent across all submittals.

02/08/2016 DESIGN FINAL REVIEW

A revised narrative and form have been provided indicating that the average users value is 1,641, the peak users value is 1,641, and the FTE value is 170. The additional documentation demonstrates compliance.

12/02/2015 DESIGN PRELIMINARY REVIEW

The LEED Form includes the required occupant and usage data. The project consists primarily of Core Learning Space: College/University spaces. The average users value is zero, the peak users value is 1614, and the FTE value is 143. However, to demonstrate compliance, the following must be addressed.

TECHNICAL ADVICE

- 1. Plf1: Minimum Program Requirements has not been approved. It appears that the treatment of incomplete space in this LEED project has not been addressed. All spaces within the LEED Project Boundary must be considered for compliance per LEED Interpretation 10102. Therefore, occupancy values must be determined for all spaces within the LEED Project Boundary (including both complete and incomplete spaces) and these occupancy values must be applied to all relevant prerequisite and credit calculations to demonstrate compliance. Refer to the comments within Plf1 and provide the clarifications requested there. Additionally, revise this form and provide a narrative confirming that occupants have been included for all spaces within the LEED Project Boundary (including anticipated future non-Transient and Transient occupants of the incomplete spaces). The project should use the guidance in Appendix 1 within the LEED-CS 2009 rating system to establish occupant counts for incomplete spaces. The total occupancy values must be applied to all applicable prerequisites and credits.
- 2. While the narrative indicates that peak usage will occur Monday through Friday, it also indicates that there are several FTE's that will occupy the building on those days which are not accounted for in the calculation, such as three FTE's on Saturday for Public Safety, one FTE each weekend night for Public Safety and one FTE each day for Facilities. Additionally, it appears as though incorrect values have been listed within the form for the total FTE occupants and the total building users as a daily average. The sum of the Subtotal FTEs listed within the uploaded narrative equals 168 rather than 148 as listed, and the total building users as a daily average must include the sum of FTE and daily average transients rather than zero as currently indicated. Revise the FTE calculations to include all FTEs anticipated for the building and ensure the correct anticipated occupancy is listed within the form for this credit and consistently throughout the submittal.
- 3. The narrative indicates that several positions are part-time, therefore it appears that peak FTE, the time when all FTE equivalents are present, would be higher than the average. Revise the form to indicate an appropriate value for peak FTE, accounting for overlaps and part-time occupants.

Plf4: Schedule and Overview Documents Approved

01/10/2016 DESIGN FINAL REVIEW

The additional documentation demonstrates compliance.

12/02/2015 DESIGN PRELIMINARY REVIEW

The LEED Form includes the design and construction schedule. The date of substantial completion is February 16, 2017 and the date of occupancy is June 12, 2017. The required documents have been uploaded . However, to demonstrate compliance, the following must be addressed.

TECHNICAL ADVICE

1. Indicate which design option is selected for area A on the first floor, and provide revised floor plans if necessary

SSp1: Construction Activity Pollution Prevention

Awarded

06/21/2017 CONSTRUCTION PRELIMINARY REVIEW

The LEED Form states that the project has implemented an erosion and sedimentation control (ESC) plan that conforms to the 2003 EPA Construction General Permit (CGP).

SSc1: Site Selection Awarded: 1

POSSIBLE POINTS: 1

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

11/12/2015 DESIGN PRELIMINARY REVIEW

The LEED Form states that the project site does not meet any of the prohibited criteria.

SSc2: Development Density and Awarded: 5 Community Connectivity

POSSIBLE POINTS: 5

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

01/10/2016 DESIGN FINAL REVIEW

The additional documentation demonstrates compliance.

11/12/2015 DESIGN PRELIMINARY REVIEW

The LEED Form states that the project complies with Option 2: Community Connectivity. However, to demonstrate compliance, the following must be addressed.

TECHNICAL ADVICE

- 1. Provide a revised map that includes a graphic scale. The one-half mile radius must be drawn from the main building entrance.
- 2. It is unclear if pedestrian routes exist that allow people to walk to services without being blocked by walls, freeways, or other barriers. Specifically, the following routes do not appear to feature adequate access: Hochstein School of Dance & Music, Mc Mini Mart, Sunshine Village Daycare, and the Post Office. Provide documentation confirming that barrier-free pedestrian access is available from the project site to at least ten unique, qualifying basic services within a one-half mile radius of a main building entrance. Pedestrian routes should contain facilities such as sidewalks, crosswalks, and/or other unobstructed pathways. If necessary, revise the form and map to highlight pedestrian-accessible basic services.

SSc3: Brownfield Redevelopment POSSIBLE POINTS: 1

Not Attempted

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

POSSIBLE POINTS: 6

ATTEMPTED: 6, DENIED: 0, PENDING: 0, AWARDED: 6

12/02/2015 DESIGN PRELIMINARY REVIEW

The LEED Form states that the project complies with Option 2: Bus Station Proximity and is located within one-quarter mile walking distance of one or more stops for two or more public, campus, or private bus lines usable by building occupants.

Awarded: 1

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

POSSIBLE POINTS: 1

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

01/10/2016 DESIGN FINAL REVIEW

The LEED form has been revised to indicate that bicycle storage facilities have been provided to serve 5% of the LEED project FTE and transient occupants, measured at peak occupancy, and shower facilities have been provided for 5.29% of the LEED project FTE occupants. The additional documentation indicates compliance.

11/12/2015 DESIGN PRELIMINARY REVIEW

The LEED Form states that the project complies with Case 1: Commercial or Institutional Projects. Bicycle storage facilities have been provided to serve 5.08% of the LEED project FTE and transient occupants, measured at peak occupancy, and shower facilities have been provided for 6.29% of the LEED project FTE occupants. However, to demonstrate compliance, the following must be addressed.

TECHNICAL ADVICE

1. Plf1: Minimum Program Requirements and Plf3: Occupant and Usage Data have not been approved. It appears that the treatment of incomplete space in this LEED project has not been addressed. All spaces within the LEED Project Boundary must be considered for compliance per LEED Interpretation 10102. Refer to the comments within Plf1 and PIf3 and provide the clarifications requested there. Additionally, revise this form and supporting documentation as necessary to confirm that all future occupants have been included in the calculations.

Awarded: 3 SSc4.3: Alternative Transportation-Low-**Emitting and Fuel-Efficient Vehicles**

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

01/10/2016 DESIGN FINAL REVIEW

The additional documentation indicates compliance.

11/12/2015 DESIGN PRELIMINARY REVIEW

The LEED Form states that the project complies with Option 1 and provides preferred parking spaces for low-emitting and fuel-efficient vehicles for 5.48% of the total parking capacity. However, to demonstrate compliance, the following must be addressed.

TECHNICAL ADVICE

1. Provide documentation, such as a narrative and/or revised site drawings, to confirm that the location of the lowemitting and fuel-efficient vehicle parking spaces meets the LEED definition of preferred. Preferred spaces are those spaces located closest to the main entrance of the project (exclusive of spaces designed for handicapped).

Awarded: 2

Awarded: 1

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

POSSIBLE POINTS: 2

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

12/02/2015 DESIGN PRELIMINARY REVIEW

The LEED Form states that no new parking has been created within the LEED project scope of work.

SSc5.1: Site Development-Protect or Not **Restore Habitat Attempted** POSSIBLE POINTS: 1

Not SSc5.2: Site Development-Maximize Open **Attempted** Space POSSIBLE POINTS: 1

SSc6.1: Stormwater Design-Quantity Not Control **Attempted** POSSIBLE POINTS: 1

SSc6.2: Stormwater Design-Ouality Not Control **Attempted** POSSIBLE POINTS: 1

SSc7.1: Heat Island Effect, Non-Roof Not **Attempted** POSSIBLE POINTS: 1

SSc7.2: Heat Island Effect-Roof

POSSIBLE POINTS: 1

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

11/12/2015 DESIGN PRELIMINARY REVIEW

The LEED Form states that the project complies with Option 3 and the weighted average roof area for the combined SRI compliant and vegetated roofing surfaces is greater than or equal to the total building roof area.

SSc8: Light Pollution Reduction POSSIBLE POINTS: 1

Not Attempted



WEp1: Water Use Reduction-20% Reduction

Awarded

04/28/2016 DESIGN APPEAL REVIEW

A revised form has been provided indicating that the project has reduced potable water use by 40%. The additional documentation demonstrates compliance.

01/25/2016 DESIGN FINAL REVIEW

A revised form and documentation have been provided indicating that the project has reduced potable water use by 37.66%. The additional documentation demonstrates compliance.

12/02/2015 DESIGN PRELIMINARY REVIEW

The LEED Form states that the project has reduced potable water use by 41.16%. However, to demonstrate compliance, the following must be addressed.

TECHNICAL ADVICE

- 1. Plf1: Minimum Program Requirements and Plf3: Occupant and Usage Data have not been approved. It appears that the treatment of incomplete space in this LEED project has not been addressed. All spaces within the LEED Project Boundary must be considered for compliance. As stated in LEED Interpretation 10102, any anticipated, but not yet installed, future fixtures in the incomplete spaces must be included in the calculations of this prerequisite. The flush and flow rates of these future fixtures must use the LEED baseline rate for both the baseline and design cases. Refer to the comments within Plf1 and Plf3 and provide the clarifications requested there. Additionally, revise this form and provide a narrative confirming that all future occupants and all anticipated future fixtures have been included in the calculations of this prerequisite. Ensure that these future fixtures use the baseline flush/flow rate as specified within the LEED Reference Guide. Ensure that the Owner Letter of Commitment and the Tenant Design and Construction Guidelines (where applicable) includes information specific to how the future fit-out of the incomplete spaces will allow for these spaces to meet the specific requirements of this prerequisite.
- 2. The floor plans in PIf4: Schedule and Overview Documents indicate that the project includes unisex restrooms that do not contain urinals (Rooms 223, 226B and 228). 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 must be adjusted in the form accordingly. Provide a narrative and supporting daily use calculations to explain the anticipated urinal usage. Revise the form to ensure that the Total Daily Uses column for the water closets and urinals have been modified appropriately.
- 3. The calculations indicate a kitchen faucet with a 0.5GPM flow rate whereas the cut sheet provided for the faucet states 1.5GPM. Provide a cut sheet indicating a 0.5GPM flow rate or revise the calculations to coordinate with the cut sheet of the selected fixture.

WEc1: Water Efficient Landscaping Awarded: 4

POSSIBLE POINTS: 4

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

12/02/2015 DESIGN PRELIMINARY REVIEW

The LEED Form states that the landscaping does not use permanent irrigation systems and that all temporary irrigation systems used for plant establishment will be removed within 18 months of installation. The form indicates that project conditions do not allow for the installation of vegetation on the grounds; therefore, planters, a vegetated roof, and/or courtyard landscaping have been installed .

WEc2: Innovative Wastewater Technologies

Not Attempted

WEc3: Water Use Reduction

Awarded: 4

POSSIBLE POINTS: 4

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

04/18/2016 DESIGN APPEAL REVIEW

A revised form has been provided indicating that the project has reduced potable water use by 40%. The additional documentation demonstrates compliance.

01/25/2016 DESIGN FINAL REVIEW

A revised form has been provided indicating that the project has reduced potable water use by 38%. The additional documentation demonstrates compliance.

11/12/2015 DESIGN PRELIMINARY REVIEW

The LEED Form states that the project has reduced potable water use by 41%. However, to demonstrate compliance, the following must be addressed.

TECHNICAL ADVICE

 $1. \ WEp1: Water \ Use \ Reduction \ is \ pending \ clarifications. \ Refer \ to \ the \ comments \ within \ WEp1 \ and \ resubmit \ this \ credit.$

EAp1: Fundamental Commissioning of the Building Energy Systems

Awarded

07/26/2017 CONSTRUCTION FINAL REVIEW

The additional documentation demonstrates compliance.

06/15/2017 CONSTRUCTION PRELIMINARY REVIEW

The LEED Form states that the commissioning report is pending completion and a contract is in place to ensure that the report will be completed. However, to demonstrate compliance, the following must be addressed.

TECHNICAL ADVICE

1. PI Form 4: Schedule and Overview documents indicates that substantial completion of construction occurred February 6th, 2017 and the anticipated date of occupancy was June 12, 2017, making it unclear why this prerequisite was submitted as pending completion. It appears that the commissioning scope of work should have already been completed, as substantial completion of construction occurred February 6, 2017. Provide a narrative clarifying when the building was occupied, why commissioning has not been completed, and demonstrate that the commissioning timelines are consistent with the credit requirements.

EAp2: Minimum Energy Performance

Awarded

02/01/2016 DESIGN FINAL REVIEW

The LEED 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 25.31%. The total predicted annual energy consumption for the project is 2,036,616 kWh/year of electricity, 12,522 therms/year of natural gas, 10,309 MMBtu of steam, and 4,120 MMbtu of chilled water.

11/24/2015 DESIGN PRELIMINARY REVIEW

The LEED Form states that the project complies with Option 1: Whole Building Energy Simulation and has achieved an energy cost savings of 22.9%. However, to demonstrate compliance, the following 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.

TECHNICAL ADVICE

REVIEW COMMENTS REQUIRING A PROJECT RESPONSE (Mandatory)

- 1. Provide the following:
- a. A narrative response to each Preliminary Review comment below.
- b. 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. 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.
- 2. Plf1: Minimum Program Requirements has not been approved. It appears that the treatment of incomplete space in this LEED project has not been addressed. All spaces within the LEED Project Boundary must be considered for compliance per LEED Interpretation 10102. Refer to the comments within Plf1 and provide the clarifications requested there. Ensure that the Owner Letter of Commitment and the Tenant Design and Construction Guidelines (where applicable) include information regarding how the future fit-out of the incomplete spaces will allow for these spaces to meet the specific requirements. Ensure that all spaces have been accounted for in the proposed and baseline models.
- 3. Supplemental Table 1.4 indicates that DES (district energy source) v2 Option 2 has been utilized for heating and cooling. However, it is unclear if the cooling and heating plants have been modeled as required. DES v2 Option 2 requires the Proposed Case to be modeled with a virtual on-site chiller and virtual on-site hot water or steam boiler representing the upstream district cooling and district heating systems that includes the secondary pumping energy, leaks, and thermal losses between the DES central plant and the connected building in both directions, and the virtual plants must be modeled with the same average efficiencies of the entire upstream DES cooling and heating systems based on actual loading. No documentation has been provided verifying if the virtual on-site chillers and boilers have been modeled to account for the upstream district cooling and heating systems. Additionally, it does not appear that the Baseline hot water plant has been modeled as required. DES v2 Option 2 requires ASHRAE 90.1-2007 Section G3.1.1.1 (requirement to model purchased hot water or steam) to be ignored, but Supplemental Table 1.4 reports that the Baseline Case has been modeled with district steam instead of the on-site heating plant as defined

in ASHRAE 90.1-2007 Appendix G.

Revise the Proposed and Baseline Case district energy systems as necessary and provide a narrative explaining how the district energy has been modeled according to the requirements for DES v2 Option 2. The document Treatment of District or Campus Thermal Energy in LEED v2 and LEED 2009 - Design & Construction (DES v2) dated August 10, 2010 which can be accessed at: https://new.usgbc.org/resources/des-district-energy-systems-guidance-v22-and-v2009-guidance-v20.

Note that in lieu of following DESv2, the project team may choose to follow ASHRAE 90.1 2007 Appendix G modeling protocols, with or without ASHRAE 90.1 2007 addendums, e.g., addendum ai. If following ASHRAE 90.1 2007 district energy modeling protocols, without addenda, the heating source must be included in the energy models as purchased steam using identical energy rates in the Baseline and Proposed Case energy models as indicated in ASHRAE 90.1 2007 Section G3.1.1.1, and the cooling energy must be modeled using purchased energy rates in the Proposed Case and the appropriate Appendix G baseline cooling system in the Baseline Case. If applying ASHRAE 90.1 2007 addendum ai, refer to ASHRAE 90.1 2007 addendum ai, Sections G3.1.1.1.1 through G3.1.3.10, for heating and cooling energy requirements. Any ASHRAE 90.1 2007 addenda implemented must be applied in whole and consistently among all LEED credits and prerequisites and the submittal documentation must clearly indicate any addenda that have been applied to the project documentation.

- 4. The chiller type and chiller efficiencies modeled in the Baseline Case do not appear to comply with ASHRAE 90.1-2007 Table G3.1.3.7 and Table 6.8.1C. Supplemental Table 1.4 and the eQuest PV-A report indicate that the Baseline has been modeled with two water-cooled centrifugal chillers with a 0.239 EIR (4.18 COP), but Table G3.1.3.7 requires the Baseline to be modeled with two water-cooled screw chillers when the peak cooling load is between 300 and 600 tons. Additionally, Table 6.8.1C requires water-cooled screw chillers with capacities between 150 and 300 tons to be modeled with a 4.9 COP efficiency. Revise the type and efficiency of the chillers to meet Appendix G modeling protocol. Update Supplemental Table 1.4 and the credit form as necessary. Provide an updated eQuest PV-A report verifying the Baseline chillers have been modeled as required.
- 5. It does not appear that the Baseline chilled water and condenser water pumps have been modeled with the configuration required per ASHRAE 90.1-2007 Appendix G. Supplemental Table 1.4 and the eQuest PV-A report indicate that one primary chilled water pump and one primary condenser water pump have been modeled, which is unexpected since two water-cooled chillers have been modeled. ASHRAE 90.1-2007 Section G3.1.3.11 requires each chiller to be modeled with separate condenser water and chilled water pumps interlocked to operate with the associated chiller. Revise the Baseline chilled water loop to be modeled with constant primary / variable secondary flow, with the number of primary pumps matching the number of primary chillers, and with variable speed secondary pumps as required by G3.1.3.10. Revise the Baseline condenser water loop to be modeled with separate condenser water pumps interlocked to operate with the associated chiller as required by G3.1.3.11. Revise Supplemental Table 1.4 and the credit form as necessary. Provide updated eQuest PV-A reports verifying the Baseline pumps have been modeled as required.
- 6. It does not appear that the cooling efficiencies have been modeled as required for the Baseline PSZ-AC systems. For example, the eQuest SV-A report (MCC Baseline Building Summarypdf) indicates that the Baseline Case 32-CRAC-474 A/B system has a cooling capacity of 305,566 Btu/h and has been modeled with a cooling efficiency of 0.360 EIR, which equates to a cooling efficiency of approximately 8.2 EER. However, Baseline PSZ-AC systems with cooling capacities between 240,000 and 760,000 Btu/h must be modeled with a cooling efficiency of 9.8 EER, which equates to an EIR of 0.295. Section G3.1.2.1 requires that where efficiency ratings, such as EER and COP, include fan energy, the descriptor shall be broken down into its components so that supply fan energy can be modeled separately. Because the efficiency ratings are calculated at ARI-rated conditions, the fans should also be broken out at ARI-rated conditions. Most simulation software programs have the capability to perform this step automatically Provide documentation showing that this calculation has been performed by the software automatically or provide calculations consistent with the ASHRAE 90.1-2007 Users Manual showing that the calculation has been performed at ARI-rated conditions. Revise all Baseline Case cooling efficiencies as required. Update Supplemental Table 1.4 and the credit form as necessary. Provide updated eQuest SV-A reports verifying all Baseline system efficiencies have been modeled as required.
- 7. Supplemental Table 1.4 indicates that a Baseline pressure drop adjustment of 0.5 in. w.c. has been taken for fully ducted return. Based upon the mechanical drawings provided in PIf4: Schedule and Overview Documents, many spaces have been designed with fully ducted return, but it does not appear that all of the as-designed HVAC units have fully ducted return; therefore, this pressure credit may not be taken for the entire supply airflow modeled in the Baseline Case. For example, the PIf4: M221 SECOND FLOOR PLAN AREA A DUCTWORK.pdf document indicates that there is no fully ducted return for the student lounge and student club room areas. Revise the Baseline pressure drop adjustment to include the airflow (cfm) that only applies to the areas that include fully ducted return in the proposed design. Update Table 1.4 and the model to reflect revised fan powers. Provide updated eQuest SV-A and PS-E reports verifying the Baseline Case system fan powers have been modeled as required.
- 8. It is unclear if the Baseline Case outside airflow rates have been modeled as required. Demand control ventilation was modeled for credit in the Proposed Case. Appendix G allows schedule changes for demand control ventilation as approved by the rating authority (Table G3.1.4 (Baseline)). Whenever credit is taken for demand control ventilation in the Proposed Case, the outside air ventilation rates for the Baseline Case must be modeled using minimum ASHRAE 62.1-2007 rates. Supplemental Table 1.4 reports that demand control ventilation has been modeled as required for Baseline spaces with areas greater than 500 sf and with more than 40 people per 1,000 sf, but it does not indicate that the Baseline Case has been modeled with ASHRAE 62.1-2007 rates for spaces that do not require demand control ventilation but were modeled with it in the Proposed Case. Provide a narrative confirming that the Baseline Case model reflects ASHRAE 62.1-2007 minimum rates for any spaces where credit is taken for demand control ventilation in the Proposed Case but not in the Baseline Case. Ensure that the Proposed Case minimum rates at design conditions should be modeled as designed. For all other spaces, confirm that minimum outside airflow (in

units of cfm) was modeled identically in the Baseline and Proposed Cases. Additionally, verify that all systems in both the Baseline and Proposed Case are modeled with zero outside air flow when fans are cycled on to meet unoccupied setback temperatures unless health or safety regulations mandate an alternate minimum flow during unoccupied periods (in which case, the unoccupied outside air rates should be modeled identically in the Baseline and Proposed Cases). Provide updated eQuest SV-A reports verifying the outside air rates have been modeled as required.

- 9. The energy savings reported for service water heating do not appear to be substantiated because Supplemental Table 1.4 reports that the water heating and hot water flows have been modeled identically in both models. Review the Baseline and Proposed inputs for the model to confirm that they conform to ASHRAE 90.1-2007 and LEED modeling protocol. Provide sufficient information regarding the energy inputs in the Section 1.4 Tables and an accompanying narrative to justify the reported energy savings. Additionally, provide eQuest PV-A reports for the Baseline and Proposed Case to justify that the energy inputs correctly reflect ASHRAE 90.1-2007 and LEED modeling protocol.
- 10. The energy efficiency measures for regenerative drive on elevator motors and Energy Star kitchen equipment modeled using the Exceptional Calculation methodology are explained in detail within the narrative of the MCC Downtown Campus-Narrative for EAp2-10.pdf document, but no supporting documentation has been provided verifying any of the savings claims. Provide supplemental documentation supporting all Baseline and Proposed Case assumptions included for this measure as well as the calculation methodology used to determine the projected savings. The Baseline Case description should verify that the manufacturing equipment installed is not standard practice for a similar newly constructed facility by providing a recently published document (published within five years of the project registration date), referencing a utility program that incentivizes the equipment installed, or by documenting systems used to perform the same function in other newly constructed facilities (three facilities built within the past five years of the project registration date).

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

11. It does not appear that the Baseline Case window U-values have been modeled as required because Supplemental Table 1.4 reports that the single pane windows have an assembly U-value of 1.25, but the eQuest LV-D report indicates that the Baseline Case windows have been modeled with a U-value of 0.80. Revise the Baseline Case window assembly U-values to reflect the existing window conditions. Update the credit form as required. Provide an updated eQuest LV-D report verifying the window U-values have been modeled as required.

EAp3: Fundamental Refrigerant Management

Awarded

01/12/2016 DESIGN FINAL REVIEW

The LEED Form states that the project building uses CFC-based refrigerants in base building systems and that replacement and/or conversion of the CFC-containing base building HVACR systems is economically infeasible. The Refrigerants table has been revised on the form and now lists the refrigerant used for every base building system. The LEED Form states that the project is mechanically ventilated and that the ventilation system has met the minimum requirements of ASHRAE 62.1-2007. The additional documentation demonstrates compliance.

11/24/2015 DESIGN PRELIMINARY REVIEW

The LEED Form states that the project building uses CFC-based refrigerants in base building systems and that replacement and/or conversion of the CFC-containing base building HVACR systems is economically infeasible. The Refrigerants table has been completed on the form listing the refrigerant used for each base building system. However, to demonstrate compliance, the following must be addressed.

TECHNICAL ADVICE

- 1. Plf1: Minimum Program Requirements has not been approved. It appears that the treatment of incomplete space in this LEED project has not been addressed. All spaces within the LEED Project Boundary must be considered for compliance per LEED Interpretation 10102. Refer to the comments within Plf1 and provide the clarifications requested there. Ensure that the Owner Letter of Commitment and the Tenant Design and Construction Guidelines (where applicable) include information regarding how the future fit-out of the incomplete spaces will allow for these spaces to meet the specific requirements of this prerequisite.
- 2. It is unclear if Table L-2 of the LEED form is consistent with the proposed HVAC&R systems serving this project. Table L-2 indicates one unique HVAC system serves this LEED project. However, Sheet M902 of the mechanical schedules provided in PIf4: Schedule and Overview Documents reflect ductless split system pumps, which use R-410a. Revise Table L-2 to include all unique HVAC&R systems serving this project and resubmit the prerequisite.

EAc1: Optimize Energy Performance Awarded: 9

POSSIBLE POINTS: 19

ATTEMPTED: 8, DENIED: 0, PENDING: 0, AWARDED: 9

02/01/2016 DESIGN FINAL REVIEW

10/08/2015 DESIGN PRELIMINARY REVIEW

The LEED Form states that the project has achieved an energy cost savings of 22.9%. However, to demonstrate compliance, the following must be addressed.

TECHNICAL ADVICE

1. Refer to the comments within EAp2: Minimum Energy Performance and resubmit this credit.

EAc2: On-Site Renewable Energy Not POSSIBLE POINTS: 7 Attempted

EAc3: Enhanced Commissioning Awarded: 2

POSSIBLE POINTS: 2

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

07/26/2017 CONSTRUCTION FINAL REVIEW

The additional documentation demonstrates compliance.

06/15/2017 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. Refer to the comments within EAp1: Fundamental Commissioning of Building Energy Systems and resubmit this credit.

EAc4: Enhanced Refrigerant Management POSSIBLE POINTS: 2 Not Attempted

EAc5: Measurement and Verification Not POSSIBLE POINTS: 3 Attempted

EAc6: Green Power Awarded: 2

POSSIBLE POINTS: 2

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

07/26/2017 CONSTRUCTION FINAL REVIEW

This credit was previously awarded. No changes affecting compliance have been made.

06/15/2017 CONSTRUCTION PRELIMINARY REVIEW

The LEED Form states that the project has a two-year purchase agreement to procure 90.86% 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

11/12/2015 DESIGN PRELIMINARY REVIEW

The LEED Form states that the project has provided appropriately sized dedicated areas for the collection and storage of materials for recycling.

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

POSSIBLE POINTS: 3

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

06/21/2017 CONSTRUCTION PRELIMINARY REVIEW

The LEED Form states that the project is undergoing a major renovation, does not include additions, and that 99.52% of the existing structural elements are being reused.

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

Not **Attempted**

Awarded: 2 MRc2: Construction Waste Management

POSSIBLE POINTS: 2

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

06/21/2017 CONSTRUCTION PRELIMINARY REVIEW

The LEED Form states that the project has diverted 93.61% of the on-site generated construction waste from landfill.

MRc3: Materials Reuse POSSIBLE POINTS: 2

Not **Attempted**

MRc4: Recycled Content

POSSIBLE POINTS: 2

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

Awarded: 1

07/10/2017 CONSTRUCTION PRELIMINARY REVIEW

The LEED Form states that 16.76% of the total building materials content, by value, has been manufactured using recycled materials.

The following issues are noted: Atlas Tube and Morin Metal Wall Panel documentation indicates that the recycled content reported is based on the SRI average, whereas the calculations for this credit require actual, productspecific recycled content values or that a 25% post-consumer content be used for steel. Ceco doors documentation indicates that the recycled content is based on a company average. The Dow foam insulation documentation does not indicate percentages of recycled content. The Pawling corner guards have 60% post-consumer content according to the provided documentation, not 100% as indicated in the calculator.

When recalculated based on the issues noted above, 15.33% of the total building materials content, by value, has been manufactured using recycled materials.

MRc5: Regional Materials POSSIBLE POINTS: 2

Not **Attempted**

MRc6: Rapidly Renewable Materials

Not **Attempted**

Awarded: 1

POSSIBLE POINTS: 1

MRc7: Certified Wood

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

06/21/2017 CONSTRUCTION PRELIMINARY REVIEW

The LEED Form states that 75.82% of the total wood-based building materials are certified in accordance with the

principles and criteria of the Forest Stewardship Council (FSC).

Invoices have not been provided for the Truewood Panel Ceiling from USG.

When recalculated based on the issue noted above, 66.1% of the total wood-based building materials are certified in accordance with the principles and criteria of the Forest Stewardship Council (FSC).

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IEQp1: Minimum Indoor Air Quality Performance

Awarded

01/12/2016 DESIGN FINAL REVIEW

The LEED Form states that the project is mechanically ventilated and that the ventilation system has met the minimum requirements of ASHRAE 62.1-2007. Plf 1 has been approved, information regarding the selection of Ds has been provided, and an area breakdown has been provided. The additional documentation demonstrates compliance.

11/24/2015 DESIGN PRELIMINARY REVIEW

The LEED Form states that the project is mechanically ventilated and that the ventilation system has met the minimum requirements of ASHRAE 62.1-2007. However, to demonstrate compliance, the following must be addressed.

TECHNICAL ADVICE

- 1. Plf1: Minimum Program Requirements has not been approved. It appears that the treatment of incomplete space in this LEED project has not been addressed. All spaces within the LEED Project Boundary must be considered for compliance per LEED Interpretation 10102. Refer to the comments within Plf1 and provide the clarifications requested there. Ensure that the Owner Letter of Commitment and the Tenant Design and Construction Guidelines (where applicable) include information regarding how the future fit-out of the incomplete spaces will allow for these spaces to meet the specific requirements of this prerequisite.
- 2. It appears that the calculations may not have been performed for the worst-case conditions. The VRP calculations provided do not indicate the percentage of design airflow at the condition analyzed (Ds.) Generally, worst-case conditions are when the VAV system is at minimum flow. Provide additional information regarding the selection of Ds, revise the calculation to be consistent with the flow conditions for the worst-case conditions analyzed (most likely heating mode), and confirm that the value for Ds is correct both at the zone level and at the system level. If the weighted average value for Ds at the zone level is 0.3, the system level value would also be anticipated to be 0.3.
- 3. The total area of 223,780 square feet documented for this prerequisite varies substantially from the total gross area of 348,481 square feet reported in PIf2: Project Summary Details. It is unclear whether all occupiable space (as defined by ASHRAE 62.1-2007) has been accounted for within the ventilation rate procedure calculations. Although some of the difference can be attributed to non-occupiable spaces (e.g., mechanical rooms, inactive stairwells, shafts, and gross versus net area) and space types that are only required to meet the exhaust requirements of Table 6-4 (e.g., restrooms, kitchens) a justification for any difference in excess of roughly 10% must be provided. All occupiable spaces (which can include regularly occupied, non-regularly occupied, and unconditioned areas) must be provided with ventilation that meets the minimum requirements in accordance with ASHRAE 62.1-2007. Update the Ventilation Rate Procedure calculations to include all occupiable spaces and ensure that the area is reported consistently among all credits. If the difference in area is greater than 10%, provide a detailed narrative that describes the approximate area breakdown of the excluded spaces by space type to confirm that all occupiable spaces have been included in the calculations.

For future submissions, the USGBC LEED 62MZ (http://www.usgbc.org/resources/usgbc-leed-62mzcalc) and Minimum Indoor Air Quality Performance (http://www.usgbc.org/resources/minimum-indoor-air-quality-performance-calculator) calculators are available as optional tools that may be used to calculate the minimum ventilation needed to comply with this prerequisite and the 30% increase in ventilation needed to comply with IEQc2: Increased Ventilation. If the USGBC LEED 62MZ calculator is used, a separate calculator must be provided for each ventilation unit. The Minimum Indoor Air Quality Performance calculator has the ability to calculate ventilation requirements for multiple units within the same file.

IEQp2: Environmental Tobacco Smoke (ETS) Control

Awarded

12/02/2015 DESIGN PRELIMINARY REVIEW

The LEED Form states that smoking is prohibited within 25 feet of entries, outdoor air intakes, and operable windows. Additionally, smoking is prohibited within the building.

IEQc1: Outdoor Air Delivery Monitoring Awarded: 1

POSSIBLE POINTS: 1

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

10/06/2015 DESIGN PRELIMINARY REVIEW

The LEED Form states that the project is mechanically ventilated, that a CO2 sensor has been installed within each densely occupied space, that 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, and these devices are programmed to generate an alarm when the conditions vary by 10% or more from the design value.

Not Attempted

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

POSSIBLE POINTS: 1

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

06/21/2017 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

06/21/2017 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 1: Pre-occupancy flush-out.

Awarded: 1

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

POSSIBLE POINTS: 1

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

06/21/2017 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.

Note that adhesives and sealants integral to the building waterproofing envelope are exempt from these credit requirements.

IEQc4.2: Low-Emitting Materials-Paints Awarded: 1 and Coatings

POSSIBLE POINTS: 1

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

06/21/2017 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.

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

POSSIBLE POINTS: 1

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

06/21/2017 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.

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

POSSIBLE POINTS: 1

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

07/31/2017 CONSTRUCTION FINAL REVIEW

The additional documentation demonstrates compliance.

06/21/2017 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. Provide documentation for the USG True Wood Panel Ceiling highlighting the non-urea formaldehyde resin or binder that is present in both the substrate and veneer laminating adhesive and/or confirming that the material contains no added urea-formaldehyde.

IEQc5: Indoor Chemical and Pollutant Awarded: 1 Source Control

POSSIBLE POINTS: 1

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

01/10/2016 DESIGN FINAL REVIEW

The additional documentation indicates compliance.

11/12/2015 DESIGN PRELIMINARY REVIEW

The LEED Form states that the project has been designed to minimize building occupant exposure to particulates and chemical pollutants. However, to demonstrate compliance, the following must be addressed.

TECHNICAL ADVICE

1. Plf1: Minimum Program Requirements has not been approved. It appears that the treatment of incomplete space in this LEED project has not been addressed. All spaces within the LEED Project Boundary must be considered for compliance per LEED Interpretation 10102. Refer to the comments within Plf1 and provide the clarifications requested there. Ensure that the Owner Letter of Commitment and the Tenant Design and Construction Guidelines (where applicable) include information regarding how the future fit-out of the incomplete spaces will allow for these spaces to meet the specific requirements.

IEQc6.1: Controllability of Systems- Awarded: 1 Lighting

POSSIBLE POINTS: 1

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

01/25/2016 DESIGN FINAL REVIEW

A revised form and additional documentation have been provided indicating that lighting controls are provided for 90.72% of building occupants and 100% of shared multi-occupant spaces to enable adjustments that meet needs and preferences. The additional documentation indicates compliance.

11/12/2015 DESIGN PRELIMINARY REVIEW

The LEED Form states that lighting controls are provided for 90.13% of building occupants and 100% of shared multioccupant spaces to enable adjustments that meet needs and preferences. However, to demonstrate compliance, the following must be addressed.

TECHNICAL ADVICE

- 1. Plf1: Minimum Program Requirements has not been approved. It appears that the treatment of incomplete space in this LEED project has not been addressed. All spaces within the LEED Project Boundary must be considered for compliance per LEED Interpretation 10102. Refer to the comments within Plf1 and provide the clarifications requested there. Ensure that the Owner Letter of Commitment and the Tenant Design and Construction Guidelines (where applicable) include information regarding how the future fit-out of the incomplete spaces will allow for these spaces to meet the specific requirements.
- 2. The documentation indicates that some multi-occupant spaces do not have the required shared lighting controls (Student Lounges). Occupancy sensors alone do not qualify for compliance in shared multi-occupant spaces. Note that this credit requires a high level of lighting system control in multi-occupant spaces, such as dimming or bi-level control switches. If on-off controls are used, 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. Provide documentation, such as a narrative and a revised schedule, lighting control table, or floor plans, to demonstrate that the Student Lounges have adequate controls to provide functionality to suit the activities within the space.

3. It appears that several spaces, including but not limited to Testing Center 275, SEC Student Engagement 300, ILC Psych Testing 444, EIS Office/ Workroom 474 and 440 Learning Commons may be inappropriately classified as shared multi-occupants space due to their inclusion of individual work stations for independent work. 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. Provide a narrative describing the activities that take place within the spaces listed above. Revise the form and documentation to ensure that spaces are appropriately classified. Spaces must be classified consistently throughout all submittal documentation. Additionally, the IEQ Space Matrix (http://www.usgbc.org/resources/eq-space-type-matrix) provides information regarding the classification of individual occupant and shared multi-occupant for most space types encountered within buildings.

IEQc6.2: Controllability of Systems- Awarded: 1 Thermal Comfort

POSSIBLE POINTS: 1

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

01/25/2016 DESIGN FINAL REVIEW

A revised form and additional documentation have been provided indicating that thermal controls are provided for 86.92% of building occupants and 100 % of shared multi-occupant spaces to enable adjustments that meet needs and preferences. The additional documentation indicates compliance.

11/12/2015 DESIGN PRELIMINARY REVIEW

The LEED Form states that thermal controls are provided for 78.11% of building occupants and 100% of shared multioccupant spaces to enable adjustments that meet needs and preferences. However, to demonstrate compliance, the following must be addressed.

TECHNICAL ADVICE

- 1. Plf1: Minimum Program Requirements has not been approved. It appears that the treatment of incomplete space in this LEED project has not been addressed. All spaces within the LEED Project Boundary must be considered for compliance per LEED Interpretation 10102. Refer to the comments within Plf1 and provide the clarifications requested there. Ensure that the Owner Letter of Commitment and the Tenant Design and Construction Guidelines (where applicable) include information regarding how the future fit-out of the incomplete spaces will allow for these spaces to meet the specific requirements.
- 2. It appears that several spaces, including but not limited to Testing Center 275, SEC Student Engagement 300, ILC Psych Testing 444, EIS Office/ Workroom 474 and 440 Learning Commons may be inappropriately classified as shared multi-occupants space due to their inclusion of individual work stations for independent work. 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. Provide a narrative describing the activities that take place within the spaces listed above. Revise the form and documentation to ensure that spaces are appropriately classified. Spaces must be classified consistently throughout all submittal documentation. Additionally, the IEQ Space Matrix (http://www.usgbc.org/resources/eq-space-type-matrix) provides information regarding the classification of individual occupant and shared multi-occupant for most space types encountered within buildings.
- 3. The form indicates that all multi-occupant spaces have temperature sensors, which may not provide active control for the occupants. Provide additional information about the temperature sensors demonstrating that they provide the required control.

IEQc7.1: Thermal Comfort-Design Awarded: 1

POSSIBLE POINTS: 1

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

10/06/2015 DESIGN PRELIMINARY REVIEW

The LEED Form states that the mechanically ventilated and mechanically conditioned project space is in compliance with ASHRAE 55-2004.

IEQc7.2: Thermal Comfort-Verification Awarded: 1

POSSIBLE POINTS: 1

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

01/10/2016 DESIGN FINAL REVIEW

The additional documentation indicates compliance.

The LEED Form states that a permanent monitoring system will be installed and a thermal comfort survey of building occupants will be conducted between six and 18 months after occupancy. However, to demonstrate compliance, the following must be addressed.

TECHNICAL ADVICE

1. Provide a revised survey that requires respondents to rate their comfort on a 7-point scale, as required in the LEED BD+C v2009 Reference Guide.

IEQc8.1: Daylight and Views-Daylight POSSIBLE POINTS: 1

Not Attempted

IEQc8.2: Daylight and Views-Views POSSIBLE POINTS: 1

Not Attempted



IDc1.1: Innovation in Design

Not **Attempted**

Awarded: 1 IDc1.1: Green Building Education

POSSIBLE POINTS: 1

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

06/21/2017 CONSTRUCTION PRELIMINARY REVIEW

The LEED Form states that the project team has developed and implemented a Public Education program. This strategy is detailed in the LEED BD+C v2009 Reference Guide. The documentation provided for the development of a signage program and a case-study complies with the Reference Guide requirements.

Awarded: 1 **IDc1.2: EA Credit 6 - Green Power**

POSSIBLE POINTS: 1

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

07/26/2017 CONSTRUCTION FINAL REVIEW

This credit was submitted for initial review during the Construction Final review.

The LEED Form states that the project achieves exemplary performance for EAc6: Green Power. The requirement for exemplary performance is 70% and the project has documented 90.86%.

Not

Not

Attempted

IDc1.2: Innovation in Design POSSIBLE POINTS: 1 **Attempted** IDc1.3: Innovation in Design Not POSSIBLE POINTS: 1 **Attempted** IDc1.3: Innovation in Design Not **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**

IDc2: LEED® Accredited Professional Awarded: 1

POSSIBLE POINTS: 1

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

IDc1.5: Innovation in Design

06/21/2017 CONSTRUCTION PRELIMINARY REVIEW

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



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

MRc1.1: Building Reuse-Maintain Existing Walls, Floors and Roof
POSSIBLE POINTS: 1
ATTEMPTED: 1, DENIED: , PENDING: , AWARDED: 1

TOTAL 108 63 0 0 64

REVIEW SUMMARY

Review

SUBMITTED RETURNED SUBMITTED DENIED PENDINGAWARDED

Design Preliminary	09/09/201512	2/02/2015	43	0	26	17
Credit	STATUS	ТҮРЕ	POINTS: ATTEMPTED	DENIED	PENDINGA	WARDED
Plf1: Minimum Program Requirements	Not Approved		0	0	0	0
Plf2: Project Summary Details	Not Approved		0	0	0	0
Plf3: Occupant and Usage Data	Not Approved		0	0	0	0
PIf4: Schedule and Overview Documents	Not Approved		0	0	0	0
SSc1: Site Selection	Anticipated	Design	1	0	0	1
SSc2: Development Density and Community Connectivity	Pending	Design	5	0	5	0
SSc4.1: Alternative Transportation-Public Transportation Access	Anticipated	Design	6	0	0	6
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	Anticipated	Design	2	0	0	2
SSc7.2: Heat Island Effect-Roof	Anticipated	Design	2	0	0	2
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	Pending	Design	0	0	0	0
EAc1: Optimize Energy Performance	Pending	Design	8	0	8	0
MRp1: Storage and Collection of Recyclables	Anticipated	Design	0	0	0	0
IEQp1: Minimum Indoor Air Quality Performance	Pending	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
IEQc5: Indoor Chemical and Pollutant Source Control	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
IEQc7.1: Thermal Comfort-Design	Anticipated	Design	1	0	0	1
IEQc7.2: Thermal Comfort-Verification	Pending	Design	1	0	1	0

Design Final	12/22/201502/10/2016	25	1	0	25	
		POINTS:				

Credit	STATUS	TYPE	POINTS: ATTEMPTED	DENIED	PENDINGA	WARDED
Plf1: Minimum Program Requirements	Approved		0	0	0	0
Plf2: Project Summary Details	Approved		0	0	0	0
Plf3: Occupant and Usage Data	Approved		0	0	0	0
PIf4: Schedule and Overview Documents	Approved		0	0	0	0
SSc2: Development Density and Community Connectivity	Anticipated	Design	5	0	0	5
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	Anticipated	Design	3	0	0	3
WEp1: Water Use Reduction-20% Reduction	Anticipated	Design	0	0	0	0
WEc3: Water Use Reduction	Anticipated	Design	4	1	0	3
EAp2: Minimum Energy Performance	Anticipated	Design	0	0	0	0
EAp3: Fundamental Refrigerant Management	Anticipated	Design	0	0	0	0
EAc1: Optimize Energy Performance	Anticipated	Design	8	0	0	9
IEQp1: Minimum Indoor Air Quality Performance	Anticipated	Design	0	0	0	0
IEQc5: Indoor Chemical and Pollutant Source Control	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	Anticipated	Design	1	0	0	1
IEQc7.2: Thermal Comfort-Verification	Anticipated	Design	1	0	0	1

Design Appeal	03/08/201604/28/2016		4	0	0	4
Credit	STATUS	TYPE	POINTS: ATTEMPTED	DENIED	PENDINGA	WARDED
WEp1: Water Use Reduction-20% Reduction	Anticipated	Design	0	0	0	0
WEc3: Water Use Reduction	Anticipated	Design	4	0	0	4

Credit	STATUS	TYPE	POINTS: ATTEMPTED	DENIED	PENDINGA	WARDED
SSp1: Construction Activity Pollution Prevention	Awarded	Construction	0	0	0	0
EAp1: Fundamental Commissioning of the Building Energy Systems	Pending	Construction	0	0	0	0
EAc3: Enhanced Commissioning	Pending	Construction	2	0	2	0
EAc6: Green Power	Awarded	Construction	2	0	0	2
MRc1.1: Building Reuse-Maintain Existing Walls, Floors and Roof	Awarded	Construction	4	0	0	4
MRc2: Construction Waste Management	Awarded	Construction	2	0	0	2
MRc4: Recycled Content	Awarded	Construction	1	0	0	1
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	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	Pending	Construction	1	0	1	0
IDc1.1: Green Building Education	Awarded	Construction	1	0	0	1
IDc2: LEED® Accredited Professional	Awarded	Construction	1	0	0	1

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Construction Preliminary

Construction Final	07/24/20170	08/15/2017	6	0	0	6
Credit	STATUS	TYPE	POINTS: ATTEMPTED	DENIED	PENDINGA	WARDED
EAp1: Fundamental Commissioning of the Building Energy Systems	Awarded	Construction	0	0	0	0
EAc3: Enhanced Commissioning	Awarded	Construction	2	0	0	2
EAc6: Green Power	Awarded	Construction	2	0	0	2
IEQc4.4: Low-Emitting Materials-Composite Wood and Agrifiber Products	Awarded	Construction	1	0	0	1
IDc1.2: EA Credit 6 - Green Power	Awarded	Design	1	0	0	1