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 Green Business Certification Inc. (GBCI®).

USFSP Multipurpose Student Center

Project ID	1000009082
Rating system & version	LEED-NC
Project registration date	09/01/2010

Gold Certified

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

LEED 2009 NEW CONSTRUCTION

ATTEMPTED: 61, DENIED: 2, PENDING: 0, AWARDED: 61 OF 110 POINTS

SUSTAINABLE SITES — 20 OF 26

SSp1	Construction Activity Pollution Prevention	Y
SSc1	Site Selection	1 / 1
SSc2	Development Density and Community Connectivity	5 / 5
SSc3	Brownfield Redevelopment	0 / 1
SSc4.1	Alternative Transportation-Public Transportation Access	6 / 6
SSc4.2	Alternative Transportation-Bicycle Storage and Changing Rooms	0 / 1
SSc4.3	Alternative Transportation-Low-Emitting and Fuel-Efficient Vehicles	3 / 3
SSc4.4	Alternative Transportation-Parking Capacity	2 / 2
SSc5.1	Site Development-Protect or Restore Habitat	0 / 1
SSc5.2	Site Development-Maximize Open Space	1 / 1
SSc6.1	Stormwater Design-Quantity Control	0 / 1
SSc6.2	Stormwater Design-Quality Control	1 / 1
SSc7.1	Heat Island Effect, Non-Roof	0 / 1
SSc7.2	Heat Island Effect, Roof	1 / 1
SSc8	Light Pollution Reduction	0 / 1

WATER EFFICIENCY — 8 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	4 / 4

ENERGY AND ATMOSPHERE — 13 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	9 / 19
EAc2	On-Site Renewable Energy	0 / 7
EAc3	Enhanced Commissioning	2 / 2
EAc4	Enhanced Refrigerant Mgmt	0 / 2
EAc5	Measurement and Verification	0 / 3
EAc6	Green Power	2 / 2

MATERIALS AND RESOURCES — 6 OF 14

MRp1	Storage and Collection of Recyclables	Y
MRc1.1	Building Reuse-Maintain Existing Walls, Floors and Roof	0 / 3
MRc1.2	Building Reuse - Maintain 50% of Interior Non-Structural Elements	0 / 1
MRc2	Construction Waste Mgmt	2 / 2
MRc3	Materials Reuse	0 / 2
MRc4	Recycled Content	2 / 2
MRc5	Regional Materials	2 / 2
MRc6	Rapidly Renewable Materials	0 / 1
MRc7	Certified Wood	0 / 1

INDOOR ENVIRONMENTAL QUALITY — 9 OF 15

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

INNOVATION IN DESIGN — 3 OF 6

IDc1.1	Innovation in Design	0 / 1
IDc1.1	Green Housekeeping	1 / 1
IDc1.2	Innovation in Design	0 / 1
IDc1.2	Innovation in Design	0 / 1
IDc1.3	Innovation in Design	0 / 1
IDc1.3	Walkable Streets	1 / 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

REGIONAL PRIORITY CREDITS — 2 OF 4

SSc5.2	Site Development-Maximize Open Space	1 / 1
EAc1	Optimize Energy Performance	1 / 1

TOTAL	**61 OF 110**

CREDIT DETAILS

Project Information Forms

PIf1 : Minimum Program Requirements — Approved

CONSTRUCTION FINAL REVIEW

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CONSTRUCTION PRELIMINARY REVIEW

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DESIGN FINAL REVIEW

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

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 as required. 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 Saint Petersburg, Florida.

PIf2 : Project Summary Details — Approved

CONSTRUCTION FINAL REVIEW

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CONSTRUCTION PRELIMINARY REVIEW

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DESIGN FINAL REVIEW

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

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 six stories and 90,370 gross square feet. The project is 100% new construction. The total site area within the LEED-NC project boundary is 73,708 square feet and the building area to site area ratio is 122.61%. The project is located on a campus. There are five parking spaces available to the occupants and six floors above grade (excluding parking levels). The site was previously developed. The building uses energy from natural gas, and district or campus cooling and uses water from a municipal potable water system and a municipal gray or rainwater system. The sewage is conveyed to a municipal sewer system. The total project budget is $21,850,000. The project building is not located in an historic district.

PIf3 : Occupant and Usage Data — Approved

CONSTRUCTION FINAL REVIEW

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CONSTRUCTION PRELIMINARY REVIEW

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DESIGN FINAL REVIEW

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

DESIGN PRELIMINARY REVIEW

The LEED Project Information Form has been submitted including the following occupant and usage data. The occupant is a mixed occupancy and residential, and an occupant type that consists primarily of dormitory, public assembly, retail and office spaces. The building is intended to be owner-occupied and owner-managed after project completion. The average users value is 367, the peak users value is 222, the FTE value is 22, the project includes 204 residents and the building is occupied 365 days per year.

PIf4 : Schedule and Overview Documents **Approved**

CONSTRUCTION FINAL REVIEW

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CONSTRUCTION PRELIMINARY REVIEW

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DESIGN FINAL REVIEW

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

DESIGN PRELIMINARY REVIEW

The LEED Project Information Form has been submitted including the design and construction schedule, and the estimated date of occupancy is noted as July 20, 2012. The following required documents have been uploaded: representative interior renderings, representative exterior renderings, representative floor plans, elevations, sections, mechanical floor plans and schedules, and a site plan showing the LEED project boundary. Additionally, the HVAC and general project narratives have been provided.

Sustainable Sites

SSp1 : Construction Activity Pollution Prevention — Awarded

CONSTRUCTION FINAL REVIEW

The additional documentation demonstrates compliance.

CONSTRUCTION PRELIMINARY REVIEW

The LEED Prerequisite Form has been provided stating that the project has implemented an erosion and sedimentation control (ESC) plan which conforms to local standards and codes. The requirements of the local standards and codes are more stringent than the National Pollutant Discharge Elimination System (NPDES) program requirements. The ESC plan addresses the necessary requirements to prevent soil loss, sedimentation, and pollution of the air as required. A narrative describing the ESC plan implementation has been provided. The ESC Plan has also been provided.

However, two issues are pending:

1. The narrative describing how the local erosion and sedimentation control standards are equal or more stringent than the requirements of Phase I and Phase II of the NPDES program has not been provided as required.

2. The provided narrative does not confirm that the ESC plan was implemented appropriately as required.

TECHNICAL ADVICE:

1. Please provide a narrative describing how the local erosion and sedimentation control standards are equal or more stringent than the requirements of Phase I and Phase II of the NPDES program

2. Provide a revised narrative describing actions that were taken to effectively implement the ESC plan and maintain the erosion and sedimentation control measures. Ensure that the narrative includes information regarding any corrective actions taken. Alternatively, the project may provide the periodic inspection log or date-stamped photographs to confirm that the ESC plan was implemented appropriately.

SSc1 : Site Selection — Awarded : 1

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

DESIGN FINAL REVIEW

The LEED Credit Form has been revised to address the issues outlined in the Preliminary Review and states that the project site does not meet any of the prohibited criteria. The documentation demonstrates credit compliance.

DESIGN PRELIMINARY REVIEW

The LEED Credit Form has been provided. However,the checkboxes havenot been marked as compliant as required.It is unclear whether the project meets the requirements of this credit. TECHNICAL ADVICE: Please provide a revised form which has been completed along with all of the necessary documentation it requires. Note that it is strongly recommended that a pdf copy of the completed form be uploaded to LEED Online for the Final Review in case the blank form was an error caused by LEED Online.

DESIGN PRELIMINARY REVIEW

The LEED Credit Form has not been completed as required and the required checkboxes in the form has not been marked as compliant as required. It is unclear whether the project meets the requirements of this credit. TECHNICAL ADVICE: Please provide a revised form which has been completed along with all of the necessary documentation it requires. Note that it is strongly recommended that a pdf copy of the completed form be uploaded to LEED Online for the Final Review in case the blank form was an error caused by LEED Online.

SSc2 : Development Density and Community Connectivity — Awarded : 5

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

DESIGN FINAL REVIEW

The LEED Credit Form has been revised to address the issues outlined in the Preliminary Review and includes ten unique, qualifying services. A revised map showing the one half mile radius, locations of the basic services and development density of the residential neighborhood has been provided. The documentation demonstrates credit compliance.

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). A map showing the one half mile radius, the locations of the basic services has been provided. However, the following issues require clarification: 1. The listing of community services counts the "place of worship" service twice (St. Mary

Our Lady of Grace Church and Bible Holiness Church of God). Please note that with the exception of restaurants, no service may be counted more than once in the calculation. Up to two restaurants may be counted toward achievement of this credit. In addition please note that "Airport" is not a qualified community service for credit compliance. When the non-qualifying, duplicate "Place of worship" services and "Airport" is removed, only 8 basic services have been listed. 2. The residential district and existing density are not noted on the provided map as required. TECHNICAL ADVICE: 1. Please provide a revised form and map which highlights ten unique, qualifying basic services (restaurants may be counted twice) that are within the one half mile radius of the project site. 2.Provide a revised map which highlights the residential district within one half mile of the project site. Ensure that the documentation includes the existing development density of the residential neighborhood.

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). A map showing the one half mile radius, the locations of the basic services has been provided. However, the following issues requires clarification: 1. The listing of community services counts the "place of worship" service twice (St. Mary Our Lady of Grace Church and Bible Holiness Church of God). Please note that with the exception of restaurants, no service may be counted more than once in the calculation. Up to two restaurants may be counted toward achievement of this credit. In addition please note that "Airport" is not a qualified community service for credit compliance. When the non-qualifying, duplicate "Place of worship" services and "Airport" is removed, only 8 basic services have been listed. 2. The residential district and existing density are not noted on the provided map as required. TECHNICAL ADVICE: 1. Please provide a revised form and map which highlights ten unique, qualifying basic services (restaurants may be counted twice) that are within the one half mile radius of the project site. 2.Provide a revised map which highlights the residential district within one half mile of the project site. Ensure that the documentation includes the existing development density of the residential neighborhood.

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). A map showing the one half mile radius, the locations of the basic services has been provided. However, the following issue requires clarification: The listing of community services counts the "place of worship" service twice (St. Mary Our Lady of Grace Church and Bible Holiness Church of God). Please note that with the exception of restaurants, no service may be counted more than once in the calculation. Up to two restaurants may be counted toward achievement of this credit. In addition please note that "Airport" is not a qualified community service for credit compliance. When the non-qualifying, duplicate "Place of worship" services and "Airport" is removed, only 8 basic services have been listed. The provided map does not include a graphic scale as required. The residential district and existing density are not noted on the provided map as required. TECHNICAL ADVICE: Please provide a revised form and map which highlights ten unique, qualifying basic services (restaurants may be counted twice) that are within the one half mile radius of the project site. Please provide a revised map which includes a graphic scale for reference. Please provide a revised map which highlights the residential district within one half mile of the project site. Ensure that the documentation includes the existing development density of the residential neighborhood.

SSc3 : Brownfield Redevelopment — Not Attempted

POSSIBLE POINTS: 1

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

POSSIBLE POINTS: 6

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

DESIGN FINAL REVIEW

A revised scaled map showing the pedestrian route from the main entrance of the project to each transit stop has been provided to address the issues outlined in the Preliminary Review. The documentation demonstrates credit compliance.

DESIGN PRELIMINARY REVIEW

The LEED Credit Form has been provided stating that the project complies with Option 2 and is served by four bus lines within one quarter mile walking distance of the project site. The project has chosen the special circumstances approach to meet the requirements of this credit. Additionally, bus system maps and route schedules have been provided. However, a scaled drawing showing indicating the pedestrian route from the main entrance of the project to the transit stops has not been provided. Note that this pedestrian route must be less than one quarter mile in order to meet credit requirements a one quarter mile radius is not applicable to this credit. TECHNICAL ADVICE: Please provide a scaled drawing or map showing the pedestrian route from the main entrance of the project to each of the transit stops. Ensure that the drawing or map features a scale and that it clearly identifies the pedestrian route between the project and the transit stops. Note that the pedestrian route must be less than one quarter mile in order to meet credit requirements.

DESIGN PRELIMINARY REVIEW

The LEED Credit Form has been provided stating that the project complies with Option 2 and is served by four bus lines within one quarter mile walking distance of the project site. The project has chosen the special circumstances approach to meet the requirements of this credit. Additionally, bus system maps and route schedules have been provided. However, a scaled drawing showing indicating the pedestrian route from the main entrance of the project to the transit stops has not been provided. Note that this pedestrian route must be less than one quarter mile in order to meet credit requirements a one quarter mile radius is

not applicable to this credit. TECHNICAL ADVICE: Please provide a scaled drawing or map showing the pedestrian route from the main entrance of the project to each of the transit stops. Ensure that the drawing or map features a scale and that it clearly identifies the pedestrian route between the project and the transit stops. Note that the pedestrian route must be less than one quarter mile in order to meet credit requirements a one quarter mile radius is not applicable to this credit.

SSc4.2 : Alternative Transportation-Bicycle Storage and Changing Rooms — **Not Attempted**
POSSIBLE POINTS: 1

REVISED REVIEW COMMENT

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 24.32% of the LEED-NC project FTE and transient occupants, measured at peak occupancy, and shower facilities for 4.55% 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. A plan has been provided showing the location of the bicycle storage facilities. However, the project should also choose the residential option for compliance. Clarification is needed on the actual building occupancy to determine whether the project has provided adequate bicycle storage and shower facilities. TECHNICAL ADVICE: Please revise the LEED Credit Form to include residents and provide supporting FTE and transient calculations defining the number of regular building occupants. Provide drawings that show the location of the shower/changing facilities for the FTE occupants, which must be separate from the residential facilities, and that covered bicycle storage facilities are provided for 15% of project residents.

SSc4.3 : Alternative Transportation-Low-Emitting and Fuel-Efficient Vehicles — **Awarded : 3**
POSSIBLE POINTS: 3
ATTEMPTED: 3, DENIED: 0, PENDING: 0, AWARDED: 3

DESIGN FINAL REVIEW

The LEED Credit Form has been revised to address the issues outlined in the Preliminary Review and states that the preferred spaces will be designated with additional signage indicating that the spaces are reserved for occupants of the LEED-NC project only. In addition, a photograph of the signage has been provided. The documentation demonstrates credit compliance.

DESIGN PRELIMINARY REVIEW

The LEED Credit Form has been provided stating that the project complies with Option 1 and provides five preferred parking spaces for low-emitting and fuel-efficient vehicles (100% of total parking capacity). A site plan highlighting the preferred parking spaces has been provided. However, the documentation does not confirm that the preferred low-emitting and fuel-efficient parking spaces are reserved for use solely by occupants of this LEED-NC project as required. Photographs or detail drawings of the installed signage have not been provided. As it appears that the parking area is shared with other occupants of the neighboring building, the signage must designate that these preferred spaces are reserved for the LEED-NC project occupants only. TECHNICAL ADVICE: Please provide photographs or signage details which confirm that the low-emitting and fuel-efficient parking spaces are reserved for use solely by occupants of this LEED-NC project as required. Alternatively, the project may demonstrate that preferred parking spaces for low-emitting and fuel-efficient vehicles have been provided for at least 5% of the total parking capacity of the shared parking area. In this case, provide revised site plans, calculations, and a narrative to demonstrate compliance at the whole-parking area level.

SSc4.4 : Alternative Transportation-Parking Capacity — **Awarded : 2**
POSSIBLE POINTS: 2
ATTEMPTED: 2, DENIED: 0, PENDING: 0, AWARDED: 2

DESIGN PRELIMINARY REVIEW

The LEED Credit Form has been providedstating that no new parking has been created within the LEED-NC project scope of work. The project Owner has signed the form as required.

SSc5.1 : Site Development-Protect or Restore Habitat — **Withdrawn**
POSSIBLE POINTS: 1

SSc5.2 : Site Development-Maximize Open Space — **Awarded : 1**
POSSIBLE POINTS: 1
ATTEMPTED: 1, DENIED: 0, PENDING: 0, AWARDED: 1

DESIGN FINAL REVIEW

The LEED Credit Form has been revised to address the issues outlined in the Preliminary Review and has been signed by the project Owner, as required. A copy of the form physically signed by the Owner has also been provided. The documentation demonstrates credit compliance.

DESIGN PRELIMINARY REVIEW

The LEED Credit Form has been provided stating that the project site local zoning regulationsdo not include minimum open

space requirements therefore, the project complies with Case 3. 22,861 square feet of open space has been provided, which is equal to 31.02 % of the total site area. Additionally, 71.66 % of this dedicated open space is vegetated. A minimum area of open space equal to 20% of the total site area is required and at least 25% of that dedicated open space must be vegetated. The pedestrian hardscape has been included in the calculations of this credit. The calculations do not include wetlands or naturally designed ponds. A site plan highlighting the dedicated open space has been provided. Further, SSc2 (Design Development and Community Connectivity) is denied pending clarifications. The pedestrian hardscape cannot be included in the calculations of this credit unless SSc2 is also achieved. When this area is excluded from the calculations, the project has provided 16,382 total square feet of vegetated open space (22.22% of the LEED-NC building footprint). However, the required signatory for this credit is the project team Owner, but it has been signed by the project manager (TLC Engineering). It is unclear that this individual is a qualified Owner/ Owners agent of this project. Note that the LEED definition of Owner refers to the person or entity that holds the legal right to possess and control the real property for the project being registered. Only qualified individuals should be designated this role within the Team Administration and Registration tabs. TECHNICAL ADVICE: Please provide a revised LEED Credit Form which has been signed by the Owner and/or a clarification narrative confirming that the individual meets the LEED definition of Owner. If utilizing an Owner`s Agent, ensure that this compliance path is indicated within the Registration Details tab, that the Confirmation of Agent`s Authority form has been completed and uploaded thereas required,and provide a narrative describing how the Owner was notified of all credit requirements which includes specific information regarding any critical elements and ongoing requirements. Note that a unique narrative must be provided for each credit which contains an Owner Signatory. Alternatively, the project team may complete the Owner Signatory requirement offline by indicating on the LEED Credit Form that the Alternative Submittal Path option was taken and provide a brief narrative confirming that the required documentation has been uploaded to LEED Online. The following two documents must be provided in this case: 1. A copy of the completed LEED Credit Form physically signed and dated by the Owner. 2. A document with all owner required signatory statements, copied directly from the LEED Credit Form onto Owner letterhead which is then physically signed and dated by the Owner.

DESIGN PRELIMINARY REVIEW

The LEED Credit Form has been provided stating that the project site local zoning regulations which do not include minimum open space requirements therefore the project complies with Case 3. 22,861 square feet of open space has been provided which is equal to 31.02 % of the total site area. Additionally, 71.66 % of this dedicated open space is vegetated. A minimum area of open space equal to 20% of the total site area is required and at least 25% of that dedicated open space must be vegetated. The pedestrian hardscape has been included in the calculations of this credit. The calculations do not include wetlands or naturally designed ponds. A site plan highlighting the dedicated open space has been provided. Further, SSc2 (Design Development and Community Connectivity) is denied pending clarifications. The pedestrian hardscape cannot be included in the calculations of this credit unless SSc2 is also achieved. When this area is excluded from the calculations, the project has provided 16,382 total square feet of vegetated open space (22.22% of the LEED-NC building footprint). However, the required signatory for this credit is the project team Owner, but it has been signed by the project manager (TLC Engineering). It is unclear that this individual is a qualified Owner/ Owners agent of this project. Note that the LEED definition of Owner refers to the person or entity that holds the legal right to possess and control the real property for the project being registered. Only qualified individuals should be designated this role within the Team Administration and Registration tabs. TECHNICAL ADVICE: Please provide a revised LEED Credit Form which has been signed by the Owner and/or a clarification narrative confirming that the individual meets the LEED definition of Owner. If utilizing an Owner`s Agent, ensure that this compliance path is indicated within the Registration Details tab, that the Confirmation of Agent`s Authority form has been completed and uploaded thereas required, and provide a narrative describing how the Owner was notified of all credit requirements which includes specific information regarding any critical elements and ongoing requirements. Note that a unique narrative must be provided for each credit which contains an Owner Signatory. Alternatively, the project team may complete the Owner Signatory requirement offline by indicating on the LEED Credit Form that the Alternative Submittal Path option was taken and provide a brief narrative confirming that the required documentation has been uploaded to LEED Online. The following two documents must be provided in this case: 1. A copy of the completed LEED Credit Form physically signed and dated by the Owner. 2. A document with all owner required signatory statements, copied directly from the LEED Credit Form onto Owner letterhead which is then physically signed and dated by the Owner.

DESIGN PRELIMINARY REVIEW

The LEED Credit Form has been provided stating that the project site local zoning regulations which do not include minimum open space requirements therefore the project complies with Case 3. 22,861 square feet of open space has been provided which is equal to 31.02 % of the total site area. Additionally, 71.66 % of this dedicated open space is vegetated. A minimum area of open space equal to 20% of the total site area is required and at least 25% of that dedicated open space must be vegetated. The pedestrian hardscape has been included in the calculations of this credit. The calculations do not include wetlands or naturally designed ponds. A site plan highlighting the dedicated open space has been provided. Further, SSc2 (Design Development and Community Connectivity) is denied pending clarifications. The pedestrian hardscape cannot be included in the calculations of this credit unless SSc2 is also achieved. When this area is excluded from the calculations, the project has provided 16,382 total square feet of vegetated open space (22.22% of the LEED-NC building footprint). However,the required signatory for this credit is the project team Owner, but it has been signed by the project manager (TLC Engineering). It is unclear that this individual is a qualified Owner/ Owners agent of this project .Note that the LEED definition of Owner refers to the person or entity that holds the legal right to possess and control the real property for the project being registered. Only qualified individuals should be designated this role within the Team Administration and Registration tabs. TECHNICAL ADVICE: Please provide a revised LEED Credit Form which has been signed by the Owner and/or a clarification narrative confirming that the individual meets the LEED definition of Owner. If utilizing an Owners Agent, ensure that this compliance path is indicated within the Registration Details tab, that the Confirmation of Agent's Authority form has been completed and uploaded there as required, and provide a narrative describing how the Owner was notified of all credit requirements which includes specific information regarding any critical elements and ongoing requirements. Note that a unique narrative must be provided for each credit which contains an Owner Signatory. Alternatively, the project team may complete the Owner Signatory requirement offline by indicating on the LEED Credit Form that the Alternative Submittal Path option was taken and provide a brief narrative confirming that the required documentation has been uploaded to LEED Online. The following two documents must be provided

in this case: 1. A copy of the completed LEED Credit Form physically signed and dated by the Owner. 2. A document with all owner required signatory statements, copied directly from the LEED Credit Form onto Owner letterhead which is then physically signed and dated by the Owner.

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). A map showing the one half mile radius, the locations of the basic services has been provided. However, the following issue requires clarification: The listing of community services counts the "place of worship" service twice (St. Mary Our Lady of Grace Church and Bible Holiness Church of God). Please note that with the exception of restaurants, no service may be counted more than once in the calculation. Up to two restaurants may be counted toward achievement of this credit. In addition please note that "Airport" is not a qualified community service for credit compliance. When the non-qualifying, duplicate "Place of worship" services and "Airport" is removed, only 8 basic services have been listed. The provided map does not include a graphic scale as required. The residential district and existing density are not noted on the provided map as required. TECHNICAL ADVICE: Please provide a revised form and map which highlights ten unique, qualifying basic services (restaurants may be counted twice) that are within the one half mile radius of the project site. Please provide a revised map which includes a graphic scale for reference. Please provide a revised map which highlights the residential district within one half mile of the project site. Ensure that the documentation includes the existing development density of the residential neighborhood.

SSc6.1 : Stormwater Design-Quantity Control — **Withdrawn**
POSSIBLE POINTS: 1

SSc6.2 : Stormwater Design-Quality Control — **Awarded : 1**
POSSIBLE POINTS: 1
ATTEMPTED: 1, DENIED: 0, PENDING: 0, AWARDED: 1

DESIGN PRELIMINARY REVIEW

The LEED Credit Form has been provided stating that stormwater 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 / structural controls and describes the contribution to stormwater filtration of each, including their TSS removal rate and percent of annual rainfall volume treated.

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

SSc7.2 : Heat Island Effect, Roof — **Awarded : 1**
POSSIBLE POINTS: 1
ATTEMPTED: 1, DENIED: 0, PENDING: 0, AWARDED: 1

DESIGN PRELIMINARY REVIEW

The LEED Credit Form has been provided stating that 131% of the base building roof surface has a Solar Reflectance Index of 81 therefore the project complies with Option 1. A minimum of 75% of the roof with a minimum SRI of 78 is required. The roof slope is noted as less than or equal to 2:12. The table listing the compliant SRI roofing materials, a roof plan, and manufacturer documentation for the installed roofing materials have been provided.

SSc8 : Light Pollution Reduction — **Withdrawn**
POSSIBLE POINTS: 1

Water Efficiency

WEp1 : Water Use Reduction, 20% Reduction — Awarded

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 reduced potable water use by 40% from a calculated baseline design. Residential sinks have been included in the calculations. The documentation demonstrates prerequisite compliance. It is noted that the flow-rate for the residential sink listed in the form (2.2 gpm) is inconsistent with the provided schedule (2.0 gpm). This issue does not affect compliance. For future submittals, please ensure that all information is reported consistently.

DESIGN PRELIMINARY REVIEW

The LEED Prerequisite Form and water use calculations have been provided stating that the project has reduced potable water use by 24% from a calculated baseline design through the installation of low-flow water closets, waterless urinals, low-flow lavatory faucets and low-flow showers. A minimum reduction of 20% is required. A plumbing fixture schedule has been provided. However, residential sinks (2.0 gpm)are listed in the plumbing schedule but have not been incuded in the form. TECHNICAL ADVICE: Please provide a revised form which includes the residential sinks and associated water use.

DESIGN PRELIMINARY REVIEW

The LEED Prerequisite Form and water use calculations have been provided stating that the project has reduced potable water use by 24% from a calculated baseline design through the installation of low-flow water closets, waterless urinals, low-flow lavatory faucets and low-flow showers. A minimum reduction of 20% is required. A plumbing fixture schedule has been provided.

WEc1 : Water Efficient Landscaping — Awarded : 4

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

DESIGN APPEAL REVIEW

The LEED Credit Form has been revised to address the issues outlined in the Final Review and states that the landscaping and irrigation systems have been designed to reduce potable water consumption for irrigation by 124.14% and has reduced the total water used for irrigation by 60.68% from a calculated baseline case. A response narrative, a proof of connection and payment for reclaimed water, irrigation schedules, and a proof of payment for irrigation controllers and sensors have been provided. The documentation demonstrates credit compliance. For future submittals, ensure that specification information regarding available quantity of municipally supplied non-potable water volume is provided. Additionally note that for projects registered after February 2, 2011, any percentage reduction in water use from any weather-based controllers or moisture sensor-based systems cannot exceed 30%.

DESIGN FINAL REVIEW

The LEED Credit Form has been revised to address the issues outlined in the Preliminary Review and states that the landscaping and irrigation systems have been designed to reduce potable water consumption for irrigation by 109.19% and has reduced the total water used for irrigation by 52.87% from a calculated baseline case. Landscape and planting plans have also been provided. However, three issues remain: 1. Specific information regarding available quantity of municipally supplied non-potable water volume has not been provided. 2. The species factor, ks, for the turfgrass has not been revised to average (0.7) in the baseline case. 3. A controller efficiency of 0.7 has been utilized and manufacturer documentation has been provided, documenting that savings achievable from many different controllers. However, it is unclear which controller has been specified. The documentation does not demonstrate credit compliance.

DESIGN PRELIMINARY REVIEW

The LEED Credit Form has been provided stating that the landscaping and irrigation systems have been designed to reduce potable water consumption for irrigation by 100 % and has reduced the total water used for irrigation by 56.04% from a calculated baseline case. A minimum reduction of 50% in potable water use is required. A site plan and details of the irrigation system have been provided. However, the following issues require clarification: 1. The landscape plan indicating the landscape type has not been provided as required. 2.The provided calculations indicate that the baseline case does not use average values for species factor (ks) for the Turf grass as required. 3. Specific information regarding the available quantity ofmunicipally supplied non-potable water volume has been provided. TECHNICAL ADVICE: 1. Please provide the landscape) plan as required. 2.Provide revised calculations to ensure that the baseline case uses average values for species factor (ks) for the Turf grass. For additional information, refer to the calculations section within WEc1 in the LEED Reference Guide for Green Building Design and Construction, 2009 Edition (Updated June 2010). 3. Provide specific information regarding the available quantity of municipally supplied non-potable water volume.

DESIGN PRELIMINARY REVIEW

The LEED Credit Form has been provided stating that the landscaping and irrigation systems have been designed to reduce potable water consumption for irrigation by 100 % and has reduced the total water used for irrigation by 56.04% from a calculated baseline case. A minimum reduction of 50% in potable water use is required. A site plan and details of irrigation system have been provided. However, the following issues require clarification: 1. The landscape plan indicating the landscape

type has not been provided as required. 2.The provided calculations indicate that the baseline case does not use average values for species factor (ks) for the Turf grass as required. 3. Specific information regarding the available quantity ofmunicipally supplied non-potable water volume has been provided. TECHNICAL ADVICE: 1. Please provide the landscape) plan as required. 2.Provide revised calculations to ensure that the baseline case uses average values for species factor (ks) for the Turf grass. For additional information, refer to the calculations section within WEc1 in the LEED Reference Guide for Green Building Design and Construction, 2009 Edition (Updated June 2010). 3. Provide specific information regarding the available quantity of municipally supplied non-potable water volume.

DESIGN PRELIMINARY REVIEW

The LEED Credit Form has been provided stating that the landscaping and irrigation systems have been designed to reduce potable water consumption for irrigation by 100 % and has reduced the total water used for irrigation by 56.04% from a calculated baseline case. A minimum reduction of 50% in potable water use is required. A site plan and details of irrigation system have been provided. However, the landscape plan indicating the landscape type has not been provided as required. Additionally, the provided calculations indicate that the baseline case does not use average values for species factor (ks) for the Turf grass as required. TECHNICAL ADVICE: Please provide the landscape) plan as required. In addition, provide revised calculations to ensure that the baseline case uses average values for species factor (ks) for the Turf grass. For additional information, refer to the calculations section within WEc1 in the LEED Reference Guide for Green Building Design and Construction, 2009 Edition (Updated June 2010).

DESIGN PRELIMINARY REVIEW

The LEED Credit Form has been provided stating that the landscaping and irrigation systems have been designed to reduce potable water consumption for irrigation by 100 % and has reduced the total water used for irrigation by 56.04% from a calculated baseline case. A minimum reduction of 50% in potable water use is required. A site plan and details of irrigation system have been provided. However, the landscape plan indicating the landscape type has not been provided as required. Further, the provided calculations indicate that the baseline case does not use average values for species factor (ks) for the Turf grass as required. TECHNICAL ADVICE: Please provide the landscape) plan as required. In addition, provide revised calculations to ensure that the baseline case uses average values for species factor (ks) for the Turf grass. For additional information, refer to the calculations section within WEc1 in the LEED Reference Guide for Green Building Design and Construction, 2009 Edition (Updated June 2010).

WEc2 : Innovative Wastewater Technologies — **Not Attempted**

POSSIBLE POINTS: 2

WEc3 : Water Use Reduction — **Awarded : 4**

POSSIBLE POINTS: 4

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

CONSTRUCTION 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 40% from the calculated baseline design fixture performance. A minimum reduction of 30% is required.

Energy And Atmosphere

EAp1 : Fundamental Commissioning of the Building Energy Systems — Awarded

CONSTRUCTION PRELIMINARY REVIEW

The LEED Prerequisite Form has been provided stating that the fundamental commissioning report for the project energy-related systems has been completed. The required commissioning authority experience of the project team Commissioning Agent has been provided, and the documentation confirms that the Owner Project requirements (OPR) and Basis of Design (BOD) are consistent with the final construction documentation and completed project. The executive summary of the commissioning report has been provided and includes a list of the systems commissioned as well as a summary of issues corrected and a list of any major outstanding/unresolved issues.

EAp2 : Minimum Energy Performance — Awarded

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 29.17% using the ASHRAE90.1-2007 Appendix G methodology. Revised supporting documentation has been provided including a narrative response to Preliminary Review comments, details of roof reflectivity documentation and window performance calculation, fan power calculation, updated simulation input and output summary files and a revised copy of EAp2-Section 1.4 table.xls. Sufficient information has been provided to address most of the issues raised in the Preliminary Review. However, one issue remains outstanding. OUTSTANDING ISSUES: 1. (Preliminary Review Item #3) The Baseline exterior floor and slab constructions as indicated in the revised Section 1.4 - Supplemental Tables 1.4.1A are inconsistent with the requirements of Table G3.1.5(Baseline)(b). In this case, since the values used for the Baseline exterior floor and slab constructions are more conservative, compliance is not affected by this issue. For future submittals, ensure the Baseline exterior floor and slab constructions are modeled to meet the requirements of Table G3.1.5(Baseline)(b). The total predicted annual energy consumption for the project is 551,940 kWh/year of electricity, 28,125 therms/year of natural gas and 2,053,800 kBtu/year of district chilled water.

DESIGN PRELIMINARY REVIEW

The LEED Prerequisite Form and supporting documentation have been provided stating that the project is new construction and therefore complies with Option 1. The project has achieved an energy cost savings of 30.92% using the ASHRAE 90.1-2007 Appendix G methodology. A minimum energy cost savings of 10% is required for all new construction projects. Energy efficiency measures include high efficiency glazing, reduced interior lighting power densities, and efficient HVAC equipment. Further, it appears from the completed copy of the EAp2 Section 1.4 Tables that the project is using District Thermal Energy for heating and cooling and has followed the "Treatment of District /Campus Thermal Energy in LEED-2009-Design and Construction" document for achieving credit compliance. However, the followingfifteen review comments requiring a project team response (marked as Mandatory) must be addressed for the Final Review. Please upload a summary document that includes a narrative response to each Preliminary Review comment that has been addressed by the project team, and a narrative describing any additional changes made to the energy models between the Preliminary and Final Review phase. TECHNICAL ADVICE: REVIEW COMMENTS REQUIRING A PROJECT TEAM RESPONSE (Mandatory): 1. It appears from the descriptions in completed copy of EAp2 Section 1.4 Tables that a district energy source is used for the Proposed building heating and cooling. Note that all LEED v2.x New Construction, Schools, Core and Shell, and Commercial Interiors projects registered with the USGBC on or after 05/28/2008, and using district thermal energy, are required to follow the guidance of the document "Required Treatment of District Thermal Energy in LEED-NC version 2.2 and LEED for Schools, version 1.0" (DES v1) dated May 28, 2008 which can be accessed at: http://www.usgbc.org/ShowFile.aspx?DocumentID=4176. Optionally, in lieu of following the required version 1.0 guidance, the project team may choose to follow the guidance of 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: http://www.usgbc.org/ShowFile.aspx?DocumentID=7671. If following version 1 of the District Thermal Energy guidance, please provide a Step 1 EAc1 template and supporting documentation if pursuing 2 points, or both a Step 1 and a Step 2 template and supporting documentation if pursuing more than 2 points, and provide sufficient information to show that the District Energy Requirements document has been appropriately applied to the project. If following version 2 of the District Thermal Energy guidance, please follow the requirements of either Option 1 or Option 2, as appropriate for your situation. The submitted LEED review documentation must clearly state which method, District Thermal Energy guidance v. 1.0 (DES v1 - May 2008) or District Thermal Energy guidance v. 2.0 (DES v2 - August 2010) was used. Additionally note that although LEED 2009 projects are not required to use either the DES v1 -May 2008 or the DES v2 -August 2010 guidance, their use is highly recommended. 2. The required signatory for this prerequisite are the project team Architect, Mechanical Engineer and Electrical Engineer, but the form has been signed by the project team Energy Modeler (TLC Engineering). Please provide a revised form with the required signatories. Note that the required signatory must be designated the proper role in the Team Administration tab in LEED Online and must be logged in with his or her own account when signing the form. 3. A copy of the EAp2 Section 1.4 Table has been provided. However, Section 1.4.1A -ASHRAE 90.1 Section 5: Building Envelope (Construction Assemblies) has not been provided as required. Please provide a completed EAp2 Section 1.4 Tables including the details of Table 1.4.1A -ASHRAE 90.1 Section 5: Building Envelope (Construction Assemblies). 4. Section 1.4.1B does not list the vertical fenestration percentage as required. It is unclear what the actual percentage of vertical fenestration has been modeled and if it has been modeled identically in both design cases. Note that per Table G3.1#5(Baseline)(c), the percentage of vertical fenestration in the Baseline shall be modeled identically to the Proposed Case or 40% of gross above grade wall area, whichever is smaller. Please update the vertical fenestration details in Section 1.4.1B accordingly. 5. The Baseline Vertical Glazing U factor (0.61) does not appear to meet the requirements of Table G3.1.5 (Baseline)(c), which requires that all Baseline Vertical Fenestration shall match the appropriate

requirements in Table 5.5-2 (for Climate Zone 2A). Revise all Baseline fenestration to reflect the correct U factor and update Section 1.4 - Supplemental Table 1.4.1B and the simulation as necessary. 6. It is unclear if the Baseline and Proposed Case roof were modeled correctly. According to Table G3.1#5(c), the roof surface should be modeled with a reflectance of 0.45 if the reflectance of the Proposed roof is greater than 0.7 and its emittance is greater than 0.75. Otherwise, the Proposed reflectance should be 0.3. The Baseline roof should be modeled with a reflectivity of 0.3. Revise the energy models in accordance with Table G3.1#5(c) and update Section 1.4 - Supplemental Table 1.4.1A, as necessary. 7. It is unclear whether the window U-value of 0.32 used for the Proposed Case accounts for the impact of the window frames on the whole assembly as required by ASHRAE modeling protocol. Provide additional information to confirm that the framed assembly U-value was used for the Proposed Case windows (such as: showing that the whole window assembly has been tested by NFRC verifying that LBNL Window5 calculations have been provided for the whole assembly or verifying that the frame effects are captured within the energy modeling software). Alternatively, revise the model referencing ASHRAE 90.1-2007 Table A8.2 as necessary. 8. Section 1.4 - Supplemental Table 1.4.5 indicates that occupancy sensors are modeled in both the Baseline and Proposed Case. It is unclear, however, where occupancy sensors have been included and how these were modeled in the Baseline and Proposed energy models. Ensure that credit is not taken where occupancy sensors are required in accordance with Section 9.4.1.2 and indicate where occupancy sensor controls are modeled for credit (if any), verifying that this credit aligns with ASHRAE90.1-2007 Table G3.2 and is only applied to fixtures controlled by occupant sensors. For spaces that are required to have occupancy sensors by ASHRAE 90.1-2007 Section 9.4.1.2, verify that they have been modeled appropriately in the Baseline Case. Revise the Baseline and Proposed Case models, the form, and supporting documentation as necessary. 9. Exterior lighting has been modeled identically for the Baseline or Proposed Case. Provide a narrative confirming that the Proposed Case exterior lighting reflects the actual building design and the Baseline Case reflects the allowed lighting power from Section 9. Ensure that no credit is taken in the Proposed Design 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. Ensure that the tradable and non-tradable surface lighting power is reported separately (in units of Watts or Kilowatts) for both the Baseline and Proposed Case within Section 1.4 - Supplemental Table 1.4.5 and verify that these values are appropriately reflected in the model outputs and Tables EAp2-4and EAp2-5. 10. Section 1.4.2 indicates that more than one system type was included in the Baseline energy models. Note that secondary HVAC systems should not be specified in the Baseline building unless exceptions from G3.1.1 are applicable. Revise the Baseline energy model, if appropriate, and provide a narrative to explain if any exceptions from G3.1.1 were used to specify an Other HVAC system type in the Baseline model. Additionally, note that ASHRAE 90.1-2007 Table G3.1.1(b) requires that all conditioned spaces in the Baseline and Proposed design be simulated as being both heated and cooled even if no cooling or heating system is being installed. 11. It is unclear whether the Baseline Case fan power was modeled in accordance with ASHRAE 90.1-2007 Section 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 Section 1.4 -Supplemental Table 1.4.2, and update the energy models, input and output summaries, and form as necessary. 12. It is unclear whether the Baseline Case fan air flow rates were sized based on a 20 degrees F supply-air-to-room-air temperature difference for each Baseline system in accordance with Section G3.1.2.8, and whether the Proposed Case air flow rates were modeled as designed for each system. Provide input summary reports showing that the Baseline case air flow rates were sized based on a 20 degrees F supply-air-to-room-air temperature difference per G3.1.2.8, verify that the Proposed Case air flow rates reflect the actual building design, update the Section1.4 - Supplemental Table 1.4.2 to reflect the total Baseline and Proposed Case air flows, and energy models, input and output summaries, and form as necessary to reflect any changes made. 13. It is unclear whether the Baseline equipment capacities were based on sizing runs, and oversized by 25% for heating, and 15% for cooling in accordance with Section G3.1.2.2. It is also unclear whether the Proposed Case equipment capacities were modeled as designed. If necessary, revise the Baseline Case heating and cooling capacities in accordance with ASHRAE Section G3.1.2.2 requirements, and the Proposed Case equipment capacities to reflect the actual design. Verify that the Baseline capacities were oversized either at the system level or the plant level, but not at the system and plant levels. In Section 1.4 - Supplemental Table 1.4.2, list the total Baseline and Proposed Case cooling and heating capacities and the applicable capacity ranges for the systems used in the Baseline and Proposed Case (consistent with the ranges listed in Tables 6.8.1A through 6.8.1G). 14. Process energy accounts for less than 25% of the Baseline energy cost for the building. LEED-NC 2009 requires that all plug loads and other miscellaneous loads be accounted for in the energy models as required by ASHRAE 90.1-2007 modeling process. If some of the process loads planned for the building (such as elevator loads, receptacle loads, kitchen loads, etc.) were not included in the preliminary model, revise both buildings to include all loads, and update the form as necessary. If the process cost remains below 25%, provide an additional narrative justification for the low process cost. 15. The number of unmet load hours for the Proposed Case reported in Table EAp2-2 (9) is inconsistent with unmet load hours reported in BEPS and BEPU reports for the Proposed Case (134 hours). Further, a copy of Input summary and the BEPS, BEPU, & ES-D reports for the Baseline Case design has not been provided as required. Please provide copy of Input summary and the BEPS, BEPU, & ES-D reports for both Baseline Case and Proposed Case design. Please revise the models until the number of unmet load hours for the Proposed Case model does not exceed the unmet load hours for the Baseline Case model by more than 50, and the total unmet load hours for all models does not exceed 300 hours per ASHRAE 90.1-2007 Section G3.1.2.2. Provide a description of changes made to the model to achieve this compliance.

DESIGN PRELIMINARY REVIEW

The LEED Prerequisite Form and supporting documentation have been provided stating that the project has achieved an energy cost savings of 30.92% using the ASHRAE 90.1-2007 Appendix G methodology. Supporting documentation provided includes proposed case simulation output summary reports and completed copy of EAp2 Section 1.4 Tables. Energy efficiency measures include high efficiency glazing, reduced interior lighting power densities, and efficient HVAC equipment. Further, it appears from completed copy of EAp2 Section 1.4 Tables that the project building is using District Thermal Energy for heating and cooling and follows the "Treatment of District /Campus Thermal Energy in LEED-2009-Design and Construction" document for achieving credit compliance. However, the followingfifteen review comments requiring a project team response (marked as "Mandatory") must be addressed for the final review. Please post the original documentation for this Prerequisite (including the original EAp2 Prerequisite Form) to LEED online in a zip file (e.g. "Preliminary EAp2 Submittal.zip") for comparison in the next review phase.

Please also upload a summary document that includes a narrative response to each preliminary review comment that has been addressed by the project team, and a narrative describing any additional changes made to the energy models between the preliminary and final review phase. TECHNICAL ADVICE: REVIEW COMMENTS REQUIRING A PROJECT TEAM RESPONSE (Mandatory): It appears from the descriptions in completed copy of EAp2 Section 1.4 Tables that a district energy source is used for the Proposed building heating and cooling. Note that all LEED v2.x New Construction, Schools, Core and Shell, and Commercial Interiors projects registered with the USGBC on or after 05/28/2008, and using district thermal energy, are required to follow the guidance of the document "Required Treatment of District Thermal Energy in LEED?NC version 2.2 and LEED for Schools, version 1.0" (DES v1) dated May 28, 2008 which can be accessed at: http://www.usgbc.org/ShowFile.aspx?DocumentID=4176. Optionally, in lieu of following the required version 1.0 guidance, the project team may choose to follow the guidance of 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: http://www.usgbc.org/ShowFile.aspx?DocumentID=7671. If following version 1 of the District Thermal Energy guidance, please provide a Step 1 EAc1 template and supporting documentation if pursuing 2 points, or both a Step 1 and a Step 2 template and supporting documentation if pursuing more than 2 points, and provide sufficient information to show that the District Energy Requirements document has been appropriately applied to the project. If following version 2 of the District Thermal Energy guidance, please follow the requirements of either Option 1 or Option 2, as appropriate for your situation. The submitted LEED review documentation must clearly state which method, District Thermal Energy guidance v. 1.0 (DES v1 - May 2008) or District Thermal Energy guidance v. 2.0 (DES v2 - August 2010) was used. Additionally note that although LEED 2009 projects are not required to use either the DES v1 -May 2008 or the DES v2 -August 2010 guidance, their use is highly recommended. The required signatory for this prerequisite are the project team Architect, Mechanical Engineer and Electrical Engineer, but the form has been signed by the project team Energy Modeler (TLC Engineering). Please provide a revised form with the required signatories. Note that the required signatory must be designated the proper role in the Team Administration tab in LEED Online and must be logged in with his or her own account when signing the form. The project has not included completed EAp2 Table 1.4.1A -ASHRAE 90.1 Section 5: Building Envelope (Construction Assemblies) as required. Please provide revised completed EAp2 Section 1.4 Tables to include details of Table 1.4.1A -ASHRAE 90.1 Section 5: Building Envelope (Construction Assemblies). Section 1.4.1B does not list vertical fenestration percentage area as required. It is unclear what the actual percentage of vertical fenestration has been modeled and if it has been modeled identically in both design cases. Note that per Table G3.1#5(Baseline)(c), the percentage of vertical fenestration in the Baseline shall be modeled identically to the Proposed Case or 40% of gross above grade wall area, whichever is smaller. Please update vertical fenestration details in section 1.4.1B accordingly. The Baseline Vertical Glazing U factor (0.61) does not appear to meet the requirements of Table G3.1.5 (Baseline)(c), which requires that all Baseline Vertical Fenestration shall match the appropriate requirements in Tables 5.5-2. Revise all Baseline fenestration to reflect the requirements. Update Section 1.4 - Supplemental Table 1.4.1B and simulation as necessary. It is unclear if the Baseline and Proposed Case roof were modeled correctly. According to Table G3.1?5(c), the roof surface should be modeled with a reflectance of 0.45 if the reflectance of the Proposed roof is greater than 0.7 and its emittance is greater than 0.75. Otherwise, the Proposed reflectance should be 0.3. The Baseline roof should be modeled with a reflectivity of 0.3. Revise the energy models in accordance with Table G3.1?5(c) and update Section 1.4 - Supplemental Table 1.4.1A, as necessary. It is unclear whether the window U-value of 0.32 used for the Proposed Case accounts for the impact of the window frames on the whole assembly as required by ASHRAE modeling protocol. Provide additional information to confirm that the framed assembly U-value was used for the Proposed Case windows (such as: showing that the whole window assembly has been tested by NFRC verifying that LBNL Window5 calculations have been provided for the whole assembly or verifying that the frame effects are captured within the energy modeling software). Alternatively, revise the model referencing ASHRAE 90.1-2007 Table A8.2 as necessary. Section 1.4 - Supplemental Table 1.4.5 indicates that occupancy sensors are modeled in both the Baseline and Proposed Case. It is unclear, however, where occupancy sensors have been included and how these were modeled in the Baseline and Proposed energy models. Ensure that credit is not taken where occupancy sensors are required in accordance with Section 9.4.1.2 and indicate where occupancy sensor controls are modeled for credit (if any), verifying that this credit aligns with ASHRAE90.1-2007 Table G3.2 and is only applied to fixtures controlled by occupant sensors. For spaces that are required to have occupancy sensors by ASHRAE 90.1-2007 Section 9.4.1.2, verify that they have been modeled appropriately in the Baseline Case. Revise the Baseline and Proposed Case models, the form, and supporting documentation as necessary. Exterior lighting has been modeled identically for the Baseline or Proposed Case. Provide a narrative confirming that the Proposed Case exterior lighting reflects the actual building design and the Baseline Case reflects the allowed lighting power from Section 9. Ensure that no credit is taken in the Proposed Design 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. Ensure that the tradable and non?tradable surface lighting power are reported separately (in units of Watts or Kilowatts) for both the Baseline and Proposed Case within Section 1.4 - Supplemental Table 1.4.5 and verify that these values are appropriately reflected in the model outputs and Tables EAp2-4 and EAp2-5. Section 1.4.2 indicates that more than one system type was included in the Baseline energy models. Note that secondary HVAC systems should not be specified in the Baseline building unless exceptions from G3.1.1 are applicable. Revise the Baseline energy model, if appropriate, and provide a narrative to explain if any exceptions from G3.1.1 were used to specify an Other HVAC system type in the Baseline model. Additionally, note that ASHRAE 90.1?2007 Table G3.1.1(b) requires that all conditioned spaces in the Baseline and Proposed design be simulated as being both heated and cooled even if no cooling or heating system is being installed. It is unclear whether the Baseline case fan power was modeled in accordance with ASHRAE 90.1-2007 Section 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 Section 1.4 -Supplemental Table 1.4.2, and update the energy models, input and output summaries, and form as necessary. It is unclear whether the Baseline Case fan air flow rates were sized based on a 20 degrees F supply-air-to-room-air temperature difference for each Baseline system in accordance with Section G3.1.2.8, and whether the Proposed Case air flow rates were modeled as designed for each system. Provide input summary reports showing that the Baseline case air flow rates were sized based on a 20 degrees F supply-air-to-room-air temperature difference per G3.1.2.8, verify that the Proposed Case air flow rates reflect the actual building design, update the Section 1.4 - Supplemental Table 1.4.2 to reflect the total Baseline and Proposed Case air flows, and energy models, input and output summaries, and form as necessary to reflect any changes made. It is unclear whether the Baseline equipment capacities

were based on sizing runs, and oversized by 25% for heating, and 15% for cooling in accordance with Section G3.1.2.2. It is also unclear whether the Proposed Case equipment capacities were modeled as designed. If necessary, revise the Baseline case heating and cooling capacities in accordance with ASHRAE Section G3.1.2.2 requirements, and the Proposed Case equipment capacities to reflect the actual design. [FOR CENTRAL PLANTS: Verify that the Baseline capacities were oversized either at the system level or the plant level, but not at the system and plant levels]. In Section 1.4 - Supplemental Table 1.4.2, list the total Baseline and Proposed Case cooling and heating capacities and the applicable capacity ranges for the systems used in the Baseline and Proposed Case (consistent with the ranges listed in Tables 6.8.1A through 6.8.1G). Process energy accounts for less than 25% of the Baseline energy cost for the building. LEED-NC 2009 requires that all plug loads and other miscellaneous loads be accounted for in the energy models as required by ASHRAE 90.1-2007 modeling process. If some of the process loads planned for the building (such as elevator loads, receptacle loads, kitchen loads, etc.) were not included in the preliminary model, revise both buildings to include all loads, and update the form as necessary. If the process cost remains below 25%, provide an additional narrative justification for the low process cost. The number of unmet load hours reported in Table EAp2-2(9) is inconsistent with unmet load hours reported in BEPS and BEPU reports for the Proposed Case model (134hours) .Further, a copy of Input summary and the BEPS, BEPU, & ES-D reports for the Basecase design has not been provided as required. Please provide copy of Input summary and the BEPS, BEPU, & ES-D reports for both basecase and proposed case design. Please revise the models until the number of unmet load hours for the Proposed Case model does not exceed the unmet load hours for the Baseline Case model by more than 50, and the total unmet load hours for all models does not exceed 300 hours per ASHRAE 90.1?2007 Section G3.1.2.2. Provide a description of changes made to the model to achieve this compliance.

EAp3 : Fundamental Refrigerant Management **Awarded**

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 **Awarded : 9**

POSSIBLE POINTS: 19

ATTEMPTED: 10, DENIED: 1, PENDING: 0, AWARDED: 9

DESIGN FINAL REVIEW

The LEED Credit Form and supporting documentation have been provided stating that the project is new construction and has achieved an energy cost savings of 29.17% using the ASHRAE 90.1-2007 Appendix G methodology. A minimum energy cost savings of 12% is required for all new construction projects. The documentation demonstrates credit compliance.

DESIGN PRELIMINARY REVIEW

The LEED Credit Form and supporting documentation have been provided stating that the project is new construction and has achieved an energy cost savings of 30.92% 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 denied pending clarifications. TECHNICAL ADVICE: Please see the comments within EAp2 and resubmit this credit.

EAc2 : On-Site Renewable Energy **Withdrawn**

POSSIBLE POINTS: 7

EAc3 : Enhanced Commissioning **Awarded : 2**

POSSIBLE POINTS: 2

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

CONSTRUCTION PRELIMINARY REVIEW

The LEED Credit Form has been provided stating that enhanced commissioning has been implemented. The project team Commissioning Agent has signed the form. The form includes the completion dates for the comprehensive commissioning review tasks. The systems manual covering the commissioned systems and future operating information and the contract between the Owner and the Commissioning Agent have been provided.

EAc4 : Enhanced Refrigerant Management **Withdrawn**

POSSIBLE POINTS: 2

EAc5 : Measurement and Verification **Withdrawn**

POSSIBLE POINTS: 3

EAc6 : Green Power **Awarded : 2**

POSSIBLE POINTS: 2

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

CONSTRUCTION FINAL REVIEW

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

The LEED Form states that the project has a two-year purchase agreement to procure 70% of electricity for this LEED project that meets the Green-e definition for renewable power using Option 1: Whole Building Energy Simulation.

The project has met the exemplary performance threshold for this credit. Exemplary performance must be attempted via an available ID credit and the project must not already have been awarded the maximum three points for exemplary performance.

Materials And Resources

MRp1 : Storage and Collection of Recyclables — Awarded

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 describing the size, accessibility and dedication of recycling storage areas and a floor plan showing the location of the recycling storage areas within the LEED-NC project have been provided. The area is adequately sized and located, and the narrative confirms the expected volume and pick-up frequencies.

MRc1.1 : Building Reuse-Maintain Existing Walls, Floors and Roof — Not Attempted

POSSIBLE POINTS: 3

MRc1.2 : Building Reuse - Maintain 50% of Interior Non-Structural Elements — Not Attempted

POSSIBLE POINTS: 1

MRc2 : Construction Waste Management — Awarded : 2

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

CONSTRUCTION PRELIMINARY REVIEW

The LEED Credit Form has been provided stating that the project has diverted 89.91% of the on-site generated construction waste from landfill. A minimum of 50% diverted is required. Calculations and a Construction Waste Management Plan have been provided to document the waste types and receiving agencies for the diverted materials.

MRc3 : Materials Reuse — Not Attempted

POSSIBLE POINTS: 2

MRc4 : Recycled Content — Awarded : 2

POSSIBLE POINTS: 2
ATTEMPTED: 1, DENIED: 0, PENDING: 0, AWARDED: 2

CONSTRUCTION FINAL REVIEW

The additional documentation provided demonstrates compliance for installation of 28.52% recycled content materials.

CONSTRUCTION PRELIMINARY REVIEW

The LEED Credit Form has been submitted.

However, the form does not appear to have been completed. It is unclear whether the project meets the requirements of this credit.

TECHNICAL ADVICE:

Please provide a revised form which has been completed along with all of the necessary documentation it requires. Note that it is strongly recommended that a pdf copy of the completed form be uploaded to LEED Online for the Final Review in case the blank form was an error caused by LEED Online.

MRc5 : Regional Materials — Awarded : 2

POSSIBLE POINTS: 2
ATTEMPTED: 1, DENIED: 0, PENDING: 0, AWARDED: 2

CONSTRUCTION FINAL REVIEW

The additional documentation provided demonstrates compliance for installation of 24.4% regional materials.

CONSTRUCTION PRELIMINARY REVIEW

The LEED Credit Form has been submitted.

However, the form does not appear to have been completed. It is unclear whether the project meets the requirements of this credit.

TECHNICAL ADVICE:

Please provide a revised form which has been completed along with all of the necessary documentation it requires. Note that it is strongly recommended that a pdf copy of the completed form be uploaded to LEED Online for the Final Review in case the blank form was an error caused by LEED Online.

MRc6 : Rapidly Renewable Materials **Withdrawn**
POSSIBLE POINTS: 1

MRc7 : Certified Wood **Denied : 1**
POSSIBLE POINTS: 1
ATTEMPTED: 1, DENIED: 1, PENDING: 0, AWARDED: 0

CONSTRUCTION FINAL REVIEW

No further information has been provided.

CONSTRUCTION PRELIMINARY REVIEW

The LEED Credit Form has been provided stating that 100% of the total wood-based building materials are certified in accordance with the principles and criteria of the Forest Stewardship Council (FSC). A minimum of 50% is required. Vendor invoices have been provided for 100% of all FSC certified wood products.

However, three issues are pending:

1. Vendor invoices have been provided for ACX Inc. Radiata Pine Plywood while the form indicates that this material contains 0% new wood. It is unclear if this material contains new wood.

2. It is unclear whether the millworkers (Integrated Door Systems and Lyndan Inc.) have Chain-of-Custody (CoC) certifications as required. Note the entire product assembly must be FSC-certified, FSC-Pure, FSC-Mixed (NN%), or FSC-Mixed Credit to contribute towards the threshold for MRc7. Entities which modify the products packaging or form (except as required for installation) must have a CoC Certification. The Chain of Custody must be in place until the product reaches the LEED project site. If the project is documenting partial claims using the custom woodworker/millworker path the installer must be CoC certified and document the FSC claims via an invoice with the total amount of wood purchased as well as a supplemental list of wood items FSC certified and not. For more information on this path see LEED Interpretation 10296.

3. The vendor invoices provided for Maiman Company Wood Doors and Nydree Flooring Wood Flooring do not indicate whether the materials are FSC Pure, FSC Mixed Credit, or FSC Mixed [NN]%, as required and the chain-of-custody (COC) numbers of the vendors have not been shown on these invoices.

TECHNICAL ADVICE:

1. Please provide a narrative to clarify whether the ACX Inc. Radiata Pine Plywood contains new wood and revise the form as necessary.

2. Provide a narrative which describes the Chain-of-Custody for the products listed above including how the products were used in the project. Explain who manufactured, distributed, modified, and installed the products. Revise the calculation as necessary to include whole assemblies instead of raw materials. Ensure that this information is reported consistently throughout all MR credits. Provide additional invoices or supplemental documents as necessary.

3. Provide revised vendor invoices including the COC numbers and stating whether the products listed above are FSC Pure, FSC Mixed Credit, or FSC Mixed [NN]%. Revise the form as necessary. Note that comprehensive FSC guidelines and requirements are outlined in the April 7, 2008 USGBC FSC Memorandum which can be found on the USGBC website.

Indoor Environmental Quality

IEQp1 : Minimum Indoor Air Quality Performance — Awarded

DESIGN FINAL REVIEW

The LEED Prerequisite Form has been revised to address the issues outlined in the Preliminary Review. Revised ventilation calculations, mechanical drawings, mechanical schedules and a comment response narrative have been provided. The documentation demonstrates prerequisite compliance.

DESIGN PRELIMINARY REVIEW

The LEED Prerequisite Form has been provided stating that the project complies with the minimum requirements of ASHRAE Standard 62.1-2007, Ventilation for Acceptable Indoor Air Quality, using the Ventilation Rate Procedure. Ventilation calculations have been provided. However, the following issues require clarification: 1. It is unclear if the calculations have been performed for the worst case conditions. Generally, worst case conditions are during heating mode. 2. The values used for zone air distribution effectiveness (Ez) do not appear to be substantiated based on the type of system, and the mode of operation. Note that this value is most often 0.8 for an overhead distribution system in heating mode. 3. The calculations do not seem to include many spaces, such as Dormitory, Meeting Rooms etc. which has been declared as regularly occupied space in Project Information Form 3. Please note that all regularly occupied spaces must be included in the calculations. Further, areas of regularly occupied zones considered for calculations are inconsistent with the areas reported in PIF3. Please note that area value for regularly occupied zones should be reported consistently across all credits and project information forms. 5. The total peak occupancy of 864 people documented for this credit varies substantially from the peak occupancy of 222 people reported in Project Information Form 3 (Occupant and Usage Data). Note that the peak occupancy should be reported consistently across all credits and project information forms. 6. Insufficient information has been provided to confirm that the critical zone has been correctly determined. Critical zones generally include conference rooms, training rooms, or other high density spaces with variable occupancy, though office spaces or other spaces may be the critical zone if the volume of air supplied to the space is limited TECHNICAL ADVICE: 1. Provide additional information to confirmthat the ASHRAE 62.1 Ventilation Rate Procedure (VRP) calculations have been performed for the worst case conditions, or provide calculations to document compliance for the worst case conditions. 2. Provide additional information to justify the values used for Ez in all the spaces, or update the value to 0.8. 3. Please provide revised Prerequisite Form and ventilation calculations to include all regularly occupied spaces in project. In addition, revise the Form to report areas consistent across credits. 5. Confirm the appropriate peak occupancy for the building, and update the peak occupancy and/or the diversity as necessary so that the peak occupancy is consistent across all credits and project information forms. 6. Provide sufficient information to establish how the critical zone in the project has been determined.

DESIGN PRELIMINARY REVIEW

The LEED Prerequisite Form has been provided stating that the project complies with the minimum requirements of ASHRAE Standard 62.1-2007, Ventilation for Acceptable Indoor Air Quality, using the Ventilation Rate Procedure. Ventilation calculations have been provided. However, the following issues require clarification: 1. It is unclear if the calculations have been performed for the worst case conditions. Generally, worst case conditions are during heating mode. 2. The values used for zone air distribution effectiveness (Ez) do not appear to be substantiated based on the type of system, and the mode of operation. Note that this value is most often 0.8 for an overhead distribution system in heating mode. 3. The calculations do not seem to include many spaces, such as Dormitory, Meeting Rooms etc. which has been declared as regularly occupied space in Project Information Form 3. Please note that all regularly occupied spaces must be included in the calculations. Further areas of regularly occupied zones considered for calculations are inconsistent with the areas reported in PIF3.Please note that area value for regularly occupied zones should be reported consistently across all credits and project information forms. 5. The total peak occupancy of 864 people documented for this credit varies substantially from the peak occupancy of 222 people reported in Project Information Form 3 (Occupant and Usage Data). Note that the peak occupancy should be reported consistently across all credits and project information forms. 6. Insufficient information has been provided to confirm that the critical zone has been correctly determined. Critical zones generally include conference rooms, training rooms, or other high density spaces with variable occupancy, though office spaces or other spaces may be the critical zone if the volume of air supplied to the space is limited TECHNICAL ADVICE: 1. Provide additional information to confirm that the ASHRAE 62.1 Ventilation Rate Procedure (VRP) calculations have been performed for the worst case conditions, or provide calculations to document compliance for the worst case conditions. 2. Provide additional information to justify the values used for Ez in all the spaces, or update the value to 0.8. 3. Please provide revised Prerequisite Form and ventilation calculations to include all regularly occupied spaces in project. In addition revise the Form to report areas consistent across credits. 5. Confirm the appropriate peak occupancy for the building, and update the peak occupancy and/or the diversity as necessary so that the peak occupancy is consistent across all credits and project information forms. 6. Provide sufficient information to establish how the critical zone in the project has been determined.

IEQp2 : Environmental Tobacco Smoke (ETS) Control — Awarded

DESIGN FINAL REVIEW

A copy of the signage communicating the exterior smoking policy has been provided to address the issues outlined in the Preliminary Review. The documentation demonstrates prerequisite compliance.

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 project Owner has signed the form as required. A copy of no smoking policy for the campus has been provided. However, the drawings / photographs confirming the signage system communicating the exterior smoking policy have not been provided as required. TECHNICAL ADVICE: Please provide documentation regarding the exterior signage system communicating the non-smoking policy.

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 project Owner has signed the form as required. A copy of no smoking policy for the campus has been provided. However, the drawings / photographs confirming the signage system communicating the exterior smoking policy have not been provided as required. TECHNICAL ADVICE: Please provide documentation regarding the exterior signage system communicating the non-smoking policy.

IEQc1 : Outdoor Air Delivery Monitoring — Awarded : 1

POSSIBLE POINTS: 1

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

DESIGN FINAL REVIEW

The LEED Credit Form has been revised to address the issues outlined in the Preliminary Review and includes all non-densely occupied spaces in the project. A response narrative, mechanical schedules and drawings have also been provided. The documentation demonstrates credit compliance.

DESIGN PRELIMINARY REVIEW

The LEED Credit Form has been provided stating that the project meets the credit criteria for a mechanically ventilated space. A CO2 sensor has been installed within each densely occupied space and these sensors 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 in each densely occupied have been provided. However, it appears that the project has many non-densely occupied spaces that have not been included for credit compliance. TECHNICAL ADVICE: Please provide a revised Credit Formincluding all non-densely occupied spaces in the project. Provide documentation confirming that all spaces with less than 25 people per 1000 square feet are monitored by outdoor airflow monitoring devices capable of measuring the minimum outdoor airflow rate at all expected system operating conditions within 10% of the design minimum outdoor air rate.

DESIGN PRELIMINARY REVIEW

The LEED Credit Form has been provided stating that the project meets the credit criteria for a mechanically ventilated space. A CO2 sensor has been installed within each densely occupied space and these sensors 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 in each densely occupied have been provided. However, the project has many non-densely occupied spaces e.g. dormitory, offices etc. for which documentation has not been provided as required for credit compliance. TECHNICAL ADVICE: Please provide a revised Credit Form and supporting documentation to include all non-densely occupied spaces in the project. Provide details of direct airflow measurement devices for each mechanical ventilation system in the project serving these non-densely occupied spaces.

IEQc2 : Increased Ventilation — Not Attempted

POSSIBLE POINTS: 1

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

POSSIBLE POINTS: 1

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

CONSTRUCTION FINAL REVIEW

The additional documentation demonstrates compliance.

CONSTRUCTION PRELIMINARY REVIEW

The LEED Credit Form has been provided stating that the project developed and implemented a Construction IAQ Management Plan that followed the referenced SMACNA Guidelines. The form narrative describes how absorptive materials were protected from moisture damage during the construction and preoccupancy phases. Photographs from at least two different time periods have been provided highlighting the implemented IAQ measures. Permanently installed air handling units were operated during construction. A copy of the Construction IAQ Management Plan has been provided.

However, the provided documentation and Construction IAQ Management Plan do not indicate that all of the SMACNA Design Approaches were utilized on the project as required. It appears that Scheduling was not addressed. Additionally, the MERV rating for the replacement filters has not been provided in the form.

TECHNICAL ADVICE:

Please provide a narrative describing the five Design Approaches of SMACNA IAQ Guidelines for Occupied Buildings under Construction, 1995, Chapter 3 or additional photographs highlighting how Scheduling was handled during the construction of

the tenant space. Additionally, revise Table IEQc3.1-1. Filter Media to include the MERV rating for the replacement filters.

IEQc3.2 : Construction IAQ Management Plan-Before Occupancy
Withdrawn

POSSIBLE POINTS: 1

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

POSSIBLE POINTS: 1

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

CONSTRUCTION PRELIMINARY REVIEW

The LEED Credit Form has been provided stating that all adhesive and sealant products comply with the VOC limits of the referenced standards for this credit. A summary of all interior adhesive and sealant products has been provided along with VOC data for each product confirming that they comply with the referenced VOC limits. The project team Contractor has signed the form. Manufacturer documentation has been provided for at least 20% of the products as required.

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

POSSIBLE POINTS: 1

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

CONSTRUCTION PRELIMINARY REVIEW

The LEED Credit Form has been provided stating that all interior paints and coatings applied on-site comply with the VOC limits of the referenced standards for this credit. A summary of all interior paints and coatings has been provided along with VOC data for each product confirming that they comply with the referenced VOC limits. The project team Contractor has signed the form. Manufacturer documentation has been provided for at least 20% of the products as required.

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

POSSIBLE POINTS: 1

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

CONSTRUCTION PRELIMINARY REVIEW

The LEED Credit Form has been provided stating that all interior flooring materials and finishes meet or exceed applicable criteria for the Carpet and Rug Institute, South Coast Air Quality Management District, or FloorScore. The adhesives used have a VOC level of less than 50 g/L that complies with IEQc4.1: Low-Emitting Materials - Adhesives and Sealants. A summary of the products along with data for each product has been provided in the form. Manufacturer documentation has been provided for at least 20% of the materials and for at least 20% of the adhesive and sealant products as required.

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

POSSIBLE POINTS: 1

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

CONSTRUCTION PRELIMINARY REVIEW

The LEED Credit Form has been provided stating that all composite wood, agrifiber products, and laminate adhesives used in the building contain no added urea-formaldehyde resins. A product summary of all products has been provided indicating that the products do not contain added urea-formaldehyde. The project team Contractor has signed the form. Manufacturer documentation has been provided for at least 20% of the materials as required.

IEQc5 : Indoor Chemical and Pollutant Source Control
Withdrawn

POSSIBLE POINTS: 1

IEQc6.1 : Controllability of Systems-Lighting
Withdrawn

POSSIBLE POINTS: 1

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

POSSIBLE POINTS: 1

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

DESIGN FINAL REVIEW

The LEED Credit Form has been revised to address the issues outlined in the Preliminary Review and includes all regularly occupied individual occupants and shared multi-occupant spaces in the project. The form states that the required ventilation and temperature controls are provided to enable 97.3% of occupants to make adjustments to the occupants with the ability to make adjustments to suit individual needs and preferences and thermal controls have been provided for 141.61% of the shared

multi-occupant spaces. A response narrative, mechanical drawings and schedules have also been provided. The documentation demonstrates credit compliance.

DESIGN PRELIMINARY REVIEW

The LEED Credit Form has been provided stating that the required ventilation and temperature controls are provided to enable 80 % 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 200% 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 individual thermal controls and the location of shared multi-occupant spaces thermal controls have been provided. However, it does not appear that all spaces have been inlcuded. Please note that in residentail projects, each bed should be considered an individual work station and family rooms should be considered shared multi-occupant spaces.Please see the definition of regularly occupied spaces on page 533 of the LEED Reference Guide for Green Building Design and Construction, 2009 Edition (Updated June 2010) for more information. TECHNICAL ADVICE: Please provide a revised Credit Form and supporting documentation to include all regulalry occupied spaces in the project. Note that all regularly occupied spaces must be reported consistently across all credits and project information forms.

DESIGN PRELIMINARY REVIEW

The LEED Credit Form has been provided stating that the required ventilation and temperature controls are provided to enable 80 % 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 200% 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 individual thermal controls and the location of shared multi-occupant spaces thermal controls have been provided. However, the project has not included many densely occupied spaces e.g. cafeteria, conference rooms etc. and non-densely occupied spaces e.g. dormitories etc for credit compliance. Further note that total number of spaces provided with controls indicated in Table IEQc6.2-2 should not be greater than total number of spaces listed in the same table. TECHNICAL ADVICE: Please provide a revised Credit Form and supporting documentation to include all densely and non-densely occupied spaces in the project. Note that all regularly occupied spaces must be reported consistent across all credits and project information forms.

IEQc7.1 : Thermal Comfort-Design — Awarded : 1

POSSIBLE POINTS: 1

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

DESIGN FINAL REVIEW

The LEED Credit Form has been revised to address the issues outlined in the Preliminary Review. A response narrative and a copy of ASHRAE Standard 55 Figure 5.2.1.1 indicating that all design conditions fall within acceptable ranges have been provided to address the issues outlined in the Preliminary Review. The documentation demonstrates credit compliance.

DESIGN PRELIMINARY REVIEW

The LEED Credit Form has been provided stating that the mechanically ventilated and mechanically conditioned project space is in compliance with ASHRAE 55-2004. The project has utilized Table IEQc7.1-1 to determine credit compliance. The metabolic rate and clothing insulation, weather design conditions, and operating conditions have been provided for both the cooling and heating mode. Local discomfort effects have been considered and are considered unlikely. Cooling load calculation has been provided. However, the values for MET and Design air speed provided in the Form are incorrect. Further, the documentation provided is insufficient to confirm compliance with ASHRAE Standard 55-2004 Section 6.1.1. TECHNICAL ADVICE: Please revise the Form to correctly indicate MET and Design air speed per ASHRAE Standard 55-2004. Further provide documentationsuch asPMV/PPD calculations or ASHRAE comfort tool results to establish that all design conditions fall within acceptable ranges as noted in the Credit Form. Please see theLEED Reference Guide for Green Building Design and Construction 2009 Edition for more information.

DESIGN PRELIMINARY REVIEW

The LEED Credit Form has been provided stating that the mechanically ventilated and mechanically conditioned project space is in compliance with ASHRAE 55-2004. The project has utilized Table IEQc7.1-1 to determine credit compliance. The metabolic rate and clothing insulation, weather design conditions, and operating conditions have been provided for both the cooling and heating mode. Local discomfort effects have been considered and are considered unlikely .Cooling load calculation has been provided. However, the values for MET and Design air speed provided in the Form are incorrect. Further, the documentation provided is insufficient to confirm compliance with ASHRAE Standard 55-2004 Section 6.1.1. TECHNICAL ADVICE: Please revise the Form to correctly indicate MET and Design air speed as per ASHRAE Standard 55-2004 .Further provide documentationsuch asPMV/PPD calculations or ASHRAE comfort tool results to establish that all design conditions fall within acceptable ranges as noted in the Credit Form. Please see theLEED Reference Guide for Green Building Design and Construction 2009 Edition for more information.

IEQc7.2 : Thermal Comfort-Verification — Awarded : 1

POSSIBLE POINTS: 1

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

CONSTRUCTION PRELIMINARY REVIEW

The LEED Credit Form has been provided stating that a permanent monitoring system and process for corrective action are in place to ensure performance to the desired comfort criteria, as determined by the credit requirements. IEQc7.1: Thermal Comfort - Design, has been earned, as required. A sample questionnaire and a narrative describing the party/parties responsible for conducting the survey have been provided.

IEQc8.1 : Daylight and Views-Daylight

POSSIBLE POINTS: 1

Withdrawn

IEQc8.2 : Daylight and Views-Views

POSSIBLE POINTS: 1

Withdrawn

Innovation In Design

IDc1.1 : Innovation in Design — **Withdrawn**
POSSIBLE POINTS: 1

IDc1.1 : Green Housekeeping — **Awarded : 1**
POSSIBLE POINTS: 1
ATTEMPTED: 1, DENIED: 0, PENDING: 0, AWARDED: 1

CONSTRUCTION FINAL REVIEW

The additional documentation demonstrates compliance.

CONSTRUCTION PRELIMINARY REVIEW

The LEED Credit Form has been submitted stating that the project has developed and implemented a Green Housekeeping program. To receive an innovation point, the project team must demonstrate compliance with LEED-EBOM 2009 IEQp3: Green Cleaning Policy.

However, the LEED-EBOM 2009 IEQp3 Prerequisite Form and the Green Cleaning Policy have not been provided as required.

TECHNICAL ADVICE:

Please provide a copy of the LEED-EBOM 2009 IEQp3 Prerequisite Form and the Green Cleaning Policy. The Green Cleaning Policy must follow the LEED-EBOM Policy Model and demonstrate the development of a comprehensive and quantitative green cleaning program which includes detailed information regarding staff training, cleaning processes and chemicals, and occupant feedback.

IDc1.2 : Innovation in Design — **Withdrawn**
POSSIBLE POINTS: 1

IDc1.2 : Innovation in Design — **Withdrawn**
POSSIBLE POINTS: 1

IDc1.3 : Innovation in Design — **Withdrawn**
POSSIBLE POINTS: 1

IDc1.3 : Walkable Streets — **Awarded : 1**
POSSIBLE POINTS: 1
ATTEMPTED: 1, DENIED: 0, PENDING: 0, AWARDED: 1

CONSTRUCTION PRELIMINARY REVIEW

The LEED Credit Form has been completed stating that the project has registered for Pilot Credit 14: Walkable Streets. The principal functional entry on the front facade, all frontages of the building with a principal functional entry, continuous sidewalks or equivalent all-weather provisions for walking on the project site meet the credit requirements and no more than 20% of the street frontage of the project is faced directly by garage and service bay openings. A narrative and site plans with all required information have been provided. Additionally, a project team representative has registered with LEEDuser, and the feedback survey has been completed.

IDc1.4 : Innovation in Design — **Withdrawn**
POSSIBLE POINTS: 1

IDc1.4 : Innovation in Design — **Withdrawn**
POSSIBLE POINTS: 1

IDc1.5 : Innovation in Design — **Not Attempted**
POSSIBLE POINTS: 1

IDc1.5 : Innovation in Design — **Not Attempted**
POSSIBLE POINTS: 1

IDc2 : LEED® Accredited Professional — **Awarded : 1**

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

CONSTRUCTION PRELIMINARY REVIEW

The LEED Credit Form has been submitted stating that a LEED AP has been a participant on the project development team. A copy of the LEED AP award certification for Jason Heffelmire has been included as required.

Regional priority credits

SSc5.2 : Site Development-Maximize Open Space
POSSIBLE POINTS: 1
ATTEMPTED: 1, DENIED: 0, PENDING: 0, AWARDED: 1

WEc2 : Innovative Wastewater Technologies
POSSIBLE POINTS: 1

EAc1 : Optimize Energy Performance
POSSIBLE POINTS: 1
ATTEMPTED: 1, DENIED: 0, PENDING: 0, AWARDED: 1

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

MRc5 : Regional Materials
POSSIBLE POINTS: 1

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

TOTAL	**110**	**61**	**2**	**0**	**61**

REVIEW SUMMARY

Review	SUBMITTED	RETURNED	POINTS: SUBMITTED	DENIED	PENDING	AWARDED
Design Preliminary	**12/27/2011**	**03/13/2012**	**40**	**0**	**36**	**4**

Credit	STATUS	TYPE	POINTS: ATTEMPTED	DENIED	PENDING	AWARDED
Minimum Program Requirements	**Approved**		**0**	**0**	**0**	**0**
Project Summary Details	**Approved**		**0**	**0**	**0**	**0**
Occupant and Usage Data	**Approved**		**0**	**0**	**0**	**0**
Schedule and Overview Documents	**Approved**		**0**	**0**	**0**	**0**
Site Selection	**Pending**	Design	**1**	**0**	**1**	**0**
Development Density and Community Connectivity	**Pending**	Design	**5**	**0**	**5**	**0**
Alternative Transportation-Public Transportation Access	**Pending**	Design	**6**	**0**	**6**	**0**
Alternative Transportation-Low-Emitting and Fuel-Efficient Vehicles	**Pending**	Design	**3**	**0**	**3**	**0**
Alternative Transportation-Parking Capacity	**Anticipated**	Design	**2**	**0**	**0**	**2**
Site Development-Maximize Open Space	**Pending**	Design	**2**	**0**	**2**	**0**
Stormwater Design-Quality Control	**Anticipated**	Design	**1**	**0**	**0**	**1**
Heat Island Effect, Roof	**Anticipated**	Design	**1**	**0**	**0**	**1**
Water Use Reduction, 20% Reduction	**Pending**	Design	**0**	**0**	**0**	**0**
Water Efficient Landscaping	**Pending**	Design	**4**	**0**	**4**	**0**
Minimum Energy Performance	**Pending**	Design	**0**	**0**	**0**	**0**
Fundamental Refrigerant Management	**Anticipated**	Design	**0**	**0**	**0**	**0**
Optimize Energy Performance	**Pending**	Design	**11**	**0**	**11**	**0**
Storage and Collection of Recyclables	**Anticipated**	Design	**0**	**0**	**0**	**0**
Minimum Indoor Air Quality Performance	**Pending**	Design	**0**	**0**	**0**	**0**
Environmental Tobacco Smoke (ETS) Control	**Pending**	Design	**0**	**0**	**0**	**0**
Outdoor Air Delivery Monitoring	**Pending**	Design	**1**	**0**	**1**	**0**
Controllability of Systems-Thermal Comfort	**Pending**	Design	**1**	**0**	**1**	**0**
Thermal Comfort-Design	**Pending**	Design	**1**	**0**	**1**	**0**

Design Final	**07/31/2012**	**08/16/2012**	**35**	**5**	**0**	**30**

Credit	STATUS	TYPE	POINTS: ATTEMPTED	DENIED	PENDING	AWARDED
Minimum Program Requirements	**Approved**		**0**	**0**	**0**	**0**
Project Summary Details	**Approved**		**0**	**0**	**0**	**0**
Occupant and Usage Data	**Approved**		**0**	**0**	**0**	**0**
Schedule and Overview Documents	**Approved**		**0**	**0**	**0**	**0**
Site Selection	**Anticipated**	Design	**1**	**0**	**0**	**1**
Development Density and Community Connectivity	**Anticipated**	Design	**5**	**0**	**0**	**5**
Alternative Transportation-Public Transportation Access	**Anticipated**	Design	**6**	**0**	**0**	**6**
Alternative Transportation-Low-Emitting and Fuel-Efficient Vehicles	**Anticipated**	Design	**3**	**0**	**0**	**3**
Site Development-Maximize Open Space	**Anticipated**	Design	**2**	**0**	**0**	**2**
Water Use Reduction, 20% Reduction	**Anticipated**	Design	**0**	**0**	**0**	**0**
Water Efficient Landscaping	**Denied**	Design	**4**	**4**	**0**	**0**
Minimum Energy Performance	**Anticipated**	Design	**0**	**0**	**0**	**0**
Optimize Energy Performance	**Anticipated**	Design	**11**	**1**	**0**	**10**
Minimum Indoor Air Quality Performance	**Anticipated**	Design	**0**	**0**	**0**	**0**
Environmental Tobacco Smoke (ETS) Control	**Anticipated**	Design	**0**	**0**	**0**	**0**
Outdoor Air Delivery Monitoring	**Anticipated**	Design	**1**	**0**	**0**	**1**
Controllability of Systems-Thermal Comfort	**Anticipated**	Design	**1**	**0**	**0**	**1**
Thermal Comfort-Design	**Anticipated**	Design	**1**	**0**	**0**	**1**

Design Appeal	**10/17/2012**	**12/04/2012**	**4**	**0**	**0**	**4**

Credit	STATUS	TYPE	POINTS: ATTEMPTED	DENIED	PENDING	AWARDED
Water Efficient Landscaping	**Anticipated**	Design	**4**	**0**	**0**	**4**

Construction Preliminary	01/29/2014	02/22/2014	20	0	5	15

Credit	STATUS	TYPE	POINTS: ATTEMPTED	DENIED	PENDING	AWARDED
Minimum Program Requirements	Approved		0	0	0	0
Project Summary Details	Approved		0	0	0	0
Occupant and Usage Data	Approved		0	0	0	0
Schedule and Overview Documents	Approved		0	0	0	0
Construction Activity Pollution Prevention	Pending	Construction	0	0	0	0
Water Use Reduction	Awarded	Design	4	0	0	4
Fundamental Commissioning of the Building Energy Systems	Awarded	Construction	0	0	0	0
Enhanced Commissioning	Awarded	Construction	2	0	0	2
Construction Waste Management	Awarded	Construction	2	0	0	2
Recycled Content	Pending	Construction	1	0	1	0
Regional Materials	Pending	Construction	1	0	1	0
Certified Wood	Pending	Construction	1	0	1	0
Construction IAQ Management Plan-During Construction	Pending	Construction	1	0	1	0
Low-Emitting Materials-Adhesives and Sealants	Awarded	Construction	1	0	0	1
Low-Emitting Materials-Paints and Coatings	Awarded	Construction	1	0	0	1
Low-Emitting Materials-Flooring Systems	Awarded	Construction	1	0	0	1
Low-Emitting Materials-Composite Wood and Agrifiber Products	Awarded	Construction	1	0	0	1
Thermal Comfort-Verification	Awarded	Design	1	0	0	1
Green Housekeeping	Pending	Construction	1	0	1	0
Walkable Streets	Awarded	Construction	1	0	0	1
LEED® Accredited Professional	Awarded	Construction	1	0	0	1

Construction Final	**08/28/2014**	**09/25/2014**	**7**	**1**	**0**	**8**

Credit	STATUS	TYPE	POINTS: ATTEMPTED	DENIED	PENDING	AWARDED
Minimum Program Requirements	**Approved**		**0**	**0**	**0**	**0**
Project Summary Details	**Approved**		**0**	**0**	**0**	**0**
Occupant and Usage Data	**Approved**		**0**	**0**	**0**	**0**
Schedule and Overview Documents	**Approved**		**0**	**0**	**0**	**0**
Construction Activity Pollution Prevention	**Awarded**	Construction	**0**	**0**	**0**	**0**
Green Power	**Awarded**	Construction	**2**	**0**	**0**	**2**
Recycled Content	**Awarded**	Construction	**1**	**0**	**0**	**2**
Regional Materials	**Awarded**	Construction	**1**	**0**	**0**	**2**
Certified Wood	**Denied**	Construction	**1**	**1**	**0**	**0**
Construction IAQ Management Plan-During Construction	**Awarded**	Construction	**1**	**0**	**0**	**1**
Green Housekeeping	**Awarded**	Construction	**1**	**0**	**0**	**1**