State College Area School District

Mike Fisher
Director of Physical Plant
240 VILLA CREST DRIVE • STATE COLLEGE, PENNSYLVANIA • 16801
TELEPHONE: 814-231-1026

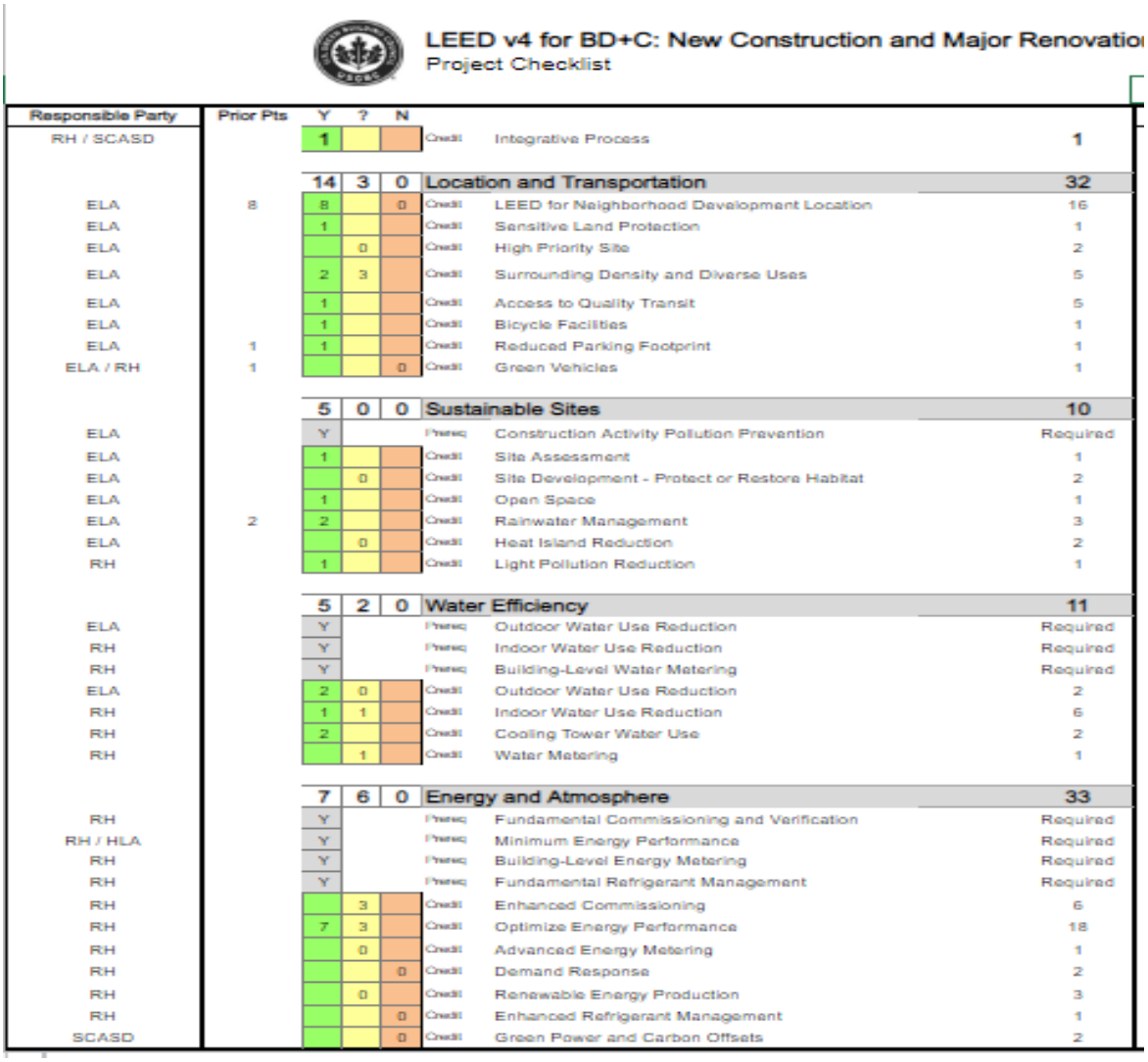
To: Curtis Johnson

From: Mike Fisher

RE: **North Building Renovation Project Status Update**

Date: April 3, 2023

This memo serves as a follow up to the current progress of the North Building renovation project. Shown below are the results of the penultimate LEED charrette. As previously stated, the space being renovated is already LEED Gold certified and is being designed to those standards.



LEED v4 for BD+C: New Construction and Major Renovatio
Project Checklist

Responsible Party	Prior Pts	Y	?	N			
RH / SCASD		1			Credit	Integrative Process	1
		14	3	0		**Location and Transportation**	32
ELA	8	8		0	Credit	LEED for Neighborhood Development Location	16
ELA		1			Credit	Sensitive Land Protection	1
ELA			0		Credit	High Priority Site	2
ELA		2	3		Credit	Surrounding Density and Diverse Uses	5
ELA		1			Credit	Access to Quality Transit	5
ELA		1			Credit	Bicycle Facilities	1
ELA	1	1			Credit	Reduced Parking Footprint	1
ELA / RH	1			0	Credit	Green Vehicles	1
		5	0	0		**Sustainable Sites**	10
ELA		Y			Prereq	Construction Activity Pollution Prevention	Required
ELA		1			Credit	Site Assessment	1
ELA			0		Credit	Site Development - Protect or Restore Habitat	2
ELA		1			Credit	Open Space	1
ELA	2	2			Credit	Rainwater Management	3
ELA			0		Credit	Heat Island Reduction	2
RH		1			Credit	Light Pollution Reduction	1
		5	2	0		**Water Efficiency**	11
ELA		Y			Prereq	Outdoor Water Use Reduction	Required
RH		Y			Prereq	Indoor Water Use Reduction	Required
RH		Y			Prereq	Building-Level Water Metering	Required
ELA		2	0		Credit	Outdoor Water Use Reduction	2
RH		1	1		Credit	Indoor Water Use Reduction	6
RH		2			Credit	Cooling Tower Water Use	2
RH			1		Credit	Water Metering	1
		7	6	0		**Energy and Atmosphere**	33
RH		Y			Prereq	Fundamental Commissioning and Verification	Required
RH / HLA		Y			Prereq	Minimum Energy Performance	Required
RH		Y			Prereq	Building-Level Energy Metering	Required
RH		Y			Prereq	Fundamental Refrigerant Management	Required
RH			3		Credit	Enhanced Commissioning	6
RH		7	3		Credit	Optimize Energy Performance	18
RH			0		Credit	Advanced Energy Metering	1
RH				0	Credit	Demand Response	2
RH			0		Credit	Renewable Energy Production	3
RH				0	Credit	Enhanced Refrigerant Management	1
SCASD				0	Credit	Green Power and Carbon Offsets	2

Responsible Party	Prior Pts	Y	?	N			
	6	6	0	**Materials and Resources**			13
HLA	Y			Prereq	Storage and Collection of Recyclables		Required
HLA	Y			Prereq	Construction and Demolition Waste Management Planning		Required
HLA / RH	3	1		Credit	Building Life-Cycle Impact Reduction		5
HLA / RH	1	1		Credit	Building Product Disclosure and Optimization - Environmental Product Declarations		2
HLA / RH	1	1		Credit	Building Product Disclosure and Optimization - Sourcing of Raw Materials		2
HLA / RH	1	1		Credit	Building Product Disclosure and Optimization - Material Ingredients		2
HLA		2		Credit	Construction and Demolition Waste Management		2
	7	5	0	**Indoor Environmental Quality**			16
RH	Y			Prereq	Minimum Indoor Air Quality Performance		Required
SCASD	Y			Prereq	Environmental Tobacco Smoke Control		Required
RH	2			Credit	Enhanced Indoor Air Quality Strategies		2
HLA / RH	2	1		Credit	Low-Emitting Materials		3
RH / HLA		0		Credit	Construction Indoor Air Quality Management Plan		1
RH	1	1		Credit	Indoor Air Quality Assessment		2
RH		1		Credit	Thermal Comfort		1
RH	1	1		Credit	Interior Lighting		2
RH		0		Credit	Daylight		3
HLA		1		Credit	Quality Views		1
RH / HLA	1	0		Credit	Acoustic Performance		1
	1	2	0	**Innovation**			6
RH / ALL		2		Credit	Innovation (onsite water collection)		5
RH	1			Credit	LEED Accredited Professional		1
	0	3	0	**Regional Priority**			4
RH / ALL		1		Credit	Regional Priority: Specific Credit (Educational Facility related)		1
RH / ALL		1		Credit	Regional Priority: Specific Credit (?)		1
RH / ALL		1		Credit	Regional Priority: Specific Credit (?)		1
RH / ALL				Credit	Regional Priority: Specific Credit		1
	46	27	0	**TOTALS**		**Possible Points:**	126

Certified: 40 to 49 points, **Silver:** 50 to 59 points, **Gold:** 60 to 79 points, **Platinum:** 80 to 110

73	Projected Maximum
62	Estimated Minimum (15% Attrition)

Points from Prior Project LEED Development

= Credit with potential to pursue additional points

Point Descriptions

Integrative Process

1. Integrative Process
    a. Dedicated collaborative design meetings including all disciplines throughout the design and construction process.

Location and Transportation

1. LEED for Neighborhood Development Location
    a. Although the project does not specifically meet the requirements of V4.0, the location of the project meets many of the intended benefits as outlined in V4.0 and points received from the previous Gold certification.

2. Sensitive Land Protection
    a. 1 Point - Project site is located on a previously developed site.

3. High Priority Site
    a. Not attempted as project scope does not fit the requirements.

4. Surrounding Density and Diverse Uses
    a. 3 Points – 2 Points achievable, 1 Point Possible
    b. Location of project site in proximity to high density residential (i.e. Parkway Plaza, Peppermill, etc)
    c. Location of project site in proximity to diverse uses (Hamilton Avenue Shopping, Atherton Street Commercial and Westerly Parkway Plaza)

5. Access to Quality Transit
    a. 1 Point Achievable
    b. CATA Routes and stops nearby

6. Bicycle Facilities
    a. 1 Point Achievable
    b. Short Term Bike Parking/Storage, Long Term Storage and Showers available in the Delta/North Building.

7. Reduced Parking Footprint
    a. 1 Point Achievable
    b. Overall High School Campus is 40% less than required and permitted by a Conditional Use.

8. Green Vehicles
    a. Not attempted as project scope does not fit the requirements.

Sustainable Sites

1. Construction Activity Pollution Prevention
    a. Erosion and Sediment Pollution Control is required

2. Site Assessment
    a. 1 Point Achievable
    b. Site design process includes all of the listed requirements.

3. Site Development – Protect of Restore Habitat
    a. Not attempted as project scope does not fit the requirements.

4. Open Space
    a. 1 Point Achievable
    b. Site is adjacent to Community Field which offers recreational and physical fitness opportunities.

5. Rainwater Management
    a. 2 Points Achievable
    b. Original High School campus storm water management facility accounted for some additional level of development. Recent soil infiltration testing of the facility confirmed that the infiltration rates are well higher than anticipated in the original design.

6. Heat Island Reduction
    a. Not pursuing.

7. Light Pollution Reduction
    a. Exterior light fixtures will meet uplight and light trespass requirements by having a qualifying B-U-G rating

Water Efficiency

1. Outdoor Water Use Reduction
    a. Required
    b. No irrigation
2. Indoor Water Use Reduction
    a. Required
    b. Water saving labeled fixtures, 20% reduction from baseline.
3. Building Level Water Metering
    a. Required
    b. Water meter dedicated to this building.
4. Outdoor Water Use Reduction
    a. 2 Points Achievable
    b. No irrigation for landscaping

5. Indoor Water Use Reduction
    a. 6 Points - 2 Achievable
    b. (30% reduction) for 1.5 gpm kitchen / private lavatory faucets

6. Cooling Tower Water Use
    a. 2 Points - 2 achievable
    b. Full credit available for HVAC system with no cooling tower(s).

7. Water Metering
    a. 1 Point - 1 Achievable
    b. Install two meters - one for domestic hot water, one for min. 80% on indoor fixtures

Energy and Atmosphere

1. Fundamental Commissioning and Verification
    a. Required.
    b. Commissioning Agent engaged

2. Minimum Energy Performance
    a. Required – Demonstrate 5% improvement
    b. Whole building energy model or
    c. ASHRAE 90.1-2010

3. Building-Level Energy Metering
    a. Required.
    b. Achievable through building automation system

4. Fundamental Refrigerant Management
    a. Required.
    b. Approved refrigerants to be specified.

5. Enhanced Commissioning:
    a. 6 Points - 3 Achievable
    b. Enhanced Commissioning (3 points)

6. Optimize Energy Performance
    a. 18 Points - 4 Achievable with prescriptive path (item b) or up to 10 points with energy modeling (item c)
    b. ASHRAE 50% Advanced Energy Design Guide for K-12 School Buildings
    -Building Envelope, Opaque (1 point)
    -Building Envelope, Glazing (1 point)
    -Interior Daylighting (1 point)
    -Exterior Daylighting (1 point)
    -Plug loads including equipment choices, controls, and kitchen equipment (1 point)
        i. Interior Lighting - Not achievable due to daylighting
        ii. Exterior Lighting - Limit lighting power density (0.06 W/sqft in parking lots & drives, 0.08 W/sqft on walkways)
        iii. Plug loads - Energy star appliances, top outlet in a duplex controlled by occupancy sensor.
    c. Perform whole building energy simulation to achieve minimum 15%-25% more efficient design than the EA Perquisite Minimum Energy Performance.

7. Advanced Energy Metering
    a. 1 Point – 0 points Achievable
    b. Not pursuing - electrical infrastructure not set up to take advantage of advanced metering.

8. Demand Response
    a. 2 Points – 0 points Achievable
    b. Not pursuing - electrical infrastructure not set up to take advantage of demand metering.

9. Renewable Energy Production
    a. 3 Points – 0 point Achievable
    b. Not pursuing.

10. Enhanced Refrigerant Management
    a. 1 Points – 0 points Achievable
    b. Not pursuing - not feasible with currently available refrigerant/HVAC system consideration for this project.

11. Green Power and Carbon Offsets
    a. 2 Points – 0 points Achievable
    b. Not pursuing - 50% of total energy for this project not feasible to be provided by green power, RECs or other offsets.

Materials and Resources

1. Storage and Collection of Recyclables
    a. Required
    b. Incorporate locations for office/shop spaces for mixed paper, corrugated cardboard, glass, plastics, metals

2. Construction and Demolition Waste Management Planning
    a. Required
    b. Develop a Construction Waste Management plan

3. Building Life-Cycle Impact Reduction
    a. 3 Points Achievable, 1 Possible with Option 3. Building and Material Reuse,
    b. Reuse or salvage building materials from off site or on site as a percentage of the surface area. Include structural elements (e.g., floors, roof decking), enclosure materials (e.g., skin, framing), and permanently installed interior elements (e.g., walls, doors, floor coverings, ceiling systems). Exclude from the calculation window assemblies and any hazardous materials that are remediated as a part of the project
    c. Since this is an existing building, much of the existing building materials are to remain.

4. Building Product Disclosure and Optimization – Environmental Product Declarations
    a. 1 Point Achievable, 1 Possible
    b. Specify at least 20 different permanently installed products sourced from at least five different manufacturers that meet one of the disclosure criteria
    c. Utilize relationship/contacts with vendors to assist in the selection of materials

5. Building Product Disclosure and Optimization – Sourcing of Raw Materials
    a. 1 Point Achievable, 1 Possible
    b. Specify at least 20 different permanently installed products from at least five different manufacturers that have publicly released a report from their raw

material suppliers which include raw material supplier extraction locations, a commitment to long-term ecologically responsible land use, a commitment to reducing environmental harms from extraction and/or manufacturing processes, and a commitment to meeting applicable standards or programs voluntarily that address responsible sourcing criteria
    c. Utilize relationship/contacts with vendors to assist in the selection of materials

6. Building Product Disclosure and Optimization – Material Ingredients
    a. 1 Point Achievable, 1 Possible
    b. Specify at least 20 different permanently installed products from at least five different manufacturers that use any of the following programs to demonstrate the chemical inventory of the product to at least 0.1% (1000 ppm)
    c. Utilize relationship/contacts with vendors to assist in the selection of materials

7. Construction and Demolition Waste Management Planning
    a. 1 Point Achievable, 1 Possible
    b. Divert at least 50% of the total construction and demolition material; diverted materials must include at least three material streams
    c. Implement Construction Waste Management Plan that was required above that plans to divert at least 50% of construction/demolition material from landfills

Indoor Environmental Quality

1. Minimum Indoor Air Quality Performance
    a. Required.
    b. Mechanical ventilation provided in accordance with ASHREA Standard 62.1.

2. Environmental Tobacco Smoke Control
    a. Required.
    b. Tobacco Free Zone.

3. Enhanced Indoor Air Quality Strategies
    a. 2 Points – 1 point Achievable, 1 point Possible
    b. Provide Enhanced filtration
    c. Provide increased ventilation or CO2 Monitoring

4. Low-Emitting Materials
    a. 2 Point Achievable, 1 Possible
    b. Achieve the threshold level of compliance with emissions and content standards for the number of products listed in “Table 2”
        i. Achieve at least 5 compliant categories based on Table 2 of this section:
            1. Interior paints and coatings applied on site
            2. Interior adhesives and sealants applied on site (including flooring adhesive)
            3. Flooring
            4. Composite wood
            5. Ceilings, walls, thermal, and acoustic insulation
            6. Exterior applied products

c. Utilize relationship/contacts with vendors to assist in the selection of materials

5. Construction Indoor Air Quality Management Plan
    a. 1 Points – 0 point achievable
    b. Not pursuing - do not expect to require Contractor to meet IAQ guidelines during construction.

6. Indoor Air Quality Assessment
    a. 2 points – 1 point achievable, 1 point possible
    b. Provide post construction -preoccupancy IAQ testing at ventilation conditions for typical occupancy, and demonstrate contaminants do not exceed concentration tables listed in reference guide.

7. Thermal Comfort
    a. 1 points – 1 point achievable
    b. HVAC system shall be designed in accordance to ASHRAE Standard 55 (Thermal Comfort Conditions for Human Occupancy)

8. Interior Lighting
    a. 2 points – 1 point achievable, 1 point possible
    b. 90% of occupant spaces will have dimming controls.

9. Daylight
    a. 3 points – 0 point achievable
    b. Not pursuing - not sufficient daylighting to meet.

10. Quality Views
    a. Not attempted as project scope does not fit the requirements
    b. Due to the layout of the existing building, and locations of existing fenestrations, we will not be able to achieve a direct line of sight to the outdoors for 75% of all regularly occupied floor area as well as provide at least two of the four kinds of views required.

11. Acoustic Performance
    a. 1 Point Achievable
    b. Design spaces to meet STC requirements as set above with the use of sound attenuation in walls

Innovation

1. Innovation
    a. 5 points – 2 points possible
    b. Suggest rain water collection for onsite re-use.

2. LEED Accredited Professional
    a. 1 points – 1 point achevable
    b. LEED Professional(s) on project

Regional Priority

1. Regional Priority: Specific Credit (Educational Facility related)
    a. 4 points – 3 point Possible
    b. To be determined further.