LEED Narrative

Sustainable Sites: Total Credits of 7

Construction Activity Pollution Prevention (Prerequisite): The purpose of this prerequisite is to reduce pollution from construction activities by controlling soil erosion, waterway sedimentation, and airborne dust. A control plan that conforms to U.S. Environmental Protection Agency, Construction General Permit or local equivalent will be established and followed throughout the project's construction.

Site Assessment (1 credit): Site conditions will be surveyed before design begins to explore sustainable options and inform related decisions about site design. Conditions that must be surveyed are topography, hydrology, climate, vegetation, soils, human use, and human health effects. A third party will conduct all surveys.

Open Space (1 credit): To receive this credit an exterior open space must be created that encourages interaction with the environment, social interaction, passive recreation and physical activities. The project will fulfill this credit by providing an open space that is 30% of the total site area. This open space will be at least a total area of 44,821 square feet. This is more than achievable as our total site area is 149,402.09 square feet and our total developed site area will occupy 41,930 square feet of the site.

Rainwater Management (3 credits): The intent is to reduce runoff volume and improve water quality by replicating natural hydrology and water balance of the site. All 3 credits will be attained by using low impact development and green infrastructure to manage onsite runoff for the 98th percentile of local rainfall events. The U.S. Environmental Protection Agency's methodology will be used to determine the 98th percentile amount.

Heat Island Reduction (2 credits): All credits for this category will be achievable using the EDPM roof membrane system and non-roofing methods. The minimum initial solar reflectance index of an 82 and a 3-year aged solar reflectance index of 64 is required for the roof. A white EDPM roof membrane will be installed to achieve this. White EDPM has an initial SRI value of 84 and a 3-year aged SRI value greater than 64. Non-roof measures that will be taken are using existing plant material to provide shade over paving areas. Shade will also be provided using vegetative structures.

Water Efficiency: Total Credits of 7

Outdoor Water Use Reduction (Prerequisite): The intent of this prerequisite is to reduce outdoor water consumption. The project can meet this requirement by reducing the project's landscape water requirement by at least 30%. This can be achieved by using plants that are native to the site for landscaping and tree islands as they already have thrived on the site without an irrigation

system. If plants that are not native to the site are selected, they will be species which require little maintenance and low amounts of water to maintain.

Indoor Water Use Reduction (Prerequisite): The intent of this prerequisite is to reduce indoor water consumption by 20% from the baseline. We will be closely following Table 1 for baseline water consumption of fixtures and fittings as this table applies to the scope of the project. All toilets, urinals, and faucets installed will be WaterSense Labeled approved by the United States Environmental Protection Agency.

Building-Level Water Metering (Prerequisite): The purpose of this prerequisite is to support water management and identify any opportunities for additional water savings by tracking water consumption. This will be achieved by installing permanent automated water meters that measure the building's water use. Reports will be made monthly to the USGBC for a five-year period.

Outdoor Water Use Reduction (1 credit): 1 credit can be achieved by reducing outdoor water consumption from 30% to 50% from the calculated baseline for the site's peak watering month. The credit will be achieved by selecting plant species that satisfy the Environmental Protection Agency's WaterSense Budget Tool requirements.

Indoor Water Use Reduction (6 credits): 6 out of 7 credits from this category can be achieved by reducing the indoor water use by an additional 30% for a total reduction of 50%. This will be achieved by installing low-flow bathroom equipment and following the baseline for all fixtures found in the LEED v4 document.

Energy and Atmosphere: Total Credits of 14

Fundamental Commissioning and Verification (Prerequisite): This prerequisite requires the support of the design, construction, and eventual operation of a project that meets the owner's project requirements for energy, water, indoor environmental quality and durability. The owner's project requirements and basis of design will be developed. Next, a certified third-party commissioning authority will be hired to review and aid in the development of the final plan.

Minimum Energy Performance (Prerequisite): The purpose of this prerequisite is to demonstrate an improvement of 5% in reducing the environmental and economic harms of excessive energy use. The project will be eligible to comply with option 3 as it is under 100,000 square feet. The project will be compliant with ANSI/ASHRAE/IESNA Standard 90.1-2010, with errata. A third party will be hired to create a simulation to recognize changes and improvements that are to be made to the final design.

Building-Level Energy Metering (Prerequisite): This prerequisite is meant to support energy management opportunities for additional energy savings by tracking building-level energy use. This will be achieved by installing new building-level energy meters that will provide data and identify opportunities for energy savings. Energy meters will provide monthly reports to the USGBC for a five-year period.

Fundamental Refrigerant Management (Prerequisite): This prerequisite is intended to reduce ozone depletion by exempting the use of chlorofluorocarbon-based refrigerants. This will be achieved as the project's refrigeration and air-conditioning systems will not utilize chlorofluorocarbon-based refrigerants.

Enhanced Commissioning (5 credits): The purpose of this category is to further support and expand upon the fundamental commissioning and verification prerequisite. The project will be fulfilling options 1 and 2 to achieve 5 credits.

The following activities will fulfill option 1 path 1 for 3 credits. A third party with documented experience of at least two building projects similar in scope of work will be hired as the commissioning authority. All commissioning process activities for mechanical, electrical, plumbing and renewable energy systems will be in accordance with ASHRAE Guideline 0-2005 and ASHRAE Guideline 1.1-2007. The responsibility of this commissioning authority will be to review submittals, verify building systems, verify operator and occupant training and more. They also must review building operations 10 months after substantial completion. As out project's peak cooling loads are less than 2,000,000 BTU/h the commissioning authority must also conduct one commissioning verification review of the owner's project requirements, back-check review comments in all subsequent design submissions and conduct a full verification review at 95% completion of the design documents.

Option 2, Envelope commissioning, will be fulfilled for 2 credits by including the building's thermal envelope in addition to mechanical and electrical systems in the requirements fulfilled in the Fundamental Commissioning and Verification prerequisite.

Optimize Energy Performance (7 credits): This category develops the Minimum Energy Performance prerequisite further. The project team will focus on load reduction using HVAC, appliances, equipment, display lighting and refrigeration related strategies. The team's goal will be to provide an additional 18% increase in energy performance improvement, allowing an achievement of 7 credits.

Advanced Energy Metering (1 credit): This is an additional metering credit that expands upon the Building-Level Energy Metering prerequisite. This credit will be achieved by installing advanced energy metering on all whole-building energy sources and individual energy end uses that represent 10% of more of the total consumption. The advanced metering installed will fulfill all the characteristics required stated in the LEED document.

Enhanced Refrigerant Management (1 credit): This credit expands upon the Fundamental Refrigerant Management prerequisite. To achieve this the Montreal Protocol will be established and a refrigerant with an ozone depletion of 0 and a global warming potential of less than 50 will be chosen for refrigeration systems. We believe refrigerant R-152a will be an acceptable choice for the project.

Materials and Resources: Total Credits of 8

Storage and Collection of Recyclables (Prerequisite): The intent of this prerequisite is to reduce the waste that is generated by building occupants and hauled to and disposed of in landfills. To satisfy this prerequisite, dedicated areas accessible to waste haulers and building occupants for the collection and storage of recyclable materials will be provided for the entire building. A third party will also be hired to conduct a waste stream study to identify the project's top five recyclable waste streams. This can be conducted by studying similar retail grocery stores that are similar in size to our project.

Construction and Demolition Waste Management (Prerequisite): This requirement aims to reduce the construction and demolition waste disposed of in landfills and incineration facilities by recovering, reusing and recycling materials. The contractor will be responsible for establishing waste diversion goals for the project. This entails identifying at least five materials targeted for diversion. Once complete, a final report detailing all major waste streams generated, including disposal and diversion rates, must be provided.

Building Life-Cycle Impact Reduction (3 credits): The intent of this credit is to encourage adaptive reuse and optimize the environmental performance of products and materials. 3 out of 5 credits will be achieved by fulfilling option 4, Whole-Building Life-Cycle Assessment. This option will be fulfilled by conducting a life-cycle assessment to demonstrate a minimum of 10% reduction in 3 of the 6 impact categories. The impact categories that will be targeted are global warming potential, depletion of the stratospheric ozone layer and acidification of land and water sources. The baseline set for the life-cycle assessment will be an Aldi grocery store in comparable size to the project.

Building Product Disclosure and Optimization – Environmental Product Declarations (1 credit): To fulfill 1 out of 2 credits, the project will use at least 20 different permanently installed products sourced from at least 5 different manufacturers that have product-specific declarations.

Building Product Disclosure and Optimization – Sourcing of Raw Material (1 credit): The project will use at least 20 different permanently installed products from at least 5 different manufacturers that have publicly released a report from their raw material suppliers which include raw material supplier extraction locations. The third-party verified corporate sustainability reports will follow the framework for the Global Reporting Initiative Sustainability Report.

Building Product Disclosure and Optimization – Material Ingredients (1 credit): The project will use at least 20 different permanently installed products from at least 5 different manufacturers that demonstrates the chemical inventory of the product to be at least 0.1%. The following program that will be followed to demonstrate this requirement is the Manufacturer Inventory program. This will achieve 1 out of 2 credits available.

Construction and Demolition Waste Management (2 credits): The project will reduce the construction and demolition waste disposed of by not generating more than 2.5 pounds of construction waste per square foot of the building's floor area. To achieve this credit, the project team will need to closely monitor the waste produced by the project during construction.

Indoor Environmental Quality: Total Credits of 5

Minimum Indoor Air Quality Performance (Prerequisite): To fulfill this prerequisite the project must contribute to the comfort and well-being of building occupants by establishing minimum standards for indoor air quality (IAQ). This requirement will be achieved by determining the minimum outdoor air intake flow for mechanical ventilation systems using the ventilation rate procedure from ASHRAE 62.1-2010.

Environmental Tobacco Smoke Control (Prerequisite): This prerequisite requires smoking inside the building to be prohibited. Smoking outside must be prohibited with the exception of designated smoking areas located at least 25 feet from all entries, outdoor air intakes, and operable windows. Lastly, smoking must be prohibited outside the property line in spaces used for business purposes. Signage will be posted within 10 feet of all building entrances displaying the no smoking policy.

Enhanced Indoor Air Quality Strategies (1 credit): One credit will be achieved by incorporating enhanced IAQ Strategies. The strategies that will be included for the project include carbon dioxide monitoring and increased ventilation for mechanically ventilated spaces.

Construction Indoor Air Quality Management Plan (1 credit): The purpose of this credit is to promote the well-being of construction workers and building occupants by minimizing indoor air quality problems associated with construction. To achieve this credit an IAQ management plan will be established for the construction and preoccupancy phases of the building. The plan will meet all control measures of the Sheet Metal and Air Conditioning National Contractors Association. Absorptive materials stored on-site and installed will be protected from moisture damage. Permanent air-handling equipment that is operated during construction will be equipped with a filtration media with a minimum efficiency reporting value of 8. Lastly, the use of tobacco products inside the building and within 25 feet of the entrance will be prohibited during construction.

Indoor Air Quality Assessment (2 credits): Fulfilling these standards will establish better quality indoor air in the building after construction and during occupancy. 2 credits will be achieved by conducting a baseline IAQ test after construction ends and before occupancy. Testing will be consistent with protocols established by LEED and will be conducted by a third party.

Interior Lighting (1 credits): This credit promotes the occupants' productivity, comfort and well-being by establishing standards for high-quality lighting. 1 credit will be achieved by providing individual lighting controls for 90% of the individual occupant spaces in offices and administrative areas. In sales areas, controls that allow the ambient lighting to be reduced to a midlevel will be provided.

Innovation: Total Credits of 1

LEED Accredited Professional (1 credit): The requirement for this credit is to include at least one principal participant of the project team that is a LEED Accredited Professional with a specialty appropriate for the project. To fulfill this credit, the contractor's project management team will be required to be staffed with one member that is a LEED Accredited Professional.

LEED Certified: Total Credits of 42