P:\P.0965.U Perennial Northville

Date: 03.29.2023 /4

LEED Score-Card LEED® NC v4

| ID# | LEED Prerequisite or Credit | | 1 | DD R | eview | 1 | 1 | | |
|------|---|-------------|------------------|----------------|---------------|-------------------|-----------|--|---------------------|
| - | | | Not A C | Maybe H I E | Very Likely | Achievable L E | Goal | LEED B | D.C.v/ |
| | Percentage of Total Points Possible | 100% | 50% | 17% | 27% | 5% | 1 38 | LEED B | D+C V4 |
| | Total Points | 110 | 50% 55 | 19 | 30 | 6 | | | |
| | Accumulated Points (100% Achievable, 100% Very Likely, 50% Maybe) | | | 46 | 36 | 6 | 41 | Review Comments | Useful V4.1 Credits |
| | Projected Certification Level | 40 - 49 cer | rtified 50 - 5 | 9 silver 60 | - 79 gold 1 | 30+ platinum | Certified | | |
| IP | INTEGRATIVE PROCESS | 1 | 1 | 0 | 0 | 0 | 0 | | |
| IP-1 | Integrative Process | 1 | 1 | | | | - | Beginning in pre-design and continuing throughout the design phases, identify and use opportunities to achieve synergies across disciplines and building systems described below. Use the analyses to inform the owner's project requirements (OPR), basis of design (BOD), design documents, and construction documents. Perform a preliminary "simple box" energy modeling analysis before the completion of schematic design that explores how to reduce energy loads in the building and accomplish related sustainability goals by questioning default assumptions. Assess at least two potential strategies (e.g. Lighting levels, Basic envelope attributes, Pulg and process load need). Perform a preliminary water budget analysis before the completion of schematic design that explores how to reduce potable water loads in the building and accomplish related sustainability goals. Assess and estimate the project's potential nonpotable water supply sources and water demand volumes. No simple box model was completed for the project. | |
| | | | | | | | | | |
| | LOCATION AND TRANSPORTATION LEED for Neighborhood Development Location | 16 | 9 | 2 | 1 | 4 | 6 | | |
| | Sensitive Land Protection | 1 | | | | 1 | 1 | Locate the development footprint on land that has been previously developed or that does not meet the following criteria for sensitive land: Prime farmland, unique farmland, or farmland of statewade or local importance as defined by the U.S. Code of Federal Regulations, Title 7, Volume 6, Parts 400 to 699, Section 657.5 (or local equivalent for projects outside the U.S.) and identified in a state Natural Resources Conservation Service soil survey) or local equivalent for projects outside the U.S. D. (Canada ACP: Prime Farmland) Floodplains at Bood hazard area shown on a legally adopted flood hazard maps or otherwise legally designated by the local jurisdiction or the state. For projects in places without legally adopted flood hazard maps or legal designations, locate on a site that is entirely outside any floodplain subject to a 1% or greater chance of flooding in any given year. (Europe ACP: Flood Plains) Habitat: Land that is identified as habitat for the following: species listed as threatened or endangered under the U.S. Endangered Species Act or the state's endangered species act [Europe ACP: habitat; or species or ecological communities classified by NatureServe as GH (possibly extinct), G1 (critically imperiled), or G2 (imperiled), or species listed as threatened or endangered specifies under local equivalent standards (for projects outside the U.S.) that are not covered by NatureServe data. Water bodies: Areas on or within 100 feet (30 meters) of a water body, except for minor improvements. Wetlands: Areas on or within 50 feet (15 meters) of a wetland, except for minor improvements. | |
| LT-3 | High Priority Site | 2 | 2 | | | | - | Option 1. Historic District Locate the project on an infill location in a historic district. Option 2. Priority Designation Locate the project on one of the following: a site listed by the EPA National Priorities List; a Federal Empowement Zone site: a Federal Emprise Community site; a Federal Renewal Community (a subset of the New Markets Tax Credit Program; a Step Interval Renewal Community (a subset of the New Markets Tax Credit Program; a site in a U.S. Department of Housing and Urban Development's Qualified Census Tract (QCT) or Difficult Development Area (DDA); or a site in a U.S. Option 3. Brownfield remediation Locate on a brownfield where soil or groundwater contamination has been identified, and where the local, state, or national authority (whichever has jurisdiction) requires its remediation. Perform remediation to the satisfaction of that authority. The location does not meet the requirements above. | |
| LT-4 | Surrounding Density and Diverse Uses | 5 | 1 | 1 | | 3 | 3 | Option 1. Surrounding density Locate on a site whose surrounding existing density within 1/4 mile offset of the project boundary meets at least 22,000 or 35,000 square feet per acre of buildable land. For option 1 the project can achieve 2 points based on preliminary calculations. Option 2. Diverse uses (1–2 points) Construct or renovate a building or a space within a building such that the building's main entrance is within a ½-mile (800-meter) walking distance of the main entrance of four to seven (1 point) or eight or more (2 points) existing and publicly available diverse uses (sited in Appendix 1). The following restrictions apply. A use counts as only one type (e.g., a retail store may be counted only once even if it sells products in several categories). No more than two uses in each use type may be counted (e.g. if five restaurants are within walking distance, only two may be counted). The counted uses must represent at least three of the five categories, exclusive of the building's primary use. Option 3. Walk Score (3 points) which is the easiest option. Otherwise Option 2. Diverse uses maybe (2 points), and Option 1. Surrounding density (M 2 points - will complete if needed). | |
| LT-5 | Access to Quality Transit | 5 | 5 | | | | - | Locate any functional entry of the project within a %-mile (400-meter) walking distance of existing or planned bus, streetcar, or informal transit stops, or within a %-mile (800-meter) walking distance of existing or planned bus rapid transit stops, light or heavy rail stations, commuter rail stations or forly retrinials. Based on the project location this credit cannot be achieved. To be commuted transit for the project location this credit cannot be achieved. To be commuted transit for the project location this credit cannot be achieved. To be commuted transit for the project location this credit cannot be achieved. To be commuted transit for the project location this credit cannot be achieved. To be commuted transit for the project location this credit cannot be achieved. To be commuted transit for the project location this credit cannot be achieved. To be commuted transit for the project location this credit cannot be achieved. To be commuted transit for the project location this credit cannot be achieved. To be commuted transit for the project location this credit cannot be achieved. To be commuted transit for the project location this credit cannot be achieved. To be commuted transit for the project location this credit cannot be achieved. To be commuted transit for the project location this credit cannot be achieved. To be commuted transit for the project location this credit cannot be achieved. | |
| LT-6 | Bicycle Facilities | 1 | | 1 | | | 1 | General Requirements Design or locate the project such that a functional entry and/or bicycle storage is within a 200-yard (180-meter) walking distance or bicycling distance from a bicycle network that connects to at least one of the following: *al least 10 diverse used to discuss the state of the stat | |



| LT-7 | Reduced Parking Footprint | 1 | 1 | | | - | Do not exceed the minimum local code requirements for parking capacity. Provide parking capacity that is a percentage reduction below the base ratios recommended by the Parking Consultants Council, as shown in the Institute of Transportation Engineers' Transportation Planning Handbook, 3rd edition, Tables 18-2 through 18-4. Case 1. Baseline location Projects that have not earned points under LT Credit Surrounding Density and Diverse Uses or LT Credit Access to Quality Transit must achieve a 20% reduction from the base ratios. Case 2. Dense and/or transit-served location Projects earning 1 or more points under either LT Credit Surrounding Density and Diverse Uses or LT Credit Access to Quality Transit must achieve a 40% reduction from the base ratios. LEEDW4.1 used for this credit.Credit is not achievable based on the provided number of parking spots. | Option 2. Reduce Parking (1 point) Do not exceed the minimum local code requirements for parking capacity. Provide parking capacity that is a 30% reduction below the base ratios recommended by the Parking Consultants Council, as shown in the Institute of Transportation Engineers' Transportation Planning Handbook, 4th edition, Table 11-12. The credit calculations must include all existing and new off-street parking spaces that are leased or owned by the project, including parking that is outside the project boundary but is used by the project. On-street parking in public rights-of-way is excluded from these calculations. |
|------|---|-----------|---|---|-----|---|--|---|
| LT-8 | Green Vehicles | 1 | | | 1 | 1 | Designate 5% of all parking spaces used by the project as preferred parking for green verbicles. Green vehicles must achieve a minimum green score of 45 on the American Council for an Energy Efficient Economy (ACEEE) annual vehicle rating guide (or local equivalent for projects outside the U.S.) Install electrical vehicle supply equipment (EVSE) in 2% of all parking spaces used by the project. Clearly identify and reserve these spaces for the sole use by plug-in electric vehicles. Parking spaces that include EVSE must be provided separate from and in addition to preferred parking spaces for green vehicles. V4.1 credit version will be pursued. Based on coordination EV parking will be part of the project but the number is not finalized yet. Requirements will be coordinated moving forward to achieve this credit. | Option 1. Electric Vehicle Supply Equipment (1 point) Install electrical vehicle supply equipment (EVSE) in 5% of all parking spaces used by the project or at least two spaces, whichever is greater. Clearly identify and reserve these spaces for the sole use by plug-in electric vehicles. The EVSE must: Provide a Level 2 charging capacity (208 – 240 volls) or greater for each required space. Comply with the relevant regional or local standard for electrical connectors, such as SAE Surface Vehicle Recommended Practice J1772, SAE Electric Vehicle Conductive Charge Coupler or IEC 62196 of the International Electrotechnical Commission for projects outside the U.S. Meet the connected functionality orteria for ENERGY STAR certified EVSE and be capable of responding to time use market signals (e.g., price). Projects pursuing EA credit Grid Harmonization should incorporate EVSE into any demand response program or load flexibility and management strategies. OR Option 2. Electric Vehicle Ready Infrastructure (1 point) Make 10% of all parking spaces or at least 6 spaces EV Ready, whichever is greater. To be EV Ready, include a dedicated electrical circuit with sufficient capacity for each required space. Each circuit shall have conduit and wire sufficient to provide Level 2 charging or greater, and shall end at an electrical box or enclosure located near each required space. |
| | | | l | | | | | |
| | SUSTAINABLE SITES Construction Activity Pollution Prevention | 10 | 6 | 3 | 1 0 | R | Create and implement an erosion and sedimentation control plan for all construction activities associated with the project. The plan must conform to the erosion and sedimentation requirements of the 2012 U.S. Environmental Protection Agency (EPA) Construction General Permit (CGP) or local equivalent, whichever is more stringent. Projects must apply the CGP regardless of size. The plan must describe the measures implemented. Requirements have been addes to spec 01 81.13 - Sustainable Design Requirements. | |
| SS-1 | Site Assessment | 1 | | | 1 | 1 | Complete and document a site survey or assessment that includes the following information: Topography. Hydrology. Climate. Vegetation. Solls. Human use. Human health effects. Site assessment will be completed. | |
| SS-2 | Site Development- Protect or Restore Habitat | 2 | 2 | | | | Option 1. on-site restoration (2 points except healthcare, 1 point healthcare) Using native or adapted vegetation, restore 30% (including the building footprint) of all portions of the site identified as previously disturbed. Projects that achieve a density of 1.5 floor-area ratio may include vegetated roof surfaces in this calculation if the plants are native or adapted, provide habitat, and promote biodiversity. Restore all disturbed or compacted soils that will be revegetated within the project's development footprint to meet the following requirements: Soils (imported and in situ) must be reused for functions comparable to their original function. Imported topsoils or soil blends designed to serve as topsoil may not include the following: soils defined regionally by the Natural Resources Conservation Service web soil survey (or local equivalent for projects outside the U.S.) as prime farmland, unique farmland, or farmland of statewide or local importance; or soils from other greenfield sites, unless those soils are a byproduct of a construction process. Restored soil must meet the criteria of reference soils in categories 1–3 and meet the criteria of efitnere cost of incategories 1–3 and meet the criteria of efitnere cost of incategories 1–3 and meet the criteria of efitnere cost of incategories 1–3 and meet the criteria of efitnere cost of incategories 1–3 and meet the criteria of efitnere cost of incategories 1–3 and meet the criteria of efitnere cost of incategories 1–3 and meet the criteria of efitner and the criteria of efitnere cost of incategories 1–3 and meet the criteria of efitnere cost of incategories 1–3 and meet the criteria of efitner category 4 or 5: organic matter; compaction; infiltration rates; soil biological function; and soil chemical characteristics. Project teams may exclude vegetated landscape areas that are constructed to accommodate rainwater infiltration from the vegetation and soils requirements, provided all such rainwater infiltration areas are treated consistently with SS Cre | Preserve and protect from all development and construction activity 40% of the greenfield area on the site (if such areas exist). AND Restore a portion of the site (including the building footprint) identified as previously disturbed and follow vegetation and soil requirements below. Vegetated roof surfaces may be included in the habitat area calculations if the plants are native or adapted and provide habitat. Points are awarded if either 15% or 25% of total site area are restored. Soil Restoration Restored disturbed soils in areas that will later serve as the final habitat area. Imported soils may not include the following: soils defined regionally by the Natural Resources Conservation Service web soil survey (or local equivalent for projects outside the U.S.) as prime farmland, unique farmland, or farmland of statewide or local importance; soils from other greenfield sites; or sphagnum peat moss. Vegetation Plant a minimum of 6 species of vegetation that are native or adapted to the project's EPA Level III ecoregion (or local equivalent for projects outside of the U.S.). Include a minimum of 2 out of the following plant categories: tree, shrub, and ground cover. Designate a portion of the habitat area for a pollinator garden consisting of native flowering plants and totaling at least 30 square feet (3 square meters). |
| SS-3 | Open Space | 1 | 1 | | | - | Provide outdoor space greater than or equal to 30% of the total site area (including building footprint). A minimum of 25% of that outdoor space must be vegetated (turf grass does not count as vegetation) or have overhead vegetated canopy. For projects that achieve a density of 1.5 floor-area ratio (FAR), and are physically accessible, extensive or intensive vegetated roofs can be used toward the minimum 25% vegetation requirement, and qualifying roof-based physically accessible paving areas can be used toward credit compliance. V4.1 credit version will be pursued. Not enough vegetation to achieve credit. | Provide outdoor space greater than or equal to 30% of the total site area (including building footprint). At least 25% of the calculated outdoor open space must be vegetated space planted with two or more types of vegetation or have overhead vegetated canopy. The outdoor space must be physically accessible and be one or more of the following: social area: a pedestrian-oriented paving or landscape area that accommodate outdoor social activities recreational area: a recreation-oriented paving or landscape area that encourage physical activity; diverse green space: a landscape area with two or more types of vegetation that provide opportunities for year-round visual interest; garden: a garden space declared to community gardens or unban food production; or habitat area: preserved or created habitat that meets the criteria of SS Credit Protect or Restore Habitat and also includes elements of human interaction. These areas automatically meet the vegetation criteria of this credit. Extensive or intensive vegetated roofs that are physically accessible can be used toward the minimum vegetation requirement, and qualifying toof-based physically accessible paving areas can be used toward credit compliance. Wetlands or naturally designed ponds may count as open space if the side slope gradients average 1:4 (vertical:horizontal) or less and are vegetated. |

| SS-4 | Rainwater Management | 3 | 3 | | phon 1. Percentile of rainfall events that 1. 95th percentile an amance best replicating natural site hydrology processes, manage on site the runoff from the developed site for a trainfall event suring low-impact development (LID) and green infrastructure. In a manner best replicating natural site hydrology processes, manage on site the runoff from the developed site for a trainfall event suring low-impact development (LID) and green infrastructure. In a manner best replicating natural site hydrology processes, retain (i.e. infiltrate, evapotratapirate, or collect and reuse) on set the runoff from the developed site for a trainfall event suring low-impact development (LID) (appearance) infrastructure. In a manner best replicating natural site hydrology processes, retain (i.e. infiltrate, evapotratapirate, or collect and reuse) on set the runoff from the developed site for a trainfall event suring low-impact development (LID) (appearance) infrastructure. In a manner best replicating natural site hydrology processes, retain (i.e. infiltrate, evapotratapirate, or collect and reuse) on set the runoff from the developed site for a training in the developed site for the developed site for the developed site for a training in the developed site for a training in the developed site for |
|------|-----------------------|---|---|---|--|
| SS-5 | Heat Island Reduction | 2 | 2 | 2 | Area of Nonroof Measures Area of High- Reflectance Roof Area of Vegetated Roof Total Site Paving Area Total Site Paving Area Total Roof Area |

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|----------|--|-----|----|---|---|---|---|---|
| | | | | | | | | Meet uplight and light trespass requirements, using either the backlight-uplight-glare (BUG) method (Option 1) or the calculation method (Option 2). Projects may use different options for uplight and light trespass. Uplight Option 1. BUG rating method Do not exceed the following luminaire uplight ratings, based on the specific light source installed in the luminaire, as defined in IES TM-15-11, Addendum A Option 2. calculation method Do not exceed the percentages of total lumens emitted above horizontal. |
| SS-6 | Light Pollution Reduction | 1 | | 1 | | | 1 | Light trespass Option 1. BUG rating method Do not exceed the following luminaire backlight and glare ratings (based on the specific light source installed in the luminaire), as defined in IES TM-15-11, Addendum A, based on the mounting location and distance from the lighting boundary. |
| | | | | | | | | Do not exceed the vertical illuminances at the lighting boundary (use the definition of lighting boundary in Option 1). Calculation points may be no more than 5 feet (1.5 meters) apart. Vertical illuminances must be calculated on vertical planes running parallel to the lighting boundary, with the normal to each plane oriented toward the property and perpendicular to the lighting boundary, extending from grade level to 33 feet (10 meters) above the height of the highest luminaire. |
| | | | | | | | | Based on the current set BUG rating can't be evaluated. This needs to be coordinated moving forward. Based on experience this credit should be achievable. |
| | • | | | | | | | |
| WE | WATER EFFICIENCY | 11 | 4 | 3 | 3 | 1 | 4 | Reduce the project's landscape water requirement by at least 30% from the calculated baseline for the site's peak watering month. Reductions |
| | | | | | | | | reduce the project's landscape water requirement by at least 50% from the calculated baseline for the site's peak watering month. Reductoris must be achieved through plant species selection and irrigation system efficiency, as calculated by the Environmental Protection Agency (EPA) WaterSense Water Budget Tool. Reduce the project's landscape water requirement (LWR) by at least 50% from the calculated baseline for the site's peak watering month. |
| WE-P1 | Outdoor Water Use Reduction | R | | | | R | R | Reductions must first be achieved through plant species selection and trigation system efficiency as acabitated in the Environmental Protection Agency (EPA) WaterSense Water Budget Tool. Additional reductions beyond 30% may be achieved using any combination of efficiency, alternative water sources, and smart scheduling technologies. |
| | | | | | | | | Water budget calculation to be provided by landscaping. |
| | | | | | | | | For the fixtures and fittings, as applicable to the project scope, reduce aggregate water consumption by 20% from the baseline. All newly |
| WE-P2 | Indoor Water Use Reduction | R | | | | R | R | installed toilets, urinals, private lavatory faucets, and showerheads that are eligible for labeling must be WaterSense labeled. Baumann is still inalizing the calculation based on the plumbing schedule. Since the plumbing schedule didnt include all flsuh and flow rates Baumann is still evaluating and researching currently. However 30% seems reasonable to achieve. |
| <u> </u> | | | | | | | | |
| | | | | | | | | Install new or use existing building-level energy meters, or submeters that can be aggregated to provide building-level data representing total building energy consumption (electricity, natural gas, chilled water, steam, fuel oil, propane, biomass, etc). Utility-owned meters capable of aggregating building-level resource use are acceptable. Commit to sharing with USGBC the resulting energy consumption data and electrical demand data (if metered) for a five-year period beginning |
| WE-P3 | Building-Level Water Metering | R | | | | R | R | on the date the project accepts LEED certification or typical occupancy , whichever comes first. At a minimum, energy consumption must be tracked at one-month intervals. |
| | | | | | | | | Based on DD set this prerequisite is achieved. |
| WE-1 | Outdoor Water Use Reduction | 2 | | 1 | 1 | | 1 | See WEp1 |
| WE-2 | Indoor Water Use Reduction | 6 | 2 | 2 | | | 2 | See WEp2 |
| | | | | | | | | For cooling towers and evaporative condensers, conduct a one-time potable water analysis, in order to optimize cooling tower cycles. Measure |
| WE-3 | Cooling Tower Water Use | 2 | 2 | | | | - | at least the five control parameters listed below: Ca (as CaCO3)1000 ppm Total alkalinky1000 ppm SiO2 100 ppm Cl- 250 ppm Conductivity2000 µS/cm Calculate the number of cooling tower cycles by dividing the maximum allowed concentration level of each parameter by the actual concentration level of each parameter found in the potable makeup water. Limit cooling tower cycles to avoid exceeding maximum values for any of these parameters. Credit not achievable since no cooling tower is being used. |
| | | | | | | | | Install permanent water meters for two or more of the following water subsystems, as applicable to the project: |
| WE-4 | Water Metering | 1 | | | | 4 | 1 | Irrigation. Indoor plumbing fixtures and fittings. Domestic hot water. Boiler with aggregate projected annual water use of 100,000 gallons (378 500 liters) or more, or boiler of more than 500,000 BtuH (150 kW). A single makeup meter may record flows for multiple boilers. Reclaimed water. Other process water. Submeters are being provided on the domestic cold water for each apartment as well as on the domestic hot water for each apartment. That is enough to fulfill this credit. |
| | | | | | | | | |
| - | ENERGY & ATMOSPHERE | 0.5 | | | | | | |
| EA | ENERGY & ATMOSPHERE | 33 | 23 | 2 | 8 | 0 | 8 | Complete the commissioning (Cx) process activities for mechanical, electrical, plumbing, and renewable energy systems and assemblies, in |
| | | | | | | | | accordance with ASHRAE Guideline 0-2005 and ASHRAE Guideline 1.1–2007 for HVAC&R Systems, as they relate to energy, water, indoor environmental quality, and durability. |
| EA-P1 | Fundamental Commissioning and Verification | R | | | | | R | Requirements for exterior enclosures are limited to inclusion in the owner's project requirements (OPR) and basis of design (BOD), as well as the review of the OPR, BOD and project design. NIBS Guideline 3-2012 for Exterior Enclosures provides additional guidance Fundamental Commissioning services will be completed for this project. |
| | | | | | | | | |
| EA-P2 | Minimum Energy Performance | R | | | | R | R | Option 1. Whole-building energy simulation Demonstrate an improvement of 5% for new construction, 3% for major renovations, or 2% for core and shell projects in the proposed building performance rating compared with the baseline building performance according to ANSI/ASHRAE/IESNA Standard 90.1-2010, Appendix G, with errata (or a USGBC-approved equivalent standard for projects outside the U.S.), using a simulation model. Eased on the permit documentation which includes lighting reduction of 41% (based on 90.1 2013), low flow water fixtures, envelope |
| | | | | | | | | Improvement over 90,1 2013 and the overall MEP concept Baumann does strongly believe that based on our experience 4 points based on ASHRAE 2010 are reasonable. |
| EA-P3 | Building-Level Energy Metering | R | | | | R | R | Install new or use existing base building-level energy meters, or submeters that can be aggregated to provide base building-level data representing total building energy consumption (electricity, natural gas, chilled water, steam, fuel oil, propane, etc.). Utility-owned meters capable of aggregating base building-level resource use are acceptable. |
| | | | | <u> </u> | | | | Based on permit set this prerequisite is achieved. |
| | | | | | | | | |

| EA-P4 | Fundamental Refrigerant Management | R | | | | R | R | Do not use chlorofluorocarbon (CFC)-based refrigerants in new heating, ventilating, air-conditioning, and refrigeration (HVAC&R) systems. When reusing existing HVAC&R equipment, complete a comprehensive CFC phase-out conversion before project completion. Phase-out plans extending beyond the project completion date will be considered on their merits. This prerequisite is achieved. | |
|-------|---|----|----|---|---|---|---|--|--|
| EA-1 | Enhanced Commissioning | 6 | 3 | | 3 | | 3 | Implement, or have in place a contract to implement, the following commissioning process activities in addition to those required under EA Prerequisite Fundamental Commissioning and Verification. Commissioning authority The CxA must have documented commissioning process experience on at least two building projects with a similar scope of work. The experience must extend from early design phase through at least 10 months of occupancy. The CxA may be a qualified employee of the owner, an independent consultant, or a disinterested subcontractor of the design team. Option 1. Enhanced systems commissioning (3-4 points) Path 1: Enhanced and monitoring-based commissioning (4 points) Option 2. Envelope commissioning (2 points) Enhanced Commissioning services (Path 1) will be completed for this project. | |
| EA-2 | Optimize Energy Performance | 18 | 14 | | 4 | | 4 | See EAp2 | |
| EA-3 | Advanced Energy Metering | 1 | 1 | | | | - | Install meters for future tenant spaces so that tenants will be capable of independently metering energy consumption (electricity, chilled water, etc.) for all systems dedicated to their space. Provide a sufficient number of meters to capture total tenant energy use with a minimum of one meter per energy source per floor. Install advanced energy metering for all base building energy sources used by the building. The advanced energy metering must have the following characteristics. Meters must be permanently installed, record at intervals of one hour or less, and transmit data to a remote location. Electricity meters must record both consumption and demand. Whole-building electricity meters should record the power factor, if appropriate. The data collection system must use a local area network, building automation system, wireless network, or comparable communication intrastructure. The system must be capable of storing all meter data for at least 36 months. The data must be remotely accessible. All meters in the system must be capable of reporting hourly, daily, monthly, and annual energy use. Based on the project type this credit is not achievable. | |
| EA-4 | Demand Response | 2 | 2 | | | | | Design building and equipment for participation in demand response programs through load shedding or shifting. On-site electricity generation does not meet the intent of this credit. Case 1. Demand response program available Participate in an existing demand response (DR) program and complete the following activities. Design a system with the capability for real-time, fully-automated DR based on external initiation by a DR Program Provider. Semi-automated DR may be utilized in practice. Enroll in a minimum one-year DR participation amount contractual commitment with a qualified DR program provider, with the intention of multiyear renewal, for at least 10% of the estimated peak electricity demand. Peak demand is determined under EA Prerequisite Minimum Energy Performance. Develop a comprehensive plan for meeting the contractual commitment during a Demand Response event. Include the DR processes in the scope of work for the commissioning authority, including participation in at least one full test of the DR plan. Based on the project type this credit is not achievable. | |
| EA-5 | Renewable Energy Production | 3 | 3 | | | | - | Use renewable energy systems to offset building energy costs. 1% = 1 point 5% = 2 points 10%= 3 points No renewables are part of the project. | |
| EA-6 | Enhanced Refrigerant Management | 1 | | | 1 | | 1 | Select refrigerants that are used in heating, ventilating, air-conditioning, and refrigeration (HVAC&R) equipment to minimize or eliminate the emission of compounds that contribute to ozone depletion and climate change. The combination of all new and existing base building and tenant HVAC&R equipment that serve the project must comply. The calculation still has to be completed when the equipment is selected but based on past experience this credit will be achieved. | |
| EA-7 | Green Power and Carbon Offsets | 2 | | 2 | | | 0 | Engage in a contract for qualified resources that have come online since January 1, 2005, for a minimum of five years, to be delivered at least annually. The contract must specify the provision of at least 50% or 100% of the project's energy from green power, carbon offsets, or renewable energy certificates (RECs). Green power and RECs must be Green-e Energy certified or the equivalent. [Europe ACP: Green Power] [South America ACP: Green Power] RECs can only be used to mitigate the effects of Scope 2, electricity use. Carbon offsets may be used to mitigate Scope 1 or Scope 2 emissions on a metric ton of carbon dioxide-equivalent basis and must be Green-e Climate certified, or the equivalent. For U.S. projects, the offsets must be from greenhouse gas emissions reduction projects within the U.S. Credit not necessary for LEED Certified but could always be pursued. | |
| MR | MATERIALS & RESOURCES | 13 | 6 | 2 | 5 | 0 | 5 | Provide dedicated areas accessible to waste haulers and building occupants for the collection and storage of recyclable materials for the entire | |
| MR-P1 | Storage & Collection of Recyclables | R | | | R | | R | building. Collection and storage areas may be separate locations. Recyclable materials must include mixed paper, corrugated cardboard, glass, plastics, and metals. Take appropriate measures for the safe collection, storage, and disposal of two of the following: batteries, mercury-containing lamps, and electronic waste. This prerequisite will be achieved. | |
| MR-P2 | Construction and Demolition Waste Management Planning | R | | | R | | R | Develop and implement a construction and demolition waste management plan: Establish waste diversion goals for the project by identifying at least five materials (both structural and nonstructural) targeted for diversion. approximate a percentage of the overall project waste that these materials represent. Specify whether materials will be separated or commingled and describe the diversion strategies planned for the project. Describe where the materials will be taken and how the recycling facility will process the material. Provide a final report detailing all major waste strawars generated, including disposal and diversion rates. Requirements have been addes to spec 01 81 13 - Sustainable Design Requirements. | |

| Option 4. whole-building life-cycle assessment For new construction (buildings or portions of buildings), conduct a life-cycle assessment of the project's structure and enclosure that demonstrates a minimum of 10% reduction, compared with a baseline building. The baseline building or portions of buildings or portions or buildings or portions of buildings are also assessment of the project's structure and enclosure (1 point). Path 1: Conduct a life cycle assessment of the project's structure and enclosure that demonstrates a minimum of 5% reduction, compared when a beselve building in a least three of the project's structure and enclosure that demonstrates a minimum of 5% reduction, co |
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| MR-2 | Building Product Disclosure and Optimization- Environmental Product Declarations | 2 | 1 | 1 | 1 | Option 1. environmental product declaration (EPD) Use at least 20 different permanently installed products sourced from at least five different manufacturers that meet one of the disclosure criteria below. Baumann strongly believes one point is achievable. V4.1 credit version will be pursued. Requirements have been addes to spec 01 81 13 - Sustainable Design Requirements. | Option 1. Environmental Product Declaration (EPD) (1 point) Use at least 20 different permanently installed products sourced from at least five different manufacturers that meet one of the disclosure criteria below. (1) different permanently installed products from three different manufacturers for CS and Warehouses & Distribution Centers). Life-cycle assessment and environmental product declarations. Products with a publicly available, critically reviewed life-cycle assessment conforming to ISO 14044 that have at least a cradile to gate scope are valued as one whole product for the purposes of credit achievement calculation. Product-specific Type III EPD – Internally Reviewed. Products with an internally critically reviewed LCA in accordance with ISO 14071. Products-specific product-specific internal EPDs which conform to ISO 14025, and EN 15804 or ISO 21930 and have at least a cradile to gate scope are valued as one whole product for the purposes of credit achievement calculation. Industry-wide Type III EPD – Troducts with third-party certification (Type III), including external verification, in which the manufacturer is explicitly recognized as a participant by the program operator. Products with industry-wide EPDs, which conform to ISO 14025, and EN 15804 or ISO 21930 and have at least a cradile to gate scope are valued as one whole product for the purposes of credit achievement calculation. Environmental Product Declarations which conform to ISO 14025 and EN 15804 or ISO 21930 and have at least a cradile to gate scope. Product-specific Type III EPD – Products with intri-party certification (Type III), including external verification and external critical review are valued as 1.5 products for the purposes of credit achievement calculation. Option 2. Embodied Carbon/LCA Optimization (1 point) Use products that have a compliant embodied carbon optimization report or action plan separate from the LCA or EPD. Use at least 5 permanently installed products sourced from at least three different manufacturers. Pro |
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| MR-3 | Building Product Disclosure and Optimization- Sourcing of Raw Materials | 2 | 1 | 1 | 1 | Option 2. leadership extraction practices Use products that meet at least one of the responsible extraction criteria below for at least 25%, by cost, of the total value of permanently installed building products in the project. Extended producer responsibility. Products purchased from a manufacturer (producer) that participates in an extended producer responsibility program or is directly responsible for extended producer responsibility. Products meeting extended producer responsibility program or is directly responsible for extended producer responsibility. Products meeting extended producer responsibility orderia are valued at 50% of their cost for the purposes of credit achievement calculation. Bio-based materials. Bio-based products must meet the Sustainable Agriculture Network's Sustainable Agriculture Standard. Bio-based raw materials must be tested using ASTM Test Method D6866 and be legally harvested, as defined by the exporting and receiving country. Exclude hide products, such as leather and other animal skin material. Products meeting bio-based materials criteria are valued at 100% of their cost for the purposes of credit achievement calculation. Wood products. Wood products must be certified by the Forest Stewardship Council or USGBC-approved equivalent. Products meeting wood products criteria are valued at 100% of their cost for the purposes of credit achievement calculation. Materials reuse. Reuse includes salvaged, refurbished, or reused products. Products meeting materials reuse criteria are valued at 100% of their cost for the purposes of credit achievement calculation. Recycled content. Recycled content is the sum of postconsumer recycled content plus one-half the preconsumer recycled content, based on cost. Products meeting recycled content riteria are valued at 100% of their cost for the purposes of credit achievement calculation. V4.1 credit version will be pursued. Requirements have been addes to spec 01.81.13 - Sustainable Design Requirements. | Material Ingredient Reporting (1 point) Use products sourced from at least three different manufacturers that meet at least one of the responsible sourcing and extraction criteria below for at least 20%, by cost, of the total value of permanently installed building products in the project (1 point). Use products sourced from at least five different manufacturers that meet at least one of the responsible sourcing and extraction criteria below for at least 40%, by cost, of the total value of permanently installed building products in the project (2 points). |
| MR-4 | Building Product Disclosure and Optimization- Material Ingredients | 2 | 1 | 1 | 1 | Option 1. material ingredient reporting (1 point) Use 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). Use products that document their material ingredient optimization using the paths below for at least 25%, by cost, of the total value of permanently installed products in the project. GreenScreen v1.2 Benchmark. Products that have fully inventoried chemical ingredients to 100 ppm that have no Benchmark 1 hazards: If any ingredients are assessed with the GreenScreen List Translator, value these products at 100% of cost. If all ingredients are have undergone a full GreenScreen Assessment, value these products at 150% of cost. Cradle to Cradle V2 Gold: 100% of cost Cradle to Cradle v2 Gold: 100% of cost Cradle to Cradle v3 Silver: 100% of cost Cradle to Cradle v3 Silver: 100% of cost Cradle to Cradle v3 Silver: 100% of cost Cradle to Cradle v3 Gold or Platinum: 150% of cost Cradle to Cradle v3 Gold or Platinum: 150% of cost Cradle to Cradle v3 Silver: 100% of cost | Option 1. Material Ingredient Reporting (1 point) Use at least 20 different permanently installed products from at least five different manufacturers that use any of the required programs to demonstrate the chemical inventory of the product to at least 0.1% (1000 ppm). (10 different permanently installed products from at least three different manufacturers for CS and Warehouses & Distribution Centers) Option 2: Material Ingredient Optimization (1 point) Use products that have a compliant material ingredient optimization report or action plan. Use at least 5 permanently installed products sourced from at least three different manufacturers. |
| MR-5 | Construction and Demolition Waste Management | 2 | | 2 | 2 | Recycle and/or salvage nonhazardous construction and demolition materials. Calculations can be by weight or volume but must be consistent throughout. Option 1, diversion (1-2 points) Path 1. divert 50% and three material streams (1 point) Divert at least 50% of the total construction and demolition material; diverted materials must include at least three material streams. OR Path 2. divert 75% and four material streams (2 points) Divert at least 75% of the total construction and demolition material; diverted materials must include at least four material streams. Requirements have been addes to spec 01 81 13 - Sustainable Design Requirements. | |

| IFO | INDOOR ENVIRONMENTAL QUALITY | 16 | 7 | 7 | 0 | 8 | | |
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| IL Q | TOTAL CONTRACTOR OF THE STATE O | 10 | | | | | Option 1. ASHRAE Standard 62.1–2010 | |
| IEQ-P1 | Minimum IAQ Performance | R | | R | | R | For mechanically ventilated spaces (and for mixed-mode systems when the mechanical ventilation is activated), determine the minimum outdoor air histake flow for mechanical ventilation systems using the ventilation rate procedure from ASHRAE 62.1–2010 or a local equivalent, whichever is more stringent. Meet the minimum requirements of ASHRAE Standard 62.1–2010, Sections 4–7, Ventilation for Acceptable Indoor Air Quality (with errata), or a local equivalent, whichever is more stringent. Prerequisite will be achieved based on code requirements. IAQ Calculator to be provided by MAE. | |
| | | | | | | | Prohibit smoking inside the building. | |
| IEQ-P2 | Environmental Tobacco Smoke (ETS) Control | R | | R | | R | Prohibit smoking dustied the building except in designated smoking areas located at least 25 feet (7.5 meters) from all entries, outdoor air intakes, and operable windows. Also prohibit smoking outside the property line in spaces used for business purposes. If the requirement to prohibit smoking within 25 feet (7.5 meters) cannot be implemented because of code, provide documentation of these regulations. Signage must be posted within 10 feet (3 meters) of all building entrances indicating the no-smoking policy. This prerequisite will be achieved. Signage stating the smoking policy will be installed. | |
| IEQ-1 | Enhanced Indoor Air Quality Strategies | 2 | N | | | 0 | Option 1. Enhanced IAQ strategies (1 point) Comply with the following requirements, as applicable. A. entryway systems; install permanent entryway systems at least 10 feet (3 meters) long in the primary direction of travel B. interior cross-contamination prevention; Sufficiently exhaust each space where hazardous gases or chemicals may be present or used C. filtration. minimum efficiency reporting value (MERV) of 13 or higher, in accordance with ASHRAE Standard 52.2–2007 Option 2. Additional enhanced IAQ strategies (1 point) Comply with ONE of the following requirements, as applicable. A. exterior contamination prevention; Design the project to minimize and control the entry of pollutants into the building. Ensure through the results of computational fluid dynamics modeling B. increased ventilation; increase breathing zone outdoor air ventilation rates to all occupied spaces by at least 30% above the minimum rates C. carbon dioxide monitoring; Monitor COZ concentrations within all densely occupied spaces. COZ monitors must be between 3 and 6 feet (900 and 1 800 millimeters) above the floor. D. additional source control and monitoring, For spaces where air contaminants are likely, evaluate potential sources of additional air contaminants besides COZ. Develop and implement a materials-handing plan to reduce the likelihood of contaminant release. Currently none of the options above are achieved. However MERV 13 filters and CO2 sensors for densely occupied spaces can still be incorporated in the design. | |
| IEQ-2 | Low-Emitting Materials | 3 | | 3 | | 3 | This credit includes requirements for product manufacturing as well as project teams. It covers volatile organic compound (VOC) emissions in the indoor air and the VOC content of materials, as well as the testing methods by which indoor VOC emissions are determined. Different materials must meet different requirements to be considered compliant for this credit. (a) Interior paints and coatings applied on site (including flooring adhesive) (b) Interior adhesives and sealants applied on site (including flooring adhesive) (c) Clooring (d) Composite wood (e) Ceilings, walls, thermal, and acoustic insulation The v4.1 version of this credit will be pursued. Requirements have been added to spec 01 81 13 - Sustainable Design Requirements. | Use materials on the building interior (everything within the waterproofing membrane) that meet the low-emitting criteria below. 2 product categories = 1 point 3 product categories = 2 points 4 product categories = 3 points 5 product categories = 3 points + exemplary performance |
| | | | | | | | Develop and implement an indoor air quality (IAQ) management plan for the construction and preoccupancy phases of the building. The plan | |
| IEQ-3 | Construction IAQ Management Plan | 1 | | 1 | | 1 | must address all of the following. During construction, meet or exceed all applicable recommended control measures of the Sheet Metal and Air Conditioning National Contractors Association (SMACNA) IAQ Guidelines for Occupied Buildings under Construction, 2nd edition, 2007, ANSI/SMACNA 008–2008, Chapter 3. Requirements have been addes to spec 01 81 13 - Sustainable Design Requirements. | |
| IEQ-4 | Indoor Air Quality Assessment | 2 | 2 | | | 0 | Option 2. Air testing (2 points) After construction ends and before occupancy, but under ventilation conditions typical for occupancy, conduct baseline IAQ testing using protocols consistent with the methods fisted in Table 1 for all occupied spaces. Use current versions of ASTM standard methods, EPA compendium methods, or ISO methods, as indicated. Laboratories that conduct the tests for chemical analysis of formaldehyde and volatile organic compounds must be accredited under ISO/IEC 17025 for the test methods they use. Retail projects may conduct the testing within 14 days of occupancy. Air testing can be performed. Requirements have been added to spec 01 81 13 - Sustainable Design Requirements. | |
| IEQ-5 | Thermal Comfort | 1 | 1 | | | 1 | Thermal comfort design Option 1. ASHRAE Standard 55-2010 Design heating, ventilating, and air-conditioning (HVAC) systems and the building envelope to meet the requirements of ASHRAE Standard 55-2010, Thermal Comfort Conditions for Human Occupancy, with errata or a local equivalent. For natatoriums, demonstrate compliance with ASHRAE HVAC Applications Handbook, 2011 edition, Chapter 5, Places of Assembly, Typical Natatorium Design Conditions, with errata. Thermal comfort control (guest rooms no included in calculations) Provide individual thermal comfort controls for at least 50% of individual occupant spaces. Provide group thermal comfort controls for all shared multiloccupant spaces, and for any individual occupant spaces without individual controls. Thermal comfort controls allow occupants, whether in individual spaces or shared multiloccupant spaces, to adjust at least one of the following in their local environment: air temperature, radiant temperature, air speed, and humidity. Both options should be achievable based on the DD set but additional coordination with the MEP designer is required. | |

| POOL County Framework (and the most of any policy and policy of the most of any policy and policy of the most of t | IEQ-6 | Interior Lighting | 2 | | | 2 | | 2 | Option 1. Lighting control (guest rooms not included in calculations) For at least 90% of individual occupant spaces, provide individual lighting controls that enable occupants to adjust the lighting to suit their individual tasks and preferences, with at least three lighting levels or scenes (on, off, midlevel). Midlevel is 30% to 70% of the maximum illumination level (not including daylight contributions). For all shared multioccupant spaces, meet all of the requirements in the reference guide. Option 2. Lighting quality Option of the strategies listed in the reference guide. Both options should be achievable based on the DD set but additional coordination with the MEP designer is required. | | | |
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| Vew glasting in the combisting area must provide a clear image of the electricity, not obstructed by firits, (Rens., patterned glasting, or added sints that distinct cort of blancing. Additionally, 75% of all regularly occupied floor are must have all least two of the following four kinds of views: multiple lines of align, in different directions as least 90 degrees apart; where that include at least two of the following; (f) florts, florten, or select, glasting, and where the forth of any great, as defined in "Vision area of the include at least two of the following; (f) florts, florten, or select, florten, florten, and | IEQ-7 | Daylight | 3 | 1 | 2 | | | 0 | Demonstrate through annual computer simulations that spatial daylight autonomy300/50% (sDA300/50%) of at least 55%, 75%, or 90% is achieved. Option 2. Simulation: Illuminance Calculations (1–2 points) Demonstrate through computer modeling that illuminance levels will be between 300 lux and 3,000 lux for 9 a.m. and 3 p.m. Option 3. Measurement (2-3 points, 1-2 points Healthcare) Achieve illuminance levels between 300 lux and 3,000 lux for 75% or 90% the floor area Based on the RFP this credit will be pursued by using either Option 1: Simulation: Spatial Daylight Autonomy & Annual Sunlight Exposure or Option 2. Simulation: Illuminance Calculations. Exact strategies still have to be evaluated. | Perform computer simulat Healthcare projects should Demonstrate illuminance I manual override) glare-con according to Table 2. | ions for illuminance at 9 a.m. and 3 p.m. on a clear-sky c due seth regularly occupied spaces located in the perim evels are between 300 lux and 3,000 lux at both 9 a.m. a ntrol devices may demonstrate compliance for only the n 2 New Construction. Core and Shell, Schools. Retail, Data C. Distribution Centers, Weightaility Percentage of regularly occupied floor area 55% | eter area determined under EQ Credit Quality Views. And 3 p.m. Spaces with view-preserving automatic (with inimum 300 lux illuminance level. Points are awarded **Points** 1 |
| EQ-9 Acoustic Performance 1 1 1 | IEQ-8 | Quality Views | 1 | | | 1 | | 1 | View glazing in the contributing area must provide a clear image of the exterior, not obstructed by frits, fibers, patterned glazing, or added tints that distort color balance. Additionally, 75% of all regularly occupied floor area must have at least two of the following four kinds of views: multiple lines of sight to vision glazing in different directions at least 90 degrees apart; views that include at least two of the following: (1) flora, fauna, or sky; (2) movement, and (3) objects at least 25 feet from the exterior of the glazing; unobstructed views located within the distance of three times the head height of the vision glazing; and views with a view factor of 3 or greater, as defined in "Windows and Offices; A Study of Office Worker Performance and the Indoor Environment." Include in the calculations any permanent interior obstructions. Movable furniture and partitions may be excluded. Views into interior atria may be used to meet up to 30% of the required area. | | | |
| D-1.1 Innovation in Design - Green Education | IEQ-9 | Acoustic Performance | 1 | 1 | | | | - | reverberation time, and sound reinforcement and masking. This will be included in the design accordingly. | for an exemplary performa | ance point. Confirm compliance via calculations or measu | nd Transmission, and/or Reverberation time. Meet all thre prements in representative rooms, and/or design |
| D-1.1 Innovation in Design - Green Education | ID | INNOVATION & DESIGN PROCESS | 6 | 0 | 0 | 5 | 1 | 6 | | | | |
| D-1.3 Innovation in Design - Pest Management 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | | | | | | 1 | | | | | | |
| ID-1.4 Innovation in Design - Hardscape Management 1 1 1 Innovation in Design - Puchasing - lamps -low or no mercury- 1 1 1 | | | | - | | 1 | | | | - | | |
| ID-15 Innovation in Design - Puchasing - lamps -low or no mercury- | | | | | | 1 | | | All ID credits will be achieved for this project. | | | |
| I Icontaining lamps | | Innovation in Design - Puchasing - lamps -low or no mercury- | 1 | | | 1 | | 1 | | | | |
| ID-2 LEED Accredited Professional with specialty 1 1 | | | | - | | | 1 | | | | | |
| | | | | 1 | | | | | | | | |
| RP REGIONAL PRIORITY CREDITS 4 4 4 0 0 0 0 | RP | | - | 4 | 0 | 0 | 0 | 0 | | | | |
| RP-1.1 Regional Priority Credit: N/A 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | | | | 1 | | | | - | | | | |
| RP-1.3 Regional Priority Credit: N/A 1 1 1 | RP-1.3 | Regional Priority Credit: N/A | | 1 | | | | | | | | |
| RP-1.4 Regional Priority Credit: N/A 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | RP-1.4 | Regional Priority Credit: N/A | 1 | 1 | | | | - | | | | |