

IGBC Green New Buildings (Owner-occupied) Provisional Certification Final Review



IGBC Green New Buildings

IGBCNBO230147 Kotler 1, Chitkara University, Punjab

Provisional Certification Level: Platinum

Date: 04 June 2024

This Precertification review is based on a review of the project goals and intentions. It is incumbent upon the project team to demonstrate that the credit requirements have been met at the design and construction certification reviews. The Precertification rating awarded need not necessarily correspond to the final IGBC rating (for Certification). The final rating would depend on the implementation of all the design parameters detailed in the Precertification documents. **The precertification is valid for 3 years from the date of provisional certification. Six-monthly project update is mandatory till Certification.**

78		6		Points Achieved	100	Possible Points
Awarded	Denied					Certified 40 to 49 points
						Silver 50 to 59 points
						Gold 60 to 74 points
						Platinum 75 to 100 points
2	0	Sustainable Architecture and Design		Possible Points:	5	
1		SA Credit 1	Integrated Design Approach		1	<p>Preliminary Review: The project team has submitted a narrative describing the Integrated design process. The MOM and meeting photographs will be provided during Certification. However, more details are required to meet the credit requirement.</p> <p>Technical advice: Please submit list of consultants involved in the project with their respective roles.</p> <p>Final Review: The project team has submitted a list of the project team including their name, organization, role and responsibility in the project. The team includes, owner, service manager, sustainable manager, project architect, senior project architect, green building consultant, commissioning consultant, energy modeler and MEP consultant.</p> <p>This meets the credit requirement.</p>

Not Attempted	SA Credit 2	Site Preservation	2 Preliminary Review: Project team has not attempted this Credit.
1	SA Credit 3	Passive Architecture	2 Preliminary Review: The project team has provided narrative and calculations indicating that 65.6% of the regularly occupied area is daylit, with daylight illuminance levels for a minimum of 110 Lux (and a maximum of 2,200 Lux) in a clear sky condition on 21st September at 12 noon, at working plane through simulation approach. Supporting document includes Daylight simulation report, and glass specification for DGU. However, more details are required to meet the credit requirement. Technical advice: Please provide the following: 1. Floor plans highlighting the regularly occupied spaces 2. DGU (VLT 40%) is considered for South and West orientation in Simulation. However, narrative also states that, DGU and SGU VLT is 33% and 50% respectively. Please update report and resubmit, it required. Final Review: The project team has provided a clarification which states that, only DGU has been considered for external glazing in all orientation. The submittal also includes floor plans highlighting the regularly occupied spaces for the MBA block. The drawings indicate that the BCA block is part of future expansion and the regularly occupied spaces in this block have not been highlighted. This meets the credit requirement with 1 point.

11	1	Site Selection and Planning	Possible Points:	14
Y		SSP MR 1	Local Building Regulations	<p>R</p> <p>Preliminary Review: The project team has submitted narrative which states that, approved plans have been submitted for virtual plot boundary of 7,471 sq.m. and 9,244 sq.m. built-up area and Environmental Impact Assessment (EIA) Study Report is not applicable.</p> <p>However, approval drawings have not been submitted. Additional details are required to meet the mandatory requirement.</p> <p>Technical advice: Please submit approved drawings signed and stamped by the local authorities.</p> <p>Final Review: The project team has provided a narrative and approved drawings signed and stamped by the Chief Town Planner of Punjab in Chandigarh for both the MBA and BCA blocks.</p> <p>This meets the credit requirement.</p>

Y	SSP MR 2	Soil Erosion Control	<p>R Preliminary Review: The project team has submitted a narrative which states that the project has designed and implemented an Erosion and Sedimentation Control (ESC) plan, which conforms to the best management practices highlighted in the National Building Code of India (NBC), Part 10, Section 1, Chapter 4- Protection of Landscape during construction. The measures that will be implemented during pre-construction and construction stages include temporary road construction, drain channel with sedimentation tank, wheel washing facility, storing materials generating particulate matter in closed areas, temporary drainage channel with sedimentation tank, spraying water, and site barricading. Maintenance plan for post occupancy storm water management has been provided. The submittal includes, existing site photographs, declaration letter from the owner, sample photographs for proposed ESC measures and site logistics plan.</p> <p>However, more details are required to meet the credit requirement.</p> <p>Technical advice: Please provide the following: 1. Virtual plot boundary showing both buildings with ESC measures 2. Clarification on the type of top soil available on site and its conservation measures.</p> <p>Final Review: The project team has submitted a narrative stating that, the site has sandy loam type top soil which has been stockpiled for future reuse. The submittal includes photographs showing top soil covered with geotextile fabric, and virtual plot boundary with ESC measures for both the MBA and BCA buildings.</p> <p><u>This meets the mandatory requirement.</u></p>
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1	SSP Credit 1	Basic Amenities	1 Preliminary Review: The project team has submitted a narrative stating that the project site has access to at least 7 basic amenities within 1 km walking distance from the building entrance and within campus. However, more details are required to meet the credit requirement. Technical advice: Please provide the following: 1. Site vicinity plan highlighting the virtual plot boundary, building entrances and amenities. Please indicate the walking distance from each amenity. 2. Photograph of each amenity Final Review: The project team has submitted site vicinity plan showing the walking distance of the amenities from the MBA building along with photographs. The amenities include, hospital, ATM, park, playground, restaurant, gymnasium and indoor sports arena, and laundry. This meets the credit requirement.
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	<p>1 SSP Credit 2</p>	<p>Proximity to Public Transport</p>	<p>1 Preliminary Review: The project team has submitted a narrative stating that, project will operate shuttle services for 100% of the building occupants. However, more details are required to meet the credit requirement.</p> <p>Technical advice: Please provide the following: 1. Clarification if, shuttle bus service operates from / to the nearest intra-city railway station or bus-stop. 2. Draft copy of contract agreement that will be signed between the project owner and the shuttle service provider. 3. Tentative details of shuttle services - type and number of vehicles, frequency (peak and non-peak hours), seating capacity, route details (boarding & destination points), etc</p> <p>Final Review: The project has submitted the following clarification: 1. The University runs Golf cart (8-seater), R-rickshaw loader (2 nos.), E-rickshaw (4 nos.) and buses. Golf cart operates within the campus, E-rickshaw loader is used to transport luggage, E-rickshaw operates between campus and bus stand and buses operating between campus and neighbouring cities. 2. The transport facilities are owned by the campus. 3. The rickshaws operate between 9am to 5pm. As per Basis of Design, portions of the building operates between 9am to 8pm. Further, operation schedule, seating capacity and frequency of the shuttle services including buses has not been provided.</p> <p>As the shuttle service are provided at campus level and not specifically for this project, the compliance should be demonstrated at the campus level, It is unlikely that the proposed shuttle service can cater to 25% of the campus occupants. Hence, this credit is denied.</p>
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1	SSP Credit 3	Low-emitting Vehicles	<p>1 Preliminary Review: The project team has submitted a narrative stating that electric charging points would be provided within the site, to cater 5.4% of the car parking capacity i.e. 4 out of 92 cars. The submittal includes technical datasheet for EV charging station and a copy of local by-law for parking capacity.</p> <p>However, more details are required to meet the credit requirement.</p> <p>Technical advice: Please provide the following:</p> <ol style="list-style-type: none"> 1. Parking plan highlighting the location of electric charging points. 2. Parking calculation 3. Declaration letter from the Owner confirming the number of electric charging proposed in the project. <p>Final Review: The project team has provided a parking plan which shows electric charging points for 5% of the car parking capacity i.e. 5 out of 99 cars. The submittal also includes, parking calculation, copy of local bye-law and declaration from the owner.</p> <p>This meets the credit requirement.</p>
Not Attempted	SSP Credit 4	Natural Topography or Vegetation	<p>2 Preliminary Review: Project team has not attempted this Credit.</p>

1	SSP Credit 5	Preservation or Transplantation of Trees	<p>1 Preliminary Review: The project team has selected Case B: Plant tree saplings that can mature into grown up trees within the next 5 years on the project site. The narrative states that, as the virtual plot boundary area is 7,471 sq.m. (1.85 acres), atleast 22 trees will have to be planted (12 trees per acre). The project intends to plant 36 native or adaptive trees.</p> <p>However, more details are required to meet the credit requirement.</p> <p>Technical advice: Please provide the following:</p> <ol style="list-style-type: none"> 1. Virtual plot boundary highlighting location of proposed trees. 2. List of proposed native / adaptive trees 3. Address comment #2 under SSP CR 8 and submit revised calculations if required maintaining consistency across credits. <p>Final Review: The project team has submitted a virtual plot boundary (7,471 sq.m. - 1.85 acres) plan highlighting location of the 24 proposed trees. The submittal also includes a list of proposed native / adaptive trees.</p> <p>This meets the credit requirement.</p>
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2	SSP Credit 6	Heat Island Reduction, Non-roof	<p>2 Preliminary Review: The project team has chosen Option 1: Provide hardscape materials (including pavers) with SRI of at least 29 for exposed non-roof impervious areas within the project site. The narrative and calculation states that, 100% of the non-roof impervious areas will be provided with light grey colour pavers.</p> <p>However, more details are required to meet the credit requirement.</p> <p>Technical advice: Please provide the following:</p> <ol style="list-style-type: none"> 1. Virtual plot boundary with Site area statement. 2. Manufacturer brochure indicating the Solar Reflective Index (SRI) of the proposed reflective materials. 3. Declaration from Owner 4. Address comment #2 under SSP CR 8 and submit revised calculations if required maintaining consistency across credits. <p>Final Review: The project team has provided a narrative and declaration stating that, the SRI value of the non-roof area will be more than 29. The submitted includes a manufacturer's cut sheet indicating usage of mortar screed with SRI range of 35 to 50, Virtual plot boundary and site area statement consistent with SSP CR 8.</p> <p>This meets the credit requirement.</p>
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2	SSP Credit 7	Heat Island Reduction, Roof	2 Preliminary Review: The project team has chosen Option 1: High Reflective Materials on exposed roof area to demonstrate credit compliance. The narrative indicates 100% of the total exposed roof area (1,321 sq.m) will be provided with paint of high SRI paint value of 112. Submittal includes technical datasheet and declaration from the Owner. However, more details are required to meet the credit requirement. Technical advice: Please submit conceptual roof plan highlighting the area to be covered with high reflective roof materials Final Review: The project team has submitted a conceptual roof plan highlighting the area to be covered with high reflective roof materials. This meets the credit requirement.
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1	SSP Credit 8	Outdoor Light Pollution Reduction	<p>1 Preliminary Review: The project team has chosen Option 1: Prescriptive method. The narrative and calculation states that, no external light fixture emits more than 5% of the total initial designed fixture Lumens, at an angle of 90 degrees or higher from nadir (straight down) and lighting power density should be reduced by 37.7% for building facades and exterior areas vis-à-vis the ASHRAE Standard 90.1-2010 baselines, Section 9.4.3 - Exterior Building Lighting Power (tradable & non-tradable surfaces). The submittal includes, technical datasheet for light fixtures.</p> <p>However, more details are required to meet the credit requirement.</p> <p>Technical advice: Please provide the following:</p> <ol style="list-style-type: none"> 1. External Lighting layout for Virtual plot boundary. 2. Discrepancy is observed in the Site area (13,375 sq.ft.) statement across the credits. Submit revised calculations as required. 3. Discrepancy is observed in light fixture wattage between datasheet (35W) and calculation (50W). Submit revised calculations maintaining consistency across submittals. 4. Declaration from Owner <p>Final Review: The project team has submitted a virtual plot boundary indicating the location and type of the light fixtures and identifying the surface areas. The submittal also includes calculation which shows that the lighting power density shall be reduced by 30%, manufacturer's cut sheets for 25W and 100W post top lights and a declaration from the owner. Discrepancy is observed in the submittals, the drawing indicates bollards, however, LPD calculations and manufacturer's cut sheets indicate post top lights. This does not affect credit compliance here but should be noted for future projects.</p> <p>This credit has been awarded for precertification.</p> <p><i>Note: Please maintain consistency across submittals.</i></p>
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1	SSP Credit 9	Universal Design	<p>1 Preliminary Review: The project team has submitted a narrative which states that, the building design will provide, one preferred car park spaces having an easy access to the main entrance, Non-slippery ramps with handrails, Braille and audio assistance in lifts, Seating area near lift lobbies, Uniformity in floor level, and Restrooms (toilets) in common areas. The submittal includes, drawings for differently abled rest room and entrance ramps, and technical datasheet for elevator.</p> <p>However, additional details are required to demonstrate credit compliance.</p> <p>Technical Advice: Please provide the following:</p> <ol style="list-style-type: none"> 1. Conceptual plan highlighting the measures proposed for differently abled people and senior citizens 2. Confirmation if, walkways / pathways with adequate width in exterior areas and visual warning signage in common areas & exterior areas will be provided. 3. Parking layout plan showing reserved parking for differently abled 4. Drawing indicating seating in lift lobbies <p>Final Review: The project team has submitted conceptual plans highlighting the measures for differently abled people and senior citizens. The project team has further confirmed that, walkways / pathways with adequate width have been considered in exterior areas.</p> <p>This meets the credit requirement.</p>
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1	SSP Credit 10	Basic Facilities for Construction Workforce	<p>1 Preliminary Review: The project team has submitted a narrative and declaration from the owner stating that, the project will provide facilities in accordance to the Building and other Construction Workers Act, 1996 & Rules, 1998. Declaration states that, housing (beyond site), toilets, first aid facility, personal protective equipment, adequate drinking water, dust suppression measures, and adequate illumination levels in construction areas will be provided. The submittal includes, a site logistics plan.</p> <p>However, additional details are required to demonstrate credit compliance.</p> <p>Technical Advice: Please provide the following:</p> <ol style="list-style-type: none"> 1. Clarification if, day care/ crèche facility for workers' children and site emergency alarm will be provided. 2. The number of workers who will be working on site and the number of toilet and bathing facilities provided for them. 3. Virtual plot boundary site logistics plan indicating workers' facilities along with proposed buildings <p>Final Review: The project team has submitted a clarification stating that, the project site will have less than 100 workers and 3 toilets and baths have been planned. Creche will be provided and site emergency alarm system will be installed. The submittal includes site logistics plan indicating the measures on site along with worker facilities.</p> <p>This meets the credit requirement.</p>
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1	SSP Credit 11	Green Building Guidelines	1 Preliminary Review: The project team has provided a narrative, Green building guidelines highlighting the green features of the project, along with the guidelines for tenants occupying the building. However, additional details are required to demonstrate credit compliance. Technical Advice: Please clarify if the building is considered Owner-occupied or Tenant-occupied and resubmit details as required. Final Review: The project team has provided clarification stating that, the building will be Owner-occupied. Although, the Green Building Guidelines have not been modified for Owner occupancy, this credit is awarded for Pre-certification. <i>Note: For certification, please submitted Green Building Guidelines specific to Owner occupied building.</i>
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18	0	Water Conservation	Possible Points:	18
Y		WC MR 1	Rainwater Harvesting, Roof & Non-roof	<p data-bbox="1075 289 1955 553">Preliminary Review: The project team has opted for Case A - Rainwater Harvesting, Roof & Non-roof, to show compliance. The narrative states that, RWH system consists of 3 pits having recharge and holding capacity of 125 cu.m. each. Calculation indicates that, the RWH system is sized to capture 100% of run-off from the roof and non-roof areas (i.e. 376 cu.m) for one day average peak rainfall of 57 mm / day (i.e. 17.5% of average peak month rainfall). The submittal includes the rainfall data for the project location, run-off and RWH calculations and soil percolation rate details.</p> <p data-bbox="1075 591 1801 613">However, more details are required to meet the credit requirement.</p>

Technical Advice:

Please provide the following:

1. Clarification if, storm water run-off will be filtered before harvesting. Submit drawing showing location of RWH pits, filtration chamber, and RWH cross sectional drawings.
2. If, filtration chamber holding capacity is added in RWH calculation, please deduct the filtration media volume.
3. As observed from the calculations, it is unclear as to how the project has arrived at the percolation rate of 5 m/day. Kindly submit the project site specific hydrogeological report indicating the percolation rate of the soil or MOEF prescribed percolation values for the soil type to be considered in the calculation. Please revise calculations as necessary.
4. Address comment #2 under SSP CR 8 and submit revised calculations if required maintaining consistency across credits.
5. Conceptual external storm water drain layout highlighting the location of rain water harvesting pits, as applicable.
6. Plan and cross sectional drawings of the RWH pit with clear dimensions.

Final Review:

The project team has submitted a narrative, revised calculation, and drawings indicating that, the rain water harvesting system consists of 4 pits having recharge an holding capacity of 97 cu.m. each. The RWH system is sized to capture 100% of run-off from the roof and non-roof areas (i.e.. 387 cu.m.) for one day average peak rainfall of 57 mm / day (i.e. 17.5% of average peak month rainfall). The project team has revised the percolation value to 0.24 m/day. The submittal also includes plan and cross sectional drawings of the RWH pit and site plan indicating the location of the pits. The queries raised under SSP CR 8 have been addressed.

This meets the mandatory and credit requirements.

Y	WC MR 2	Water Efficient Plumbing Fixtures	<p>R Preliminary Review: The project team has submitted a narrative and declaration from the owner, which states that high efficient plumbing fixtures will be installed in the project, to reduce potable water consumption. The narrative indicates that the total potable water usage in proposed case is 12,357,401 litres/year as against a base case of 18,046,699 litres/year, which shows a 31.53% reduction in potable water usage. The submittal includes manufacturer's cutsheets for water fixture flow rates that will be used in the project, and water usage calculations.</p> <p>However, more details are required to meet the credit requirement.</p> <p>Technical Advice: Please provide the following:</p> <ol style="list-style-type: none"> 1. Discrepancy is observed in the flow rates considered in Calculation and as mentioned in the manufacturer's cutsheets. Please submit revised calculations considering the flow rates as per the manufacturer cutsheets. 2. Full time equivalent occupancy calculation for the building occupants and visitors. <p>Final Review: The project team has submitted revised calculation consistent with the flow rates mentioned in the manufacturer's cutsheets to show water savings of 31.19%. The submittal also includes calculation for Full time equivalent occupancy for the MBA block. However, the flow rate reference for kitchen sink has not been provided. By equating the baseline and design case usage for kitchen sink, the waste water generation for design case increases to 12,421,635 litres and the savings achieved will be 31.17%.</p> <p>This meets the Mandatory requirement and credit requirement for WC CR 4 with 5 points.</p>
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2	WC Credit 1	Landscape Design	<p>2 Preliminary Review: The project team has submitted a narrative and calculation which states that, landscape area (941 sq.m.) is more than 10% of site area (7,471 sq.m.). The turf area (104 sq.m.) and drought tolerant species (838 sq.m.) are 11% and 89% of the total landscape area. The submittal includes a list of proposed drought tolerant plant species.</p> <p>However, more details are required to meet the credit requirement.</p> <p>Technical Advice: Please provide the following: 1. Landscape plan for virtual plot boundary 2. Landscape area statement consistent with the plan</p> <p>Final Review: The project team has provided a Landscape plan consistent with the area statement for the virtual plot boundary.</p> <p>This meets the credit requirement.</p>
1	WC Credit 2	Management of Irrigation Systems	<p>1 Preliminary Review: The project team has submitted a narrative which states that, highly efficient irrigation systems will be installed incorporating the features like, Central shut-off valve, 75% of landscape planting beds having drip irrigation system, Time based controller for the valves, and Pressure regulating device. The submittal includes technical datasheets.</p> <p>This meets the credit requirement.</p>

4	WC Credit 3	Rainwater Harvesting, Roof & Non-roof	4	Preliminary Review: Please refer to the comments under WC MR 1 - Rainwater Harvesting, Roof & Non-roof Final Review: Please refer to the comments under WC MR 1 - Rainwater Harvesting, Roof & Non-roof
5	WC Credit 4	Water Efficient Plumbing Fixtures	5	Preliminary Review: Please refer to the comments under WC MR 2 - Water Efficient Plumbing Fixtures. Final Review: Please refer to the comments under WC MR 2 - Water Efficient Plumbing Fixtures.

5	WC Credit 5	Wastewater Treatment and Reuse	<p>5 Preliminary Review: The project team has submitted a narrative stating that 100% of the waste water generated (58,290 KL/year) in the building will be treated through STP. The narrative also states that 100% on-site treated wastewater (35 KLD) will be reused. STP has treatment capacity of 45 KLD. The submittal includes landscape water requirement.</p> <p>However, more details are required to meet the credit requirement.</p> <p>Technical Advice: Please provide the following:</p> <ol style="list-style-type: none"> 1. From the calculations submitted, it is unclear as to how the project has arrived at 58,290 kl of waste water generated in the project annually. Please submit Tentative daily and annual water balance of the project consistent with WC credit 4. 2. Submit calculations indicating the total waste water generated on site, % of waste water treated on site, quantity if treated water available on site based on efficiency of the STP and % of flushing & irrigation requirement met by treated water available on site. 3. Clarify if dedicated STP is proposed to be installed within the virtual plot boundary for Kotler- MBA block alone. Submit site plan indicating the location of the STP. If the STP is common for other buildings/blocks in the campus, then demonstrate compliance considering all the blocks it is serving. <p>Final Review: The project team has submitted a revised water balance chart showing waste water generation of 41,395 litres per day (12,419 KL/year) with is treated at the campus STP of 1 MLD capacity. The narrative also states that 100% on-site treated wastewater will be reused for flushing and landscaping. The submittal show that, 100% water water generated on campus is treat in the central STP. Supporting documents include, FTE calculation for the MBA block and the campus, water balance chart (annual and daily), and extract from NBC - 2016 for daily water requirement for a campus.</p> <p>This meets the credit requirement.</p>
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1		WC Credit 6	Water Metering	1	<p>Preliminary Review: The project team has submitted a narrative declaring that water meters will be installed for the following applications: Building level metering:</p> <ul style="list-style-type: none"> - Municipal water supply for domestic water - Water consumption for flushing - Water consumption for treated wastewater - Water consumption for landscaping <p>The submittal includes technical datasheet for water meter. However, more details are required to meet the credit requirement.</p> <p>Technical Advice: Please provide the following:</p> <ol style="list-style-type: none"> 1. SLD highlighting the location of water meters at building level. 2. Owner's declaration <p>Final Review: The project team has submitted a declaration from the owner stating that, building level metering will be provided for:</p> <ul style="list-style-type: none"> - Bore water consumption - Water consumption for flushing - Water consumption for treated wastewater - Water consumption for landscaping <p>Since SLD has not been prepared, the project is unable to provide it for pre-certification. Hence, this credit is awarded assuming that the SLD will be provided during certification.</p>
19	3	Energy Efficiency		Possible Points:	28
Y		EE MR 1	Ozone Depleting Substances	R	<p>Preliminary Review: The submitted narrative states that the project intends to use HVAC systems (VRF with R134a) which are to be CFC-free. Also, the fire suppression systems will be free from halons. Submittal includes declarations from the owner along with technical details for fire suppression system.</p> <p>This meets the mandatory requirement.</p>

Y	EE MR 2	Minimum Energy Efficiency	<p>R Preliminary Review: The submitted narrative states that the project has opted for Option 1: Performance-based approach to meet the compliance of the credit. The energy modelling report indicates an energy cost savings of 27.8% over the ASHRAE 90.1-2010 baseline. The base case & proposed case annual energy consumptions are ~1,487 MWh & ~1,411 MWh. Some of the ECMs implemented in the project include – High-performance building envelope, efficient lighting, HVAC system with high COP. Supporting documents include, technical datasheet for external glazing and roof insulation, cross sectional drawings for wall and roof, HVAC layout plans, Input and Output reports, and Energy Simulation report.</p> <p>However, additional details are required.</p> <p>Technical Advice: Please provide / clarify the following:</p> <ol style="list-style-type: none"> 1. The technical data sheet for the DX / VRF system has not been provided. Please provide the reference for the systems considered in the project. 2. LPD calculation for both internal and external lighting is required. Calculation needs to be consistent with SSP Credit 8.0. 3. Please clarify if the Energy Simulation Report includes data for both the buildings or only MBA block 4. Please clarify why the SGU glass used for North and East orientation was not modelled in the energy modelling software and incorporated through exceptional calculation. Selection of glass for each orientation needs to be consistent with SA Credit 3.0 - Daylight Simulation. 5. Provide clarifications under EE Mr.3 <p>Kindly submit a narrative response to each of the comments raised above. If required, revise the baseline and proposed case models and submit the revised energy simulation report along with simulation output files for both baseline & design case models.</p>
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Additional Clarification:

The project team has submitted a narrative stating that, the project can show energy cost savings of 24.3% over the ASHRAE 90.1-2010 baseline to achieve 10 points under EE Cr 2.0.

The submittal includes the following clarifications:

1. Indoor and outdoor VRF system details along with technical datasheet for the selected VRF ODU units. The 16 HP and 18 HP ODUs have a COP of 4.1 and 3.9 respectively.
2. LPD calculations for the exterior lighting consistent with SSP Credit 8.0 have been provided for the MBA block along with exterior lighting layout. A declaration letter from the owner has been provided stating that, interior LPD will be 20% less than ASHRAE 90.1 - 2010 baseline. However, this is not consistent with EE MR 3.0.
3. The project is applying for the MBA block pre-certification at present.
4. DGU glass has been proposed and modelled in the energy simulation. Technical details of the proposed glass have been provided. However, the external glazing U-value is not consistent with EE MR 3.
5. Clarifications under EE Mr 3 needs to be provided.

The project team has submitted BEPS, BEPU, ES-D and PS-E reports for both baseline and proposed cases. The submitted SV-A reports are blank. Revised Energy Simulation Report has not been submitted.

Please submit the revised Energy Simulation Report.

Final Review:

The project team has submitted a revised Energy Simulation Report indicating a savings of 24.3% over the baseline. The submittal includes updated input data and simulation output data.

This meets the mandatory requirement and EE Credit 2 requirement with 10 points.

Y	EE MR 3	Commissioning Plan for Building Equipment & Systems	<p>R</p> <p>Preliminary Review: The project team has submitted a narrative stating that a third-party commissioning authority will perform the commissioning activities in the project. The submittal includes an Owner's Project Requirement, Commissioning Plan, and Measurement & Verification plan.</p> <p>However, additional details are required to meet compliance.</p> <p>Technical Advice: Please provide/ clarify the following:</p> <ol style="list-style-type: none">1. Agreement signed between project team and third party commissioning authority stating the detailed scope of work (including the clause of post occupancy commissioning to be conducted 12 months after the building is occupied).2. Supporting document showcasing prior 3 years relevant experience of the commissioning Authority.3. Include tentative schedule of all the commissioning activities in the Commissioning plan4. Equipment's and systems in the Commissioning plan specific to the selected HVAC system (VRF system).5. Basis of Design report for the project.6. Verify if the drinking water treatment facility is within the scope of this project7. Format for post occupancy thermal comfort survey.
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Additional Clarification:

The project team has provided the following clarification:

1. A Proposal from an agency for commissioning work has been submitted. It appears that the agency has yet to be appointed as the Commissioning Authority. However, the Commissioning Schedule indicates that the Commissioning process has already commenced from Feb, 2024. Please provided a signed Agreement for appointment of the Commissioning Authority OR a Letter of Undertaking from the Project Owner stating that, the Commissioning Authority has started work prior to signing of the agreement.
2. The proposed Commissioning Agency has provided a declaration letter enlisting commissioning projects carried out in the past 13 years along with 3 sample workorders.
3. The submitted Commissioning Schedule has to co-related to the step by step activities enlisted in the Commissioning plan instead of providing a summary plan.
4. The updated Commissioning plan has been provided.
- 5a. The project team has provided a "Basis of Design Review Report" majorly addressing only the air-conditioning design. Basis of Design report need to include design for all systems within the scope of work for Commissioning.
- 5b. Please consider consistent values for external glazing and lighting power density with EE MR 2.0
6. Drinking water treatment facility is not within the scope of this project.
7. Format for post occupancy thermal comfort survey has been provided.

Please respond to the queries raised in the Final Review.

Final Review:

1. The project team has provided a work agreement for commissioning work upto submission of commissioning report. The scope of work submitted under the proposal indicates post occupancy commissioning to be conducted.
2. Revised Commissioning and Re-commissioning Schedule have been provided enlisting the systems that will be commissioned and the stages of commissioning.
3. The project team has provided a "Basis of Design Report" including all systems within the scope of work for Commissioning.
4. External glazing and lighting power density are consistent with EE MR 2.0.

This meets the mandatory and credit requirements.

	1	EE Credit 1	Eco-friendly Refrigerants	1	<p>Preliminary Review: The submitted narrative states that the project intends to use HVAC systems that are CFC-free. Submittal includes technical details of the proposed HVAC system and refrigerant calculations.</p> <p>However, additional details are required to meet the credit requirement.</p> <p>Technical Advice: The submittal includes technical datasheet for centrifugal liquid chiller. Kindly justify its use for VRF system and provide supporting documents.</p> <p>Final Review: The project team has withdrawn this credit.</p>
10	1	EE Credit 2	Enhanced Energy Efficiency	15	<p>Preliminary Review: Please refer to the review comments under EE MR 2 - Minimum Energy Efficiency.</p> <p>Technical Advice: Kindly address the clarifications sought under EE MR 2 - Minimum Energy Efficiency.</p> <p>Additional Clarification: Kindly address the clarifications sought under EE MR 3 - Commissioning Plan for Building Equipment & Systems.</p> <p>Final Review: Please refer to the review comments under EE MR 2 - Minimum Energy Efficiency.</p>

6	EE Credit 3	On-site Renewable Energy	6	<p>Preliminary Review: The project team has submitted a narrative stating 50 kW capacity of solar panels will be installed on-site to cater to 8.4% of the total annual energy consumption of the project. The annual power generation from the solar PV system is 73,759 kWh and the total annual energy consumption of the project is estimated to be 873,845 kWh.</p> <p>The submittal includes a NREL solar calculator, technical datasheet for solar panels and drawing showing solar PV array installation on terrace.</p> <p>However, more details are required to meet the credit requirement.</p> <p>Technical Advice: Please provide clarification sought under EE Mandatory Requirement 2 and submit revised calculations as required.</p> <p>Final Review: The project team has submitted a narrative stating that 91.3 kW capacity solar PV panels will be installed on the roof to meet 13.6% of total annual energy consumption. The annual power generation from the solar PV system is 131,689 kWh and the total annual energy consumption of the project is estimated to be 966,051 kWh. This submittal also includes, energy model BEPU report, PV system annual output report, roof plan and a declaration from the owner.</p> <p>This meets the credit requirement.</p>
Not Attempted	EE Credit 4	Off-site Renewable Energy	2	<p>Preliminary Review: Project team has not attempted this Credit.</p>

2	EE Credit 5	Commissioning, Post-installation of Equipment & Systems	2 Preliminary Review: Please refer to the review comments under EE MR 3 - Commissioning Plan for Building Equipment & Systems. Technical Advice: Kindly address the clarifications sought under EE MR 3 - Commissioning Plan for Building Equipment & Systems. Additional Clarification: Kindly address the clarifications sought under EE MR 3 - Commissioning Plan for Building Equipment & Systems. Final Review: Please refer to the review comments under EE MR 3 - Commissioning Plan for Building Equipment & Systems.
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1	1	EE Credit 6	Energy Metering and Management	<p>2</p> <p>Preliminary Review: The project team has submitted a narrative stating that the project would comply with Case-A: Energy Metering and Case B - Building Management System. Energy meters are installed to measure exterior lighting, Municipal Water Pumping, Treated Wastewater pumping, Elevator system, and Power Backup systems. The building management system monitors and controls - lighting management systems, air conditioning management systems, elevator management system, water management system and renewable energy generation. The submittal includes technical datasheet of energy meters.</p> <p>However, more details are required to meet the credit requirement.</p> <p>Technical Advice: Please provide the following:</p> <ol style="list-style-type: none"> 1. Clarification if, the Building Management System will be in place to monitor and control Fresh air monitoring system. 2. SLD highlighting the location of energy meters at building level. 3. Declaration letter from the project owner/ developer confirming the provision of BMS mentioning the systems it would monitor and control along with list of energy meters proposed in the project. <p>Final Review: The project team has submitted a revised narrative and declaration from the owner stating that, energy meters will be provided for exterior lighting, interior lighting, power backup by DG/UPS, Elevators and Solar PV. The submittals indicates that Building management system will not be provided. The SLD is yet to be developed for the project.</p> <p>The credit is awarded for precertification for energy meters and one point is denied for building management system.</p> <p><i>Note: During final certification provide SLD highlighting the location of energy meters at building level.</i></p>
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14	0	Building Materials and Resources Possible Points:	16
Y		BMR MR 1 Segregation of Waste, Post-occupancy	<p>R</p> <p>Preliminary Review: The project team has submitted a narrative stating that, separate bins for dry and wet waste will be located in the common areas at all the floor levels. The dry & wet waste materials will be transferred to the central waste collection centre at the ground level where it will be segregated into separate bins for paper, plastic, cardboard, metals, glass, batteries, e-waste and lamps and wet waste. On-board waste haulers will collect the waste from the central collection and segregation centre.</p> <p>Technical Advice: Please submit the following: 1. Conceptual floor plans showing the location of waste bins at floor level and common areas, as applicable. (Note Not mandatory to be submitted by user) 2. Conceptual site/ floor plan showing the location of the centralised facility for segregation of waste.</p> <p>Additional Clarification: The project team has provided floor plans for the MBA block highlighting the location of waste bins in common area. The submittal also includes a virtual plot boundary of the MBA block highlighting the location of centralized waste collection bins.</p> <p>However, this central facility does not seem to have a weather protected segregation area. Please address this requirement.</p> <p>Further clarification is required to meet this mandatory credit.</p> <p>Final Review: The project team has provided a narrative stating that, adequate shading for weather protection will be provided for the centralized waste collection bins. The submittal also includes a site plan highlighting the location of the weather protected segregation area.</p> <p>This meets the mandatory requirement.</p>

6	BMR Credit 1	Sustainable Building Materials	<p>8 Preliminary Review: The project team has submitted a narrative which states that sustainable building materials will be used in the project - Materials with recycled content, Local materials and Wood based materials.</p> <p>1. Materials with recycled content: The calculation indicates that materials having 22.7% recycled content of the total cost of building materials will be procured in the project. The list of recycled content material includes - Cement, steel, glass, aluminium, tiles, flyash bricks, AAC blacks and concrete / RMC. Submittal includes, tentative master material sheet indicating the recycled content, and technical datasheets for few materials.</p> <p>2. Local materials: The project team claims that 78.5% of the total building materials by cost will be manufactured locally within a distance of 400 km. The list of local material includes, Cement, steel, flyash bricks, AAC block, sand, aggregate and concrete / RMC. Submittal includes tentative master material sheet, manufacturer's names and the distance of manufacturing from the project site.</p> <p>3. Wood based materials The project team claims that 72% of the total wood based materials by cost will be FSC certified. Typical application of wood based materials are flush door and door frames.</p> <p>Manufacturer's cutsheets / certificates have been provided for cement, glass and wood. However, additional clarification is required to meet the credit requirements.</p>
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Technical advice:

1. It is observed that, the recycled content for aluminium frame and flyash brick is higher than conventional. Please submit a sample technical data sheet to show aluminium and flyash bricks recycled content.
2. Discrepancy is observed in the recycled content % and local materials considered in the calculations and as mentioned in the proposed manufacturer table. Submit revised submittals maintaining consistency.
3. Clarify if all wood based materials considered under IEQ credit 5 is considered for calculations under this credit (Eg: plywood)

Final Review:

The project team has submitted a narrative and calculation stating the following:

1. Materials with recycled content:

Materials having 23.07% recycled content of the total cost of building materials will include, steel, cement, flyash bricks, glass and concrete.

2. Local materials:

The revised regional materials include, steel, cement, flyash bricks, sand, stone/ aggregate, and concrete to achieve 84% of the total building material cost.

3. Wood based materials

The project team claims that 84% of the total wood based materials by cost will be FSC certified for flush door and door frames.

However, discrepancies have been observed in the submittal. The materials and their recycled content percentage considered in narrative, calculation and manufacturer's cut-sheet are not consistent. Further, the recycled content percentage for concrete which is an assembled material is not substantiated through calculation. Assuming only steel (30%), cement (30%), flyash bricks (40%), and glass (18%) as the materials with recycled content, it is observed that the cost of materials with recycled content value will reduce, however, it does not affect credit compliance here but should be noted for future projects.

This meets the credit requirements for precertification.

2	BMR Credit 2	Organic Waste Management, Post Occupancy	<p>2 Preliminary Review: The project team has provided a narrative stating that a 200 kg capacity Organic Waste Converter (OWC) would be installed at site to treat the estimated 204 kg of waste generated (98.1%) by 2039 full time equivalent occupants. The treated waste is compact and does not require curing. The central waste collection room has self closing door with an exhaust system. The submittal includes technical datasheet for OWC.</p> <p>However, more details are required to meet the intent of this credit.</p> <p>Technical advice: Please provide the following:</p> <ol style="list-style-type: none"> 1. Conceptual site plan highlighting the location of on-site organic waste treatment system proposed in the project. 2. Full time equivalent calculation 3. Technical datasheet for OWC highlights selection of 50 kgs capacity system as against 200 kgs OWC stated in the narrative. Please clarify. 4. Tentative details of exhaust system such as negative pressure maintained/ air changes/ exhaust rate <p>Final Review: The project team has submitted a site plan highlighting the location of the OWC onsite. Since the OWC is in the open, exhaust system is not needed. The project team has also submitted a full time equivalent calculation. However, this is still a discrepancy in the selection of OWC. The manufacturer's cutsheets shows selection of 50Kg capacity OWC, whereas narrative states selection of 200kg system.</p> <p>However, assuming the project will be using 200kg capacity OWC, this credit is awarded for pre-certification.</p>
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1	BMR Credit 3	Handling of Waste Materials, During Construction	<p>1 Preliminary Review: The project team has submitted a narrative which states that 82.7% of construction waste materials, during construction, will be diverted from entering the landfills. The list of construction waste materials include Steel, aluminium, concrete/RMC, glass, empty cement bags, wood, gypsum, broken tiles, broken bricks, empty cans, packaging materials, and other miscellaneous waste. The submittal includes tentative calculation and a site logistics plan.</p> <p>However, more details are required to meet the intent of this credit.</p> <p>Technical Advice: Please provide / clarify the following:</p> <ol style="list-style-type: none"> 1. Add packaging waste to the tentative calculations. 2. Cement bag waste quantity appears to be high in comparison to other waste materials. Please justify. 3. Site logistics plan appears to belong to another project. Please provide site logistics plan for the Virtual plot boundary of the registered project. <p>Final Review: The project team has provided a revised narrative and calculation which states that 81.2% of construction waste materials, during construction, will be diverted from entering the landfills. The submittal also includes a site logistic plan for the MBA block.</p> <p>This meets the credit requirement.</p>
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5	BMR Credit 4	Use of Certified Green Building Materials, Products & Equipment	5	Preliminary Review: The project team has submitted a narrative which states that the project will use more than 5 passive or active green building materials, products, and equipment that are certified by IGBC under Green Product Certification Programme or by a third-party agency approved by IGBC. The list of materials/ products/ equipment include high SRI paint, cement, paints & primer, HVAC duct adhesive, and tile adhesive. Submittal includes technical datasheets and Green Pro certificates for the materials. This meets the intent of the credit.
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8	1	Indoor Environmental Quality	Possible Points:	12
Y		IEQ MR 1	Minimum Fresh Air Ventilation	<p>R</p> <p>Preliminary Review: The project team has submitted a narrative stating that, VRF system with DX type treated fresh air units will be provided for all regularly occupied spaces. The submittal includes HVAC layout plans.</p> <p>However, more details are required to meet the credit requirement.</p> <p>Technical Advice: Please provide the following:</p> <ol style="list-style-type: none"> 1. It is observed that, individual occupancy spaces do not have provision of fresh air. Please clarify how the project intends to demonstrate fresh air compliance to all regularly occupied spaces in the project. 2. Tentative calculations indicating fresh air intake volumes in all regularly occupied spaces, for each zone, as per Ventilation Rate Procedure prescribed in ASHRAE Standard 62.1 - 2010. 3. It is observed that the HVAC layout does not indicate the quantity of fresh air cfm supplied, please submit conceptual Floor-wise HVAC layout indicating the ducting to each space along with quantity of fresh air CFM to be supplied 4. Manufacturer's datasheet of the proposed fresh air system <p>Final Review: The project team has provided the following clarifications:</p> <ol style="list-style-type: none"> 1. The narrative states that, 2 TFAs per floor will be provided to demonstrate fresh air compliance to all regularly occupied spaces in the project. 2. Tentative calculations indicating fresh air intake volumes in all regularly occupied spaces, for each zone, as per Ventilation Rate Procedure prescribed in ASHRAE Standard 62.1 - 2010 have been provided. 3. The submitted HVAC floor layouts indicate the location of TFAs and quantity of fresh air cfm supplied. The project team will submit the detailed HVAC layout indicating the ducting to each space during certification. Please note that, the fresh air intake location should meet ASHRAE 62.1 - 2010 requirement. 4. Manufacturer's datasheet of the proposed fresh air system has been provided. <p>This meets the mandatory requirement.</p>

Y	IEQ MR 2	Tobacco Smoke Control	R	<p>Preliminary Review: The submitted narrative and declaration from owner indicates that the project has declared the entire project campus. Site plan indicating location of No Smoking Signage has been provided. It appears that a site plan of another project has been provided. However, this mandatory requirement is awarded based on the declaration provided by the owner.</p> <p><i>Note: During certification, provide site plan / floor plans and photographs showing the No smoking signage in exterior areas and interior common areas.</i></p>
Not Attempted	IEQ Credit 1	CO₂ Monitoring	1	<p>Preliminary Review: Project team has not attempted this Credit.</p>
Not Attempted	IEQ Credit 2	Daylighting	2	<p>Preliminary Review: Project team has not attempted this Credit.</p>

1	IEQ Credit 3	Outdoor Views	<p>1 Preliminary Review: The project team has submitted a narrative and calculation stating that, direct line of sight to vision glazing between 0.9 meters (3 feet) and 2.1 meters (7 feet) above the finished floor level, for building occupants is achieved in 100% of all regularly occupied spaces.</p> <p>However, more details are required to meet the intent of this credit.</p> <p>Technical Advice: Please provide the following:</p> <ol style="list-style-type: none">1. Conceptual furniture layouts of all the floors highlighting the areas with outdoor views2. Sectional drawings indicating the direct line of sight to vision glazing, for each typical floor.3. Room wise calculation for outdoor views. <p>Final Review: The project team has provided floor plans highlighting the regularly occupied spaces, building cross sections and calculation identifying rooms with outdoor views. The calculation indicated that 96.6% of the regularly occupied spaces have uninterrupted outdoor view. However, it is observed that, not all rooms considered with 100% outdoor view may have uninterrupted view. Line of sight has not been considered in both plans and sections while calculation outdoor view. This does not affect credit compliance here but the project is unlikely to meet the exemplary performance criteria of 95% outdoor views.</p> <p>Hence, this credit is awarded for precertification.</p>
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1	IEQ Credit 4	Minimise Indoor and Outdoor Pollutants	<p>1 Preliminary Review: The project team has submitted a narrative stating that, permanent entryway systems of minimum 6 feet length in the primary direction of movement at all building main entrances and MERV 13 filtration media in all fresh air fan units will be provided. All the filtration media will be replaced after building flush out. The submittal includes manufacturer's cutsheets for entryway mats and MERV 13 filtration media.</p> <p>However, more details are required to meet the intent of this credit.</p> <p>Technical Advice: Please provide a floor plan highlighting proposed location of entryway mats.</p> <p>Final Review: The project team has provided a floor plan highlighting proposed locations of entryway mats. This meets the credit requirement.</p>
3	IEQ Credit 5	Low-emitting Materials	<p>3 Preliminary Review: The project team has submitted a narrative stating that, paints & coatings, adhesives & sealants and composite wood used in the project will have low VOC emissions and will be free from added urea-formaldehyde resins to reduce adverse health impacts on building occupants. Submittal includes declaration letter from the owner, manufacturing datasheets of paints, primer, duct adhesive, multipurpose adhesive and sealant, weatherproofing sealant, silicon sealant, tile adhesive and composite wood.</p> <p>This meets the intent of this credit.</p>

	1	IEQ Credit 6	Occupant Well-being Facilities	<p>1 Preliminary Review: Project team has not attempted this Credit.</p> <p>Final Review: The project team has submitted a narrative and calculation stating that, occupant well-being facilities have been provided at campus level which can cater to 12% of the building occupants. This facilities include 2 playgrounds, 2 basketball courts, 2 tennis courts and sports arena for indoor sports and gymnasium. The submittal also includes campus plan highlighting location of the facilities along with photographs. As the well-being facilities are provided at campus level, the credit compliance should be demonstrated at campus level. From the submittals it is unclear as to how the well-being facilities can cater to 3500 occupants (23% of campus occupants)</p> <p>Hence the credit is denied.</p>
2		IEQ Credit 7	Indoor Air Quality Testing, After Construction and Before Occupancy	<p>2 Preliminary Review: Project team has not attempted this Credit.</p> <p>Final Review: The project team has submitted a narrative and declaration from the owner stating that, after construction and prior to occupancy, a baseline IAQ testing will be carried out to limit the maximum concentration levels of contaminants as per ISO method, in all regularly occupied and common areas.</p> <p>This meets the credit requirements for precertification.</p>

1	IEQ Credit 8	Indoor Air Quality Management, During Construction	1 Preliminary Review: The project team has submitted a declaration from the developer stating that, the project has developed and will implemented an Indoor Air Quality (IAQ) management plan during construction and pre-occupancy phase, adhering to the SMACNA guidelines. The Construction IAQ Management plan addresses measures such as HVAC and Electrical equipment Protection, Source control, Pathway interruption, Housekeeping and Scheduling. Supporting document includes sample photographs for the proposed measures and a site IAQ checklist . This meets the requirement of the credit, for Precertification. <i>Note: For certification, please submit at least 15 to 18 photographs taken at various stages showing the IAQ measures implemented during construction and before occupancy .</i>
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6	1	Innovation and Development Possible Points:		7
1		ID Credit 1.1	Innovation in Design Process, Local Materials	<p>1 Preliminary Review: The project team has applied for this innovation point by demonstrating exemplary performance under BMR Cr1: Local Materials by procuring 78.5% of the total building materials by cost from materials manufactured locally within a distance of 400 km.</p> <p>Technical Advice: Please provide clarification sought under BMR Credit 1.</p> <p>Final Review: This meets the credit requirements under exemplary performance.</p>
1		ID Credit 1.2	Innovation in Design Process, Water Efficient Plumbing Fixtures	<p>1 Preliminary Review: The project team has applied for this innovation point by demonstrating exemplary performance under WE Cr4 - Water Efficient Plumbing Fixtures by showing 31.53% reduction in potable water usage.</p> <p>Technical Advice: Please provide clarification sought under WC Credit 4.</p> <p>Final Review: The project team has applied for this innovation point by demonstrating exemplary performance under WE Cr4 - Water Efficient Plumbing Fixtures by showing 31.17% reduction in potable water usage.</p> <p>This meets the credit requirement.</p>

1	ID Credit 1.3	Innovation in Design Process, On-site Renewable Energy	1 Preliminary Review: The project team has applied for this innovation point by demonstrating exemplary performance under IEQ Cr 3.0: Outdoor Views. The project meets the exemplary performance threshold for more than 95% of the regularly occupied spaces achieve direct line of sight to vision glazing. Technical Advice: Please provide clarification sought under IEQ Credit 3. Final Review: Since the IEQ Cr 3.0: Outdoor Views credit has been denied under exemplary performance, this innovation credit for exemplary performance cannot be attempted. However, it has been observed that, under EE CR 3.0 the solar power generation is 13.6% of the total annual energy consumption. Hence, this innovation credit can be awarded against exemplary performance for EE CR 3.0.
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1	ID Credit 1.4	Innovation in Design Process, Green Housekeeping chemicals	<p>1</p> <p>Preliminary Review: The project team has applied for this innovation point by proposing use of Green Chemicals post occupancy. This includes Eco-friendly housekeeping practices, using bio-degradable chemicals, housekeeping activities which address health, hygiene and well-being of maintenance staff and building occupants. The submittal includes certified manufacturer's datasheets for multi-purpose cleaner, bathroom cleaner, and glass cleaner. The submittal further includes, tenant guidelines.</p> <p>However, more details are required to meet the credit requirement.</p> <p>Technical Advice:</p> <ol style="list-style-type: none"> 1. Please provide a Operation and Maintenance plan for using green housekeeping chemicals and ensuring environmentally responsible practices. 2. Declaration letter from owner confirming the use of green house keeping chemicals for the project. 3. Details of exhaust system & exhaust rates of the housekeeping chemicals storage room <p>Final Review: The project team provided an Operation and Maintenance plan, Declaration letter from owner confirming the use of green house keeping chemicals, manufacturer's cut sheet for exhaust system and floor plans highlighting location of housekeeping chemicals storage room.</p> <p>This meets the credit requirement.</p>
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	1 ID Credit 2	Optimisation in Structural Design	1 Preliminary Review: The project team has submitted a narrative stating that, the project has a comprehensive structural design philosophy to conserve steel and cement, as compared to national and international practices, for the building type being designed, while maintaining structural integrity and saving cement by 25% and steel by 65%. The list of materials proposed include, high grade concrete, PPC cement, flyash bricks, and PT slab. However, additional details are required. Technical Advice: Please submit draft structural design analysis report approved by a third party design consultant, indicating the reduction in steel and cement consumption. Final Review: The project team has withdrawn this credit.
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1	ID Credit 3	Waste Water Reuse, During Construction	<p>1 Preliminary Review: Project team has not attempted this Credit.</p> <p>Final Review: The project team has submitted a narrative and declaration from the owner stating that, treated waste water from the campus STP will be used during construction along with admixtures to reduce use of water. The submittal includes, manufacturer's datasheet for concrete admixture indicating 25% reduction in water.</p> <p>This credit is awarded for precertification.</p>
1	ID Credit 4	IGBC Accredited Professional	<p>1 Preliminary Review: The project team has submitted a narrative stating that IGBC Accredited Professional, is involved in the project as principal participant. Submittal includes a copy of IGBC AP certificate of Mr. Prateek Srivastava.</p> <p>This meets the credit requirement.</p>