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01st February 2024

Xavier Livy
Principal Urban Planner
City of Melbourne

Dear Xavier Livy,

**PA2302457 - 437 St Kilda Road, Melbourne - TPM-2023-14 - Planning, City
Design, Traffic, Land Survey and Waste Advice ESD Response**

Post the submission of the Sustainable Management Plan (SMP) version 01 dated 10th August 2023, comments from the Principal Urban Planner were issued on 27th November 2023.

This letter was produced by the IGS ESD team to respond to the Responsible Authority's comments, and the table attached in the next pages details the ESD responses.

Yours sincerely,

A handwritten signature in black ink, appearing to be 'Li Huan', is written over a horizontal line.

Li Huan
ESD Leader
Integrated Group Services

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Environmentally Sustainable Design	
ESD Advice	Actions / Amendments
General	
The development commits to a level of sustainability that meets the objectives of Clause 15.01-2L-01 Energy and resource efficiency and Clause 19.03-3L Stormwater management (water sensitive urban design) of the Melbourne Planning Scheme.	Noted and the SMP and SWMP were produced stating how the sustainability commitment will be implemented in the design of the development.
Certification commitments – 5 Star Green Star Buildings 40/100 points	
Provide evidence that the project is registered with the Green Building Council of Australia including a date of registration, the applicable version of the Buildings tool and a project registration number. The project is not currently shown on the Green Star Buildings Directory.	The project has applied for registration with the GBCA under the Green Star Buildings v1 rating and has been assigned the project number GS-11652B.
Responsible – 11/17 points	
01 Green Star Accredited Professional – Provide details of the Green Star Accredited Professional (individual) who has been engaged and has registered the project with the GBCA.	Li Huan (GSAP) has been engaged to provide ESD and Green Star advice for the project.
02 Responsible Construction – The project is committing to 90% of construction and demolition waste is diverted from landfill.	Noted and this requirement will be addressed in the architectural, services and ESD specifications
03 Verification and Handover – Schematic design stage should provide a review of the proposed design including an air barrier schematic, and to detail a proposed air tightness target.	During the schematic design stage a review of the proposed design including an air barrier schematic will be provided detailing the proposed air tightness targets.

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<p>04 Operational Waste Management – Credit is dependent upon review and approval from the waste team. The submitted Waste Management Plan should be updated to demonstrate compliance with this credit in addition to CoM Waste Management Guidelines.</p>	<p>The updated Waste Management Plan will demonstrate credit compliance in addition to compliance with CoM Waste Management Guidelines.</p>
<p>Healthy – 8/14 points</p>	
<p>11 Light Quality – Daylight modelling has been provided and is located in Appendix B. The report has assessed several floor plates and demonstrates that at least 60% of combined living and bedroom areas receive high levels of daylight. Elevations must ensure that glazing is marked with Visual Light Transmittance (VLT) of at least 50%.</p>	<p>The minimum Visual Light Transmittance (VLT) of at least 50% will be included within the Material Board / Schedule.</p>
<p>Resilient – 2/8 points</p>	
<p>16 Climate Change Resilience – Provide the pre-screening checklist and evidence that these risks have been communicated to the applicant.</p>	<p>The pre-screening checklist will be completed, and the evidence will be presented that the identified risks have been clearly communicated with the applicant at design development stage.</p>
<p>19 Heat Resilience – Provide evidence via a site plan and area schedule which itemises and calculates at least 75% of the whole site area comprises of one or a combination of strategies that reduce the heat island effect.</p>	<p>Heat resilience strategy shall be confirmed during design detail in conjunction with architect and landscape architect.</p>
<p>Positive – 14/30 points</p>	
<p>21 Upfront Carbon Emissions – Provide evidence via preliminary modelling that the building's upfront carbon emissions are at least 20% less than those of a reference building and that demolition works are offset. Evidence via the Upfront Carbon Emissions calculator should be provided.</p>	<p>Preliminary modelling will be carried out to demonstrate that the development's upfront carbon emissions will be reduced by at least 20% and the Upfront Carbon Emissions calculator will be provided as evidence at design development stage.</p>
<p>22 Energy Use – Provide energy modelling that demonstrates the development can achieve a 20% improvement against a reference building for non-residential spaces. For residential targeting a 7.5 star NatHERS average is supported however the preference would be to see no apartment with less than 6.5 star</p>	<p>An energy modelling exercise will be carried out for the non-residential spaces to demonstrate 20% improvement against the reference case. An updated modelling has been carried out to identify the action to raise the Level 17 apartment NatHERS rating to above 6.5 stars.</p>

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<p>NatHERS. This would require attention for the apartment on level 17 but should be achievable. All other sample ratings are well above 6.5 stars.</p> <p>The textured masonry cladding should be revised to work harder and better protect north facing glazing especially to habitable spaces. 450w protection should increase to approx. 1m to provide adequate protection to exposed glazing.</p> <p>The building is proposing a minimum 20kW solar PV array and the panels are shown on the planning drawings. An additional note should be provided on the drawings indicating the total system size and panel wattage.</p>	<p>The facade, with a depth of 450 millimeters, offers a 71% shading effect to north-facing elevations in the summer months, while concurrently permitting the entry of natural light during the winter season. Refer to Section 5.15 of the Bates Smart town planning report for Building Façade and Shading Analysis.</p> <p>Roof plan PV details to be updated to note Min. 20kW-e, approx. 22,000kWh/annum.</p>
<p>23 – Energy Source: Provide a Zero Carbon Action Plan for the building indicating how and when the project intends to operate as fossil fuel free, indicating 100% of the buildings electricity will come from renewable sources and 100% of the buildings energy comes from renewables.</p>	<p>A Zero Carbon Action Plan will be provided indicating how and when the project intends to operate as fossil fuel free, indicating 100% of the building’s electricity will come from renewable sources and 100% of the buildings energy comes from renewables at design development stage.</p>
<p>25 – Water Use – The development has nominated the prescriptive pathway however it is strongly encouraged to consider modelling to demonstrate at least 15% less potable water use in comparison to a reference building which aligns to the Green Star Buildings scorecard. The SMP is indicating the performance is somewhere between 20-30% which is misleading, provide evidence via the potable water calculator.</p>	<p>IGS ESD Team will undertake Green Star potable water modelling to demonstrate compliance and will target a minimum 15% reduction in potable water consumption in line with the Green Star Buildings scorecard.</p>

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Places – 3/8 points	
<p>27 Movement and Place – The SMP is committing to 80 bicycle parking spaces for residents and 5 visitor parking spaces, these numbers are reflected on the town planning drawings.</p> <p>Electric vehicle charging spaces are not currently indicated on the town planning drawings. The SMP has indicated that this will be approximately 5% which is approximately 10 spaces. The over allocation of car parking for private fossil fuel powered vehicles is a concern where that rates are in excess of 1 space per apartment. It is not clear what strategy can be delivered that aligns to the credit achievement requirements without addressing this issue.</p> <p>A draft Sustainable Transport Plan should be provided.</p>	<p>Noted.</p> <p>Project team and Transport Engineer to review the over allocation of car parking for private fossil fuel powered vehicles and derive a strategy to address this to target credit achievement.</p> <p>A draft Sustainable Transport will be provided at design development stage.</p>
People – 0/9 points	
Nature – 2/14 points	
<p>36 Biodiversity Enhancement – As the development is using the City of Melbourne Green Factor tool and has submitted a score of 0.61. A Technical Question can be lodged with the Green Building Council of Australia requesting an Exceptional Performance outcome (4 points) as a Green Factor score of 0.61 would be in excess of 30% of the site area would be made up of landscape areas.</p> <p>Green Factor Tool assessment – Provide additional information with the landscape package which delineates the areas and numbers of trees/plants that have been entered into the tool to verify the scoring.</p> <p>Landscape Review –</p> <p>The landscape concept comments:</p> <p>- The project should consider climate ready and biodiverse plant species for landscaping elements. The Burnley green rooftop planting guide and Biodiversity green roof planting guide have comprehensive species lists suitable for the evolving Melbourne climate.</p>	<p>Noted.</p> <p>A technical question will be lodged with the Green Building Council of Australia requesting an Exceptional Performance outcome (4 points) as a Green Factor score of 0.61 would be in excess of 30% of the site area would be made up of landscape areas.</p> <p>The updated landscape package will provide information which delineates the areas and numbers of trees/plants that have been entered into the tool to verify the scoring such as the Planting legends, planting schedules, deep soil maps & calculations, summary statistics etc.</p> <p>Landscaping Architect or Project Architect to review the Burnley green rooftop planting guide and Biodiversity green roof planting guide to identify suitable species for the development and consider climate ready and biodiverse plant species for landscaping elements. Additional clarification has now been made in annotations for Level 08 regarding diversity and suitability of plant selection. Further review of species may take place during DD.</p>

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<p>39 Waterway Protection – The SMP indicates that the application will pursue the credit achievement standard which requires both flow and water quality targets are met. There is a commitment to reduce average annual stormwater discharge (ML/yr) of 40% across the site however no evidence is provided. Additionally water quality targets must also be met that exceed standards set in Clause 19.03-3L. Provide adequate MUSIC modelling that demonstrates the proposed design addresses these targets.</p>	<p>MUSIC modelling will be carried out to demonstrate a commitment to reduce average annual stormwater discharge (ML/yr) of 40% across the site. The MUSIC modelling will also demonstrate pollutant reduction targets met that exceed standards set in Clause 19.03-3L.</p>
<p>Leadership – 1/10</p>	
<p>Conditions on any permit issued</p>	
<p><u>Amended SMP Report</u></p> <p>Before development commences, an amended Sustainable Management Plan (SMP) report to the satisfaction of the Responsible Authority and prepared by a suitable qualified person must be submitted to and approved by the Responsible Authority. When approved, the amended SMP report will be endorsed and form party of this permit. The amended SMP report must be generally in accordance with the SMP report prepared by IGS, Rev A, 10 August 2023, but modified to include or show:</p>	<p>Prior to development commencement, an amended Sustainable Management Plan will be provided generally in line with the SMP report prepared by IGS, Rev A, 10 August 2023 but modified to address the planning conditions to the satisfaction of the Responsible Authority and prepared by a suitable qualified person.</p>
<p>(a) Evidence to the satisfaction of the responsible authority, that demonstrates the project has been registered to seek a minimum 5 Star Green Star Buildings V1 rating (or equivalent) with the Green Building Council of Australia.</p>	<p>The project has applied for Green Star registration with the GBCA for a 5 Star Green Star Buildings v1 rating. Post approval, evidence will be provided to the satisfaction of the responsible authority.</p>
<p>(b) Provide Visual Light Transmittance of a minimum 50% for all glazing on elevations</p>	<p>The updated Elevations drawings will annotate the glazing to be marked with Visual Light Transmittance (VLT) of at least 50%.</p>
<p>(c) Provide the pre-screening checklist and evidence that these risks have been communicated to the applicant</p>	<p>The pre-screening checklist will be completed, and the evidence will be presented that the identified risks have been clearly communicated with the applicant</p>

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<p>(d) Provide a plan that demonstrates a response to urban heat island impacts is met by at least 75% of the site is specified with compliant materials.</p>	<p>Evidence will be presented via a site plan and area schedule which itemises and calculates at least 75% of the whole site area comprises of one or a combination of strategies that reduce the heat island effect.</p>
<p>(e) Evidence that the development can achieve a 20% improvement compared to a reference building for up front carbon emissions. Modelling or calculations via the Upfront Emissions Calculator need to be provided.</p>	<p>Preliminary modelling will be carried out to demonstrate that the development's upfront carbon emissions will be reduced by at least 20% and the Upfront Carbon Emissions calculator will be provided as evidence.</p>
<p>(f) Provide preliminary modelling that demonstrates all non-residential spaces can achieve a 20% improvement compared to a reference building.</p>	<p>An energy modelling exercise will be carried out for the non-residential spaces to demonstrate 20% improvement against the reference case at design development stage.</p>
<p>(g) Provide a draft Zero Carbon Action Plan that details how the development will address energy consumption, procurement and generation.</p>	<p>A Zero Carbon Action Plan will be provided indicating how and when the project intends to operate as fossil fuel free, indicating 100% of the building's electricity will come from renewable sources and 100% of the buildings energy comes from renewables at design development stage.</p>
<p>(h) Provide water efficiency modelling that demonstrates the development can achieve a 15% improvement compared to a reference building.</p>	<p>Water efficiency modelling will be carried out to demonstrate at least 15% reduction in potable water consumption compared to a reference building.</p>
<p>(i) Provide a preliminary Sustainable Transport Plan including Movement and Place calculator to demonstrate a credit achievement standard is met.</p>	<p>A preliminary Sustainable Transport Place inclusive of Movement and Place calculator will be provided to demonstrate a credit achievement standard is met.</p>

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<p>(j) Provide a response to the Biodiversity Enhancement credit demonstrating the development can achieve greening to 30% of site area using the Green Factor tool as evidence.</p>	<p>A technical question will be lodged with the Green Building Council of Australia requesting an Exceptional Performance outcome (4 points) as a Green Factor score of 0.61 would be in excess of 30% of the site area would be made up of landscape areas.</p> <p>The updated landscape package will provide additional information which delineates the areas and numbers of trees/plants that have been entered into the tool to verify the scoring.</p>
<p>(k) Provide MUSIC modelling that meets credit achievement standards for waterway protection.</p>	<p>A MUSIC modelling report was provided on 22nd September 2023 demonstrating the credit achievement standards has been met for waterway protection.</p>
<p>Implementation of Sustainable Management Plan Report</p>	
<p>Prior to the occupation of any building approved under this permit, a report from the author of the endorsed SMP report, or similarly qualified persons or companies, outlining how the performance outcomes specified in the amended SMP have been implemented must be submitted to the Responsible Authority. The report must be to the satisfaction of the Responsible Authority and must confirm and provide sufficient evidence that all measures specified in the approved SMP have been implemented in accordance with the relevant approved plans.</p> <p>Within 24 months of occupation of the building, certification must be submitted to the satisfaction of the responsible authority, that demonstrates that the building has achieved a minimum 5 Star Green Star Buildings V1 rating (or equivalent).</p> <p>Landscape Conditions:</p> <p>Prior to commencement of development, a complete Landscape Package and Landscape Maintenance Plan in connection with the proposed development must be submitted to and be approved by the Responsible Authority. The landscape package should include detailed planter sections including soil volumes and a diverse schedule of species including indicative planting locations with specific consideration given to tree</p>	<p>Prior to the occupation of any building approved under this permit, a report from the author of the endorsed SMP report, or similarly qualified persons or companies, outlining how the performance outcomes specified in the amended SMP have been implemented will be submitted to the Responsible Authority. The report will be to the satisfaction of the Responsible Authority and will confirm and provide sufficient evidence that all measures specified in the approved SMP have been implemented in accordance with the relevant approved plans.</p> <p>Within 24 months of occupation of the building, certification will be submitted to the satisfaction of the responsible authority, that demonstrates that the building has achieved a minimum 5 Star Green Star Buildings V1 rating (or equivalent).</p> <p>Prior to commencement of development, a complete Landscape Package and Landscape Maintenance Plan in connection with the proposed development will be submitted to and be approved by the Responsible Authority. The landscape package will include detailed planter sections including soil volumes and a diverse schedule of species including indicative planting locations with specific consideration given to tree species/placement and soil volume requirements and light weight growing medium specified.</p> <p>The Landscape Maintenance Plan will provide comprehensive details of proposed maintenance regimes with provision for maintenance beyond the fifty</p>

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<p>species/placement and soil volume requirements and light weight growing medium specified.</p> <p>The Landscape Maintenance Plan should provide comprehensive details of proposed maintenance regimes with provision for maintenance beyond the fifty two week period following Practical Completion. Except with the prior written consent of the Responsible Authority the approved landscaping must be implemented prior to the occupation of the development. The landscaped area(s) must be maintained to the satisfaction of the Responsible Authority.</p>	<p>two week period following Practical Completion. Except with the prior written consent of the Responsible Authority the approved landscaping will be implemented prior to the occupation of the development. The landscaped area(s) will be maintained to the satisfaction of the Responsible Authority.</p>
<p><u>When setting the conditions we are looking for the below in the response:</u></p> <p>Green infrastructure Landscape Plans for all relevant floors detailing:</p> <ul style="list-style-type: none"> a) Planting schedule of proposed vegetation, including common and scientific names, height/width specs, amounts, pot size and location of plants. b) Green infrastructure details such as: <ul style="list-style-type: none"> i. Annotated construction details including dimensions, sectional diagrams of all planters, and GI structures. ii. vegetation support structures iii. indicative vegetation location iv. all hard landscaping materials v. growing media specifications vi. waterproofing vii. drainage viii. tree anchors for all GI trees. ix. irrigation systems demonstrating use of non-potable water sources (rainwater, storm water and recycled water). c) City of Melbourne Green Factor Scorecard (PDF and GFT files) 	<p>Green infrastructure Landscape Plans will include all relevant floors detailing:</p> <ul style="list-style-type: none"> a) Planting schedule of proposed vegetation, including common and scientific names, height/width specs, amounts, pot size and location of plants. b) Green infrastructure details such as: <ul style="list-style-type: none"> x. Annotated construction details including dimensions, sectional diagrams of all planters, and GI structures. xi. vegetation support structures xii. indicative vegetation location xiii. all hard landscaping materials xiv. growing media specifications xv. waterproofing xvi. drainage xvii. tree anchors for all GI trees. xviii. irrigation systems demonstrating use of non-potable water sources (rainwater, storm water and recycled water). c) City of Melbourne Green Factor Scorecard (PDF and GFT files)

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<p>Green Infrastructure Landscape Maintenance Plan detailing:</p> <ul style="list-style-type: none"> a. A statement to describe how the canopy and vegetation will be successfully maintained in the future. b. Maintenance tasks for establishment period c. Ongoing maintenance schedule for after the initial 52-week period detailing weed, pest management, succession planting, re-mulching, plant nutrition and hygiene. 	<p>Green Infrastructure Landscape Maintenance Plan will include details such as:</p> <ul style="list-style-type: none"> a. A statement to describe how the canopy and vegetation will be successfully maintained in the future. b. Maintenance tasks for establishment period <p>Ongoing maintenance schedule for after the initial 52-week period detailing weed, pest management, succession planting, re-mulching, plant nutrition and hygiene.</p>
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