

Technical Clarifications

Green Star Design & As Built NZ v1.0



Released July 2022

Technical Clarifications for Green Star Design and As Built NZ, which represent NZGBC's answers to submitted Technical Questions, are published in this document to provide further guidance and reference to other projects. This list will be updated quarterly on the NZGBC Green Star Resources webpage.

There are two types of Technical Clarifications listed in this document. Please make sure you fully understand the difference between **General Clarifications** and **Project Specific Clarifications** before applying any clarification to your project.

General Clarifications are extensions to the guidance provided in the Submission Guidelines. They clarify and sometimes supersede the original Credit Criteria or Compliance Requirements. They set precedent for future project teams to follow. Should a project team wish to apply a general clarification to its project, there is no requirement for further Technical Questions to be submitted to NZGBC. NZGBC Assessors will also use them as precedents to assess submissions.

Project Specific Clarifications are published as references for other projects but, not like General Clarifications, they do not set precedent. They often relate to special situations where multiple prerequisites exist for a particular project and less likely to reoccur to another project. Therefore, rulings set for Project Specific Clarifications are often conditional and will likely vary for other projects. Each project still needs to submit its own Technical Questions and provides evidence relating to its own building in order to have a similar ruling approved for this specific building.

Note: A separate list of Technical Clarifications for Legacy rating tools is provided on this [webpage](#). Some of them may be applicable for projects registered under Green Star Design and As Built NZ. Should you wish to apply any Technical Clarification for legacy rating tools to your projects, please submit a Technical Question to the NZGBC to explain WHY and HOW it applies.

Please ensure you have downloaded the latest version of Technical Clarification list from the website at www.nzgbc.org.nz

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Clarification type	Tool Version	Month Released	Sub-Credit No.	Sub-Credit Name.	Amendment/Approved Ruling
General					
General	V1.0	06/22	General	N/A	For the Nominated Area, toilets and end-of-trip facilities should be defined as Tertiary spaces.
General	V1.0	06/21	Green Star Industrial Guidance	N/A	<p>In order to adopt any guidance/ pathway set up in the Green Star Industrial Guidance released by Green Building Council Australia, projects registered with the Design and As Built tool will need to seek approval from NZGBC via a Technical Question given the differences between the Australian tool and the New Zealand tool.</p> <p>It is accepted to approve a list of pathways and/or guidance in one Technical Question.</p> <p>Note that guidance provided for the Greenhouse Gas Emissions and Materials credits in this document do not apply to New Zealand projects in any case.</p>
General	V1.0	06/19	General	N/A	Green Building Summary Sheets from EnviroSpec can be used in place of product data sheets, product certificates and manufacturer statements as valid supporting evidence to demonstrate compliance for products and materials.
General	V1.0	10/19	General	N/A	All supported documentation listed for each credit in the Submission Guidelines are suggestions only, unless specified otherwise. Alternate documentation to those listed can be used by project teams to demonstrate credit compliance if it adequately supports the claims made within the Submission Templates.
General	V1.0	10/19	General	N/A	<p>'For Construction' drawings can be submitted in the As Built submission.</p> <p>The NZGBC requires evidence that the drawings supplied are as constructed, whether they have an 'As Built' stamp or not. 'For Construction' drawings are acceptable provided they are accompanied by formal confirmation from the head contractor or other relevant professional(s) that the 'For Construction' drawings depict the site as-built conditions.</p>
General	V1.0	9/20	General	N/A	<p>Green Star is seeing an increased uptake in the Industrial sector and we are providing additional tools to assist the continued uptake.</p> <p>Our ally in Australia, The Green Building Council Australia (GBCA), have recently issued the Green Star Industrial Guidance through intensive consultation with the industrial sector. This guide provides a set of pathways for Industrial facilities targeting a Green Star – Design & As Built rating, both speculative and tenanted projects. It aims to address key barriers such as shorter timeframes, standard procurement and the cost of certification and capital works. It also seeks to maximise opportunities such as the potential capacity for renewables and daylight, and provide clarity in areas of Green Star guidance that have been ambiguous for the sector.</p>

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					<p>We encourage you to read this guidance and use this to assist with your industrial projects. Given the differences between the Australian tool and the New Zealand tool, project teams are encouraged to contact the Green Star Technical team for further clarification at greenstarnz@nzgbc.org.nz.</p> <p>You can find the guidance document here Green Star Industrial Guidance.pdf</p> <p>And you can find the business case for using Green Star in your industrial buildings here through this link.</p>
General	V1.0	11/20	General	N/A	<p>Service risers should be entered into “Tertiary Spaces” part of the Area Definition form. Although these areas are non-habitable spaces, they should still be entered as a Tertiary Space, so they are captured under Credit 13 for Indoor Pollutants. This is because the requirement for Credit 13 is that all on site applications of paints, adhesives and sealants including both exposed and concealed applications are included in this credit.</p>
Project Specific	V1.0	11/20	General	N/A	<p>The NZGBC conditionally grants that the project can submit a model lease clause (unleased spaces) or signed lease agreement (leased spaces) and not provide a Tenancy Fitout Guide, however, as per the Design & As Built Fitout Scope Guidance, the document must provide a project-specific response and outline to the tenant how the base building has been designed to deliver necessary base building characteristics and functions to meet the intent of the credit, in compliance with Appendix A: Credit Criteria Guidance.</p> <p>The proposal to consider credit 10.1 as a Type C credit is granted. The project will deliver fan coil units beyond the riser however without ceilings installed, therefore compliance will be conditional on tenants installing finishes as required in the lease agreement.</p>
General	V1.0	11/20	General	N/A	<p>If a project has been awarded points under a Green Star NZ Design review rating, the project team may demonstrate Built compliance by confirming that the building has been constructed as per the information submitted and certified under the Design review rating in the place of full documentation.</p> <p>Should a project wish to do built-streamlining, a TQ needs to be submitted to the NZGBC in order to propose and confirm credits and points that are eligible for built streamlining. A signed statement confirming the project has been constructed with no significant changes that would affect compliance with the credit criteria.</p> <p>Note that where the submission guidelines recommend evidence to demonstrate that systems have been commissioned and installed as intended, a commissioning report (or similar) would be still be required as part of the Built submission or TQ.</p> <p>The purpose of the signed statements is NOT to remove the requirement for project teams to produce documentation, but rather to stop project teams having to spend additional time and resources on the collation of the as-built documentation into a Green Star submission.</p> <p>Note: should there be any changes in design or material that would impact the results of the original assessment, full built documentation must be provided. If the project team would like to target additional points which were not achieved at Design stage, full built documentation must be provided for the additional points. The NZGBC Assessors reserve the right to request built documentation where they deem the difference between Design and Built stage to be substantive.</p>
General	V1.0	11/20	General	N/A	<p>Should a project target a design review rating using the new Design and As Built tool, please review and follow the Guidance on Submitting for Design Review.</p> <p>Please note that while the Design Review process is a valuable tool to ensure the project is on track for achieving certification, it does not guarantee an As Built rating. The As Built submission assesses what has been completed and delivered on site, not the commitments.</p>

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					Built streamlining can be offered to projects that have been certified with design review ratings. But a list of eligible credits should be approved through a Technical Question submission to the NZGBC. Guidance for built streamlining is provided in a separate Technical Question ruling
General	V1.0	11/20	General	N/A	For projects in New Zealand that are eligible for Green Star – Design & As-Built and Interiors ratings, a comparison between the Australian NCC Building Classifications and the New Zealand Building Code Clause A1 Classified uses is summarised below to help on the determination of projects' eligibility.

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					<table border="1"> <thead> <tr> <th>NCC Building Class</th> <th>NZ Building Code Clause A1 Classified Uses</th> </tr> </thead> <tbody> <tr> <td> <ul style="list-style-type: none"> Class 1a: Detached or attached Residential Dwellings (e.g. terraced housing)* </td> <td> <ul style="list-style-type: none"> Housing – Detached dwellings & Multi-unit dwellings* </td> </tr> <tr> <td> <ul style="list-style-type: none"> Class 1b: Boarding house, hostel or guest house under 300m2 and < 12 residents* </td> <td> <ul style="list-style-type: none"> Communal Residential – Community Service* </td> </tr> <tr> <td> <ul style="list-style-type: none"> Class 2: Apartment buildings with sole occupancy units (SOU)* </td> <td> <ul style="list-style-type: none"> Housing – Multi-unit dwellings* </td> </tr> <tr> <td> <ul style="list-style-type: none"> Class 3: Residential buildings other than class 1 & 2 (e.g. larger boarding house, hostel, care-type facilities not classified as class 9)* </td> <td> <ul style="list-style-type: none"> Housing – Group dwelling Communal Residential – Community Service Community Care - Unrestrained* </td> </tr> <tr> <td> <ul style="list-style-type: none"> Class 4: A dwelling or residence within a building of a non-residential nature* </td> <td> <ul style="list-style-type: none"> Housing – Multi-unit dwellings* </td> </tr> <tr> <td> <ul style="list-style-type: none"> Class 5: Office </td> <td> <ul style="list-style-type: none"> Commercial </td> </tr> <tr> <td> <ul style="list-style-type: none"> Class 6: Retail and hospitality </td> <td> <ul style="list-style-type: none"> Commercial </td> </tr> <tr> <td> <ul style="list-style-type: none"> Class 7a: carparks </td> <td><i>Not applicable for green star</i></td> </tr> <tr> <td> <ul style="list-style-type: none"> Class 7b: Warehouses, storage buildings, wholesale distribution centres </td> <td> <ul style="list-style-type: none"> Industrial </td> </tr> <tr> <td> <ul style="list-style-type: none"> Class 8: Factories, industrial buildings, laboratories. </td> <td> <ul style="list-style-type: none"> Industrial </td> </tr> <tr> <td> <ul style="list-style-type: none"> Class 9a: Hospitals </td> <td> <ul style="list-style-type: none"> Community Care - Unrestrained </td> </tr> <tr> <td> <ul style="list-style-type: none"> Class 9b: Assembly buildings </td> <td> <ul style="list-style-type: none"> Communal non-residential - Assembly service & Assembly Care </td> </tr> <tr> <td> <ul style="list-style-type: none"> Class 9c: Aged care buildings* </td> <td> <ul style="list-style-type: none"> Community Care - Restrained* </td> </tr> </tbody> </table>	NCC Building Class	NZ Building Code Clause A1 Classified Uses	<ul style="list-style-type: none"> Class 1a: Detached or attached Residential Dwellings (e.g. terraced housing)* 	<ul style="list-style-type: none"> Housing – Detached dwellings & Multi-unit dwellings* 	<ul style="list-style-type: none"> Class 1b: Boarding house, hostel or guest house under 300m2 and < 12 residents* 	<ul style="list-style-type: none"> Communal Residential – Community Service* 	<ul style="list-style-type: none"> Class 2: Apartment buildings with sole occupancy units (SOU)* 	<ul style="list-style-type: none"> Housing – Multi-unit dwellings* 	<ul style="list-style-type: none"> Class 3: Residential buildings other than class 1 & 2 (e.g. larger boarding house, hostel, care-type facilities not classified as class 9)* 	<ul style="list-style-type: none"> Housing – Group dwelling Communal Residential – Community Service Community Care - Unrestrained* 	<ul style="list-style-type: none"> Class 4: A dwelling or residence within a building of a non-residential nature* 	<ul style="list-style-type: none"> Housing – Multi-unit dwellings* 	<ul style="list-style-type: none"> Class 5: Office 	<ul style="list-style-type: none"> Commercial 	<ul style="list-style-type: none"> Class 6: Retail and hospitality 	<ul style="list-style-type: none"> Commercial 	<ul style="list-style-type: none"> Class 7a: carparks 	<i>Not applicable for green star</i>	<ul style="list-style-type: none"> Class 7b: Warehouses, storage buildings, wholesale distribution centres 	<ul style="list-style-type: none"> Industrial 	<ul style="list-style-type: none"> Class 8: Factories, industrial buildings, laboratories. 	<ul style="list-style-type: none"> Industrial 	<ul style="list-style-type: none"> Class 9a: Hospitals 	<ul style="list-style-type: none"> Community Care - Unrestrained 	<ul style="list-style-type: none"> Class 9b: Assembly buildings 	<ul style="list-style-type: none"> Communal non-residential - Assembly service & Assembly Care 	<ul style="list-style-type: none"> Class 9c: Aged care buildings* 	<ul style="list-style-type: none"> Community Care - Restrained*
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General	V1.0	11/20	General	N/A	<p>The current definition for Eligible Project in the section of Glossary refers to the NCC (the Australian Building Code) usage classification. As a clarification for New Zealand projects, the definition is amended as below:</p> <p>“Eligible Project - Any New Zealand-based new build or major refurbishment project of any eligible typology (see above for NCC Building usage classifications and relevant New Zealand Building Code Clause A1 Classified Uses), with a minimum occupancy of 1FTE, and meeting all other eligibility criteria available on the NZGBC website, may target a Green Star NZ – Design & As-built Certified Rating using the Submission Guidelines and this Addendum Document as guidance.”</p>
General	V1.0	11/20	General	N/A	<p>For the following Indoor Environment Quality credits, compliance need only be demonstrated across 95% of the nominated area:</p> <p>Indoor Air Quality:</p> <ul style="list-style-type: none"> Provision of Outdoor Air <p>Acoustic Comfort:</p> <ul style="list-style-type: none"> Internal Noise Levels Reverberation <p>Lighting Comfort:</p> <ul style="list-style-type: none"> Minimum Lighting Comfort General Illuminance and Glare Reduction Surface Illuminance Localised Lighting Control <p>Visual Comfort:</p> <ul style="list-style-type: none"> Glare Reduction <p>Thermal Comfort:</p> <ul style="list-style-type: none"> Thermal Comfort Advanced Thermal Comfort <p>For residential buildings, please note that the 95% compliance criteria needs to be met for individual dwellings, not as an overall GFA of nominated area.</p> <p>Refer to the submission guidelines for which space types are considered nominated area in each credit.</p>
General	V1.0	12/20	General	N/A	<p>Here are some extra guidelines for a better Green Star documentation:</p> <ol style="list-style-type: none"> Even though credit templates seem to allow hyperlinks to be included, we encourage you to NOT use any hyperlinks in the submission as they sometimes break after the submission is shared between GSAPs, NZGBC, and Assessors and they may also incur issues on cybersecurity if they are linked to a cloud server. We encourage you to provide all the evidence in PDFs (except calculators) and each credit should stand on its own with the associated documents. Previous assessments have shown the disadvantage of cross-referencing documents in submissions.

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					3. Highlights and mark-ups are recommended as better ways to present documentation, which will eliminate chances to do further clarifications.
General	V1.0	12/20	General	N/A	What Do Best Practice Green Star Submissions Look Like is a document established by the GBCA to guide best practice submissions. We highly encourage you to read and follow the 7“C”s principles outlined in the document to guide your Green Star documentation.
General	V1.0	5/21	General	N/A	For project that applying the built phase rating, an expired product certification will be accepted provided it expired after the date the final design specification was issued. In this instance, the project team is required to provide a dated specifications/drawing (and evidence this was the final issue) showing that the product was specified whilst the eco-label certification was current.
General	V1.0	5/21	General	N/A	Individual credits for every project are assessed on the content and quality of the submission as per the requirements in the Technical Manual. Assessors reserve the right to not award points to non-compliant submissions, even if points have been awarded in similar situations in the past. Assessors are not obligated to award points due to previous precedents, as the precedents may no longer be correct or relevant.
General	V1.0	9/21	General	N/A	Please see the following clarifications for the Industrial Guidance in addition to the TC issued in June 2021: 10.2 Reverberation Warehouse floor and distribution areas can be excluded from the assessable areas for the reverberation credit. 17C Prescriptive Pathway: Industrial This pathway only applies to industrial projects located in regional areas where cycling to work was not practical. When this pathway is adopted, it must be adopted in full. Where industrial projects are located in urban areas, seeking compliance through this industrial pathway will not be acceptable. 12.0 – Glare Reduction (12.1 Glare Reduction from the NZ version of Design and As-Built Submission Guidelines) When the guidance for this credit in the Industrial Guidance is adopted, external loading dock areas need to be included as part of the assessable areas, even though they are not typically considered primary spaces. It is important to address glare reduction for external loading dock areas when many building occupants work at the loading dock.
General	V1.0	8/22	General	N/A	Crushed concrete from a previous building on the same site directly reused (without being taken out from the site) for hardfill or backfill may claim points under credit 22 Construction and Demolition Waste, credit 19 Life Cycle Impacts and credit 21 Sustainable Products simultaneously, but not under the innovation category. Note that the project team should ensure the quality of the crushed concrete is suitably consistent as being reused for hardfill or backfill.
1. Green Star Accredited Professional					

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General	V1.0	07/20	1	Accredited Professional	<p>The following alternative Compliance Requirements can be used. When used, it must be applied holistically for 1.1 Accredited Professional.</p> <ol style="list-style-type: none"> 1. GSAP engagement from Green Star registration, or within one month following (rather than from schematic design); 2. GSAP certificate validity from Green Star registration to construction completion; and 3. GSAP involvement. To demonstrate GSAP involvement there must be at least one GSAP that: <ul style="list-style-type: none"> - is part of the team delivering the Green Star certification from registration to completion; - is listed as a 'Project Contact' for the purpose of communication with NZGBC; and - Provides advice, guidance and support from project registration through to certification, by: <ul style="list-style-type: none"> - ensuring the project team has access to the information covering Green Star principles, structure, timing and process including: <ul style="list-style-type: none"> o Eligibility; o Environmental Categories o Points allocation and scores; o Documentation and Compliance Requirements; o Technical Questions; o Certification process; and o Green Star branding and marketing rules. <ul style="list-style-type: none"> - deliver at least one workshop addressing the topics above; OR the GSAP plans the Green Star submission and targets with the project team using the Submission Planner, Submission Guidelines and/or other relevant information; - participating in meetings/workshops with the design and construction team; Note: the GSAP does not need to attend all design and construction meetings. However, if the GSAP does not attend they are responsible for reviewing the meeting minutes to ensure appropriate Green Star advice, guidance and support is provided, to support the Green Star certification process. - reviewing all documentation for compliance; and - be responsible for the preparation and execution of the Green Star submission(s) for certification. <p>The GSAP involvement tasks outlined above may be carried out by more than one GSAP. The GSAP role can be shared by multiple professionals involved in the project. This is acceptable as long as each GSAP individually meets the requirements above (apart from the workshop requirement) and this role has been fulfilled continually from registration to practical completion.</p> <p>Documentation Requirements - Design Review:</p> <ul style="list-style-type: none"> Submission Template GSAP certificate(s) Letter of appointment of a GSAP from Green Star registration, or within one month following, with scope of

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					<p>works: as per Compliance Requirements OR as per the above GSAP involvement. Sample minutes or other written correspondence of the GSAP with the design team, addressing the GSAP involvement. Letter from the client confirming the GSAP satisfactorily fulfilled their engagement responsibilities as per the scope of works.</p> <p>Documentation Requirements - As Built:</p> <ul style="list-style-type: none"> • Submission Template • GSAP certificate(s) • Letter of appointment of a GSAP from Green Star registration, or within one month following, with scope of works: • as per Compliance Requirements OR • as per the above GSAP involvement. • Sample minutes or other written correspondence of the GSAP with the design and construction team, addressing the GSAP involvement. • Letter from the client confirming the GSAP satisfactorily fulfilled their engagement responsibilities as per the scope of works.
General	V1.0	11/20 (superseded)	General	N/A	Where the credit refers to “Schematic Design”, this can be clarified as Concept Design or Conceptual Design which is the terminology more commonly used in New Zealand
General	V1.0	12/20	General	N/A	<p>This TC supersedes the TC issued in Nov-20: Where the credit refers to “Schematic Design”, this should read “Preliminary Design” which is the term more commonly used in New Zealand.</p> <p>It is noted that legacy rating tools require “Concept Design” as the required start point to engage with a Green Star Accredited Professional. With this clarification issued, a Green Star Accredited Professional will need to be engaged at the preliminary design stage. This change has been discussed and identified acceptable as it still fulfills the aim of the credit. However, the NZGBC still encourages project teams to involve Green Star Accredited Professionals as early as possible, ideally from the concept design stage, to eliminate risks in pursuing a Green Star rating.</p>
2. Commissioning and Tuning					
General	V1.0	7/21	2.1	Environmental Performance Targets	<p>The NZGBC confirms that for the purposes of the credit criteria 'Environmental Performance Targets', the project team must set and document environmental performance targets for each of the individual building systems, as nominated by the project team. The following list of building systems as a minimum must have a target in place and not limited to:</p> <ul style="list-style-type: none"> • Mechanical Systems, such as and not limited to: <ul style="list-style-type: none"> ○ Air-Conditioning Systems ○ Mechanical Ventilation Systems

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					<ul style="list-style-type: none"> ○ Tenant Systems ○ Building Management Control Systems, ○ Smoke Management Systems. • Electrical systems, such as and not limited to: <ul style="list-style-type: none"> ○ Lighting power density for lighting fixtures ○ Main Switchboards ○ Occupancy sensors for lighting control ○ Energy Metering Systems (EMS) • Hydraulic systems, such as and not limited to: <ul style="list-style-type: none"> ○ Targets for WELS rating for taps, toilets, showers
General	V1.0	10/19	2.5	Independent Commissioning Agent	Providing all other requirements of the Commissioning and Tuning - Independent Commissioning Agent credit criterion are met, an Independent Commissioning Agent (ICA) can be considered independent if they report directly to the building owner or the owner's designated representative, even if they are paid by the contractor.
General	V1.0	11/19	2.5	Independent Commissioning Agent	NZGBC would expect that an Independent Commissioning Agent (ICA) will have been appointed to advise, monitor, and verify the commissioning and tuning of the nominated building systems (at the very latest) from the beginning of the detailed design phase/ end of developed design phase onwards and through tender, construction, commissioning and tuning phases. This will allow the ICA to understand the design and make suggestions without overly complicating the agreed concept, preliminary and initial developed design phases. However, there is nothing to prevent the ICA from being engaged even earlier to ensure any potential issues are highlighted as soon as possible.
General	V1.0	10/19	2	Innovation	Can unconditioned warehouse spaces be excluded from Air Permeability Performance Testing? Yes. Projects may exclude unconditioned warehouse areas from the Air Permeability Performance Testing where these warehouse spaces are not conditioned by any equipment. All other spaces, including offices or refrigerated warehouse spaces are considered as conditioned spaces and are considered applicable to the credit criterion.
General	V1.0	7/21	2	Commissioning and Tuning	Building systems that are part of the day to day operations of the building must be included within the scope of the credit criteria 'Building Systems Tuning' / 'Fitout Systems Tuning' / 'Project Systems Tuning' Building systems regardless of static or seasonal operational settings need to be reviewed and tuned accordingly so that they operate to their full potential and as designed, therefore meeting the aim of the credit.
3. Adaption and Resilience					
General	V1.0	06/21	3	Adaptation and Resilience	Climate Adaptation Plan: If an organisation or corporation has a Climate Adaptation Plan process in-house, that process needs to be referenced by the project covered under the organisational Climate Adaptation Plan. The compliance requirements outlined under 3.1.5 Implementation of the Climate Adaptation Plan must be addressed on an individual project level.

Clarification type	Tool Version	Month Released	Sub-Credit No.	Sub-Credit Name.	Amendment/Approved Ruling
					<p>Risk Assessments:</p> <p>The National Climate Change Risk Assessment (NCCRA) guidelines is recommended for New Zealand project teams to undertake risk assessments to achieve this Green Star credit.</p> <p>The assessment of climate change related impacts needs to be considered for the rated building’s design and construction only. It should not go beyond the boundary of the rated building</p>
Project Specific	V1.0	11/20	3.2	Earthquake Resilience	<p>The criteria under 3.2.2 states “The project team must provide an evaluation of the project’s seismic performance against “standard practice”, summarising how the project demonstrates best practice and meets the aim of this credit.</p> <p>The bullet points from structural engineer’s report are:</p> <ol style="list-style-type: none"> 1. Design structure as an Importance Level 3 building and include an SLS2 criteria for a 1 in 250-year earthquake event. 2. Design of an elastic structural system, that aims to not require structural repairs until a severe ULS earthquake. 3. For elements that impact operational continuity, limit seismic displacements at SLS2 to those recommended in NZS1170.5. <p>In the assessors’ opinion (assuming the structure is required to be IL3) points 2 & 3 would probably be classified as “standard practice” as would the first part of point 1. The SLS2 criteria for 1 in 250-year EQ could be a slight enhancement above standard practice if it were to apply to items not necessary for operational continuity. Operational continuity for the SLS2 of 1 in 250 year is currently an un-sited amendment in the loadings standard (1170.5 amendment 1) – this means that use of it is not legally mandatory but it would be considered prudent (mandatory/standard?) practice by reputable engineers.</p> <p>Combined the 3 points above could provide a robust performing structure – what is missing is an understanding of deflections, structural form and integration of this design philosophy within the whole design team (ie all disciplines). The assessors are also unsure if the points are for a low damage (primary structure) design or LDD for the building as a whole.</p> <p>The assessors note that the project team requires assessment against a damage control limit state and a collapse limit state – the assessors don’t see this. Also, assessment of repairability, self-centring etc is required, and the assessors don’t see any comment on these aspects. The statement on performance is qualified around “where possible” and subject to cost. Suggesting that some aspects of performance above code minimum (standard practice) are up for review as part of a value engineering exercise.</p> <p>In summary the building may achieve better than standard practice, but the evidence presented by the project team is more of a statement of design parameters rather than an evaluation of performance against the Green Star stated performance criteria and is insufficient to demonstrate how better than standard practice has been achieved.</p> <p>Therefore, what the project team proposing is conditionally awarded subject to presenting further details i.e. a simple table of code compliance performance (as a proxy for standard practice) vs actual project performance for all the stated credit criteria to make the evaluation process more transparent/simpler.</p>
4. Building Information					

Clarification type	Tool Version	Month Released	Sub-Credit No.	Sub-Credit Name.	Amendment/Approved Ruling
General	V1.0	05/22	4	Building Information	<p>The Building/fitout log book can be in the form of an online facilities management system.</p> <p>A project may utilise a dedicated online facilities management system designed to coordinate building information in lieu of a traditional fit out log book on the condition that the online system:</p> <ul style="list-style-type: none"> • Provides similar functionality to a log book developed in line with CIBSE TM31 Building Log Book Toolkit; • Covers all nominated systems; and • Includes link or references of all relevant operations and maintenance information. <p>Documentation Requirements:</p> <p>Please provide the following in your submission:</p> <ul style="list-style-type: none"> • Evidence such as screenshots demonstrating the project-wide deployment of the online facilities management systems; • A copy of this TC. <p>All other requirement are as per Submission Guidelines.</p>
5. Commitment to Performance					
General	V1.0	09/21	5.1	Environmental Building Performance	<p>Given that the CarboNZero for Building Operations certification for buildings requires energy and water efficiency intrinsically through buildings' performance stages, it is acceptable for project teams to show commitment to the CarboNZero for Building Operations instead of a Green Star Performance rating to achieve the point for 5.1 Environmental Building Performance. This pathway may only be used for projects that have been registered for a CarboNZero certification or have shown formal commitment through formal agreements or policies.</p>
General	V1.0	11/20	5.2	End-of-life Waste Performance	<p>In lieu of a 'make good' lease clause between the building owner and the tenant(s), the project team may provide another suitable formal commitment that indicates the building owner will undertake those commitments and responsibilities. The formal commitment must be a separate legal agreement and/or a memorandum of understanding (MoU), and address all the credit compliance requirements.</p>
General	V1.0	11/20	5.2	End-of-life Waste Performance	<p>Does not having a Make Good clause meet the intent of the End of Life Waste credit?</p> <p>Yes. Not having a Make Good clause is considered to have an equivalent environmental outcome to having a best practice Make Good clause, where the project team can demonstrate there is a commitment from the building owner to pursue the re-use of the existing fitout by an incoming tenant.</p> <p>A joint commitment, wherein no Make Good works are required between Building Owner and Tenant, must still address the requirements of credit 5.2A.</p>
6. Metering and Monitoring					

Clarification type	Tool Version	Month Released	Sub-Credit No.	Sub-Credit Name.	Amendment/Approved Ruling
General	V1.0	10/19	6.1	Metering	<p>Can energy metering of distinct uses be based off electricity demand rather than energy?</p> <p>Yes. In regard to energy meters for Metering Distinct Uses or Floors, NZGBC approves the criteria to be amended to "where the electrical load for a single item exceeds 5% of the total electricity (power) demand for the project, or 100kW, it must be individually metered".</p> <p>This is based on the understanding that the overarching metering strategy for Green Star is to ensure that all significant loads are individually metered.</p>
Project Specific	V1.0	11/20	6.1	Metering	<p>The alternative proposed method of determining the energy use of the lighting at each floor through calculations rather than meters is accepted, provided that all power uses are metered and compliant with the Submission Guideline requirements. Where floors have multiple tenancies or specialist lighting systems then these must be metered as per the Submission Guidelines.</p>
General	V1.0	11/20	6.1	Metering	<p>Do I need to provide meters to uses not related to base building systems?</p> <p>All distinct uses, common uses and major uses that service the building must be metered. These uses must also be connected to a monitoring system.</p> <p>As an example: at a minimum, the base building should provide floor by floor meters for the following tenant energy uses;</p> <ul style="list-style-type: none"> • General power • HVAC Systems • Lighting Systems
7. Responsible Building Practices					
Project Specific	V1.0	11/20	7	Responsible Building Practices	<p>The Assessor believe the relocation/ remodelling of the existing carpark arrangements is an integral part of the development approval for the project. Whilst the Assessor accepts the carpark relocation works may be undertaken as a separate 'enabling works' contract, these works are part of the campus redevelopment/ re-organisation and a key component of the project, as evidenced by the fact the design team is common to both the 'enabling works' and the proposed building project.</p> <p>The assessor therefore believes the Credits relating to contract works (Credits 7.1, 7.2, 7.3 Responsible Construction Practices and Credits 22.1, 22.2 Construction Waste) should apply to the enabling works contract as well as the main contract works.</p>
General	V1.0	7/20	7.1	EMP	<p>Please find the latest version of the NSW Environmental Management Systems Guidelines for EMP compliance requirements here. The requirements for EMPs, as outlined within the NSW Environmental Management Systems Guidelines, are considered best practice. The edition of the guidelines current at the time of construction must be used.</p>
General	V1.0	12/20	7.2	EMS	<p>It is granted conditionally for the project to demonstrate the compliance to this credit when the main contractor achieved ISO 14001 certification part way through the project.</p>

Clarification type	Tool Version	Month Released	Sub-Credit No.	Sub-Credit Name.	Amendment/Approved Ruling
					<p>The Telarc assessment to achieve ISO 14001 goes through various stages to test and confirm that the applied business processes meet the standards as laid out by that particular ISO standard. The first stage is to access the company policies and management documents to ensure they comply. Once confirmed the Telarc auditors then return and assess the “systems in Action”. For this to be granted, the following comments shall be addressed by further evidence.</p> <ol style="list-style-type: none"> 1. If changes were made to the Company Policy and Process (as part of the stage 1 Telarc Audit) to achieve the accreditation, then the project could not have been operating to the required standard and therefore cannot demonstrate compliance as per the credit criteria. Please provide evidence of the company systems audit and summary of the process undertaken to prove compliance without any significant change. 2. If the project was required changes to their process and/or significant defects were noted that were later remedied to meet the ISO requirements (Company processes) then this method of proving compliance with this credit cannot be approved. This in effect would show that the project was not set up to the required standard before and during the construction period. Please provide evidence that the project was operating to the required Standard and no significant deviations were identified.
General	V1.0	10/19	7.3	High Quality Staff Support	<p>Can a single program or initiative be used to comply with High Quality Staff Support? Yes, providing the program or initiative covers at least three distinct issues, with one of the three specifically addressing mental health impacts. For points to be awarded, project teams must clearly highlight the distinct issues and provide evidence in the submission demonstrating these being addressed on site. As outlined in the Submission Guidelines, issues addressed may be, but are not limited to, the following:</p> <ul style="list-style-type: none"> • healthier eating and active living • reduced harmful alcohol and drug and tobacco-free living • increase social cohesion, community, and cultural participation • understanding depression • preventing violence and injury • suicide prevention • decreased psychological distress <p>The following is a brief (but not exhaustive) list of programs and initiatives which could be implemented on site for, made available to, or discussed with all construction workers for the duration of construction. Each program may cover one or more distinct issue/s as required by the credit. Evidence must be provided for each issue addressed by a program.</p> <ul style="list-style-type: none"> • Beyond Blue • Mates in Construction

Clarification type	Tool Version	Month Released	Sub-Credit No.	Sub-Credit Name.	Amendment/Approved Ruling
					<ul style="list-style-type: none"> • Lifeline • Headspace • White Ribbon • Nutrition Organisation
General	V1.0	10/19	7.3	High Quality Staff Support	<p>Who can be considered a 'responsible party' to deliver training on sustainable practices and initiatives? 'Responsible Party' refers to people employed by the contractor or subcontractor, who are involved in decision making and will be key to the delivery of the Green Star certification in their relevant trades.</p> <p>There is no requirement for a Responsible Party to be office based, site based or a combination, as long as they have relevant participation in the project. There are no specific roles defined or excluded from this definition. A contractor's Sustainability Consultant may be considered Responsible Party for the purposes of this Innovation Challenge.</p>
General	V1.0	5/21	7.3	High Quality Staff Support	<p>80% of all individuals that work on site for at least 3 days, representing a contractor or sub-contractor, must receive training to comply with the requirements of the Knowledge of Sustainable Practices.</p>
8. Operational Waste					
General	V1.0	06/21	8	Operational Waste	<p>A Technical Question should be submitted to the NZGBC if there is any uncertainty in showing compliance to either pathway for the credit Operational Waste.</p> <p>Note that The City of Sydney's Policy for Waste Minimisation in New Developments has been updated to a newer version, which provide guidance to more building types other than offices. The new version is recognised as a third-party best practice guideline for operational waste credit compliance.</p>
General	V1.0	10/19	8A, 8B	Operational Waste	<p>Regarding the documentation requirements for Operational Waste, the NZGBC confirms the following:</p> <p><u>Performance Pathway</u> The requirements Submission Guidelines should be used.</p> <p><u>Prescriptive Pathway</u> NZGBC confirms that it is not a requirement of this pathway that the project implement an OWMP or engage a waste auditor. The project team may use the updated documentation requirements:</p> <ul style="list-style-type: none"> • Submission Template • Site Plan and/or Architectural Plans — highlighting all relevant areas as referenced by the WMP, and demonstrating:

Clarification type	Tool Version	Month Released	Sub-Credit No.	Sub-Credit Name.	Amendment/Approved Ruling
					<ul style="list-style-type: none"> ○ B.1 Separation of Waste Streams; ○ B.2 Dedicated Waste Storage Area; and ○ B.3 Access to Waste Storage Area. <ul style="list-style-type: none"> ● B.1- Equipment list/schedule demonstrating that waste streams provided are met through adequate bins ● B.2- Calculations regarding waste generation and bin sizing and reference to how these figures meet third party best practice guidelines ● B.3- Description of how waste collection areas adhere to best practices, as outlined within third-party best practice guidelines <p>The key requirement is that evidence is provided to support each claim made within the Submission Template.</p>
9. Indoor Air Quality					
General	V1.0	05/22	9.1	Ventilation System Attributes	<p>Are ducted split system fan coil units (DX split/VRF/VRV) required to provide access to both sides of fan coil units?</p> <p>No, project teams do not have to provide access to both sides of coils for cleaning and maintenance purposes of such systems, provided the following conditions are met:</p> <p>1. Design teams may provide access to the upstream side of fan coil units where the coils are protected by a filter rated at MERV 8 or higher and:</p> <ul style="list-style-type: none"> • Provide heating only; or, • Provide cooling only with the coil assembly no more than 4 rows deep; or, • Provide dual heating/cooling with the coil assembly no more than 4 rows deep <p>and</p> <p>2. For fan coil units or air handling units located within a ceiling void, in addition to the above criteria, the project team must fully demonstrate safe access for cleaning and maintenance. This may include:</p> <ul style="list-style-type: none"> • Access panels in unit / ductwork is in close proximity to the coil to be cleaned. • Access panels in the ceiling below the unit is in close proximity to the unit / ductwork access panel. • The upstream surface of the coil must be accessible within 1m of the ceiling panel.

Clarification type	Tool Version	Month Released	Sub-Credit No.	Sub-Credit Name.	Amendment/Approved Ruling
					<p>For projects where a wall-mounted unit is installed, the project team must demonstrate that access is provided to one side of the coil for cleaning and maintenance purposes. The project team must also demonstrate:</p> <ul style="list-style-type: none"> The filter system used can achieve the same outcome as MERV 8 filter and; Coil assembly is no more than 4 rows deep. <p>Documentation Requirements: Please provide the following in your submission:</p> <ul style="list-style-type: none"> Evidence that all moisture-producing and debris-catching components such as cooling coils, heating coils, humidifiers and filters in the air handling unit are able to be sufficiently cleaned and maintained through single sided access. Section drawing demonstrating any ceiling units can be safely reached through the ceiling access panel. Plan drawing showing 100% of the upstream surface of the coil is accessible within 1m of the ceiling panel, allowing for obstructions. A copy of this response.
General	V1.0	01/21	9.2	Provision of Outdoor Air	<p>Despite the difference between NZS4303:1990 and AS1668.4:2012 and the intentional preclusion of AS 1668.2 in New Zealand Building Code with regards to provision of outdoor air, Green Star still recognises both standards as valid references for calculating achievement of criteria 9.2 Provision of Outdoor Air. This is because Green Star rewards points for a rate 50% and 100% greater than the minimum required by these standards rather than policing on code compliance. Recognising both standards does not conflict with building code conformance however brings more flexibility to project teams.</p> <p>The responsibility for minimum code compliance rests with the designer and is governed by existing regulatory bodies, while the intent of the tool is to improve outdoor air rates over minimum requirements.</p> <p>In view of the above, we are clarifying that when the section for 9.2A Comparison to Industry Standards only refers to the AS 1668.2:2012, it should read “the recognised standards listed in 9.2.3”.</p>
General	V1.0	05/22	9.2	Provision of Outdoor Air	<p>Nominated areas within a conditioned space can be considered naturally ventilated if the mechanical equipment does not draw air from the atmosphere but instead from the nominated area/room to condition temperature. This definition can be applied for the purpose of the Natural Ventilation pathway, in the Provision of Outdoor Air criterion (9.2C in <i>Green Star – Design & As Built</i> and 8.2C in <i>Green Star – Interiors</i>). This includes units such as split systems or variable refrigerant volume (VRV) systems where air is conditioned via recirculation rather than through a supply of outdoor air.</p> <p>Nominated areas where air is only supplied via passive means (such as windows) that include equipment mentioned above are classified as ‘naturally ventilated’.</p>

Clarification type	Tool Version	Month Released	Sub-Credit No.	Sub-Credit Name.	Amendment/Approved Ruling
					<p>Nominated areas which have both passive ventilation and mechanical equipment with the provision to supply outdoor air are defined as 'Mixed-Mode Ventilation.' This includes contiguous spaces separated by doors and/or windows.</p> <p>Nominated areas within a project with different modes of ventilation that have distinct spatial boundaries are not considered mixed mode and can demonstrate compliance separately.</p> <p>All compliance requirements remain as per the submission guidelines.</p>
General	V1.0	10/19	9.3	Exhaust or Elimination of Pollutants	The exhaust ventilation flow rate for a print and/or photocopy room must be at least 5l/s/m ² AND at least 10% greater than the supply rate of air. This ensures the space is negatively pressurised and pollutants do not escape to neighbouring areas.
General	V1.0	07/22	9.3	Exhaust or Elimination of Pollutants	<p>What standards can be used to demonstrate compliance with the credit criterion – Removing the source of Pollutants?</p> <p>For the purposes of credit criterion 8.3A - 'Removing the Source of Pollutants' in Green Star - Interiors and 9.3A 'Removing the Source of Pollutants' in Green Star - Design & As-Built, where printing and/or photocopying equipment are present within the building, the Blue Angel certificate issued in accordance with one of the following test standards can be used to demonstrate compliance with the credit criterion:</p> <ul style="list-style-type: none"> • ECMA-328 • DE-UZ 219 <p>The standard UL 2819 is recognised in Design & As Built NZv1.1 as a Greenguard certificate and should be issued in accordance with the test standard.</p> <p>Compliant test standards RAL-UZ 171 and GGPS.003. in Design & As Built NZv1.0 are still acceptable.</p> <p>Note: Testing of Emissions in Clause 5.6 of EC-24 requires testing in accordance with RAL-UZ-171 and so ECNZ certification also meets the requirements of Credit 9.3 of the Design & As Built NZv1.0 tool.</p>

10. Acoustic Comfort

Clarification type	Tool Version	Month Released	Sub-Credit No.	Sub-Credit Name.	Amendment/Approved Ruling
General	V1.0	05/19	10	Acoustic Comfort	A qualified acoustic consultant should be a member of the Acoustical Society of New Zealand or equivalent international recognised body, or a qualified staff member within an Association of Australasian Acoustical Consultants (AAAC) member firm.
General	V1.0	06/21	10.1	Internal Noise Levels	The time period selected for measuring Internal Noise Level should be representative of the source as in line with the NZS2107:2016. For clarification – naturally ventilated spaces might have a longer time period than a continuously operating mechanically ventilated space.
General	V1.0	09/21	10.1	Internal Noise Levels	The Submission Guidelines stipulate that “one (1) point is awarded where project teams demonstrate that internal ambient noise levels, in the nominated area, are no more than 5dB(A) above the lower figure in the range recommended in Table 1 of AS/NZS 2107:2016.” For the avoidance of doubt, where a single figure dBA value is provided in AS/NZS2107, the noise target shall be no larger than that single dBA value.
General	V1.0	10/19	10.2	Reverberation	Compliance with the reverberation criterion should be demonstrated for all common areas.
General	V1.0	11/20	10.2	Reverberation	A supermarket would not be defined as a noise sensitive space. Displayed stock in supermarkets cannot be taken into account in reverberation time calculations. It is accepted that credit 10.2 can be Not Applicable for the supermarket shop area of the store, but not for the other more standard spaces such as offices and staff rooms.
General	V1.0	11/20	10.2	Reverberation	For the Reverberation Criterion, where 'note 3' applies, how do I apply the phrase '50% of the area in the space'? The performance of the installed acoustic absorption, irrespective of quantity or location installed, must result in a reverberation time equivalent to or lower than the reverberation time predicted for treating at least 50% of the combined floor and ceiling area with a material having a noise reduction coefficient (NRC) of at least 0.5. Alternatively, compliance can be demonstrated by treating 50% of the combined floor and ceiling area with a material having a NRC of at least 0.5. Acoustic absorption should be applied in locations appropriate to the function of the space, and located to maximise the acoustic performance of materials selected.
General	V1.0	11/20	10.2	Reverberation	Where the submission guidelines make reference to note 3 of Table 1 AS/NZS 2107:2016, the NZGBC clarifies that this is a minor discrepancy in the submission guidelines. The reference should be made to note 1 of Table 1 AS/NZS 2107:2016.

Clarification type	Tool Version	Month Released	Sub-Credit No.	Sub-Credit Name.	Amendment/Approved Ruling
General	V1.0	06/21	10.3	Acoustic Separation	<p>The following guidance applies to the weighted sound reduction index for partitions:</p> <p>The partition between the spaces should be constructed to achieve a weighted sound reduction index (dB Rw) of:</p> <ul style="list-style-type: none"> • At least Rw 45; for all partitions separating enclosed spaces which are: <ul style="list-style-type: none"> ○ Fixed without a door; and/or ○ Glazed partitions without a door • At least 40, for all partitions fronting a room (from an open plan area); • At least 35 (in composite with door and partition) for all partition types that contain a door; and • At least 50 through floors between occupied spaces
General	V1.0	06/21	10.3B	Sound Insulation Measurement	<p>The sound insulation between internal spaces complies with: $D_w + LA_{eqT} > X$.</p> <p>X = 75 except for:</p> <ul style="list-style-type: none"> X = 60 for any partition with a door X = 80 for walls / partitions separating areas with elevated privacy requirements (e.g. meeting rooms, classrooms, wards, etc.) <p>A Technical Question may be submitted to confirm areas with elevated privacy requirements.</p>
General	V1.0	06/21	10.3	Acoustic Separation	<p>Where there are key functional requirements for the spaces which are more important than the acoustic separation between spaces, the credit may be achieved even when the sound insulation target is exceeded. Please submit a Technical Question to justify in this case in order to preclude these spaces from the assessment</p>
General	V1.0	06/21	10.3	Acoustic Separation	<p>When there is are two adjacent Tertiary spaces, this criterion doesn't apply to the wall between these spaces as tertiary spaces are not noise sensitive and do not have privacy concerns.</p> <p>When a tertiary space is adjacent to either a Primary space or a Secondary space, the sound insulation requirement applies.</p>
11. Lighting Comfort					
Project Specific	V1.0	09/21	11	Lighting Comfort	<p>It is agreed that for the retail section of the supermarkets, the requirements of credits 11.2, 11.3, and 11.4 do not need to be applied. The more standard spaces, such as offices and staff rooms, would still need to comply with these credits to achieve the points.</p> <p>When this exemption leads to the assessable area being less than 5% of the building, project teams should claim 'Not Applicable' for these criteria.</p> <p>The NZGBC considers the outcome of making these criteria 'Not Applicable' a more accurate reflection than awarding the point for a compliant area of less than 5% of the building. Where the nominated area is more than 5% of the gross floor area, or more than 1000sqm, the space is subject to credit requirements.</p>

Clarification type	Tool Version	Month Released	Sub-Credit No.	Sub-Credit Name.	Amendment/Approved Ruling
General	V1.0	04/21	11.1	Minimum Lighting Comfort	<p>Can project teams use alternative metrics to demonstrate compliance with flicker free LED lighting? Yes. Project teams may use the following metrics for both analogue and digital forms of dimmable and non-dimmable LED lighting to demonstrate that LED fittings within the project are flicker-free.</p> <p>Acceptable flicker metrics: Short Term Light Modulation (PstLM) \leq 1.0 Stroboscopic Visibility Measure (SVM) \leq 0.4</p> <p>These metrics have been deemed appropriate at this time for residential and commercial office projects, with the understanding that ongoing research into acceptability levels may result in a more stringent limit being recommended in the future.</p> <p>Documentation Requirements: Please provide the following in your submission:</p> <ul style="list-style-type: none"> Evidence demonstrating the above metrics have been achieved In speculative or cold shell projects: A Tenancy Fitout Guide outlining all procured LED lights need to meet the above flicker metrics. In speculative or cold shell projects: Co-signed agreement between the building owner and tenant committing to the conditions of the Tenant Fitout Guide. All other documentation requirements as per the submission guidelines. A copy of this response. <p>For all other projects types, a Technical Question must be submitted to justify any proposed limits for both SVM and PStLM criteria.</p> <p>In speculative or cold shell projects, a formal commitment should be provided from the tenants that LED lighting will be procured to meet the below metrics. Refer to the Fitout Scope Guidance Document for more information.</p>
General	V1.0	10/19	11.2	General Illuminance and Glare Reduction	<p>The guidance reference for 'Office Spaces' in the Lighting Comfort - General Illuminance and Glare Reduction credit criterion is updated to Table E1 of AS/NZS 1680.2.2:2008 'Interior and workplace lighting Part 2.2: Specific applications - Office and screen-based tasks'.</p>

Clarification type	Tool Version	Month Released	Sub-Credit No.	Sub-Credit Name.	Amendment/Approved Ruling
General	V1.0	11/20	11.2,11.3,11.4	General Illuminance and Glare Reduction, Surface Illuminance, Localised Lighting Control	It is agreed that for the retail section of the supermarkets, the requirements of credits 11.2, 11.3, and 11.4 do not need to be applied. The more standard spaces, such as offices and staff rooms would still need to comply with these credits to achieve the points.
General	V1.0	7/21	11.3	Surface Illuminance	Retail projects may mark credit criterion 11.3 Surface Illuminance as 'Not Applicable' (NA) due to the specific requirements for lighting design within retail fitouts. It is noted that the outcome targeted by the 'Surface Illuminance' criteria of the Lighting Comfort credit is not always relevant in retail spaces which focus on the lighting of product and creating visual interest.
General	V1.0	11/20	11.4	Localised Lighting Control	A project team may target the credit criteria Localised Lighting Control for a base building targeting a Green Star - Design & As Built rating, by installing a DALI system within the base building, which can then be utilized by the tenant to deliver localized lighting control. Project teams must provide a Tenancy Fitout Guide (or similar) to the tenant, which contains relevant information about the DALI system.
General	V1.0	11/20	11.4	Localised Lighting Control	The requirements of 11.4 may be achieved in the office spaces by providing a mixture of general non-dimmable ceiling lighting and local dimmable task lighting provided the task lighting is installed either as part of the base build or as part of an integrated fit-out. The local dimmable lighting must also be able to be turned on or off as per the requirements of the 11.4 in the Submission Guidelines. Where 11.2 is also being targeted then the requirements of 11.2 must be achieved alongside the recommendations for general and local lighting set out in AS1680.2.2-2008 Appendix E with the general lighting on and the local task lighting at its maximum illuminance. Note this applies to office spaces only.
General	V1.0	8/21	11.4	Localised Lighting Control	NZGBC notes that the intent of the criterion 'Localised Lighting Control' in Green Star - Design & As-Built is to provide occupants with the ability to control the lighting in their immediate environment. In an open plan/ activity-based working environment, for example, an office setting or educational facilities i.e. libraries, project teams may demonstrate compliance by providing different lighting zones across 95% of the nominated area. It is noted that the lighting zones should be designed to suit different tasks, for example: <ul style="list-style-type: none"> • Some areas may have soft lighting, such as areas with daylight during the nominated hours. • Some areas may have a high degree of lighting control, including turning the lights on and off and adjusting their light levels and; • Other areas where light is shone directly on the workstation. Where compliance is being demonstrated through varied lighting zones, project teams must demonstrate how all the regular occupants in the project have access to all the spaces provided. The localized lighting strategy should be complemented with a communication strategy, outlining how individual lighting control may be achieved by occupants by occupying different lighting zones. The project team may choose to use the tenant fit out guide to communicating this message. Where projects are delivered with cold shell spaces or where the scope of the rating is base building, project teams can demonstrate compliance by installing a DALI system within the base building which can be utilised by the tenant to deliver localised lighting control.

Clarification type	Tool Version	Month Released	Sub-Credit No.	Sub-Credit Name.	Amendment/Approved Ruling
12. Visual Comfort					
Project Specific	V1.0	11/20	12.1	Glare reduction	The request to exclude vision glazing which is installed to provide sight-lines for clinical staff to observe patients from the credit minimum requirements is granted, due to clinical health and safety needs and the model of care being provided to patients.
General	V1.0	11/20	12.1	Glare reduction	<p>Can a project demonstrate compliance with 12.0 Glare Reduction through a provision to install blinds by tenants?</p> <p>Yes, the project team can demonstrate compliance with credit '12.0 Glare Reduction', through a provision for tenants to install blinds on the following conditions:</p> <ul style="list-style-type: none"> • Evidence is provided that there are no obstructions to installing blinds, and that the spaces are constructed to support compliant tenant delivered systems; • It is demonstrated that the future installation of blinds to windows is not impeded by the base building services, façade design, and/or structure. • A Tenancy Fitout Guide (or similar) is provided which outlines a typical blind detail to demonstrate how blinds can be integrated at the perimeter. <p><u>Documentation Requirements:</u></p> <p>Please provide the following in your submission:</p> <ul style="list-style-type: none"> • Tenancy Fitout Guide (or similar) • Drawings and any other evidence to demonstrate base building provisions for blinds • A copy of this response.
General	V1.0	10/19	12.2	Visual Comfort – Daylight	<p>There is no requirement to use a dynamic simulation software where the Visual Comfort credit is met through the Compliance Using Daylight Factor option.</p> <p>This is clarified in response to a formatting change that was included in the most current version of the Submission Guidelines under the Visual Comfort - Daylight criterion. The second paragraph under the heading 'Requirements for Modelling' is only intended to apply to the Compliance Using Daylight Autonomy option.</p>

Clarification type	Tool Version	Month Released	Sub-Credit No.	Sub-Credit Name.	Amendment/Approved Ruling
General	V1.0	11/20	12.2	Visual Comfort – Daylight	Daylighting is feasible in Supermarkets as demonstrated through numerous case studies. Therefore, supermarket projects cannot claim “Not Applicable” for credit 12.2.
General	V1.0	04/22	12.2	Visual Comfort - Daylight	<p>A project may use a sample approach to model daylight for ascending uniform floorplates for the purpose of demonstrating compliance where:</p> <ul style="list-style-type: none"> • Each distinct floor plate is modelled in totality • Each distinct floorplate is modelled at the lowest possible opportunity. <p>The approach is allowed where:</p> <ul style="list-style-type: none"> • No recognised surrounding infrastructure or landform that would influence daylight of a higher level. • Ascending floorplates have uniform floor plans, orientation, material composition, arrangement, and spatial relationship to overshadowing buildings or features. <p><u>Documentation Requirements:</u></p> <p>Please provide the following in your submission:</p> <ul style="list-style-type: none"> • Architectural drawings of typical floor plates • Evidence demonstrating there is no surrounding infrastructure capable of influencing daylight • A copy of this response <p>All other requirements are as per the submission guidelines.</p>
General	V1.0	05/19	12.3	Views	The external 8 meters sight line is required to be entirely within the legal site boundary of project and/or open public spaces and cannot extend into adjacent sites. For precinct developments, the compliance of this credit will be assessed case by case.
General	V1.0	11/20	12.3	Views	For projects like supermarkets, to receive this credit, views will have to be made available to employees working in areas where staff would be expected to work for extended periods such as checkouts, deli counters and the like.

Clarification type	Tool Version	Month Released	Sub-Credit No.	Sub-Credit Name.	Amendment/Approved Ruling
General	V1.0	7/21	12.3	Views	<p>Projects may target one (1) point for Visual Comfort - Views from relevant Green Star rating tools by using the following alternate compliance criteria:</p> <ul style="list-style-type: none"> • 60% of the nominated area must demonstrate that a View Rating of 3 or greater is achieved. The View Rating may be found using the below methodology summarised from Windows and Offices: A Study of Office Worker Performance and the Indoor Environment: <ul style="list-style-type: none"> ○ Sitting in a chair in each cubicle or space facing the computer monitor, the amount and quality of view visible within a 90 degree cone of the monitor is rated from 0=none to 5=largest, based on the below: <ul style="list-style-type: none"> • A view rating of 5 almost completely fills the visual field of the observer seated at the cubicle. • A view rating of 4 fills about one-half of the visual field. • A view rating of 3 represents about one-half the size of a view 4, but still with a coherent view. • A view rating of 2 represents a narrow and typically fractured view. • A view rating of 1 represents a glimpse of sky or sliver of the outside environment. • Additionally the following guidance will apply: <ul style="list-style-type: none"> ○ 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 colour balance. ○ Include in the calculations any permanent interior obstructions. Movable furniture and partitions may be excluded. ○ Views into interior atria or similar Internal View (as defined in the Guidance section of 12.2 Visual Comfort - Views from Green Star - Design & As Built v1.2) may also be considered. <p>Documentation Requirements:</p> <p>Please provide the following in your submission:</p> <ul style="list-style-type: none"> • Technical Report - 'Windows and Offices: A Study of Office Worker Performance and the Indoor Environment' published by the California Energy Commission • Clear outline of what the View Rating is and the methodology used to calculate it. • Simulation report demonstrating View Rating achieved for nominated area. • A copy of this response.
13. Indoor Pollutants					
General	V1.0	02/21	13	Indoor Pollutants	<p>The following certifications and programs were recognised for demonstrating products and materials' VOC and formaldehyde compliance under the Green Star NZ legacy tools:</p> <ul style="list-style-type: none"> • GuT • AgBB • UL Greenguard

Clarification type	Tool Version	Month Released	Sub-Credit No.	Sub-Credit Name.	Amendment/Approved Ruling
					<ul style="list-style-type: none"> • Carpet and rug Institute (CRI) Green Label Plus • SCS Indoor Advantage Gold • FloorScore - Resilient Floor Covering Institute (RFCI) • Formaldehyde E0 or E1 compliance • EMICODE • Blue Angel <p>For clarity, the new Design and As Built NZ and Interiors NZ tools do not accept certificates or statements from the above programs as evidence to show compliance with the Indoor Pollutant credit.</p> <p>The NZGBC only accepts the following evidence for products and materials to demonstrate compliance with the Indoor Pollutant credit:</p> <ul style="list-style-type: none"> • Recognised eco-labels in the Indoor Pollutant column as listed on the NZGBC website https://www.nzgbc.org.nz/Attachment?Action=Download&Attachment_id=3719 <p>Or</p> <ul style="list-style-type: none"> • Test certificates from accredited laboratories to show the nominated products meet relevant limits specified in the Submission Guidelines.
General	V1.0	07/20	13	Indoor Pollutants	<p>Service risers should be entered into “Tertiary Spaces” part of the Area Definition form. Although these areas are non-habitable spaces, they should still be entered as a Tertiary Space, so they are captured under Credit 13 for Indoor Pollutants. This is because the requirement for Credit 13 is that all on site applications of paints, adhesives and sealants including both exposed and concealed applications are included in this credit.</p>
General	V1.0	04/19	13.1	Paints, Adhesives, Sealants and Carpets	<p>The NZGBC acknowledges that the application of intumescent paint prior to weatherproofing may reduce the exposure of VOCs on a project however this is not sufficient reason for the paint to be excluded from this credit.</p> <p>The intent of credit 13.1 Paints, Adhesives, and Sealants is to reward project teams that demonstrate.</p> <ul style="list-style-type: none"> • No paints, adhesives, sealants, or carpets are used in the nominated spaces. <p>OR</p> <ul style="list-style-type: none"> • At least 95% of all internally applied paints, adhesives, sealants (by volume) or carpets (by area) meet the total VOC limits specified in 13.1.1 and 13.1.2 as applicable. <p>Where exterior grade products are used in an internal application then these must also meet the requirements of the VOC limits specified in the Green Star – Design & As Built v1.2 Submission Guidelines.</p> <p>It is recommended that intumescent paint should be classified under the following category, which has a limit of 250g/l TVOC.</p> <ul style="list-style-type: none"> • Acoustic sealants, architectural sealant, waterproofing membranes and sealant, fire retardant sealants and adhesives) the protection of protected customary rights. <p>Note: Projects do not need to provide any cost related evidence.</p>

Clarification type	Tool Version	Month Released	Sub-Credit No.	Sub-Credit Name.	Amendment/Approved Ruling
General	V1.0	10/19	13.1	Paints, Adhesives, Sealants and Carpets	The percentage of compliant products is calculated by volume (paints, adhesives and sealants) and area (carpets), not its cost. For example, at least 95% of all internally applied paints, adhesives, sealants (by volume) or carpets (by area) meet the total specified VOC limits. Note: Projects do not need to provide any cost related evidence.
General	V1.0	10/19	13.1	Paints, Adhesives, Sealants and Carpets	A product compliance rate of 95% or higher (with regards to VOC limits) must be demonstrated for each of the following categories separately in order to be eligible for (1) point: <ul style="list-style-type: none"> • Paints • Sealants and adhesive • Carpets
General	V1.0	11/20	13.1	Paints, Adhesives, Sealants and Carpets	Can a concrete sealer be classified in the category 'Primer, Sealer & Prep Coats' for Indoor Pollutants? Yes, concrete sealers applied on site can be classified under the category of 'Primer, Sealer and Prep Coats'. Glazes and sealants applied offsite will be excluded from the associated category and credit as outlined in the submission guidelines.
General	V1.0	10/19	13.2	Engineering Wood Products	Current reference Standards for Formaldehyde emission limits. The EN 717-2 (DIN EN 717-2) test protocol for formaldehyde emission limit values, referenced in the Indoor Pollutants - Engineered Wood Products criterion of the Submission Guidelines, has been superseded by DIN EN ISO 12460-3:2016-03. Project teams may therefore use the updated standard in determining formaldehyde emission test limits for wood-based panels to demonstrating compliance to the criterion. The emission unit of measurement remains unchanged.
General	V1.0	7/22	13.2	Engineering Wood Products	1 point can be awarded when 95% of engineered wood products meet the formaldehyde emission limits by area. Project teams are not expected to calculate all the surface areas of each engineered wood product. Only the largest face of each product is to be calculated for credit compliance.
14. Thermal Comfort					
General	V1.0	11/20	14.1	Thermal Comfort	The current clause regarding applicable climate zones for Prescriptive Thermal Comfort Requirements refers to NCC (the Australian Building Code) Climate Zones. As a clarification for New Zealand projects, the following amended clause will replace the original clause on page 148 for Design and As Built and page 126 for Interiors. "This option can be applied in climate zones 1-3, as identified on the climate zone map in NZS 4243.1:2007 Figure A1 – Climate Zones, except for the following regions which are required to demonstrate compliance via thermal modelling: <ul style="list-style-type: none"> • The central plateau of the north island

Clarification type	Tool Version	Month Released	Sub-Credit No.	Sub-Credit Name.	Amendment/Approved Ruling															
					<ul style="list-style-type: none"> Queenstown lakes, Mackenzie, Western Waitaki, Central Otago” <table border="1"> <thead> <tr> <th>Zone</th> <th>Territorial Regions</th> <th>Representative Climate</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Northland, Auckland Franklin District and the Coromandel Peninsula</td> <td>Auckland</td> </tr> <tr> <td>2</td> <td>The rest of the North Island except the Central Plateau</td> <td>Wellington</td> </tr> <tr> <td>3A</td> <td>The Central Plateau of the North Island and all of the South Island except 3B</td> <td>Christchurch</td> </tr> <tr> <td>3B</td> <td>Queenstown-Lakes, Mackenzie, Western Waitaki, Central Otago regions</td> <td>Queenstown</td> </tr> </tbody> </table>	Zone	Territorial Regions	Representative Climate	1	Northland, Auckland Franklin District and the Coromandel Peninsula	Auckland	2	The rest of the North Island except the Central Plateau	Wellington	3A	The Central Plateau of the North Island and all of the South Island except 3B	Christchurch	3B	Queenstown-Lakes, Mackenzie, Western Waitaki, Central Otago regions	Queenstown
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General	V1.0	11/20	14.1	Thermal Comfort	<p>The current clause for credit 14 Thermal Comfort regarding Spaces where HVAC is not Fully Installed at Time of Submission refers to the NCC (the Australian Building Code) Section J.</p> <p>As a clarification for New Zealand projects, the following amended clause will replace the original clause on page 150.</p> <p>“Internal tenant loads including lighting and small power must be modelled using a notional fitout assuming the most energy intensive fitout allowable by the New Zealand Building Code Clause H1 Energy Efficiency and referenced New Zealand Standards (code compliance minima), or according to the lease agreement or tenant fitout guide.”</p>															
General	V1.0	6/22	14.1	Thermal Comfort	<p>Accredited Energy Modellers can use a producer statement instead of a full energy modelling report to demonstrate compliance for credit 14 Thermal Comfort, 15 Greenhouse Gas Emissions and 16 Peak Electricity Demand Reduction. Note that the associated submission templates and Greenhouse Gas Emissions Calculator will still need to be submitted.</p>															
15. Greenhouse Gas Emissions																				
General	V1.0	11/20	15	Greenhouse Gas Emissions	<p>At As Built, can I use the same energy modelling report that was submitted and awarded at Design Review?</p> <p>Yes, conditionally.</p> <p>At As Built, the same energy modelling report may be submitted for this credit, if it was submitted and awarded at Design Review and no changes have been made to the design, on the following conditions:</p> <ul style="list-style-type: none"> The energy modelling report is to be accompanied by a confirmation letter stating that no changes have occurred between the design and as built stages of the project that may affect the outcome of the energy modelling report; Any comments that were raised by the Certified Assessor(s) at Design Review must be addressed at As Built to be awarded the point(s). <p>As Built Documentation Requirements:</p> <ul style="list-style-type: none"> Energy modelling report that was submitted and awarded at Design Review. A letter of confirmation from the relevant consultant confirming that the design of the building has not been altered between Design Review and As Built submissions. 															

Clarification type	Tool Version	Month Released	Sub-Credit No.	Sub-Credit Name.	Amendment/Approved Ruling
					<ul style="list-style-type: none"> • All other documentation requirements are as per the submission guidelines, including recommended documentation such as: <ul style="list-style-type: none"> ○ Extract(s) from the Specification(s) demonstrating that all inputs used in the energy simulation are reflected in the current design. ○ Extract(s) from the Commissioning Report demonstrating (through supporting evidence) that the building has been commissioned and operates as intended by the design (i.e. as described in the energy modelling report). ○ As built drawings demonstrating that the facade details and materials are the same as described in the energy modelling report.
General	V1.0	12/20	15	Energy Consumption and Greenhouse Gas Emissions Calculation Guide	<p>The definition for Reference Projects is amended as below:</p> <p>A hypothetical building of the same size, shape and floor area as the Proposed Building, but whose building fabric and building services characteristics are based predominantly on the Deemed-to-Satisfy provisions as defined in this document.</p>
General	V1.0	01/21	15	Energy Consumption and Greenhouse Gas Emissions Calculation Guide	<p>Standing losses factor (fstanding) and distribution losses factor (fdistribution) of Domestic Hot Water (DHW) systems, as mentioned in the Green Star Energy Consumption and Green House Gas Emissions Calculation Guide, should be determined based on the DWH system design (system type, storage volumes, distribution lengths, design temperatures, level of insulation etc.) and engineering judgement. Manufacturers may have the expected standing losses available. Alternatively, for straightforward typical systems, the following resources may provide a suitable reference:</p> <ul style="list-style-type: none"> • AS/NZS 4692.1:2005 Electric water heaters – Energy consumption, performance and general requirements • AS/NZS 4692.2:2005 Electric water heaters Minimum Energy Performance Standard (MEPS) requirements and energy labelling • https://reg.energyrating.gov.au/comparator/product_types/
General	V1.0	07/22	15	Energy Consumption and Greenhouse Gas Emissions Calculation Guide	<p>We are issuing this clarification to ensure projects follow the intent of the GHG credit for industrial projects. As stated in GHG Emissions Calculation Guide HVAC Simulation Parameters Table “The intent of this requirement is that the Reference Project generally achieves the same level of service as the Proposed Project.”</p> <p>There is a potential misinterpretation of the Calculation guide for the “HVAC Simulation Parameters” (table 26) which increases the Reference building energy consumption unfairly.</p>

Clarification type	Tool Version	Month Released	Sub-Credit No.	Sub-Credit Name.	Amendment/Approved Ruling
					<p>To clarify the Reference project must achieve the same space temperature conditions as the proposed project for greater than 98% of occupied hours. Alternatively, the analysis can be undertaken on the basis of both the Proposed and Reference project achieving a PMV of between -1 and 1 for 98% of occupied hours across 95% of the floor area.</p> <p>In addition, the “Reference project HVAC systems” section (14.4.2) defines system coverage and zoning of the Reference building and this is to be the same as the Proposed Building. This is further reinforced through a requirement for the same operating profiles.</p> <p>Note: Even if a simulation set point of 18-26°C is used, the Reference project HVAC system would still need to be sized in accordance with the HVAC System Design Parameters which must be based on the Proposed Project “room design temperature”.</p> <p>We strongly suggest Modellers read the GHG Emissions Calculation Guide in its entirety for a clear energy modelling report with the understanding that the intent of the GHG credit is to have a more energy efficient project compared to the industry norm.</p> <p>This TC is immediately effective for all projects using the GHG Emissions Calculation Guide irrespective of the project registration date.</p>
General	V1.0	6/22	15	Energy Consumption and Greenhouse Gas Emissions Calculation Guide	Accredited Energy Modellers can use a producer statement instead of a full energy modelling report to demonstrate compliance for credit 14 Thermal Comfort, 15 Greenhouse Gas Emissions and 16 Peak Electricity Demand Reduction. Note that the associated submission templates and Greenhouse Gas Emissions Calculator will still need to be submitted.
16. Peak Electricity Demand Reduction					
General	V1.0	11/20	16	Peak Electricity Demand Reduction	<p>The current definition for Mixed Use Projects set in credit 16 Peak Electricity Demand Reduction refers to the NCC (the Australian Building Code) usage classification.</p> <p>As a clarification for New Zealand projects, the definition is amended as below:</p> <p>“A mixed-use project or building is deemed to be a building in which no single New Zealand Building Code Clause A1 Classified Use accounts for more than 80% of the building gross floor area (GFA), excluding car parks, etc.”</p>
General	V1.0	5/21	16	Peak Electricity Demand Reduction	When using the prescriptive method, the output of on-site electricity generation should be that which occurs at the time when the peak load is expected to occur. Justification should be provided as to how the time of the peak load has been derived.

Clarification type	Tool Version	Month Released	Sub-Credit No.	Sub-Credit Name.	Amendment/Approved Ruling
General	V1.0	6/22	16	Peak Electricity Demand Reduction	Accredited Energy Modellers can use a producer statement instead of a full energy modelling report to demonstrate compliance for credit 14 Thermal Comfort, 15 Greenhouse Gas Emissions and 16 Peak Electricity Demand Reduction. Note that the associated submission templates and Greenhouse Gas Emissions Calculator will still need to be submitted.
17. Sustainable Transport					
General	V1.0	03/21	17.2	Reduced Car Parking Provision	Projects that reduce the existing number of carparks (net total) on existing campuses (while also providing new carparks) also meet the credit criteria.
General	V1.0	03/21	17	Sustainable Transport Performance pathway	<p>When NZGBC introduced the Design and As Built and Interiors tools, the Sustainable Transport Performance pathway was not incorporated into the new tools. Since then, we have worked with a third party and have created this performance pathway adapted to New Zealand. The v1.1 update to these tools will incorporate this pathway into the tool. Starting today, projects can choose this pathway.</p> <p>The new Sustainable Transport Calculator Guide and associated Sustainable Transport Calculator for Transport Performance Pathway can be found here https://www.nzgbc.org.nz/Article?Action=View&Article_id=95</p> <p>Please find the updated Submission Guideline section related to this new pathway for Credit 17 for Design and As Built below. The modification to the Interiors guideline will be the same with the exception that the total number of points available for this pathway is 7 points as compared to the Design and As Built 10 points.</p> <p>Updated beginning of Credit 17. The remainder of the credit remains the same.</p> <p>Sustainable transport</p> <p>Credit 17</p> <p>Points available: 10</p> <p>Aim of Credit</p> <p>To reward projects that implement design and operational measures that reduce the carbon emissions arising from occupant travel to and from the project, when compared to a reference building. This also promotes the health and fitness of commuters, and the increased liveability of the location.</p> <p>Credit Criteria</p> <p>This credit includes two alternative pathways for project teams to demonstrate improvements in the building's access to transport.</p> <p>17A Performance Pathway Up to 10 points are available where projects provide access to sustainable transport infrastructure which decreases greenhouse gas emissions from transport, decreases mental and social impacts of commuting, and encourages the uptake of healthier active transport options.</p>

Clarification type	Tool Version	Month Released	Sub-Credit No.	Sub-Credit Name.	Amendment/Approved Ruling
					<p>17B Prescriptive Pathway Up to 7 out of 10 points are available where projects provide access to sustainable transport infrastructure as demonstrated using specified prescriptive criteria.</p> <p>Compliance Requirements</p> <p>17A Performance pathway</p> <p>The Performance Pathway only applies to <i>regular occupants</i> of the building.</p> <p>Up to 10 points are awarded under this pathway. Points are awarded based on a holistic approach to reducing the impacts from transport, where the proposed building performance is improved when compared to a reference building across four indicators:</p> <p>Emissions reduction;</p> <p>Active mode encouragement;</p> <p>Vehicle kilometres travelled reduction; and</p> <p>Walkable location.</p> <p>Points are awarded by completing the <i>Sustainable Transport Calculator</i> with the predicted transport mode split as defined in a Travel Plan or Transport Plan specifically developed for the project. More information is available in the <i>Sustainable Transport Calculator Guide</i>.</p> <p>The Travel Plan or Transport Plan must be developed by a suitably qualified transport professional (see Definitions), as the plan will inform the inputs into the <i>Sustainable Transport Calculator</i>.</p> <p>This pathway may be most appropriate for those projects that are not located in Central Business Districts, which are typically well connected to public transport networks. Projects located in suburban or regional settings may find this pathway the most appropriate to their sustainability goals. Project teams should consult with their transport specialists for advice about which pathway to use.</p>
General	V1.0	10/19	17	Transport Calculator Guide	<p>A correction to the example calculation for Number of services for each route in the Transport Calculator Guide for v3, Design & As Built NZv1.0 and Interiors v1.0.</p> <p>Number of morning peak services = 4 (3 services ≤ 15minutes, 15minutes < 1 service ≤ 30minutes)</p> <p>Number of afternoon peak services = 10 (9 services ≤ 15 minutes, 15minutes < 1 service ≤ 30minutes)</p>
General	V1.0	11/20	17	Transport Calculator Guide	<p>In less populated areas where buses do not start until after 6:30am then the start of the peak morning period may be taken as the second bus time for first compliant bus route. For example, if there are three bus routes that start at 6:45am, 7am and 7:15am and each run every half an hour then the peak morning period would be taken as 7:15am to 9:15am. The latest peak morning period that may be used is 7:30am to 9:30am. Time between services should then be calculated using the determined peak morning period as per the examples on page 4 of the Public Transport Calculator Guide.</p> <p>When determining if a route is compliant the Public Transport Calculator Guide states that more than half of the services need to be within the time period to be compliant, however achieving exactly 50% would be considered compliant.</p>

Clarification type	Tool Version	Month Released	Sub-Credit No.	Sub-Credit Name.	Amendment/Approved Ruling
					The average interval is to be calculated as the mean as per the Public Transport Calculator Guide. Numbers can be rounded up or down, for example 30.4mins can be considered 30mins.
General	V1.0	5/21	17	Transport Calculator Guide	Walking School Buses are eligible for points under the Private Mass Transport component of this credit. However, the Walking School Bus service must meet the catchment, frequency and contractual requirements set out in the Technical Manual in order to be awarded any points.
General	V1.0	5/21	17	Reduced Car Parking Provision & Low Emission Vehicle Infrastructure	Where drop-off lanes/spaces are provided, these can be excluded in the total number of car parks used to demonstrate compliance. In order to be excluded, drop-off spaces on the drawings submitted must show that the spaces/lanes are marked to indicate “no stopping at all times” (or similar) and the design should clearly indicate they are drop-off lanes rather than car parks.
General	V1.0	08/21	17	Transport Calculator Guide	Please be advised that project teams cannot use the Household Travel Survey or other NZ Stats data to demonstrate compliance through the performance pathway for Sustainable Transport. The data used in the performance pathway calculator is grouped by SA2, and so is specific to a small sub-regional portion of the country. Using the Household Travel Survey at a regional level is less accurate, as it can include areas with better public transport, or better walking/facilities than the specific sub-region in which the assessed project sits.
General	V1.0	10/19	17.2	Reduced Car Parking Provision	For bike parking, staff bicycle spaces do not need to be separate from general public spaces, provided they are secure. Visitor spaces do not need to be under cover.
General	V1.0	11/20	17.2	Reduced Car Parking Provision	The proposal to determine carparking provision on the peak population occupancy provided by a consultant Fire Report is granted. This is an acceptable and reasonable method to measure occupancy and population density. The Fire Report is a legally important document which is the basis for many items within the building, such as stair width, number of egress routes etc. and is crucial for NZBC compliance.
Project Specific	V1.0	11/20	17.3	Low Emission Vehicle Infrastructure	Based on the information provided, this assessor believes Credit 17.3 Low Emission Vehicle Infrastructure would apply only to carparks which will need to be installed for the new buildings (80 carparks).
General	V1.0	10/19	17.4	Active Transport Facilities	Showers located in statutorily required accessible bathrooms cannot be claimed in the count for shower facilities. Extra bathrooms/showers with disability access, not required statutorily, which meet the Sustainable Transport credit requirements can be counted.

Clarification type	Tool Version	Month Released	Sub-Credit No.	Sub-Credit Name.	Amendment/Approved Ruling
General	V1.0	07/20	17.4	Active Transport Facilities	Credit 17.4 Active Transport Facilities in Green Star Design & As-Built has been updated based on the feedback that NZGBC received and in-depth consultation with industrial professionals, the updates include changing the end-of-trip facilities requirements for Regular Occupants and its worked example. The updated credit here shall be used for Green Star projects and it supersedes the one included in the Submission Guidelines.
General	V1.0	02/20	17.4	Active Transport Facilities	Please refer to the Green Star Cyclist Facilities credit guidance document for some additional guidance on achieving points for cycling facilities on your project.
18. Potable Water					
General	V1.0	104/22	18	Potable Water	Where a project cannot provide WELS certifications to demonstrate compliance for the Potable Water credit, onsite testing results can be acceptable in place of WELS certifications. In this case, the onsite testing should follow the Appendix F Onsite Compliance Schedule in the Homestar v5 https://12253-console.memberconnex.com/Attachment?Action=Download&Attachment_id=44934 . In order to achieve the point, the testing results still need to achieve the efficiency of the nominated fixture WELS rating as required in the Green Star Submission Guidelines.
General	V1.0	06/21	18B.1	Sanitary Fixture Efficiency	Where specialist water fixtures and fittings are used e.g. anti-ligature in mental health faculties, project teams may still achieve points by demonstrating the specialist water fixtures and fittings are best in class, instead of meeting WELS requirements in the Submission Guidelines. A Technical Question should be submitted to justify accordingly.
General	V1.0	06/21	18	Potable water	Rainfall data for NIWA weather stations can be found on the Cliflo website -> Welcome to the Climate Database (niwa.co.nz) Users (once subscribed) can choose a weather station and then the relevant data set. It is acceptable to choose the last 10 years of data to get daily rainfall data for each of the last 10 years, and then to average each day over a ten-year period in order to have a data set that is the average rainfall for each calendar day for the last 10 years.
General	V1.0	10/19	18B.1	Sanitary Fixture Efficiency	Shower benchmarks for hotel developments in the Potable Water credit have recently undergone internal and external review. The current benchmark for showers is set at 3 Star WELS (9l/m). At the conclusion of the review, for hotel developments only, the shower benchmarks are changed from 3 Star WELS to 2 Star WELS (12l/m). All other benchmarks in the calculator remain unchanged, as does the methodology for populating the calculator. The amended calculator reflecting the changes can be provided by the NZGBC upon request via a free technical question. This change will be updated in future versions of the Green Star rating tools.

Clarification type	Tool Version	Month Released	Sub-Credit No.	Sub-Credit Name.	Amendment/Approved Ruling
General	V1.0	11/20	18B.1	Sanitary Fixture Efficiency	<p>For the purposes of the Potable water credit 18B.1, the following fixtures and fittings may be excluded, as the water consumption will not be altered significantly by reducing the water flow:</p> <ul style="list-style-type: none"> ○ Bath taps, laboratory taps, and taps dedicated to cleaning and facility management. ○ Kitchen or café tap ware, where the primary use is for pot fill and container filling. ○ Kitchen/ Café Chilled, Boiling and Sparkling tap ware which are used to fill cups
General	V1.0	11/20	18B.1	Sanitary Fixture Efficiency	<p>Water efficiency should be incorporated into the anti-ligature sanitary fixtures. Pressure needs to be put onto manufacturers of the products to make water efficient products that suit the application to move the industry forward.</p>
General	V1.0	11/20	18B.1	Sanitary Fixture Efficiency	<p>For showers, the water efficiency requirement is within one star of the Category F under WELS rating, which means showers must be either:</p> <ul style="list-style-type: none"> • 3 star Range E (6.0 - 7.5 L/min); or, • 3 Star Range F (4.5 - 6.0 L/min); or, • 4 Star Range E (6.0 - 7.5 L/min); or, • 4 Star Range F (4.5 - 6.0 L/min) <p>Note that a 3 Star WELS rating high pressure shower sitting at the range of 7.5-9L/m isn't compliant.</p>
General	V1.0	11/19	18B.3	Heat Rejection	<p>For credit 18B.3 Heat Rejection a 90% reduction in the potable water used for heat rejection meets the credit aim. Evidence of 90% or greater potable water saving with a wet/dry cooler should be provided in order to be awarded 2 points via the prescriptive pathway. This could take the form of a manufacturer-provided calculation for the specified equipment in the project climate zone (using NIWA data). As this would need to be done as part of showing the savings this shouldn't be an additional calculation.</p> <p>As different wet/dry coolers can operate differently, the additional credit 27 Microbial Control may be achieved by showing that the test data for no water particle generation is applicable to the specific cooler installed and the remaining cooling water is dumped each night. This should take the form of a statement by a practicing mechanical engineer that they have reviewed the operation of the specific chiller to be installed and it has a similar water droplet formation to the one tested and shown to not produce droplets and any remaining cooling water shall be dumped each night. This clearly meets the "that includes measures for Legionella control and Risk Management." requirement.</p>
General	V1.0	07/20	18B.5	Fire Protection System Test Water	<p>The point states the following: "18B.5 Fire Protection System Test Water One (1) point is awarded when one of the following conditions is met:</p> <ul style="list-style-type: none"> • The fire protection system does not expel water for testing; or • When sprinkler systems are installed, each floor must be fitted with isolation valves or shut-off points for floor-by-floor testing." <p>The aim of this credit is "To encourage building design that minimises potable water consumption in operations." For the fire protection system test water point It is only applicable to situations where the building and environment benefit from having additional valves or</p>

Clarification type	Tool Version	Month Released	Sub-Credit No.	Sub-Credit Name.	Amendment/Approved Ruling
					other systems in place which reduce the amount of water used. A single-storey building does not achieve the second criteria above (shut-off points for floor-by-floor testing) by default and nor can they be awarded NA. Teams would need to demonstrate how their project would minimize water use during fire protection system test/maintenance to achieve this credit.
General	V1.0	11/20	18B.5	Fire Protection System Test Water	<p>The current clause regarding projects that are deemed not applicable under the Fire Protection System Test Water criterion (18B.5) refers to Part E of the NCC (the Australian Building Code) on page 188 for Design and As Built.</p> <p>As a clarification for New Zealand projects, the following amended clause will replace the original clause:</p> <p>“The Fire Protection System Test Water criterion (18B.5) is deemed ‘Not Applicable’ for projects where:</p> <ul style="list-style-type: none"> • A sprinkler system is not required under The New Zealand Building Code, or • A sprinkler system is not provided by the project team, and does not include a water-based fire protection system.”
19. Life Cycle Assessment/Impacts					
General	V1.0	7/21	19B	Life Cycle Impacts	<p>Projects can target the 19B Life Cycle Impacts Prescriptive Pathway under Green Star - Design & As Built and claim up to 7 points instead of 5 points by following this alternative pathway:</p> <p><u>Life Cycle Impacts Prescriptive Pathway</u></p> <p>19B.3.1 Building Reuse - Façade:</p> <ul style="list-style-type: none"> • 3 points are available where at least 90% (by area) of the existing building façade is retained <p>19B.3.2 Building Reuse - Structure:</p> <ul style="list-style-type: none"> • 3 points are available where at least 90% (by mass) of the existing major structure is retained <p><u>Additional Point:</u></p> <p>Where 6 points are achieved via the above pathways, one additional point from any other 19B Life Cycle Impacts pathway may be targeted.</p> <p><u>Documentation Requirements:</u></p> <p>Please provide the following in your submission:</p> <ul style="list-style-type: none"> • Evidence to support the achievement of the alternative pathway • All other documentation as per the submission guidelines

Clarification type	Tool Version	Month Released	Sub-Credit No.	Sub-Credit Name.	Amendment/Approved Ruling
					<ul style="list-style-type: none"> A copy of this FAQ.
General	V1.0	10/19	19	Life Cycle Assessment	<p>Projects may use the same materials for the 'Life Cycle Assessment', 'Responsible Building Materials' and 'Sustainable Products' credits. The products or materials which are being used to claim points for the 'Sustainable Products' credit must have an additional Transparency or Sustainability Initiative in addition to meeting the requirements of the other credits.</p> <p>Please refer to Guidance under the 'Sustainable Products' credit in the Submission Guidelines of the relevant rating tool for further information.</p> <p>At present the Green Star - Design & As Built Submission Guidelines indicate that this option is available for 'Life Cycle Impacts' criteria, and it is clarified that products used in the 'Life Cycle Assessment' criterion may also be targeted in 'Sustainable Products' provided the conditions outlined above are met.</p>
General	V1.0	11/20	19	Life Cycle Assessment	<p>How many points are available in the 19B pathway (Life Cycle Impacts)?</p> <p>There 11 points available between the options in the 19B pathway (Life Cycle Impacts), however, only a maximum of 5 points can be awarded depending on the project's specific conditions.</p> <p>The following options are included in this pathway:</p> <ul style="list-style-type: none"> 19B.1 - Concrete; 19B.2 - Steel; and 19B.3 - Building Reuse; and 19B.4 - Structural Timber
General	V1.0	10/19	19A	Life Cycle Assessment	<p>In Regard to 19A - Life Cycle Assessment in Green Star - Design & As Built v1.0 NZGBC clarifies the following:</p> <p>19A.1 – Comparative Life Cycle Assessment - Are exceeding benchmark points available for operational energy improvements beyond the three (3) capped points</p> <p>NZGBC clarifies that exceeding benchmark points can only be achieved if the cumulative reduction from modules other than B6 exceeds 3 points. Please note that under this version of the rating tool no more than 2 points can be achieved for an 'Exceeding Green Star Benchmarks' claim.</p> <p>19A.2 – Material Selection Improvement - Should Module B6 be included in the reference case (initial scenario from which reduction % is calculated) when calculating “total cumulative impact reduction (excluding B6)”.</p> <p>NZGBC clarifies module B6 is excluded from the reference case.</p> <p>19A.2 – Construction Process Improvement - Does the “percentage cumulative impact reduction” refer only to a relative reduction for modules A4 and A5</p> <p>i.e. the reference case (initial scenario from which reduction % is calculated) excludes all other modules.</p>

Clarification type	Tool Version	Month Released	Sub-Credit No.	Sub-Credit Name.	Amendment/Approved Ruling
					It is confirmed that reference case excludes all other modules, and therefore the cumulative impact reduction is relative to the sum of impacts from module A4 and A5.
General	V1.0	05/22	19A	Life Cycle Assessment.	<p>NZGBC understands that concrete is a challenging product to provide compliant EPD's for Green Star Assessment given that each batch can be made to a different recipe, yet EPDs focus on "standard" products. The technical solution for this (process EPDs) is an expensive option for New Zealand's relatively small market size with relatively little uptake of supplementary cementing materials (SCMs) in concrete to date.</p> <p>To tackle this issue, NZGBC provides the following progressive pathways for concrete manufacturers to show Green Star compliance.</p> <p>Before 1st January 2024, EPDs for concrete can be recognised where:</p> <ul style="list-style-type: none"> ○ The concrete manufacturer has an EPD covering their major standard concrete mix designs, <u>AND</u> ○ The concrete manufacturer provides a declaration akin to an EPD (but without verification) from a reputable source. Reputable sources include: <ul style="list-style-type: none"> ▪ The Global Cement and Concrete Association EPD Tool ▪ An in-house LCA calculator verified by an independent third party <p>After 1st January 2024, EPDs for concrete will only be recognised where:</p> <ul style="list-style-type: none"> ○ The exact product is covered by an EPD (i.e., the customer purchases a standard mix design, or the concrete manufacturer creates a customer-specific EPD), <u>OR</u> ○ The specified product has a carbon footprint within +/-5% (for modules A1-A3) of a product declared in the EPD. The two products must have the same compressive strength (MPa) and a cement content within +/-0.5% weight/weight. The similarity in the carbon footprint must be proven through a reputable tool.
General	V1.0	11/20	19A	Life Cycle Assessment	<p>For a Design Review submission, an external peer review is optional for the LCA conducted, noting that the LCA must be externally peer reviewed at the As Built stage.</p> <p>Any changes/mistakes that are corrected at the As Built stage must be highlighted by the peer reviewer, to give the Certified Assessor greater understanding of the differences between the LCA submission for the Design Review and As Built stages.</p> <p>It is to be noted that outcome of the Design Review stages will not necessarily reflect the outcome at As Built for the LCA credit. Deferring the Peer Review to the As Built stage is acknowledged to be of greater risk to the project's final results.</p> <p>The submission is to include any relevant extracts from the specification that demonstrate that an External Peer Review is to be completed at As Built.</p>
General	V1.0	12/20	19A	Life Cycle Assessment	<p>The current LCA credit requires both LCA producers and peer reviewers to be LCA practitioners who should be either:</p> <p>A) An individual or organisation who have produced, co-produced and/or independently peer reviewed at least five LCA studies in the past three years; or</p> <p>B) A person who is qualified as an "LCA Certified Practitioner" (LCACP) through ALCAS / LCANZ / ACLCA.</p>

Clarification type	Tool Version	Month Released	Sub-Credit No.	Sub-Credit Name.	Amendment/Approved Ruling
					Since many high quality LCA software options are available in the NZ market, many LCAs are being created using such software by a person who is not an LCA practitioner. In this case, as long as the peer review is conducted by a person that fulfils the above requirements, it will be deemed compliant with this requirement.
General	V1.0	7/21	19A	Life Cycle Assessment	<p>The NZGBC notes that the stratospheric ozone depletion potential (ODP) of many materials has decreased in response to the Montreal Protocol. As a result, the capacity to demonstrate improvement in this category has substantially decreased, impacting the total points achievable in the Life Cycle Assessment credit.</p> <p>The NZGBC allows project teams to now exclude the ODP impact category from the life cycle assessment. For projects using the Life Cycle Assessment Calculator, the rows for the ODP impact category can be left blank so that it is not included in the calculation of points for the credit.</p>
General	V1.0	10/19	19B.1	Life Cycle Impacts – Concrete	<p>What types of poured concrete can be included in calculating the cost for the Life Cycle Impacts - Concrete pathway? This credit is intended to incentivise better practices in concrete application generally and as such should include all poured concrete types including precast, cast in situ or prestressed. The cost should also include low or non-structural concrete uses such as for pavement (where pavement is poured, as distinct from concrete pavers), footpaths, blinding, kerbs, channels and drains. For a concrete use to qualify for inclusion in the cost it must meet the other requirements outlined in the submission guidelines, which are as follows:</p> <ul style="list-style-type: none"> • The concrete has to be new • It cannot be concrete masonry (filled or not) • It cannot be recycled
General	V1.0	3/20	19B.1	Life Cycle Impacts – Concrete	<p>Here is the amended worked example of how the percentage of total Portland cement reduction is determined when comparing the reference case and the actual case.</p>
General	V1.0	06/21	19B.2	Life Cycle Impacts- Steel	<p>Although the credit refers to steel framing, this credit has been perceived to address all the major steel uses associated with structural elements of the building. Therefore, the table still shows required steel strengths for non-structural and non-framing items like steel roofing and steel wall cladding/sheeting. Accordingly, steel roofing and steel wall cladding/sheeting should be assessed under this credit.</p>
General	V1.0	10/19	19B.2	Life Cycle Impacts – Steel	<p>Can the project team claim 1 innovation point for using 750 MPa steel fitments of reduced diameter on the project? Yes, projects may pursue one (1) innovation point through 30A Innovative Technology or Process where the use of 750 MPa steel fitments of a reduced diameter are installed in lieu of equivalent 500 MPa fitments** (also known as ligatures) under the following conditions:</p>

Clarification type	Tool Version	Month Released	Sub-Credit No.	Sub-Credit Name.	Amendment/Approved Ruling
					<ul style="list-style-type: none"> ● A minimum of 70% of the structural columns for the entire building, by length, are concrete and require steel reinforcement; and ● 95% or more of the fitments used in these columns are ≥ 750 MPa replacing the equivalent 500 MPa fitments**; and ● 95% or more of the fitments are supplied by a Steel Maker that meets the Responsible Steel Maker requirements in the Responsible Building Materials (20.1) credit; and ● is a trademarked product; and ● The project team achieves either <ul style="list-style-type: none"> ○ One (1) point in the Reduced Use of Steel Reinforcement (Concrete framed building) credit (19B.2B) not including the reduction in mass of fitments; or ○ An improvement of 4% in the Climate Change Impact category of the Life Cycle Assessment credit (19A) across all modules, excluding the B6 Operational Energy module. <p>Documentation requirements Project teams wishing to pursue this innovation point are required to provide the following documentation:</p> <ul style="list-style-type: none"> ● Structural engineer's specification ● Drawings & summary demonstrating the percentage of columns requiring fitments/ligatures ● Completed spreadsheet Steel_reduction_500N_to_750N_fitments_template.xlsx demonstrating the reduction in mass based on replacing 500 MPa with the smaller, higher grade 750 MPa fitments ● Delivery docket and/or invoice confirming supply ● Evidence of Responsible Steel Maker requirements ● Evidence of the product's trademark in line with the conditions outline ● 30A Innovative Technology and Process submission template, specifying the pathway achieved 19A or 19B.2B.
General	V1.0	10/19	19B.3	Life Cycle Impacts – Building Reuse	<p>What is the measurement for demonstrating compliance with Building Reuse? The 30% or 60% requirement listed in the Structure Reuse credit criteria is based on gross building volume, as per the compliance requirements.</p>

Clarification type	Tool Version	Month Released	Sub-Credit No.	Sub-Credit Name.	Amendment/Approved Ruling																												
General	V1.0	03/21	19B.3.2	Life Cycle Impacts – Building Reuse	<p>The structural element volume approach (see example below) used in Green Star legacy rating tools may be used in place of the gross building volume approach to demonstrate compliance to 19B.3.2 Structure Reuse for projects registered under Design & As Built.</p> <p>insert filename here</p> <table border="1"> <thead> <tr> <th>Major Structure</th> <th>Total Existing Volume (m³)</th> <th>Total Retained Volume (m³)</th> </tr> </thead> <tbody> <tr> <td>Floors</td> <td>652</td> <td>553</td> </tr> <tr> <td>Columns</td> <td>5.8</td> <td>5.4</td> </tr> <tr> <td>Beams</td> <td>6.2</td> <td>0.9</td> </tr> <tr> <td>Load bearing walls</td> <td></td> <td></td> </tr> <tr> <td>Foundations</td> <td>242</td> <td>230</td> </tr> <tr> <td>Other Roof Steelwork</td> <td>12</td> <td>11.5</td> </tr> <tr> <td>Other</td> <td></td> <td></td> </tr> <tr> <td colspan="2"></td> <td>Percentage (%)</td> <td>87.2</td> </tr> </tbody> </table> <p>Design drawings <input checked="" type="checkbox"/></p> <p><i>Floor plan drawings , generated at, or prior to, site purchase, showing the built area on the site, marked up and highlighted to show the location and associated building volume of the reused structure and indicating the building/s/ accessible area</i></p>	Major Structure	Total Existing Volume (m³)	Total Retained Volume (m³)	Floors	652	553	Columns	5.8	5.4	Beams	6.2	0.9	Load bearing walls			Foundations	242	230	Other Roof Steelwork	12	11.5	Other					Percentage (%)	87.2
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20. Responsible Building Materials																																	
General	V1.0	05/22	20.1	Responsible Building Material – Structural and Reinforcing Steel.	<p>‘Warm Charging’ technology is considered an energy-reducing process in steel reinforcement production and project teams may demonstrate compliance with Energy-Reducing Processes in Steel Reinforcement in the <i>Green Star – Design & As Built</i> Rating tool on the condition that:</p> <ul style="list-style-type: none"> The steel manufacturer has had their ‘warm charging’ process peer reviewed by an independent third party LCA Practitioner and agrees to comply with any recommendation made by the peer reviewer; and The steel manufacturer provides annual updates on the process that are publicly available, to help educate the wider industry on the benefits of warm technology process. <p>The benchmarks for steel reinforcement quantities remain as per the Submission Guideline whereby at least 60% (by mass) of all reinforcing bar and mesh is produced using energy-reducing processes in its manufacture.</p>																												

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General	V1.0	10/19	20.2	Responsible Building Materials - Timber	If the 'Responsible Building Materials - Timber' credit criterion is made 'Not Applicable', the project is not eligible to claim the innovation point for timber furniture.
General	V1.0	10/19	20.2	Responsible Building Materials - Timber	NZGBC recognises 'FSC Mix' certification. The full cost (100%) of the 'FSC Mix' certified product may be used to demonstrate compliance
General	V1.0	5/21	20.2	Responsible Building Materials - Timber	<p>For FSC and PEFC timber the 'final claim' on product is the crucial step in demonstrating that the timber material meets forest certification.</p> <p>The principal of Chain of Custody is that the 'final claim' on product demonstrates that all previous steps in the supply chain meet chain of custody requirements.</p> <p>For Green Star or Home Star projects, Green Star and Home Star accredited professionals only require the single claim, at the final point of purchase, to demonstrate that the product can make a conforming FSC or PEFC claim on timber.</p>
General	V1.0	10/19	20.3	Permanent Formwork, Pipes, Flooring, Blinds and Cables	An AA1000 Licensed Assurance Provider can provide Auditor Verification for Green Star PVC certification. The AA1000 Account-Ability Standards, an international methodology for sustainability-related assurance engagements, is considered an 'equivalent national or international auditor accreditation system' as endorsed by the Vinyl Council. A Licenced-Assurance Provider under this standard is qualified to sign off on PVC best practice audit/assurance documentation.
General	V1.0	11/20	20.3	Permanent Formwork, Pipes, Flooring, Blinds and Cables	For the auditing requirements of the Best Practice Guidelines for PVC , an appropriate method of compliance can be a simple statement that a limited assurance review according to ASAE 3100 Compliance Engagements has been completed.
General	V1.0	11/20	20.3	Permanent Formwork, Pipes, Flooring, Blinds and Cables	<p>Is carpet underlay included as 'flooring' in Green Star?</p> <p>Yes, carpet underlay should be included as flooring for the purpose of the credit criteria Responsible Materials: Permanent Formwork, Pipes, Flooring, Blinds and Cables"</p>

Clarification type	Tool Version	Month Released	Sub-Credit No.	Sub-Credit Name.	Amendment/Approved Ruling
General	V1.0	1/22	20.3	Permanent Formwork, Pipes, Flooring, Blinds and Cables	<p>The NZGBC confirms that the scope of credit 20.3 Permanent formwork, pipes, flooring, blinds and cables under Green Star - Design & As Built or credit 20.2 under Green Star - Interiors, includes any mechanical ductwork that contain PVC pipes or cables. This must be accounted for when demonstrating compliance under the credit criteria as stated below:</p> <p>1 point is available where 90% (by cost) of all permanent formwork, pipes, flooring, blinds and cables in a project either:</p> <p>A. Do not contain PVC and have a recognised product declaration.</p> <p>or</p> <p>B. Meet the GBCA’s Best Practice Guidelines for PVC.</p> <p>Where the cost of PVC products in the project is less than 1% of the Project Contract Value this criterion is made ‘Not Applicable’.</p> <p>For more information please refer to the Literature Review and Best Practice Guidelines Life cycle of PVC building products found on the GBCA website.</p>
21. Sustainable Products					
General	V1.0	05/22	21	Sustainable Products	<p>NZGBC understands that concrete is a challenging product to provide compliant EPD’s for Green Star Assessment given that each batch can be made to a different recipe, yet EPDs focus on “standard” products. The technical solution for this (process EPDs) is an expensive option for New Zealand’s relatively small market size with relatively little uptake of supplementary cementing materials (SCMs) in concrete to date.</p> <p>To tackle this issue, NZGBC provides the following progressive pathways for concrete manufacturers to show Green Star compliance.</p> <p>Before 1st January 2024, EPDs for concrete can be recognised where:</p> <ul style="list-style-type: none"> ○ The concrete manufacturer has an EPD covering their major standard concrete mix designs, <u>AND</u> ○ The concrete manufacturer provides a declaration akin to an EPD (but without verification) from a reputable source. Reputable sources include: <ul style="list-style-type: none"> ▪ The Global Cement and Concrete Association EPD Tool ▪ An in-house LCA calculator verified by an independent third party <p>After 1st January 2024, EPDs for concrete will only be recognised where:</p> <ul style="list-style-type: none"> ○ The exact product is covered by an EPD (i.e., the customer purchases a standard mix design, or the concrete manufacturer creates a customer-specific EPD), <u>OR</u> ○ The specified product has a carbon footprint within +/-5% (for modules A1-A3) of a product declared in the EPD. The two products must have the same compressive strength (MPa) and a cement content within +/-0.5% weight/weight. The similarity in the carbon footprint must be proven through a reputable tool.

Clarification type	Tool Version	Month Released	Sub-Credit No.	Sub-Credit Name.	Amendment/Approved Ruling
General	V1.0	06/21	21	Sustainable Products	The credit of Sustainable Products takes account of all the products and materials including buildings' mechanical, hydraulic, transportation and electrical systems. Responsible and sustainable systems that meet transparency and sustainability requirements in the credit can contribute to achieved points.
General	V1.0	10/19	21	Sustainable Products	<p>Costs entered into the Sustainable Products Calculator can either include or exclude labour and transport. However, this must be consistent for all costs entered. As such, all individual product costs, and the project's PCV, will either include or exclude labour and transport costs.</p> <p>Where project teams are provided with some costs that include labour and transport, and some that exclude it, it is acceptable to choose one approach (i.e. include or exclude these costs) and then adjust the non-conforming figures accordingly.</p> <p>As an example, the product costs available to a project team for loose furniture and floor coverings excludes labour and transport, but all other product costs include it. In this case, the project team could make educated estimates for the labour and transport costs associated with the installation of loose furniture and floor coverings and add these costs to the original values provided. If this kind of adjustment is performed, please describe the methodology and justification for these calculations in the credit's Submission Template.</p>
General	V1.0	07/20	21	Sustainable Products	<p>Up to 3 points are available when a proportion of all materials used in the project meet transparency and sustainability requirements under one of the following initiatives: Reused Products, Recycled Content Products, Environmental Product Declarations, Third-Party Certification, or Stewardship Programs.</p> <p>As per the Submission Guidelines, Third-Party Certification levels A, B & C are defined in the GBCA's Framework for Product Certification Scheme. However, New Zealand projects are encouraged to use Third-Party Certifications listed on our website here if the certification schemes are not defined in the GBCA's Framework for Product Certification Scheme as stated in the Submission Guidelines. This table will be reviewed again in December 2021.</p>
General	V1.0	5/21	21	Sustainable Products	Project teams can claim EPDs for the cement that goes into the concrete for the credit of Sustainable Products in Design & As Built and MAT-7 criteria A in v3, if the concrete used cannot be recognised under these credits. For Design & As Built projects, the cost of cement should be entered into the material calculator rather than the cost of concrete. For v3 projects, project teams could choose industry wide EPDs in the material calculator as the means of compliance for the concrete when the cement EPDs are provided. Note project teams cannot claim EPDs of the cement, where the cement had been used on a concrete which also has an EPD and they are claiming the concrete too. Counting EPDs for both the cement and concrete in the assessment is considered double dipping.
22. Construction and Demolition Waste					
General	V1.0	09/21	22	Construction Waste	Where the pre vs post Gross Floor Area (GFA) of the project site differs for major refurbishments, the GFA before the refurbishment took place should be used when calculating the maximum allowable waste going to landfill in credit 22 Construction and Demolition waste.

Clarification type	Tool Version	Month Released	Sub-Credit No.	Sub-Credit Name.	Amendment/Approved Ruling
General	V1.0	10/21	22	Construction Waste	<p>After extensive consultation with the New Zealand waste management industry the New Zealand Green Star Construction and Demolition Waste Reporting Criteria, or Reporting Criteria is released. It can be found here on our website. All waste operators and waste processing facilities associated with Green Star projects pursuing the C and D waste credit in Design and As Built and Interiors NZ tools must be issued a Compliance Verification Summary which shows they are in compliance with the Reporting Criteria document.</p> <p>NZGBC has heard projects have stated they could not find Auditors to conduct the associated audits required for the Reporting Criteria. At the time of this TQ there are at least four organisations which have shown they have personnel which fulfil the Auditor Qualifications in this document. In the interest of ensuring projects can find suitable auditors this list will be shared. NZGBC will NOT ensure this list is kept up to date. It is the responsibility of the project to ensure the Auditor is suitably qualified as per the Reporting Criteria document.</p> <p>The four organisations which have shown CVs of personnel which NZGBC understands can conduct these audits are: Organisation: Toitu Envirocare. Chris Bailey chris.bailey@toitu.co.nz Organisation: Tonkin and Taylor. Hannah Kelly hkelly@tonkintaylor.co.nz Organisation: ESG Audit Ltd. Anna D'Arcy anna@esgaudit.co.nz Organisation: Sunshine Yates Consulting. Sunshine Yates sunshine@sunshineyatesconsulting.co.nz</p>
Project Specific	V1.0	11/20	22	Construction Waste	<p>The Assessor believe the relocation/ remodelling of the existing carpark arrangements is an integral part of the development approval for the project. Whilst the Assessor accepts the carpark relocation works may be undertaken as a separate 'enabling works' contract, these works are part of the campus redevelopment/ re-organisation and a key component of the project, as evidenced by the fact the design team is common to both the 'enabling works' and the proposed building project.</p> <p>The assessor therefore believes the Credits relating to contract works (Credits 7.1, 7.2, 7.3 Responsible Construction Practices and Credits 22.1, 22.2 Construction Waste) should apply to the enabling works contract as well as the main contract works.</p>
Project Specific	V1.0	11/20	22	Construction Waste	<p>Any natural stone or rock-like material in waste arising from excavation that is below a size that would preclude its re-use as fill, topsoil or similar re-use (in the reasonable opinion of the waste management contractor or processing facility), complies with the definition of 'excavation waste' under Credit 22 of the DAB Submission Guidelines</p>
General	V1.0	6/20	22	Construction Waste	<p>If a Green Star project generated construction and demolition waste during a COVID-19 lockdown (NZ COVID-19 Alert Level 4, 3 and 2) waste processing facilities might not have been sorting the waste and sent the waste directly to landfill. The official dates for when the different levels came into place are listed here https://uniteforrecovery.govt.nz/covid-19/covid-19-alert-system/alert-system-overview/ If this occurred, and the Green Star project is pursuing the C and D waste credit, they will need to specifically prove that construction waste</p>

Clarification type	Tool Version	Month Released	Sub-Credit No.	Sub-Credit Name.	Amendment/Approved Ruling																
					was generated during this time along with the amount of waste sent to landfill. A statement with the dates when sorting of waste was suspended must be provided from the waste contractor/processing facility. This will be allowed to be excluded from the waste diversion calculation, but the receipts of this waste going to landfill highlighting the dates must be provided.																
General	V1.0	12/20	22	Construction Waste	Project teams can refer to the REBRI standard (as stated here https://www.branz.co.nz/sustainable-building/reducing-building-waste/assessing-waste/volume-weight/) to undertake volume to weight conversion, instead of using the table for Waste Volume to Weight Conversion Factors in the Submission Guidelines.																
General	V1.0	04/21	22	Construction Waste	<p>How do I calculate C&D Waste points when delivering an integrated Interiors project within a Design & As Built building?</p> <p>Fixed Benchmark Pathway (22A)</p> <p>Projects teams delivering a Green Star rated Interiors project within a Green Star Design & As Built rated base building may aggregate the base building and fitout construction and demolition waste to determine the maximum waste allowance based on the combined GFA and NLA.</p> <p>Up to one (1) point for the base building (GFA) and up to three (3) points are awarded for the fitout (NLA) where the construction and demolition waste going to landfill meets a fixed benchmark, defined in kilograms of waste per square metre in the Construction and Demolition Waste Fixed Benchmark pathway.</p> <p>Points are awarded based on the maximum waste allowance calculated using the combined GFA and NLA: $(GFA \times \text{targeted waste benchmark}) + (NLA \times \text{targeted waste benchmark}) = \text{cumulative waste total}$.</p> <p>Points are awarded in accordance with the waste benchmarks for a typical building, and typical fitout as per the table below; Design & As Built (base building) Interiors (fitout)</p> <table border="1"> <thead> <tr> <th colspan="2"><u>Design & As Built</u> (base building)</th> <th colspan="2"><u>Interiors</u> (fitout)</th> </tr> <tr> <th>Waste kg/m² (GFA)</th> <th>Points Awarded</th> <th>Waste kg/m² (NLA)</th> <th>Points Awarded</th> </tr> </thead> <tbody> <tr> <td>> 15</td> <td>0</td> <td>> 3.5</td> <td>0</td> </tr> <tr> <td><15</td> <td>1</td> <td>2.6 - 3.5</td> <td>1.5</td> </tr> </tbody> </table>	<u>Design & As Built</u> (base building)		<u>Interiors</u> (fitout)		Waste kg/m² (GFA)	Points Awarded	Waste kg/m² (NLA)	Points Awarded	> 15	0	> 3.5	0	<15	1	2.6 - 3.5	1.5
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Clarification type	Tool Version	Month Released	Sub-Credit No.	Sub-Credit Name.	Amendment/Approved Ruling			
							1.6 - 2.5	3
					< 5	1 INN	< 1	1 INN
<p>Please note only one innovation point is available and that points may be pro-rated in between benchmarks.</p> <p>Percentage Benchmark Pathway (22B) Projects teams delivering a Green Star rated Interiors project within a Green Star Design & As Built rated base building may aggregate the base building and fitout construction waste when targeting a percentage benchmark. Up to one (1) point for the base building (GFA) and up to one (1) point for the fitout (NLA) is awarded where at least 70% of aggregated base building and fitout waste, generated during construction and demolition, has been diverted from landfill (waste reported in kilograms) as defined in the 22B Construction and Demolition Waste - Percentage Benchmark pathway.</p> <p>Documentation Requirements: Please provide the following in your submission;</p> <ul style="list-style-type: none"> • Compliance Verification Summaries from waste contractor(s) and waste processing facilities. • Disclosure Statement from waste contractor(s) and waste processing facilities. • Demolition or site drawings. • Cumulative waste report. • Calculations based on the total GFA and NLA demonstrating compliance with the fixed waste benchmarks for base building and fitout (22A) OR Calculations demonstrating compliance with the percentage benchmark (22B) • A copy of this response. 								
General	V1.0	02/20	22.1	Reporting Accuracy	<p>The new Design and As-Built and Interiors tool, Construction and Demolition waste credit (Credit 22) has a minimum requirement that must be met BEFORE the other credits can be approved.</p> <p>The "Reporting Accuracy" credit criteria states the following: The minimum requirement is met where the waste contractors and waste processing facilities servicing the project demonstrate compliance with the Green Star Construction and Demolition Waste Reporting Criteria."</p> <p>Construction and Demolition Waste Reporting Criteria</p> <p>Where waste contractors or waste processing facilities do not hold a 'Compliance Verification Summary' (as explained in the credit criteria) they shall, at a minimum, disclose to the project team how much of the Reporting Criteria has been implemented. The 'Disclosure Statement' will take place of the 'Compliance Verification Summary' in the project team's submission. They can be found here:</p>			

Clarification type	Tool Version	Month Released	Sub-Credit No.	Sub-Credit Name.	Amendment/Approved Ruling
					<p>https://new.gbca.org.au/construction-and-demolition-waste/</p> <p>It is expected waste contractors or waste processing facilities will fill out the form in good faith and will show how they will be fully compliant with the Criteria within 12 months. If the waste contractors or waste processing facilities does not provide evidence of complying with the criteria or how the outstanding requirements will be complied within this timeline, the credit will not be awarded. Waste contractors and waste processing facilities are given the 12 month implementation period only once.</p> <p>A simplified line diagram of the Criteria can be found here. All effected parties are strongly encouraged to read the Criteria document.</p>
General	V1.0	05/20	22.1	Reporting Accuracy (superseded by the following TC)	<p>The new Design and As-Built and Interiors tool, Construction and Demolition waste credit(Credit 22) has a minimum requirement that must be met BEFORE the other credits can be approved. The "Reporting Accuracy" credit criteria states the following: "The minimum requirement is met where the waste contractors and waste processing facilities servicing the project demonstrate compliance with the Green Star Construction and Demolition Waste Reporting Criteria."</p> <p>Environmental Choice New Zealand (ECNZ) newly issued (EC-59-19) Construction & Demolition Waste Services specification (found here https://environmentalchoice.org.nz/specifications/ec-59-19/) fulfils the Reporting Criteria minimum requirement. Therefore, if all the associated waste contractors and waste processing facilities are awarded a licence under this specification then the project meets the minimum requirement for this credit.</p>
General	V1.0	5/21	22.1	Reporting Accuracy	<p>This TC is released to supersede the previous TC issued in May 2020 for credit 22.</p> <p>The new Design and As-Built and Interiors tool, Construction and Demolition waste credit(Credit 22) has a minimum requirement that must be met BEFORE the other credits can be approved. The "Reporting Accuracy" credit criteria states the following: "The minimum requirement is met where the waste contractors and waste processing facilities servicing the project demonstrate compliance with the Green Star Construction and Demolition Waste Reporting Criteria." Environmental Choice New Zealand (ECNZ) newly issued (EC-59-19) Construction & Demolition Waste Services specification (found here https://environmentalchoice.org.nz/specifications/ec-59-19/) fulfils the Reporting Criteria minimum requirement. Therefore, if all the associated waste contractors and waste processing facilities are awarded a licence under this specification then the project meets the minimum requirement for this credit. Projects using ECNZ-licensed waste contractors also qualify for 1 credit related to 70% diversion from landfill, provided the ECNZ audit is completed withing two months after Practical Completion of the project in accordance with clause 6.3 c) of EC-59-19.</p>
General	V1.0	07/20	22.2	Percentage Benchmark	<p>In the Appendix for Non-Innovation claims, the Submission Guidelines state that improving on the benchmark for Construction and Demolition Waste: Percentage Benchmark will not be awarded an Innovation. This is contradictory and incorrect.</p> <p>The Innovation point is available to be awarded. The last line of the Submission Guidelines regarding Construction and Demolition Waste: Percentage Benchmark can be ignored.</p>
23. Ecological Value					
General	V1.0	10/19	23	Ecological Value	<p>Cooling properties of artificial water bodies are considered comparable to those of natural water bodies, both having beneficial urban cooling properties contributing to the outcomes of this credit.</p>

Clarification type	Tool Version	Month Released	Sub-Credit No.	Sub-Credit Name.	Amendment/Approved Ruling
General	V1.0	10/19	23	Ecological Value	Does plant density in green roofs and vertical gardens affect the ecological value credit? No, plant density is irrelevant to the calculation performed by the Ecological Value calculator. The credit recognises the surface area of the soil/substrate in which the plants are rooted, not the total area covered by the plant foliage, nor the plant density.
24. Sustainable Sites					
Project Specific	V1.0	04/19	24.1	Conditional Requirement: Ecological Protection	The projects' eligibility with respect to Credit 24 is approved despite being near a waterway on the basis of: <ul style="list-style-type: none"> The waterway not being considered a sensitive site according to Auckland Council's plans and zoning (and under Section 6 of the RMA) The project planning to enhance the biodiversity of the waterway as part of the intended scope of works.
General	V1.0	11/20	24.1	Conditional Requirement: Ecological Protection	Both the Green Star Design and As Built and Communities tools have as a conditional requirement that the land to be built on is not Prime Agricultural Land. The Government is proposing a National Policy Statement for Highly Productive Land (NPS-HPL) to improve the way highly productive land is managed under the Resource Management Act 1991 (more information here https://www.mpi.govt.nz/news-and-resources/consultations/proposed-national-policy-statement-for-highly-productive-land/). In light of our recent survey and developments in central government around this issue NZGBC has decided the forthcoming Highly Productive Land guidance is very likely to be used in Green Star. From this point forward any mention of "Prime Agricultural Land" will be replaced with "Highly Productive Land." Once the final NPS-HPL Statement is issued, if any significant modifications to this TQ is necessary, an updated TQ will be issued. The criteria for Highly Productive Land will be: 1. The capability and versatility of the land to support primary production based on the LUC classification system (currently this will be LUC1-3 land using this website https://iris.scinfo.org.nz/layer/48076-nzlr-land-use-capability/) 2. Highly Productive Land excludes all urban zoned areas and all future urban zoned areas in district plans. Project teams are highly encouraged to ensure their site fulfill the minimal requirements in the Sustainable Sites credit prior to expending time on a project. If there are any questions about this credit the project team is highly encouraged to contact NZGBC for clarification.
Project Specific	V1.0	08/21	24.2	Land Reuse	This technical question for Land Reuse is accepted on the condition that the project team can provide evidence that there is a hard surface to the floor of the glasshouses, e.g. concrete, which is not suitable for planting and/or the ground is not suitable for growing food crops. Alternatively the project team may wish to consider the relocation of the glasshouse to another site not previously used for agriculture and within the Auckland region where it will be reused for growing produce.
General	V1.0	06/19	24.3	Contamination and Hazardous Materials	To be eligible for these points, the site should be initially precluded by either the NES (National Environmental Standard) or the regional authority rules for its intended use before the best practice remediation takes place. Supporting evidence needs to clearly document the contamination present on the site and confirm which rules or standards precluded this development for the intended use prior to remediation.

Clarification type	Tool Version	Month Released	Sub-Credit No.	Sub-Credit Name.	Amendment/Approved Ruling
General	V1.0	11/20	24.3	Contamination and Hazardous Materials	Can the ISO standard 18504 can be used as a Best Practice Remediation strategy for Site Decontamination? Yes, for the purposes of site decontamination in Green Star, the ISO standard 18504: Soil quality: Sustainable Remediation can be used an alternative to the current standard referenced in the submission guidelines: "A Framework for Assessing the Sustainability of Soil and Groundwater Remediation"
General	V1.0	08/21	24.3	Contamination and Hazardous Materials	For the sake of clarity, "minor local contamination" should be interpreted as contamination that would not trigger soil remediation under the National Environmental Standard for Assessing and Managing Contaminants in Soil.
25. Stormwater					
General	V1.0	06/22	25.1	Stormwater	For existing buildings, refurbishment projects with no alterations to the stormwater catchment can be awarded 1 point for Stormwater Peak Discharge by providing a letter from the building owner stating that there have been no changes to the stormwater catchment (e.g. roofs, site landscaping, existing stormwater infrastructure etc.) as part of the project and therefore there is no increase in the post-development peak stormwater flows.
General	V1.0	07/20	25	Stormwater	Credit 25. Stormwater in Green Star Design & As-Built has been updated. The revised credit here shall be used for Green Star projects and it supersedes the previous revision published in March 2020 The updates are based on the feedback that NZGBC received following the release of the previous updates and in-depth consultation with industrial professionals. Changes in the revised Stormwater credit include: - Change from 'dissolved' Zinc and Copper to 'total' Zinc and Copper under table 25.1 Pollution Reduction Targets. - Incorporation of a technical clarification issued in April 2020 which allows the Zinc and Copper to be excluded from modelling when proper source control methods are available.
General	V1.0	04/20	25.2	Stormwater Pollution Targets	The credit introduction states "25.2 STORMWATER POLLUTION TARGETS Where criterion 25.1 has been achieved, one (1) additional point is awarded where it is demonstrated that all stormwater discharged from the site meets the required pollution reduction targets for the identified contaminants of concern when compared to untreated runoff in accordance with the following requirements." Table 25.1 Pollution Reduction Targets lists several pollutants including Zinc and Copper. It has been determined that if a project team can provide evidence as to why the building and its associated site will not generate these pollutants they are not required to include them in the model. For example, if it can be shown that a steel roof has been appropriately coated to remove the likelihood of zinc runoff than the project would not need to include Dissolved Zinc in the model. Please submit a TQ to NZGBC with supporting documentation if this is to be pursued.

Clarification type	Tool Version	Month Released	Sub-Credit No.	Sub-Credit Name.	Amendment/Approved Ruling
General	V1.0	11/20	25.2	Stormwater Pollution Targets	It is agreed that the proper interpretation of "Untreated runoff" means the run-off from the completed development to the same design location and use as proposed with no design measures to reduce pollution
Project Specific	V1.0	11/20	25.2	Stormwater Pollution Targets	<p>It is conditionally accepted that the requirement for continuous simulation load modelling is not required in this instance provided the installed engineering design is consistent with the referenced assumptions in CCC WWDG Table 6-6 and the Australian guidance document for infiltration (biofiltration) treatment Adoption Guidelines for Stormwater Biofiltration Systems.</p> <p>With respect to designing for the 'first flush', this should be defined by the applicant in accordance with relevant design standards and the design developed to ensure all of this flow, with suitable allowance for blockage / clogging of the designed media, is treated before overflow occurs.</p> <p>It is noted that the Greenstar Table 25.1 pollution removal requirements are all in excess of the minimum expected removal rates presented in CCC WWDG Table 6-6 and it will therefore need to be demonstrated that the design and installation is best practice to achieve the required pollution removal targets with adequate maintenance plans in place to ensure continued performance over the longer term</p>
Project Specific	V1.0	11/20	25.2	Stormwater Pollution Targets	Provided the Jellyfish Filter is sized to meet the calculated flow rates based on the manufacturers specifications and the configuration required, the treatment device will meet the 90% FREE OIL removal rate (Table 25.2, Column A) based on the construction of the device and the documentation provided.
26. Light Pollution					
General	V1.0	06/21	26.1	Light Pollution to Neighbouring Bodies	This is to clarify that light pollution to existing neighbouring buildings within campus may be excluded from the criteria for light pollution to neighbouring bodies.
General	V1.0	07/21	26	Light Pollution to Night Sky	Projects may use UWLR (Upward Waste Light Ratio) instead of (ULOR) Upward Light Output Ratio when targeting Light Pollution. An external luminaire with a UWLR not exceeding 5% may be used to demonstrate evidence as required by the requirements in Light Pollution - Light Pollution to Night Sky.
General	V1.0	06/21	26	Light Pollution to Night Sky	<p>The following exterior lighting is exempt from the requirements, provided it is controlled separately from the non-exempt lighting:</p> <ul style="list-style-type: none"> specialized signal, directional, and marker lighting for transportation; lighting that is used solely for façade and landscape lighting in MLO lighting zones 3 and 4, and is automatically turned off from midnight until 6 a.m.; lighting for theatrical purposes for stage, film, and video performances; government-mandated roadway lighting;

Clarification type	Tool Version	Month Released	Sub-Credit No.	Sub-Credit Name.	Amendment/Approved Ruling
					<ul style="list-style-type: none"> hospital emergency departments, including associated helipads; lighting for the national flag in MLO lighting zones 2, 3, or 4; and internally illuminated signage.
General	V1.0	10/19	26	Light Pollution	Skylights are not considered external for the Light Pollution credit. Where luminaires are mounted within an atrium or skylight, these must be included as an external light source.
General	V1.0	10/19	26.1	Light Pollution to Neighbouring Bodies	For criterion 24.1 Light Pollution to Neighbouring Bodies, values from Table 2.1 of AS 4282:1997 rather than Table 2.2 should be applied for: <ul style="list-style-type: none"> For Class 2 buildings (residential), the values in Columns 5A and B; or For Class 3 to 9 buildings (non-residential), the values in Column 3.C
General	V1.0	4/21	26.1	Light Pollution to Neighbouring Bodies	How should project teams demonstrate compliance with the Light Pollution credit using the time clock methodology? To demonstrate compliance with the credit criteria for the Light Pollution to Neighbouring Bodies and/or Light Pollution to Night Sky, projects using a time clock methodology must ensure that all the relevant building lights are commissioned to ensure that the lights are operating as designed. Evidence of commissioning must be submitted as part of the Green Star assessment. For the purposes of the credit criteria Building Commissioning, all building lights, including those installed with a time clock, fall within the definition of 'nominated building systems'.
General	V1.0	4/22	26.1	Light Pollution to Neighbouring Bodies	A newer version of AS4281 was released in 2019. The following values from Table 2.1 of AS 4282:2019 can be applied for compliance. <ul style="list-style-type: none"> - For Class 2 buildings (residential), the values are in Columns 4 and 5; or - For Class 3 to 9 buildings (non-residential), the values can be found in Column 3. We understand that the standards can be renewed overtime. Therefore, the project team may use a newer version of the standard that is required by the District Plan for the project.
27. Microbial Control					
28. Refrigerant Impacts					

Clarification type	Tool Version	Month Released	Sub-Credit No.	Sub-Credit Name.	Amendment/Approved Ruling
29. Innovation					
General	V1.0	06/21	29	Thermally treated timber	<p>Thermally treated timber may be recognised through an innovation application for a large proportion of thermally treated timber used in a project.</p> <p>To target this innovation, project teams will need to define a percentage benchmark for the thermally treated timber used in construction. In order to define the benchmark, project teams are required to:</p> <ul style="list-style-type: none"> • Describe briefly the assumptions behind the benchmark, and any process that was used to establish them. • If existing data was used, or a literature review was performed, this must be included. If the assumptions rely on previous experience by the project team, including professional estimates, this must be stated. • Describe the process being undertaken to ensure the defined benchmarks are being met. • Demonstrate that the benchmarks were achieved in the project's As Built submission. For some projects, this may be able to be demonstrated at Tender stage, for the project's Design submission.
General	V1.0	11/20	29.2	Market Transformation	<p>The following guidance is provided for projects wanting to target the Soft Landings Framework innovation point in the Commissioning and Tuning credit.</p> <p><u>Minimum Compliance</u></p> <p>All compliance requirements as per Credit 2: Commissioning and Tuning must be achieved prior to pursuing the 'Soft Landings Framework Innovation credit'.</p> <p><u>Documentation Requirements</u></p> <p>Design Review Submission</p> <ul style="list-style-type: none"> • Documentation to support how the 'Soft Landings Framework' approach will be implemented throughout the design, construction, commissioning and tuning phases; including meeting minutes and commissioning plans;

Clarification type	Tool Version	Month Released	Sub-Credit No.	Sub-Credit Name.	Amendment/Approved Ruling												
					<ul style="list-style-type: none"> CV of the project's Commissioning Agent detailing the qualifications and experience relevant to the project; and Confirmation from the building owner that indicates their commitment to incorporate the principles of the 'Soft Landings Framework' throughout design, construction, commissioning and into building operation. <p>As Built Submission</p> <ul style="list-style-type: none"> Supporting documentation to support how the 'Soft Landings Framework' approach was implemented throughout the design, construction, commissioning and tuning phases. Where the tuning phase may not have been undertaken at the time of submission, documentation should support how it will be implemented. Meeting minutes and workshop notes demonstrating involvement of the design team in the development and implementation of the 'Soft Landings Framework' throughout design, construction and commissioning, all stages of checklist completed as per the soft landing framework relevant at the time of submission and checklist for all future stages. CV of the project's Commissioning Agent detailing the qualifications and experience relevant to the project; and Confirmation from the building owner that demonstrates the building owner's commitment to incorporate the principles of the 'Soft Landings Framework' in to building operation. Any other evidence to support claims made by the project team. 												
General	V1.0	10/19	29.3	Improving on Green Star Benchmarks	<p>Ultra-Low VOC paints can be calculated by volume rather than cost. For the Innovation - Improving on Green Star Benchmarks credit criterion in Green Star - Interiors v1.2, where it states:</p> <table border="1"> <thead> <tr> <th>Credit</th> <th>Criterion</th> <th>Benchmark</th> </tr> </thead> <tbody> <tr> <td>Indoor Pollutants</td> <td>Ultra-Low VOC paints</td> <td>One (1) additional point may be awarded where over 50% of paints (by cost) specified in the building have a maximum TVOC content of 5g/L. This must be verified by one of the approved paint test methods. Theoretical TVOC calculations are not acceptable for this Innovation claim.</td> </tr> </tbody> </table> <p>The following can be used instead:</p> <table border="1"> <thead> <tr> <th>Credit</th> <th>Criterion</th> <th>Benchmark</th> </tr> </thead> <tbody> <tr> <td>Indoor Pollutants</td> <td>Ultra-Low VOC paints</td> <td>One (1) additional point may be awarded where over 50% of paints (by volume) specified in the building have a maximum TVOC content of 5g/L. This must be verified by one of the approved paint test methods.</td> </tr> </tbody> </table>	Credit	Criterion	Benchmark	Indoor Pollutants	Ultra-Low VOC paints	One (1) additional point may be awarded where over 50% of paints (by cost) specified in the building have a maximum TVOC content of 5g/L. This must be verified by one of the approved paint test methods. Theoretical TVOC calculations are not acceptable for this Innovation claim.	Credit	Criterion	Benchmark	Indoor Pollutants	Ultra-Low VOC paints	One (1) additional point may be awarded where over 50% of paints (by volume) specified in the building have a maximum TVOC content of 5g/L. This must be verified by one of the approved paint test methods.
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General	V1.0	7/21	29.3	Improving on Green Star Benchmarks	<p>Projects targeting the Exceeding Green Star Benchmarks for Indoor Pollutant innovation Ultra-Low VOC Paints may use theoretical calculations to determine the grams of VOC per litre (g/L) in addition to the current methods of demonstrating that a paint, adhesive or sealant complies with this criterion. Total VOC (TVOC) values must reflect the final ready to use product, inclusive of tints (in the case of</p>												

Clarification type	Tool Version	Month Released	Sub-Credit No.	Sub-Credit Name.	Amendment/Approved Ruling
					<p>paints) and made in grams of VOC per litre (g/L) of ready to use product. All theoretical calculations should be provided by the supplier on company letterhead or on the official product datasheet.</p> <p>Documentation Requirements:</p> <p>Please provide the following in your submission;</p> <ul style="list-style-type: none"> Evidence that at least 95% of all internally applied paints, adhesives, sealants and carpets meet stipulated 'Total VOC Limits' and that one (1) point has been awarded for credit criterion 13.1 Paints, Adhesives, Sealants and Carpets. Evidence that over 50% of paints (by volume) specified in the building have a maximum TVOC content of 5g/L. All theoretical calculations on supplier letterhead or material safety data sheets, product safety data sheets, manufacturer's product specification sheets etc. A copy of this FAQ. <p>For Note: Theoretical calculations are only applicable when calculating ultra-low VOCs. Projects must demonstrate compliance for criteria 13.1 Paints, Adhesives, Sealants and Carpets and 13.2 Engineered Wood Products as per the Submission Guidelines.</p>
General	V1.0	11/20	29.3	Improving on benchmarks	<p>Can unconditioned warehouse spaces be excluded from Air Permeability Performance Testing?</p> <p>Yes. Projects may exclude unconditioned warehouse areas from the Air Permeability Performance Testing where these warehouse spaces are not conditioned by any equipment.</p> <p>All other spaces, including offices or refrigerated warehouse spaces are considered as conditioned spaces and are considered applicable to the credit criterion.</p>
General	V1.0	11/20	29.3	Improving on benchmarks	<p>What do I provide to target Improving on Green Star Benchmarks for "Supplementary or Tenancy Fitout Systems Review"?</p> <p>When pursuing the "Supplementary or Tenancy Fitout Systems Review credit" under the Improving on Green Star Benchmarks Innovation pathway, the following are documentation requirements apply.</p> <p>Design Review Submission</p> <ul style="list-style-type: none"> Submission Template CV of the project's Commissioning Agent; and Confirmation from the building owner that indicates the building owner's commitment to incorporate the Supplementary or Tenancy Fitout Systems Review as a part of the services and maintainability review. Scope of Works for the ICA. <p>As Built Submission</p>

Clarification type	Tool Version	Month Released	Sub-Credit No.	Sub-Credit Name.	Amendment/Approved Ruling
					<ul style="list-style-type: none"> Supporting documentation to support a comprehensive services and maintainability review of supplementary or tenancy fitout systems, in addition to all nominated base building systems as outlined the design, construction, commissioning and tuning phases; including meeting minutes and commissioning plans; CV of the project's Commissioning Agent; and A copy of the 'Service and Maintainability Report' evidencing the tenant systems was included in the review. <p>All other requirements as per submission guidelines</p>
General	V1.0	4/20	29.4	Innovation Challenge	The compliance requirements for the Occupant Engagement Innovation Challenge have been updated. The update requires the post-occupancy survey to be completed at least 12 months after practical completion to ensure that occupants have experienced the building through all the seasons. The survey should, however, be completed as near as practicably possible to the 12 months post practical completion date. The updated Innovation Challenge can be found here
General	V1.0	11/20	29.4	Innovation Challenge	<p>Can I use a Leesman survey to measure occupant satisfaction?</p> <p>Yes, however a technical question to demonstrate your approach must be submitted to the NZGBC for review and approval.</p> <p>The NZGBC approves in principle the use of a Leesman survey as an alternative method of compliance, on the basis that the survey core question set is expanded to address in detail occupant satisfaction, including the assessment of occupant well-being and interaction with their indoor environment.</p>
General	V1.0	10/19	29.5	Global Sustainability	<p>Project teams are not required to have been awarded the pre-approved credits from other rating tools listed under the Global Sustainability credits in Green Star - Design & As Built when making claims under the Global Sustainability credit. These pre-approved credits may also be applied to other tools of Green Star - Interiors where appropriate.</p> <p>The project team is required to outline and supply evidence to validate the claim in lieu of official WGBC member rating tool accreditation.</p> <p>Project teams using all Green Star tools may also target other items not listed as pre-approved, provided they are considered outside of the scope of the Green Star rating tools. In this case, a free-of-charge technical question should be submitted to the NZGBC for approval. For innovation claims within a Green Star crosswalk, the relevant attribute from the crosswalk does need to be achieved to target the point, as these topics have been deemed within the scope of Green Star.</p>
General	V1.0	07/20	29.5	Global Sustainability	The project proposes to submit a Global Sustainability Innovation Challenge targeting the GBCA Design & As Built Credit 25: Heat Island Effect. The proposal to target this credit is granted

Clarification type	Tool Version	Month Released	Sub-Credit No.	Sub-Credit Name.	Amendment/Approved Ruling
General	V1.0	11/20	29.5	Global Sustainability	<p>Can projects target the 6.1 Green Cleaning Policy credit from Green Star - Performance under the Innovation category?</p> <p>Yes. Projects pursuing a certification under Green Star - Design & As Built, Green Star - Interiors may target credit 6.1 Green Cleaning Policy from Green Star - Performance v1.2 under the Global Sustainability credit.</p> <p>One (1) point is available where all compliance requirements for credit 6.1 Green Cleaning Policy from the Green Star - Performance v1.2 submission guidelines are addressed. This is on the condition that the Green Cleaning Policy must be implemented for a minimum of 10 years.</p>
General	V1.0	6/21	29.5	Global Sustainability	<p>Projects pursuing a certification under Green Star - Design & As Built and Green Star - Interiors may target credit 25.1 Site Maintenance Procedures from Green Star - Performance v1.2 under the Global Sustainability credit.</p> <p>One (1) point is available where all compliance requirements for credit 25.1 Site Maintenance Procedures from the Green Star - Performance v1.2 submission guidelines are addressed. This is on the condition that the Site Maintenance Procedures must be implemented for a minimum of 10 years.</p> <p>Documentation Requirements:</p> <p>Please provide the following in your submission:</p> <ul style="list-style-type: none"> • Submission Template for Global Sustainability • Initial Certification Submission Template for credit 25.1 Site Maintenance Procedures (Green Star - Performance v1.2). Please download the submission template from the Resources page. • Formal agreement or internal policies that describe the stakeholders, targets and duration of agreements, or copies of other formal commitment devices; • A set of Site Maintenance Procedures covering the criteria prescribed in Credit 25.1 – Site Maintenance Procedures (Green Star - Performance v1.2); • At least 1 copy (or online access) of the report generated as a result of the commitments implemented; • Grounds keeping, policy, operational requirements or maintenance scope of works; • Confirmation that the best practice operational policy will be implemented by the asset owner/operator for a minimum of 10 years; • A copy of this FAQ.
General	V1.0	7/21	29.5	Global Sustainability	<p>Projects pursuing certification under Green Star - Design & As Built, and Green Star - Railway Stations may target the 'Designing for Robustness' credit from the 2015 'BREEAM In-Use International' Technical Manual.</p> <p>One (1) point is available where all compliance requirements for the credit has been addressed and evidenced as per the Asset Performance MAT 07 – Designing for robustness criteria from the BREEAM Technical Manual.</p> <p>Documentation Requirements:</p> <ul style="list-style-type: none"> • A copy of the Asset Performance MAT 07 – Designing for robustness criteria from the BREEAM Technical Manual

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					<ul style="list-style-type: none"> • Photographic as-built evidence of asset protection infrastructure listed by the client; and • Plans, studies, reports, or other documentation that reflect that robustness was taken into consideration during the design process. • A copy of this FAQ
General	V1.0	7/21	29.5	Global Sustainability	<p>There are 2 pathways available for project teams to target the credit 'Integrated Public Art' credit from the DGNB CORE 2014 rating tool under 'Global Sustainability'.</p> <p>Pathway 1: DGNB certification The project has achieved this credit in an associated DGNB certification. Documentation Requirements:</p> <ul style="list-style-type: none"> • A copy of this response. • A copy of the results from DGNB showing that this credit has been achieved. <p>Pathway 2: No DGNB certification available Projects teams may target one (1) point under 30 E - Global Sustainability by demonstrating compliance with the criteria SOC 3.2 "Integration of Public Art" from the DGNB CORE 2014 rating tool. To target the point, a total minimum of 60 checklist points (CLP) must be achieved across the 4 evaluation criteria. The GBCA notes that partial points are not applicable for this initiative. In order to assist the assessor(s) with their assessment, the project team is required to justify how they comply with the DGNB criteria. Documentation Requirements:</p> <ul style="list-style-type: none"> • A copy of this response. • A short report describing (at a minimum): <ul style="list-style-type: none"> o the number of CLP achieved per evaluation criteria. The 4 evaluation criteria are: <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Funding <input checked="" type="checkbox"/> Procurement <input checked="" type="checkbox"/> Awareness-raising <input checked="" type="checkbox"/> Alternative: Minimum public art requirement o how the project has achieved the CLPs claimed for the above categories. This includes a description of the artwork, and the initiatives undertaken and implemented. • Supporting documentation to evidence the claims above. This could include, but is not limited to:

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					<ul style="list-style-type: none"> o media announcements o artist statements o individual CVs o tour itineraries o exhibition or tour booklets <p>The GBCA provides the following interpretation of the requirements of the DGNB evaluation criteria to aid the project team and assessor(s):</p> <ul style="list-style-type: none"> • Procurement o "Art expert" is interpreted to mean an individual suitably qualified and experienced to provide art critique. o "cooperation" is interpreted to mean meetings and/or workshops. o "art competition" is interpreted to mean a public competition process in line with local, state or national competition guidelines. o "appropriate selection process" is interpreted to mean with a panel of judges o "Young artist" is interpreted to mean an individual under the age of 35. • Awareness-raising o "publications" may be interpreted as online or print media o "labelling" must be a physical plaque or similar on-site label. <p>For design assessment, if evidence of implementation is not available, commitment-style documentation may be more appropriate provided it sufficiently details how the CLP will be achieved.</p>
General	V1.0	8/21	29.5	Global Sustainability	<p>Criteria:</p> <p>3 innovation points can be awarded for projects offsetting the embodied emissions associated with the construction of the building. To be eligible, projects must fulfil the following:</p> <ul style="list-style-type: none"> - The building's upfront carbon emissions calculated from Modules A1 to A3 must be at least 10% less than those of a reference building - All remaining emissions from Modules A1-A5 must be offset through verified offset schemes. <p>Note: These innovation points are awarded specifically for the offsetting element. Further reductions in upfront carbon emissions in addition to the 10% requirement should be demonstrated by submitting through the existing LCA credit in Design and As-Built.</p> <p>Additional Guidance:</p> <p>The building's upfront carbon emissions reductions must occur through good design and material selection.</p>

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					<p>Carbon offsets purchased against the building's upfront carbon emissions from construction cannot be used to show compliance against the 10% reduction compliance.</p> <p>To demonstrate compliance, project teams should model the proposed and reference buildings following the methodology of the Life Cycle Assessments credit. Projects must document a reduction in upfront carbon according to the materials and products in the scope. If a project team has completed a LCA in accordance with the LCA credit, results of the global warming potential impact from that assessment can be used to demonstrate compliance with this innovation.</p> <p>All claims of carbon in products must be accompanied by 3rd party verified data, such as in Environmental Product Declarations (EPD)</p> <p>A calculation of upfront carbon emissions reduction should include but not limited to the following materials:</p> <ul style="list-style-type: none"> - Concrete (total) - Steel, structural and reinforcement - Structural timber and frames - Internal and external glass and glazing, including framing. - Façade materials and cladding - Masonry (brickwork and blockwork) and stone including grout; - Pipes and conduits, including plastic and metal; - Internal wall and ceiling lining including plasterboard, fibre-cement, timber cladding - Roofing including tiles and sheet metal, and - Floor coverings for example, carpets, ceramic tile and floor panels <p>Materials used in the calculator must capture at least 90% of physical materials and 90% of financial value of building products. Any materials not listed above that may be significant to the project's upfront carbon emissions must be captured.</p> <p>Demolition works are excluded from the calculation scope for the current stage.</p> <p>Supporting Information:</p> <p>Green Star Buildings (Australia): credit for Upfront Carbon Emissions</p> <p>Green Star Design & As Built NZ v1.0: credit for Life Cycle Assessment</p>