**Design Guidelines Review** 8 May 2022

**Proposal for Interim sustainability amendment**

**Background**

A full review of the NZCIC design Guidelines is in progress. A Leadership Group has been established with draft terms of reference and engagement is in progress with Nga Aho on behalf of Māori to determine the final structure of the review.

There was feedback from the NZCIC user survey that the Design Guidelines are not up to date with the latest requirements for sustainability. The Leadership Group has identified a risk that sustainability inputs will be further out of date by the time the review of the Design Guidelines is complete.

The Leadership Group have suggested that the Environmentally Sustainable Design (ESD) bullet-points within the current Design Guidelines could be updated and published as an interim revision, which will provide industry with the updated guidance it has called for.

**Suggested interim sustainability changes**

It is proposed to replace the current ESD item at each stage within the Design Guideline with a few more targeted points that focus on current thinking and encourage change that can be updated in the full review. See Table 1. The task matrix for each stage will also be updated to reflect the additional tasks set out in the text.

**Table 1 Suggested changes**

|  |
| --- |
| **Project Establishment** |
| * Consider project sustainability and carbon objectives * Consider, identify., assemble sustainability expertise required across the project team * Certification: Consider Certification tools * Carbon: Consider Carbon Assessment tools * Carbon: Consider embodied and operational carbon targets and modules of assessment, use of LCA * Carbon: Review low carbon primary structure * Consider future resilience requirements for climate change * Consider future deconstruction * Consider social procurement strategies * Review Project specific sustainability requirements noted in subsequent stages and confirm your project sustainability workflow |
| **Concept** |
| * Consider and define project sustainability and carbon objectives * Agree sustainability expertise across the project team * Agree sustainability performance targets * Certification: Agree Certification tools * Confirm Clause H1 building envelope method of compliance and complete early analysis if required * Carbon: Agree Carbon Certification tools, targets, modules, use of LCA * Output: Present Concept Carbon Brief for project based on agreed: tools, certification goals, carbon targets, resilience, future deconstruction etc. * Client to confirm Concept Carbon Brief * Advocate for and obtain carbon data for construction materials * Consider alternative options to a new building have been explored, eg reusing or repurposing existing buildings. * Identify primary elements of the building design that are likely to have significant contributions to whole-of-life emissions, for focussing effort on in preliminary design stage. |
| **Preliminary** |
| * Define and implement project sustainability and carbon objectives * Complete early computer modelling to assess design performance against carbon and sustainability targets and inform design response * Certification: Agree and implement Certification tools * Carbon: Agree and implement Carbon Certification tools * Assess climate data for project * Define embodied and operational carbon targets and modules of assessment * Incorporate Concept Carbon Brief update for any amendments * Coordination/integrate: Input into models and tools * Outputs: Complete early Lifecycle assessment LCA and consider design modifications to lower embodied and operational carbon * Client to confirm updated Carbon Brief * Advocate for and obtain carbon data for construction materials * Ensure alternative options to a new building have been explored, eg reusing or repurposing existing buildings. * Social Procurement: Agree proposed strategies |
| **Developed Design** |
| * Incorporate project sustainability and carbon objectives * Incorporate Lifecycle assessment design modifications to lower embodied and operational carbon * Minimise whole of life carbon emissions, prioritise low carbon materials * Incorporate water and energy use targets * Incorporate waste minimisation strategies * Update thermal and energy modelling, define insulation and glazing thermal performance levels following modelling. * Develop seasonal and passive strategies * Quantify material efficiency for products with high carbon impact, and compare with benchmarks (note- the data is hard to get and at this stage it is not the primary structure we are looking at) * Identify more detailed elements of building design that are likely to have the greatest contribution to whole-of-life emissions, for focussing effort on in detailed design stage. * Social Procurement: develop strategies * Advocate for and obtain carbon data for construction materials |
| **Detailed Design** |
| * Optimise relationship between operational and embodied carbon * Consider and reconfirm to client future resilience for climate change strategies * Research, advocate and avoid toxic materials * Advocate for and obtain carbon data for construction materials * Consider and reconfirm to client future deconstruction * Consider recycling of components, as input products or reused elements from site * Detail insulation, considering cold bridging and H1 compliance (architect in co-ordination with façade engineer (if on project)) * Finalise and report at end of detailed design carbon, water, energy, waste targets against earlier design reports * Finalise social procurement strategies |
| **Tender** |
| * Issue Social Procurement strategies * Define main contractor sustainability responsibilities during construction stage * Define main contractor certification tool responsibilities |
| **Construction** |
| * Monitor and verify construction against design, including noting significant product/material substitutions * Monitor waste diversion targets and volumes of construction waste * Educate on site construction team to carbon measurement and targets * Monitor compliance with certification tool requirements |
| **Post Construction** |
| Measure performance against design targets  Hold post occupancy evaluation |

**Consultation for interim sustainability changes**

As the suggested changes are an interim measure to meet an urgent industry need, consultation on the changes is limited to NZCIC members and stakeholders identified in the draft terms of reference for the review.

Feedback is sought on any objections to new clauses, any omissions identified to the new clauses.

Process for the interim review consultation:

**Feedback to be received by close of business Monday 6th of June 2022.**

**All feedback to be sent to** [**info@nzcic.co,nz**](mailto:info@nzcic.co,nz) **Please use Design Guidelines Interim Review Feedback in the subject line of the email.**

The Leadership Group will review all feedback from consultation and update document as appropriate. NZCIC Executive will then approve the updated document and publish the interim revision.

It is expected this interim review can be completed and Design Guidelines updated by the end of June.

Please direct any questions to:

Graham Burke

NZCIC Executive Director

E: [graham@grahamburke.co.nz](mailto:graham@grahamburke.co.nz)

P: 021 249 3459