

Project Controls

Master Specification

PC-ST2 Sustainability in Construction

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1	Initial Issue	02/05/19
2	Removed reference to sustainability returnable schedule and for projects undergoing an IS rating. Added requirement for projects undergoing an IS rating. Added specific sustainability initiatives to be investigated. Reduced requirement for Estimation of Impacts.	August 2020

Document Management

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PC-ST2 Sustainability in Construction

1 General

- 1.1 This Part specifies the requirements for understanding impacts and investigating and implementing initiatives to improve sustainability through construction.
- 1.2 Where the Contract Documents specify that the project is to obtain a rating under the Infrastructure Sustainability Council of Australia (ISCA) rating scheme, Clause 12 "Infrastructure Sustainability (IS) Rating" applies, and Clauses 2 to 11 do not apply.
- 1.3 Where the Contract Documents do not specify that the project will obtain a rating under the ISCA rating scheme, Clauses 2 to 11 apply and Clause 12 "Infrastructure Sustainability (IS) Rating" does not apply.

2 Sustainability Objectives

- 2.1 The Contractor's construction methodology must be undertaken to maximise the achievement of the following sustainability objectives:
 - a) minimise the generation of greenhouse gases during construction of the asset;
 - b) minimise waste generated during construction of the asset;
 - c) minimise use of mains water during construction of the asset through demand reduction strategies and through use of captured rainwater and recycled water;
 - d) minimise construction materials' lifecycle impacts;
 - e) mitigate sustainability risks and drive improved sustainability performance in supply chains;
 - f) protect and where possible enhance water quality;
 - g) avoid mobilisation of contaminants and where feasible, remediate contaminated land;
 - h) minimise the destruction / disturbance of native flora and amenity vegetation and where possible improve biodiversity outcomes;
 - i) conserve places of cultural value within and adjacent development sites;
 - j) engage effectively with local communities and relevant stakeholders;
 - k) minimise future maintenance, repair, re-engineering and / or replacement costs, having regard to future climate change impacts.

3 Sustainability Plan

- 3.1 The Contractor shall prepare a Preliminary Sustainability Plan which complies with the requirements in the Department's Sustainability Manual part 5. Submission of the Preliminary Sustainability Plan shall constitute a **Hold Point**.
- 3.2 The Contractor shall, on a six-monthly basis following acceptance of the Preliminary Sustainability Plan and until submission of the Final Sustainability Plan, submit Sustainability Progress Reports to the Principal, in accordance with the Department's Sustainability Manual part 5.
- 3.3 The Contractor shall prepare a Final Sustainability Plan which complies with the requirements in the Department's Sustainability Manual part 5.

4 Sustainable Materials

- 4.1 The Contractor shall apply the principles of the waste hierarchy to the project, in accordance with the Department's Sustainability Manual part 8.1. The outcomes must be recorded in the Sustainability Plan.

- 4.2 The Contractor shall maintain a record of the amount of recycled materials used on the project, and the amount of project-generated materials sent for recycling / disposal.
- 4.3 Quantities must be reported in tonnes per financial year, and shall be provided for the following material categories: steel, masonry (including concrete), soil / fill, plastic, glass, crumb rubber and pavement material. For each material category (as relevant), the record shall display:
- a) the amount and source of recycled material received on the project;
 - b) the amount of site-won material reused on the project;
 - c) the amount of material removed from the site for recycling, and the destination(s); and
 - d) the amount of material removed from the site and placed in landfill.
- 4.4 The record shall be provided to the Principal upon request and at Completion of work on Site.

5 Sustainable Site Accommodation and Equipment

- 5.1 The Contractor shall identify and implement actions to improve the sustainability of site accommodation and equipment used in the works, including:
- a) site accommodation facilities in accordance with the Department's Sustainability Manual part 9.1;
 - b) reducing the environmental as well as community / workforce health impacts of vehicles, plant and equipment emissions through a combination of:
 - i) purchasing or hiring mobile non-road diesel plant and equipment that complies with highest practicable EU or US EPA emissions standards (for plant over 19kW); and
 - ii) requiring sub-contractors to provide information on the emissions standards of the mobile non-road diesel plant and equipment they propose to use on site, and applying a weighting for air emission standards (in conjunction with other environmental considerations) in tender selection processes (for plant over 19kW).
 - iii) ensuring engines are correctly repaired and regularly serviced to ensure efficiency and to prevent / minimise spills and leaks;
 - iv) restricting unnecessary idling time of vehicles, plant and equipment;
 - v) improving an engine's emission performance by fitting it with an anti-pollution control device;
 - vi) ensuring fuel conforms with relevant quality standards;
 - vii) locating plant and equipment away from sensitive populations such as schools, hospitals, and / or using lowest emission equipment near these areas;
 - viii) locating plant and equipment away from residential areas;
 - ix) restricting site access to essential vehicles and machinery only; and
 - x) avoiding onsite use of diesel or petrol powered generators by substituting for / or combination of mains, renewables or battery powered options.
- 5.2 The Contractor shall record all actions implemented in response to Clause 5.1 in the Sustainability Plan and provide this information to the Principal upon request.
- a) evidence that site accommodation complies with Clause 5.1(a); and
 - b) details of emissions standards of all mobile non-road diesel plant and equipment used on site.

6 Socially Sustainable Procurement

- 6.1 The Contractor shall, in accordance with the Department's Sustainability Manual part 9:
- a) provide evidence of a formal commitment to address sustainability risks and opportunities in the supply chain;

- b) review the project / asset's supply chains to identify material social sustainability risks and opportunities; and
 - c) implement procurement actions to mitigate material social sustainability risks and realise social sustainability opportunities.
- 6.2 Progress and outcomes shall be recorded in the Sustainability Plan.

7 Minimum Sustainability Requirements

- 7.1 The Principal has nominated Minimum Sustainability Requirements for the delivery of the asset in the Contract Documents. The Contractor may choose to nominate higher or additional Minimum Sustainability Requirements in accordance with the Department's Sustainability Manual part 7.2.
- 7.2 The Contractor shall achieve the Minimum Sustainability Requirements specified in the Contract Documents, unless the Principal has accepted alternative Minimum Requirements nominated by the Contractor.
- 7.3 The Minimum Sustainability Requirements shall be achieved within the Contract Sum. The Contractor shall not rely on discretionary sustainability initiatives (as described in Clause 10 "Implementation of Sustainability Initiatives") to achieve the Minimum Sustainability Requirements.

8 Estimation of Impacts

- 8.1 The Contractor shall estimate construction greenhouse gas emissions for the asset in accordance with the Department's Sustainability Manual part 6.

9 Identification of Sustainability Initiatives

- 9.1 The Contractor must identify initiatives to reduce greenhouse gas emissions, water use, waste disposed to landfill and materials' lifecycle impacts. As a minimum, these must include:
- a) Use of non-mains water for construction and operation (eg rainwater for site offices, recycled water for irrigation), including, if necessary, extension of the current network to the project site
 - b) Use of solar powered lighting towers
 - c) Use of renewable power for site offices
 - d) Use of recycled plastic products for new wheel stops, gawk screens etc
- Initiatives must be investigated and documented in accordance with the Department's Sustainability Manual part 8.
- 9.2 The Contractor must undertake at least one workshop to identify sustainability initiatives to be further developed and implemented for the contract. The workshop must:
- a) be held at the earliest available opportunity and no later than 1 month of Contract Award, or as otherwise agreed by the Principal;
 - b) involve all relevant Contractors' personnel and Principal's personnel and other relevant stakeholders;
 - c) be facilitated by a suitably qualified professional with specific experience in undertaking sustainability assessments for major construction projects.

10 Implementation of Sustainability Initiatives

- 10.1 The following sustainability initiatives shall be non-discretionary sustainability initiatives:
- a) Principal-nominated Sustainability initiatives specified in Contract Documents;
 - b) Sustainability initiatives nominated by the Contractor and accepted in writing by the Principal;
 - c) Sustainability initiatives identified by the Contractor in accordance with Clause 9 ("Identification of Sustainability Initiatives") with a payback period less than the construction duration.

- 10.2 The Contractor must implement all non-discretionary sustainability initiatives, unless directed otherwise by the Superintendent.
- 10.3 Sustainability initiatives identified by the Contractor in accordance with Clause 9.2 ("Identification of Sustainability Initiatives") which are not non-discretionary sustainability initiative shall be discretionary sustainability initiatives. Costs associated with implementation of discretionary sustainability opportunities shall not be included in the Contract Sum.
- 10.4 The Contractor shall submit discretionary sustainability initiatives to the Principal as soon as practicable for consideration.
- 10.5 Upon request from the Superintendent, the Contractor shall implement any discretionary sustainability initiatives submitted by the Contractor. Work carried out under this clause may constitute a Variation to the Contract.

11 Performance Measurement

- 11.1 For each sustainability initiative implemented, the Contractor must keep a record of implementation costs and outcomes (in terms of actual reductions / improvements achieved). This must be presented in the final sustainability plan.

12 Infrastructure Sustainability (IS) Rating

- 12.1 Where the Contract Documents specify that the Contractor must obtain an IS rating, the Contractor shall comply with the requirements outlined in the Department's Sustainability Manual part 4.1, unless otherwise agreed in writing with the Principal. The Principal has nominated Minimum Sustainability Requirements for the asset in the Contract Documents, including a minimum IS rating score for the project and minimum levels to be achieved for specified credits.
- 12.2 The Contractor shall achieve the Minimum Sustainability Requirements specified in the Contract Documents, unless
- a) appropriate justification is provided to and approved by the Principal as to why the Minimum Sustainability Requirements are not able to be achieved.
- 12.3 For each sustainability initiative implemented, the Contractor must keep a record of implementation costs and outcomes (in terms of actual reductions / improvements achieved). This shall be provided to the Principal at completion.

13 Hold Points

- 13.1 The following is a summary of Hold Points referenced in this Part:

Table PC-ST2 13-1 Hold Points

Document Ref.	Hold point	Response time
3.1	Preliminary Sustainability Plan	10 Working Days