

Master Specification Part PC-PL1

Framework for Planning Studies

September 2024



Government of South Australia
Department for Infrastructure
and Transport

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Contents

Contents	3
PC-PL1 Framework for Planning Studies	4
1 General	4
2 Outline of planning study framework	5
3 Infrastructure sustainability planning rating	7
4 Proving phase	7
5 Pre-delivery phase	11
6 Submission requirements	14

PC-PL1 Framework for Planning Studies

1 General

- a) This Master Specification Part sets out the framework requirements for the delivery of planning studies including:
 - i) the outline of the planning study framework, as set out in section 2;
 - ii) the requirements for the infrastructure sustainability planning rating, as set out in section 0;
 - iii) the proving phase requirements, as set out in section 4;
 - iv) the pre-delivery phase requirements, as set out in section 5; and
 - v) the submission requirements, as set out in section 6.
- b) The planning studies must comply with the Reference Documents, including:
 - i) A-Z of Options in Investment Logic Mapping (available at <https://www.dtf.vic.gov.au/investment-management-standard/facilitator-guidance-and-templates>);
 - ii) Australian Transport Assessment and Planning (ATAP) Guidelines (available at <https://www.atap.gov.au/user-guide/2-the-atap-guidelines-website>);
 - iii) Department Sustainability Manual;
 - iv) Department Project Management Office (PMO) business case document templates;
 - v) Department of Infrastructure, Transport, Regional Development and Communications, Notes on Administration for Land Transport Infrastructure Projects (available at https://www.thinkroadsafety.sa.gov.au/_data/assets/pdf_file/0010/948034/Notes-on-Administration-2019-2024_2021-01.pdf);
 - vi) Department EHTM Attachment 1A - Environment and Heritage Impact Assessment Guideline;
 - vii) Infrastructure Australia's Assessment Framework (available at <https://www.infrastructureaustralia.gov.au/publications/assessment-framework>) including:
 - A. "Guide to assessing greenhouse gas emissions"; and
 - B. Guidance note "Valuing emissions for economic analysis";
 - viii) Infrastructure Australia's Infrastructure Priority List Guidelines <https://www.infrastructureaustralia.gov.au/infrastructure-priority-list>;
 - ix) Infrastructure Australia's National Carbon Values Framework, including the Guidance note 'Valuing emissions for economic analysis' (available at <https://www.infrastructureaustralia.gov.au/publications/valuing-emissions-economic-analysis>); and
 - x) SA Department of Treasury and Finance Treasurer's Instruction 17 on Evaluation of and Approvals to Proceed with Public Sector Initiatives (TI17).
- c) This Master Specification Part applies to planning studies undertaken in the proving and pre-delivery phases of a Project.
- d) Throughout the planning study, the Contractor must progressively update all deliverables required in this Master Specification Part as the Contractor's understanding of the Project develops.

2 Outline of planning study framework

- a) Figure PC-PL1 2-1 outlines the framework for planning studies as further documented in this Master Specification Part.
- b) The Contractor must undertake the planning study tasks specified in the Contract Documents. If nothing is stated in the Contract Documents then the Contractor must undertake all tasks stated in this Master Specification Part.

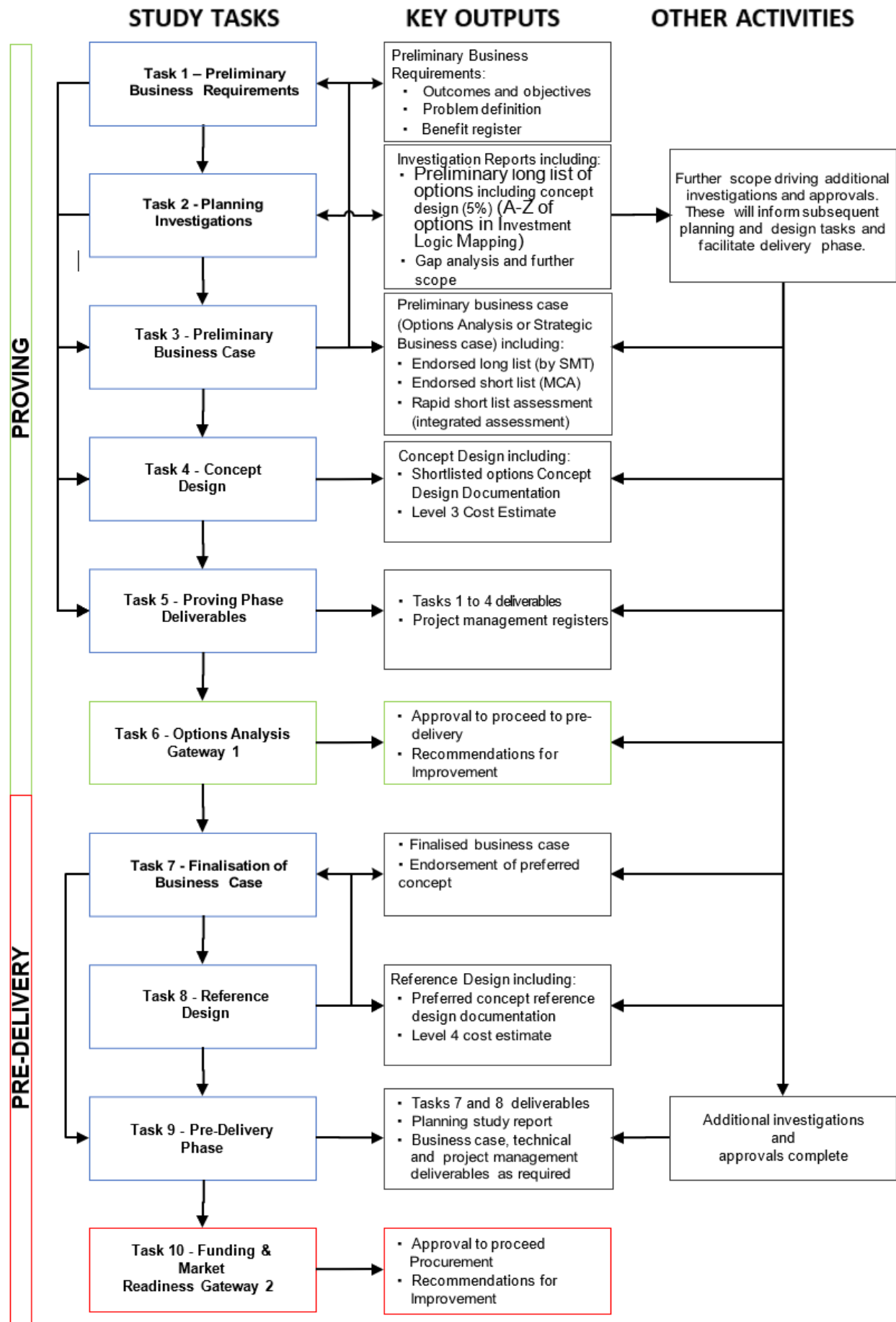


Figure PC-PL1 2-1 Outline of planning study framework

3 Infrastructure sustainability planning rating

- a) The Contract Documents will specify whether the Project is or will be registered for a planning rating under the Infrastructure Sustainability Council of Australia's IS rating scheme and in turn may nominate a minimum IS rating score for the Project and minimum levels to be achieved for specified credits.
- b) Where a Project is registered for a planning rating under the Infrastructure Sustainability Council of Australia's IS rating scheme, the Contractor:
 - i) must meet the requirements for projects undergoing IS ratings outlined in the Department Sustainability Manual;
 - ii) must achieve or exceed the score and levels specified in the Contract Documents;
 - iii) is not required to prepare a sustainability plan (pre-delivery phase deliverable); and
 - iv) must deliver the requirements of this section 3b) with the scope of the planning study.
- c) Where the Contract Documents do not specify that the Project is to obtain a rating under the Infrastructure Sustainability Council of Australia's IS rating scheme, the Contractor must determine whether the Project is to undergo a level 1 or level 2 sustainability assessment, in accordance with the Department's Sustainability Manual and deliver the applicable outputs with the scope of the planning study.

4 Proving phase

4.1 Objectives and outcomes of the proving phase

- a) Objectives of the proving phase include:
 - i) increasing clarity on the Project outcomes and benefits to be derived;
 - ii) undertaking planning investigations to ensure critical path items and approvals are known and communicated early in the Project's lifecycle;
 - iii) identifying options; and
 - iv) estimating costs to assess value for money and viability.
- b) Outcomes of the proving phase will include:
 - i) agreement of the problems and benefits; and
 - ii) justification for the Project prior to receiving funding.
- c) The preliminary business requirements, planning investigations and preliminary business case development (Tasks 1 to 3 of the proving phase) are iterative and interdependent of each other and should be undertaken concurrently.

4.2 Preliminary business requirements (Task 1)

4.2.1 General

- a) The objective of the preliminary business requirements (Task 1) is to identify, understand and align on the problems and benefits of addressing the problem.
- b) The Contractor must develop the preliminary business requirements using inputs included in the Contract Documents including initiation phase documents prepared by the Principal and the Principal's strategic framework for benefits, including:
 - i) outcome statements;
 - ii) initiative proposals and benefits registers; and
 - iii) strategic context, anticipated problems and benefits.

- c) The Contractor must develop the preliminary business requirement by, as a minimum, undertaking a review of the available information and a workshop with the Principal as described in section 4.2.2.
- d) The preliminary business requirements must be developed in accordance with the Department Sustainability Manual.
- e) The level and detail of the preliminary business requirements must be commensurate with the problem size, scope and risk.

4.2.2 Preliminary business requirements workshop

- a) Following development of the draft preliminary business requirements, the Contractor must hold a workshop to consult with Principal representatives and nominated stakeholders on key aspects of the draft preliminary business requirements.
- b) The Contractor must ensure all attendees have been provided with a copy of the draft preliminary business requirements prior to the workshop.
- c) The Contractor must ensure that the workshop focuses on problem definition, benefits and potential dis-benefits.
- d) The Contractor must document the outcome of the workshop in the preliminary business requirements report as set out in section 4.2.3.

4.2.3 Preliminary business requirements report

- a) The Contractor must prepare a preliminary business requirements report which:
 - i) documents the problems identified that need to be addressed by the Project;
 - ii) the expected benefits and potential dis-benefits (outcomes and objectives) that will result;
 - iii) includes a benefits register and risk register; and
 - iv) defines the Green Infrastructure targets that are to be achieved within the Site and the amount and location of any additional greening to be delivered beyond the Site.
- b) The Contractor must submit the preliminary business requirements report to the Principal in accordance with section 6. The Contractor must not commence the next task until it receives the Principal's approval in accordance with section 6.4b)i).

4.3 Planning investigations (Task 2)

- a) The objectives of the planning investigations (Task 2) include:
 - i) to understand how matters such as engineering, environmental and heritage conditions, greenhouse gas emissions, physical climate risks, land ownership and rights, legislation, stakeholder and community opinion or social profile in the area of the proposed Project may affect generation and selection of options and delivery of the Project;
 - ii) to expedite de-risking of critical path items and approvals; and
 - iii) to generate options that address the business requirements set out in the approved business requirements report.
- b) The Contractor must prepare a data request register describing the data required from the planning investigations to support the subsequent planning study tasks. The data request register must include:
 - i) a description of the data required;
 - ii) preferred due date;
 - iii) importance and urgency of the item; and

- iv) whether the item has been provided.
- c) The Contractor must maintain and update the data request register and provide access for use and review by the Principal.
- d) The Principal may, where available, provide relevant inputs including data documented in the data request register.
- e) The Contractor must undertake planning investigations sufficient to deliver on the Project objectives described in the approved business requirements report. Planning investigations must be in accordance with PC-PL2 “Planning Investigations”.
- f) In the course of its planning investigations, and as soon as practical once identified, the Contractor must inform the Principal of critical path items and approvals and any additional detailed investigations (e.g., vegetation surveys, ground investigation) that should be expedited in order to meet the Principal’s program or given the materiality of the item or approval.
- g) In accordance with the requirements of PC-PL2 “Planning Investigations”, the Contractor must prepare investigation reports summarising planning investigations undertaken and documenting findings, a gap analysis (where relevant) and recommendations for further detailed investigations as required.
- h) During the course of the planning investigations, the Contractor must develop a preliminary long list of options which must meet the business requirements set out in the approved business requirements report and in accordance with the A-Z of Options in Investment Logic Mapping.

4.4 Preliminary business case development (Task 3)

- a) The objective of the preliminary business case development (Task 3) is to utilise outputs of the preliminary business requirements and planning investigations and commence the preparation of business case documentation.
- b) The preliminary business case development must comply with Department Project Management Office (PMO) business case document templates. At this stage of the proving phase, the business case document will either be an options analysis template or adaptation of that template to a strategic business case document as directed by the Principal or as required by the Contract Documents.
- c) The preliminary business case must comply with the assessment approach documented by:
 - i) the ATAP Guidelines;
 - ii) Infrastructure Australia’s Assessment Framework including the “Guide to assessing greenhouse gas emissions”;
 - iii) Infrastructure Australia’s National Carbon Values Framework, including the Guidance note ‘Valuing emissions for economic analysis’;
 - iv) Infrastructure Australia’s Infrastructure Priority List guidelines;
 - v) SA Department of Treasury and Finance Treasurer’s Instruction 17 on Evaluation of and Approvals to Proceed with Public Sector Initiatives (TI17); and
 - vi) other methodologies and guidelines provided by the Principal.
- d) The preliminary business case as a minimum must include:
 - i) where possible, monetisation of the problems and benefits including use of carbon values contained in Infrastructure Australia’s National Carbon Values Framework guidance note “Valuing emissions for economic analysis” where carbon impact has been quantified;
 - ii) socio-economic evaluation including a discounted cash flow analysis;

- iii) development of assessment methodologies that are in alignment with the Principal's mandated assessment methodologies. These assessment methodologies must consider the business requirements, socio-economic evaluation and outcomes of planning investigations considered material to the project and include:
 - A. a strategic-merit test;
 - B. multi-criteria analysis; and
 - C. integrated assessments inclusive of benefit cost analysis;
 - iv) details of the assessment undertaken by the Contractor utilising the relevant methodologies in section 4.4d)iii) on the preliminary long list of options (strategic merit test) and long list of options (multi criteria analysis) to derive a shortlist of options;
 - v) details of the derived shortlist of options;
 - vi) clear rationale for proceeding with the preferred options; and
 - vii) details of all engagement with the Principal and other stakeholders during, and as an input to, the development of the assessment methodology to ensure alignment with the methodology.
- e) The Contractor must develop a nominal 5% concept design for each longlist option that passes the Strategic Merit Test in accordance with PC-PL3 "Concept Design Development", and include those concept designs in the preliminary business case.
 - f) The Contractor must submit the preliminary business case documentation to the Principal in accordance with section 6. The Contractor must not progress to Task 4 in accordance with section 4.5 until the Principal approves the preliminary business case in accordance with section 6.4b)i).

4.5 Concept Design (Task 4)

- a) The Contractor must develop a Concept Design management plan in accordance with PC-PL3 "Concept Design Development".
- b) The Contractor must develop the short listed options from the approved preliminary business case into Concept Designs in accordance with PC-PL3 "Concept Design Development".
- c) The Contractor must develop Level 3 cost estimates for each Concept Design in accordance with PC-PL5 "Cost Estimation".
- d) The Contractor must assess the constructability of the Concept Design in accordance with PC-PL4 "Constructability Assessment" commensurate with the project size, scope and risk.
- e) Submission requirements for documentation developed in Task 4 are detailed in section 4.6.

4.6 Proving phase deliverables (Task 5)

- a) The key deliverables for the proving phase (Task 5) include:
 - i) a preliminary business requirements report as required in section 4.2.3;
 - ii) a Concept Design report, Drawings and other deliverables required in PC-PL3 "Concept Design Development"; and
 - iii) standalone technical deliverables resulting from PC-PL2 "Planning Investigations" as required in section 4.3, including:
 - A. in accordance with the Department Sustainability Manual, a report documenting greenhouse gas emissions and physical climate risks for each shortlisted option and the outcomes of the assessment of emission reduction and circular economy opportunities; and
 - B. preliminary environment and heritage impact assessment in accordance with the Department EHTM Attachment 1A - Environment and Heritage Impact

Assessment Guideline incorporated into planning study report or Concept Design report.

- b) If required by the Contract Documents, the Contractor must also prepare:
 - i) a preliminary planning study report. This will be a 'working draft' that documents the planning study activities undertaken to date; and
 - ii) an options analysis report (otherwise called an outline business case) or strategic business case document (a document that sits in between an options analysis and full business case in terms of the extent of planning and design, estimate level, engagement extent) in accordance with the Department Project Management Office (PMO) business case document templates.
- c) The Contractor must also prepare the following deliverables which will be 'live' documents that are maintained and updated by the Contractor and are accessible and available for use and review by the Principal during the remaining duration of the planning study:
 - i) the data request register in accordance with Task 2 as set out in section 4.3;
 - ii) a task and deliverables register including target and delivered dates;
 - iii) a planning study decisions register including records of any consultation with the Principal or stakeholders; and
 - iv) a risk register.
- d) The Contractor must submit the proving phase deliverables in Tasks 4 and 5 to the Principal in accordance with section 6. The Contractor must not commence Task 6 in section 4.7 until it has received the Principal's approval in accordance with section 6.4b)i).

4.7 Gateway 1 review / governance review (Task 6)

- a) If specified in the Contract Documents, the Contractor must participate in an internal gateway 1 funding readiness review, including presenting proving phase deliverables and attendance at gateway review interviews.
- b) If a gateway 1 review is not undertaken, the Principal may undertake an alternative internal governance review of the Project that the Contractor will participate in if required by the Principal.

5 Pre-delivery phase

5.1 Objectives and outcomes of the pre-delivery phase

- a) The objectives of the pre-delivery phase include:
 - i) refining the Project scope;
 - ii) refining the approach to procurement and delivery; and
 - iii) the commitment to the Project.
- b) Inputs for the pre-delivery phase will include:
 - i) outputs from the proving phase in section 4; and
 - ii) recommendations of the gateway 1 review or other internal governance review undertaken by the Principal pursuant to section 4.7.
- c) Outcomes of this pre-delivery phase will include funding commitment and foundation documentation to facilitate the commencement of the procurement phase of the Project.

5.2 Finalisation of business case (Task 7)

- a) The objective of Task 7 is the finalisation of the business case (other than any updates that may be required pursuant to section 5.4) by adopting a preferred option from the short list assessed that best delivers on the preliminary business requirements and that addresses the Project risks.
- b) The Contractor must further develop the business case commenced in Task 3 (refer section 4.4) to deliver on the objectives in section 5.2a). As a minimum the business case must include:
 - i) outcomes from the application of a suitably robust assessment methodology (as per preliminary business requirements Task 3, an integrated assessment) to the short-listed Concept Designs developed pursuant to section 4.5 using updated and additional information;
 - ii) the identification of a preferred Concept Design;
 - iii) updated greenhouse gas assessment, in accordance with the requirements of the Department Sustainability Manual;
 - iv) where the preferred Concept Design requires new infrastructure, clear rationale for proceeding with this option, with consideration to whole-of-life greenhouse gas emissions and net zero alignment; and
 - v) details of the engagement with the Principal and other stakeholders during, and as an input to, the process of recommending a preferred Concept Design.
- c) The Contractor must submit the updated business case identifying the preferred Concept Design to the Principal in accordance to section 6. The Contractor must not commence Task 8 in section 5.3 until it receives the Principal's approval in accordance with section 6.4b)i).

5.3 Reference Design (Task 8)

- a) Following the Principal's approval of the business case identifying the preferred Concept Design, the Contractor must further develop the preferred Concept Design into a Reference Design in accordance with PC-PL3 "Concept Design Development".
- b) The Contractor must develop a Level 4 cost estimate for the Reference Design in accordance PC-PL5 "Cost Estimation".
- c) The Contractor must assess the constructability of the Reference Design in accordance with PC-PL4 "Constructability Assessment" commensurate with the Project size, scope and risk.
- d) Submission requirements for documentation developed in Task 8 are detailed in section 5.4.

5.4 Pre-delivery phase deliverables (Task 9)

- a) Key deliverables of the pre-delivery phase (Task 9) are:
 - i) a full planning study report;
 - ii) Reference Design report, Drawings and other deliverables required in PC-PL3 "Concept Design Development"; and
 - iii) other documentation to assist the delivery phase.
- b) The full planning study report must document all of the planning study activities undertaken across the proving and pre-delivery phases including:
 - i) a strategic merit test assessing the Project's alignment with Principal, State and Commonwealth strategic policies and objectives, including net zero alignment, as defined in the Department Sustainability Manual;
 - ii) relevant outputs of PC-PL2 "Planning Investigations";

- iii) the socio-economic analysis including the benefit cost analysis and any related calculation files;
 - iv) the options assessment methodologies used for assessment of options, and any related analysis files for the shortlisted and preferred Concept Designs;
 - v) Project funding and budget impacts including cash flow, program and procurement planning; and
 - vi) the final integrated assessment (benefit cost analysis and multi criteria assessment) including correlation of the qualitative, quantitative and monetised analysis to derive the preferred Concept Design.
- c) Where carbon impact has been quantified it must be monetised using the carbon values contained in Infrastructure Australia's National Carbon Values Framework guidance note "Valuing emissions for economic analysis" and must be incorporated into the planning study report in accordance with the Department Sustainability Manual.
- d) If required in the Contract Documents, the Contractor must update the business case or compile State and Commonwealth submissions including:
- i) business case documentation in section 5.2 including:
 - A. the preferred option;
 - B. results from financial, economic, social and environmental analysis that demonstrates that the preferred option is justified and best value for money;
 - C. benefits and the primary benefits management strategies proposed; and
 - D. key risks and the primary risk management measures proposed;
 - ii) a development or delivery phase project proposal report suitable for submission to the relevant Commonwealth department as notified by the Principal;
 - iii) if required to accompany the development or delivery phase project proposal report, an Indigenous Participation Plan that reflects the business requirements in the approved business requirements report and requirements of the relevant Commonwealth department as notified by the Principal;
 - iv) a completed Stage 1, 2 or 4 Infrastructure Australia assessment framework submission in accordance with Infrastructure Australia's Assessment Framework, including the "Guide to assessing greenhouse gas emissions" and guidance note "Valuing emissions for economic analysis";
 - v) an executive summary report suitable for cabinet submission;
 - vi) a public works committee submission (where applicable, the submission will be lodged, and acquittal sought, by the Principal); and
 - vii) an ecologically sustainable development report, using the Principal supplied template, that will be attached to the Public Works Committee submission.
- e) If required by the Contract Documents, the Contractor must provide the following planning study and technical deliverables:
- i) final business requirements, to be updated from the approved business requirements report (Task 1) and considering outcomes of the planning study;
 - ii) investigation reports resulting from PC-PL2 "Planning Investigations" to be updated from planning investigations (Task 2) and including any additional investigations including the following:
 - A. a report on the assessment of outcomes for aboriginal people; and
 - B. an EHIAR in accordance with the Department EHTM Attachment 1A - Environment and Heritage Impact Assessment Guideline including additional

- assessment and investigation data collected by the Contractor in the course of the planning study or provided by the Principal;
- iii) a planning phase sustainability plan for the Reference Design which complies with the requirements in the Department Sustainability Manual;
 - iv) publicly available documentation in accordance with the Department EHTM Attachment 1A - Environment and Heritage Impact Assessment Guideline; and
 - v) visual media for the Principal to use in communication of the Reference Design to the community and stakeholders including the following:
 - A. all media must include road names, north arrow and Principal's logo;
 - B. for an artist's impression, a minimum of two perspectives covering the major movements and one perspective covering key design features; and
 - C. for a fly-through / visualisation, it must commence with an aerial 2D showing the South Australian road network and project site it must include a minimum of two directional perspectives.
 - f) Visual media must be generated in accordance with PC-PL3 "Concept Design Development".
 - g) The Contractor must prepare completed project management and governance deliverables which originated in Task 5 (refer section 4.6c) including:
 - i) the data request register;
 - ii) the task and deliverables register;
 - iii) the planning study decisions register including records of any consultation with the Principal or stakeholders;
 - iv) a final risk register for use by the Principal. The risk register will be based on outcomes of the study and will complement the suite of project management and governance deliverables by documenting the key risks identified in each; and
 - v) a planning study lessons learnt report and register.
 - h) The Contractor must submit the draft pre-delivery phase documents to the Principal for review and endorsement in accordance with section 6. The Contractor must update the document and issue the final pre-delivery phase document upon the Principal's approval of the draft pre-delivery document.

5.5 Gateway 2 review / governance review (Task 10)

- a) The Principal may co-ordinate and schedule an internal gateway 2 market readiness review in accordance with its gateway review framework.
- b) Where applicable, the Contractor must participate in the gateway 2 review, including presenting pre-delivery phase deliverables and attendance at gateway review interviews.
- c) If a gateway 2 review is not undertaken, the Principal may undertake an alternative internal governance review of the Project that the Contractor must participate in if required by the Principal.

6 Submission requirements

6.1 General

This section 6 relates to all document submissions required in:

- a) this Master Specification Part;
- b) PC-PL2 "Planning Investigations";

- c) PC-PL3 “Concept Design Development”;
- d) PC-PL4 “Constructability Assessments”; and
- e) PC-PL5 “ Cost Estimation”.

6.2 Submission

- a) The Contractor must submit all documents for review to the Principal and any other nominees in accordance with the relevant Master Specification Part.
- b) For each submitted document identified in section 6.2a), the Contractor must provide:
 - i) details of the document, including its nature and the relevant Master Specification Part and section to which the submission relates; and
 - ii) any other information that is required by the Contract Documents or that is otherwise necessary for the review of the document.

6.3 Further information

The Contractor must, as soon as possible upon request by any reviewing party:

- a) submit any further information, data or documents;
- b) make available appropriately qualified personnel to explain the documentation; and
- c) provide access to the Contractor’s records, that the reviewing party reasonably requires in order to review and respond to the relevant document.

6.4 Review of documentation

- a) Where a document has been identified as requiring review by a nominee of the Principal, the Contractor must submit any comments received from the nominated review party, or provide confirmation that no comments have been received, to the Principal within the time periods set out in section 6.5.
- b) The Principal must review the submitted document within the review period in accordance with section 6.5 and either:
 - i) approve the submission with no comments; or
 - ii) provide comments on the submitted document.
- c) Where comments have been provided on the submitted document 6.4b), the Contractor must resubmit the document in accordance with section 6.2 and the requirements of sections 6.2, 6.3, 6.4 and 6.5 will reapply for the resubmitted document.

6.5 Review period

The review period that applies for the Principal for the relevant submission related to documentation (commencing on the date that all the relevant details and information is submitted by the Contractor in accordance with section 6.2 and 6.3) is either the period specified in the Contract Documents, or where no period is specified, as follows:

- a) where the period is nominated in the Master Specification, that time period;
- b) where a period of ‘as required’ is expressly specified, no time limit will apply; or
- c) where no period is expressly specified in the Master Specification, then 10 Business Days.

6.6 Format of submissions

The relevant documents listed in Table PC-PL1 6-1 must be submitted, in the form identified in Table PC-PL1 6-1.

Table PC-PL1 6-1 Document submission formats

ID	Submission	Document type⁽¹⁾
1	Project Plans	a) Portable Document Format type A (PDF / A) b) Original native format
2	Design Documentation	a) Portable Document Format type A (PDF / A) b) AutoDesk / Bentley / 12D (where applicable) c) Original native format
3	Digital model files	a) Original native format b) Industry foundation class (IFC) c) Navisworks (NWD, NWF, NWC) d) Any other agreed with the Principal
4	Reports, including concept design reports	a) Portable Document Format type A (PDF / A) b) Microsoft Word c) Original native format
5	Video files	a) MPEG-4 / MP4 b) Original native format
6	Images	a) Portable Network Graphics (PNG) b) Joint Photographic Experts Group (JPEG)
7	Calculation files including socio-economic analysis and benefit cost analysis	a) Original native format (fully functioning excel format)

Table notes:

(1) Where more than one document type is specified, all the specified formats for each type of document must be included in the relevant submission.