

**PART P80**  
**REFERENCE DESIGN**

**CONTENTS**

1. GENERAL
2. REFERENCE DESIGN
3. PROJECT DESIGN BRIEF
4. PUBLIC DISPLAY OF THE REFERENCE DESIGN
5. HOLD POINTS

**1. GENERAL**

- .1 This Part specifies the requirements for preparing the Reference Design and Project Design Brief. It provides guidance where the preparation of a reference design forms part of a Planning Studies consultancy and is not applicable in the instance of a Design and Construct Contract. It is to be used in conjunction with Part P20 Planning General and AS 4122.
- .2 **"Reference Design"** (alternatively referred to as the "Concept Design") means a design of the Preferred Concept which will be provided by the Principal to companies or consortia who tender for a design and construct contract for this Project.
- .3 The following documents are referenced in this Part:
  - (a) AS4122 Conditions of Contract
  - (b) P20 Planning General
- .4 Design of the Preferred Concept shall be carried out in accordance with DPTI: Road Design Standards and Guidelines (available via internet <http://www.dpti.sa.gov.au/standards>) and the technical requirements relevant Parts of the DPTI "Master Specification for Transport Infrastructure" as outlined by the Principal. These Parts may be obtained from the following Internet site: <http://www.dpti.sa.gov.au/documents/contractsandtenders/specifications>.
- .5 Unless the prior written approval of the Principal has been given, the following shall apply to the interpretation of standards, guidelines and codes:
  - (a) where "Desirable" and "Absolute" design limits are provided for, the Desirable shall apply, unless the "Desirable" design limit cannot be achieved within the constraints specified for this Study; and
  - (b) where an item, approach or option is expressed in terms such as "should", "may be", "recommended", "suggested", "desirable" or "advisable", the item, approach or option referred to shall be deemed to be a mandatory requirement.

Commented [D1]: Include this sentence where appropriate

**2. REFERENCE DESIGN**

- .1 The Reference Design represents a notional 30% complete design and it shall define the Project to the extent that:
  - (a) the road footprint is defined (for unkerbed roads, the interface between the cut or fill batters and the ground model must be determined within 4 m for mid-block sections, and 2 m for any grade separation treatments or structures);
  - (b) the proposed land boundaries are defined sufficiently to enable any land acquisition to be initiated successfully and the extent of mitigation measures required for individual landowners is established;
  - (c) impacts on the local road network and the access needs of landowners and mitigation measures (where appropriate) are defined, including the potential for cost sharing with Councils;
  - (d) the extent of environmental mitigation measures required is established, if not covered in a separate environmental report;
  - (e) stormwater design is undertaken to the extent that all significant drainage structures, including culverts and retention basins, are identified with approximate sizes and take into account any known future drainage works;
  - (f) impacts on Utility Services are defined, including verification of the location of the services and the estimated cost of relocation;
  - (g) all other features such as noise barriers, retaining walls, safety zones, service corridors and other special treatments are clearly identified;

- (h) interim connections for any staged development of the road, including associated land requirements; and
  - (i) draft agreements can be established between Councils and DPTI regarding the scope of the works, impacts on Council issues and any potential cost sharing arrangements.
- .2 The Contractor shall undertake a Stage 2 Road Safety Audit on the Concept Design in accordance with Austroads / Standards Australia publication "Road Safety Audits". An estimate of the Total Project Cost shall accompany the Concept Design (refer Part P20 Planning – General, Clause 4 "Cost Estimates and Economic Evaluation").
  - .3 The Reference Design Drawings shall be clearly labelled as "Reference Design" and shall not be labelled "Preliminary Design".
  - .4 Provision of the Reference Design (in stages if appropriate) of shall constitute a **HOLD POINT**.

**3. PROJECT DESIGN BRIEF**

- .1 The Contractor shall provide a reference Design which shall be accompanied by a Project Design Brief that includes:
  - (a) extent of environmental impacts and mitigation measures required, if not covered in a separate environmental report;
  - (b) draft agreements between Councils and DPTI re the scope of the works, any required changes to zoning, impacts on all Council issues and potential cost sharing arrangements;
  - (c) plans, estimated costs and detailed discussion of the extent of the works required for redevelopment of the Councils local road network, including the potential for cost sharing;
  - (d) performance requirements, technical standards and constraints (e.g. environmental, construction staging, property access) that the final design must be comply with;
  - (e) discussion of any issues identified during the planning that need further investigation or consideration;
  - (f) reference to all agreements or commitments with individual stakeholders / land holders that affect the design; and
  - (g) identification of land boundaries, including appropriate plans, a listing of affected landholders / occupiers and quantification of impacts on each property.
- .2 The Contractor shall prepare a version of the Project Design Brief which is suitable for inclusion in a Request for Tender document for the Design and Construction of the project.

**4. PUBLIC DISPLAY OF THE REFERENCE DESIGN**

- .1 The Contractor shall ensure the reference Design shall be provided in two stages as follows:
  - (a) Stage 1 - completed prior to the Public Display(s); and
  - (b) Stage 2 - completed after approval of the Preferred Concept, incorporating any conditions specified in the approval.
- .2 The Reference Design Stage 1 shall define the Project to the extent that it can be displayed publicly and confidently and allow for comment from and fully inform all stakeholders of its consequences.
- .3 The Reference Design Stage 2 shall incorporate any necessary alterations or agreed changes following public display(s) and specified in the approval.
- .4 If requested by the Principal, following completion of the Reference Design, the Consultant shall undertake a public display of the project so that stakeholders may see the final approved scheme.

Commented [D2]: Delete if not required

**5. HOLD POINTS**

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

CLAUSE REF.	HOLD POINT	RESPONSE TIME
2	Reference Design	1 working days