|  |  |  |
| --- | --- | --- |
| Specific Job Requirements | Compiled | Type here |
| Job No. | Type here | Verified | Type here |
| Principal EngineerDate |

# Hydraulic analysis and design

|  |  |
| --- | --- |
| Cross Drainage | % Probability |
| When designing cross drainage, the Head Water Level should generally be designed to allow 100 mm freeboard to the shoulder, as recommended in the Road Drainage Manual.However, in difficult situations, immunity Head Water level may be allowed to encroach onto the lane (refer drainage design manual). This applies where floods larger than the design flood could cause unacceptable flooding upstream or damage the road in overtopping. |
| Road Surface Drainage |
| Component | Average Recurrence Interval |
| Design (Years) | Check (Years) |
| Gazetted Road |
| Gutters | 10 | 25 |
| Inlets | 20 | 50 |
| Table Drains | 20 | 50 |
| Catch Banks | 20 | 50 |
| Shire Road |
| Gutters | 5 | 25 |
| Inlets | 5 | 50 |
| Table Drains | 10 | 50 |
| Bridge Decks | 20 | 50 |
| Intersections | 20 | 50 |

# Lighting

|  |  |
| --- | --- |
| Intersection Lighting | Route Lighting |
| Type here | Type here |
| Road, Intersection or Cul‑de‑sac |
| Type here |

# Design year

|  | Design year\* |  | Design year\* |
| --- | --- | --- | --- |
| Pavement Design | 20 | Temporary Connection | 20 |
| Traffic Lanes | 20 | Traffic Signal Ducting | 15 |
| Intersection Design | 15 | Interchanges | # |
| \* Years after opening to traffic (Consultant to calculate year based on project let for construction six months after completion of design Contract). |
| # Refer Austroads Guide to Road Design Part 4C: Interchanges and local standards. |

# Geotechnical investigation

|  |
| --- |
| Minimum requirements: |
| Soaked CBR tests (1 point) on existing pavement at @ locations. |
| Soaked CBR tests (4 point) on subgrade / insitu material at @ locations. |
| Grading and Atterberg limits on existing pavement (base and sub‑base) at @ m intervals. |
| Grading and Atterberg limits on subgrade / insitu material at @ m intervals. |
| Exploratory pits at @ locations including DCP, Moisture Content, Soil Classification and layer depths. |
| Bridge foundations |
| As per Clause 8.2.2 of the Austroads Guide to Bridge Technology Part 4: Design Procurement and Concept Design. |

# Environmental and Cultural Heritage Management

**@ Type Here** Project Manager to delete if not applicable

Scope for Cultural Heritage Risk Assessment (CHRA)

The Consultant shall refer to C7559 Terms of Reference for Cultural Heritage Assessment, which identifies standard requirements for the CHRA.

(Where applicable, add additional assessments to be undertaken as part of the CHRA.)

**@ Type Here Scope for Cultural Heritage Field Assessment**

The Consultant shall refer to C7559 Terms of Reference for Cultural Heritage Assessment, which identifies standard requirements for the Aboriginal or Torres Strait Islander Heritage Field Assessment and/or Historical / European Heritage Field Assessment. Note Table 5.1 for which field assessments are required.

(Where applicable, add additional assessments to be undertaken as part of the Field Assessment.)

Table 5.1 Scope of Cultural Heritage Assessment

|  |  |  |
| --- | --- | --- |
|  | Not required | Required |
| Cultural Heritage Risk Assessment | ☐ | ☐ |
| Aboriginal or Torres Strait Islander Heritage Field Assessment | ☐ | ☐ |
| Historic / European Heritage Field Assessment | ☐ | ☐ |

**@ Type Here Project Manager to delete if not applicable**

Scope of Preliminary Environmental Assessment

C7557 Terms of Reference for Preliminary Environmental Assessment identifies standard assessments required for environmental as part of planning and options analysis.

(Where applicable, add additional assessments to be undertaken as part of the Environmental Scoping Report.)

The Consultant shall refer to C7559 Terms of Reference for Cultural Heritage Assessment, which identifies standard assessment requirements for cultural heritage as part of planning and options analysis.

**@ Type Here** Project Manager to delete if not applicable

Scope of Review of Environmental Factors

The scope of the environmental assessment undertaken as part of the Review of Environmental Factors, shall be based on assessment and the risks and uncertainty identified in the Preliminary Environmental Assessment and scope of the project.

C7558 Terms of Reference for Review of Environmental Factors identifies the scope of desktop, standard field and high‑risk field level assessments of each of the environmental factors. The Consultant shall refer to C7558 Terms of Reference for Review of Environmental Factors and undertake the assessment corresponding to the level identified in Table 5.2 following. Where the assessment identifies greater uncertainty or risk than previously identified, the Consultant shall inform the Principal and propose a suitable assessment level.

| Environmental Factor | Assessment Level |
| --- | --- |
|  | Out of Scope | Desktop | Standard Field | High-risk field |
| Water |[ ] [ ] [ ] [ ]
| Soil and Land |[ ] [ ] [ ] [ ]
| Ecosystems and Habitat |[ ] [ ] [ ] [ ]
| Flora |[ ] [ ] [ ] [ ]
| Fauna |[ ] [ ] [ ] [ ]
| Biosecurity Matters |[ ] [ ] [ ] [ ]
| Air |[ ] [ ] [ ] [ ]
| Amenity |[ ] [ ] [ ] [ ]
| Resource Use and Waste |[ ] [ ] [ ] [ ]
| Special Areas and Land Tenures |[ ] [ ] [ ] [ ]
| Other – @Type here Please specify other assessments or deliverables to be included under the Review of Environmental Factors. | [ ]  |
| Environmental Management Plan (Planning) | [ ]  |

Table 5.2: Scope of Environmental Assessment