Engineering Survey Brief

16 February 2022 | Version 1.0

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| **Contact details** | Department of Infrastructure, Planning and Logistics, Transport and Civil Services Division |
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| Version | Date | Author | Changes made |
| 1.0 | 16 February 2022 | Sam Hatzivalsamis | New Format |
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| --- | --- |
| Acronyms | Full form |
| NTG | Northern Territory Government |
| km | Kilometres |
| m | Metres |
| PRP | Permanent Reference Point |
|  |  |

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# SCOPE OF SERVICES

## PROJECT BACKGROUND

*Provide appropriate wording to describe the project, where it is located and its extent. Include “Google Map”.*

The ……… Road is …km long, and provides access to …….. and other communities further east/west/north/south. The first ….km of the road from ……… is sealed. The Department of Infrastructure, Planning and Logistics is proposing to upgrade and seal the road by approximately …km to connect with the end of the existing seal at Ch...km….

## SCOPE REQUIREMENTS

*Edit to include only those sections required for the project / Provide the required wording specific to the project.*

Provide survey to enable the Detailed Design of the project in accordance with the current version of the Standard Specification for Engineering Survey.

Where survey involves working on, or immediately adjacent to, trafficked roads, the Consultant shall submit a Traffic Management Plan in accordance with the requirements defined in the “Provision for Traffic” section of the NTG Standard Specification for Roadworks, and obtain the appropriate approvals.

The Consultant shall take measures for the protection of employees, other road users and property, and assume responsibility for minimising obstruction and inconvenience to the public, and the safe conduct of traffic through or around the works, 24 hours a day, from commencement to completion of the survey works.

The Consultant needs to be cognisant of “restricted work hours in built up areas” and adhere to the requirements defined in the subsection “Work in Built up Areas” of the NTG Standard Specification for Roadworks.

The survey costs are to include preparation and implementation of a traffic management plan for the related the field works.

## SPECIFIC PROJECT REQUIREMENTS

*Edit to include only those sections required for the project and modify wording as required*

The survey consultant is required to provide a three-dimensional mathematical representation (model) of the site upon which geometric design, analysis and computation can be based and should be aware that no minimum or maximum number of points, cross sections or grid criteria are requested, but surveyed points should be no further than 25m apart along existing roads. Sufficient measurements are required to ensure all points and strings in the digital model accurately reflect their true in-situ geometric shapes and locations, inclusive of changes in the vertical and horizontal directions within road pavements and the general terrain.

The Engineering survey along …….. Road is required between Ch. ..km… to Ch. ..km….

The survey area width shall extend to the full width of the road reserve, as represented by the adjacent property Cadastral boundaries or Choose an item. each side of the existing road centreline.

The chainages of the survey are to be derived from following nearest PRP.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Road No.** | **Road Name** | **PRP No.** | **PRP Description** | **Chainage (km)** | **Latitude** | **Longitude** |



The required levels of accuracy for points, linear features and surface model are defined in Section 10.4 of the Standard Specification for Engineering Survey. The survey must comply with these current levels of accuracy.

The area to encompass the proposed road pavement shall be Choose an item. wide and centrally located over the existing road centreline/reserve and shall be surveyed using survey equipment capable of providing minimum results equivalent to Accuracy Classification Level “C” and resultant verification of the survey in accordance with Section 10.4 of the Standard Specification for Engineering Survey.

The verification survey shall comprise of a table within the survey report and shall include, but not limited to, listing each verification string point, its distance from the road centreline, the accuracy level it falls in, and the level difference to the model.

The survey shall:

* Capture the full extent of all existing drainage and offlet drains consistent with the requirements of Section 10.20 of the Standard Specification for Engineering Survey.
* Include the identification and location of all aboveground, overhead and underground utility services consistent with the requirements of Section 10.16 of the Standard Specification for Engineering Survey.
* Provide photographs of features as noted in Section 10.21.1 of the Standard Specification for Engineering Survey.
* Provide Geo-referenced Aerial Imagery of the survey site. The area of the imagery shall extend to a minimum width of Choose an item. beyond the Cadastral boundaries and should not comprise of Google Earth imagery. Provide imagery consistent with the requirements of Section 10.21.2 of the Standard Specification for Engineering Survey
* Provide drive through video in each direction consistent with the requirements of Section 10.21.3 of the Standard Specification for Engineering Survey.

## SCHEDULE OF CONTRACT DOCUMENTS

The following documents shall form part of the contract.

|  |  |
| --- | --- |
| **ATTACHMENT** | **TITLE** |
| Attachment A | Standard Specification for Engineering Survey |

## 

## SCHEDULE OF DOCUMENTS FOR INFORMATION

The following document is provided for Information only for Respondents. They shall not form part of Contract.

|  |  |
| --- | --- |
| **ATTACHMENT** | **TITLE** |
| Attachment B | Example Maningrida Ramingining Road Survey Location |
| Attachment C | Example AAPA Certificate(s) |
| Attachment D | Example Environmental Clearances |
| Attachment E | Example Reports on Gravel pits |
| Attachment F | Example Water resources in the project area |

## DELIVERABLES

The project deliverables shall include items identified and requested in this brief and in Section 13 of the Standard Specification for Engineering Survey.