

TERMS OF REFERENCE

Terms of Reference (TOR) for the work of "Consultancy Services for preparation of Detailed Project Report for Construction of Vehicular Underpass from km 15/500 to 16/500 of Madurai Ring Road due to expansion of Madurai Airport"

1. General

The Government of Tamil Nadu through Tamil Nadu Road Infrastructure Development Corporation (TNRIDC) has decided to carry out the work of "Consultancy Services for preparation of Detailed Project Report for Construction of Vehicular Underpass from km 15/500 to 16/500 of Madurai Ring Road due to expansion of Madurai Airport". The Government of Tamil Nadu intends to engage qualified consultants to prepare Detailed Project Report.

This being a very important and peculiar project, a Detailed Project Report preparation is an essential stage of the project, which shall be prepared diligently. Before finalizing the DPR, importance should be given to carry out proper surveys, investigations and designs. Sufficient details should be included to ensure proper appraisal, approval and implementation of the project in time. Considering the importance of DPR preparation, a document intended for reference is detailed along with. The guidelines provided in this document shall be adhered to strictly.

This document shall provide a general introduction of the project being submitted.

2. Project Information

The proposed Vehicular Underpass is located from km 15/500 to 16/500 of Madurai Ring Road in connection with the proposed extension of runway at Madurai international Airport. This road is an important road in Madurai City, which acts as a link between North and South of the city. Further this is a very important link to the port city of Thoothukkudi.

The proposed extension of runway will cross the Madurai Ring Road. In order to maintain the connectivity, it is planned to construct a Vehicular Underpass, below the proposed runway after Mandela Junction.

3. DPR – Preparation Concept

3.1 The main concept of the consultancy service is to establish technical and environmental viability and prepare Detailed Project Report (DPR) for the work of **"Construction of Vehicular Underpass from km 15/500 to 16/500 of Madurai Ring Road due to expansion of Madurai Airport"**.

The main objective of the consultancy service is to establish the technical and financial viability of the project and prepare Detailed Project Report.

The Detailed Project Report would inter-alia include Detailed Engineering survey required additionally to the details available with the Department, to study the alignment and to suggest alternate alignment or modification of alignment proposal in consultation with Airport Authority of India(AAI) & TNRIDC , sub -soil investigation, detailed design for Vehicular Underpass and approaches arrangement for disposal of rain water, cross drainage works, design of junction improvement, quantities of various items involved, detailed working drawings and detailed cost estimates.

The site plan with alignment proposal and GAD should be got approved from the AAI and **TNRIDC or any other agency as directed by TNRIDC.**

The Detailed Project Report will inter– alia include but not limited to:

- Detailed engineering survey to study the alignment and the existing features like drainage arrangements, culverts etc.,
- To conduct Topographical survey by using Total Station, Lidar or other advanced technology.
- To conduct GPR survey to assess the underground utilities
- The consultant shall submit suitable alternate alignments.
- Geotechnical investigation for Vehicular Underpass, arrangement for disposal of rainwater, cross drainage works, design of junction improvements, study & design of footpath, etc.,
- Work out quantities of various items involved.
- Prepare detailed working drawings and detailed cost estimates.

3.2 Preparation of land plan schedule.

3.3 The Tender Documents should be as per TNRIDC requirement.

4. General scope of service:

The Consultant shall be required to render all professional services in respect of comprehensive Consultancy (technical feasibility study, planning, preparation of DPR and cost estimation) which broadly includes, but not limited to, the following:

4.1 Conduct preliminary surveys in accordance with IRC & MoRTH.

4.2 The consultant shall carryout all geo technical investigation and Sub soil explorations for the proposed Vehicular Underpass in coordination with TNRIDC/AAI. Subsoil exploration should be for minimum 2 numbers on each approach and 3 numbers on the closed portion of required depth based on the TNRIDC/AAI approval.

4.3 The consultant has to perform detailed design for each of the component of the Vehicular Underpass, including all the ventilation, electrical and other MEP requirements, and validate alignment plans, longitudinal sections and cross sections. The structural design shall be blast resistance.

4.4 The consultant shall prepare the bill of quantities for the entire works of the project based on the working drawings.

4.5 The Consultant shall prepare detailed cost estimates based on current year schedule of rates adopting Highways standard data

4.6 The Consultants shall prepare Tender drawings and Tender documents.

4.7 Wherever required the consultant will liaison with concerned authorities and arrange for all clarifications to get approval of all drawings including GAD from AAI/TNRIDC. GAD should be submitted to TNRIDC along with power point presentation. The comments to be incorporated in the design and drawings.

4.8 The consultant has to prepare and incorporate in the estimate for shifting of Service Utilities (EB, Waterline, Drainage line, telephone line ,water & sewerage department, lighting poles, Telephone poles, etc.) of all types involved from the concerned department including under-ground utilities.

4.9 Consultant shall provide the services in line with/ taking into account provisions of existing AAI works manual/AAI Technical Instructions, updated/issued from time to time/as per BIS/IRC etc. norms, as far as feasible/ practicable

4.10 Consultant is also required to prepare Land plan schedule in coordination with Revenue Department for acquisition of land under Tamil Nadu Highways Act 2013 and also to prepare structural valuation for the structures involved in the land acquisition process as per PWD Norms / Tamil Nadu Highways Act 2013.

4.11 The consultant should prepare the detailed estimate for, lighting arrangement as per the required standards with specifications.

4.12 Draft DPR should be got approved from TNRIDC and AAI.

4.13 Consultants shall carryout Environmental Impact (EIA) study and propose Environment Management Plan (EMP) & obtain Environmental clearance for construction and operation phase.

4.14 Consultant shall submit final/finished walk through animation (Minimum Two minutes) of the subject work.

4.15 The consultant should coordinate and obtain clearance from AAI and has to however, ensure that the submissions are complete in all respect and cover the scope of work in its entirety. Further, it will be ensured by the Consultant that the clarifications sought by AAI are attended in a prompt manner.

Sd/-
Executive Director,
TNRIDC.