



DEPARTMENT OF PUBLIC WORKS & HIGHWAYS

TERMS OF REFERENCE (TOR)

CONSULTANCY SERVICES

For and in the Conduct of

**TRAFFIC STUDY
for the preparation of the
FEASIBILITY STUDY OF
CABA-NAGUILIAN-SABLAN ROAD, LA UNION AND BENGUET**

Traffic Study

The Consultant shall prepare a Traffic Study for the Construction of Caba-Naguillian-Sablan Road as part of the Full Feasibility Study of the project. This will serve as the basis of, among others, the proposed budget for Traffic Study.

The Consultant shall closely coordinate with the Implementing Office to monitor the performance and quality of output prior to the preparation of the report.

The Consultant shall undertake the Traffic Study through, but not limited to, the following:

1.1 Conduct manual classified volume count on applicable midblock sections and intersections using the prescribed survey form template.

1.2 Collect and review previous traffic data on road sections within the study area from the Department of Public Works and Highways Traffic Database and/or other credible sources, and develop traffic daily factors and seasonal factors. The consultant shall utilize the obtained adjustment factors together with the results of the required surveys to determine the Annual Average Daily Traffic on major and adjoining road sections relevant to the project;

1.3 Characterize the future supply of transport facilities in the study area in order to establish the links among the available modes such as mass transit systems, sea transport, etc.;

1.4 Identify major traffic generating sources and subdivide the study area into 'zones' based on the existing land use and future land use and other data in the documents in the Socio-Economic Data Gathering. The zoning shall conform but not necessarily limited to the existing codes of Department of Interior and Local Government (DILG);

1.5 Conduct Origin – Destination (OD) Survey on applicable stations and establish trip patterns based on vehicle type, trip purpose, vehicle occupancy, etc. using the prescribed survey form template. The Consultant must provide details of the results of the OD Survey in the report together with a concise description of vehicular movement based on the established zones which includes but not limited to: (i) relationship between the generation and attraction of traffic and socio-economic indicators by the established zones; (ii) the competitive and complimentary characteristics in relation to the existing and proposed modes of transport such as rail and air transport routes; and (iii) traffic assignment of volume in the network considering the current and future layout of the network;

3.6 Conduct travel time and delay survey during peak and non-peak hours at significant segments in the study area and determine the average travel time required using the existing routes or current road network configuration. The summary of information shall adopt but not necessarily be limited to the minimum information set by Project Preparation Division of Planning Service, Department of Public Works and Highways;

3.7 Use any available traffic forecasting/ network analysis models such as the JICA – STRADA, VISSIM, TRANSPORT, CUBE or its equivalent in the traffic demand forecasting and network analysis. The Consultant shall prepare the necessary data inputs and comprehensively provide all the information required to run the model and clearly illustrate the output needed to evaluate the project. The Consultant shall provide a detailed form showing all the inputs and assumptions used in the model; and

3.8 Based on the selected model, compare implementation alternatives and illustrate the resulting volume accumulation and other technical indicators such as vehicle-kilometers, vehicle-hours, congestion level, and transport cost which will serve as basis for the subsequent economic comparison and evaluation.

2 REPORTING

2.1 Final results will be presented to the Planning and Design Division of the DPWH Regional Office concerned.

2.2 During the contract period, coordination meetings with the District Engineering Office and Regional Office concerned must be conducted to: (a) initiate agreements, (b) discuss the progress of the work and preliminary output; (c) make comments and suggestions on a timely basis; and (d) resolve problems and issues that may be encountered.

2.3 Further, aside from the specified scope of works mentioned above, the Consultant may propose additional works to enhance the study.

3 EXPECTED DELIVERABLES OF THE CONSULTING SERVICE

3.1 The major deliverables of the Study will be:

3.1.1 Traffic Study Report

All outputs shall be presented in English language, and shall be submitted to DPWH in three (3) copies. Electronic file formats (i.e. Microsoft Office, Adobe PDF, excel files, etc.) of all reports and documents systematically organized in traceable and auditable formats shall be prepared in DVD and/or CD/ USB in 3 copies.

All Draft Final Outputs shall be submitted at least two weeks prior to the contract expiration and be subjected to review and evaluation of the Implementing Office, and other relevant offices as deemed necessary. The reviewing office shall review the draft reports for a

maximum of two weeks, therefore, Final Reports are expected to be delivered not later than the contract expiration.

4 STUDY SCHEDULE

The Study shall be completed within a period of 1.25 months, commencing from the date of receipt of the Notice to Proceed (NTP).

5 HUMAN RESOURCE/ STAFF REQUIREMENT

The Consultants shall be composed of qualified staff with experience in the conduct of traffic survey and data gathering as part of infrastructure feasibility study.

The Consultant shall provide the following key staff and the job description and required qualifications are prescribed below:

| Position | Job Description and Qualification | No. of Months | Weight (%) |
|------------------|---|----------------------|-------------------|
| Traffic Engineer | -Responsible for traffic analysis, traffic forecasting, traffic growth analysis, transport route planning, intermodal transport analysis, ports and railways -Registered Civil Engineer or equivalent, with extensive specialization in transportation planning/engineering. Must have a 5-year experience in traffic planning, traffic growth analysis and modelling, and optimal route planning. | 1.25 | 100 |
| Total | | | 100 |

6 INSTITUTIONAL ARRANGEMENT

6.1 Implementing Office (Central Office/Regional Office/District Engineering Office)

6.1.1 Disburse the fund for the conduct of the traffic study once the contract is executed;

6.1.2 Implement and manage the contract, including ensuring the quality of output, the monitoring and evaluation of the progress of the study and approval of reports to ensure delivery of outputs as specified in this TOR;

6.1.3 Provide reasonable technical assistance to personnel of the Consultant with respect to incidents related to the conduct of the study;

6.1.4 Provide, upon the request of the Consultant, available information/data and also if available, copies of previous related studies subject to the execution of the Confidentiality and Non-Disclosure Agreement (CNDA), if necessary.

6.1.5 Coordinate with the Planning and Design Division (PDD) of the implementing office regarding all the activities relating to the conduct of the study, included but not limited to the implementation timelines, submission of deliverables, notice of meetings, etc. Should the need arise, consult with the PDD in the implementation of the study.

6.2 Consultant

8.2.1 Conduct the study and deliver **ON TIME** the results/outputs as indicated in this TOR;

6.2.1 Provide the necessary office equipment (i.e., computer, printers, office supplies, etc.) for the conduct of the study. All equipment procured for the development of the project shall be transferred to the Government by the end of the project;

6.2.3 Carry out the services in accordance with the accepted theories and practices to ensure that the final works will provide the most economical and feasible development for the study;

6.2.4 Accept full responsibility for the consulting services to be performed under this TOR for which the Consultant is liable to DPWH;

6.2.5 Perform the work in an efficient and diligent manner and shall adhere to the agreed schedule and deliverables; and

7 OWNERSHIP OF THE OUTPUTS/REPORTS/DOCUMENTS

All submitted outputs/reports/documents under this contract shall be the property of DPWH and the use of these data for other purposes shall require written consent from the Department. Copyrights will be governed by existing laws, rules and regulations.

Prepared by:


JESLYN D. VILLANUEVA
EMS II

Reviewed by:


ALEXANDER PAUL B. VILLANUEVA
Chief, Planning Section

Submitted by:


ALBERTO B. ESQUEJO, JR.
Chief, Planning and Design Division

Recommending Approval:


RICHARD A. RAGASA, CESE
OIC-Assistant Regional Director

Approved by:


RONNEL M. TAN, CESO III
Regional Director