



## **TERMS OF REFERENCE FOR SUBDIVISION PLANS**

**Project Title:** Subdivision survey of 8 parcels of lots affected by the Right-of-Way requirements of 2 projects, in accordance with the Terms of Reference (TOR), Naga City, Camarines Sur

- 18FE0023: Organizational Outcome 1: Ensure Safe and Reliable National Road System - Network Development Program - Road Widening - Tertiary Roads - Naga - Carolina - Panicuason Rd. Incl. Row -K0440 + 549 - K0441 + 000, K0442 + 787 - K0443 + 101
- 18FE0035: Organizational Outcome 1: Ensure Safe and Reliable National Road System- Network Development Program Road Widening Tertiary Roads, Mt Villanueva Ave.- Magsaysay Rd Incl. Row K0439+688-K0440+570

### **I. INTRODUCTION**

#### **A. BACKGROUND**

The Government of the Republic of the Philippines, thru the Department of Public Works and Highways (DPWH), intends to engage the services of Local Consultancy Firms for the preparation of Subdivision Plans of lots affected by projects: *18FE0023: Organizational Outcome 1: Ensure Safe and Reliable National Road System - Network Development Program - Road Widening - Tertiary Roads - Naga - Carolina - Panicuason Rd. Incl. Row -K0440 + 549 - K0441 + 000, K0442 + 787 - K0443 + 101, Naga City* and *18FE0035: Organizational Outcome 1: Ensure Safe and Reliable National Road System-Network Development Program Road Widening Tertiary Roads, Mt Villanueva Ave.-Magsaysay Rd Incl. Row K0439+688-K0440+570, Naga City.*

#### **B. OBJECTIVE**

The objective of the services is to segregate the lots acquired by the government from private lots for project right-of-way through the preparation of subdivision plans and survey returns based on the approved DPWH parcellary survey plans, in accordance with the requirements of the LMS, DENR and LRA, and duly approved by the concerned agency for land registration purposes.

#### **C. PROJECT SCOPE OF WORK**

The service will cover a total of eight (8) lots affected by project *18FE0023: Organizational Outcome 1: Ensure Safe and Reliable National Road System - Network Development Program - Road Widening - Tertiary Roads - Naga - Carolina - Panicuason Rd. Incl. Row -K0440 + 549 - K0441 + 000, K0442 + 787 - K0443 + 101, Naga City* (7 lots) and *18FE0035: Organizational Outcome 1: Ensure Safe and Reliable National Road System-Network Development Program Road Widening Tertiary Roads, Mt Villanueva Ave.-Magsaysay Rd Incl. Row K0439+688-K0440+570, Naga City* (1 lot).

## **II. SCOPE OF SERVICES**

### **A. GENERAL**

- 2.1** The Consultant shall coordinate with the Land Management Services (LMS), Department of Environment and Natural Resources (DENR), DPWH-Implementing Office and Regional/District Offices concerned on the RROW acquisition. The services shall be provided in accordance with the improved Infrastructure Right-of-Way (ROW) Procedural Manual, DPWH Department Order (DO) No. 24, series of 2007 – Amended Omnibus levels of Authorities of Officials of the Department of Public Works and Highways, and other related Department issuances on procedures, rules, and responsibilities of all offices concerned.
- 2.2** The Consultant/Geodetic Engineer/Survey Contractor (Geodetic Engineering Partnership or Sole Proprietorship Firm) shall provide all labor, instruments/equipment like Global Positioning System and Electronic Total Stations, calibrated by the DENR LMS, materials, supplies, vehicles, and other facilities necessary to perform satisfactorily the survey works herein required, viz:

#### **2.2.1 Detailed Survey and Mapping Requirements**

The detailed survey works shall be undertaken in accordance with the common surveying and mapping requirements and specifications stipulated in the Manual for Land Survey in the Philippines (Land Administrative Order No. 4 of the Bureau of Lands); Executive Order No. 4, adopting the Philippine Reference System of 1992 as the Standard Reference System for Survey in the Philippines; and the DPWH Design Guidelines, Criteria and Standards, Volume I, Part I, Surveys and Investigations, that include but are not limited to the following:

##### **a. Establishment of Horizontal Ground Controls**

Establishment of horizontal ground controls based on the Philippine Plane Coordinate System or the Philippines Transverse Mercator Grid and/or Executive Order No. 45 (Adopting the Philippine Reference System of 1992 as the Standard Reference System for Survey in the Philippines).

##### **b. Traverse Survey based on the Tertiary Order Accuracy and previously approved Parcellary Survey Plan.**

##### **c. Research Work of Affected Lots/Real Properties**

In the research work for cadastral maps and technical descriptions of affected lots, the names of affected landowners, if any, within the RROW must be taken from the corresponding Municipal, City or Provincial Assessor's Office. The following data shall be gathered relative to the survey.

##### **i. From the Assessor's Office**

- Tax declaration of Real Property
- Tax Map to determine the owner and address
- Land Classification

- ii. From the Affected Landowners
  - Tax declaration of Real Property
  - Copy of the Transfer Certificate of Title (TCT)
  - Pictures taken by the Consultant/Geodetic Engineer
- iii. From the Registry of Deeds
  - Certified copy of the Transfer Certificate of Title (TCT)
- iv. From the Land Management Services (LMS)
  - Cadastral Map
  - Technical Description of Lot
  - Lot Plan in standard LMS Form
- v. From the Department of Agrarian Reform
  - Areas subject to Land Reform or vast estate landholdings, where there is voluntary offer to sell (VOS) by owners

d. Closed Traverse and/or Closed Loop

Traverse and/or loop stations must start and end on recovered previously established horizontal ground controls of higher order and follow approximately the course of the boundaries of the affected properties.

e. Angular and Linear Errors of Closures

Angular and linear errors of closures must be in accordance with the specifications and requirements of the Manual for Land Surveys in the Philippines (Land Administrative Order No. 4).

f. Monumenting/Placing of Permanent Reference Points

- Lot Monuments

Standard cylindrical monuments used in defining and marking corners shall be made of concrete (mixture 1:2:3) at least 15 cm in diameter by 40 cm in depth and must be set 35 cm in the ground at the corners of lots within the RROW. The top shall be centered by a galvanized iron spike or by a conical hole not exceeding 20 millimeters in diameter and not less than 10 millimeters in depth to define the corner to which measurement shall be made.

## **2.3 Survey Operations and Submittal of Subdivision Survey Plans/Returns**

The computations, plotting/downloading and preparation of survey plans shall be done in accordance with survey requirements and specifications of the DENR/LMS and DPWH Guidelines, Criteria and Standards, Volume I, Part I, Surveys and Investigations.

The Plan (using standard size) shall consist of the following:

- a. Plotted based on Philippine Reference System.
- b. Format based on LMB prescribed format DENR AO No. 2022-13 and DENR DMC 2010-13
- c. Name of Municipalities/Barangay/Sitio where the lot is located.
- d. Land classification (residential, agricultural, commercial, industrial).
- e. Traverse station

- f. All corners shall be indicated by small circle with their respective number description.
- g. Name, license number, professional tax receipt, date and place of issuance, signature and seal of Geodetic Engineer.
- h. Date of survey.
- i. Name of signatories/approving officials in every sheet of plan;
- j. Indicate per sheet the following.
  - Name of owner/s of lots with corresponding lot no. and lot areas (remaining and affected) in sq. meter.
  - Technical description and tie lines of lots (in tabular form).
- k. Other Related Documents
  - Lot data computation of affected lots,  
The lot data computation that shall delineate the affected area from the mother lot shall be prepared on prescribed LMB Forms.
  - Miscellaneous Data,

This shall include all research materials and documents pertaining to the affected lots such as certified true copies of OCT/TCT, technical description of the lot, tax declaration of real property and approved subdivision plans in LMS Form.

## **2.4 Subdivision Plans**

The subdivision plans shall be prepared in accordance with the requirements of the LMS, DENR, together with other documents to be approved by the said agency to be used for land registration purposes. This plan shall be complied together with the computation of the technical descriptions of the lot.

## **2.5 Approval of Subdivision Plans**

The subdivision plans shall be signed/certified for conformity by the DPWH-Head of the Implementing Office or Regional Director/District Engineer concerned prior to submission to the LMS, DENR, for approval.

The review and approval of the Subdivision Plans by the concerned agency does not relieve the Surveys Consultant/Geodetic Engineer from the responsibility for the accuracy of the survey works and installation of right-of-way and lot monuments.

The approved subdivision plans together with an electronic file shall be submitted to the DPWH-Implementing Office for safekeeping.

### III. IMPLEMENTATION

#### A. STAFFING

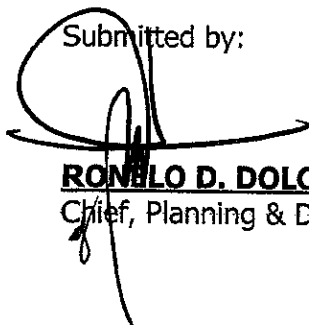
The following experts/professionals and their members shall be required to carry out the Consulting Services for the road section/project and should have appropriate educational degree, relevant training and adequate years of experience in subdivision survey:

List of Staff	Subdivision survey of 8 parcels of lots affected by the Right-of-Way requirements of 2 projects, in accordance with the Terms of Reference (TOR), Naga City, Camarines Sur	
	No. of Staff	Man-days
1. Project Manager	1	18
2. Project Geodetic Engineer	1	18
3. Geodetic Engineering Technician/Instrumentman	1	8
4. CAD / GIS Operator	2	8
5. Survey Researcher	2	6
6. Geodetic Engineering Aide (Chainmen, Rodmen)	2	16
7. Driver	1	10

#### B. CONTRACT PERIOD

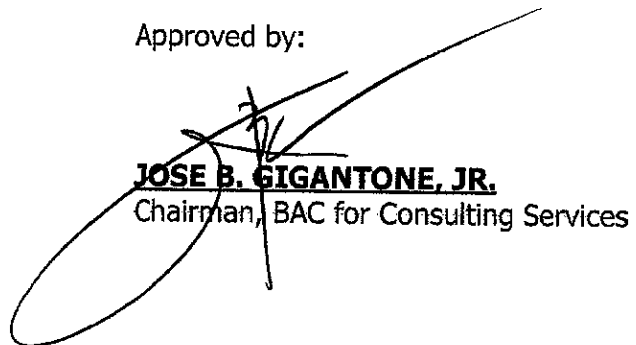
The Consultant's contract period for undertaking the subdivision plans of lots affected by the aforecited projects shall not be more than **Fifty-two (52) Calendar Days** and the Consultant shall commence work within seven (7) days after receipt of Notice to Proceed.

Submitted by:



**RONELO D. DOLOR**  
Chief, Planning & Design Section

Approved by:



**JOSE B. GIGANTONE, JR.**  
Chairman, BAC for Consulting Services