



Republic of the Philippines
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
OFFICE OF THE SECRETARY
Bonifacio Drive, Port Area, Manila

Reference Number: XI-097
Project ID: P00509738MN

April 15, 2021

MEMORANDUM

FOR : **MARK A. VILLAR**
Secretary
This Department

This refers to the Memorandum dated 22 March 2021 of **DPWH Region XI OIC-Regional Director REY PETER B. GILLE, DM**, requesting for the **modification** of the project under FY 2021 GAA, to wit;

As per GAA/Original			As Modified		
Project Description					
UACS No. 310108100575000 Project ID: P00509738MN OO1: Ensure Safe and Reliable National Road System – Asset Preservation – Rehabilitation/ Reconstruction of National Roads with Slips, Slope Collapse, and Landslide – Secondary Roads Improvement of Critical Intersections including installation of Rockfall Netting at Jct. Shrine Hills along Davao City Diversion Road, Davao City			OO1: Ensure Safe and Reliable National Road System – Asset Preservation – Rehabilitation/ Reconstruction of National Roads with Slips, Slope Collapse, and Landslide – Secondary Roads Improvement of Critical Intersections including installation of Rockfall Netting at Jct. Shrine Hills along Davao City Diversion Road, Davao City		
Type of Work/ Physical Target	Unit Cost	Allocation	Type of Work/ Physical Target	Unit Cost	Estimated Cost
CW1- Construction of Road Slope Protection Structure 40,000.00 sq.m.	P 9650/sq.m.	P 385,000,000.00	CW1- Construction of Road Slope Protection Structure 3,120.08 sq.m.	P 55,890/ sq.m.	P 174,381,127.00
			CW2- Off-Carriageway Improvement: Flaring of Intersection / Improvement of Intersections 1 Intersection	P18,618,873.00/ Intersection	P 18,618,873.00
			ROW- ROW Acquisition 19,300.00 sq.m.	P 10,000.00/ sq.m.	P 193,000,000.00
EAO	-	P 14,000,000.00	EAO	-	P 14,000,000.00
Total:		P400,000,000.00	Total:		P400,000,000.00

Justification:

Decrease in physical target for road slope protection structure from 40,000.00 sq.m. to 3,120.08 sq.m. with considerable unit cost and decrease in the amount due to the following:

- Decrease in amount to include ROW cost for the payment of land acquisition and affected structures, and additional civil work (CW2: Off-Carriageway Improvement (Critical Intersection));
- The appropriate design for the slope protection structure is composed of erosion control mat (to prevent pre-vegetated soil loss by stabilizing and protecting soils from rainfall and surface erosion) and rockfall netting (since the road is susceptible to landslide and falling rock debris), hence with higher unit cost. As such, decrease in physical target;
- The erosion control mat considered is Type I (Straw Erosion Control Mat) with an area of 3,056.37 sq.m. The design for rockfall netting requires high tensile wire mesh (with an area of 4,291.67 sq.m.). This also includes permanent ground anchor (staggered at every 1 m distance with a length of 5m) in order to carry/withstand the load of rockfall and stones;
- The design used for slope protection system (rockfall protection system) especially the detailed items of work was based on the standard specifications per DO 32, series of 2019, copy attached. The cost for materials to be used for this item was based on the Construction Materials Price Data (CMPD). However, for some items which are not in the CMPD such as earth claw, high tensile wire mesh, wire rope, anchor rock nail, nut and plate, Ubolt Clip, erosion control mat, hydroseeding and none shrink grout, the amount used is based on the price given by suppliers (at least three suppliers per requirement of the Department), copy attached. Materials to be used under this new technology will undergo Product Accreditation scheme or should have passed the generic specifications; and
- Scopes of work also include anchor pull test, application of hydroseeding and geonet using centrocema vegetation with enzyme to prevent horizontal movement and ensure stability of the structure.

Additional component (CW2: Off-Carriageway Improvement: Flaring of Intersection/Improvement of Intersection) due to the following:

- To prioritize the improvement of critical intersection which will involve improvement of road with flaring of intersection, installation of road signs and application of reflectorized thermoplastic pavement markings;
- Project also includes widening of 374 lm road into 10m width with 280 mm thick PCCP and using 14-day concrete instead of 28-day concrete;
- Inclusion of lateral drainage structures with pipe culverts and manholes of 910mm dia. Including inlets of 610mm dia. (concrete with steel grating) and other miscellaneous structures such as, sidewalk, curb and gutter.

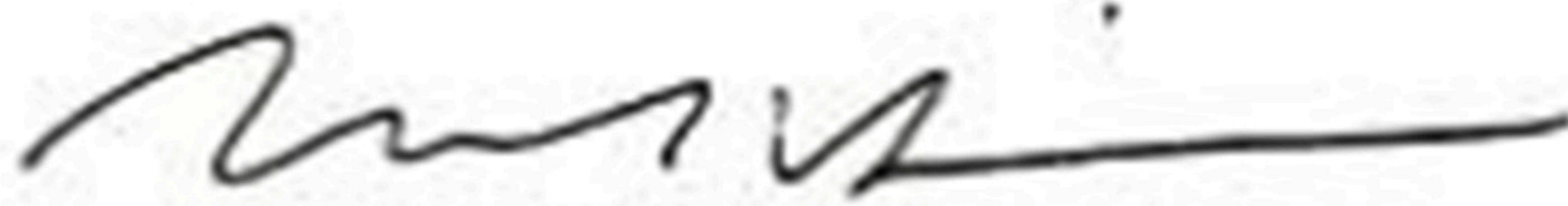
Additional ROW component inasmuch as there is a need for ROW payment for affected structures/improvement/acquisition.

See NO Cert. of Cal Reclamation
Based on our evaluation, the submitted request for modification of the said project is in order; hence, approval hereof is recommended.


EUGENIO R. PIHO, JR.

Undersecretary for Regional Operations in Mindanao

APPROVED/DISAPPROVED:


MARK A. VILLAR
Secretary

2.3 ECL/LCA/AVS/ERP

Department of Public Works and Highways
Office of the Secretary



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