Republic of the Philippines
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
OFFICE OF THE SECRETARY
Manila

10 MAY 2018

MEMORANDUM

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

This refers to the Memorandum dated 27 April 2018 of **DPWH Region XI Regional Director ALLAN S. BORROMEO, CESO IV**, requesting for the approval of the Modification of the hereunder project for FY 2018 General Appropriation Act (GAA), to wit:

As per GAA/Original			***As Modified***		
Project Description					
UACS No. 310109100016000 **Project ID: P00200274MN** OO1: Ensure Safe and Reliable National Road System Asset Preservation Program Rehabilitation/ Reconstruction of National Roads with Slips, Slope Collapse, and Landslide - Tertiary Roads Fatima-Malabog Rd – K1502 + 781 - K1502 + 811, K1503 + 100 - K1503 + 140, K1503 + 950 - K1503 + 998, K1504 + 260 - K1504 + 300, K1504 + 409 - K1504 + 436, K1504 + 800 - K1504 + 846			OO1: Ensure Safe and Reliable National Road System Asset Preservation Program Rehabilitation/ Reconstruction of National Roads with Slips, Slope Collapse, and Landslide - Tertiary Roads Fatima-Malabog Rd – K1502 + **840** - K1502 + **886.3**, K1503 + **797** - K1503 + **842.5**, **K1504 + 132 - K1504 + 192**, K1504 + **292** - K1504 + **310**, K1504 + **492** - K1504 + **579**, **K1504 + 595 - K1504 + 625**, K1504 + **723** - K1504 + **776**		
Physical Target	**Unit Cost (P'000)**	**Allocation (P'000)**	**Physical Target**	**Unit Cost (P'000)**	**Estimated Cost (P'000)**
CW-1 Const. of Road Slope Protection: 9,840 sq.m.	₱ 22.89/ lane km	**₱ 225,259.95**	CW-1 Const. of Road Slope Protection: **5,610.38** sq.m.	**₱ 40.15/** lane km	**₱ 225,259.95**
EAO	-	**₱ 8,170.05**	EAO	-	**₱ 8,170.05**
	Total:	**₱ 233,430**		**Total:**	**₱ 233,430**

Justification:
Change in project limits with decrease in physical target from 9,840 sq.m. and 5,610.38 sq.m. including considerable cost due to the following:

- Modification in project limits to prioritize most critical intersections that need immediate slope protection. Substantial volume has already eroded on these critical sections which left some of these (one lane) already impassable;
- Increasing the length of the slope protection structure from 277 m to 339.8 m with a lesser area due to the decrease in average height of from 35.52 m to 16.51 m as per actual survey and design;
- The appropriate design for the road slope protection is steel sheet piles with active road slope protection (high tensile wire mesh with permanent ground anchors and vegetation) instead of the anticipated gabions with high tensile wire mesh). The design requires height of 11 m for steel sheet piles with 10 layers of high tensile wire mesh (3,218 sq.m.) to prevent excessive movement of soil and rock layer detachment and stabilize the unstable slope. The design also includes permanent ground anchor for steel sheet piles [with a total 1,729 anchors (6 to 15 m) having a total length of 20,622 lm] to prevent horizontal movement and ensure the stability of the structure; and
- Inclusion of 6 layers of cellular confinement systems with a total area of 6,187.68 sq.m. for soil stabilization and structural reinforcement for load support and earth retention and reconstruction of damaged paved concrete with a length of 219.80m.

Based on our evaluation, the herein request is found in order, hence approval is hereby recommended.

RAFAEL C. YABUT
Senior Undersecretary
Undersecretary for Regional Mindanao Operations

APPROVED/DISAPPROVED:

MARK A. VILLAR
Secretary

DIMAS S. SOGUILON
Undersecretary
Officer-In-Charge

2.1 MSQ/ACF/RCY

Department of Public Works and Highways
Office of the Secretary
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