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

21 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. 310204100105000 **Project ID: P00201558MN** OO1: Ensure Safe and Reliable National Road System Network Development Program Construction of Bypass and Diversion Roads Davao City Coastal Bypass Road at Jct Davao-Cotabato Road-Bago Aplaya-Talomo-Matina Aplaya-Roxas Avenue-Sta. Ana Wharf-R. Castillo (Bago Aplaya-Times Beach), Package 1, incl. Bridge, Davao City			OO1: Ensure Safe and Reliable National Road System Network Development Program Construction of Bypass and Diversion Roads Davao City Coastal Bypass Road at Jct Davao-Cotabato Road-Bago Aplaya-Talomo-Matina Aplaya-Roxas Avenue-Sta. Ana Wharf-R. Castillo (Bago Aplaya-Times Beach), Package 1, incl. Bridge, Davao City		
Physical Target	**Unit Cost (P'000)**	**Allocation (P'000)**	**Physical Target**	**Unit Cost (P'000)**	**Estimated Cost (P'000)**
CW-1 Const. of Asphalt Road: 2.380 lane km	₱ 72,456.09/ lane km	**₱ 172,445.50**	CW-1 Const. of **Concrete** Road: **2.636** lane km	**₱ 68,148.75/** lane km	**₱ 179,640.11018**
CW-2 Const. of Road Slope Protection Structure: 3,460 sq.m.	₱ 14.31/ sq.m.	**₱ 49,504.50**	CW-2 Const. of Road Slope Protection Structure: **1,376.86** sq.m.	**₱ 16.95/** sq.m.	**₱ 23,337.47465**
CW-3 Const. of Concrete Bridge: 292.95 sq.m.	₱ 65.88/ sq.m.	**₱ 19,300**	CW-3 Const. of Concrete Bridge: **243.32** sq.m.	**₱ 145.13/** sq.m.	**₱ 35,313.01857**
EAO	-	**₱ 8,750**	**CW-4** **Const. of Gravel Road** **1.028 lane km**	₱ 2,878.79/ lane km	**₱ 2,959.39660**
			EAO	-	**₱ 8,750**
	Total:	**₱ 250,000**		**Total:**	**₱ 250,000**

Justification:

Construction of asphalt road was deleted and was replaced with construction of concrete road (including increase in physical target) due to:

- Concrete pavement instead of asphalt is used in the design since it will connect to existing adjacent concrete pavement at junction (beginning of the project); and
- The location of the project lies on existing road for the entire stretch instead along the coastline area for most portion of which requires costly materials for the design, hence, lesser unit cost.

Decrease in physical target for road slope protection structure from 3,460 sq.m. to 1,376.86 sq.m. with considerable cost due to the following:

- The height of the structure as per design has an average height of 4 m instead of the estimated height of 5m both sides to suit actual need; and
- Mechanically Stabilized Earth (MSE) retaining wall instead of steel sheet piles was used in the design for slope protection since the former can support more weight on steeper slope especially that there is portion of the road (approaches of the bridge) which have high embankment/fill (up to 8 m), hence, higher unit cost.

Decrease in physical target for construction of bridge from 292.95 sq.m. to 243.32 sq.m. with considerable cost due to the following:

- As per design and actual site condition, the required exact length and width of bridge (4 lanes) is 15.8 lm and 15.4 lm, respectively, instead of the estimated 15 lm and 19.53 lm; and
- The appropriate foundation based on structural analysis, copy attached, is bored piles (length=30 m) instead of RC piles, hence, higher unit cost.

With additional type of work (construction of gravel road) to improve existing access road for easy mobilization of equipment for the construction of the project.

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

2.1 MSQ/ACF/RCY

Department of Public Works and Highways
Office of the Secretary

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