



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

04 JUN 2018

MEMORANDUM

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

This refers to the Memorandum dated 4 May 2018 of **DPWH Region XI Regional Director ALLAN S. BORRAMEO, 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. 310204100194000 Project ID: P00201475MN OO1: Ensure Safe and Reliable National Road System Network Development Network Development - Construction of Bypass and Diversion Roads Matiao-Magsaysay Coastal Road, incl. ROW, Davao Oriental			OO1: Ensure Safe and Reliable National Road System Network Development Network Development - Construction of Bypass and Diversion Roads Matiao-Magsaysay Coastal Road, incl. ROW, Davao Oriental		
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: 1.094 lane km	P 61,755.59/ lane km	P 67,560.615	CW-1 Const. of Gravel Road: 1.44 lane km	P 63,370.93/ lane km	P 91,254.13841
CW-2 Const. of Road Slope Protection Strucutre: 4,925.00 sq.m.	P 31.69/ sq.m.	P 156,025.060	CW-2 Const. of Road Slope Protection Strucutre: 2,795.00 sq.m.	P 47.35/ sq.m.	P 132,331.53662
ROW: 8,248.605 sq.m.	P 1.56/ sq.m.	P 12,839.325	ROW: 8,248.605 sq.m.	P 1.56/ sq.m.	P 12,839.325
EAO	-	P 8,575	EAO	-	P 8,575
Total:		P 245,000	Total:		P 245,000
Justification: Change of type of work from construction of asphalt road to construction of gravel road because the proposed coastal road component mainly involves massive embankment from borrow (up to 8 m) since alignment traverses along the seashore wherein the elevation is too low. This requires substantial cost especially that the total width of the embankment is 22.5 m. or almost equivalent to a 7-lane road, comprises the construction of 4-lane road (15.6 m) and bicycle lane with a total width of 6.9 m of which includes separation geotextile (basal reinforcement woven geotextiles) with an area of 21,215 sq.m. to prevent settlement. In addition, the design for road is 4 lanes instead of the original proposal of 2 lanes, hence, requires huge volume of earthworks. As such, the allocation is insufficient to construct asphalt road due to said earthworks and miscellaneous structures. Moreover, it is more appropriate to prioritize construction of gravel road for said funding in order to allow embankment to settle first considering the 8 meter high embankment.					
Decrease in physical target* for road slope protection structure from 4,923 sq.m. to 2,795 sq.m. due to the following:					
<ul style="list-style-type: none">The average height of the seawall structure as per design is 3 m (one side) instead of the estimated average height of 4.5m (both sides). The required length for road slope protection is 270 lm.Higher unit cost for slope protection since the appropriate design is seawall with steel sheet pile including permanent ground anchor instead of the anticipated seawall using rock due to a depth of 8m from seabed. The design requires 12-16 m length of steel sheet piles to provide embankment retention/stability. Permanent ground anchor for the steel sheet piles having a total length of 1,097 ln.m. (10 m rod) is necessary to prevent horizontal movement and ensure stability of the structure. The design also includes drainage geotextiles (bi-axial separation and protection non-woven geotextile for geotube) with an area of 3,385 sq.m, hence, with high unit cost.					
Please see attached summary of cost per component for 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



RAFAEL C. YABUT
Senior Undersecretary
Officer-In-Charge

Department of Public Works and Highways
Office of the Secretary



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