



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

14 JUN 2018

**MEMORANDUM**

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

This refers to the Memorandum dated 3 May 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					
<b>UACS No. 310204100011000</b> <b>Project ID: P00200384MN</b>					
OO1: Ensure Safe and Reliable National Road System Network Development			OO1: Ensure Safe and Reliable National Road System Network Development		
Construction of By-Pass and Diversion Roads			Construction of By-Pass and Diversion Roads		
Alternate Road from Region XI to Region X (Jct Davao City Diversion Road-Catalunan Grande-Talandag-Sumimao-Panalum-Tapak-Cabanglasan-Aglayan, Malaybalay), Package B, incl. ROW and Bridge, Davao City			Alternate Road from Region XI to Region X (Jct Davao City Diversion Road-Catalunan Grande-Talandag-Sumimao-Panalum-Tapak-Cabanglasan-Aglayan, Malaybalay), Package B, incl. ROW and Bridge, Davao City		
Physical Target	Unit Cost (P'000)	Allocation (P'000)	Physical Target	Unit Cost (P'000)	Estimated Cost (P'000)
CW1 Construction of Gravel Road: 14.704 Lane Km	P 10,689.55/ Lane Km	P 157,179.20	CW1 Construction of Gravel Road: 6.251 Lane Km	P 35,952.37/ Lane Km	P 224,738.25737
CW2 Construction of Concrete Bridge: 763.2 sq.m.	P 142.88/ sq.m.	P 109,045.00	CW2 Construction of Concrete Bridge: 429.3 sq.m.	P 96.64/ sq.m.	P 41,485.94263
EAO	-	P 10,500.00	EAO	-	P 10,500.00
ROW: 28,046.512 sq.m.	P 0.83/ sq.m.	P 23,275.80	ROW: 28,046.512 sq.m.	P 0.83/ sq.m.	P 23,275.80
Total:		P 300,000.00	Total:		P 300,000.00
<b>Justification:</b>					
Decrease in physical target from 14.704 lane km to 6.521 lane km for construction of gravel road (with considerable cost) due to the following:					
<ul style="list-style-type: none"><li>Actual terrain is very mountainous for the entire stretch instead of flat;</li><li>There is no existing road especially that the road is approaching the boundary of Davao City and Davao Del Norte. The existing gradeline in the area is very steep reaching even up to 60%. Hence, the alignment of the road was shifted to the most economical alignment for this project, however, will still require huge volume of excavation since the lowest existing gradeline is about 50%. Massive excavation (mostly common with soft and hard rock) constitutes almost 65% of the project cost (attached are the cross sections and back-up computations);</li><li>Opening of the road requires substantial vertical correction having excavation/cut ranging from 3-28m (average of 15m) to conform with the DPWH Design Guidelines and Standards (Horizontal and Vertical Alignment and Road Width);</li><li>The design also requires offsetting of the horizontal alignment (from bank of the steep slope to the mountain side) of up to 20 m and high side cuts (average of 17 m, highest is 41 m); and</li><li>Inclusion of detour/access road.</li></ul>					
Decrease in physical target for construction of bridge from 763.20 sq.m. to 429.30 sq.m. due to the following:					
<ul style="list-style-type: none"><li>As per actual need, the length of bridge is 45 lm instead of the anticipated 80 lm; and</li><li>Bridge design is single span instead of multi-span which requires less piers, thus, lower unit cost.</li></ul>					
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. WABUT**  
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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