



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 03 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		Project Description	
UACS No. 310204100109000 Project ID: P00201553MN			
OO1: Ensure Safe and Reliable National Road System		OO1: Ensure Safe and Reliable National Road System	
Network Development		Network Development	
Construction of By-Pass and Diversion Roads		Construction of By-Pass 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 6, incl. ROW, Davao City		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 6, incl. ROW, Davao City	
Physical Target	Unit Cost (P'000)	Estimated Cost (P'000)	
CW-1 Const. of Asphalt Road: 1.516 lane km	P 114,386.68/ lane km	P 173,410.20112	
CW-2 Const. of Road Slope Protection Structure: 7,332.134 sq.m.	P 18.82/ sq.m.	P 138,012.37297	
CW-3 Const. of Gravel Road: 0.400 lane km	P 8,292.50/ sq.m.	P 3,317.00091	
EAO	-	P 18,415.425	
ROW: 20,000.00 Sq.M.	P 9.65/ Sq.M.	P 193,000.00	
Total:		P 526,155.00	

Physical Target	Unit Cost (P'000)	Allocation (P'000)
CW-1 Const. of Asphalt Road: 2.216 lane km	P 77,200.00/ lane km	P 171,075.20
CW-2 Const. of Road Slope Protection Structure: 4,367.00 Sq.M.	P 32.90/ Sq.M.	P 143,664.37
EAO		P 18,415.425
ROW: 20,000.00 Sq.M.	P 9.65/ Sq.M.	P 193,000.00
Total:		P 526,155.00

**Justification:**

Decrease in physical target from 2.216 lane km to 1.516 lane km for construction of asphalt road with considerable amount due to the following:

- The road component mainly involves massive embankment from borrow (up to 5 m high) (since alignment of the coastal road was moved towards the sea (maximum of 20 meters) from its original coastline alignment due to the reclamation of the proposed adjacent esplanade funded under FY2018 GAA (attached are back-up computations);
- Based on the new alignment of which most portion has higher depth of up to 5 m requires huge volume of 32,940.48 cu. m. of backfill sand. This also includes separation geotextile (basal reinforcement woven geotextiles) with an area of 30,970.38 sq.m., drainage geotextiles (bi-axial separation and protection non-woven geotextile for geotube) with an area of 5,518.24 sq.m (bi-axial separation and protection non-woven geotextile for geotube and hydraulic filter (geotube) to withstand pressures/forces as well as stability against sea waves;
- The road component also covers the construction of 4-lane (15.4 m), 100 mm thick asphalt pavement and construction of sidewalk, curb and gutter, and bicycle lane with a total width of 7.54 m. The entire width of the road including off-carriageway is 22.94 m. or almost equivalent to a 7-lane road. Hence, embankment works shall be extended to consider off-carriageway; and
- The source of sand and rocks is from the Mabuhay Quarry, General Santos City, Region XII which will be transported via Barge (distance from quarry site for the materials to wharf is 35 km).

Increase in physical target for road slope protection structure from 4,367 sq.m. to 7,332.134 sq.m. with lesser component cost due to the following:

- The average height of the structure as per design is 5.5m (both sides) instead of the estimated average height of 5m (both sides) due to change in alignment from the coastline;
- Class III rocks for slope protection are designed to be placed at one side only, hence, with lesser unit cost.

Additional type of work (construction of gravel road) to serve as an access road (with an average height of 4 m and width of 6 m) is necessary for the supervision and monitoring of the project as well as for the mobilization of equipment in the implementation of the project as there is no existing road.

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

Department of Public Works and Highways  
Office of the Secretary



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