

Republic of the Philippines DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS

OFFICE OF THE SECRETARY

Manila

September 5, 2022

MEMORANDUM

:

TO

KHADAFFY D. TANGGOL

Regional Director DPWH-CAR

Engineer's Hill, Baguio City

Transmitted herewith are the **APPROVED** requests for the **modification** of hereunder stated projects:

- 1. OO1: Ensure Safe and Reliable National Road System Asset Preservation Rehabilitation/ Reconstruction of National Roads with Slips, Slope Collapse, and Landslide Tertiary Roads Gov. Bado Dangwa National Rd K0319 + 310 K0319 + 460 - ₱120,000.000
- 2. OO1: Ensure Safe and Reliable National Road System Asset Preservation Rehabilitation/ Reconstruction of National Roads with Slips, Slope Collapse, and Landslide Secondary Roads Mt Prov-Cagayan via Tabuk-Enrile Rd **K0406 + 746 K0406 + 941** - ₱**250,000.000**
- 3. OO1: Ensure Safe and Reliable National Road System Network Development Program Construction of Missing Links/ New Roads Baguio-La Trinidad-Itogon-Sablan-Tuba and Tublay, Kamog Jct.-Calot-Pappa-Bagong-Balluay-Tuel Jct. (Section 2 of BLISTT Outer Ring Circumferential Road), Package 2, Benguet - **P177,000.000**
- 4. OO1: Ensure Safe and Reliable National Road System Asset Preservation Rehabilitation/ Reconstruction of National Roads with Slips, Slope Collapse, and Landslide Secondary Roads Baguio Bontoc Rd K0379 + 880 K0380 + 020, K0380 + 917 **K0380 + 986** - ▶ **P160,000.000**

It is informed that **a project can only be modified once** as prescribed under the FY 2022 General Appropriations Act (GAA). Further, it is reminded that all approved modifications **shall be posted in the DPWH website within five (5) days** from its approval. Failure to comply with this requirement shall be dealt with accordingly.

Undersecretary for Regional Operations in CAR, Regions I, II, IX, X, XI, XII, and XIII



Republic of the Philippines DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS

OFFICE OF THE SECRETARY

Manila

July 28, 2022

MEMORANDUM

FOR

MANUEL M. BONOAN

Secretary

This Department

This refers to the memorandum dated July 4, 2022 of **DPWH CAR Regional Director KHADAFFY D. TANGGOL** requesting for the approval of the **Modification** of the project under FY 2022 General Appropriation Act (GAA), to wit;

-	s per GAA/Orig	inal		As Modified	
			escription		
UACS No. : Project ID:	310109100795 P00611409LZ	000			
OO1: Ensure S System	Safe and Reliable	National Road	OO1: Ensure S System	Safe and Reliable	National Road
Asset Preservation - Rehabilitation/ Reconstruction of National Roads with Slips, Slope Collapse, and Landslide - Tertiary Roads			Reconstruction	servation - n of National Road Landslide - Tertia	Rehabilitation/ s with Slips, Slope ry Roads
Gov. Bado Dangwa National Rd - K0318 + (-280) - K0318 + (-430)			Gov. Bado Dangwa National Rd - K0319 + 310 - K0319 + 460		
Physical Target	Unit Cost P	Allocation P ('000)	Physical Target	Unit Cost P	Estimated Cost P ('000)
CW1 Construction of Road Slope Protection Structure: 6,666.670 Square meters	₽ 17,370.00 / Square meters	₽ 115,800.000	CW1 Construction of Road Slope Protection Structure: 4,472.000 Square meters	25,894.45 / Square meters	115,800.000
EAO	-	₽ 4,200.000	EAO	-	₽ 4,200.000
Total: ₽ 120,000.000			Total:	₽ 120,000.000	

Justification:

- The revised station limit reflects the exact section that requires immediate slope mitigation due to its susceptibility to soil/ rock collapse.
- The decrease from 6,666.670 square meters to 4,472.000 square meters in the physical target is due to the decrease in length of the structure and the decrease in average slant height from 44 meters to 29 meters based on the result of the stability analysis.

UACS No.: 310109100795000 Project ID: P00611409LZ Page 2 of 2

- The increase in unit cost is due to the design length of 5-meter permanent ground anchors, as recommended in the design analysis. Also, the utilization of the prevailing construction material cost of system components of the Active Protection System contributed to the increase in unit cost thereon causing a deduction in the target area of the proposed slope mitigation.
- The derived unit cost is based on the approved Detailed Unit Price Analysis and Program of Work which consider the lowest canvass cost for high tensile wire mesh, with joint rod, wire rope, rope grips, coupling coil, pin anchors, and cross clips/ anchors.
- See attached Certificate of Reasonableness of Estimates approved by the Regional Director.
- See also the attached evaluation of the Bureau of Construction on the unit cost of the similar type projects.

Based on our evaluation, the submitted request for modification of the said project is in order. Hence, the said request is hereby recommended for Secretary's consideration and approval.

ADOR G. CANLAS

Assistant Secretary for Regional Operations Regions I, II, CAR, IX, X, XI, XII and XIII

APPROVED/DISAPPROVED:

3.5 dlbc/ldam/AVS/AGC

Secretary

Department of Public Works and Highways
Office of the Secretary

WIN2XY00094



Republic of the Philippines DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS CORDILLERA ADMINISTRATIVE REGION

Engineer's Hill, Baguio City

July 4, 2022

MEMORANDUM

FOR

: MANUEL M. BONOAN

Secretary

THRU

: ROBERTO R. BERNARDO

Undersecretary for Regional Operations

Regions I, II, III, IV-A, V & CAR

SUBJECT

: Request for the Modification of the Project: ORGANIZATIONAL OUTCOME 1: Ensure Safe and Reliable National Road System - Asset Preservation Program - Rehabilitation/ Reconstruction of Roads with Slips, Slope Collapse, and Landslide - Tertiary Roads - Gov. Bado Dangwa National Rd - K0318 + (-280) - K0318 + (-430)

We are respectfully submitting the modification of the above project in the amount of **One Hundred Twenty Million Pesos (Php 120,000,000.00)**, as indicated below:

	As per GAA/Original	As Modified
Project ID	P00611409LZ	
UACS	310109100795000	
Project Title	Gov. Bado Dangwa National Rd - K0318 + (-280) – K0318 + (-430)	Gov. Bado Dangwa National Rd - K0319 + 310 - K0319 + 460 -
Physical Target	6,666.670 Square meters	4,472.000 Square meters

The supporting documents based on D.O. No. 37, series of 2018 are attached for your ready reference.

For the consideration of the Secretary.

KHADAFFY D. TANGGOL

Regional Director

CAR.1 CSCE/EFD/JWC/ABM



Republic of the Philippines DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS CENTRAL OFFICE

Manila

July 27, 2022

MEMORANDUM

FOR

: Assistant Secretary ADOR G. CANLAS.

For Regional Operations in REGIONS I, II, CAR, IX, X, XI, XII & XIII

Subject

: 001: Ensure Safe and Reliable National Roads with Slips Slope Collapse and Landslide — Secondary Roads, Rehabilitation/Reconstruction of National Roads Banaue — Mayoyao A Lista — Isabela Bdry. Road P85,905,000.00 and three (3) others.

Forwarded herewith are the result of evaluation for the above-mentioned projects which were referred to this office.

PROJECT NO. 1

The amount of Eighty Five Million Nine Hundred Five Thousand Pesos (P85,905,000.00) for 3,140.50 m² of Slope Protection Structures as submitted was found to be reasonable as evaluated based on the items of work involved and its quantities as reflected in the submitted Program of Works and design plans duly approved by Regional Director, DPWH-CAR.

SCOPE OF WORK

ITEM NO.	DESCRIPTION		DUNT tal Cost)	PERCENT Weight (%)
Part A	Facilities for the Engineer	Р	203,439.60	0.25%
Part B	Other General Requirements	Р	1,532,726.30	1.85%
Part C	Earthworks	Р	223,796.35	0.27%
Part G	Drainage & Slope Protection Structures	P.	80,769,413.00	97.43%
Part H	Miscellaneous Structures	Р	168,028.00	0.20%
	GRAND TOTAL	P	82,897,403.25	100.00%

Cost of slope protection per $m^2 = \frac{P82,897,403,25}{3,140.00 \text{ m}^2} = \frac{P26,400.45/\text{ m}^2}{3,140.00 \text{ m}^2}$ Cost per kilometer of Road = $\frac{P80,769,413.00}{3,140.00 \text{ m}^2} = \frac{P25,722.74/\text{ m}^2}{3,140.00 \text{ m}^2}$

The estimated cost of **P26,400.45** per square meter of slope protection structures for the Rehabilitation/Reconstruction of National Roads with Slips Slope Collapse and Landslide - Secondary Roads – Banaue - Mayoyao A Lista – Isabela Bdry. Road at 3,140.00 square meter is due to design requirements which mainly involved Erosion Control Mat (Type 4), Permanent Ground Anchor, Hydroseeding and Active Wire Mesh System (High Tensile) at **97.43%** of the total project cost coupled with recent price escalation of construction materials and fuel and it is 394.50 km away to project site.

(Part A, B, C & G are excluded)

If Facilities for the Engineer, Other General Requirements, Earthworks, and Miscellaneous Structures along the stations as reflected in K0350+650 – K0350+760 per approved plans and location map of the proposed new road alignment are excluded in the computation the resulting cost is only P25,722.74 per square meter, hence it is considered reasonable as the Unit Costs of the items of work involved are within the range of the prevailing cost of the Department.

PROJECT NO. 2

The amount of Three Hundred Million Pesos (P300,000,000.00) for 11,394.00 m^2 of Slope Protection Structures as submitted was found to be reasonable as evaluated based on the items of work involved and its quantities as reflected in the submitted Program of Works and design plans duly approved by Regional Director, DPWH-CAR.

SCOPE OF WORK

ITEM NO.	DESCRIPTION		OUNT tal Cost)	PERCENT Weight (%)
Part A	Facilities for the Engineer	P	375,580.80	0.13%
Part B	Other General Requirements	Р	2,559,573.20	0.88%
Part C	Earthworks	Р	474,665.97	0.16%
Part D	Subbase and Base Course	Р	158,117.45	0.05%
Part E	Surface Course	Р	1,407,120.60	0.49%
Part F	Bridge Construction	Р	120,689.44	0.04%
Part G	Drainage & Slope Protection Structures	Р	284,252,869.60	98.19%
Part H	Miscellaneous Structures	Р	147,484.80	0.05%
	GRAND TOTAL	P	289,496,101.86	100.00%

Cost of slope protection per m ²	=	P289,496,101.86 11,394.00 m ²	=	P25,407.77/m ²
Cost per kilometer of Road (Exclude Part A, B, C, D, E, F & H)	=	P284,252,869.60 11,394.00 m ²	=	P24,947.59/m ²

The estimated cost of **P25,407.77** per square meter of slope protection structures for the Rehabilitation/Reconstruction of National Roads with Slips Slope Collapse and Landslide - Secondary Roads – Mt. Province – Cagayan via Tabuk – Enrile Road at 11,394.00 square meter is due to design requirements which mainly involved Erosion Control Mat (Type 4), Permanent Ground Anchor, Hydroseeding and Active Wire Mesh System (High Tensile) at **98.19%** of the total project cost coupled with recent price escalation of construction materials and fuel and it is 422.48 km away to project site.

(Part A, B, C, D, E, F & H are excluded)

If Facilities for the Engineer, Other General Requirements, Earthworks, Subbase Course, Surface Course, Bridge Construction and Miscellaneous along the stations as reflected in K0406+453 – K0406+692 per approved plans and location map of the proposed new road alignment are excluded in the computation the resulting cost is only P24,947.59 per square meter, hence it is considered reasonable as the Unit Costs of the items of work involved are within the range of the prevailing cost of the Department.

PROJECT NO. 3

The amount of Sixty Nine Million Pesos (P69,000,000.00) for 2,507.00 m² of Slope Protection Structures as submitted was found to be reasonable as evaluated based on the items of work involved and its quantities as reflected in the submitted Program of Works and design plans duly approved by Regional Director, DPWH-CAR.

SCOPE OF WORK

ITEM NO.	DESCRIPTION		OUNT cal Cost)	PERCENT Weight (%)
Part A	Facilities for the Engineer	P	203,439.60	0.31%
Part B	Other General Requirements	Р	1,511,469.80	2.27%
Part C	Earthworks	Р	228,436.93	0.34%
Part G	Drainage & Slope Protection Structures	Р	64,640,950.30	97.08%
	GRAND TOTAL	P	66,584,296.63	100.00%

Cost of slope protection per m ²	=	<u>P66,584,296.83</u> 2,507.00 m ²	=	P26,559.35/m ²
Cost per kilometer of Road (Exclude Part A, B & C)	=	P64,640,950.30 2,507.00 m ²	=	P25,784.18 m ²

The estimated cost of **P26,559.35** per square meter of slope protection structures for the Rehabilitation/Reconstruction of National Roads with Slips Slope Collapse and Landslide - Secondary Roads – Banaue - Mayoyao A Lista – Isabela Bdry. Road at 2,507.00 square meter is due to design requirements which mainly involved Erosion Control Mat (Type 4), Permanent Ground Anchor, Hydroseeding and Active Wire Mesh System (High Tensile) at **97.08**% of the total project cost coupled with recent price escalation of construction materials and fuel and it is 402.80 km away to project site.

(Part A, B & C are excluded)

If **Facilities for the Engineer, Other General Requirements and Earthworks,** along the stations as reflected in K0358+842 – K0359+047 per approved plans and location map of the proposed new road alignment are excluded in the computation the resulting cost is only **P25,784.18** per square meter, hence it is considered reasonable as the Unit Costs of the items of work involved are within the range of the prevailing cost of the Department.

PROJECT NO. 4

The amount of One Hundred Fifty Million Five Hundred Fifty Thousand Pesos (P150,550,000.00) for 5,853.04 m² of Slope Protection Structures as submitted was found to be reasonable as evaluated based on the items of work involved and its quantities as reflected in the submitted Program of Works and design plans duly approved by Regional Director, DPWH-CAR.

SCOPE OF WORK

ITEM NO.			OUNT ital Cost)	PERCENT Weight (%)
Part A	Facilities for the Engineer	P	281,685.60	0.19%
Part B	Other General Requirements	Р	1,787,292.50	1.23%
Part C	Earthworks	P	417,767.82	0.29%
Part F	Bridge Construction	Р	6,171,515.37	4.25%
Part G	Drainage & Slope Protection Structures	Р	136,619,434.98	94.04%
	GRAND TOTAL	P	145,277,696.27	100.00%

Cost of slope protection per m ²	=	P145,277,696.27 5,853.04 m ²	=	P24,820.90/m ²
Cost per kilometer of Road (Exclude Part A, B, C & F)	=	P136,619,434.98 5,853.04 m ²	=	P23,341.62/m ²

The estimated cost of **P24,820.90** per square meter of slope protection structures for the Rehabilitation/Reconstruction of Roads with Slips Slope Collapse and Landslide - Secondary Roads - Baguio - Bontoc Road, Sabangan, Mt. Province at 5,853.04 square meter is due to design requirements which mainly involved Erosion Control Mat (Type 4), Permanent Ground Anchor, Hydroseeding and Active Wire Mesh System (High Tensile) at **94.04%** of the total project cost coupled with recent price escalation of construction materials and fuel and it is 385.30 km away to project site.

(Part A, B & C are excluded)

If Facilities for the Engineer, Other General Requirements, Earthworks and Bridge Construction along the stations as reflected in K0374+120 – K0374+285 per approved plans and location map of the proposed new road alignment are excluded in the computation the resulting cost is only P23,341.62 per square meter, hence it is considered reasonable as the Unit Costs of the items of work involved are within the range of the prevailing cost of the Department.

ARISTARCO M. DOROY

OIC - Director, Bureau of Construction

Cc: Undersecretary MAXIMO L. CARVAJAL for Technical Services

6.1.1 JAM/CBC/GEC Desktop reasonableness CAR Ref. No.: 6.1-405-5550/358-02

		A. (GENERAL			
1. REGION Cordillera Adminis	trative Region /	2. DEO Benguet 2nd Distri	ict Engineering Office			VE DISTRICT ONE DISTRICT)
В	ORIGINAL PROJEC	ıT	C. PROPOSED REVISED PROJECT			
4. UACS (Unified Accordance 310109100795000	ount Code Structure as def					
5. Project Id P00611409LZ /						
6. Project Category OO1: Ensure Safe a	/ and Reliable National	Road System				
7. Sub-Program (P) Asset Preservation Roads		onstruction of Natio	nal Roads with Slips,	Slope Collaps	e, and Lan	dslide -Tertiary
8. Operating Unit Central Office			18. Operating Unit (Change subject	to DBM appr	oval)
9. Type of Work (E	nter Details for all Compor	nents below)	19. Type of Work (Er	nter Details for a	II Componer	its below)
Component ID	Type of Work		Component ID	Type of \	Nork	
CW1	Construction of Protection Struc	A CONTRACTOR OF THE PROPERTY OF THE PARTY OF	CW1		Construction of Road Slope Protection Structure	
EAO			EAO			
	RIPTION (as recorded in 1 National Rd - K0318		20. PROJECT DESCRI Gov. Bado Dangwa I	/	F	
11. ALLOTMENT (P'000) (as recorded in GAA) 120,000		21. REVISED ESTIMATED COST (P'000) (Equal to, or lower than GAA allotment) 120,000 22. CAF (To be obtained from the company of the company				
12. PHYSICAL TAR	GET (Enter Details for all	Components below)	23. PHYSICAL TARG	ET (Enter Detail	s for all Com	ponents below)
Component ID	Target	Target Unit	Component ID	Target		Target Unit
CW1	6,666.670 /	Square meters	CW1	4,472.00	0//	Square meters
EAO			EAO			
13. UNIT COST (Enter Details for all Components below)		24. UNIT COST (Enter	r Details for all C	omponents l	pelow)	
Component ID	Component Cost (P'000)	Target Unit Cost (P'000/Target Unit)	Component ID	Compon (P'000)	ent Cost	Target Unit Cost (P'000/Target Unit)
CW1	115,800.000	17.370 /	CW1	115,800.	000 (25.894
EAO	4,200.000		EAO	4,200.00	0	

14. PROJECT WORK LOCATION (Must be defined in strict accordance with DO 65 Series 2014) Click here to enter text.		25. PROJECT WORK LOCATION (Must be defined in strict accordance with DO 65 Series 2014. Also complete "ANNEX A" for National Road projects under OO-1 and LP) Click here to enter text.				
Start X	End X	Start X	End X			
Start Y	End Y	Start Y	End Y			
15. ROAD CLASSIFICATION (if Tertiary Road	applicable)	26. ROAD CLASSIFICATION Tertiary Road	(if applicable)			
16. IMPLEMENTING OFFICE (R the original project) Regional Office CAR	ecord the Implementing Office of	27. IMPLEMENTING OFFICE (Record the Implementing Office of the proposed revised project) Regional Office CAR				
17. PROJECT IMPLEMENTATION	ON PLAN (PIP)	28. PROJECT IMPLEMENTAT	rion plan (PIP)			
Planned Start Date 06/25/2022	Planned End Date 05/20/2023	Planned Start Date 06/25/2022	Planned End Date 05/20/2023			
		29. OVERLAP? ⊠ NO □ YES	30. UNDER WARRANTY? ☑ NO □ YES			
	D. ATTACHMEN	ITS & JUSTIFICATIONS				
31. PROJECT IMPACT ANALYSIS ATTACHED? (For Flood Control Projects) NO						
□NO ⊠YES						
34. A MAP OF THE PROPOSED PROJECT WORK LOCATION SUBMITTED □NO ⊠YES						

	35. Pl	REPARED BY	f:
Name:	ERLINDA F. DOLIENTE	Position:	Chief, Planning Section
Office:	Cordillera Administrative Region	Date:	
36. REVIE	WED BY DISTRICT OFFICE (If Required)	38. REV	IEWED BY REGIONAL OFFICE
Name:		Name:	ANGELITAB. MABITAZAN
Position:		Position:	Chief, Planning and Design Division
Date:		Date:	
37. RECOMM	IENDED BY DISTRICT OFFICE (If Required)	39. REC	COMMENDED BY REGIONAL OFFICE
Name:		Name:	KHADAFFY D. TANGGOL Regional Director
Position:		Position:	Regional Director
Date:		Date:	

	CONTRACTOR OF THE PARTY OF THE								
UACS (Unified Account 310109100795000	Code Structure	as defined in GAA)							
Project Id P00611409LZ									
() () () () () () () () () ()	40 DPW	/H OFFICE OF T	HE LINDERSECRETARI	ES FOR OPERATIONS (ISE ONLY				
Category of Modification (choose one)		Category A – Typographical Errors Category B – Change in Station Limits, due to increase or decrease in budget Category C – Change in Location Category D – Change in Operating Unit (requires DBM approval) Adjustment – Send to PS-PD to amend MYPS Modification does not comply with DBM Categories Augmentation							
Primary Reason for	Request (bas	ed on Category	of Modification): (ch	oose one)					
Category A	Category B		Category C	Category D	Adjustment (Must be no change to target or GAA line item)				
☐ Typographical error on Project Description ☐ Project Description needs items removed due to typo error	Work ☐ Change due to it decreas	in station limits, ncrease or e in budget in Physical Target	□ No such Barangay □ No such City/Municipality	☐ Change in (IO), requiring a change in the (OU)	☐ Typographical error on Project Component Description ☐ Typographical error on other fields not included in, or not consistent with GAA ☐ Move funds between Project Components ☐ Add/delete Project Components Change of Itemized Project Component: ☐ Various ☐ Description ☐ Location ☐ Amount ☐ Target				
		Reviewed by (Office of the Underse	cretary for Operations					
Name:	Engr. ANTON	IIO V. SOBREVI	ÑAS, JR.	k Ester na Mary Peter victoria anno oppera Ester na Mary Peter y Este Anno observició este el procesió de produ	MC1884 F B 1 - 120 - 120 C C 182 M 12884 F B 1 - 120 C 120 C 120 C 1824 F B 1 - 120 C 1821 C 1824 F B 1 - 120 C 1821 C 18				
Signature		MIL							
Position:	Project Man	agerII,							
Date:	l	7/28/2	7						
	1010202	41. DPWH	PLANNING SERVICE	OFFICE USE ONLY					
Category of Modification (choose one) Category B- Category C- Category D- Adjustment		 Typographical Errors Change in Station Limits, due to increase or decrease in budget Change in Location Change in Operating Unit (requires DBM approval) Send to PS-PD to amend MYPS n does not comply with DBM Categories 							
			Reviewed by Planning	Service					
Name:	CHRISTYBEL C. CANDEL		Name:	PETER PAUL R. CO	RTEZ				
Signature		M	Signature	faula	/				
Position:	Regional Cod		Position:	OIC – Chief, Prog/a	mming Division				
Date:		& 4 7077	Date:						

Annex A to Form for Modification Request

Component ID	Section ID	Start Limit LRP + Disp	End Limit LRP + Disp	Start Chainage	End Chainage	Length (m)	Type of Work	Detail Scope of Work	Target Unit	Physical Target
P00611409LZ - CW1	S00376LZ	K0319 + 310	K0319 + 460	1150	1300	150	Construction of Road Slope Protection Structure	Rockfall Netting with Erosion Control Mat, Hydroseeding and Permanent Ground Anchor (R/S)	Square meters	4,472