

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



May 24, 2024

MEMORANDUM

TO : Regional Director KHADAFFY D. TANGGOL DPWH – Region CAR Engineer's Hill, Baguio City

ATTENTION : OIC-District Engineer REX K. OYA-OY Benguet 2nd District Engineering Office Buguias, Benguet

Transmitted herewith is the APPROVED request for the **modification** of hereunder stated project:

 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 - K0275+790 -K0275+895, K0279+650 - K0279+758, K0280+250 - K0280+398, K0281+108 -K0281+200 - - P8,970,000.00

Please be 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 defit with accordingly.

REY PETER B. GILLE, D.M. Assistant Secretary for Regional Operations in CAR, Regions I, II, IX, X, XI, XII and XIII

2.3 LDAM/AVS/RPBG/ERP

Website: https://www.dpwh.gov.ph
Tel. No(s).: 5304-3000 / (02) 165-02



Control No: CAR-027



MARIA CATALINA E. CABRAL, CESO I, Ph.D. Undersecretary for Planning and PPP Services



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

BACONG PILIPINAS

Manila

April 26, 2024

MEMORANDUM

FOR : MANUEL M. BONOAN

Secretary This Department

This refers to the memorandum dated April 1, 2024 of **DPWH CAR Regional Director KHADAFFY D. TANGGOL**, endorsing the request of **OIC-District Engineer REX K. OYA-OY**, **Benguet Second District Engineering Office**, for the **modification** of the project under FY 2024 GAA, to wit;

Asp	per GAA/Origina	3/	As Modified				
		Project De	escription				
UACS No. : 3101091 Project ID: P008026		-					
OO1: Ensure Safe an Asset Preservation - National Roads with S Tertiary Roads	Rehabilitation/	Reconstruction of	Asset Preservation	- Rehabilitation/	Reconstruction of		
Gov. Bado Dangwa Na K0279+650 - K0279 K0281+108 - K0281+2	+758, K0280+2			+650 - K0279+7			
Type of Work/ Physical Target	Unit Cost	Allocation	Type of Work/ Physical Target	Unit Cost	Estimated Cost		
CW1 - Construction of Road Slope Protection Structure / 570 Square meters	₱ 10,780.00 / Square meters	₱ 6,144,600.00	CW1 - Construction of Road Slope Protection Structure / 513 Square meters	P 17,135.67 / Square meters	₽ 8,790,600.00		
CW2 - Rehabilitation / Major Repair of Road Slope Protection Structure / 245.01 Square meters	₱ 10,799.56 / Square meters	₽ 2,646,000.00					
EAO	-	₱ 179,400.00	EAO	-	₱ 179,400.00		
	Total:	₽ 8,970,000.00		Total:	P 8,970,000.00		

Justification:

The decrease in physical target for CW1 – Construction of Road Slope Protection Structures from 570 square meters to 513 square meters and the removal of CW2 – Rehabilitation / Major Repair of Road Slope Protection Structure are due to the following:

• The removal of CW2 – Rehabilitation / Major Repair of Road Slope Protection Structure was deemed essential since the existing slope protection structure at K0280+250 – K0280+398 completely collapsed during the

Ale-CO-202404-61238

Page 2 of 2

150 900

SOCOTEC

onslaught of previous monsoons, rendering the structure beyond repair or rehabilitation, thus, the need to construct a new slope protection structure to prevent further damage or aggravation.

- The decrease in the physical target and increase in the unit cost were deemed necessary to incorporate reinforced concrete barriers, reconstruct damaged PCCP with a width of 3.35m and 20m long starting from K0280+290 and construct concrete shoulders at sections K0280+250 and K0280+310and K0281+135 to K0281+148; and construct drainage structures such as gutters, 910mm dia. RCPC, and concrete flumes.
- The derived unit cost is based on the approved Program of Work (POW) with Detailed Unit Price Analysis (DUPA).
- The unit cost has also been evaluated and reviewed by the Bureau of Construction (BOC). See attached Evaluation of the Bureau of Construction for this project dated April 24, 2024.
- See attached Certificate of Reasonableness of Estimates approved by the Regional Director.

Attached are the following supporting documents: RSM Annexes, Approved Program of Works (POW), Detailed Engineering Design (DED), Certificate of Availability of Funds, BP202, Geotagged Photos, GIS Map, and Certificate of Reasonableness of Unit Cost.

Based on our evaluation, the submitted request for modification of the said project is in order; hence, approval hereof is recommended.

REY PETER B. GILLE, D.M. Assistant Secretary for Regional Operations in CAR Regions I, II, IX, X, XI, XII and XIII **RECOMMENDING APPROVAL:** MARIA CATALINA E. CABRAL, Ph.D., CESO I EUGENIO R. PIPO Undersecretary for Regional Operations Undersecretary for Planning in CAR, Regions I, II, IX, X, XI, and XIII and Public-Private Partnership Services APPROVED/DISAPPROVED: MANUEL M. BONOAN Secretary Department of Public Works and Highways Office of the Secretary 2.3 mksa/MLS/AVS/RPBG/ERP WIN4E03359

Website: <u>https://www.dpwh.gov.ph</u> & Tel. Nos.: 5304-3000 / (02) 165-02



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

Manila



April 24, 2024

MEMORANDUM

- FOR : Undersecretary EUGENIO R. PIPO, JR. For Regional Operations in CAR, Regions I, II, IX, X, XI, XII and XIII
- SUBJECT : Request for Approval of Modification of Projects under FY 2024 GAA:
 - 1. Convergence and Special Support Program Basic Infrastructure Program (BIP) – Access Roads and/or Bridges from the National Road/s leading to Major/ Strategic Public Buildings/ Facilities

Improvement of Road, Sayangan Road, Barangay Paoay, Atok, Benguet

2. Asset Preservation – Rehabilitation/Reconstruction of National Roads with Slips, Slope Collapse, and Landslide – Tertiary Roads Gov. Bado Dangwa National Rd – K0275+790 – K0275+895, K0279+650 – K0279+758, K0280+250 – K0280+398, K0281+108 - K0281+200

Forwarded herewith are the results of the evaluation for the above-mentioned projects, which were referred to this office for review and evaluation.

PROJECT NO. 1

The requested amount of **P5,000,000.00** (inclusive of EAO) for the 0.117 lane kilometer Improvement of Road, Sayangan Road, Barangay Paoay, Atok, Benguet, Sta. 0+000 – Sta. 0+116.86, may be considered reasonable as evaluated subject to updating of cost/price prior to bidding based on the items of work involved and its corresponding quantities as reflected in the Approved Program of Works (POW) and Detailed Engineering Design Plan, duly approved by the District Engineer, Benguet Second District Engineering Office.

ITEM NO.	DESCRIPTION		AMOUNT (Total Cost)	PERCENT Weight (%)	
CW-1	Construction of Concrete Road				
Part B	Other General Requirements	P	219,003.01	4.42%	
Part C	Earthworks	Р	430,010.28	8.69%	
Part D	Subbase and Base Course	Ρ	91,226.11	1.84%	
Part E	Surface Course	Ρ	1,912,668.06	38.64%	

Website: https://www.dpwh.gov.ph
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	GRAND TOTAL	Р	4,950,008.79	100.00%
Part F	Plain Reinforced Structures	Ρ	2,054,453.91	41.50%
CW-2	Construction of Drainage Structure along Road			
Part G	Drainage and Slope Protection Structures	Ρ	240,196.87	4.85%
Part F	Plain Reinforced Structures	Ρ	2,450.55	0.05%

CW1-Construction of Concrete Road

Cost per lane kilometer =	P2,676,551.87	= P22,876,511.71 /lane km
(Except Part B)	0.117 lane kms	

CW2-Construction of Drainage Structure along Road

Cost per lineal meter =	P2,054,453.91	= P17,732.21 /lineal meter
(Part F Only)	115.86 lineal meters	

The estimated cost of P22,876,511.71 per lane kilometer of road is attributed to the concreting of 288 sq.m. unreinforced PCCP and 215.58 sq.m. reinforced PCCP, while the cost of P17,732.21 per lineal meter of drainage structure is attributed to the construction of a 70.86m reinforced box canal, both of which accounts for 95.58% of the total project cost. Since these are the major items of work for the project, it is considered reasonable as the unit costs of the items involved are within the prevailing cost range of the Department.

PROJECT NO. 2

The requested amount of **P8,970,000.00** (inclusive of EAO) for the Rehabilitation/ Reconstruction of National Roads with Slips, Slope Collapse, and Landslide – Tertiary Roads Gov. Bado Dangwa National Rd - K0275+790 - K0275+895, K0279+650 - K0279+758, K0280+250 - K0280+398, K0281+108 - K0281+200, may be considered reasonable as evaluated subject to updating of cost/price prior to bidding based on the items of work involved and its corresponding quantities as reflected in the Approved Program of Works (POW) and Detailed Engineering Design Plan, duly approved by the District Engineer, Benguet Second District Engineering Office. Request for Approval of Modification of Projects under FY 2024 GAA Page 3 of 3

ITEM NO.	ITEM NO. DESCRIPTION		AMOUNT (Total Cost)	PERCENT Weight (%)	
Part B	Other General Requirements	Ρ	452,162.07	5.14%	
Part C	Earthworks	Ρ	252,790.77	2.88%	
Part D	Subbase and Base Course	Ρ	55,158.83	0.63%	
Part E	Surface Course	Р	545,399.81	6.20%	
Part F	Plain Reinforced Structures	Ρ	6,041,677.18	68.73%	
Part G	Drainage and Slope Protection Structures	Ρ	1,329,270.71	15.12%	
Part F	Miscellaneous Structures	Ρ	114,148.71	1.30%	
	GRAND TOTAL	Ρ	8,790,608.08	100.00%	

Cost per square meter = (Except Part B)

P8,338,446.01 = P16,254.28 /square meter 513 square meters

The estimated cost of P16,254.28 per square meter of structure is attributed to the construction of various components, including a 32m length of 7m height retaining wall, an 11m length of 9m height crib wall, a 10m length of 10m height crib wall, a 20m length of 4.5m height stone masonry, and the construction of 259.2 sq.m. of 0.28m thick PCCP, which accounts for 94.86% of the total project cost. Since these are the major items of work for the project, it is considered reasonable as the unit costs of the items involved are within the prevailing cost range of the Department.

ALLAN S. BORROMEO, CESO III

Director, Bureau of Construction

cc: Undersecretary ADOR G. CANLAS, CESO IV, for Technical Services and Information Management Service

6.1.1 FDF|CBC|JTS 04222024 Modification Benguet 2nd Ref. No. BOC- 6.1-305-5058/6.1.1-234-01



Republic of the Philippines DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS CORDILLERA ADMINISTRATIVE REGION Engineer's Hill, Baguio City



April 1, 2024

MEMORANDUM

- FOR : MANUEL M. BONOAN Secretary
- THRU : EUGENIO R. PIPO, JR. Undersecretary for Regional Operations CAR, Regions I, II, IX, X, XI, XII, and XIII
- SUBJECT : Request for Modification of the Project: ORGANIZATIONAL OUTCOME 1: 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 - K0275 + 790 - K0275 + 895, K0279 + 650 -K0279 + 758, K0280 + 250 - K0280 + 398, K0281 + 108 - K0281 + 200

We are respectfully forwarding the Memorandum dated March 22, 2024 from OIC - District Engineer Rex K. Oya-oy, Benguet 2nd District Engineering Office, regarding the modification of the above project in the amount of **Eight Million Nine Hundred Seventy Thousand Pesos (Php 8,970,000.00)** as indicated below:

	FROM	то
Project ID	P00802676LZ	
Project Title	Gov. Bado Dangwa National Rd - K0275 + 790 - K0275 + 895, K0279 + 650 - K0279 + 758, K0280 + 250 - K0280 + 398, K0281 + 108 - K0281 + 200	Gov. Bado Dangwa National Rd - K0275 + 790 - K0275 + 895, K0279 + 650 - K0279 + 758, K0280 + 250 - K0280 + 398, K0281 + 108 - K0281 + 200
Type of Work	CW1 - Construction of Road Slope Protection Structure CW2 - Rehabilitation / Major Repair of Road Slope Protection Structure	CW1 - Construction of Road Slope Protection Structure
Physical Target	CW1 – 570 Square Meters CW2 – 245.01 Square Meters	CW1 – 513 Square Meters

The supporting documents based on D.O No. 23, series of 2023 are attached for your ready reference.

For the consideration of the Secretary.

KHADAFFY DITANGGOL Regional Director

CAR.1 DLBC/EFD/JWC/ABM

Website: https://www.dpwh.gov.ph & Tel. Nos.: (074) 444-8838 / 444-6460





Republic of the Philippines DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS BENGUET 2ND DISTRICT ENGINEERING OFFICE Natubleng, Buguias, Benguet, Cordillera Administrative Region



March 22, 2024

MEMORANDUM

FOR

: KHADAFFY D. TANGGOL Regional Director

THRU : ANGELITA B. MABITAZAN Chief, Planning and Design Division

SUBJECT : Submission of Requirements for FY 2024 Modification of the project, Asset Preservation - Rehabilitation/ Reconstruction of National Roads with Slips, Slope Collapse, and Landslide – Tertiary Roads along Gov. Bado Dangwa National Rd - K0275+790 - K0275+895, K0279+650 -K0279+758, K0280+250 - K0280+398, K0281+108 - K0281+200

Respectfully submitting the requirements for the modification of the FY 2024 project: "Asset Preservation - Rehabilitation/ Reconstruction of National Roads with Slips, Slope Collapse, and Landslide - Tertiary Roads along Gov. Bado Dangwa National Rd - K0275+790 - K0275+895, K0279+650 - K0279+758, K0280+250 - K0280+398, K0281+108 - K0281+200" for your endorsement.

	FROM		то					
		Project D	escription					
UACS No. : 3101 Project ID : P008								
Asset Preservation - Rehabilitation/ Reconstruction of National Roads with Slips, Slope Collapse, and Landslide - Tertiary Roads Gov. Bado Dangwa National Rd - K0275+790 - K0275+895, K0279+650 - K0279+758, K0280+250 - K0280+398, K0281+108 - K0281+200			Asset Preservation - Rehabilitation/ Reconstruction of National Roads with Slips, Slope Collapse, and Landslide - Tertiary Roads					
Physical Target	Unit Cost	Allocation	Physical Target	Unit Cost	Allocation			
CW-1: Construction of Road Slope Protection Structure			CW-1: Construction of Road Slope Protection Structure					
570 sq.m	₽ 10,780.00	₽ 6,144,600.00	513 sq.m	₽ 17.13567	₽ 8,790,600.00			
CW-2: Rehabilitation / Major Repair of Road Slope Protection Structure								
245.01 sq.m	₽ 10,799.56	₽ 2,646,000.00						
EAO (2%)		₽ 179,400.00	EAO (2%)		₽ 179,400.00			
TOTAL		₽ 8,970,000.00	TOTAL		₽ 8,970,000.00			

For your review.

REX K. OYA-OY QIC = District Engineer CAR.17.1/VBC/LDR/EPM



Website: <u>https://www.dpwh.gov.ph</u>
 E-mail Address: <u>dpwhcarbng2@gmail.com</u>

Tables for Modification Request Form

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•		A. GENER	AL		NUMBER DIST		
		2. DEO			3. LEGISLATIVE DISTRICT		
. REGION		Benguet Second Distri	ct Engineering Off	gineering Office BENGUET (LONE DISTRICT)			
Cordillera Administrat	. ORIGINAL PROJECT		C. PI	ROPOSED REVISE	D PROJECT		
		DUDARA IN GAAL					
	ant Code Structure bai						
10109101533000 /							
5. Project Id 200802676LZ							
5. Project Category 001: Ensure Safe and	d Reliable National Road	I System 🔨					
7. Sub-Program (P/A	/P) Rehabilitation/ Reconst	ruction of National Roa	ds with Slips, Slop	e Collapse, and La	andslide - Tertiary Roads 🦟		
			a. Unclaims				
8. Operating Unit	rict Engineering Office	E	Benguet Second Di	istrict Engineering	- U. Components balow(
a Trace of Mark (Em	er Details for all Comp	onents below)	19. Type of Work		all Components below)		
	(Enter Details for all Components below) Type of Work		Component ID	Type of Work			
Component ID	Construction of Road S	Slope Protection	CW1	Construction of Structure	of Road Slope Protection		
CW1	Structure /		500.5	Suuciare			
CW2	Rehabilitation / Majo Slope Protection Stru	r Repair of Road	20. PROJECT DES				
K0279 + 650 - K027	/9 + /58, KU280 + 200	(GAA) + 790 - K0275 + 895, K0280 + 398, K0281 +	Gov. Bado Dangy K0279 + 650 - K0 108 - K0281 + 200	wa National Rd - 279 + 758, K0280 0	K0275 + 790 - K0275 + 895 0 + 250 - K0280 + 398, K0281 22. CAF (To be obtained		
108 - K0281 + 200	°000) (as recorded in G	PA)	21. REVISED ESTIMATES from Financ		from Financial Management office)		
8,970			8,970		⊠YES		
				ARGET (Enter Det	ails for all Components below		
12. PHYSICAL TAR	GET (Enter Details for a	Il Components below)		Target	Target Unit		
Component ID	Target	Target Unit	Componentito	513 /	Square Meters (m2		
CW1	570	Square Meters (m2)	CW1	323			
CW2	245.01	Square Meters (m2)		IT as an Datalla for			
13. UNIT COST	nter Details for all Com		24. UNIT COST				
Component ID	Component Cost (P'000)	Target Unit Cost (P'000/Target Unit)	Component ID	V. 2.2.1	(P'000/Target Uni		
CW1	6,144.60	10.78000	CW1	8,790.6	17.13567 /		
CW2	2,646.00	10.79956 /		179.4			
EAO	179.4 -		EAO				
14 PROJECT WO	ORK LOCATION (Must b			ith DO 65 Series .	(Must be defined in strict 2014, Him complete "Aronics		
accordance with	n DO 65 Series 2014)		for National R	toad projects and	New York, and the		
	End	х	Start X		End X		
Start X	End		Start Y		End Y		
Start Y	Lind						

Tables for Modification Request Form

15. ROAD CLASSIFICATION (if applicable) Tertiary Road		26. ROAD CLASSIFICATION (if applicable)			
16. IMPLEMENTING OFFICE of the original project)	Tertiary Road 27. IMPLEMENTING OFFICE (Record the Implementing Office of the proposed rational project)				
Benguet Second District Eng	of the proposed revised project) Benguet Second District Engineering Office				
17. PROJECT IMPLEMENTATION PLAN (PIP)		28. PROJECT IMPLEMENTATION PLAN (PIP)			
Planned Start Date	Planned End Date	Planned Start Date		Planned End	Date
05/03/2024	09/30/2024	05/03/2024		09/30/2024	
		29. OVERLAP?	?	30. UNDER V	VARRANTY?
		⊠ NO □	T YES	⊠ NO	□ YES

31. PROJECT IMPACT ANALYSIS ATTACHED? (For Flood Control Projects)

□ NO □ YES ⊠ N/A

32. TECHNICAL JUSTIFICATION (Explain in detail in Bullet point format; minimum of 2 points)

The decrease in physical target for CW1 – Construction of Road Slope Protection Structures from 570 square meters to 513 square meters and the removal of CW2 – Rehabilitation / Major Repair of Road Slope Protection Structure are due to the following:

- The removal of CW2 Rehabilitation / Major Repair of Road Slope Protection Structure was deemed essential since the existing slope protection structure at K0280+250 K0280+398 completely collapsed during the onslaught of previous monsoons, rendering the structure beyond repair or rehabilitation, thus, the need to construct a new slope protection structure to prevent further damage or aggravation.
- The decrease in the physical target and increase in the unit cost were deemed necessary to incorporate reinforced concrete barriers, reconstruct damaged PCCP with a width of 3.35m and 20m long starting from K0280+290 and construct concrete shoulders at sections K0280+250 and K0280+310and K0281+135 to K0281+148; and construct drainage structures such as gutters, 910mm dia. RCPC, and concrete flumes.
- The derived unit cost is based on the approved Program of Work (POW) with Detailed Unit Price Analysis (DUPA).
- The unit cost has also been evaluated and reviewed by the Bureau of Construction (BOC). See attached Evaluation of the Bureau of Construction for this project dated April 24, 2024.
- See attached Certificate of Reasonableness of Estimates approved by the Regional Director.

Attached are the following supporting documents: RSM Annexes, Approved Program of Works (POW), Detailed Engineering Design (DED), Certificate of Availability of Funds, BP202, Geotagged Photos, GIS Map, and Certificate of Reasonableness of Unit Cost.

33. PHOTOS SUBMITTED

□ NO ⊠ YES

34. A MAP OF THE PROPOSED PROJECT WORK LOCATION SUBMITTED

□ NO 🛛 YES

		A A	200 A
20100	TOP	Modutication	Request Form
anico	101	mounication	nequestionin



Tables for Modification Request Form

UACS (Uni 1, dinc. o 310109101533000	ust Code stri	octure as defi	ned in GAA)				
Project Id P00802676LZ							
	40.	DPWH OFFIC	E OF THE UN	DERSECRE	TAR	IES FOR OPERATIO	DNS
Primary Reason for	Request (bas	ed on Catego	ory of Modif	ication): (c	hoo	ie one)	
Category A	Category B	3	Category (3	Cate	egory D	Impact
 Typographical error on Project Description 	 Overlap Section Change Limits Change Target 	5	 No suc Barang No suc Munici 	ay h City or	r	Change in (IO), requiring a change in the OU)	 No change or decrease in unit cost 20% or less increase in unit cost > 20% increase in unit cost
Name: I Signature	Engr. MANUE	Reviewed by L L. SINGSON		e Undersec		iry for Operations Engr. ANTONIO V.	
Position:	Project Manag	ger 1/			F	Project Manager III	
Date:		44/24				4	1424
		////	41. DPWH P	LANNING	SER	VICE	
Category of Modific		CategoryCategoryCategoryCategory	D – Change	in Station in Locatior in Operati	Limi 1, du ng U	ts le to non-existing lo Init (requires DBM DBM Categories	
Name:	ANNA ANDRE	A M. NOCHE		Name:	P	ETER PAUL R. COR	RTEZ
Signature	And	\sim		Signature	: - tar .	Sante	/
Position:	Regional Coo	rdinator		Position:	C	IC - Chief of Progra	amming Division
	-						

Date:

5-3-24

Date:

		•	ANNEX A	: Project		Length	ails for National	Detail Scope of Work	Target Unit	Physical Target					
Component ID	Section ID	Start Limit LRP + 7: - 7	End Limit LRP + Disp K0275+895	Start Chainage 12670	End Chainage 12775 3127	(m) 105 108	Construction of Road Slope Protection Structure	Construction of Retaining Wall (R/S) with Reinforced Concrete Barrier and Concrete Gutter Construction of Cribwall (1 /S) with Reinforced Concrete Barrier	Square meters	e 99					
											CW-1	S00398LZ		Square	
														3019	
CW-1	S00399LZ	K0279+650							K02794750				Protection Structure	(L/S) and Stone meeting with Reinforced Concrete Barrier, Reconstruction of damaged PCCP, Shoulders, and Concrete Gutter	Square
CW-1	500399LZ	K0280+250		K0280+398					3618		3766	148	Construction of Road Slope Protection Structure Construction of Road Slope Protection Structure		meters
			Square												
CW-1	S00399L2	K0281+108	K0281+200	4470	4562	92									

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