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

March 30, 2023

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 Roads with Slips, Slope Collapse, and Landslide – Secondary Roads Gov. Bado Dangwa National Road, **K0286+750 - K0286+900**, Kapangan, Benguet - - - **₱140,000,000.00**
2. OO1: Ensure Safe and Reliable National Road System - Asset Preservation - Rehabilitation/ Reconstruction of Roads with Slips, Slope Collapse, and Landslide - Secondary Roads Banaue-Mayoyao-Alfonso Lista-Isabela Bndry Rd, **K0361 + 090 - K0361 + 380**, Banaue, Ifugao - - - **₱120,000,000.00**
3. OO1: Ensure Safe and Reliable National Road System - Asset Preservation - Rehabilitation/ Reconstruction ofRoads with Slips, Slope Collapse, and Landslide - Secondary Roads Baguio-Bontoc Rd - **K0359 + 610 - K0359 + 693** - - - **₱100,000,000.00**
4. OO1: Ensure Safe and Reliable National Road System - Asset Preservation - Rehabilitation/ Reconstruction of Roads with Slips, Slope Collapse, and Landslide - Secondary Roads Banaue-Mayoyao-Alfonso Lista-Isabela Bndry Rd, **K0346 + 880 - K0347 + 130**, Banaue, Ifugao - - - **₱100,000,000.00**
5. OO1: Ensure Safe and Reliable National Road System - Asset Preservation - Rehabilitation/ Reconstruction of Roads with Slips, Slope Collapse, and Landslide - Secondary Roads Benguet-Nueva Vizcaya Rd - K0278 + 250 - K0278 + 320,**K0278 + 685 – K0278 + 725** - - - **₱150,000,000.00**
6. OO1: Ensure Safe and Reliable National Road System - Asset Preservation - Rehabilitation/ Reconstruction of Roads with Slips, Slope Collapse, and Landslide - Secondary Roads Cong. Andres AcopCosalan Rd - **K0321 + 250 - K0321 + 515** - - - **₱200,000,000.00**
7. OO1: Ensure Safe and Reliable National Road System - Asset Preservation - Rehabilitation/ Reconstruction of Roads with Slips, Slope Collapse, and Landslide - Tertiary Roads Gov. BadoDangwa National Road, **K0328+844 - K0329+000**, Kibungan, Benguet - - - **₱200,000,000.00**
8. Convergence and Special Support Program - Sustainable Infrastructure Projects Alleviating Gaps (SIPAG) - Flood Mitigation Structures protecting Public Infrastructures/Facilities Construction of Barren River (Downstream) Flood Control within Chico River Basin, **Sta. 37+995 - Sta. 39+300** (R/S), Conner, Apayao - - - **₱120,000,000.00**
9. OO1: Ensure Safe and Reliable National Road System - Asset Preservation - Rehabilitation/ Reconstruction of Roads with Slips, Slope Collapse, and Landslide - Secondary Roads Baguio-Bontoc Rd - **K0359 + 510 - K0359 + 580** - - - **₱150,000,000.00**
10. OO1: Ensure Safe and Reliable National Road System - Asset Preservation - Rehabilitation/ Reconstruction of Roads with Slips, Slope Collapse, and Landslide - Primary Roads Kennon Rd - **K0232 + 535 - K0232 + 580** - - - **₱48,000,000.00**
11. OO1: Ensure Safe and Reliable National Road System - Asset Preservation - Rehabilitation/ Reconstruction of Roads with Slips, Slope Collapse, and Landslide - Secondary Roads Benguet-Nueva Vizcaya Rd - **K0292 + 100 - K0292 + 350** - - - **₱150,000,000.00**

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 dealt with accordingly.

ADOR G. CANLAS
Assistant Secretary for Regional Operations
in CAR, Regions I, II, IX, X, XI, XII, and XIII

2.3 mksa/AVS/AGC/ERP

13/14

CAR-022

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

Programming Division Evaluation Sheet

Name of Project: Benguet-Nueva Vizcaya Rd - K0278 + 250 - K0278 + 320, K0278 + 540 - K0278 + 595

Project ID: P00715111LZ

Appropriation: 150,000,000

Implementing Office: Regional Office CAR

Date: 03/24/2023

DPWH - OSEC RECEIVED MAR 28 2023 By: Time: Control No.: 23-05086 IDTS No.: 04932

A. TYPE OF REQUEST

A.1		**Change in Implementing Office/Operating Unit due to**
A.1.1		Geographical Jurisdiction
A.1.2		Approval of Authority to Bid/Implement
A.2	✓	**PROJECT MODIFICATION/ADJUSTMENTS**
A.2.1		Typographical Error/s
A.2.2		Change in Location (for non-existent locations only)
A.2.3	✓	Change in Station Limits
A.2.4		Addition/Deletion of Word/s
A.2.5	✓	Change in Project Component/s Details
A.2.5.1	✓	Change in Targets
A.2.5.2		Change in Scope of Work from ____ to ____
A.2.5.3		Change in Component Amount
A.2.5.4		Addition of Component (incl. EXC Component)
A.2.5.5		Deletion of Component
A.2.5.6		Movement of Funds between Components

B. EVALUATION

B.1	✓	ALLOWED as per the GAA Provisions
B.2		NOT ALLOWED as per the GAA Provisions

C. FUND SOURCE FY 2023 GAA, R.A. 11936

C.1	✓	for issuance of SARO (☑Released ☐Unreleased)	Amount: 150,000,000
C.2		released thru GAAAO	

D. IMPACT:

D.1 Condition/s:

- - % decrease in unit cost
- 46.84 % increase in unit cost
- 31.90 % decrease in physical target
- - % increase in physical target

D.2		Additional Project Component
D.3	✓	Certificate of Cost Reasonableness by RD

D.4 Remarks:

E. Approving Authority as per D.O. 13, s. 2023, Guidelines on Modification of Allotment under the GAA

E.1		Undersecretary for Operations
E.2	✓	Secretary

Evaluated By:
ALEX G. BOTE
Director, Planning Service

Noted By:
CONSTANTE A. LLANES, JR., CESO III
Assistant Secretary, Planning Service
08/29/23

ACTION SLIP

Project ID: **P00715111LZ**

Date: ____

FOR: USEC FOR OPERATIONS

☐ **RRB** ☑ **ERP** ☐ **EKS**

REMARKS:

✓	Reviewed by Planning Service
	Recommended for Approval
	Remarks:

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
Manila

March 22, 2023

MEMORANDUM

FOR : **MANUEL M. BONOAN**
Secretary
This Department

This refers to the memorandum dated 14 March 2023 of **DPWH CAR Regional Director KHADAFFY D. TANGGOL,** requesting for the **modification** of the project under FY 2023 GAA, to wit;

As per GAA/Original			***As Modified***		
Project Description					
UACS No. : 310108101303000 **Project ID: P00715111LZ** OO1: Ensure Safe and Reliable National Road System - Asset Preservation - Rehabilitation/ Reconstruction of Roads with Slips, Slope Collapse, and Landslide - Secondary Roads Benguet-Nueva Vizcaya Rd - K0278 + 250 - K0278 + 320, K0278 + 540 - K0278 + 595			OO1: Ensure Safe and Reliable National Road System - Asset Preservation - Rehabilitation/ Reconstruction of Roads with Slips, Slope Collapse, and Landslide - Secondary Roads Benguet-Nueva Vizcaya Rd - K0278 + 250 - K0278 + 320, **K0278 + 685 – K0278 + 725**		
Type of Work/ Physical Target	**Unit Cost**	**Allocation**	**Type of Work/ Physical Target**	**Unit Cost**	**Estimated Cost**
CW1- Construction of Road Slope Protection Structure / 8,333.34 sq.m.	₱ 17,369.99/ sq.m.	₱ 144,750,000.00	CW1- Construction of Road Slope Protection Structure / **5,675** sq.m.	₱ **25,506.61**/ sq.m.	₱ 144,750,000.00
EAO	–	₱ 5,250,000.00	EAO	–	₱ 5,250,000.00
	Total:	**₱ 150,000,000.00**		**Total:**	**₱ 150,000,000.00**

Justification:
Change in Station Limits in the Project Description and Decrease in physical target for CW1 - Construction of Road Slope Protection Structure from 8,333.34 Square Meters to 5,675 Square Meters due to the following:

- The change in station limits was deemed necessary to address the critical areas along the road section requiring immediate slope intervention.
- The decrease in physical target/ increase in unit cost for CW1 is due to the increase in the design length of the permanent ground anchors from 5 meters to 10 meters, as recommended in the design analysis. The project utilized the *Erosion Control Mat (Type 4), Permanent Ground Anchor, Hydroseeding and Active Wire Mesh System (High Tensile)* which contributed to the increase in the unit cost thereon causing a deduction in the target area of the proposed slope mitigation.
- The derived unit cost is based on the approved Program of Work (POW) with Detailed Unit Price Analysis (DUPA).

Attached are the following supporting documents: Approved Program of Works (POW) with Detailed Unit Price Analysis (DUPA), Detailed Engineering Design (DED), Certificate of Availability of Funds (CAF), BP 202, Geotagged photos, Certificate of Reasonableness, Evaluation of the Bureau of Construction on the unit cost of the similar type projects, RSM Forms and GIS Map.

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

~~ADOR G. CANLAS~~
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
Undersecretary for Planning
and Public-Private Partnership Services

EUGENIO R. PIPO, JR.
Undersecretary for Regional Operations
in CAR, Regions I, II, IX, X, XI, XII, and XIII

APPROVED/~~DISAPPROVED:~~

MANUEL M. BONOAN
Secretary

2.3 mksa/MLS/AVS/AGC/ERP

Department of Public Works and Highways
Office of the Secretary
WIN3E02673

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

MAR 14 2023

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 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 - Secondary Roads - Benguet-Nueva Vizcaya Rd - K0278 + 250 - K0278 + 320, K0278 + 540 - K0278 + 595**

We are respectfully submitting the modification of the above project in the amount of **One Hundred Fifty Million Pesos (Php 150,000,000.00)**, as indicated below:

	As per GAA/Original	As Modified
Project ID	P00715111LZ	
UACS	310108101303000	
Project Title	Benguet-Nueva Vizcaya Rd – K0278 + 250 - K0278 + 320, **K0278 + 540 - K0278 + 595**	Benguet-Nueva Vizcaya Rd – K0278 + 250 - K0278 + 320, **K0278 + 685 - K0278 + 725**
Physical Target	**8,333.340** Square meters	**5,675.000** Square meters

The supporting documents based on D.O. No. 13, series of 2023 are attached for your ready reference.

For the consideration of the Secretary.

KHADAFFY D. TANGGOL
Regional Director

CAR.1 CSCE/EFD/JWC/ABM

Tables for Modification Request Form

A. GENERAL		
1. REGION Cordillera Administrative Region	**2. DEO** Benguet First District Engineering Office	**3. LEGISLATIVE DISTRICT** BENGUET (LONE DISTRICT)

B. ORIGINAL PROJECT	C. PROPOSED REVISED PROJECT
4. UACS (Unified Account Code Structure as defined in GAA) 310108101303000	
5. Project Id P00715111LZ	
6. Project Category OO1: Ensure Safe and Reliable National Road System	
7. Sub-Program (P/A/P) Asset Preservation - Rehabilitation/ Reconstruction of Roads with Slips, Slope Collapse, and Landslide - Secondary Roads	
8. Operating Unit Central Office	**18. Operating Unit** (Change subject to DBM approval) Central Office
9. Type of Work (Enter Details for all Components below)	**19. Type of Work** (Enter Details for all Components below)

Component ID	Type of Work	Component ID	Type of Work
CW1	Construction of Road Slope Protection Structure	CW1	Construction of Road Slope Protection Structure

10. PROJECT DESCRIPTION (as recorded in GAA) Benguet-Nueva Vizcaya Rd - K0278 + 250 - K0278 + 320, **K0278 + 540 - K0278 + 595**	**20. PROJECT DESCRIPTION** (of the revised project) Benguet-Nueva Vizcaya Rd - K0278 + 250 - K0278 + 320, **K0278 + 685 - K0278 + 725**
11. ALLOTMENT (P'000) (as recorded in GAA) 150,000	**21. REVISED ESTIMATED COST (P'000)** (Equal to, or lower than GAA allotment) 150,000 **22. CAF** (To be obtained from Financial Management office) ☐YES

12. PHYSICAL TARGET (Enter Details for all Components below)

Component ID	Target	Target Unit
CW1	**8,333.34**	Square Meters (m2)

23. PHYSICAL TARGET (Enter Details for all Components below)

Component ID	Target	Target Unit
CW1	**5,675**	Square Meters (m2)

13. UNIT COST (Enter Details for all Components below)

Component ID	Component Cost (P'000)	Target Unit Cost (P'000/Target Unit)
CW1	144,750.000	**17.36999**
EAO	5,250.000	

24. UNIT COST (Enter Details for all Components below)

Component ID	Component Cost (P'000)	Target Unit Cost (P'000/Target Unit)
CW1	144,750.000	**25.50661**
EAO	5,250.000	

Tables for Modification Request Form

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) 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 applicable) Secondary Road				**26. ROAD CLASSIFICATION** (if applicable) Secondary Road			
16. IMPLEMENTING OFFICE (Record the Implementing Office of the original project) Cordillera Administrative Region				**27. IMPLEMENTING OFFICE** (Record the Implementing Office of the proposed revised project) Cordillera Administrative Region			
17. PROJECT IMPLEMENTATION PLAN (PIP)				**28. PROJECT IMPLEMENTATION PLAN (PIP)**			
Planned Start Date 05/21/2023		**Planned End Date** 04/14/2024		**Planned Start Date** 05/21/2023		**Planned End Date** 04/14/2024	
				29. OVERLAP? ☒ NO ☐ YES		**30. UNDER WARRANTY?** ☒ NO ☐ YES	

D. ATTACHMENTS & JUSTIFICATIONS

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)

Change in Station Limits in the Project Description and Decrease in physical target for CW1 - Construction of Road Slope Protection Structure from 8,333.34 Square Meters to 5,675 Square Meters due to the following:

- *The change in station limits was deemed necessary to address the critical areas along the road section requiring immediate slope intervention.*
- *The decrease in physical target/ increase in unit cost for CW1 is due to the increase in the design length of the permanent ground anchors from 5 meters to 10 meters, as recommended in the design analysis. The project utilized the Erosion Control Mat (Type 4), Permanent Ground Anchor, Hydroseeding and Active Wire Mesh System (High Tensile) which contributed to the increase in the unit cost thereon causing a deduction in the target area of the proposed slope mitigation.*
- *The derived unit cost is based on the approved Program of Work (POW) with Detailed Unit Price Analysis (DUPA)*

Attached are the following supporting documents: Approved Program of Works (POW) with Detailed Unit Price Analysis (DUPA), Detailed Engineering Design (DED), Certificate of Availability of Funds (CAF), BP 202, Geotagged photos, Certificate of Reasonableness, Evaluation of the Bureau of Construction on the unit cost of the similar type projects, RSM Forms and GIS Map.

33. PHOTOS SUBMITTED

☐NO ☒YES

34. A MAP OF THE PROPOSED PROJECT WORK LOCATION SUBMITTED

☐NO ☒YES

Tables for Modification Request Form

35. PREPARED BY:			
Name:	ERLINDA F. DOLIENTE	Position:	Chief, Planning Section
Office:	Planning and Design Division	Date:	
36. REVIEWED BY DISTRICT OFFICE (If Required)		**38. REVIEWED BY REGIONAL OFFICE**	
Name:		Name:	ANGELITA B. MABITAZAN
Position:		Position:	Chief, Planning and Design Division
Date:		Date:	
37. RECOMMENDED BY DISTRICT OFFICE (If Required)		**39. RECOMMENDED BY REGIONAL OFFICE**	
Name:		Name:	KHADAFFY D. TANGGOL
Position:		Position:	Regional Director
Date:		Date:	

Tables for Modification Request Form

UACS (Unified Account Code Structure as defined in GAA)
310108101303000

Project Id
P00715111LZ

40. DPWH OFFICE OF THE UNDERSECRETARIES FOR OPERATIONS

Primary Reason for Request (based on Category of Modification): (choose one)

Category A	Category B	Category C	Category D	Impact
☐ Typographical error on Project Description	☐ Overlapping Sections ☐ Change in Station Limits ☐ Change in Physical Target	☐ No such Barangay ☐ No such City or Municipality	☐ 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

Reviewed by Office of the Undersecretary for Operations

Name:	**Engr. MANUEL L. SINGSON**	**Engr. ANTONIO V. SOBREVIÑAS, JR.**
Signature		
Position:	Project Manager I	Project Manager II
Date:	3/22/23	3/22/23

41. DPWH PLANNING SERVICE

Category of Modification (please check the appropriate)	☐ Category A – Typographical Error ☐ Category B – Change in Station Limits ☐ Category C – Change in Location, due to non-existing location ☐ Category D – Change in Operating Unit (requires DBM approval) ☐ Modification does not comply with DBM Categories

Reviewed by Planning Service

Name:	**ANNA ANDREA M. NOCHE**	**Name:**	**PETER PAUL R. CORTEZ**
Signature		**Signature:**	
Position:	Regional Coordinator	**Position:**	OIC - Chief of Programming Division
Date:	3/24/23	**Date:**	

ANNEX A: Project Work Location Details for National Roads

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
P00715111LZ - CW1	S00382LZ	K0278 + 250	K0278 + 320	24827	24897	70	Construction of Road Slope Protection Structure	Active Wire Mesh System (High Tensile) (L/S)	Square Meters	3250
P00715111LZ - CW1	S00382LZ	K0278 + 685	K0278 + 725	25262	25302	40	Construction of Road Slope Protection Structure	Active Wire Mesh System (High Tensile) (L/S)	Square Meters	2425

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	AMOUNT (Total Cost)	PERCENT Weight (%)
Part A	Facilities for the Engineer	P 203,439.60	0.25%
Part B	Other General Requirements	P 1,532,726.30	1.85%
Part C	Earthworks	P 223,796.35	0.27%
Part G	Drainage & Slope Protection Structures	P 80,769,413.00	97.43%
Part H	Miscellaneous Structures	P 168,028.00	0.20%
	GRAND TOTAL	**P 82,897,403.25**	**100.00%**

Cost of slope protection per m² = $\frac{\text{P82,897,403,25}}{\text{3,140.00 m}^2}$ = **P26,400.45/ m²**

Cost per kilometer of Road (Exclude Part A, B, C & H) = $\frac{\text{P80,769,413.00}}{\text{3,140.00 m}^2}$ = **P25,722.74/ m²**

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 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	AMOUNT (Total Cost)	PERCENT Weight (%)
Part A	Facilities for the Engineer	P 375,580.80	0.13%
Part B	Other General Requirements	P 2,559,573.20	0.88%
Part C	Earthworks	P 474,665.97	0.16%
Part D	Subbase and Base Course	P 158,117.45	0.05%
Part E	Surface Course	P 1,407,120.60	0.49%
Part F	Bridge Construction	P 120,689.44	0.04%
Part G	Drainage & Slope Protection Structures	P 284,252,869.60	98.19%
Part H	Miscellaneous Structures	P 147,484.80	0.05%
	GRAND TOTAL	**P 289,496,101.86**	**100.00%**

Cost of slope protection per m² = $\frac{\text{P289,496,101.86}}{\text{11,394.00 m}^2}$ = **P25,407.77/m²**

Cost per kilometer of Road (Exclude Part A, B, C, D, E, F & H) = $\frac{\text{P284,252,869.60}}{\text{11,394.00 m}^2}$ = **P24,947.59/m²**

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	AMOUNT (Total Cost)		PERCENT Weight (%)
Part A	Facilities for the Engineer	P	203,439.60	0.31%
Part B	Other General Requirements	P	1,511,469.80	2.27%
Part C	Earthworks	P	228,436.93	0.34%
Part G	Drainage & Slope Protection Structures	P	64,640,950.30	97.08%
	GRAND TOTAL	**P**	**66,584,296.63**	**100.00%**

Cost of slope protection per m² = $\frac{\text{P66,584,296.83}}{\text{2,507.00 m}^2}$ = **P26,559.35/m²**

Cost per kilometer of Road (Exclude Part A, B & C) = $\frac{\text{P64,640,950.30}}{\text{2,507.00 m}^2}$ = **P25,784.18 m²**

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.	DESCRIPTION	AMOUNT (Total Cost)		PERCENT Weight (%)
Part A	Facilities for the Engineer	P	281,685.60	0.19%
Part B	Other General Requirements	P	1,787,292.50	1.23%
Part C	Earthworks	P	417,767.82	0.29%
Part F	Bridge Construction	P	6,171,515.37	4.25%
Part G	Drainage & Slope Protection Structures	P	136,619,434.98	94.04%
	GRAND TOTAL	**P**	**145,277,696.27**	**100.00%**

Cost of slope protection per m² = $\frac{\text{P145,277,696.27}}{\text{5,853.04 m}^2}$ = **P24,820.90/m²**

Cost per kilometer of Road (Exclude Part A, B, C & F) = $\frac{\text{P136,619,434.98}}{\text{5,853.04 m}^2}$ = **P23,341.62/m²**

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

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