

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

June 10, 2021

MEMORANDUM

TO

: OIC – Regional Director KHADAFFY D. TANGGOL

Cordillera Administrative Region

ATTENTION : OIC - District Engineer BENEDICTA C. MENDOZA

Benguet 1st District Engineering Office

Transmitted herewith are the **duly approved** Request for Modification for the project under FY 2021 General Appropriation Act (GAA), RA 11518, viz:

Date	As per GAA/0	Original	As Modif	ïed	
Approved		Project De	escription	124	
	 Construction of Flood within Naguillian R Naguillian River Section 056+000 – Sta. 057 Benguet 	iver Basin: along 2 (Bolo Creek), Sta.	Construction of Flood Mitigation Structure within Naguillian River Basin: along Naguillian River Section 2 (Bolo Creek), Sta. 055+820 – Sta. 056+780 , La Trinidad, Benguet		
June 10, 2021	CW-1 Construction of Flood Mitigation Structure 1,072.38 Lineal Meters	₽ 81,078,335	CW-1 Construction of Flood Mitigation Structure 918 Lineal Meters	₽ 81,078,335	
	EAO	₽ 2,940,665	EAO	₽ 2,940,665	
	Total	₽ 84,019,000	Total	₽ 84,019,000	

In this regard, please be reminded that a **project can only be modified once** as prescribed under the FY 2021 GAA, and all approved modifications **shall be posted in the DPWH website within five (5) days from receipt thereof.** Failure to comply with this requirement shall be meted with appropriate sanctions.

Please be guided accordingly.

RAFAEL C. YABUT Senior Undersecretary Undersecretary for Regional Operations Regions I, II, III, IV-A, V and CAR

cc: Undersecretary MARIA CATALINA E. CABRAL, Ph.D., Information Management, Planning and PPP Services Assistant Secretary WILFREDO S. MALLARI., Regional Operations in Regions I, II, III, IV-A, V and CAR

2.1 RMYR/LSDR

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. 6		J.	F	1	DEPARTMENT	Republic of the OF PUBLIC V CENTRAL Mani	VORKS ANI			CAR - 086	
	Name of Droid			Proc	gramming Div	ision Evaluat	ion Sheet		Project ID:	P00525553LZ	
Ū/	Name of Proje	<u>Construe</u> Naguillia	an River Se	od Mit	igation Structur (Bolo Creek), S	e within Nagui Sta. 056 + 000	llian River Ba - Sta. 057 -	asin: al + 570,	ong		
		Benguet						Ap	propriation:	84,019,000	
	Implementing	Office:	Benguet	First I	District Engine	eering Office			Date:	05/04/2021	
	A. <u>TYF</u> A.1	PE OF RE		in Imj	plementing Of	fice/Operati	ng Unit due	e to			
		A.1.1		Geogra	phical Jurisdicti	on			D	PWH-OSTO	
		A.1.2			al of Authority 1				acris	CE	June
	A.2	121			DIFICATION/	DJUSTMENT	S				
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		A.2.3	√ (Change	in Station Limi	its			By:	Time	5,50
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			A.2.5.2		Change in Scor		<u>_Y</u>				
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			A.2.5.4		Addition of Cor Deletion of Cor			Compon	ient)		
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			A.2.5.7		MULTIPLE char						
		ALUATIO	-								
	B.1 B.2	-			ED as per the C as per the GAA						
			-		A, R.A. 11518						
	C.1		-		ased [] Unrele				Amount:	84,019,000	
	C.2	. 1	FCR								
	D. Re	marks:	Decrease	in targ	et by 14.4% ar	nd increase in u	init cost by 1	16.82%	<u>.</u>		
				\cap	r /						
					M				John	~~	
	Evalu	ated By:			C. CANUEL		Noted B	By: _	LEONORA		
			Reg	ional C	oordinator				Sectio	n Chief	
					A	CTION SLIP			Ref No.	CAR - 086	
	Project ID:	P00525	55317						Date:	05/04/2021	
	-	-	ERATION	c	RCY		RBB		ERP, Jr.	EKS	
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	REMARKS:		4		nning Service or Approval						
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Republic of the Philippines DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS **OFFICE OF THE SECRETARY** MANILA

FOR : MARK A. VILLAR Secretary

Respectfully forwarded is the Memorandum dated April 6, 2021 of OIC-Regional Director **KHADAFFY D. TANGGOL**, **DPWH-CAR**, endorsing the request of **OIC** - **District Engineer BENEDICTA C**. **MENDOZA**, **Benguet 1**st **DEO**, requesting for the **modification** of project under the FY 2021 GAA, RA 11518, to wit:

A	s per GAA/Orig	inal		As Modified	1
Project Descrip	tion				
	320101106033 P00525553LZ	000			
OO2: Protect Lives and Properties			OO2: Protect Live	s and Propertie	25
Flood Manageme Flood Mitigation S		on/ Maintenance of ainage Systems	Flood Managemer Flood Mitigation S		on/ Maintenance of Trainage Systems
Construction of Flood Mitigation Structure within Naguillian River Basin: along Naguillian River Section 2 (Bolo Creek), Sta. 056+000 – Sta. 057+570 , La Trinidad, Benguet			Construction of Naguillian River Ba 2 (Bolo Creek), St Trinidad, Benguet	asin: along Nag a. 055+820 –	n Structure within uillian River Section Sta. 056+780, La
Physical Target	Unit Cost	Allocation (P)	Physical Target	Unit Cost	Estimated Cost
CW-1 Construction of Flood Mitigation Structure 1,072.38 Lineal Meters	₽ 75,606 / Lineal Meters	₽ 81,078,335	CW-1 Construction of Flood Mitigation Structure 918 Lineal Meters	₽ 88,321 / Lineal Meters	₽ 81,078,335
EAO	-	₽ 2,940,665	EAO	-	₽ 2,940,665
Tota	al:	₽ 84,019,000	Tota	1:	₽ 84,019,000
Justification:		L.,	L		1

- Adjustment of station limits to prioritize critical sections in need of immediate flood mitigation structure.
- Decrease in physical target due to increase in unit cost due to revised design for the flood mitigation structure. The original design was a revetment wall but during the detailed engineering design,
- adopted design for the structures are in the form of (1) structured wall High-Density Polyethylene Pipe (HDPE) with concrete armor and (2) steel sheet piles with stone masonry wall. Such structures entailed significantly higher material costs than the more common revetment structures.
- The derived unit cost and physical target were based on the approved plans, POW, DUPA, CMPD and Certificate of Reasonableness of Cost.

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

RAFAEL C. YABUT Senior Undersecretary Undersecretary for Operations Regions I, II, III, IV-A, V and CAR

APPROVED/DISAPPROVED:

MARK A. VILLAR Secretary Department of Public Works and Highways Office of the Secretary



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

Engineer's Hill, Baguio City

April 6, 2021

MEMORANDUM

FOR : MARK A. VILLAR Secretary

RECE	IVE	J
DATE 4/14/21 BY Venus	TIME	12:55 Am
DP	NH	A STAL METRIC
OFFICE OF THE SENIO	RUND	ERSECRETARY

- THRU : RAFAEL C. YABUT Senior Undersecretary for Regional Operations Regions I, II, III, IV-A, V & CAR
- SUBJECT : Request for Modification of the CY 2021 Project: Construction of Flood Mitigation Structure within Naguillian River Basin: along Naguillian River Section 2 (Bolo Creek), Sta. 056+000 – Sta. 057+570, La Trinidad, Benguet (P00525553LZ)

We are respectfully forwarding the Memorandum dated March 31, 2021 from OIC-District Engineer Benedicta C. Mendoza, Benguet First District Engineering Office, regarding the modification of the above project in the amount of **Eighty-Four Million Nineteen Thousand Pesos (Php 84,019,000.00)**, as indicated below:

FROM

Project Title: Construction of Flood Mitigation Structure within Naguillian River Basin: along Naguillian River Section 2 (Bolo Creek), **Sta. 056+000** – **Sta. 057+570**, La Trinidad, Benguet

> Physical Target: 1,072.380 Lineal Meters

TO Project Title: Construction of Flood Mitigation Structure within Naguillian River Basin: along Naguillian River Section 2 (Bolo Creek), **Sta. 055+820** – **Sta. 056+780**, La Trinidad, Benguet

FCR

Physical Target: **918.000** Lineal 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 OIC-Regional Director

By the Authority of the Regional Director:

REYNALÓO C. ALCONCEL Assistant Regional Director

CAR.1 DLBC/EFD/AOD/ABM



Republic of the Philippines DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS BENGUET FIRST DISTRICT ENGINEERING OFFICE CORDILLERA ADMINISTRATIVE REGION Wangal, La Trinidad, Benguet

March 31, 2021

MEMORANDUM

- FOR : KHADAFFY D. TANGGOL OIC-Regional Director
- ATTENTION : ANGELITA B. MABITAZAN Chief, Planning and Design Division
- SUBJECT : Request for Modification of the CY 2021 Project: Construction of Flood Mitigation Structure within Naguillian River Basin: along Naguillian River Section 2 (Bolo Creek), Sta. 056+000 – Sta. 057+570, La Trinidad, Benguet (P00525553LZ)

Respectfully submitted is the request for modification of the above project. The proposed changes are presented below.

	FROM (As per GAA/Original)	TO (As Modified)
Project Description	Construction of Flood Mitigation Structure within Naguillian River Basin: along Naguillian River Section 2 (Bolo Creek), Sta. 056+000 – Sta. 057+570 , La Trinidad, Benguet	Construction of Flood Mitigation Structure within Naguillian River Basin: along Naguillian River Section 2 (Bolo Creek), Sta. 055+820 – Sta. 056+780 , La Trinidad, Benguet
Physical Target	1,072.380 Lineal Meters	918.000 Lineal Meters

Attached are the supporting documents based on D.O. No. 11, Series of 2018, "Guidelines on Project Modification and Augmentation Under the General Appropriations Act (GAA)."

For your perusal.

BENEDICTA C. MENDOZA OIC-District Engineer

CAR.16.1 HGUD/LBP/BCM

Form for Modification Request

	A. GENERAL							
1. REGION		2. DEO				E DISTRICT		
Cordillera Administra			ct Engineering Office		guet Lone			
В. (ORIGINAL PROJE	СТ	C. PROPOSED REVISED PROJECT					
4. UACS (Unified Account 320101106033000	nt Code Structure as do	efined in GAA)						
5. Project Id P00525553LZ								
6. Project Category OO2: Protect Lives a	nd Properties							
7. Sub-Program (P/A Flood Management -		intenance of Flood N	Aitigation Structures and	Drainage Sy	ystems			
8. Operating Unit Benguet 1st District E	Engineering Office		18. Operating Unit (Cha Benguet 1st District Eng		/	val)		
9. Type of Work (Ente	r Details for all Compo	ments below)	19. Type of Work (Enter	Details for all	Component	s below)		
Component ID	Type of Work		Component ID	Type of W	/			
P00525553LZ-CW1	Construction of Structure	Flood Mitigation	P00525553LZ-CW1	Construction of Flood Mitigation / Structure				
P00525553LZ-EAO			P00525553LZ-EAO					
10. PROJECT DESCRIP	PTION (as recorded in	n GAA)	20. PROJECT DESCRIPTION (of the revised project)					
Construction of Flood Naguillian River Basin (Bolo Creek), Sta. 056 Benguet	n: along Naguillian	River Section 2	Construction of Flood Mitigation Structure within Naguillian River Basin: along Naguillian River Section 2 (Bolo Creek), Sta. 055+820 – Sta. 056+780 , La Trinidad, Benguet					
11. ALLOTMENT (P'000) (as recorded in GAA) 84,019			21. REVISED ESTIMATED COST (P'000) (Equal to, or lower than GAA allotment)22. CAF (To be obtained from Financial Management office)84,019Image: Comparison of the second					
12. PHYSICAL TARGE	T (Enter Details for all	Components below)	23. PHYSICAL TARGET (Enter Details for all Components below)					
Component ID	Target	Target Unit	Component ID	Target	/	Target Unit		
P00525553LZ-CW1	1,072.380	Lineal Meters (lm)	P00525553LZ-CW1	918.000 /		Lineal Meters (Im)		
P00525553LZ-EAO			P00525553LZ-EAO					
13. UNIT COST (Enter Details for all Components below)			24. UNIT COST (Enter De	tails for all Cor	nponents be	elow)		
•	Component Cost (P'000)	Target Unit Cost (P'000/Target Unit)	Component ID	Componer (P'000)	nt Cost	Target Unit Cost (P'000/Target Unit)		
P00525553LZ-CW1	81,078.335	75.606	P00525553LZ-CW1	81,078.335	5 /	88.321		
P00525553LZ-EAO	2,940.665		P00525553LZ-EAO	2,940.665	/			

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Form for Modification Request

14. PROJECT WORK LOCATION (Must be defined in strict accordance with DO 65 Series 2014)

Construction of Flood Mitigation Structure within Naguillian River Basin: along Naguillian River Section 2 (Bolo Creek), **Sta. 056+000 – Sta. 057+570**, La Trinidad, Benguet

Coordinates were inadvertently not provided in the Project Detail Matrix and Database (PDM, PDD).

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)

Construction of Flood Mitigation Structure within Naguillian River Basin: along Naguillian River Section 2 (Bolo Creek), **Sta. 055+820 – Sta. 056+780**, La Trinidad, Benguet

Start X	End X	Start X 120.	587735	End X	16.464227
Start Y	End Y	Start Y 120.	583523	End Y	16.458903 🗸
15. ROAD CLASSIFIC N/A	CATION (if applicable)	26. ROAD CLA N/A		if applicable)	
16. IMPLEMENTING the original project) Benguet 1st District	OFFICE (Record the Implementing O	proposed revised			plementing Office of the
17. PROJECT IMPLE	MENTATION PLAN (PIP)	28. PROJECT I	MPLEMENTAT	ION PLAN (F	PIP)
Planned Start Date 04/26/2021	Planned End Date 12/31/2021	Planned Start 5/13/2021	Date	Planned 03/03/20	
		29. OVERLAP	? □ YES	30. UNDE ⊠ NO	R WARRANTY?
	D. ATTA	CHMENTS & JUSTIFIC	ATIONS		

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

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

ADJUSTMENTS

Physical Target: from 1,072.38 to 918.00 Lineal Meters (Decreased by 154.38 Lm = 14.40%). Unit Cost: from P75,606/Lm to P88,321/Lm (Increased by P12,715/Lm = 16.82%)

- The revised physical target reflects the length of flood mitigation structures needed to address the perennial inundation experienced in the area especially during periods of inclement weather. The project involves the construction of flood mitigation structures in the form of (1) structured wall High-Density Polyethylene Pipe (HDPE) with concrete armor and (2) steel sheet piles with stone masonry wall. Such structures entailed significantly higher material costs than the more common revetment structures. This resulted in an increase in the overall project unit cost which is nonetheless reasonable considering that individual unit costs of items of work involved are within the range of prevailing costs of the Department.
- The original proposal was to construct a revetment along the entire stretch of the Bolo creek section up to its junction with the Balili River as covered by the station limits in the original project description. However, a review of available studies revealed that flooding occurs when the flow along Bolo Creek cannot enter the Balili River due to the higher flow velocity of the latter. In order to prevent such backflow of the Bolo Creek that results to inundation of the La Trinidad valley, it was proposed that a continuous culvert in the form of enclosed HDPE pipes be constructed at the junction of both flows towards the Balili River section to separate the flows from both rivers. The pipes will cater to the lower velocity of the Bolo Creek, allowing its flow to enter the raging Balili River. The actual extent of the structures is therefore reflected in the station limits in the revised project description, following the stationing set in the District's flood control master plan.
- Steel sheet piles were proposed as flood and bank erosion mitigation structure along the main Bolo Creek due to its significantly greater embedment depth as compared to other structures. This is a vital consideration since the area is a swamp where soils are saturated due to the higher ground water table. Also, the smaller cross section of the steel sheet piles will allow an improved discharge capacity of the river section when the riverbed is excavated to clear excess soils.

Form for Modification Request

33. PHOTOS	SUBMITTED		
□NO	⊠YES		
34. A MAP O	F THE PROPOSED PROJECT WORK LOCATION	SUBMITTED)
□NO	⊠YES		
	35. Pl	REPARED B	Y:
Name:	HARVEY GARENTT U. DELLA	Position:	Engineer II
Office:	Benguet 1st District Engineering Office	Date:	
36. REVI	EWED BY DISTRICT OFFICE (If Required)		38. REVIEWED BY REGIONAL OFFICE
Name:	LOIDA B. PASCUA	Name:	ANGELITA B) MABITAZAN
Position:	Chief, Planning and Design Section	Position:	Chief, Planning and Design Division
Date:	/ /	Date:	Ng
37. RECOM	MENDED BY DISTRICT OFFICE (If Required)	3	9. RECOMMENDED BY REGIONAL OFFICE
Name:	BENEDICTA C. MENDOZA	Name:	KHADAFFY D. TANGGOL
Position:	ØIC-District Engineer	Position:	OIC-Regional Director
Date:		Date:	

By the authority of the Regional Director:

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1) e.

REYNALOO C, ALGONCEL Assistant Regional Director

Form for Modification Request

UACS (Unified Account Code Structure as defined in GAA) 320101106033000

Project Id

P00525553LZ

40. DPWH OFFICE OF THE UNDERSECRETARIES FOR OPERATIONS USE ONLY

□ Category A – Typographical Errors

□ Category C – Change in Location

- **Category of Modification**
- □ Category D Change in Operating Unit (requires DBM approval)

□ Category B – Change in Station Limits, due to increase or decrease in budget

(choose one)

- □ Adjustment Send to PS-PD to amend MYPS
- □ Modification does not comply with DBM Categories
- □ Augmentation

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

Ca	tegory 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	 Overlapping Sections of Work Change in station limits, due to increase or decrease in budget Change 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
			10 10		 Add/delete Project Components Change of Itemized Project Component: Various Description Location Amount Target

Reviewed by Office of the Undersecretary for Operations

Name:	RHOFEL MARIE Y. REDALADO							
Signature	Andredat	-						
Position:	ENGINEEN	r IV						
Date:								
		41. DPWH PL	ANNING SERVICE O	FFICE USE ONLY				
Category of Mo (choose one)	dification	Category B – C Category C – C Category C – C Category D – C Adjustment – S	hange in Location					
		Review	wed by Planning	Service				
Name:	CHRISTYBEL	G. CANUEL	Name:	PETER PAUL R. CORTEZ				
Signature		X4	Signature:	fauls				
Position:	Regional Coc	rdinator	Position:	OIC-Division Chief, Programming Division				
Date:	U	54 21	Date:	5/4/2221				