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

April 17, 2018

HADJI KAHAL Q. KEDTAG
Regional Secretary
DENR-ARMM
Cotabato City

SUBJECT : Proposed Urgent Rehabilitation of Damaged Trans-Central Roads by the Conflict in Marawi City Project

Dear Secretary Kedtag:

In connection with the requirement for the application for Environmental Compliance Certificate (ECC) for the above-mentioned subject, we wish to inform you that this Department will ensure submission of the necessary document/s as Proof of Authority over the Project Site prior to the implementation of the said project.

For the Regional Secretary's information and/or guidance.

Very truly yours,

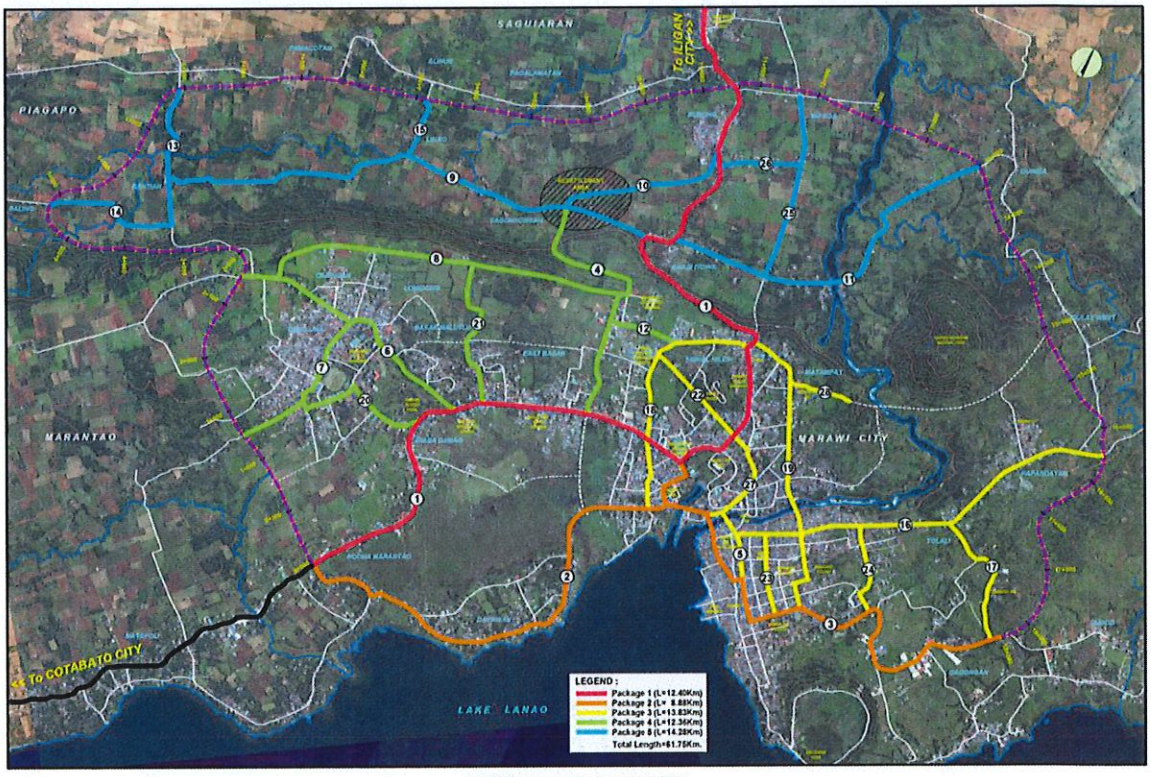
SHARIF MADSMO H. HASIM
Project Director
RMC-II (Multilateral), UPMO

ATTY CLIFF RICHARD E. GENESELA
NOTARY PUBLIC CITY OF MANILA ROLL NO. 49005
Commission No. 2018-075 Issued on Jan. 26, 2018 Until Dec. 31, 2019 / Manila
PTR No. 3990775 issued on Dec. 27, 2017 until Dec. 31, 2018
IBP No. 02217 Issued on Jan. 05, 2018 Until Dec. 31, 2018
MCLE No. VI-0017776 Valid From April 14, 2016 Until April 14, 2019
Office Address: Rm. 305, NPC Building Magallanes Drive

Republic of the Philippines
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
Bonifacio Drive, Port Area, Manila

Initial Environmental Examination Checklist Report

Urgent Rehabilitation of Damaged Transcentral Roads by the Conflict in Marawi City



MARAWI TRANSCENTRAL ROAD PACKAGES

Package 4

PROJECT FACT SHEET

Name of the Project	Urgent Rehabilitation of Damaged Trans-central Roads by the Conflict in Marawi City	
Proponent Name	Department of Public Works and Highways	
Proponent Address	DPWH Central Office, Bonifacio Drive, Port Area, Manila, Philippines	
Authorized Representative	Name SHARIF MADSMO H. HASIM	Designation Project Director ,Roads Management Cluster II (Multilateral)
Proponent Means of Contact	Landline No.(02) 632-304-3779	Fax No.(02)304-3000 Email: hasim.sharif_madsmo@dpwh.gov.ph

Project Description

Project Type	Project Type Parameter	Project Size
Infrastructure Project: Rehabilitation/repair of existing road network (road reconstruction and pavement repair)	Length **Road 4** - New Marawi Diversion Road (Sagonsongan-Awar) - (2.37 km.) **Road 6**: - Cabingan-MSU Campus-Amai Pak-pak Road (2.30 km.) **Road 7** - MSU Campus - Matampay Road (1.41 km.) **Road 8** - MSU-GMA Terminal Road (3.10 km.) **Road 12** - GMA Terminal Access Road (Capitol - GMA Terminal) – 0.59km.) **Road 20** - Rapasan - Bayaba Road (1.23 km.) **Road 21** - Lumidong Amai Pak Pak Ave.(1.36 km.) Width	12.36 km., no critical slope 6.5 meters (target/widest 7m)
Other Description Details The project is to support the recovery and revitalization of socio-economic condition of Marawi City which was devastated by the conflict. Primarily, the project will repair and rehabilitate the road infrastructure. It covers the major roads which function as major distributor from urban areas to Marawi City Ring Road. The total length of the road to be		

covered by the project is about 61.75 km. Part of the Feasibility Study is the conduct of survey to capture the magnitude of damage on the road infrastructure: i) Road inventory and road surface condition survey, ii) Drainage inventory and condition survey and iii) Roughness survey using the DRIMS (Dynamic Response Intelligent Monitoring System. Information generated by these surveys are necessary to come up with road rehabilitation program/plan and its corresponding cost estimates and implementation strategy.

The Japanese Government expressed interest to fund the project through JICA. The selection of roads for rehabilitation was in consultation with DPWH Central Office, DPWH ARMM, concerned LGU (Marawi City Government, Marantao, Saguiaran) and Task Force Bangon Marawi.

Package 4 covers the Mindanao State University (MSU) campus and its vicinity. It also covers portion of Marantao.

The objectives of the road rehabilitation project is to improve mobility and reduce travel time. In effect it can boost trade and economic dynamism with more efficient and lesser cost of transporting goods and local products.

The road project will have impact on existing environment conditions but only during the construction phase. Mitigation measures will be put in place to manage impact both on air and water pollution. Efficiency and conservation measures will also be implemented vis a vis power and water consumption as well as other natural resource uses especially sand and gravel, key materials needed for road construction. The project will have no involuntary resettlement component as it will just rehabilitate the existing road way.

1.1. PROJECT LOCATION AND AREA

Street/Sitio/Barangay: **Package 4**: Road 4 - New Marawi Diversion Road (Sagonsongan-Awar) Road 6: - Cabingan-MSU Campus-Amai Pak-pak Road Road 7 - MSU Campus - Matampay Road Road 8 - MSU-GMA Terminal Road Road 12 - GMA Terminal Access Road (Capitol - GMA Terminal) Road 20 - Rapasan - Bayaba Road Road 21 - Lumidong Amai Pak Pak Ave.	Zone Classification: Residential, Commercial, Agricultural, Wasteland	
Region: ARMM	City/Municipality: Marawi City, Marantao,	Province: Lanao del Sur
Total Project Land Area:	Total Project Building Footprint Area:	

135.98 sq.km.(11m RROW x 12.36 km section length)	82.81 sq.km.(6.7m carriageway x 12.36 km section length)

Geographic Coordinates of the Project Area (WGS84)

Package 4:

Road 4: (2.37 km) - New Marawi Diversion Road (Sagonsongan-Awar)

Area/Section	Longitude	Latitude
0 + 000	124.276111111111	8.003333333333
2 + 382	124.266666666667	8.016111111111

Road 6: (2.30 km) - Cabingan-MSU Campus-Amai Pak-pak Road

Area/Section	Longitude	Latitude
0 + 000	7.982777777778	124.263611111111
3 + 350	8.998333333333	124.266944444444

Road 7: (1.41 km) - MSU Campus - Matampay Road

Area/Section	Longitude	Latitude
0 + 000	124.256666666667	8.000277777778
1 + 426	124.284444444444	7.988611111111

Road 8: (3.10 km) - MSU-GMA Terminal Road

Area/Section	Longitude	Latitude
0 + 000	124.273611111111	8.012500000000
3 + 100	124.250000000000	8.000555555556

Road 12: (0.59 km) - GMA Terminal Access Road (Capitol - GMA Terminal)

Area/Section	Longitude	Latitude
0 + 000	124.263611111111	8.011388888889
0 + 558	124.274444444444	8.010555555556

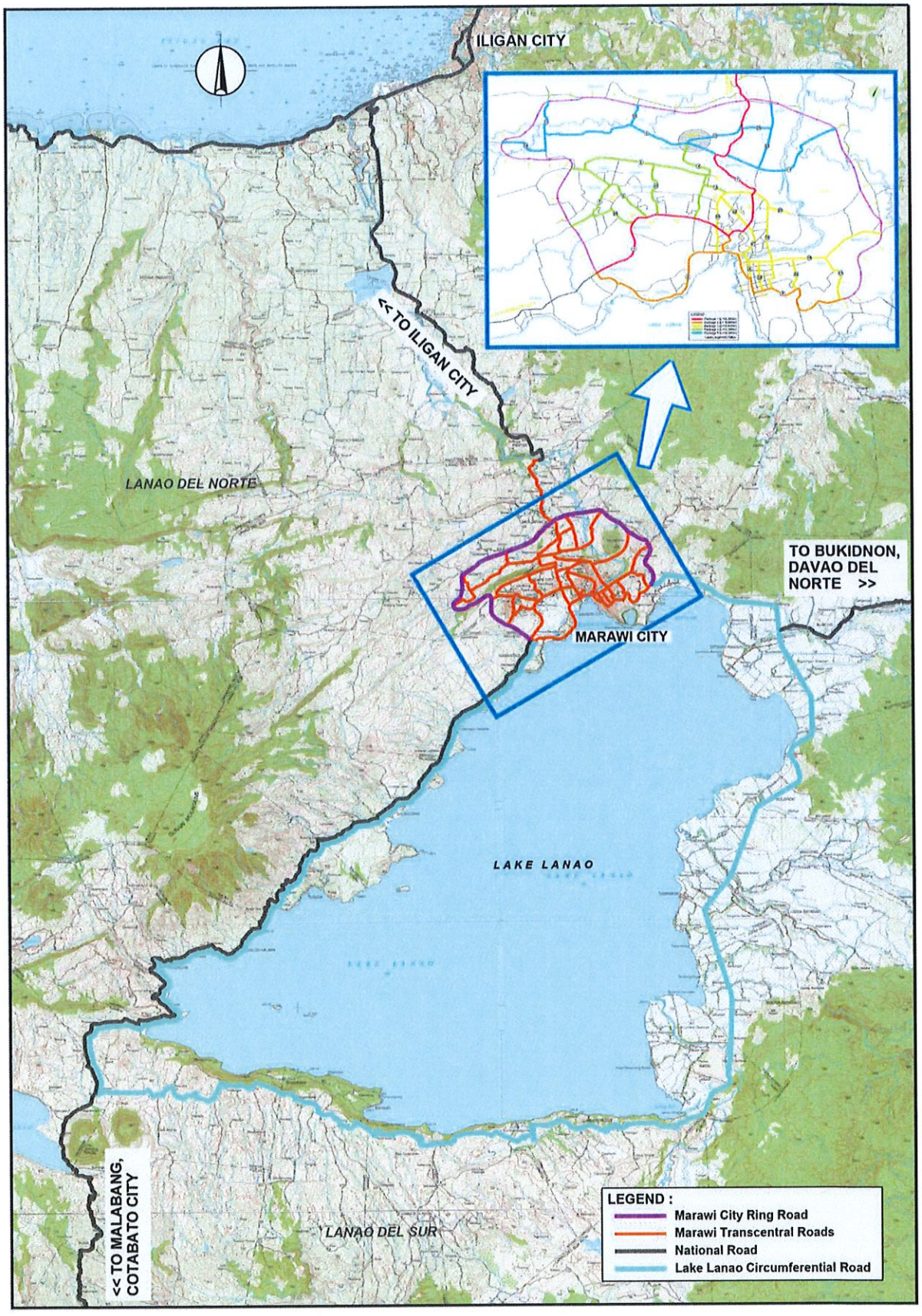
Road 20: (1.23 km) - Rapasan - Bayaba Road

Area/Section	Longitude	Latitude
0 + 000	124.256388888889	7.993333333333
1 + 241	124.264444444444	7.995833333333

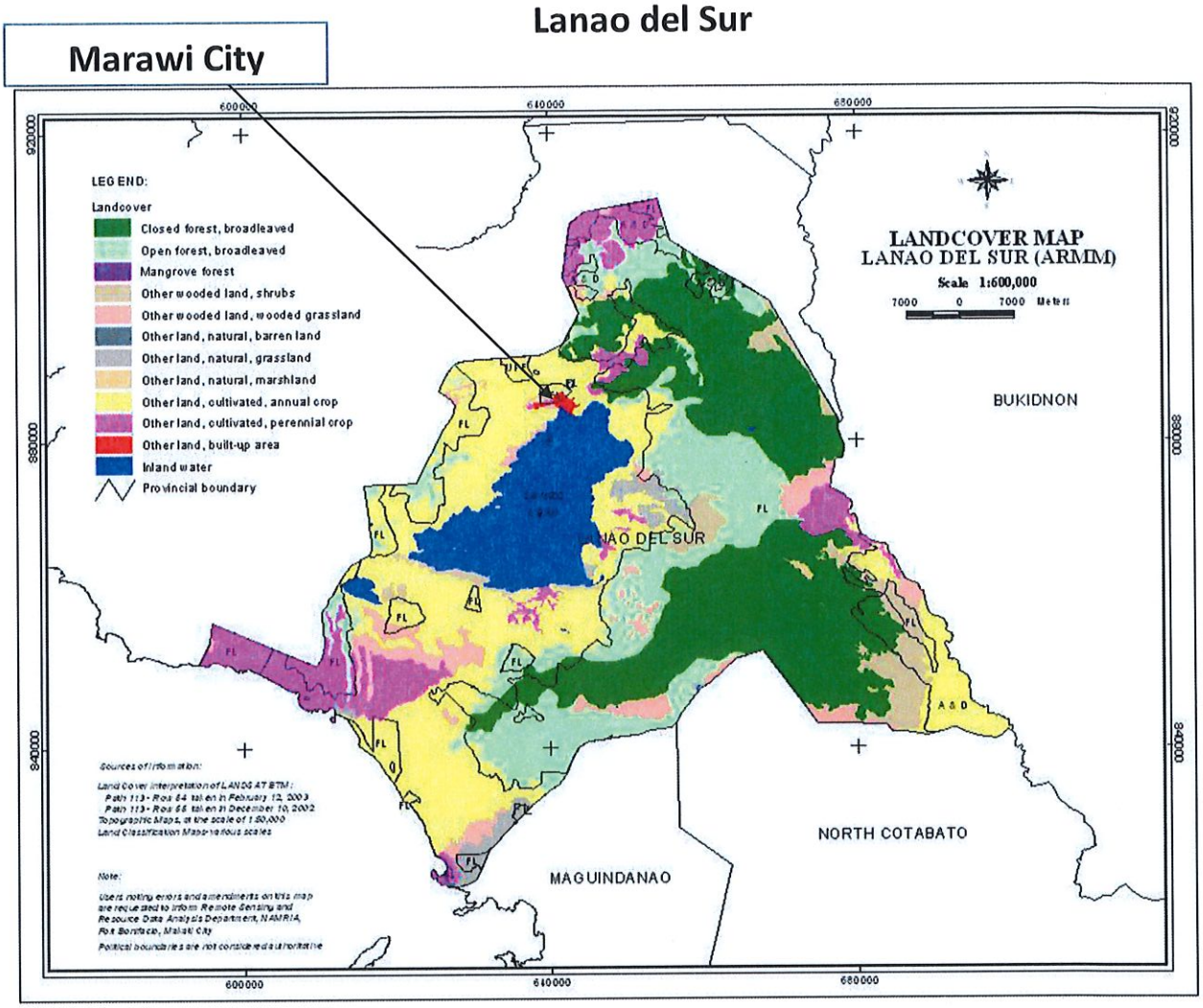
Road 21: (1.36 km) - Lumidong Amai Pak Pak Ave.

Area/Section	Longitude	Latitude
0 + 000	124.268611111111	8.000000000000
0 + 777	124.284444444444	8.003611111111
0 + 900	End of existing road	

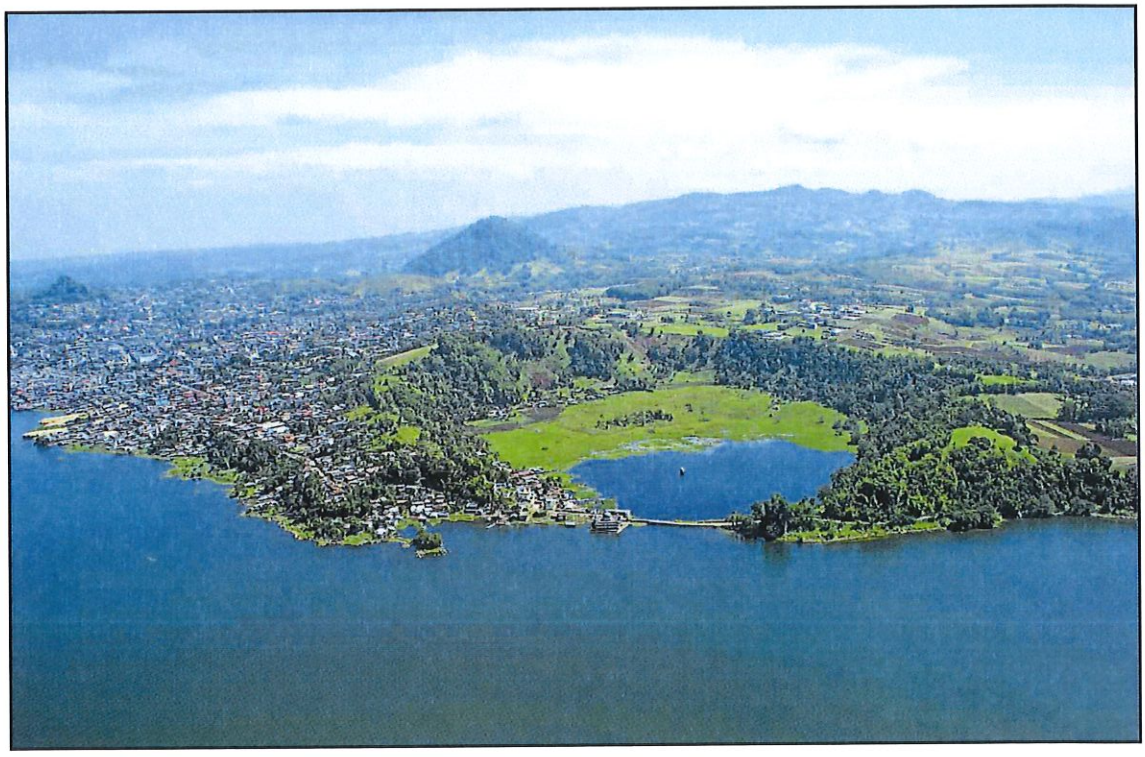
Location Map



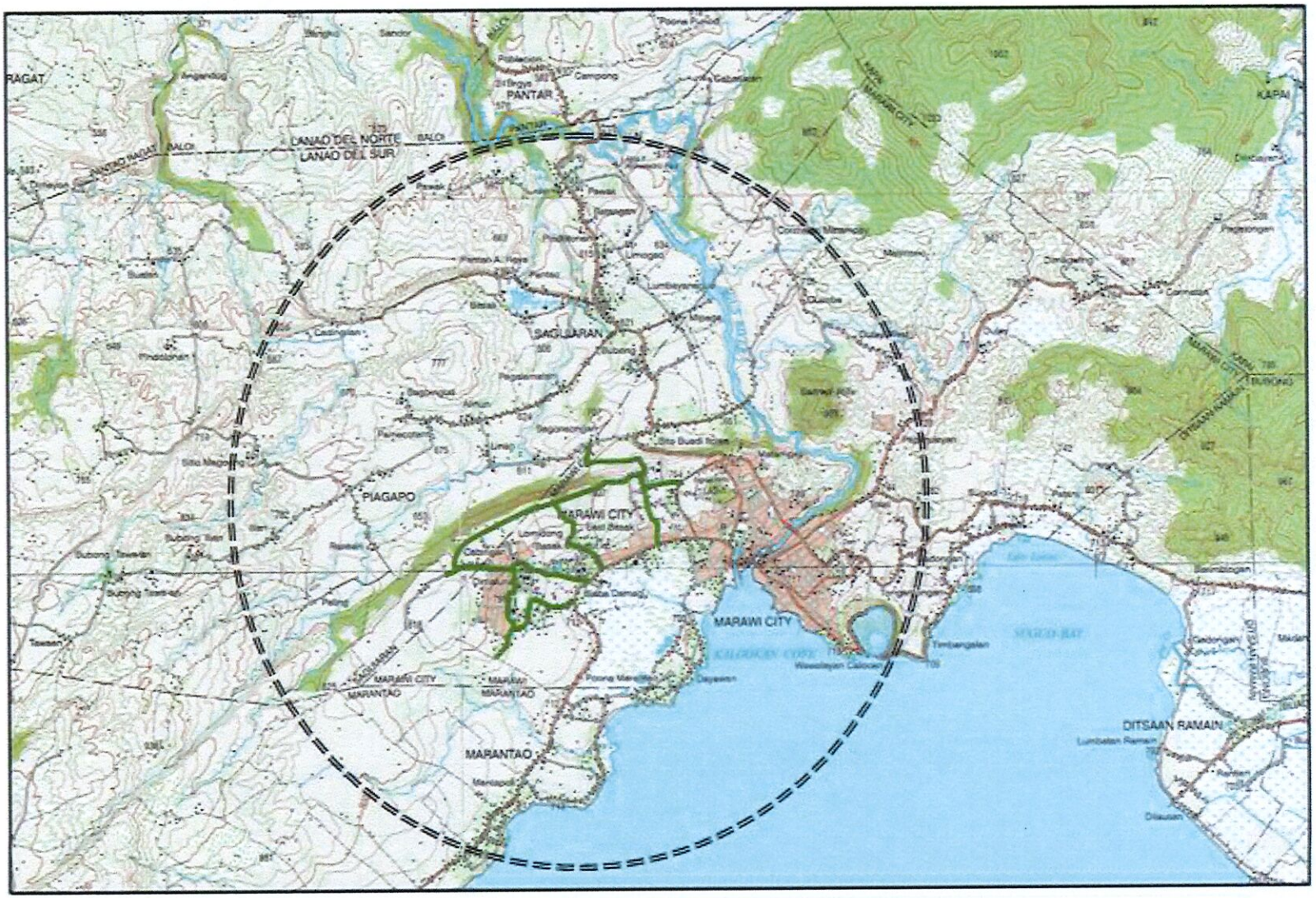
Land Cover Map
Lanao del Sur



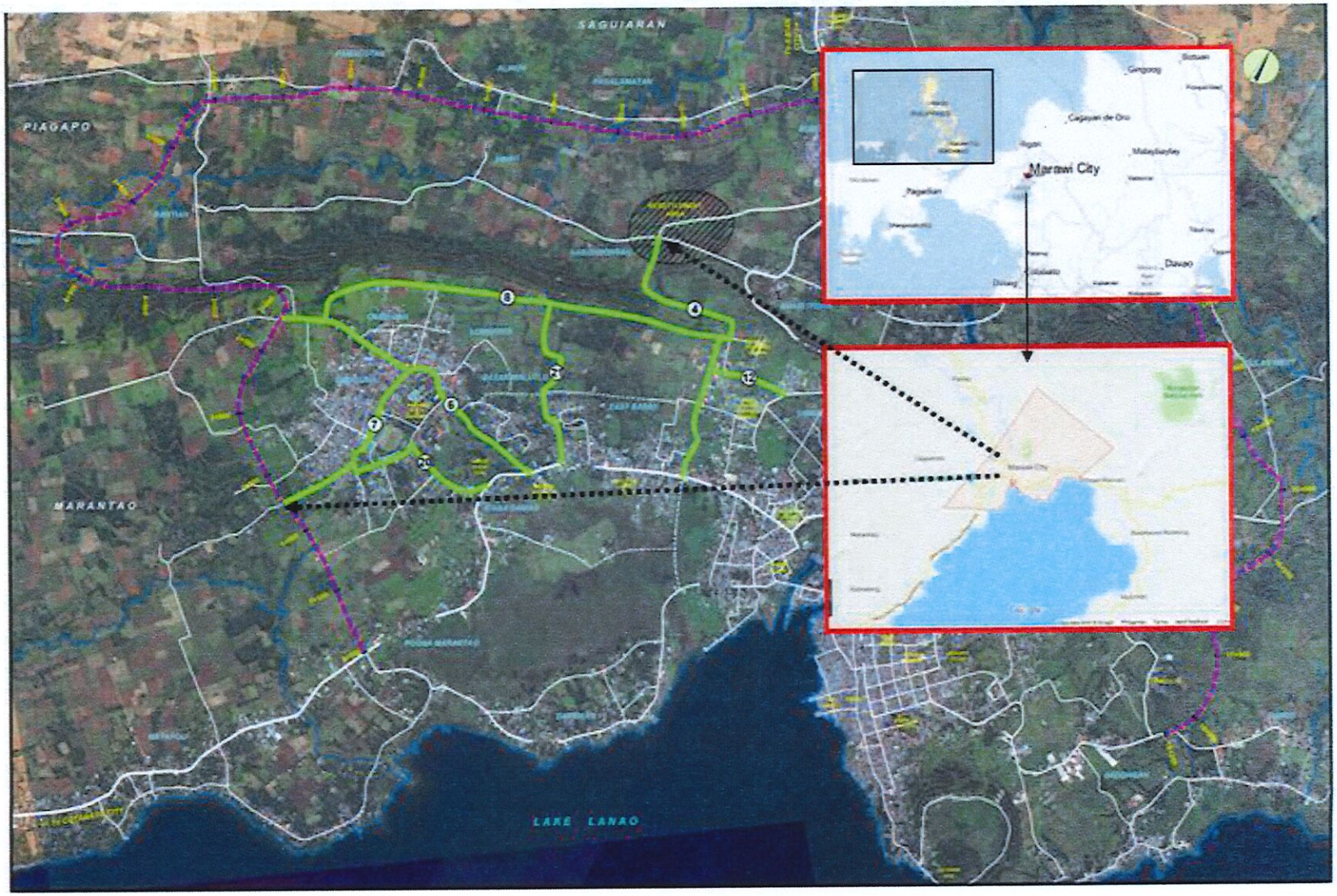
Marawi City and Lake Lanao



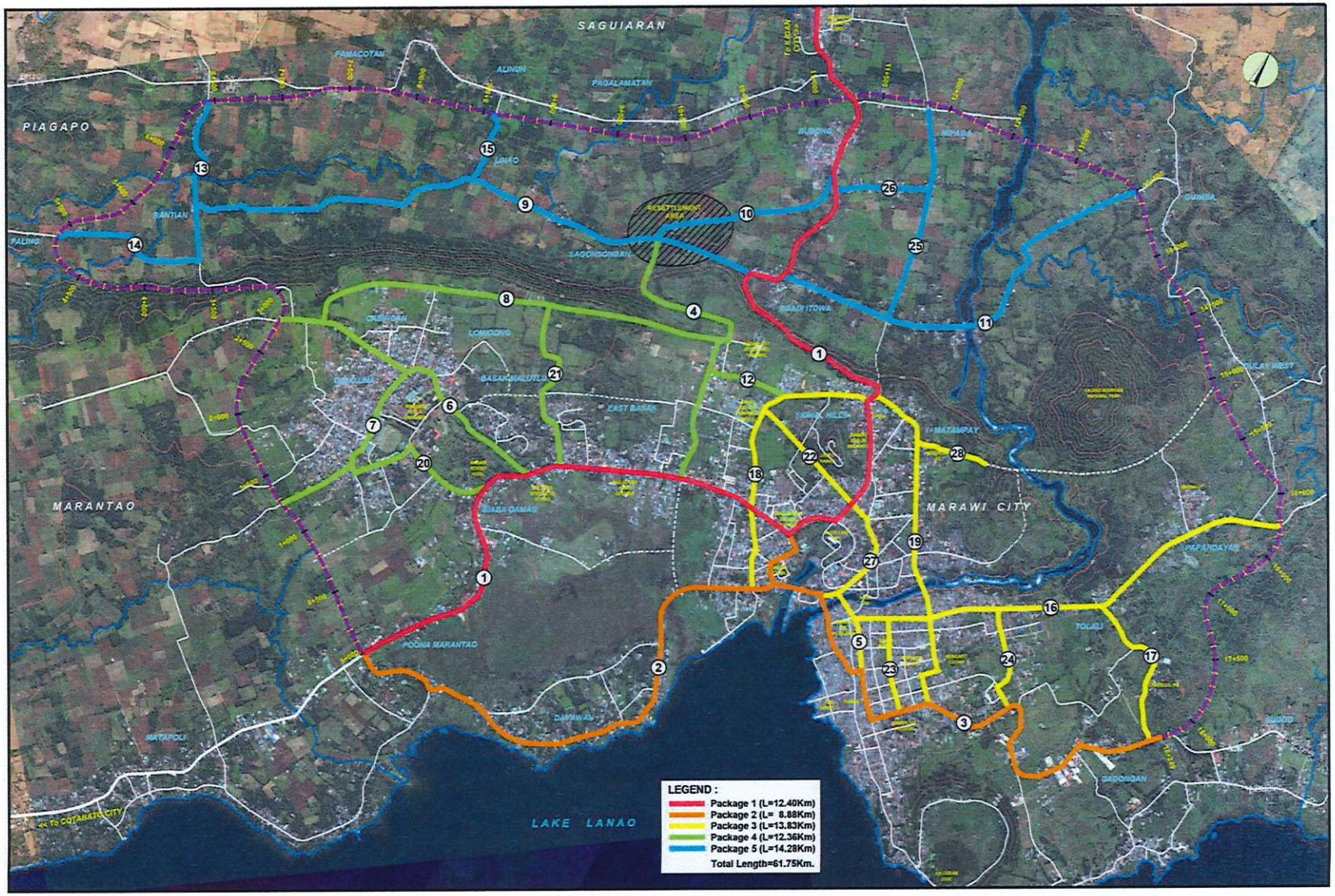
Topographic Map
Package 4



Site Plan: Package 4

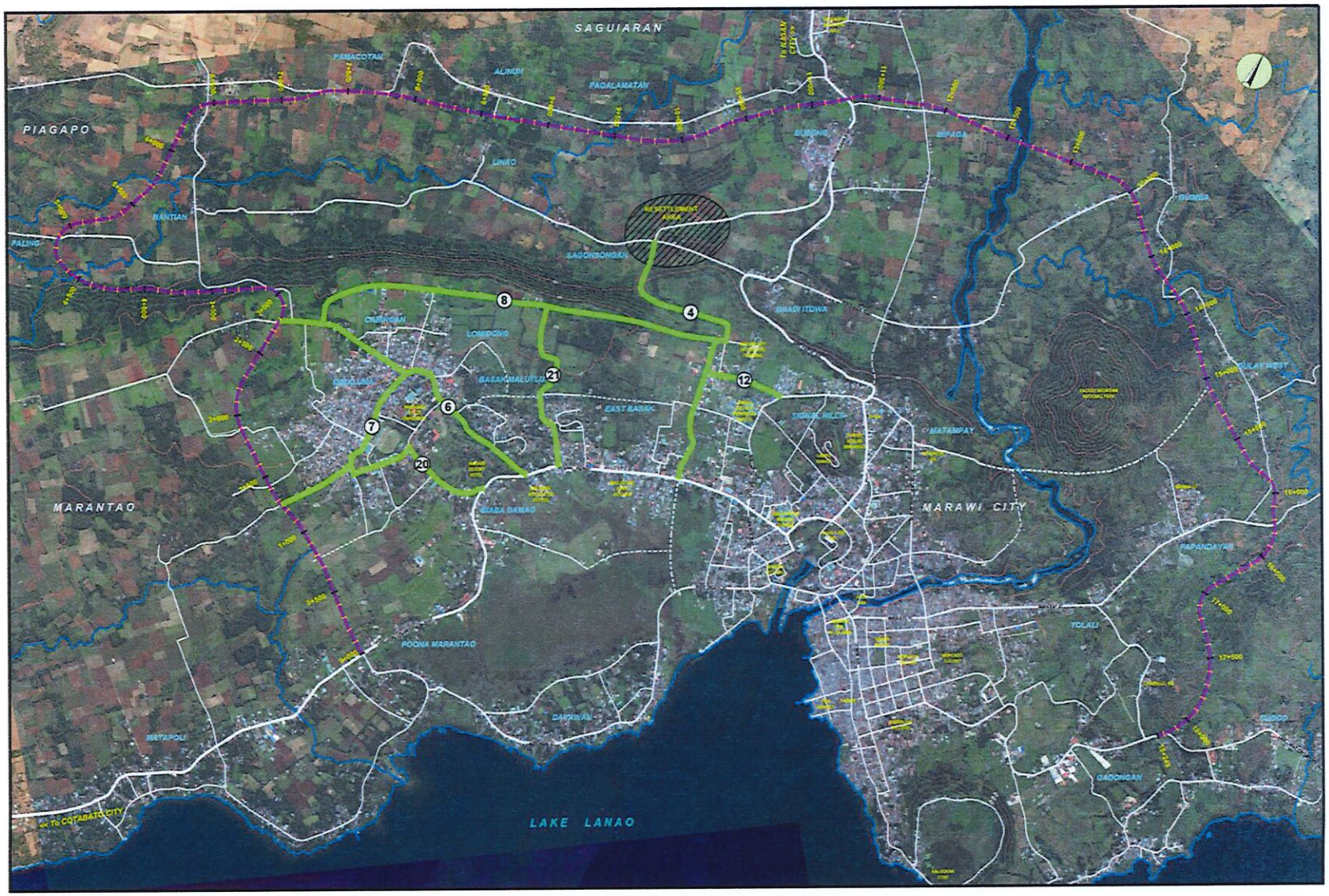


Road Packages and Numbering



MARAWI TRANSCENTRAL ROADS NUMBERING

Package 4 Alignment of Roads

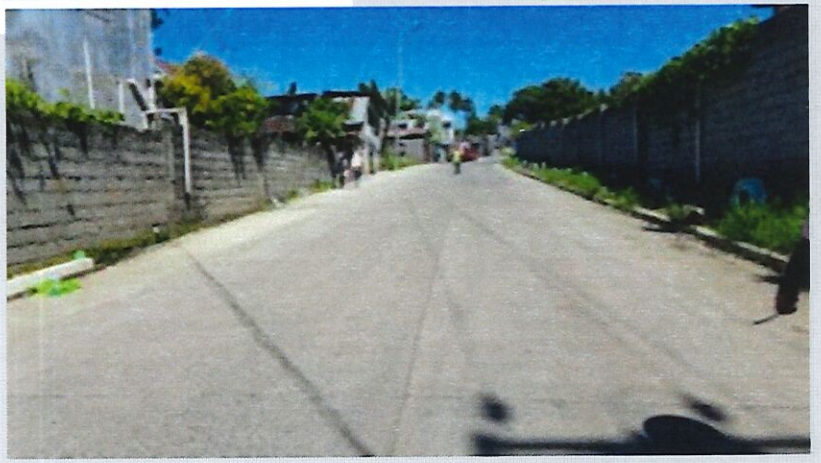


Geo-tagged Photos

Package 4:

Road 4

Road Name:	New Marawi Diversion Road (Sagonsongan-Awar)		
Length:	2.37 km		
Barangay(s) Covered)	Marawi City	West Basak Malulut, New Capitol, Matampay , Sagonsongan	
Existing Land Use:		**Major:** Residential, commercial, agricultural	
Existing Carriageway Pavement Type		Majority concrete, few earth	
Slope		Gently rolling	
Coordinates:		**Coordinates:**	
Longitude:	124.276111111111	*Longitude:*	124.266666666667
Latitude:	8.003333333333	*Latitude:*	8.016111111111
Barangay:	West Basak Malut-lut	**Barangay:**	Sagonsongan
City/Municipality:	Marawi	**City/Municipality:**	Marawi



Station Beginning:	0 + 000	**Station Ending:**	2 + 382

Road 6	Cabingan-MSU Campus-Amai Pak-pak Road	
Road Name:		
Length:	2.30 km	
Barnagy(s) Covered	Marantao Marawi Cty	Banga Cabingan (MSU Campus), Barrio Sala'am, Biyaba-damag
Existing Land Use:		Major: Residential, Commercial, Institutional Minor: Agriculture
Existing Carriageway Pavement Type		All concrete
Slope		Gently
Coordinates:		**Coordinates:**
Longitude:	124.263611111111	*Longitude:* 124.263611111111
Latitude:	7.982777777780	*Latitude:* 7.982777777778
Barangay:	Banga	**Barangay:** Biyaba-damag
City/Municipality:	Marantao	**City/Municipality:** Marawi City

Station Beginning: 0 + 000

Station Ending: 2 + 350

Road 7

Road Name:	MSU Campus - Matampay Road	
Length:	1.41 km	
Barangay(s) Covered	Marawi City	Barrio Sala'am
	Marantao	Matampay
Existing Land Use:		Residential, commercial, agricultural
Existing Carriageway Pavement Type		Majority concrete, few earth/gravel
Slope		Sloping, gently rolling

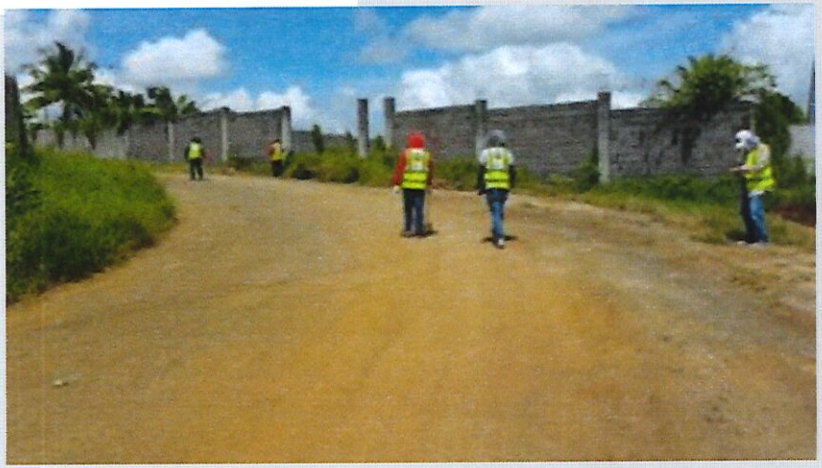
Coordinates:		**Coordinates:**	
Longitude:	124.256666666667	*Longitude:*	124.284444444444
Latitude:	8.000000000000	*Latitude:*	7.988611111111
Barangay:	Barrio Salam	**Barangay:**	Matampay
City/Municipality:	Marawi City	**City/Municipality:**	Marantao

Station Beginning: 0 + 000

Station Ending: 1 + 426

Road 8

Road Name:	MSU-GMA Terminal Road	
Length:	3.10 km	
Barangay(s) Covered	Marawi City	New Capitol, Cabingan (MSU Cabingan)
Existing Land Use:		Majority: Residential, commercial; agricultural; Minor: wasteland
Existing Carriageway Pavement Type		All concrete
Slope		Gently rolling
Coordinates:		**Coordinates:**
Longitude:		*Longitude:*
Latitude:		*Latitude:*
Barangay:	New Capitol	**Barangay:** MSU Cabingan
City/Municipality:	Marawi	**City/Municipality:** Marawi

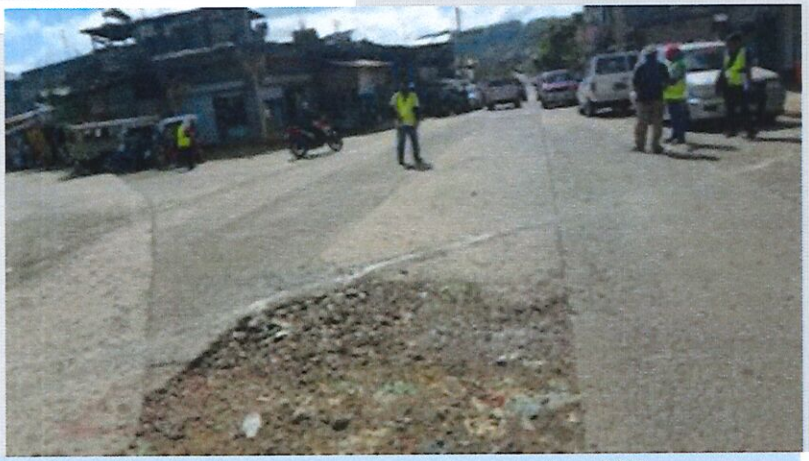


Station Beginning: 0 + 000

Station Ending: 3 + 100

Road 12

Road Name:	GMA Terminal Access Road (Capitol - GMA Terminal)		
Length:	0.59 km		
Barangay(s) Covered	Marawi City	Poblacion	
Existing Land Use:		Residential, commercial	
Existing Carriageway Pavement Type		All concrete	
Slope		Gently sloping	
Coordinates:		**Coordinates:**	
Longitude:	124.263611111111	*Longitude:*	124.274444444444
Latitude:	8.011388888889	*Latitude:*	8.010555555556
Barangay:	Poblacion	**Barangay:**	Poblacion
City/Municipality:	Marawi	**City/Municipality:**	Marawi



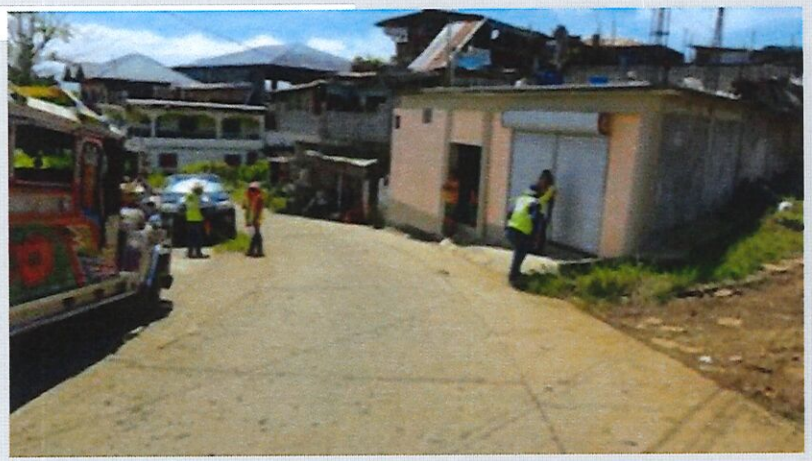
Station Beginning: 0 + 000

Station Ending: 0 + 588

Road 20

Road Name:	Rapasan - Bayaba Road	
Length:	1.23 km	
Barangay(s) covered	Marawi City	Sikap, Matampay, Biyaba-damag
Existing Land Use:		
Existing Carriageway Pavement Type		
Slope		

Coordinates:		**Coordinates:**	
Longitude:	124.256388888889	*Longitude:*	124.264444444444
Latitude:	7.993333333333	*Latitude:*	7.995833333333
Barangay:	Sikap	**Barangay:**	Biyaba-damag
City/Municipality:	Marawi	**City/Municipality:**	Marawi



Station Beginning:	0 + 000	**Station Ending:**	1 + 241

Road 21

Road Name:	Lumidong Amai Pak Pak Ave.
Length:	1.36 km
Barangay(s) Covered	Marawi City
Existing Land Use:	Langcap, Basak Malutlut **Major:** Residential, commercial, **Minor:** Agricultural
Existing Carriageway Pavement Type	All concrete
Slope	Gently sloping

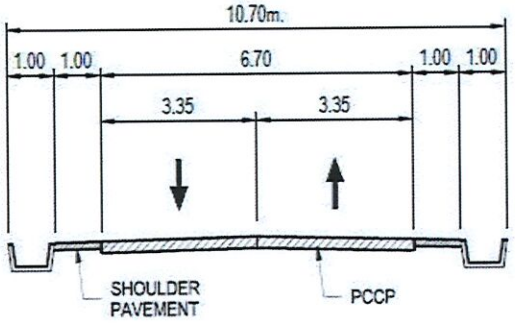
Coordinates:	
Longitude:	124.268611111111
Latitude:	8.000000000000
Barangay:	Langcap
City/Municipality:	Marawi

Station Beginning: 0 + 000

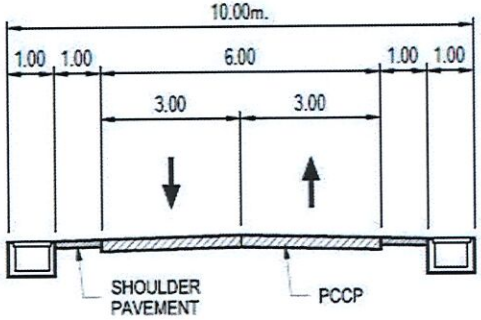
Coordinates:	
Longitude:	124.284444444444
Latitude:	8.003611111111
Barangay:	Langcap
City/Municipality:	Marawi

Station Ending: 0 + 900 (end of existing road)

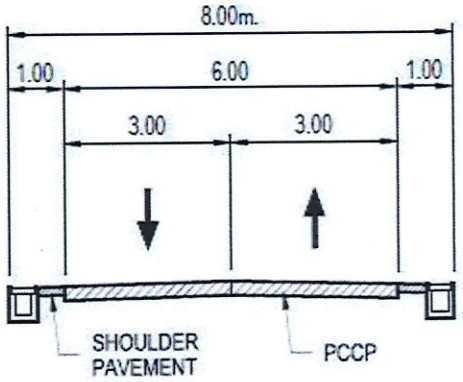
ROAD SECTION 1



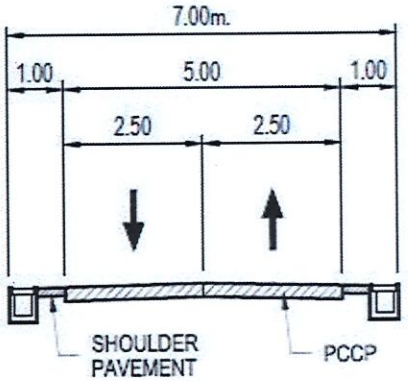
ROAD SECTION 2



ROAD SECTION 3

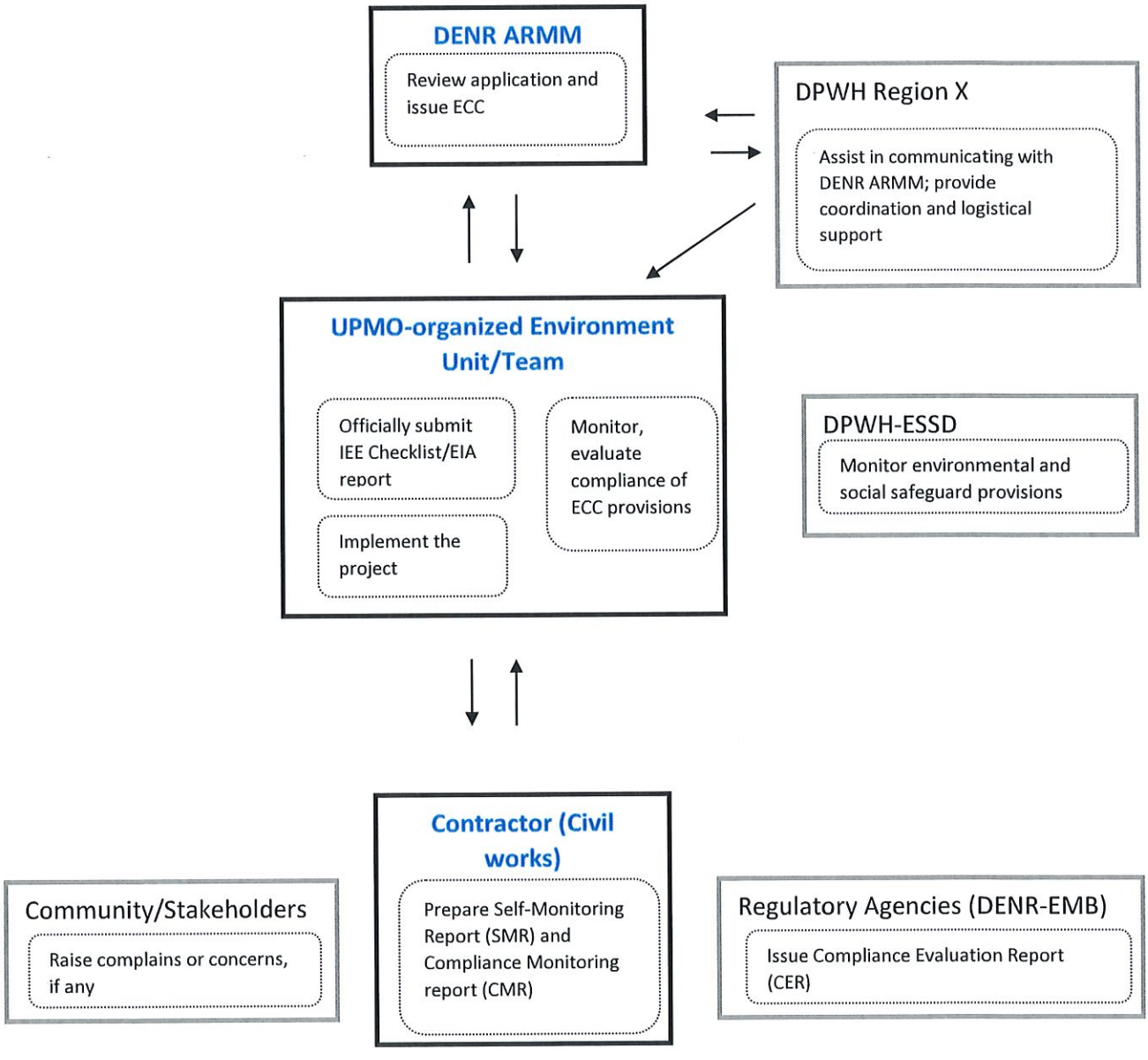


ROAD SECTION 4



Typical Cross Section Layout of Trans-central Roads

Institutional Plan (EIA)



ROAD AND BRIDGE PROJECTS

I.2. PROJECT COMPONENTS

Facilities	No. of Units	Area (sq./M)/ Length (km)/ Capacity	Specification/Description
1. Road	7 (Package 4)	82.81 sq km (6.7m carriageway x 12.36 km section length)	Package 4 is 12.36 km in length
2. Intersections	32		Road 4 - 2 Road 6 - 9 Road 7 - 5 Road 8 - 5 Road 20 - 7
3. Bridge/s	NA		
4. Access roads/Ramp	NA		
5. Drainage facilities (i.e. Reinforced Concrete Box Culverts (RCBC);Reinforced Concrete Pipe Culverts (RCPC), others)	Reinforced Concrete Pipe Culverts or (RCPC)		Side ditches/pipe culverts are to be provided on both sides of the pavement
6. Associated facilities (i.e. Guardrails, Traffic signs, etc.)	NA		
7. Solid waste management facility	NA		
8. Others, specify ROW	The project will be implemented within the existing road-right-of-way		
9. Others, specify			
10. Others, specify			
11. Others, specify			
12. Others, specify			

Use additional sheets, if necessary

I.3. UTILITIES/REQUIREMENTS (Construction and Operation Phases):

Power/Energy, Water and other Requirements

Project Name: _____

Utilities	Estimated Demand/ Consumption (Total)	Source Breakdown	Projected breakdown from Source specified	
			Construction	Operation
Power/Electricity	Construction: 50,887.50 KWh Operation: NA KWh NA	Grid: Domestic consumption (office use and manpower line up)	50,887.50	0 KWh
		Generator Set		0 KWh
		Others, please specify:		KWh
	Construction: NA NA 108,000m3 (200m3/day x 540 days) Note: 18 months construction x 30 m³/day Operation: NA m³/day	Local Water Utility Provider		m³/day
		Well in: (specify location):		m³/day
		Spring in: (specify location):		m³/day
		River, Lake or other surface water : (specify name & location): Tagaloan River, Cagayan de Oro City, Misamis Oriental	200	m³/day
		Others, please specify:		m³/day
Sand and Gravel	Construction: 25,580.91 MT or 49,600 m3 MT	Source: Tagaloan River, Cagayan de Oro City, Misamis Oriental	1,659.751 MT x 12.36 km per km road length	MT
Other materials and requirements …		Source:		m³/day

Power/Energy and Water Efficiency Measures (if any)

Project Name: _____

Utilities	Proposed Efficiency/Conservation Measures		Estimated Savings for each Project Phase	Estimated Total Savings
Power/ Electricity	Construction		KWh	KWh
	15,266	30% target - energy saving measures in construction site (office and worker's dormitory) - regulate use of equipment and appliances - use of alternative energy sources (solar power an	15,266 (estimated based on domestic power usage of project personnel)	15,266
	Operation		KWh	KWh
	NA			
Water	Construction		m^3/day	m^3/day
	32,400	Water Management System and component programs/activities (target reduction of 30% reduction on water use per total project package)	32,400 (entire construction period)	32,400 (entire construction period)
	Operation	Rainwater collection system Others, please specify:	m^3/day	m^3/day
	NA			

I.4. MANPOWER AND TIMELINES OF PROJECT PHASES

Target start of Construction	April 2019
Target Date of Ground-breaking	November 2020
Target Start of Operation	November 2020

Phase	Expertise/Skills	Requirement per Expertise/Skill	Total Requirement per project phase
a. Construction	Project Engineer, Pavement Engineer, Material Engineer	3 x 18 months	54 man-months
	Skilled laborers/workers	6 x 18 months	108 man-months
	Unskilled laborers/workers	8 x 18 months	144 man-months
b. Operation			

I.5. INDICATIVE PROJECT COST (Initial Investment):

PhP 345,930,298.11 **US $** 6,649,948,06 P52.1 exchange rate), April 17, 2018 **(specify if with foreign investment)**

ROAD AND BRIDGE PROJECTS

II. ENVIRONMENTAL IMPACT MANAGEMENT AND MONITORING PLAN

Possible Environmental/Social Impacts	Baseline Environment	Preventive/Mitigating Measures	Monitoring Parameters/ Implementation	Remarks
		☑ Cost of preventive/mitigating as well as monitoring integrated in the construction /operation cost		
LAND				
☑ Consistency with land use	Current land use w/in 1km radius (as per zoning ordinance): ☑ Residential ☑ Commercial/ Institutional ☐ Industrial ☑ Agricultural/ Recreational ☐ Protected Areas ☐ Others, specify Actual land uses w/in 1km radius: ☑ Residential ☑ Commercial/ Institutional ☐ Industrial ☑ Agricultural/ Recreational ☐ Protected Areas ☐ Others, specify	☑ See attached proof of compatibility with land use ☐ Others, specify	Actual land uses w/in 1km radius: ☑ Residential ☑ Commercial/ Institutional ☐ Industrial ☑ Agricultural/ Recreational ☐ Protected Areas ☐ Others, specify	

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Possible Environmental/Social Impacts	Baseline Environment	Preventive/Mitigating Measures	Monitoring Parameters/ Implementation	Remarks
		☑ Cost of preventive/mitigating as well as monitoring integrated in the construction /operation cost		
☑ Land tenure / compatibility issue	Identify tenure/ compatibility issues: ☐ CARP ☐ CADC/ CADT/ CALC/ CALT ☑ ROW ☐ Informal settlers ☐ Ecologically sensitive or protected area ☐ Others, specify	☐ Obtain the following clearances/ permits from concerned agencies: ☐ Resettlement Plan prepared ☑ Provide relocation/disturbance compensation packages ☐ Ensure participation of IPs in consultations and dialogues ☐ MOA prepared/signed ☐ Provide adequate buffer ☐ Others, specify	☑ Regularly monitor presence/absence of complaints ☑ Regular coordination with LGU or appropriate agencies ☐ Others, specify	
☑ Disturbance to wildlife due to vegetation clearing	Existing vegetation in the area: ☐ Forestland ☐ Marshland ☑ Grassland ☐ Mangrove ☐ Wetland	☑ Comply with conditions of DENR/LGU SLUP, Tree Cutting Permit, ROW, PCA Permit ☑ Limit land clearing as much as possible ☑ Provide temporary fencing for vegetation that will be retained	☑ Annual inspection of area replanted/ re-vegetated ☐ Others, specify	

A-180

Possible Environmental/Social Impacts	Baseline Environment	Preventive/Mitigating Measures ☑ Cost of preventive/mitigating as well as monitoring integrated in the construction /operation cost	Monitoring Parameters/ Implementation	Remarks
	☑ Others, specify patches of trees and shrubs	☑ Promote restoration of damaged or destroyed vegetation where possible (e.g., tree planting) ☐ Others, specify		
☐ Change in surface landform/ topography/ terrain/slope ☐ Soil Erosion	Slope: ☐ Flat (0-3%) ☐ Gently sloping to rolling (3-18%) ☐ Steep (>18%) Is the project site located in an area identified by MGB/ PAG-ASA/ PHIVOLCS as hazard prone? ☐ Yes ☑ No	Considering the natural hazards and climate projections in the area: ☐ Employ erosion control and slope protection measures ☐ Designate a spoils storage area, with topsoil set aside for later use and allow maximum re-use of spoils ☐ Construct during dry season ☐ Stabilize embankment with grasses or other soil cover ☐ Conduct Engineering Geological and Geo-hazard Assessment (EGGA) and implement corresponding recommendation ☐ Others, specify	☐ Regular inspection of slope protection measures in erosion-prone areas ☐ Regular inspection for new eroded areas near the site ☐ Others, specify	For the entire road package slope is flat with few gently sloping to rolling terrain

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Possible Environmental/Social Impacts	Baseline Environment	Preventive/Mitigating Measures ☑ Cost of preventive/mitigating as well as monitoring integrated in the construction /operation cost	Monitoring Parameters/ Implementation	Remarks
Building of structure and improper solid waste disposal leading to: ☐ Impairment of visual aesthetics ☐ Devaluation of land values	Solid Waste Management Scheme in the area: ☐ SLF ☐ MRF ☐ Composting ☑ Regular Collection of Solid Wastes Presence of visually significant landforms/landscape/structures? ☐ Yes ☑ No	☑ Implement recovery re-use and recycling of waste materials ☑ Provide receptacles / bins for solid wastes ☑ Composting of Organic Wastes ☑ Coordinate with the municipal / city waste collectors ☐ Implement landscaping and other beautification measures ☑ Provide adequate buffer ☐ Compensate adjacent property owners ☐ Others, specify	☐ Daily inspection of waste handling including segregation in waste/recycling bins ☑ Weekly inspection of waste accumulation and disposal ☐ Regular inspection of landscaping and other beautification activities ☐ Regular monitoring of buffer zones ☐ Regular monitoring for presence/absence of complaints from adjacent property owners ☐ Others, specify	☑ Cost integrated in the construction/ operation cost
WATER				
☑ Increased siltation due to project activities ☑ Water quality degradation ☐ Others, specify	Specify nearest water body: Lanao Lake, Agus River Distance to nearest water body: ☑ 0 to less than 0.5 km	☑ Set up proper and adequate sanitary facilities ☑ Ensure strict observance of proper waste handling and disposal and proper sanitation including by the contractor and its workers ☐ Set up silt trap (Gabions,	Regular (ocular) inspection of: ☑ Drainage / canal systems ☑ Sanitation facilities Monitoring of ambient water during construction for: ☑ Turbidity and/or silted condition ☑ Floating wastes or debris	

Project Name: _____

Possible Environmental/Social Impacts	Baseline Environment	Preventive/Mitigating Measures	Monitoring Parameters/ Implementation	Remarks
		☑ Cost of preventive/mitigating as well as monitoring integrated in the construction /operation cost		
	☑ 0.5 to 1 km ☐ More than 1 km Classification of nearest water body: ☑ Freshwater / ☐ Marine/ coastal water ☐ AA / ☐ SA ☑ A / ☑ SB ☑ B / ☑ SC ☑ C / ☐ SD ☐ D Current use of nearest/receiving water body: ☑ Fishery ☑ Tourist Zone / Park ☑ Recreational ☐ Industrial ☑ Agricultural ☐ Others, specify: Distance of project area to the nearest well used: ☑ 0 to less than 0.5 km	Fascines)/settling ponds to minimize downstream siltation ☐ Others, specify		

Project Name: _____

Possible Environmental/Social Impacts	Baseline Environment	Preventive/Mitigating Measures	Monitoring Parameters/ Implementation	Remarks
		☑ Cost of preventive/mitigating as well as monitoring integrated in the construction /operation cost		
	☑ 0.5 to 1 km ☐ More than 1 km Use of nearest well: ☑ Drinking/Domestic ☐ Industrial ☑ Agricultural			
☑ Competition in water use ☐ Depletion of water resources	Size of population using water source: ☐ ≤ 1,000 persons ☑ >1,000 and ≤ 5,000 persons ☐ >5,000 persons Available/nearest water source. ☑ Deep well ☑ Water district/LGU ☐ Surface water ☐ Others, specify Current Use of water source : ☑ Fishery ☐ Tourist Zone / Park ☐ Recreational ☐ Industrial ☑ Agricultural ☑ Others, specify	☑ Implement rainwater harvesting and similar measures as an alternative source of water ☑ Observe water conservation measures ☐ Others, specify	☑ Regular monitoring for presence/absence of complaints ☑ Regular coordination with concerned agencies ☑ Regular monitoring for occurrences of water shortages ☐ Others, specify	

Project Name: _____

Possible Environmental/Social Impacts	Baseline Environment	Preventive/Mitigating Measures ☑ Cost of preventive/mitigating as well as monitoring integrated in the construction /operation cost	Monitoring Parameters/ Implementation	Remarks
	domestic			
☐ Increased occurrence of flooding	Is the project site located in an area identified by MGB/ PAG-ASA as flood prone? ☑ Yes ☐ No	☑ Use appropriate design for project facilities including appropriate drainage mechanism considering the existing local drainage system. ☑ Regularly remove debris and other materials that may obstruct water flow ☐ Others, specify	☑ Regular monitoring for presence/absence of complaints ☑ Regular coordination with concerned agencies ☑ Regular monitoring for increased frequency of flooding ☐ Others, specify	
AIR / NOISE				
Air quality degradation	Distance to nearest community: ☑ 0 to less than 0.5 km ☐ 0.5 to 1 km ☐ More than 1 km	☑ Properly operate and maintain all emission sources (e.g. vehicles, generator, etc) ☑ Install appropriate air pollution control device/s ☑ Strictly enforce good housekeeping practices ☑ Control vehicle speed to lessen	☑ Regular monitoring for presence/absence of complaints Regular (ocular) inspection of: ☑ Absence of white or black smoke from vehicles, generator, etc.	

Possible Environmental/Social Impacts	Baseline Environment	Preventive/Mitigating Measures ☑ Cost of preventive/mitigating as well as monitoring integrated in the construction /operation cost	Monitoring Parameters/ Implementation	Remarks
		suspension of road dust ☑ Conduct water spraying to suppress dust sources and minimize discomfort to nearby residents ☑ Use covered vehicles to deliver materials that may generate dust ☐ Others, specify	☑ Presence of truck cover during deliveries	
☑ Nuisance due to noise generation	Distance to nearest community: ☑ 0 to less than 0.5 km ☐ 0.5 to 1 km ☐ More than 1 km	☑ Properly operate and maintain all noise sources (e.g., vehicles, generator, etc.) ☑ Install, when applicable, the appropriate noise control device/s (e.g., mufflers, silencer, sound barriers, etc.) ☑ Implement appropriate operating hours ☐ Provide adequate buffer and/or planting of trees ☐ Others, specify	☑ Regular monitoring for presence/absence of complaints ☐ Regular monitoring of buffer zones ☐ Quarterly monitoring of noise level ☐ Others, specify	

Possible Environmental/Social Impacts	Baseline Environment	Preventive/Mitigating Measures	Monitoring Parameters/ Implementation	Remarks
		☑ Cost of preventive/mitigating as well as monitoring integrated in the construction /operation cost		
PEOPLE				
☐ Displacement of residents including indigenous people (if any) in the project site and within its vicinity ☑ Enhanced employment and/or livelihood opportunities ☐ Reduced employment and/or livelihood opportunities ☑ Increased revenues for LGU ☐ Disruption/ Competition in delivery of public services (e.g., education, peace and order, etc.) ☑ Enhanced delivery of public services (e.g., education, peace and order, etc.) ☑ Increase in traffic volume and worsening of traffic flow	Size of population of host barangay: ☐ ≤ 1,000 persons ☐ >1,000 and ≤ 5,000 persons ☑ >5,000 persons Classification of host barangay: ☑ Urban ☑ Rural Employment/Livelihood Opportunity Rate in the host Municipality: ☐ High ☑ Low Description: Available services within/near the host barangay: ☑ Schools (e.g., elementary, high school, college)	☐ Provide relocation/disturbance compensation packages ☑ Prioritize local residents for employment ☑ Promptly pay local taxes and other financial obligations ☑ Regularly coordinate with LGU ☑ Conduct prior consultation and coordination to minimize disruption of daily domestic activities ☐ Ensure participation of IPs in consultations and dialogues and consider IP rights and cultural practices in the provision of relocation/disturbance compensation packages ☑ Provide appropriate traffic/warning signs, lighting, etc. ☐ Others, specify	☑ Regular monitoring for presence/absence of complaints ☑ Regular coordination with LGU ☐ Others, specify	☑ Cost integrated in the construction/ operation cost

Possible Environmental/Social Impacts	Baseline Environment	Preventive/Mitigating Measures	Monitoring Parameters/ Implementation	Remarks
		☑ Cost of preventive/mitigating as well as monitoring integrated in the construction /operation cost		
	☑ Health facilities (e.g., clinics, hospitals, etc.) ☑ Peace and order (e.g., police outpost, Brgy. Tanod, etc.) ☑ Recreation and sports facilities ☑ Others, specify Mosque	Preparation of traffic management/re-routing plan in close coordination with the city government and barangay since an increase in traffic volume is anticipated Provide traffic diversion schemes and traffic management regulations for the project		
☐ Destruction/disturbance of physical cultural resources. *(✓ if project site has been identified to have such by NM, NHCP, NCAA and LGUs)*	Physical Cultural resources within the vicinity of the project site: No	☐ Implement appropriate protocols based on NM, NHCP, NCAA and LGU guidelines including those for chance finds (if any). Specify:	☐ Regular coordination with NM, NHCP, NCAA and LGU	
☐ Impacts on community safety	☐ Structures posing safety risk to the community:	☑ Regularly coordinate with LGU ☑ Provide appropriate warning signs, lighting and barricades, whenever practicable ☑ Observe proper housekeeping ☐ Provide on-site medical services for any emergency. ☐ Participate in public awareness programs on health and safety	☑ Regular monitoring for presence/absence of complaints ☑ Regular coordination with LGU ☑ Regular submission of reports to concerned agency	

Project Name: _____

Possible Environmental/Social Impacts	Baseline Environment	Preventive/Mitigating Measures	Monitoring Parameters/ Implementation	Remarks
		☑ Cost of preventive/mitigating as well as monitoring integrated in the construction /operation cost		
		☑ Implement appropriate safety programs for both community and workers ☐ Others, specify	☐ Others, specify	

ROAD AND BRIDGE PROJECTS

III. ABANDONMENT /DECOMMISSIONING/REHABILITATION INFORMATION
(If Applicable)

Project Life or Service: 20 years

Alternatives for future use of the project area after abandonment:

Road rehabilitation program is a long term effort that impacts road network design and mobility of people. If deem relevant in overall transport network, a particular road can have along project/service life given the continued repair and improvement.

Abandonment Plan (general) to include management plan for the projected cumulative/long term project impacts such as:

- ☑ remediation of contaminated soil and water resources,
- ☑ land restoration
- ☑ proper dismantling/abandonment of facilities/ equipment
- ☐ others, please specify :

The proponent will ensure that construction will not pose any harm to the environment. It will observe its own environmental management system and adheres to government regulations and standards in terms of pollution or emission levels. It will coordinate and mobilize local stakeholders (community members) ensure management of potential sources of pollution and avoid environmental degradation during and after construction.

ANNEX 2-7d

PROJECT ENVIRONMENTAL MONITORING AND AUDIT PRIORITIZATION SCHEME (PEMAPS) QUESTIONNAIRE

Project Name:	Urgent Rehabilitation of Damaged Trans-central Roads by the Conflict in Marawi City
Project Location:	Marawi City, Lanao del Sur
ECC Reference No.:	
Proponent:	Department of Public Works and Highways-Unified Project Management Office (DPWH-UPMO)
Pollution Control Officer:	Designated PCO
Tel. No./Fax No./E-mail:	(+632) 304-3555
Project Type:	Infrastructure Project: Road Reconstruction and Pavement Repair of Existing Road Network
Project Status:	Feasibility Study

I. PROJECT CONSIDERATIONS

1.1 Size and Type: 61.75 km

1.1.1 Size based on number of employees

Specify number of employees: approximately ___ (construction stage)

1.1.2 Type:

ECP (in either ECA or Non-ECA) ☐

Non-ECP but in ECA ☐

Non-ECP and Non-ECA ☑

1.2 Waste Generation and Management

1.2.1 Enumerate Waste Type and Specify Quantity of Wastes generated in your facility. (Identify /Enumerate)

Category	Waste	Type		Quantity
		Hazardous	Non-Hazardous	

Air	Waste 1 TSP/PM10	X		(units: MT/yr) minimal
	Waste 2 SOx	X		minimal
	Waste N NOx	X		minimal
Liquid	Used oil		X	(units: m^3/yr)
Solid	Construction debris		X	(units: tons/yr)
	Garbage		X	

1.3 Pollution Control System (PCS)

1.3.1 Enumerate PCS or Waste Management Method Used in your facility. (Identify /Enumerate)

Category	PCS/Waste Management Method Used	Remarks
Air	PCS 1 TSP/PM10 emission control measures (within emission guideline national values/standard/limit)	Water sprinkle to control dust Covering of trucks when transporting gravel or cements
	PCS 2 SOx emission control measures	Regular maintenance of heavy equipment

	PCS N NOx emission control measures	Regular maintenance of heavy equipment; check quality of fuel
Liquid	Primary Used oil management measures	Store in properly sealed and labeled containers Manage run-offs to avoid siltation/clogging of the
	Secondary Management of pollutants (run-offs) washed from construction sites	Water pollution control measure (proper drainage and piling protection; enclosure of spoils)
	Tertiary	
Solid	Construction debris management measures	Haul by accredited haulers Built in the company's EMS
	Garbage/solid waste management	Proper segregation and disposal.

II. PATHWAYS

2.1 Prevailing wind towards barrio or city? (mark the corresponding point) Yes [✓] No [ ]

2.2 Rainfall (impacts surface & groundwater pathways)

2.2.1 Average annual net rainfall:

Specify amount: 2791 mm (www.climate-data.org)

2.2.2 Maximum 24-hour rainfall:

Specify amount: 6.35 mm

2.3 Terrain (select one and mark) Flat [✓] Steep [ ]

2.4 Is the facility located in a flood-prone area? (select one and mark) Yes [ ] No [✓]

2.5 Ground Water

Depth of groundwater table (meter)	(select one and mark)
0 to less than 3	☐
3 to 10	☑
Greater than 10	☐

III. RECEIVING MEDIA/RECEPTORS

3.1 Air (Distance to nearest community) (select one and mark)

0 to less than 0.5 km	☑
0.5 to 1 km	☑
Greater than 1 km	☐

3.2 Receiving Surface Water Body

3.2.1 Distance to receiving surface water: (select one and mark)

0 to less than 0.5 km	☑
0.5 to 1 km	☑
Greater than 1 km	☐

3.2.2 Size of population using receiving surface water

Specify number: >5,000 persons

3.2.3 Fresh Water

3.2.3.1 Classification of fresh water: (select one and mark)

AA	☐
A	☑
B	☑
C	☑
D	☐

3.2.3.2 Size of fresh water body:

Specify size:	Agus River, 34 km (length); Lake Lanao, 340sq km (surface area)

3.2.3.3 Economic value of water use (may select more than one of the criteria below)

Drinking	☐
Domestic	☑
Recreational	☐
Fishery	☐
Industrial	☐
Agricultural	☑

3.2.4 Salt water

3.2.4.1 Classification of salt water (select one and mark)

SA	☐
SB	☑
SC	☐

SD	☐
3.2.4.2 Economic value of water use	(may select more than one of the criteria below)
Fishery	☑
Tourist zone or park	☐
Recreational	☐
Industrial	☐

3.3 Ground Water

3.3.1 Distance to nearest recharge area	(select one and mark)
0 to less than 0.5 km	☐
0.5 to 1 km	☑
Greater than 1 km	☑
3.3.2 Distance to nearest well used	(select one and mark)
0 to less than 0.5 km	☑
0.5 to 1 km	☑
Greater than 1 km	☐
3.3.3 Groundwater use within the nearest well	(may select more than one of the criteria below)
Drinking	☑

Industrial	☐
Agricultural	☑

3.4 Land

3.4.1 Indicate current/actual land uses within 0.5 km radius: (may select more than one of the criteria below)

Residential	☑
Commercial/Institutional	☑
Industrial	☐
Agricultural/Recreational	☑
Protected Area	☐

3.4.2 Potential/proposed land uses within 0.5 km (may select more than one of the criteria below)

Residential	☑
Commercial/Institutional	☑
Industrial	☐
Agricultural/Recreational	☑
Protected Area	☐

3.4.3 Number of affected Environmentally Critical Areas within 1 km:

Specify number: 2

3.4.4 Distance to nearest ECA (select one and mark)

0 to less than 0.5km ☐

0.5 to 1 km ☐

Greater than 1 km ☑

IV. ENVIRONMENTAL PERFORMANCE (FOR EXISTING PROJECTS FOR EXPANSION)

3.5 Compliance (pls. take note that this will be double-checked with PCD files)

Law	Violation (check if any)	Type (pls. specify number of times committed)				Type of Admin Violation	Additional Remarks/Status of Compliance
		STANDARD					
		Emission/Effluent/ Discharge	Ambient	Human Impact	Admin/ ECC		
RA 8749	☐	N/A	N/A	N/A	N/A	N/A	N/A
RA 9275	☐	N/A	N/A	N/A	N/A	N/A	N/A
RA 6969	☐	N/A	N/A	N/A	N/A	N/A	N/A
PD 1586	☐	N/A	N/A	N/A	N/A	N/A	N/A
RA 9003	☐	N/A	N/A	N/A	N/A	N/A	N/A

3.6 Number of Valid Complaints

3.6.1 Citizen and NGOs

Specify number: N/A

3.6.2 Others (other Govt. Agencies, Private Institutions)

Specify number: N/A

(To be filled up by EMB Personnel)

RECOMMENDATION/S:

Assessed By:

Noted By:

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

ACCOUNTABILITY STATEMENT OF PROJECT PROPONENT

This is to certify that all the information in the submitted **Project Environmental Monitoring And Audit Prioritization Scheme (PEMAPS)** Questionnaire for the **Proposed Urgent Rehabilitation of damaged Trans-central Roads by the Conflict in Marawi City Sub-project (under the Road Network Development Plan in Conflict Affected Areas in Mindanao Project)** are accurate and complete to the best of our knowledge, and that an objective and thorough assessment of the Project was undertaken in accordance with the dictates of professional and reasonable judgments. Should I /we learn of any information, which would make this Initial Examination (IEE) Checklist Report inaccurate, I shall immediately bring the said information to the attention of DENR-EMB.

In witness whereof, I hereby set my hand this ___ day of APR 18 2018 at CITY OF MANILA.

SHARIF MADSMO H. HASIM
Project Director
Roads Management Cluster III (Multilateral)

SUBSCRIBED AND SWORN TO before me this APR 18 2018 day of _____ 2018, affiant exhibiting his/her Community Tax Certificate No. _____ issued at _____ on _____.

Doc. No. 409
Page No. 90
Book No. VI
Series No. 2018

ATTY. CLIFF RICHARD E. GENESELA
NOTARY PUBLIC CITY OF MANILA / ROLL NO. 49005
Commission No. 2018-079 Issued on Feb. 28, 2018 Until Dec. 31, 2019 / Manila
PTR No. 5990775 Issued on Dec. 27, 2017 until Dec. 31, 2018
IBP No. 022177 Issued on Jan. 05, 2018 Until Dec. 31, 2018
MCLE No. V-0017770 Valid From April 15, 2016 Until April 14, 2019
Office Add: Rm. 305, NPC Building Magallanes Drive, Intramuros, Manila

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

SWORN STATEMENT OF ACCOUNTABILITY OF THE PROPONENT

This is to certify that all the information and commitments in this Initial Environmental Examination (IEE) Checklist Report for the **Proposed Urgent Rehabilitation of Damaged Trans-central Roads by the Conflict in Marawi City Project** are accurate and complete to the best of our knowledge, and that an objective and thorough assessment of the Project was undertaken in accordance with the dictates of professional and reasonable judgments. Should I /we learn of any information, which would make this Initial Examination (IEE) Checklist Report inaccurate, I shall immediately bring the said information to the attention of DENR-EMB.

I hereby certify that no DENR-EMB personnel was directly involved in the preparation of this Initial Environment Examination (IEE) Checklist Report other than to provide procedural and technical advise consistent with the guidelines in the DAO 03-30 Revised Procedural Manual.

I hereby bind myself to answer any penalty that may be imposed arising from any misrepresentation or failure to state material information in this Initial Examination (IEE) Checklist Report.

In witness whereof, I hereby set my hand this APR 18 2018 day of _____ at CITY OF MANILA.

SHARIF MADSMO H. HASIM
Project Director
Roads Management Cluster III (Multilateral)

SUBSCRIBED AND SWORN TO before me this APR 18 2018 day of _____ 2018, affiant exhibiting his/her Community Tax Certificate No. _____ issued at _____ on _____.

Doc. No. 401
Page No. 99
Book No. VI
Series No. 2019

ATTY. CLIFF RICHARD E. GENESELA
NOTARY PUBLIC CITY OF MANILA / ROLL NO. 49005
Commission No. 2018-079 Issued on Feb. 28, 2018 Until Dec. 31, 2019 / Manila
PTR No. 6990775 Issued on Dec. 27, 2017 until Dec. 31, 2018
IBP No. 022177 Issued on Jan. 05, 2018 Until Dec. 31, 2018
MCLE No. V-0017770 Valid From April 15, 2016 Until April 14, 2019
Office Add: Rm. 305, NPC Building Magallanes Drive, Intramuros, Manila

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

REPUBLIC OF THE PHILIPPINES
CITY OF _____ CITY OF MANILA

AFFIDAVIT OF NO COMPLAINT

That, I Sharif Madsmo H. Hasim, Project Director (RMC III – Multilateral), this Department, applying for an Environmental Compliance Certificate (ECC) for the **Proposed Urgent Rehabilitation of Damaged Trans-central Roads by the Conflict in Marawi City Sub-project (under the Road Network Development Plan in Conflict Affected Areas in Mindanao Project).**

That I am executing this affidavit stating that there was/were no complaint/s which arise from the stakeholders to establish the aforementioned project. This Affidavit of No Complaint is one of the requirements of the on-line application of ECC.

IN WITNESS WHEREOF, I have hereunto affixed my signature for and on behalf of the DPWH on this ____ day of APR 18 2018, 2018 at CITY OF MANILA.

SHARIF MADSMO H. HASIM
Project Director
Roads Management Cluster III (Multilateral)

SUBSCRIBED AND SWORN TO before me this APR 18 2018 day of _____ 2018, affiant exhibiting his/her Community Tax Certificate No. _____ issued at _____ on _____.

Doc. No. 400
Page No. 98
Book No. 41
Series No. 2018

ATTY. CLIFF RICHARD E. GENESELA
NOTARY PUBLIC CITY OF MANILA / ROLL NO. 49005
Commission No. 2018-079 Issued on Feb. 28, 2018 Until Dec. 31, 2019 / Manila
PTR No. 6990775 Issued on Dec. 27, 2017 until Dec. 31, 2018
IBP No. 022177 Issued on Jan. 05, 2018 Until Dec. 31, 2018
MCLE No. V-0017770 Valid From April 15, 2016 Until April 14, 2019
Office Add: Rm. 305, NPC Building Magallanes Drive, Intramuros, Manila

Republic of the Philippines
Autonomous Region in Muslim Mindanao
ISLAMIC CITY OF MARAWI
OFFICE OF THE CITY MAYOR
City Hall, Brgy. Bangon, Marawi City
E-mail: marawigovernment@gmail.com
Tel No. (063) 224-6415 or 0995 632 0858

CERTIFICATION

This is to certify that the undersigned has understood the relevance of the **Proposed Urgent Post-conflict Rehabilitation of Damaged Trans-central Roads in Marawi City** to be undertaken by the Department of Public Works and Highways (DPWH).

Issued this 18th day of April 2018 at the Office of the City Mayor, City Hall, Marawi City.

CAMID C. GANDAMRA, SR.
City Administrator

LGU MARAWI
RELEASED
DATE: APRIL 18, 2018

SUBSCRIBED AND SWORN TO before me this 19th day of April 2018, affiant exhibiting his/her Community Tax Certificate No. 03859100 issued at Cotabato City on April 19, 2018.

Doc. No. 117
Page No. 24
Book No. XII
Series No. 2018

ATTY. OMAR YASSER C. SEMA
Notary Public
Commission No. 19
Until December 31, 2019
IBP No. 1071084 1/04/2018
PTR No. 7128037 1/03/2018
Roll No. 56191
TIN 914-058-024

Republic of the Philippines
Autonomous Region in Muslim Mindanao
Province of Lanao del Sur
Municipality of Saguiaran

CERTIFICATION FROM THE LOCAL GOVERNMENT UNIT

This is to certify that the undersigned has understood the implications of the **Proposed Urgent Rehabilitation of Damaged Trans-central Roads by the Conflict in Marawi City Project** to be undertaken by the Department of Public Works and Highways (DPWH).

Further, I certify that I have consulted my respective constituents and that they interpose no objection whatsoever to the project.

MONER R. MUTI
Municipal Administrator/OIC

SUBSCRIBED AND SWORN TO before me this ___ day of APR 12 2018 2018, affiant exhibiting his/her Community Tax Certificate No. 03672319 issued at Saguiaran, Lanao Sur on 1-28-18.

Doc. No. 259
Page No. 53
Book No. IV
Series No. 2018

ATTY. SHIDIK T. ABANTAS
Notary Public, Until Dec. 31, 2020
for the Province of Lanao del Sur and Marawi City
Roll No. 64031, PTR No. 0258226O Marawi City, 01/30/18
IBP OR No. 32340, NC 434-18, TIN No. 949-971-856

AUTONOMOUS REGION IN MUSLIM MINDANAO
Province of Lanao del Sur
MUNICIPALITY OF PIAGAPO

Office of the Municipal Mayor

CERTIFICATION

This is to certify that the undersigned has understood the implications of the **Proposed Urgent Rehabilitation of Damaged Trans-central Roads by the Conflict in Marawi City Project** to be undertaken by the Department of Public Works and Highways (DPWH).

Further, I certify that I have consulted my constituents and that they interposed no objection whatsoever to the project.

BY THE AUTHORITY OF THE MUNICIPAL MAYOR:
Engr. ALI L. SUMANDAR

ANSARI L. SUMANDAR
Acting Mayor/Vice Mayor

April 12, 2018
Piagapo, Lanao del Sur

SUBSCRIBED AND SWORN to before me this 13th day of April 2018, affiant exhibiting his/her Community Tax Certificate No. Employee ID No: 002-2017 issued at Cotabato City on April 6, 2018.

Doc. No. 210
Page No. 8
Book No. I
Series No. 2018

ATTY. ASMIRA S. DIEGO
NOTARY PUBLIC FOR COTABATO CITY & MAGUINDANAO
NOTARIAL COMMISSION NO. 35
UNTIL DECEMBER 31, 2018
ROLL OF ATTORNEY NO. 67415
IBP NO. 1071096 • 08 JAN 2018 • COTABATO
MCLE COMPLIANCE NO. VI-000451 • 22 NOV 2017 • COTABATO CITY
PTR NO. 7136933 • 11 JAN 2018 • COTABATO CITY

Piagapo Municipal Complex, Brgy. Bubo, Piagapo, Lanao del Sur 9710
LGU-Piagapo, P.O. Box 45986, Phil. Postal Corp., Iligan City 9200
☎: +63 908.787.6888, +63 908.787.7999
e-Mail: onward_piagapo@yahoo.com URL: www.piagapo.gov.ph

Republic of the Philippines
Autonomous Region in Muslim Mindanao
PROVINCE OF LANAO DEL SUR
MUNICIPALITY OF MARANTAO

Office of the Municipal Mayor

CERTIFICATION FROM THE LOCAL GOVERNMENT UNIT

This is to certify that the undersigned has understood the implications of the **Proposed Urgent Rehabilitation of Damaged Trans-central Roads by the Conflict in Marawi City Project** to be undertaken by the Department of Public Works and Highways (DPWH).

Further, I certify that I have consulted my respective constituents and that they interpose no objection whatsoever to the project.

HON. RACMA B. KUDARAT-ABINAL
MAYOR
Municipality of Marantao

SUBSCRIBED AND SWORN TO before me this ___ day of APR 16 2018 2018, affiant exhibiting his/her Community Tax Certificate No. _____ issued at _____ on _____.

Doc. No. 101
Page No. 19
Book No. V
Series No. 2018

ATTY. SHIDIK T. ABANTAS
Notary Public Until Dec. 31, 2020
for the Province of Lanao del Sur and Marawi City
PTR No. 02582260, Marawi City, 01-30-18
IBP No. 64031
OR No. 32140, NC 134-18, TIN No. 949-671-[illegible]