REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
REGION IV-B

PROJECT DESCRIPTION REPORT

MISSING LINKS AND NEW ROADS PALAWAN CIRCUMFERENTIAL (Latud-Canipaan Section) 48.67093KM PALAWAN PROJECT

KRC ENVIRONMENTAL SERVICES

TABLE OF CONTENT

Abbreviations and Acronyms

AO	:	Administrative Order
DENR	:	Department of Environment and Natural Resources
DPWH	:	Department of Public Works and Highways
DIA	:	Direct Impact Area
DO	:	Department Order
ECC	:	Environmental Compliance Certificate
EIA	:	Environmental Impact Assessment
EIS	:	Environmental Impact Statement
EMB	:	Environmental Management Bureau
FGD	:	Focus Group Discussion
IEC	:	Information and Education Campaign
IEE	:	Initial Environmental Examination
GOCCs	:	Government-owned and controlled corporations
KII	:	Key Informants Interview

Purpose of Environmental Impact Assessment

PD 1151 (Philippine Environmental Policy) provides the Statutory Framework of the Environmental Impact Assessment (EIA) for all projects that will affect environmental quality. It is stated under this law that "all agencies and institutions of the national government, including government-owned and controlled corporation as well as private corporations, firms and entities to prepare an Environmental Impact Statement (EIS) for every action, project or undertaking which significantly affects the quality of the environment."

The Philippine Environmental Impact Statement System (PEISS) or the PD 1586 is in compliance to the above policy statement under PD 1151 and takes roots in the provisions of the Philippine Constitution, which states "The State shall protect and advance the right of the people to a balanced and healthful ecology in accord with the rhythm and harmony of nature." Philippine Environmental Impact Statement System (PEISS) Declared Environmentally Critical Projects (ECPs) and projects within or located in Environmentally Critical Areas (ECAs) as project which require the submission of an Environmental Impact Statement (EIS).

> *Section 4: Provides that "no person, partnership or corporation shall undertake or operate any in part such declared ECP or Project within an ECA without first securing an Environmental Compliance Certificate (ECC)."*

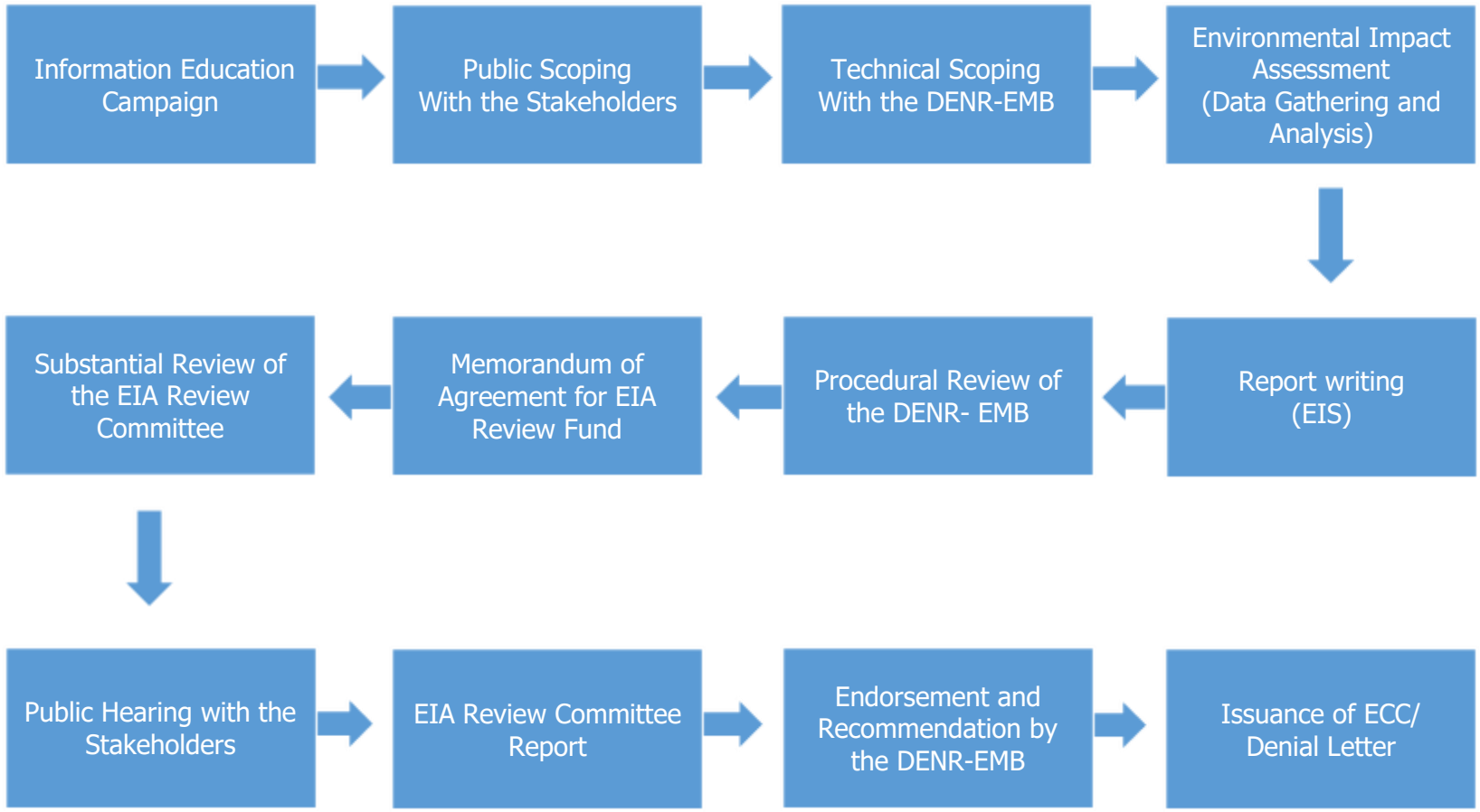
Based on the DENR AO 2003-30, an EIA is a "process that involves predicting and evaluating the likely impacts of a project as well as the ensuing preventive, mitigating and enhancement measures in order to protect the environment and community's welfare''. It aims to assess the overall impact on the environment of development projects proposed by the public and private sectors.

EIA identifies alternatives and measures which can prevent, minimize or alleviate the adverse consequences of the project in all stages. It seeks to avoid costly mistakes in project implementation, either because of environmental damages that are likely to arise during project implementation, or because of modifications that maybe required subsequently in order to make the action environmentally acceptable.

In order to promote public participation under Philippine EIS System, DENR AO 2017-15 was institutionalized. Intensive consultation/information, education and communication campaign were required prior to the conduct of the EIA.

Presented in the diagram below the EIA process.

CATEGORY A: ENVIRONMENTALLY CRITICAL PROJECT (ECP)
Environmental Impact Statement (EIS)
WORK FLOW



PROJECT DESCRIPTION FOR SCOPING

I. PROJECT NAME

Construction of Missing Links and New Roads Palawan Circumferential Road (Latud-Canipaan Section) Sta. 276+000-Sta. 324+670.93, Length = 48.67093 km, Palawan

II. PROJECT PROPONENT

Project Owner: **Department of Public Works and Highways**
Region MIMAROPA

Contact Person: **RD ARTHUR D. PASCUAL JR.**
Officer-In-Charge
Office of the Regional Director
Email: pascual.arthur@dpwh.gov.ph
Tel Nos. 023425-1977; 02-3481-0304

III. PROJECT LOCATION

The proposed road will traverse the Municipality of Rizal and Municipality of Bataraza. It is situated at the southern-most part of the Island of Palawan. The proposed road project is the Palawan Circumferential Road connecting the various municipalities in the island province of Palawan. Completing the gap in this road corridor will definitely improve the connectivity and thereby enhance not only mobility in but also levels of service of its road network system.

The completion of the missing gap will pave the way for the full operation of the Palawan Circumferential Road. Its full operation will help in the enhancement of general interaction between areas in and around the Municipalities of Bataraza and Rizal and would contribute to the inclusive economic growth and further stipulate development in the region and thereby to that of the country. Its full operation will help in the enhancement of agriculture and economic interaction between the two (2) municipalities.

Figure 1. The general location of the map in Palawan Island

IV. PROJECT OBJECTIVES AND RATIONALE

The Palawan Circumferential Road is the main inter-municipality road connecting the various municipalities in the island province of Palawan. However, the section at the southern tip of the island, i.e. between Bataraza and Rizal is still incomplete. Approximately 52.033kms is still incomplete. This missing section which is located at the southern part of the island is the Project Road.

The completion of the missing gap will pave the way for the full operation of the Palawan Circumferential Road. Its full operation will help in the enhancement of general interaction between areas in and around the Municipalities of Bataraza and Rizal. Further and more importantly, the project road will provide access to the areas in between the two (2) municipalities along the project road's alignment.

The opening of the Project Road will **SIGNIFICANTLY**:

(i) shorten the travel distance and
(ii) lessen the travel time between the Municipalities of Bataraza and Rizal.

Further, the Project Road will provide access and improve the mobility of people within the coastal areas. This will effectively open economic and commercial opportunities. Also, this will lead to improved access to social services.

The development of roads in the Palawan Circumferential Road is an important phase of development not only of the island but also that of the country. To ensure delivery of services efficiently and seamless necessitate the improvement and completion of its road infrastructure and related facilities.

V. PROJECT ALTERNATIVES

There is no current project alternative directly related to the proposed road project. The said project is the only current project linking the two municipalities of Rizal and Bataraza.

VI. PROJECT COMPONENTS

Palawan Circumferential Road starts at Barangay Latud Municipality of Rizal at Km.276+000. passing through the existing dirt/earth road up to Km 288. This road stretch is generally hilly to mountainous up to Barangay Canipaan, From Barangay Canipaan the proposed road alignment passes through a none existing road up to Barangay Tabud, Barangay Tagolango up to Buliluyan Port National road at Barangay Buliluyan all of Municipality of Bataraza. This road alignment is a none existing road generally flat to rolling terrain. The alignment passes 3 major rivers namely Canipaan River at Km 288+765, Tagolango River at Km 295+180 and Wangle River at Km 302+650.

VII. PROCESS/ TECHNOLOGY OPTIONS

The project does not require any special technology. Ordinary technologies adopted in the Philippines can be utilized. The road construction will conform to the standards set by the law or official guidelines of DPWH.

Geometric Design

Geometric design deals with such features as horizontal and vertical alignments, roadway sections, sight distance both for passing and stopping, super elevation, widening of roadway at curve sections, all will be considered in such a way that the finished structure will be an economical, functional and safe facility to travel prescribe in AASHTO and DPWH DGCS.

Design standard covers a lot of factors controlled by mechanical, physical, geometrical and other laws that are interrelated.
Whenever possible, desirable values in design standards were adopted, however existing conditions sometimes do not allow this and the minimum values were instead applied.

This section of the design report present the factors considered and design criteria and standards adopted in carrying out the geometric design of the **Palawan Circumferential** Road. The objective of the design process was to ensure that the selected alignment provided the minimum standard requirement, both vertically and horizontally, to ensure a smooth ride for road user. As far as possible, the design standards adopted are generally for Hilly and Mountainous road consistent with the design speed of 30-40 kph.

Table 1. Geometric Design Standards

ITEM	UNIT	RECOMMENDED STANDARD
Design Speed	km/h	30 - 40
Lane Width	m	2 lanes 3.35
Inner Shoulder Width for 1 Lane(for 2 lanes)	m	0
Outer Shoulder Width for 1 Lane(for 2 lanes)	m	1.5
Minimum Radius	m	21.43
Min. Radius not Requiring Superelevation	m	443-784
Stopping Sight Distance	m	35 - 50
Maximum Gradient		
Level	%	8
Rolling	%	11
Mountainous	%	16
Minimum Vertical Curve Length	m	60
Minimum Vertical K Values		
Crest	m	2 - 4
Sag	m	6 - 9
Crossfall of Pavement	%	1.5
Crossfall of Shoulder	%	3
Maximum Superelevation	%	8
Superelevation Runoff		1/133 , 1/143

Alignment and Grade

Horizontal and Vertical alignments of roads were examined together, in order to pursue better alignment. And was analyzed and designed in relation to each other. The final grade line has been established to provide for sufficient road grade that could accommodate all types of vehicles.

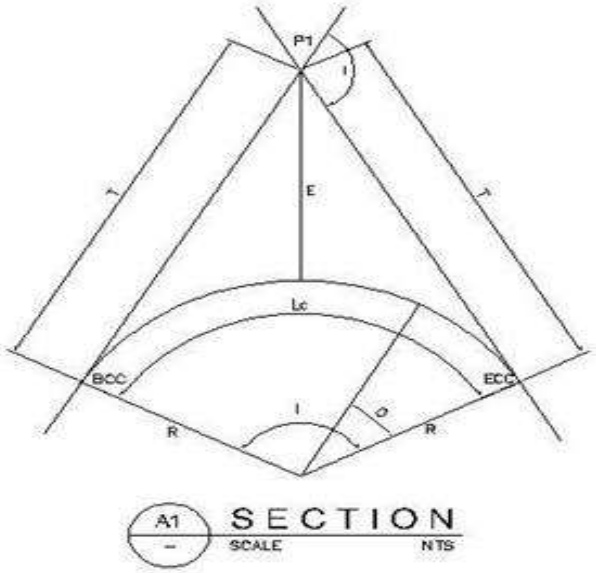
Horizontal Curves

The curves on roads with low traffic volume or in mountainous areas are normally designed as simple circular curve (see Figure 2).

Horizontal curves are circular curves. The consultant sets a minimum radius of 30 meters for this project.

Circular curve is a circular arc, extending from one tangent to the next. (Figure 2).

FIGURE 2



FORMULA

$T = R(\tan I/2)$

$LC = IR\ (\pi/180)$

$E = T(\tan I/4)$

STA. BCC = STA. PI−T

STA. ECC = STA. BCC+LC

$D = \frac{1145.916}{R}$

WHERE:

PI = POINT OF HORIZONTAL INTERSECTION
I = INTERSECTION ANGLE (CENTRAL ANGLE)
T = LENGTH OF TANGENT
R = HORIZONTAL RADIUS
Lc = LENGTH OF CIRCULAR CURVE
E = TOTAL EXTERNAL DISTANCE
BCC = BEGINNING OF CIRCULAR CURVE
ECC = END OF CIRCULAR CURVE

NOTE:
NO HORIZONTAL CURVE IS REQUIRED WHEN THE INTERSECTION (CENTRAL) ANGLE (I) IS LESS THAN ONE DEGREE (1° 0' 0")

A
CIRCULAR CURVE
SCALE
NTS

Super elevation and Widening

Based on the radii and design speeds, the maximum super elevation used in this project is 8.0%

Widening is provided along the inside edge of the horizontal curve and should follow the required minimum widening prescribe in AASHTO and DPWH DGCS.

a) Sight Distances

The design of roads, particularly vertical alignment involves the slope or gradient. As specified by the code, desirable gradient is not always utilized, rather the maximum value in order to minimize the construction cost, expensive realignment, Right-of-Way (R.O.W.) acquisition and other relevant features.

The curved portion connecting two tangent grades is the controlling element for achieving safe design speeds on vertical alignment. If a vertical curve allows visibility such that a traveling vehicle may sight an obstruction, or another vehicle traveling in opposite direction, with sufficient time to react in the proper manner, the vertical curve is considered to be adequate.

In determining the required length of vertical curve, the following formula is used:

$$LVC = KA$$

Where:

LVC = Length of vertical curve (m)
A = Algebraic difference of gradients (%)
K = Rate of vertical curvature (m)

The K value is defined as the length or curve required to effect (one) 1 percent in gradient.

Table 2. Minimum Stopping Sight Distance

Design Speed (kph)	Stopping Sight Distance (m)
20	20
30	35
40	50
50	65
60	85
70	105
80	130
90	160
100	185
110	220
120	250

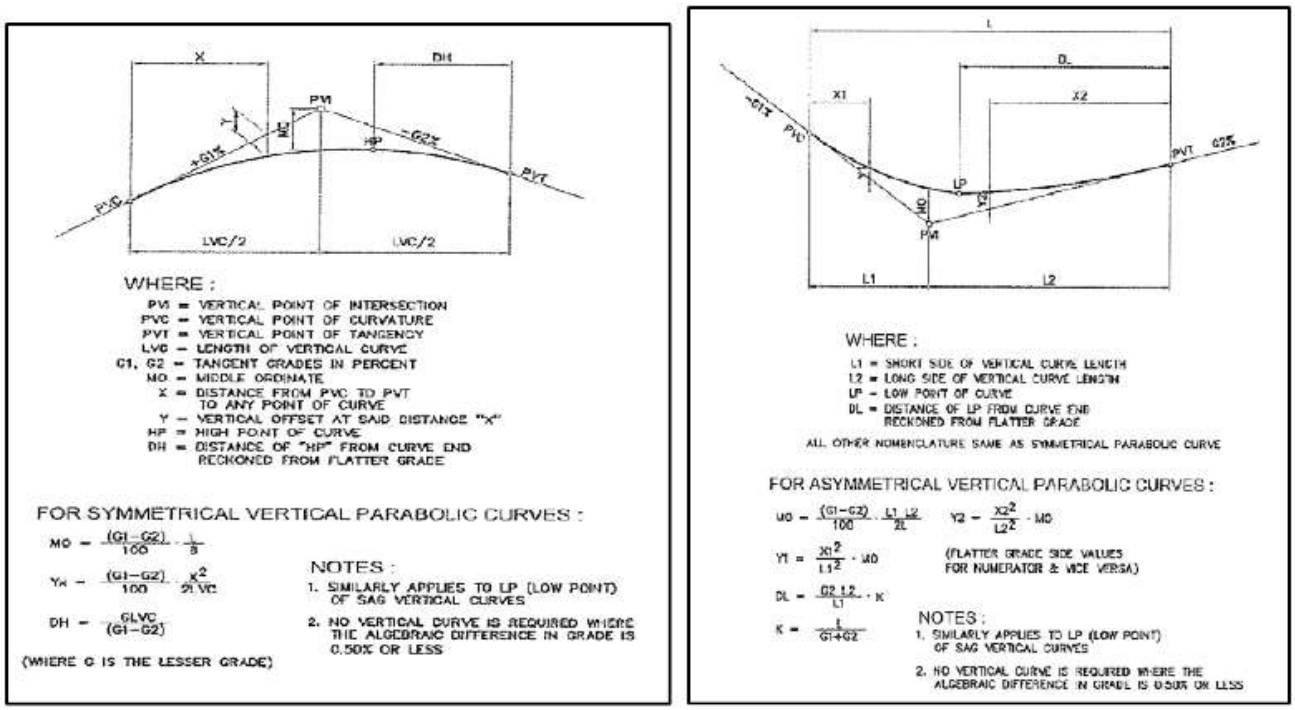
Table 6-1 contains the values of stopping sight distance at various design speeds, as specified by the DPWH, Road Safety Design manual.

Table 3. K Values for Crest and Sag Vertical Curves

Design Speed (KPH)	Stopping Sight Distance (M)	Rate of Vertical Curvature, K	
		K-Value Design Crest (M)	K-Value Design Sag (M)
20	20	1	3
30	35	2	6
40	50	4	9
50	65	7	13
60	85	11	18
70	105	17	23
80	130	26	30
100	185	52	45
110	220	74	55
120	250	95	63
130	285	124	73

b.) Vertical Distances

FIGURE 3



For its simplicity, the vertical parabolic curve with an equivalent vertical axis centered in the vertical intersection point (PVI) is used in the design of vertical curves.

The parabolic curves may be symmetrical when it is equally divided by the vertical axis, and unsymmetrical when is not equally divided by the vertical axis. These are shown in Figure 2 together with the formulas for their calculation. Symmetrical parabolic vertical curves were

used at every change in gradient. The length of parabolic vertical curves for sag and crest curve were based on the approximate K values.

ROADWAY CROSS SECTIONS

The cross section width has a travelled way of 6.70 m with 1.50 m gravel shoulders. The normal cross fall on pavement is 1.5% and 3.0% on shoulders. The proposed road surface is PCCP with a minimum thickness of 280mm (DPWH Standard) supported by 200mm thick granular subbase.

Shoulders are granular base course. In some sections that needs consideration for erosion, and 4% grade or more bituminous surface treatment or PCCP shoulder may be adopted and its cross slope will be 3% to 4%.

Slope ratio for cut and fill section, the DPWH Design Guidelines Criteria and Standards (DGCS) is adopted 2015 edition (Table 4). Approximate Slope Ratios

In case of high cut slope, Berm Step will be provided in the design at every 7.0m from cut end. Fill slope of more than 10.0 meter, Berm Step will be placed at every 5.0 meter from the shoulder. Minimum width of Berm Step is 1.00 meter and slope rounding will be applied.

Table 4. Approximate Slope Ratios

Filling Material	Nature of Material	Height of Cut/Fill (m)	Slope Ratio (H:V)	Remarks
Well graded sand (SW)	Soil	Less than 5	1.5:1 to 2.0:1	Applied to fills with sufficient bearing capacity at foundation ground,which are not affected by inundation (assumed drained and unsaturated)
Gravel with Silt (GM)				
Gravel with Clay (GC)				
Well Graded Gravel (GW)		5 to 15	1.8 :1 to 2.5:1	
Poorly Graded Gravel (GP)				
Poorly Graded Sand (SP)		Less than 10	1.8 :1 to 2.5:1	Consistency assumed to be medium dense (non cohesive) or stiff (cohesive) or better.
Silty Sand (SM)		Less than 5	1.5:1 to 2.0:1	
Clayey Sand (SC)				
Hard clayey soils and clay of alluvium, loam (CL)		5 to 10	2.0:1 to 2.5:1	
Soft Clay of high plasticity (CH), Silts (ML,MH)		0 to 5	2.5:1 to 3.0:1	
Medium to High Strength Rock, Slightly Weathered to Fresh	Rock	Less than 10 10 to 15	0.5:1 to 1:1 0.75:1 to 1.2:1	Assess all rock slopes in cut in accordance with section 7.3 of DGCS 2015 edition
Very Low to Medium Strength Rock, Extremely to Distinctly Weathered		Less than 5 5 to 10	0.75:1 to 1.2:1 1.0:1 to 1.5:1	
Residual Soil to Extremely Low Strength Rock, Extremely Weathered		Less than 5 5 to 10	1.0:1 to 1.5:1 1.5:1 to 2:1	

*Source: Design Guidelines Criteria and Standards 2015 edition Volume IV Table6-1

DRAINAGE DESIGN

This section summarizes the design criteria and methodology in the preparation of the preliminary design of the drainage structures of the project roads. Reference were made from the data and information gathered at the concerned DPWH District Engineer's Offices, topographic surveys conducted, and from the site visits and ocular inspections of the **Palawan Circumferential** road project. It presents the hydrologic analysis and hydraulic design criteria, hydrologic data, results of field investigations and hydrologic analysis and the hydraulic design computations including the resultant design levels relevant to the design of the project bridges and the bridge approach roads.

In the design of drainage structures and facilities, the main design activities are:

1. Hydrologic Analysis
2. Hydraulic Design

Pipes and Box Culvert

Pipe culverts (RCPC) were designed to handle a 15 year flood and box culverts (RCBC) were designed to carry a 25 year flood with sufficient freeboards.

A minimum cover of 0.60 m above pipe culverts was used while for box culverts there are cases where the top slab was used as the riding surface.

Roadside Ditches and Channels

Roadside ditches and/or channels are designed to handle a 10-year frequency design flow. For road sections on steep gradients the roadside ditches/channel are designed as lined ditches or channel to control erosion which will eventually cause damage to the road. Ditch size is based on the volume of surface runoff calculated for the particular section of the road.

Bridge Design Standards and Criteria

The following specification and design criteria were adopted in the preliminary engineering design for the proposed bridges.

1. AASHTO Standard Specification for Highway Bridges, 15th Edition 1992 with interim Specification 1993, 1994 and 1995 including Division 1-A Seismic Design.
2. DPWH Standard Specification for Highways, bridges, and Airports, 2015

VIII. PROJECT SIZE

The Palawan Circumferential Road involves the construction of a total of 48.13km of new road opening. The proposed road project will be a two lane road with 1.5 meters shoulders each side thus will have an average width of 6.7meters.

IX. DEVELOPMENT PLAN, DESCRIPTION OF PROJECT PHASES AND CORRESPONDING TIMEFRAMES

The development of roads in the Palawan Circumferential road is an important phase of development not only of the island but also that of the country. To ensure delivery of services efficiently and seamless necessitate the improvement and completion of its road infrastructure and related facilities.

Pre-Construction Phase

The acquisition of permits and other government approvals, land acquisition and crop damage compensation, topographic surveys, mapping and detailed engineering design of the road, procurement and construction, tendering, bidding and award to contractors are all under this phase.

Preconstruction Phase includes 1) EISA preparation; 2) Resettlement Planning; and Engineering Design.

The preparation of the EIS documentation is based on the nature of the roadway project as a rehabilitation and reconstruction of an existing roadway within the limits of PROW. EIS is categorized into the following main phases.

- Description and relevant baseline information of the proposed project;
- Identification of benefits, negative effect, risk and how to mitigate environmental impacts of the project;
- Development of Environmental Monitoring Plan;
- Emphasis on Public consultation during the EISA process that are participatory and include a broad section of stakeholders;
- Enforceable environmental and social mitigation measure for ECC issuance.

The EIS will lead to the issuance of the ECC and other pertinent permits from the Government agencies and LGUs.

Resettlement activities are broadly categorized in to the development of the RPF and RAO. The activities completed under the resettlement tasks during the pre-construction phase are the following:

- Census and socio economic-survey of Potential Affected Persons
- Identification of resettlement measures;
- Asset Identification and valuation;
- Resettlement area design and assessment; and
- Monitoring and evaluation

Some of the major phase in the engineering design during the pre-construction phase include:

- Project initiation and data compilation;
- Topographic / hydrographic / utility survey;
- Geotechnical investigation;
- Borrow pit / Quarry investigation;
- Pavement investigation and design;
- Bridge investigation , rehabilitation design and/ or Bridge replacement design;
- Development of traffic management plans as required; and
- Tendering and construction contract award

Construction/ Rehabilitation Phase

Contractors will be contracted for the duration of the project to implement the road improvement works. The construction begins with hauling of earth materials to fill the road area and removal of vegetation. A borrow pit (source of obtaining fill, gravel, and rock) and a

water source should be located near or in reasonable distance to the road construction site. Approval from authorities may be required to draw water of for working (crushing and screening) of materials for construction needs. Processes during earthwork include excavation, removal of material to spoil, filling, compacting, construction and trimming. If rock or other unsuitable materials is discovered, it is removed, moisture content is managed and replaced with standard fill compacted to 90% relative compaction. Pouring of ready mix concrete will successively follow upon compaction of every road segment.

Construction of storm drainage system such as underground concrete pipelines will be laid out along side of the road that will be capable for carrying the ultimate design flow from the upstream catchment to a watercourse (creek / irrigation) system. Construction of Erosion and sediment controls will follow to prevent detrimental effects.

Operation/ Maintenance Phase

Upon completion of road construction and appropriate markings signs and lighting. The Department of Public Works and Highways – Built – Operate – Transfer (DPWH-BOT) will be responsible for the whole operation and maintenance of the project. The road will be open for public use without collection of toll fee.

Abandonment/Decommissioning Phase

The proponent does not foresee abandonment of the proposed road project. In case however this happens, the road may become dormant or may be converted into another type of land development project. There will be no foreseeable environmental impact that would result from the abandonment of the project, when the road has already been constructed except that the users of the road will have to find another route for their travel.

X. INDICATIVE PROJECT INVESTMENT COST

The estimated project investment cost is around One Billion Seven Hundred Million Pesos. Based on the cost estimate the financial cost is Php 1,708,978,772.69.

Table 5. Summary of Cost Estimate

Part	Description	Amount (PhP)
PART A & B	GENERAL REQUIREMENTS	163,974,072.75
PART C	EARTHWORKS	416,485,553.55
PART D	SUB-BASE AND BASE COURSE	94,736,027.55
PART E	SURFACE COURSE	502,421,062.13
PART F	BRIDGE CONSTRUCTION	102,653,808.47
PART G	DRAINAGE AND SLOPE PROTECTION	238,548,274.91
PART H	MISCELLANEOUS STRUCTURES	190,159,973.33
	TOTAL	1,708,978,772.69

XI. IMPLEMENTATION SCHEDULE

The proposed project implementation will depend on which source of funds will eventually be chosen. If through Official Development Assistance (ODA), it covers the following: (a) Pre-implementation phase consisting of preparation of studies, project approvals, project appraisal, loan negotiations and for bilateral agreement; (b) Pre-construction phase covering engineering detailed design and tendering; and (c) Construction period. If through GAA, it will undergo the normal process; however, with prioritization done, phasing of construction can be proposed. In either implementation mode, the project should be included in the CIIP of NEDA. The following table is the proposed implementing schedule for this project.

Table 6. Implementing Schedule

Activities	YEAR				
	2016	2017	2018	2019	2020
I. Feasibility Study					
II. Construction/Supervision Stage					
III. Opening Year					

XII. PRELIMINARY IDENTIFIED ENVIRONMENTAL ASPECTS FOR EACH ALTERNATIVE

Predicted Impact	Degree of the significance	Duration, Extent and Magnitude of Impact
PRE-CONSTRUCTION PHASE		
Loss and Damage to property	MODERATE	IRREVERSIBLE
Loss of trees and vegetative cover	MODERATE	IRREVERSIBLE
Change in land use as a consequence of development	LOW	IRREVERSIBLE
CONSTRUCTION PHASE		
LAND		
Soil contamination	MODERATE	IRREVERSIBLE, SHORT TERM
Generation of Spoils and Construction Waste Disposal	HIGH	SHORT TERM
Impair local aesthetic or scenic resources	LOW	REVERSIBLE SHORT TERM
GEOHAZARD		
Damage of structures due to liquefaction	LOW	SHORT TERM
WATER		
Increase in siltation rates along surface waters	LOW	SHORT TERM
Contamination of ground water	LOW	SHORT TERM
Decrease ground water flow	LOW	SHORT TERM
Occurrence of flooding	MODERATE	SHORT TERM
Contamination on nearby bodies of water	LOW	SHORT TERM
AIR/NOISE		
Increase in particulate matter (dust) and levels of gaseous emission	MODERATE	REVERSIBLE SHORT TERM
Increase in noise and vibration levels	MODERATE	REVERSIBLE SHORT TERM
Global warming	LOW	SHORT TERM
PEOPLE		
Incidence of construction-related accidents	HIGH	SHORT TERM

Predicted Impact	Degree of the significance	Duration, Extent and Magnitude of Impact
Loss of historical structure	NOT RELEVANT	NOT RELEVANT
Pose human health and safety hazards	MEDIUM	SHORT TERM
Generation of employment/ local hired labor	BENEFICIAL	LONG TERM
Enhanced economic activity	BENEFICIAL	LONG TERM

Proposed List of Invitees for Public Scoping (see attached separate list)

- LGU in the area where the project is located.
- Government agencies with related mandate on the type of projects and its impacts.
- Interest group (NGOs/ POs) preferably with missions related to the type of project and impacts
- Households, business activities, industries that will be displaced.
- People whose socio-economic welfare and cultural heritage are projected to be affected by the project especially vulnerable sectors and indigenous population
- Local institutions (schools, churches)

Proposed List of Invitees for Public Scoping

Title	First Name	Middle Initial	Last Name	Position	Company/Organization	Address	e-mail address/Contact No.
Hon.	Jose	CH.	Alvarez	Governor	Provincial Government of Palawan	5300 Puerto Princesa City, Palawan	Tel: (048) 433-2987 TL/ 4332983 (02) 811-6037; 811-6058 Fax: (048) 433-2987 /434-9560 (02) 8116037
Hon.	Otol	J.	Odi	Municipal Mayor	Local Government Unit of Rizal, Palawan	Rizal, Palawan	Officeofthemayor.otolodi2019@gmail.com; 09508454788 (c/o Mr. Mac Arthur Asutilla, Executive Secretary)
Hon.	Abraham		Ibba	Municipal Mayor	Local Government Unit of Bataraza, Palawan	Bataraza, Palawan	09175471972 (c/o Mr. Gardan M. Ibba, Executive Secretary)
Hon.	Yusah	J.	Insani	Barangay Captain	Local Government Unit of Rizal, Palawan	Barangay Latud, Rizal, Palawan	09556434250/ 09389268049
Hon.	Julhan	M.	Abdurajik	Barangay Captain	Local Government Unit of Rizal, Palawan	Barangay Canipaan, Rizal, Palawan	099556438710/ 09488868118
Hon.	Khaizar	S.	Abdulkarim	Barangay Captain	Local Government Unit of Bataraza, Palawan	Barangay Buliluyan, Bataraza, Palawan	09106189399
Hon.	Julkipli	B.	Samod	Barangay Captain	Local Government Unit of Bataraza, Palawan	Barangay Tabud, Bataraza, Palawan	09978790028
Hon.	Adil	J.	Abdurasman	Barangay Captain	Local Government Unit of Bataraza, Palawan	Barangay Tagolango, Bataraza, Palawan	09351953673
Ms.	Alma	V.	Valledor	Municipal Planning and Development Coordinator	Local Government Unit of Bataraza, Palawan	Bataraza, Palawan	mpdobataraza@gmail.com
Mr.	Jovin		Guerero	Municipal Social Welfare Officer	Local Government Unit of Rizal, Palawan	Rizal, Palawan	09507575827
Ms.	Erlinda		Quisto	Municipal Social Welfare Officer	Local Government Unit of Bataraza, Palawan	Bataraza, Palawan	09175331059/ 09285053938
Ms.	Rhea		Agustin	LIGA/DILG Staff	Local Government Unit of Bataraza, Palawan	Bataraza, Palawan	09751109313

Aerial Photos of the Project Site




Barangay Latud, Rizal, Palawan



Barangay Canipaan, Rizal, Palawan




Barangay Tagolango, Bataraza, Palawan




Barangay Buliluyan, Bataraza, Palawan



Barangay Tabud, Bataraza, Palawan