



PHILIPPINES
PROVINCIAL ROAD MANAGEMENT FACILITY

REHABILITATION AND MINOR IMPROVEMENT OF
NRJ PATIN-AY-LUCAC-PISAAN ROAD
(LUCAC-PISAAN SECTION)
(PW-ADS-14-01)

BIDDING DOCUMENTS

OCTOBER 2014

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Section I: Invitation to Bid

Rehabilitation and Minor Improvement of NRJ-Patin-ay-Lucac-Pisaan Road (Ref. Code: PW-ADS-14-01)

1. The Department of the Interior and Local Government (DILG) Regional Office XIII (CARAGA), through the Philippines Provincial Road Management Facility (PRMF) and Australian Agency for International Development (AusAID), intends to apply the sum of Six Million Two Hundred Seventy Eight Thousand Six Hundred Fifty Three Pesos and Twelve Centavos (PhP 6,278,653.12) being the Approved Budget for the Contract (ABC) to payments under the contract for the Rehabilitation and Minor Improvement of NRJ-Patin-ay-Lucac-Pisaan Road. Bids received in excess of the ABC shall be automatically rejected at bid opening.
2. The DILG Regional Office XIII (CARAGA) now invites bids for the Rehabilitation and Minor Improvement of the NRJ-Patin-ay-Lucac-Pisaan. The Project will involve earthworks, preparation of sub-base and basecourse, construction of head wall, construction of drainage and slope protection works, provision of miscellaneous structures, and special items. Completion of the Works is required within three (3) calendar months, excluding thirty five (35) rainy/unworkable days. Bidders must have an experience of having completed, at least one (1) contract that is similar to the Project, equivalent to at least 50% of the ABC adjusted to current prices using the National Statistics Office consumer price index. The description of an eligible bidder is contained in the Bidding Documents, particularly, in Section II. Instructions to Bidders.
3. Bidding will be conducted through open competitive bidding procedures using non-discretionary pass/fail criterion as specified in the Implementing Rules and Regulations (IRR) of Republic Act 9184 (RA 9184), otherwise known as the "Government Procurement Reform Act" with some exceptions/amendments as stipulated in the approved Memorandum of Subsidiary Arrangement (MSA) between the Government of the Philippines (GOP) thru the DILG and the Government of Australia (GOA).
4. Interested bidders may obtain further information from the Special Bids and Award Committee (SBAC) and inspect the Bidding Documents at the address given below from 8:00 AM to 5:00 PM during work days.
5. A complete set of Bidding Documents in CD format (soft copy) may be secured by interested Bidders from the address below free of charge. It may also be downloaded free of charge from the website of the Philippine Government Electronic Procurement System (PhilGEPS) and the website of the Procuring Entity.
6. The DILG Region XIII (CARAGA) SBAC will hold a Pre-Bid Conference on 23 October 2014, 10:00 am at the LGRCC, DILG 13 Regional Office, 1559 Aquino Ave., Km4, Libertad, Butuan City, which shall be open to all interested parties.

7. Bids must be delivered on or before 7 November 2014, 11 am at the LGRRRC, DILG 13 Regional Office, 1559 Aquino Ave., Km4, Libertad, Butuan City. All bids must be accompanied by a bid security in any of the acceptable forms and amount, or a Bid Securing Declaration as stated in ITB Clause 18.3.
8. Bids will be opened on 7 November 2014, 11:30 am at the LGRRRC, DILG 13 Regional Office, 1559 Aquino Ave., Km4, Libertad, Butuan City in the presence of the bidders' representatives who choose to attend. Late bids shall not be accepted.
9. The DILG XI Regional Office reserves the right to accept or reject any bid, to annul the bidding process, and to reject all bids at any time prior to contract award, without thereby incurring any liability to the affected bidder or bidders.
10. For further information, please refer to:

Ms. Jocelyn C. Jayoma

Head, SBAC Secretariat

PDMU, DILG CARAGA Regional Office

1559 Aquino Ave., Km4, Libertad, Butuan City

Telefax No. (085)342-77-02

(Sgd.) Assistant Director Donald A. Seronay
SBAC Chairperson

Section II: Instructions to Bidders (ITB)

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A. General

1. Scope of Bid

- 1.1 The Procuring Entity as defined in the **BDS**, invites bids for the construction of Works, as described in **ITB**. The name and identification number of the Contract is provided in the **BDS**.
- 1.2 The successful bidder will be expected to complete the Works by the intended completion date specified in **SCC** Clause 1.15.

2. Source of Funds

The Procuring Entity has a budget or has applied for or received funds from the Funding Source named in the **BDS**, and in the amount indicated in the **BDS**. It intends to apply part of the funds received for the Project, as defined in the **BDS**, to cover eligible payments under the Contract for the Works.

3. Corrupt, Fraudulent, Collusive, and Coercive Practices

- 3.1 Unless otherwise specified in the **BDS**, the Procuring Entity, as well as bidders and contractors, shall observe the highest standard of ethics during the procurement and execution of the contract. In pursuance of this policy, the Funding Source:
 - (a) defines, for purposes of this provision, the terms set forth below as follows:
 - (i) "corrupt practice" means behavior on the part of officials in the public or private sectors by which they improperly and unlawfully enrich themselves, others, or induce others to do so, by misusing the position in which they are placed, and includes the offering, giving, receiving, or soliciting of anything of value to influence the action of any such official in the procurement process or in contract execution; entering, on behalf of the Procuring Entity, into any contract or transaction manifestly and grossly disadvantageous to the same, whether or not the public officer profited or will profit thereby, and similar acts as provided in Republic Act 3019;
 - (ii) "fraudulent practice" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the Procuring Entity, and includes collusive practices among Bidders (prior to or after Bid submission) designed to establish bid prices at artificial, non-competitive levels and to deprive the Procuring Entity of the benefits of free and open competition;
 - (iii) "collusive practices" means a scheme or arrangement between two or more bidders, with or without the knowledge of the Procuring

- Entity, designed to establish bid prices at artificial, non-competitive levels; and
- (iv) “coercive practices” means harming or threatening to harm, directly or indirectly, persons, or their property to influence their participation in a procurement process, or affect the execution of a contract;
 - (v) “obstructive practice” is:
 - (aa) deliberately destroying, falsifying, altering or concealing of evidence material to an administrative proceedings or investigation or making false statements to investigators in order to materially impede an administrative proceedings or investigation of the Procuring Entity or any foreign government/foreign or international financing institution into allegations of a corrupt, fraudulent, coercive or collusive practice; and/or threatening, harassing or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the administrative proceedings or investigation or from pursuing such proceedings or investigation; or
 - (bb) acts intended to materially impede the exercise of the inspection and audit rights of the Procuring Entity or any foreign government/foreign or international financing institution herein.
- (b) will reject a proposal for award if it determines that the bidder recommended for award has engaged in corrupt or fraudulent practices in competing for the Contract; and
- (c) will declare a firm ineligible, either indefinitely or for a stated period of time, to be awarded Contract funded by the Funding Source if it at any time determines that the firm has engaged in corrupt or fraudulent practices in competing or, or in executing, a Contract funded by the Funding Source.
- 3.2 Further, the Procuring Entity will seek to impose the maximum civil, administrative, and/or criminal penalties available under the applicable laws on individuals and organizations deemed to be involved in any of the practices mentioned in **ITB** Clause 2.13.1 (a).
- 3.3 Furthermore, the Funding Source and the Procuring Entity reserve the right to inspect and audit records and accounts of a contractor in the bidding for and performance of a contract themselves or through independent auditors as reflected in the **GCC** Clause 34.

4. Conflict of Interest

4.1 All bidders found to have conflicting interests shall be disqualified to participate in the procurement at hand, without prejudice to the imposition of appropriate administrative, civil, and criminal sanctions. A Bidder may be considered to have conflicting interests with another Bidder in any of the events described in paragraphs (a) through (c) and a general conflict of interest in any of the circumstances set out in paragraphs (d) through (g) below:

- a. A Bidder has controlling shareholders in common with another Bidder;
- b. A Bidder receives or has received any direct or indirect subsidy from any other Bidder;
- c. A Bidder has the same legal representative as that of another Bidder for purposes of this Bid;
- d. A Bidder has a relationship, directly or through third parties, that puts them in a position to have access to information about or influence on the bid of another Bidder or influence the decisions of the Procuring Entity regarding this bidding process. This will include a firm or an organization who lends, or temporarily seconds, its personnel to firms or organizations which are engaged in consulting services for the preparation related to procurement for or implementation of the project if the personnel would be involved in any capacity on the same project;
- e. A Bidder submits more than one bid in this bidding process. However, this does not limit the participation of subcontractors in more than one bid;
- f. A Bidder who participated as a consultant in the preparation of the design or technical specifications of the goods and related services that are the subject of the bid; or
- g. A Bidder who lends, or temporary seconds, its personnel to firms or organizations which are engaged in consulting services for the preparation related to procurement for or implementation of the project, if the personnel would be involved in any capacity on the same project.

4.2 In accordance with Section 47 of the IRR of RA 9184, all Bidding Documents shall be accompanied by a *sworn affidavit* of the Bidder that it is not related to the Head of the Procuring Entity, or any of the members of the Special Bids and Awards Committee (SBAC), members of the Special Technical Working Group (TWG), members of the SBAC Secretariat, the Head of the Project Management Office (PMO) or the end-user unit, and the project consultants, by consanguinity or affinity up to

the third civil degree. On the part of the bidder, this Clause shall apply to the following persons:

- a. If the Bidder is an individual or a sole proprietorship, to the Bidder himself;
- b. If the Bidder is a partnership, to all its officers and members;
- c. If the Bidder is a corporation, to all its officers, directors, and controlling stockholders; and
- d. If the Bidder is a joint venture (JV), the provisions of items (a), (b), or (c) of this Clause shall correspondingly apply to each of the members of the said JV, as may be appropriate.

Relationship of the nature described above or failure to comply with this Clause will result in the automatic disqualification of a Bidder.

5. Eligible Bidders

5.1 Unless otherwise indicated in the **BDS**, the following persons shall be eligible to participate in this Bidding:

- a. Duly licensed Filipino citizens/sole proprietorships;
- b. Partnerships duly organized under the laws of the Philippines and of which at least seventy five percent (75%) of the interest belongs to citizens of the Philippines;
- c. Corporations duly organized under the laws of the Philippines, and of which at least seventy five percent (75%) of the outstanding capital stock belongs to citizens of the Philippines;
- d. Cooperatives duly organized under the laws of the Philippines, and of which at least seventy five percent (75%) of the interest belongs to citizens of the Philippines; and
- e. Persons/entities forming themselves into a JV, i.e., a group of two (2) or more persons/entities that intend to be jointly and severally responsible or liable for a particular contract: Provided, however, that, in accordance with Letter of Instructions No. 630, Filipino ownership or interest of the joint venture concerned shall be at least seventy five percent (75%): Provided, further, that joint ventures in which Filipino ownership or interest is less than seventy five percent (75%) may be eligible where the structures to be built require the application of techniques and/or technologies which are not adequately possessed by a person/entity meeting the seventy five percent (75%) Filipino ownership requirement: Provided, finally, that in the latter case, Filipino ownership or interest shall not be less than twenty five percent (25%). For

this purpose Filipino ownership or interest shall be based on the contributions of each of the members of the joint venture as specified in their JVA.

- 5.2 The Procuring Entity may also invite foreign bidders when provided for under any Treaty or International or Executive Agreement as specified in the **BDS**.
- 5.3 Government Corporate Entities may be eligible to participate only if they can establish that they (a) are legally and financially autonomous, (b) operate under commercial law, and (c) are not dependent agencies of the GOP or the Procuring Entity.
- 5.4 (a) Unless otherwise provided in the **BDS**, the Bidder must have an experience of having completed at least one (1) contract that is similar to this Project, equivalent to at least fifty percent (50%) of the ABC adjusted to current prices using the National Statistics Office consumer price index. However, contractors under Small A and Small B categories without similar experience on the contract to be bid may be allowed to bid if the cost of such contract is not more than fifty percent (50%) of the Allowable Range of Contract Cost (ARCC) of their registration based on the guidelines as prescribed by the PCAB.
- (b) For Foreign-funded Procurement, the Procuring Entity and the foreign government/foreign or international financing institution may agree on another track record requirement, as specified in the **BDS**.

For this purpose, contracts similar to the Project shall be those described in the **BDS**, and completed within the period stated in the Invitation to Bid and **ITB** Clause 12.1a(iii).

- 5.5 The Bidder must submit a computation of its Net Financial Contracting Capacity (**NFCC**),

which must be at least equal to the ABC to be bid:

NFCC = [(Current assets minus current liabilities) (K)] minus the value of all outstanding or uncompleted portions of the projects under on-going contracts, including awarded contracts yet to be started coinciding with the contract for this Project.

Where:

K = 10 for a contract duration of one year or less, 15 for a contract duration of more than one year up to two years, and 20 for a contract duration of more than two years.

The values of the bidder's current assets and current liabilities shall be based on the data submitted to the BIR, through its Electronic Filing and Payment System (EFPS).

6. Bidder's Responsibilities

6.1 The Bidder or its duly authorized representative shall submit a sworn statement in the form prescribed in Section IX: Bidding Forms as required in **ITB** Clause 12.1b(iii).

6.2 The Bidder is responsible for the following:

- a. Having taken steps to carefully examine all of the Bidding Documents;
- b. Having acknowledged all conditions, local or otherwise, affecting the implementation of the contract;
- c. Having made an estimate of the facilities available and needed for the contract to be bid, if any;
- d. Having complied with its responsibility to inquire or secure Supplemental/Bid Bulletin/s as provided under **ITB** Clause 10.3.
- e. Ensuring that it is not "blacklisted" or barred from bidding by the GOP or any of its agencies, offices, corporations, or LGUs, including foreign government/foreign or international financing institution whose blacklisting rules have been recognized by the GPPB;
- f. Ensuring that each of the documents submitted in satisfaction of the bidding requirements is an authentic copy of the original, complete, and all statements and information provided therein are true and correct;
- g. Authorizing the Head of the Procuring Entity as specified in the **BDS** or its duly authorized representative/s to verify all the documents submitted;
- h. Ensuring that the signatory is the duly authorized representative of the Bidder, and granted full power and authority to do, execute and perform any and all acts necessary and/or to represent the Bidder in the bidding, with the duly notarized Secretary's Certificate attesting to such fact, if the Bidder is a corporation, partnership, cooperative, or joint venture;
- i. Complying with the disclosure provision under Section 47 of the Act in relation to other provisions of Republic Act 3019; and
- j. Complying with existing labor laws and standards, if applicable.

Failure to observe any of the above responsibilities shall be at the risk of the Bidder concerned.

6.3 The Bidder, by the act of submitting its bid, shall be deemed to have inspected the site, determined the general characteristics of the contract works and the conditions for this Project and examine all instructions, forms, terms, and project requirements in the Bidding Documents.

- 6.4 It shall be the sole responsibility of the prospective bidder to determine and to satisfy itself by such means as it considers necessary or desirable as to all matters pertaining to this Project, including: (a) the location and the nature of the contract, project, or work; (b) climatic conditions; (c) transportation facilities; (c) nature and condition of the terrain, geological conditions at the site communication facilities, requirements, location and availability of construction aggregates and other materials, labor, water, electric power and access roads; and (d) other factors that may affect the cost, duration and execution or implementation of the contract, project, or work.
- 6.5 The Procuring Entity shall not assume any responsibility regarding erroneous interpretations or conclusions by the prospective or eligible bidder out of the data furnished by the procuring entity.
- 6.6 Before submitting their bids, the Bidders are deemed to have become familiar with all existing laws, decrees, ordinances, acts and regulations of the Philippines which may affect the contract in any way.
- 6.7 The Bidder shall bear all costs associated with the preparation and submission of his bid, and the Procuring Entity will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.

7. Origin of Goods and Services

There is no restriction on the origin of Goods, or Contracting of Works or Services other than those prohibited by a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations.

8. Subcontracts

- 8.1 Unless otherwise specified in the **BDS**, the Bidder may subcontract portions of the Works to an extent as may be approved by the Procuring Entity and stated in the **BDS**. However, subcontracting of any portion shall not relieve the Bidder from any liability or obligation that may arise from the contract for this Project.
- 8.2 Subcontractors must submit the documentary requirements under **ITB** Clause 12 and comply with the eligibility criteria specified in the **BDS**. In the event that any subcontractor is found by the Procuring Entity to be ineligible, the subcontracting of such portion of the Works shall be disallowed.
- 8.3 The Bidder may identify the subcontractor to whom a portion of the Works will be subcontracted at any stage of the bidding process or during contract implementation. If the Bidder opts to disclose the name of the subcontractor during bid submission, the Bidder shall include the required documents as part of the technical component of its bid.

B. Contents of Bidding Documents

9. Pre-Bid Conference

- 9.1 (a) If so specified in the **BDS**, a pre-bid conference shall be held at the venue and on the date indicated therein, to clarify and address the Bidders' questions on the technical and financial components of this Project.
- (b) The pre-bid conference shall be held at least twelve (12) calendar days before the deadline for the submission of and receipt of bids. If the Procuring Entity determines that, by reason of the method, nature, or complexity of the contract to be bid, or when international participation will be more advantageous to the GOP, a longer period for the preparation of bids is necessary, the pre-bid conference shall be held at least thirty (30) calendar days before the deadline for the submission and receipt of bids, as specified in the **BDS**.
- 9.2 Bidders are encouraged to attend the pre-bid conference to ensure that they fully understand the Procuring Entity's requirements. Non-attendance of the Bidder will in no way prejudice its bid; however, the Bidder is expected to know the changes and/or amendments to the Bidding Documents as recorded in the minutes of the pre-bid conference and the Supplemental/Bid Bulletin.
- 9.3 Any statement made at the pre-bid conference shall not modify the terms of the bidding documents unless such statement is specifically identified in writing as an amendment thereto and issued as a Supplemental/Bid Bulletin.

10. Clarification and Amendment of Bidding Documents

- 10.1 Bidders who have secured the Bidding Documents may request for clarification(s) on any part of the Bidding Documents or for an interpretation. Such a request must be in writing and submitted to the Procuring Entity at the address indicated in the **BDS** at least ten (10) calendar days before the deadline set for the submission and receipt of Bids.
- 10.2 Supplemental/Bid Bulletins may be issued upon the Procuring Entity's initiative for purposes of clarifying or modifying any provision of the Bidding Documents not later than seven (7) calendar days before the deadline for the submission and receipt of Bids. Any modification to the Bidding Documents shall be identified as an amendment.
- 10.3 Any Supplemental/Bid Bulletin issued by the **SBAC** shall also be posted on the Philippine Government Electronic Procurement System (PhilGEPS) and the website of the Procuring Entity concerned, if available. Unless, otherwise provided in the **BDS**, it shall be the responsibility of all Bidders who secured the Bidding Documents to inquire and secure Supplemental/Bid Bulletins that may be issued by the SBAC.

However, bidders who have submitted bids before the issuance of the Supplemental/Bid Bulletin must be informed and allowed to modify or withdraw their bids in accordance with **ITB** Clause 23.

C. Preparation of Bids

11. Language of Bids

The Bid, as well as all correspondence and documents relating to the Bid exchanged by the Bidder and the Procuring Entity, shall be written in English. Supporting documents and printed literature furnished by the Bidder may be in another language provided they are accompanied by an accurate translation in English certified by the appropriate embassy or consulate in the Philippines, in which case the English translation shall govern, for purposes of interpretation of the Bid.

12. Documents Comprising the Bid: Eligibility and Technical Components

12.1 Unless otherwise indicated in the **BDS**, the first envelope shall contain the following eligibility and technical documents:

a. Eligibility Documents –

Class "A" Documents:

- (i) Registration certificate from the Securities and Exchange Commission (SEC), Department of Trade and Industry (DTI) for sole proprietorship, or Cooperative Development Authority (CDA) for cooperatives, or any proof of such registration as stated in the **BDS**;
- (ii) Mayor's permit issued by the city or municipality where the principal place of business of the prospective bidder is located;
- (iii) Statement of all its ongoing and completed government and private contracts, including contracts awarded but not yet started, if any. The statement shall include, for each contract, the following:
 - (iii.1) name of the contract;
 - (iii.2) date of the contract;
 - (iii.3) contract duration;
 - (iii.4) owner's name and address;
 - (iii.5) nature of work;
 - (iii.6) contractor's role (whether sole contractor, subcontractor, or partner in a JV) and percentage of participation;

- (iii.7) total contract value at award;
 - (iii.8) date of completion or estimated completion time;
 - (iii.9) total contract value at completion, if applicable;
 - (iii.10) percentages of planned and actual accomplishments, if applicable;
 - (iii.11) value of outstanding works, if applicable;
 - (iii.12) the statement shall be supported by the notices of award and/or notices to proceed issued by the owners; and
 - (iii.13) the statement shall be supported by the Owner's Certificate of Final Acceptance or the Certificate of Completion and, whenever applicable, the *Constructors Performance Evaluation System (CPES) Final Rating, which must be at least satisfactory*
- (iv) Unless otherwise provided in the **BDS**, valid Philippine Contractors Accreditation Board (PCAB) license and registration for the type and cost of the contract for this Project;
 - (v) Audited financial statements, showing, among others, the prospective total and current assets and liabilities, stamped "received" by the BIR or its duly accredited and authorized institutions, for the preceding calendar year which should not be earlier than two (2) years from the date of bid submission;
 - (vi) **NFCC** computation in accordance with ITB Clause 5.5; and
 - (vii) Tax Clearance per Executive Order 398, Series of 2005, as finally reviewed and approved by the BIR.

Class "B" Document:

- (i) If applicable, valid Joint Venture Agreement (JVA) or, in lieu thereof, duly notarized statements from all the potential joint venture partners stating that they will enter into and abide by the provisions of the JVA in the instance that the bid is successful shall be included in the bid.
- b. Technical Documents
- (i) Bid security in accordance with **ITB** Clause 18. If the Procuring Entity requires the bidders to submit the bid security in the form of:

- (i.1) a bank draft guarantee or an irrevocable letter of credit issued by a foreign bank, it shall be accompanied by a confirmation from a Universal or Commercial Bank; or
- (i.2) a surety bond accompanied by a certification coming from the Insurance Commission that a surety or insurance company is authorized to issue such instrument.
- (ii) Project Requirements, which shall include the following:
 - (ii.1) Organizational chart for the contract to be bid;
 - (ii.2) List of contractor's personnel (such as, but not limited to, Project Manager, Project Engineer, Materials Engineer, Survey Engineer, Safety Officer and Foreman) to be assigned to the contract to be bid, with their complete qualification and experience data; and
 - (ii.3) List of contractor's equipment units, which are owned, leased, and/or under purchase agreements, supported by proof of ownership, certification of availability of equipment from the equipment lessor /vendor for the duration of the project which must meet the minimum requirements for the contracts set in the **BDS**; and
- (iii) Sworn statement in accordance with Section 25.2(b)(iv) of the IRR of RA 9184 and using the form prescribed in Section IX: Bidding Forms.

13. Documents Comprising the Bid: Financial Component

- 13.1 Unless otherwise stated in the **BDS**, the financial component of the bid shall contain the following:
- a. Financial Bid Form in accordance with the form prescribed in Section IX: Bidding Forms; and
 - b. Any other document related to the financial component of the bid as stated in the **BDS**.
- 13.2 (a) Unless indicated in the **BDS**, all Bids that exceed the ABC shall not be accepted.
- (b) Unless otherwise indicated in the **BDS**, for foreign-funded procurement, a ceiling may be applied to bid prices provided the following conditions are met:
- (i) Bidding Documents are obtainable free of charge.

- (ii) The procuring entity through PRMF has procedures in place to ensure that the ABC is based on recent estimates made by the engineer or the responsible unit of the procuring entity and that the estimates are based on adequate detailed engineering (in the case of works) and reflect the quality, supervision and risk and inflationary factors, as well as prevailing market prices, associated with the types of works or goods to be procured.
- (iii) The procuring entity through PRMF has trained cost estimators on estimating prices and analyzing bid variances. In the case of infrastructure projects, the procuring entity must also have trained quantity surveyors.
- (iv) The procuring entity through PRMF has established a system to monitor and report bid prices relative to ABC and engineer's/procuring entity's estimate.
- (v) The procuring entity through PRMF has established a monitoring and evaluation system for contract implementation to provide a feedback on actual total costs of goods and works.

14. Alternative Bids

- 14.1 Alternative Bids shall be rejected. For this purpose, alternative bid is an offer made by a Bidder in addition or as a substitute to its original bid which may be included as part of its original bid or submitted separately therewith for purposes of bidding. A bid with options is considered an alternative bid regardless of whether said bid proposal is contained in a single envelope or submitted in two (2) or more separate bid envelopes.
- 14.2 Bidders shall submit offers that comply with the requirements of the Bidding Documents, including the basic technical design as indicated in the drawings and specifications. Unless there is a value engineering clause in the **BDS**, alternative bids shall not be accepted.
- 14.3 Each Bidder shall submit only one Bid, either individually or as a partner in a JV. A Bidder who submits or participates in more than one bid (other than as a subcontractor if a subcontractor is permitted to participate in more than one bid) will cause all the proposals with the Bidder's participation to be disqualified. This shall be without prejudice to any applicable criminal, civil and administrative penalties that may be imposed upon the persons and entities concerned.

15. Bid Prices

- 15.1 The contract shall be for the whole Works, as described in **ITB Clause 1.1**, based on the priced Bill of Quantities submitted by the Bidder.

- 15.2 The Bidder shall fill in rates and prices for all items of the Works described in the Bill of Quantities. Bids not addressing or providing all of the required items in the Bidding Documents including, where applicable, bill of quantities, shall be considered non-responsive and, thus, automatically disqualified. In this regard, where a required item is provided, but no price is indicated, the same shall be considered as non-responsive, but specifying a "0" (zero) for the said item would mean that it is being offered for free to the Procuring Entity.
- 15.3 All duties, taxes except Value-Added Tax (VAT), and other levies payable by the Contractor under the Contract, or for any other cause, prior to the deadline for submission of bids, shall be included in the rates, prices, and total bid price submitted by the Bidder.
- 15.4 All bid prices for the given scope of work in the contract as awarded shall be considered as fixed prices, and therefore not subject to price escalation during contract implementation, except under extraordinary circumstances as specified in GCC Clause 48. Price escalation may be allowed in extraordinary circumstances as may be determined by the National Economic and Development Authority in accordance with the Civil Code of the Philippines, and upon the recommendation of the Procuring Entity. Furthermore, in cases where the cost of the awarded contract is affected by any applicable new laws, ordinances, regulations, or other acts of the GOP, promulgated after the date of bid opening, a contract price adjustment shall be made or appropriate relief shall be applied on a no loss-no gain basis.

16. Bid Currencies

- 16.1 All bid prices shall be quoted in Philippine Pesos unless otherwise provided in the **BDS**. However, for purposes of bid evaluation, bids denominated in foreign currencies shall be converted to Philippine currency based on the exchange rate prevailing on the day of the Bid opening.
- 16.2 If so allowed in accordance with **ITB** Clause 16.1, the Procuring Entity for purposes of bid evaluation and comparing the bid prices will convert the amounts in various currencies in which the bid price is expressed to Philippine Pesos at the exchange rate as published in the BSP reference rate bulletin on the day of the bid opening.
- 16.3 Unless otherwise specified in the **BDS**, payment of the contract price shall be made in Philippine Pesos.

17. Bid Validity

- 17.1 Bids shall remain valid for the period specified in the **BDS** which shall not exceed one hundred twenty (120) calendar days from the date of the opening of bids.
- 17.2 In exceptional circumstances, prior to the expiration of the bid validity period, the Procuring Entity may request Bidders to extend the period of validity of their bids. The request and the responses shall be made in writing. The bid security described in

ITB Clause 18 should also be extended corresponding to the extension of the bid validity period at the least. A Bidder may refuse the request without forfeiting its bid security, but his bid shall no longer be considered for further evaluation and award. A Bidder granting the request shall not be required or permitted to modify its bid.

18. Bid Security

18.1 The Procuring Entity shall prescribe in the **BDS** the acceptable forms of bid security that bidders may opt to use, which shall include the Bid Securing Declaration and at least one other form, the amount of which shall be equal to the percentage of the ABC in accordance with the following schedule:

Form of Bid Security	Amount of Bid Security (Equal to Percentage of the ABC)
Cash or cashier's/manager's check issued by a Universal or Commercial Bank.	Two percent (2%)
Bank draft/guarantee or irrevocable letter of credit issued by a Universal or Commercial Bank: Provided, however, that it shall be confirmed or authenticated by a Universal or Commercial Bank, if issued by a foreign bank.	
Surety bond callable upon demand issued by a surety or insurance company duly certified by the Insurance Commission as authorized to issue such security; and/or	Five percent (5%)
Any combination of the foregoing.	Proportionate to share of form with respect to total amount of security
Bid Securing Declaration	No percentage required

The Bid Securing Declaration mentioned above is an undertaking which states, among others, that the bidder shall enter into contract with the Procuring Entity and furnish the performance security required under ITB 32.2 from receipt of Notice of Award, and committing to pay the corresponding fine, and be suspended for a period of time from being qualified to participate in any government procurement activity in the event it violates any of the conditions stated therein as provided in the guidelines issued by the GPPB.

18.2 The bid security should be valid for the period specified in the **BDS**. Any bid not accompanied by an acceptable bid security shall be rejected by the Procuring Entity as non-responsive.

18.3 No bid securities shall be returned to bidders after the opening of bids and before contract signing, except to those that failed or declared as post-disqualified, upon submission of a written waiver of their right to file a motion for reconsideration and/or protest. Without prejudice on its forfeiture, Bid Securities shall be returned

only after the bidder with the Lowest Calculated Responsive Bid has signed the contract and furnished the Performance Security, but in no case later than the expiration of the Bid Security validity period indicated in ITB Clause 18.2.

18.4 Upon signing and execution of the contract, pursuant to **ITB** Clause 31, and the posting of the performance security, pursuant to **ITB** Clause 32, the successful Bidder's Bid security will be discharged, but in no case later than the Bid security validity period as indicated in ITB Clause 18.2.

18.5 The bid security may be forfeited:

- a. if a Bidder:
- (i) withdraws its bid during the period of bid validity specified in **ITB** Clause 17;
 - (ii) does not accept the correction of errors pursuant to **ITB** Clause 27.3b;
 - (iii) fails to submit the requirements within the prescribed period, or a finding against their veracity, as stated in ITB Clause 28.2;
 - (iv) submission of eligibility requirements containing false information or falsified documents;
 - (v) submission of bids that contain false information or falsified documents, or the concealment of such information in the bids in order to influence the outcome of eligibility screening or any other stage of the public bidding;
 - (vi) allowing the use of one's name, or using the name of another for purposes of public bidding;
 - (vii) withdrawal of a bid, or refusal to accept an award, or enter into contract with the Government without justifiable cause, after the Bidder had been adjudged as having submitted the Lowest Calculated and Responsive Bid;
 - (viii) refusal or failure to post the required performance security within the prescribed time;
 - (ix) refusal to clarify or validate in writing its bid during post-qualification within a period of seven (7) calendar days from receipt of the request for clarification;
 - (x) any documented attempt by a bidder to unduly influence the outcome of the bidding in his favor;

- (xi) failure of the potential joint venture partners to enter into the joint venture after the bid is declared successful; or
 - (xii) all other acts that tend to defeat the purpose of the competitive bidding, such as habitually withdrawing from bidding, submitting late Bids or patently insufficient bid, for at least three (3) times within a year, except for valid reasons.
- b. if the successful Bidder:
- (i) fails to sign the contract in accordance with **ITB** Clause 31;
 - (ii) fails to furnish performance security in accordance with **ITB** Clause 32.

19. Format and Signing of Bids

- 19.1 Bidders shall submit their bids through their duly authorized representative using the appropriate forms provided in Section IX: Bidding Forms on or before the deadline specified in the **ITB** Clause 21 in two (2) separate sealed bid envelopes, and which shall be submitted simultaneously. The first shall contain the technical component of the bid, including the eligibility requirements under **ITB** Clause 12.1, and the second shall contain the financial component of the bid.
- 19.2 Forms as mentioned in **ITB** Clause 19.1 must be completed without any alterations to their format, and no substitute form shall be accepted. All blank spaces shall be filled in with the information requested.
- 19.3 The Bidder shall prepare an original of the first and second envelopes as described in **ITB** Clauses 12 and 13. In addition, the *Bidder* shall submit copies of the first and second envelopes. In the event of any discrepancy between the original and the copies, the original shall prevail.
- 19.4 The bid, except for unamended printed literature, shall be signed, and each and every page thereof shall be initialed, by the duly authorized representative/s of the Bidder.
- 19.5 Any interlineations, erasures, or overwriting shall be valid only if they are signed or initialed by the duly authorized representative/s of the Bidder.

20. Sealing and Marking of Bids

- 20.1 Bidders shall enclose their original eligibility and technical documents described in **ITB** Clause 12, in one sealed envelope marked "ORIGINAL - TECHNICAL COMPONENT", and the original of their financial component in another sealed envelope marked "ORIGINAL - FINANCIAL COMPONENT", sealing them all in an outer envelope marked "ORIGINAL BID".

- 20.2 Each copy of the first and second envelopes shall be similarly sealed duly marking the inner envelopes as “COPY NO. ___ - TECHNICAL COMPONENT” and “COPY NO. ___ – FINANCIAL COMPONENT” and the outer envelope as “COPY NO. ___”, respectively. These envelopes containing the original and the copies shall then be enclosed in one single envelope.
- 20.3 The original and the number of copies of the Bid as indicated in the **BDS** shall be typed or written in indelible ink and shall be signed by the bidder or its duly authorized representative/s.
- 20.4 All envelopes shall:
- a. contain the name of the contract to be bid in capital letters;
 - b. bear the name and address of the Bidder in capital letters;
 - c. be addressed to the Procuring Entity’s SBAC identified in **ITB** Clause 10.1;
 - d. bear the specific identification of this bidding process indicated in the Invitation to Bid; and
 - e. bear a warning “DO NOT OPEN BEFORE...” the date and time for the opening of bids, in accordance with **ITB** Clause 21.
- 20.5 If bids are not sealed and marked as required, the Procuring Entity will assume no responsibility for the misplacement or premature opening of the bid.

D. Submission and Opening of Bids

21. Deadline for Submission of Bids

Bids must be received by the Procuring Entity’s SBAC at the address and on or before the date and time indicated in the **BDS**.

22. Late Bids

Any bid submitted after the deadline for submission and receipt of bids prescribed by the Procuring Entity, pursuant to **ITB** Clause 21, shall be declared “Late” and shall not be accepted by the Procuring Entity.

23. Modification and Withdrawal of Bids

23.1 The Bidder may modify its bid after it has been submitted; provided that the modification is received by the Procuring Entity prior to the deadline prescribed for submission and receipt of bids. The Bidder shall not be allowed to retrieve its original bid, but shall be allowed to submit another bid equally sealed, properly identified, linked to its original bid marked as “TECHNICAL MODIFICATION” or “FINANCIAL MODIFICATION” and stamped “received” by the SBAC. Bid modifications received

after the applicable deadline shall not be considered and shall be returned to the Bidder unopened.

- 23.2 A Bidder may, through a letter of withdrawal, withdraw its bid after it has been submitted, for valid and justifiable reason; provided that the letter of withdrawal is received by the Procuring Entity prior to the deadline prescribed for submission and receipt of bids.
- 23.3 Bids requested to be withdrawn in accordance with **ITB** Clause 23.1 shall be returned unopened to the Bidders. A Bidder may also express its intention not to participate in the bidding through a letter which should reach and be stamped by the SBAC before the deadline for submission and receipt of bids. A Bidder that withdraws its bid shall not be permitted to submit another bid, directly or indirectly, for the same contract.
- 23.4 No bid may be modified after the deadline for submission of bids. No bid may be withdrawn in the interval between the deadline for submission of bids and the expiration of the period of bid validity specified by the Bidder on the Financial Bid Form. Withdrawal of a bid during this interval shall result in the forfeiture of the Bidder's bid security, pursuant to **ITB** Clause 18.5, and the imposition of administrative, civil, and criminal sanctions as prescribed by RA 9184 and its IRR.

24. Opening and Preliminary Examination of Bids

- 24.1 The SBAC shall open the first bid envelopes of Bidders in public as specified in the **BDS** to determine each Bidder's compliance with the documents prescribed in **ITB** Clause 12. For this purpose, the SBAC shall check the submitted documents of each bidder against a checklist of required documents to ascertain if they are all present, using a non-discretionary "**pass/fail**" criterion. If a bidder submits the required document, it shall be rated "passed" for that particular requirement. In this regard, bids that fail to include any requirement or are incomplete or patently insufficient shall be considered as "failed". Otherwise, the SBAC shall rate the said first bid envelope as "passed".
- 24.2 Unless otherwise specified in the **BDS**, immediately after determining compliance with the requirements in the first envelope, the SBAC shall forthwith open the second bid envelope of each remaining eligible bidder whose first bid envelope was rated "passed". The second envelope of each complying bidder shall be opened within the same day. In case one or more of the requirements in the second envelope of a particular bid is missing, incomplete or patently insufficient, and/or if the submitted total bid price exceeds the ABC unless otherwise provided in **ITB** Clause 13.1b, the SBAC shall rate the bid concerned as "failed". Only bids that are determined to contain all the bid requirements for both components shall be rated "passed" and shall immediately be considered for evaluation and comparison.

- 24.3 Letters of withdrawal shall be read out and recorded during bid opening, and the envelope containing the corresponding withdrawn bid shall be returned to the Bidder unopened. If the withdrawing Bidder's representative is in attendance, the original bid and all copies thereof shall be returned to the representative during the bid opening. If the representative is not in attendance, the Bid shall be returned unopened by registered mail. The Bidder may withdraw its bid prior to the deadline for the submission and receipt of bids, provided that the corresponding letter of withdrawal contains a valid authorization requesting for such withdrawal, subject to appropriate administrative sanctions.
- 24.4 If a Bidder has previously secured a certification from the Procuring Entity to the effect that it has previously submitted the above-enumerated Class "A" Documents, the said certification may be submitted in lieu of the requirements enumerated in **ITB** Clause 12.1a, items (i) to (vi).
- 24.5 In the case of an eligible foreign Bidder as described in **ITB** Clause 5, the Class "A" Documents enumerated in **ITB** Clause 12.1a may be substituted with the appropriate equivalent documents, if any, issued by the country of the foreign Bidder concerned.
- 24.6 Each partner of a joint venture agreement shall likewise submit the documents required in **ITB** Clauses 12.1a(i) and 12.1a(ii). Submission of documents required under **ITB** Clauses 12.1a(iii) to 12.1a(vi) by any of the joint venture partners constitutes compliance.

E. Evaluation and Comparison of Bids

25. Process to be Confidential

- 25.1 Members of the SBAC, including its staff and personnel, as well as its Secretariat and TWG, are prohibited from making or accepting any kind of communication with any bidder regarding the evaluation of their bids until the issuance of the Notice of Award, unless in the case of **ITB** Clause 26.
- 25.2 Any effort by a bidder to influence the Procuring Entity in the Procuring Entity's decision in respect of Bid evaluation, Bid comparison or contract award will result in the rejection of the Bidder's Bid.

26. Clarification of Bids

To assist in the evaluation, comparison and post-qualification of the bids, the Procuring Entity may ask in writing any Bidder for a clarification of its bid. All responses to requests for clarification shall be in writing. Any clarification submitted by a Bidder in respect to its bid and that is not in response to a request by the Procuring Entity shall not be considered.

27. Detailed Evaluation and Comparison of Bids

- 27.1 The Procuring Entity will undertake the detailed evaluation and comparison of Bids which have passed the opening and preliminary examination of Bids, pursuant to **ITB** Clause 24, in order to determine the Lowest Calculated Bid.
- 27.2 In evaluating the Bids to get the Lowest Calculated Bid, the Procuring Entity shall undertake the following:
- a. The detailed evaluation of the financial component of the bids, to establish the correct calculated prices of the bids; and
 - b. The ranking of the total bid prices as so calculated from the lowest to highest. The bid with the lowest price shall be identified as the Lowest Calculated Bid.
- 27.3 The Procuring Entity's SBAC shall immediately conduct a detailed evaluation of all bids rated "passed," using non-discretionary "pass/fail" criterion. The SBAC shall consider the following in the evaluation of bids:
- a. **Completeness of the bid.** Unless the ITB specifically allows partial bids, bids not addressing or providing all of the required items in the Schedule of Requirements including, where applicable, bill of quantities, shall be considered non-responsive and, thus, automatically disqualified. In this regard, where a required item is provided, but no price is indicated, the same shall be considered as non-responsive, but specifying a "0" (zero) for the said item would mean that it is being offered for free to the Procuring Entity; and
 - b. **Arithmetical corrections.** Consider computational errors and omissions to enable proper comparison of all eligible bids. It may also consider bid modifications if expressly allowed in the **BDS**. Any adjustment shall be calculated in monetary terms to determine the calculated prices.
- 27.4 Based on the detailed evaluation of bids, those that comply with the above-mentioned requirements shall be ranked in the ascending order of their total calculated bid prices, as evaluated and corrected for computational errors, discounts and other modifications, to identify the Lowest Calculated Bid. Total calculated bid prices, as evaluated and corrected for computational errors, discounts and other modifications, which exceed the ABC, shall not be considered, unless otherwise indicated in the **BDS**.
- 27.5 The Procuring Entity's evaluation of bids shall only be based on the bid price quoted in the Financial Bid Form
- 27.6 Bids shall be evaluated on an equal footing to ensure fair competition. For this purpose, all bidders shall be required to include in their bids the cost of all taxes, such as, but not limited to, income tax, local taxes, and other fiscal levies and duties, except VAT, which shall be itemized in the bid form and reflected in the detailed

estimates. Such bids, including said taxes, shall be the basis for bid evaluation and comparison.

- 27.7 The SBAC shall submit its Bid Evaluation Report (BER) to **PRMF-FMG through the FD** and request for a No Objection Letter (NOL) on the recommendation contained therein.

28. Post Qualification

- 28.1 The Procuring Entity shall determine to its satisfaction whether the Bidder that is evaluated as having submitted the Lowest Calculated Bid (LCB) complies with and is responsive to all the requirements and conditions specified in **ITB** Clauses 5, 12, and 13.

- 28.2 Within a non-extendible period of three (3) calendar days from receipt by the Bidder of the notice from the SBAC that it submitted the LCB, the Bidder shall submit the following documentary requirements:

- a. Latest income and business tax returns in the form specified in the **BDS**;
- b. Certificate of PhilGEPS Registration; and
- c. Other appropriate licenses and permits required by law and stated in the **BDS**.

Failure of the Bidder declared as LCB to duly submit the requirements under this Clause or a finding against the veracity of such shall be ground for forfeiture of the bid security and disqualification of the Bidder for award.

- 28.3 The determination shall be based upon an examination of the documentary evidence of the Bidder's qualifications submitted pursuant to **ITB** Clauses 12 and 13, as well as other information as the Procuring Entity deems necessary and appropriate, using a non-discretionary "pass/fail" criterion.
- 28.4 If the SBAC determines that the Bidder with the Lowest Calculated Bid passes all the criteria for post-qualification, it shall declare the said bid as the Lowest Calculated Responsive Bid, and recommend to the Head of the Procuring Entity the award of contract to the said Bidder at its submitted price or its calculated bid price, whichever is lower, subject to **ITB** Clause 30.3.
- 28.5 A negative determination shall result in rejection of the Bidder's Bid, in which event the Procuring Entity shall proceed to the next Lowest Calculated Bid to make a similar determination of that Bidder's capabilities to perform satisfactorily. If the second Bidder, however, fails the post qualification, the procedure for post qualification shall be repeated for the Bidder with the next Lowest Calculated Bid, and so on until the Lowest Calculated and Responsive Bid is determined for contract award.

- 28.6 Within a period not exceeding seven (7) calendar days from the date of receipt of the recommendation of the SBAC, the Head of the Procuring Entity shall approve or disapprove the said recommendation.

29. Reservation Clause

- 29.1 Notwithstanding the eligibility or post-qualification of a bidder, the Procuring Entity concerned reserves the right to review its qualifications at any stage of the procurement process if it has reasonable grounds to believe that a misrepresentation has been made by the said bidder, or that there has been a change in the Bidder's capability to undertake the project from the time it submitted its eligibility requirements. Should such review uncover any misrepresentation made in the eligibility and bidding requirements, statements or documents, or any changes in the situation of the Bidder which will affect its capability to undertake the project so that it fails the preset eligibility or bid evaluation criteria, the Procuring Entity shall consider the said Bidder as ineligible and shall disqualify it from submitting a bid or from obtaining an award or contract.
- 29.2 Based on the following grounds, the Procuring Entity reserves the right to reject any and all Bids, declare a Failure of Bidding at any time prior to the contract award, or not to award the contract, without thereby incurring any liability, and make no assurance that a contract shall be entered into as a result of the bidding:
- a. if there is *prima facie* evidence of collusion between appropriate public officers or employees of the Procuring Entity, or between the SBAC and any of the bidders, or if the collusion is between or among the bidders themselves, or between a bidder and a third party, including any act which restricts, suppresses or nullifies or tends to restrict, suppress or nullify competition;
 - b. if the Procuring Entity's SBAC is found to have failed in following the prescribed bidding procedures; or
 - c. for any justifiable and reasonable ground where the award of the contract will not redound to the benefit of the Government as follows:
 - (i) If the physical and economic conditions have significantly changed so as to render the project no longer economically, financially or technically feasible as determined by the head of the procuring entity;
 - (ii) If the project is no longer necessary as determined by the head of the procuring entity; and
 - (iii) If the source of funds for the project has been withheld or reduced through no fault of the Procuring Entity.

- 29.3 In addition, the Procuring Entity may likewise declare a failure of bidding when:
- a. No bids are received;
 - b. All prospective bidders are declared ineligible;
 - c. All bids fail to comply with all the bid requirements or fail post-qualification;
or
 - d. The bidder with the Lowest Calculated Responsive Bid refuses, without justifiable cause to accept the award of contract, and no award is made.

F. Award of Contract

30. Contract Award

30.1 Prior to the award of the Contract, the SBAC shall request for a No Objection Letter (NOL) from the **PRMF-FMG through the FD**. As soon as the NOL has been issued, subject to **ITB** Clause 28, the Procuring Entity shall award the contract to the Bidder whose Bid has been determined to be the Lowest Calculated and Responsive Bid (LCRB).

If such request for NOL is denied and, due to justifiable reason will result in the disqualification of the LCRB, the SBAC shall notify the bidder and shall proceed with the post-qualification of the next LCB.

30.2 Prior to the expiration of the period of Bid validity, the Procuring Entity shall notify the successful Bidder in writing that its Bid has been accepted, through a Notice of Award received personally or sent by registered mail or electronically, receipt of which must be confirmed in writing within two (2) days by the LCRB and submitted personally or sent by registered mail or electronically to the Procuring Entity.

30.3 Notwithstanding the issuance of the Notice of Award, award of contract shall be subject to the following conditions:

- a. Submission of the following documents within the prescribed period from receipt by the Bidder of the notice that it has the Lowest Calculated and Responsive Bid:
 - (i) Valid JVA, if applicable, within ten (10) calendar days;
 - (ii) Valid PCAB license and registration for the type and cost of the contract to be bid for foreign bidders, within thirty (30) calendar days, if allowed under a Treaty or International or Executive Agreement mentioned in **ITB** Clause 12.1a(iv);
- b. Posting of the performance security in accordance with **ITB** Clause 32;

- c. Signing of the contract as provided in **ITB** Clause 31; and
- d. Approval by higher authority, if required.

31. Signing of the Contract

- 31.1 At the same time as the Procuring Entity notifies the successful Bidder that its Bid has been accepted, the Procuring Entity shall send the Contract Form to the Bidder, which Contract has been provided in the Bidding Documents, incorporating therein all agreements between the parties.
- 31.2 Within ten (10) calendar days from receipt of the Notice of Award, the successful Bidder shall post the required performance security, sign and date the contract and return it to the Procuring Entity.
- 31.3 The Procuring Entity shall enter into contract with the successful Bidder within the same ten (10) calendar day period provided that all the documentary requirements are complied with.
- 31.4 The following documents shall form part of the contract:
 - a. Contract Agreement;
 - b. Bidding Documents;
 - c. Winning bidder's bid, including the Technical and Financial Proposals, and all other documents/statements submitted;
 - d. Performance Security;
 - e. Notice of Award of Contract; and
 - f. Other contract documents that may be required by existing laws and/or specified in the **BDS**.

32. Performance Security

- 32.1 To guarantee the faithful performance by the winning Bidder of its obligations under the contract, it shall post a performance security within a maximum period of ten (10) calendar days from the receipt of the Notice of Award from the Procuring Entity and in no case later than the signing of the contract.
- 32.2 The procuring entity shall prescribe at least two (2) acceptable forms of performance security taken from two (2) categories below that bidders may opt to use, denominated in Philippine Pesos and posted in favor of the Procuring Entity in an amount equal to the percentage of the total contract price as stated in the **BDS** in accordance with the following schedule:

Form of Performance Security	Amount of Performance Security (Equal to Percentage of the Total Contract Price)
Cash or cashier's/manager's check issued by a Universal or Commercial Bank.	Ten percent (10%)
Bank draft/guarantee or irrevocable letter of credit issued by a Universal or Commercial Bank: Provided, however, that it shall be confirmed or authenticated by a Universal or Commercial Bank, if issued by a foreign bank.	

Surety Bond is excluded as a form of Performance Security.

32.3 Failure of the successful Bidder to comply with the above-mentioned requirement shall constitute sufficient ground for the annulment of the award and forfeiture of the bid security, or in the case of bid securing declaration, corresponding penalties shall be imposed upon the bidder in accordance with the provisions in the GPPB Resolution No. 03-2012; in which event the Procuring Entity shall initiate and complete the post qualification of the second Lowest Calculated Bid. The procedure shall be repeated until the Lowest Calculated and Responsive Bid is identified and selected for contract award. However if no Bidder passed post-qualification, the SBAC shall declare the bidding a failure and conduct a re-bidding with re-advertisement.

33. Notice to Proceed

33.1 Within three (3) calendar days from the date of approval of the Contract by the appropriate government approving authority, the Procuring Entity shall issue its Notice to Proceed (NTP) to the Bidder.

33.2 The contract effectivity date shall be provided in the Notice to Proceed (NTP) by the Procuring Entity, which date shall not be later than seven (7) calendar days from the issuance of the Notice to Proceed.

34. Protest Mechanism

Decision of the procuring entity at any stage of the procurement process may be questioned in accordance with Section 55 of the Revised Implementing Rules and Regulations of Republic Act 9184.

Section III: Bid Data Sheet

ITB Clause	
1.1	<p>The Procuring Entity is the Department of the Interior and Local Government (DILG) Regional Office XIII CARAGA.</p> <p>The name of the Contract is the <i>Rehabilitation and Minor Improvement of NRJ-Patin-ay-Lucac-Pisaan</i> .The identification number of the Contract is PW-ADS-14-01.</p>
2	<p>The Funding Sources are the Australian Agency for International Development (AusAID) through a Grant in the amount of A\$ 100.00 million and the Provincial Government of Davao del Norte.</p> <p>The name of the Project is Provincial Road Management Facility (PRMF)</p>
3.1	<p>Entities or individuals listed in the <i>Asian Development Bank Sanction List</i> or on <i>the World Bank's "Listing of Ineligible Firms" or "Listing of Firms, Letters of Reprimand"</i> as posted at www.worldbank.org will not be eligible to tender for work under PRMF;</p> <p>The Facility Director (FD) of the Facility Management Group (FMG) may at its sole discretion, object to the participation of any entity or individual that it finds has previously breached contract conditions under any AusAID procurement. Such objection may be given at the start of the procurement process.</p>
5.1	No further instructions.
5.2	Bidding is restricted to eligible bidders as defined in ITB Clause 5.1.
5.4a	No further instructions.
5.4(b)	<p>No further instructions.</p> <p>For this purpose, similar contract shall refer to construction, improvement, rehabilitation, repair, or maintenance of roads and highway pavements.</p>
6.2(g)	The Head of the Procuring Entity (HOPE) is the Regional Director of the DILG Region XIII.
8.1	Subcontracting is not allowed.
8.2	Not applicable.
9.1.a	The Procuring Entity will hold a pre-bid conference for this Project on 23 October 2014, 10:00 am at the DILG Regional Office XIII.

ITB Clause	
9.1.b	Not applicable
10.1	The Procuring Entity's address is: Ms. Jocelyn C. Jayoma Head, SBAC Secretariat PDMU, DILG CARAGA Regional Office 1559 Aquino Ave., Km4, Libertad, Butuan City Telefax No. (085)342-77-02 Website Address: www.dilg13.org
10.3	No further instructions.
12.1	No further instructions.
12.1a(i)	No other acceptable proof of registration is recognized
12.1a(iv)	No further instruction.
12.1(b)(ii.3)	The minimum equipment requirements are the following: <ol style="list-style-type: none"> 1. Motor Grader, 135 hp ----- 1 unit 2. Wheel Loader, 1.90 cum. ----- 1 unit 3. Dump truck, 9 cum. ----- 4 units 4. Water truck, 500-1000 gal. ----- 1 unit 5. Backhoe , 0.60 cum. ----- 1units 6. Vibratory Roller, 10 tons ----- 1 unit 7. Stake Truck, 10 tons -----3 units 8. Crawler Dozer, 165 hp ----- 1 unit
12.1(b)(iii)	No further instructions.
13.1	No further instructions.
13.1.b	The financial component of the bid, which shall not include value-added tax (VAT), shall contain: <ol style="list-style-type: none"> 1. Bid prices in the Bill of Quantities in the prescribed Bid Form; 2. Detailed estimates in coming up with the bid; 3. Monthly cash flow and payments schedule.

ITB Clause	
13.2.a	The ABC is Php6,278,653.12 . Any bid with a financial component exceeding this amount shall not be accepted.
13.2.b	No further instructions
14.2	No further instructions.
16.1	The bid prices shall be quoted in Philippine Pesos.
16.3	Payment of the contract price shall be made in Philippine Pesos.
17.1	Bids will be valid until 120 days from the bid opening.
18.1	<p>The bid security may be a Bid Securing Declaration (BSD) or any of the following acceptable forms and amounts (<i>rounded-off to the nearest higher peso</i>):</p> <ol style="list-style-type: none"> 1. The amount of Php125,574.00, if bid security is in cash, cashier's/manager's check, bank draft/guarantee or irrevocable letter of credit; 2. The amount of Php313,933.00, if bid security is in Surety Bond.
18.2	The bid security shall be valid until one hundred twenty days (120) from opening of bids.
20.3	Each Bidder shall submit one (1) original and two (2) copies of the first and second components of its bid.
21	<p>The address for submission of bids is the LGRCC, DILG Regional Office XIII.</p> <p>The deadline for submission of bids is on 7 November 2014, 11:00 am.</p>
24.1	<p>The place of bid opening is the LGRCC, DILG Regional Office XIII.</p> <p>The date and time of bid opening is on 7 November 2014, 11:30 am.</p>
24.2	No further instructions.
27.3b	Bid modification is not allowed.
27.4	No further instructions.
28.2a	Only tax returns filed and taxes paid through the BIR Electronic Filing and Payments System (EFPS) shall be accepted.
28.2c	None

ITB Clause	
31.4f	Additional contract documents required are the following: <ol style="list-style-type: none">1. Construction schedule and S-curve;2. Workforce schedule;3. Construction method;4. Equipment utilization schedule;5. Construction Safety and Health Program; and6. Network Schedule (PERT/CPM).
32.2	Performance Security shall be in the following amount: The amount of _____ (10% of the contract price) if performance security is in <i>cash, cashier's/manager's check, bank draft/guarantee or irrevocable letter of credit.</i>

Section IV: General Conditions of Contract (GCC)

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1. Definitions

For purposes of this Clause, boldface type is used to identify defined terms.

- 1.1. The **Arbiter** is the person appointed jointly by the Procuring Entity and the Contractor to resolve disputes in the first instance, as provided for in **GCC** Clause 21.
- 1.2. **Bill of Quantities** refers to a list of the specific items of the Work and their corresponding unit prices, lump sums, and/or provisional sums.
- 1.3. The **Completion Date** is the date of completion of the Works as certified by the Procuring Entity's Representative, in accordance with **GCC** Clause 49.
- 1.4. The **Contract** is the contract between the Procuring Entity and the Contractor to execute and complete the Works.
- 1.5. The **Contract Price** is the price stated in the Letter of Acceptance and thereafter to be paid by the Procuring Entity to the Contractor for the execution of the Works in accordance with this Contract.
- 1.6. **Contract Time Extension** is the allowable period for the Contractor to complete the Works in addition to the original Completion Date stated in this Contract.
- 1.7. The **Contractor** is the juridical entity whose proposal has been accepted by the Procuring Entity and to whom the Contract to execute the Work was awarded.
- 1.8. The **Contractor's Bid** is the signed offer or proposal submitted by the Contractor to the Procuring Entity in response to the Bidding Documents.
- 1.9. **Days** are calendar days; **months** are calendar months.
- 1.10. **Dayworks** are varied work inputs subject to payment on a time basis for the Contractor's employees and Equipment, in addition to payments for associated Materials and Plant.
- 1.11. A **Defect** is any part of the Works not completed in accordance with the Contract.
- 1.12. The **Defects Liability Certificate** is the Certificate issued by the Procuring Entity Representative upon correction of defects by the contractor.

The **Defects Liability Period** is the one year period between contract completion and final acceptance within which the Contractor assumes the responsibility to undertake the repair of any damage to the Works at his own expense.
- 1.13. **Drawings** are graphical presentations of the Works. They include all supplementary details, shop drawings, calculations, and other information provided or approved for the execution of this Contract.

- 1.14. **Equipment** refers to all facilities, supplies, appliances, materials or things required for the execution and completion of the Work provided by the Contractor and which shall not form or are not intended to form part of the Permanent Works.
- 1.15. The **Intended Completion Date** refers to the date specified in the **SCC** when the Contractor is expected to have completed the Works. The Intended Completion Date may be revised only by the Procuring Entity's Representative by issuing an extension of time or an acceleration order.
- 1.16. **Materials** are all supplies, including consumables, used by the Contractor for incorporation in the Works.
- 1.17. The **Notice to Proceed** is a written notice issued by the Procuring Entity or the Procuring Entity's Representative to the Contractor requiring the latter to begin the commencement of the work not later than a specified or determinable date.
- 1.18. **Permanent Works** refers to all permanent structures and all other project features and facilities required be constructing and completed in accordance with this Contract which shall be delivered to the Procuring Entity and which shall remain at the Site after the removal of all Temporary Works.
- 1.19. **Plant** refers to the machinery, apparatus, and the like intended to form an integral part of the Permanent Works.
- 1.20. The **Procuring Entity**, as stated in the **SCC**, is the party who employs the Contractor to carry out the Works.
- 1.21. The **Procuring Entity's Representative** refers to the Head of the Procuring Entity or his duly authorized representative, identified in the **SCC**, who shall be responsible for supervising the execution of the Works and administering this Contract.
- 1.22. The **Site** is the place provided by the Procuring Entity where the Works shall be executed and any other place or places which may be designated in the **SCC**, or notified to the Contractor by the Procuring Entity's Representative as forming part of the Site.
- 1.23. **Site Investigation Reports** are those that were included in the Bidding Documents and are factual and interpretative reports about the surface and subsurface conditions at the Site.
- 1.24. **Slippage** is a delay in work execution occurring when actual accomplishment falls below the target as measured by the difference between the scheduled and actual accomplishment of the Work by the Contractor as established from the work schedule. This is actually described as a percentage of the whole Works.
- 1.25. **Specifications** means the description of Works to be done and the qualities of materials to be used, the equipment to be installed and the mode of construction.

- 1.26. The **Start Date**, as specified in the **SCC**, is the date when the Contractor is obliged to commence execution of the Works. It does not necessarily coincide with any of the Site Possession Dates.
- 1.27. A **Subcontractor** is any person or organization to whom a part of the Works has been subcontracted by the Contractor, as allowed by the Procuring Entity, but not any assignee of such person.
- 1.28. **Temporary Works** are works designed, constructed, installed, and removed by the Contractor that are needed for construction or installation of the Permanent Works.
- 1.29. **Work(s)** refer to the Permanent Works and Temporary Works to be executed by the Contractor in accordance with this Contract, including (i) the furnishing of all labor, materials, equipment and others incidental, necessary or convenient to the complete execution of the Works; (ii) the passing of any tests before acceptance by the Procuring Entity's Representative; (iii) and the carrying out of all duties and obligations of the Contractor imposed by this Contract as described in the **SCC**.

2. Interpretation

- 2.1. In interpreting the Conditions of Contract, singular also means plural, male also means female or neuter, and the other way around. Headings have no significance. Words have their normal meaning under the language of this Contract unless specifically defined. The Procuring Entity's Representative will provide instructions clarifying queries about the Conditions of Contract.
- 2.2. If sectional completion is specified in the **SCC**, references in the Conditions of Contract to the Works, the Completion Date, and the Intended Completion Date apply to any section of the works (other than references to the Completion Date and Intended Completion Date for the whole of the Works).
- 2.3. The Documents forming this contract shall be interpreted in the following order of priority:
 - (a) Contract Agreement;
 - (b) Instructions to Bidders;
 - (c) Addenda to the Bidding Documents;
 - (d) Special Conditions of Contract;
 - (e) General Conditions of Contract;
 - (f) Specifications;
 - (g) Bill of Quantities; and
 - (h) Drawings.

3. Governing Language and Law

- 3.1. This Contract has been executed in the English language, which shall be the binding and controlling language for all matters relating to the meaning or interpretation of this Contract. All correspondence and other documents pertaining to this Contract which are exchanged by the parties shall be written in English.
- 3.2. This Contract shall be interpreted in accordance with the laws of the Republic of the Philippines.

4. Communications

Communications between parties that are referred to in the Conditions shall be effective only when in writing. A notice shall be effective only when it is received by the concerned party.

5. Possession of Site

- 5.1. On the date specified in the **SCC**, the Procuring Entity through the Project Owner as defined in the **SCC**, shall grant the Contractor possession of so much of the Site as may be required to enable it to proceed with the execution of the Works. If the Contractor suffers delay or incurs cost from failure on the part of the Procuring Entity to give possession in accordance with the terms of this clause, the Procuring Entity's Representative shall give the Contractor a Contract Time Extension and certify such sum as fair to cover the cost incurred, which sum shall be paid by Procuring Entity.
- 5.2. If possession of a portion is not given by the date stated in the **SCC** Clause 5.1, the Procuring Entity will be deemed to have delayed the start of the relevant activities. The resulting adjustments in contract time to address such delay shall be in accordance with **GCC** Clause 47.
- 5.3. The Contractor shall bear all costs and charges for special or temporary right-of-way required by it in connection with access to the Site. The Contractor shall also provide at his own cost any additional facilities outside the Site required by it for purposes of the Works.
- 5.4. The Contractor shall allow the Procuring Entity's Representative and any person authorized by the Procuring Entity's Representative access to the Site and to any place where work in connection with this Contract is being carried out or is intended to be carried out.

6. The Contractor's Obligations

- 6.1. The Contractor shall carry out the Works properly and in accordance with this Contract. The Contractor shall provide all supervision, labor, Materials, Plant and Contractor's Equipment, which may be required. All Materials and Plant on Site shall be deemed to be the property of the Procuring Entity.

- 6.2. The Contractor shall commence execution of the Works on the Start Date and shall carry out the Works in accordance with the Program of Work submitted by the Contractor, as updated with the approval of the Procuring Entity's Representative, and complete them by the Intended Completion Date.
- 6.3. The Contractor shall be responsible for the safety of all activities on the Site. The contractor shall take all reasonable steps to protect the environment on the site and avoid damages to person or adjacent properties and infrastructure, including overhead and underground utilities and services as a consequence of its method of operation.
- 6.4. The Contractor shall carry out all instructions of the Procuring Entity's Representative that comply with the applicable laws where the Site is located.
- 6.5. The Contractor shall employ the key personnel named in the Schedule of Key Personnel, as referred to in the **SCC**, to carry out the supervision of the Works. The Procuring Entity will approve any proposed replacement of key personnel only if their relevant qualifications and abilities are equal to or better than those of the personnel listed in the Schedule.
- 6.6. If the Procuring Entity's Representative asks the Contractor to remove a member of the Contractor's staff or work force, for justifiable cause, the Contractor shall ensure that the person leaves the Site within seven (7) days and has no further connection with the Work in this Contract.
- 6.7. During Contract implementation, the Contractor and his subcontractors shall abide at all times by all labor laws, including child labor related enactments, and other relevant rules. Unskilled labor shall substantially be drawn from the communities where the project is located.
- 6.8. The Contractor shall submit to the Procuring Entity for consent the name and particulars of the person authorized to receive instructions on behalf of the Contractor.
- 6.9. The Contractor shall cooperate and share the Site with other contractors, public authorities, utilities, and the Procuring Entity between the dates given in the schedule of other contractors particularly when they shall require access to the Site. The Contractor shall also provide facilities and services for them during this period. The Procuring Entity may modify the schedule of other contractors, and shall notify the Contractor of any such modification thereto.
- 6.10. Should anything of historical or other interest or of significant value be unexpectedly discovered on the Site, it shall be the property of the Project Owner. The Contractor shall notify the Procuring Entity's Representative of such discoveries and carry out the Procuring Entity's Representative's instructions in dealing with them.

7. Performance Security

- 7.1. Within ten (10) calendar days from receipt of the Notice of Award from the Procuring Entity but in no case later than the signing of the contract by both parties, the Contractor shall furnish the performance security in any of the forms prescribed in **ITB** Clause 32.2.
- 7.2. The Performance Security posted in favor of the Procuring Entity shall be forfeited in the event it is established that the Contractor is in default in any of its obligations under the Contract.
- 7.3. The performance security shall remain valid until issuance by the Procuring Entity of the Certificate of Final Acceptance.
- 7.4. The performance security may be released by the Procuring Entity and returned to the Contractor after the issuance of the Certificate of Final Acceptance subject to the following conditions:
 - (a) There are no pending claims against the Contractor filed by the Procuring Entity;
 - (b) The Contractor has no pending claims for labor and materials filed against it; and
 - (c) Other terms specified in the **SCC**.
- 7.5. The Contractor shall post an additional performance security following the amount and form specified in **ITB** Clause 32.2 to cover any cumulative increase of more than ten percent (10%) over the original value of the contract as a result of amendments to order or change orders, extra work orders and supplemental agreements, as the case may be. The Contractor shall cause the extension of the validity of the performance security to cover approved contract time extensions.
- 7.6. In case of a reduction in the contract value or for partially completed Works under the contract which are usable and accepted by the Procuring Entity the use of which, in the judgment of the implementing agency or the Procuring Entity, will not affect the structural integrity of the entire project, the Procuring Entity shall allow a proportional reduction in the original performance security, provided that any such reduction is more than ten percent (10%) and that the aggregate of such reductions is not more than fifty percent (50%) of the original performance security.
- 7.7. Unless otherwise indicated in the **SCC**, the Contractor, by entering into the Contract with the Procuring Entity, acknowledges the right of the Procuring Entity to institute action pursuant to Act 3688 against any subcontractor be they an individual, firm, partnership, corporation, or association supplying the Contractor with labor, materials and/or equipment for the performance of this Contract.

8. Subcontracting

- 8.1. Unless otherwise indicated in the **SCC**, the Contractor cannot subcontract Works more than the percentage specified in **ITB** Clause 8.1.
- 8.2. Subcontracting of any portion of the Works does not relieve the Contractor of any liability or obligation under this Contract. The Contractor will be responsible for the acts, defaults, and negligence of any subcontractor, its agents, servants or workmen as fully as if these were the Contractor's own acts, defaults, or negligence, or those of its agents, servants or workmen.
- 8.3. Subcontractors disclosed and identified during the bidding may be changed during the implementation of this Contract, subject to compliance with the required qualifications and the approval of the Procuring Entity.

9. Liquidated Damages

- 9.1. The Contractor shall pay liquidated damages to the Procuring Entity for each day that the Completion Date is later than the Intended Completion Date. The applicable liquidated damages is at least one-tenth (1/10) of a percent of the cost of the unperformed portion for every day of delay. The total amount of liquidated damages shall not exceed ten percent (10%) of the amount of the contract. The Procuring Entity shall deduct liquidated damages from payments due to the Contractor. Once the cumulative amount of liquidated damages reaches ten percent (10%) of the amount of this Contract, the Procuring Entity shall rescind this Contract, without prejudice to other courses of action and remedies open to it.
- 9.2. If the Intended Completion Date is extended after liquidated damages have been paid, the Engineer of the Procuring Entity shall correct any overpayment of liquidated damages by the Contractor by adjusting the next payment certificate.

10. Site Investigation Reports

The Contractor, in preparing the Bid, shall rely on any Site Investigation Reports referred to in the **SCC** supplemented by any information obtained by the Contractor.

11. The Procuring Entity, Licenses and Permits

The Procuring Entity shall, if requested by the Contractor, assist him in applying for permits, licenses or approvals, which are required for the Works.

12. Contractor's Risk and Warranty Security

- 12.1. The Contractor shall assume full responsibility for the Works from the time project construction commenced up to final acceptance by the Procuring Entity and shall be held responsible for any damage or destruction of the Works except those occasioned by *force majeure*. The Contractor shall be fully responsible for the safety, protection, security, and convenience of his personnel, third parties, and the public

at large, as well as the Works, Equipment, installation, and the like to be affected by his construction work.

- 12.2. Unless otherwise indicated in the **SCC**, The defects liability period for infrastructure projects shall be one year from contract completion up to final acceptance by the Procuring Entity. During this period, the Contractor shall undertake the repair works, at his own expense, of any damage to the Works on account of the use of materials of inferior quality within ninety (90) days from the time the Head of the Procuring Entity has issued an order to undertake repair. In case of failure or refusal to comply with this mandate, the Procuring Entity shall undertake such repair works and shall be entitled to full reimbursement of expenses incurred therein upon demand.
- 12.3. Unless otherwise indicated in the **SCC**, in case the Contractor fails to comply with the preceding paragraph, the Procuring Entity shall forfeit its performance security, subject its property (ies) to attachment or garnishment proceedings, and perpetually disqualify it from participating in any public bidding. All payables of the GOP in his favor shall be offset to recover the costs.
- 12.4. After final acceptance of the Works by the Procuring Entity, the Contractor shall be held responsible for “Structural Defects”, *i.e.*, major faults/flaws/deficiencies in one or more key structural elements of the project which may lead to structural failure of the completed elements or structure, or “Structural Failures”, *i.e.*, where one or more key structural elements in an infrastructure facility fails or collapses, thereby rendering the facility or part thereof incapable of withstanding the design loads, and/or endangering the safety of the users or the general public:
- (a) **Contractor** – Where Structural Defects/Failures arise due to faults attributable to improper construction, use of inferior quality/substandard materials, and any violation of the contract plans and specifications, the contractor shall be held liable;
 - (b) **Consultants** – Where Structural Defects/Failures arise due to faulty and/or inadequate design and specifications as well as construction supervision, then the consultant who prepared the design or undertook construction supervision for the project shall be held liable;
 - (c) **Procuring Entity’s Representatives/Project Manager/Construction Managers and Supervisors** – The project owner’s representative(s), project manager, construction manager, and supervisor(s) shall be held liable in cases where the Structural Defects/Failures are due to his/their willful intervention in altering the designs and other specifications; negligence or omission in not approving or acting on proposed changes to noted defects or deficiencies in the design and/or specifications; and the use of substandard construction materials in the project;

- (d) **Third Parties** - Third Parties shall be held liable in cases where Structural Defects/Failures are caused by work undertaken by them such as leaking pipes, diggings or excavations, underground cables and electrical wires, underground tunnel, mining shaft and the like, in which case the applicable warranty to such structure should be levied to third parties for their construction or restoration works.
- (e) **Users** - In cases where Structural Defects/Failures are due to abuse/misuse by the end user of the constructed facility and/or non-compliance by a user with the technical design limits and/or intended purpose of the same, then the user concerned shall be held liable.

12.5. The warranty against Structural Defects/Failures, except those occasioned on force majeure, shall cover the period specified in the **SCC** reckoned from the date of issuance of the Certificate of Final Acceptance by the Procuring Entity.

12.6. The Contractor shall be required to put up a warranty security in the form of cash, bank guarantee or letter of credit in accordance with the following schedule and as provided in the **SCC** :

Form of Warranty	Minimum Amount in Percentage (%) of Total Contract Price
(a) Cash or letter of credit issued by Universal or Commercial bank: provided, however, that the letter of credit shall be confirmed or authenticated by a Universal or Commercial bank, if issued by a foreign bank	Five Percent (5%)
(b) Bank guarantee confirmed by Universal or Commercial bank: provided, however, that the letter of credit shall be confirmed or authenticated by a Universal or Commercial bank, if issued by a foreign bank	Ten Percent (10%)

12.7. The warranty security shall be stated in Philippine Pesos and shall remain effective for one year from the date of issuance of the Certificate of Final Acceptance by the Procuring Entity, and returned only after the lapse of said one year period.

12.8. In case of structural defects/failure occurring during the applicable warranty period provided in **GCC** Clause 12.5, the Procuring Entity shall undertake the necessary restoration or reconstruction works and shall be entitled to full reimbursement by the parties found to be liable for expenses incurred therein upon demand, without prejudice to the filing of appropriate administrative, civil, and/or criminal charges against the responsible persons as well as the forfeiture of the warranty security posted in favor of the Procuring Entity.

13. Liability of the Contractor

Subject to additional provisions, if any, set forth in the **SCC**, the Contractor's liability under this Contract shall be as provided by the laws of the Republic of the Philippines.

14. Procuring Entity's Risk

14.1. From the Start Date until the Certificate of Final Acceptance has been issued, the following are risks of the Procuring Entity:

- (a) The risk of personal injury, death, or loss of or damage to property (excluding the Works, Plant, Materials, and Equipment), which are due to:
 - (i) any type of use or occupation of the Site authorized by the Procuring Entity after the official acceptance of the works; or
 - (ii) Negligence, breach of statutory duty, or interference with any legal right by the Procuring Entity or by any person employed by or contracted to him except the Contractor.
- (b) The risk of damage to the Works, Plant, Materials, and Equipment to the extent that it is due to a fault of the Procuring Entity or in the Procuring Entity's design, or due to war or radioactive contamination directly affecting the country where the Works are to be executed.

15. Insurance

15.1. The Contractor shall, under his name and at his own expense, obtain and maintain, for the duration of this Contract, the following insurance coverage:

- (a) Contractor's All Risk Insurance;
- (b) Transportation to the project Site of Equipment, Machinery, and Supplies owned by the Contractor;
- (c) Personal injury or death of Contractor's employees; and
- (d) Comprehensive insurance for third party liability to Contractor's direct or indirect act or omission causing damage to third persons.

15.2. The Contractor shall provide evidence to the Procuring Entity's Representative that the insurances required under this Contract have been effected and shall, within a reasonable time, provide copies of the insurance policies to the Procuring Entity's Representative. Such evidence and such policies shall be provided to the Procuring Entity's through the Procuring Entity's Representative.

15.3. The Contractor shall notify the insurers of changes in the nature, extent, or program for the execution of the Works and ensure the adequacy of the insurances at all

times in accordance with the terms of this Contract and shall produce to the Procuring Entity's Representative the insurance policies in force including the receipts for payment of the current premiums.

The above insurance policies shall be obtained from any reputable insurance company approved by the Procuring Entity's Representative.

- 15.4. If the Contractor fails to obtain and keep in force the insurances referred to herein or any other insurance which he may be required to obtain under the terms of this Contract, the Procuring Entity may obtain and keep in force any such insurances and pay such premiums as may be necessary for the purpose. From time to time, the Procuring Entity may deduct the amount it shall pay for said premiums including twenty five percent (25%) therein from any monies due, or which may become due, to the Contractor, without prejudice to the Procuring Entity exercising its right to impose other sanctions against the Contractor pursuant to the provisions of this Contract.
- 15.5. In the event the Contractor fails to observe the above safeguards, the Procuring Entity may, at the Contractor's expense, take whatever measure is deemed necessary for its protection and that of the Contractor's personnel and third parties, and/or order the interruption of dangerous Works. In addition, the Procuring Entity may refuse to make the payments under **GCC** Clause 40 until the Contractor complies with this Clause.
- 15.6. The Contractor shall immediately replace the insurance policy obtained as required in this Contract, without need of the Procuring Entity's demand, with a new policy issued by a new insurance company acceptable to the Procuring Entity for any of the following grounds:
 - (a) The issuer of the insurance policy to be replaced has:
 - (i) become bankrupt;
 - (ii) been placed under receivership or under a management committee;
 - (iii) been sued for suspension of payment; or
 - (iv) been suspended by the Insurance Commission and its license to engage in business or its authority to issue insurance policies cancelled; or
 - (v) Where reasonable grounds exist that the insurer may not be able, fully and promptly, to fulfill its obligation under the insurance policy.

16. Termination for Default of Contractor

- 16.1. The Procuring Entity shall terminate this Contract for default when any of the following conditions attend its implementation:
- 16.2. Due to the Contractor's fault and while the project is on-going, it has incurred negative slippage of fifteen percent (15%) or more in accordance with Presidential Decree 1870, regardless of whether or not previous warnings and notices have been issued for the Contractor to improve his performance;
- 16.3. Due to its own fault and after this Contract time has expired, the Contractor incurs delay in the completion of the Work after this Contract has expired; or
- 16.4. The Contractor:
 - (a) abandons the contract Works, refuses or fails to comply with a valid instruction of the Procuring Entity or fails to proceed expeditiously and without delay despite a written notice by the Procuring Entity;
 - (b) does not actually have on the project Site the minimum essential equipment listed on the Bid necessary to prosecute the Works in accordance with the approved Program of Work and equipment deployment schedule as required for the project;
 - (c) does not execute the Works in accordance with this Contract or persistently or flagrantly neglects to carry out its obligations under this Contract;
 - (d) neglects or refuses to remove materials or to perform a new Work that has been rejected as defective or unsuitable; or
 - (e) Sub-lets any part of this Contract without approval by the Procuring Entity.

All materials on the Site, Plant, Equipment, and Works shall be deemed to be the property of the Procuring Entity if this Contract is rescinded because of the Contractor's default.

17. Termination for Default of Procuring Entity

The Contractor may terminate this Contract with the Procuring Entity if the works are completely stopped for a continuous period of at least sixty (60) calendar days through no fault of its own, due to any of the following reasons:

- (a) Failure of the Procuring Entity to deliver, within a reasonable time, supplies, materials, right-of-way, or other items it is obligated to furnish under the terms of this Contract; or
- (b) The prosecution of the Work is disrupted by the adverse peace and order situation, as certified by the Armed Forces of the Philippines Provincial Commander and approved by the Secretary of National Defense.

18. Termination for Other Causes

- 18.1. The Procuring Entity may terminate this Contract, in whole or in part, at any time for its convenience. The Head of the Procuring Entity may terminate this Contract for the convenience of the Procuring Entity if he has determined the existence of conditions that make Project Implementation economically, financially or technically impractical and/or unnecessary, such as, but not limited to, fortuitous event(s) or changes in law and National Government policies.
- 18.2. The Procuring Entity or the Contractor may terminate this Contract if the other party causes a fundamental breach of this Contract.
- 18.3. Fundamental breaches of Contract shall include, but shall not be limited to, the following:
- (a) The Contractor stops work for twenty eight (28) days when no stoppage of work is shown on the current Program of Work and the stoppage has not been authorized by the Procuring Entity's Representative;
 - (b) The Procuring Entity's Representative instructs the Contractor to delay the progress of the Works, and the instruction is not withdrawn within twenty eight (28) days;
 - (c) The Procuring Entity shall terminate this Contract if the Contractor is declared bankrupt or insolvent as determined with finality by a court of competent jurisdiction. In this event, termination will be without compensation to the Contractor, provided that such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to the Procuring Entity and/or the Contractor. In the case of the Contractor's insolvency, any Contractor's Equipment which the Procuring Entity instructs in the notice is to be used until the completion of the Works;
 - (d) A payment certified by the Procuring Entity's Representative is not paid by the Procuring Entity to the Contractor within eighty four (84) days from the date of the Procuring Entity's Representative's certificate;
 - (e) The Procuring Entity's Representative gives Notice that failure to correct a particular Defect is a fundamental breach of Contract and the Contractor fails to correct it within a reasonable period of time determined by the Procuring Entity's Representative;
 - (f) The Contractor does not maintain a Security, which is required;
 - (g) The Contractor has delayed the completion of the Works by the number of days for which the maximum amount of liquidated damages can be paid, as defined in the **GCC** Clause 9; and

- (h) In case it is determined prima facie by the Procuring Entity that the Contractor has engaged, before or during the implementation of the contract, in unlawful deeds and behaviors relative to contract acquisition and implementation, such as, but not limited to, the following:
 - (i) corrupt, fraudulent, collusive, coercive, and obstructive practices as defined in **ITB** Clause 3.1(a), unless otherwise specified in the **SCC**
 - (ii) drawing up or using forged documents;
 - (iii) using adulterated materials, means or methods, or engaging in production contrary to rules of science or the trade; and
 - (iv) any other act analogous to the foregoing.
- 18.4. The Funding Source or the Procuring Entity, as appropriate, will seek to impose the maximum civil, administrative and/or criminal penalties available under the applicable law on individuals and organizations deemed to be involved with corrupt, fraudulent, or coercive practices.
- 18.5. When persons from either party to this Contract gives notice of a fundamental breach to the Procuring Entity's Representative in order to terminate the existing contract for a cause other than those listed under **GCC** Clause 18.3, the Procuring Entity's Representative shall decide whether the breach is fundamental or not.
- 18.6. If this Contract is terminated, the Contractor shall stop work immediately, make the Site safe and secure, and leave the Site as soon as reasonably possible.

19. Procedures for Termination of Contracts

- 19.1. The following provisions shall govern the procedures for the termination of this Contract:
 - (a) Upon receipt of a written report of acts or causes which may constitute ground(s) for termination as aforementioned, or upon its own initiative, the Procuring Entity shall, within a period of seven (7) calendar days, verify the existence of such ground(s) and cause the execution of a Verified Report, with all relevant evidence attached;
 - (b) Upon recommendation by the Procuring Entity, the Head of the Procuring Entity shall terminate this Contract only by a written notice to the Contractor conveying the termination of this Contract. The notice shall state:
 - (i) that this Contract is being terminated for any of the ground(s) aforementioned, and a statement of the acts that constitute the ground(s) constituting the same;

- (ii) the extent of termination, whether in whole or in part;
- (iii) an instruction to the Contractor to show cause as to why this Contract should not be terminated; and
- (iv) special instructions of the Procuring Entity, if any.

The Notice to Terminate shall be accompanied by a copy of the Verified Report;

- (c) Within a period of seven (7) calendar days from receipt of the Notice of Termination, the Contractor shall submit to the Head of the Procuring Entity a verified position paper stating why the contract should not be terminated. If the Contractor fails to show cause after the lapse of the seven (7) day period, either by inaction or by default, the Head of the Procuring Entity shall issue an order terminating the contract;
 - (d) The Procuring Entity may, at any time before receipt of the Bidder's verified position paper described in item (c) above withdraw the Notice to Terminate if it is determined that certain items or works subject of the notice had been completed, delivered, or performed before the Contractor's receipt of the notice;
 - (e) Within a non-extendible period of ten (10) calendar days from receipt of the verified position paper, the Head of the Procuring Entity shall decide whether or not to terminate this Contract. It shall serve a written notice to the Contractor of its decision and, unless otherwise provided in the said notice, this Contract is deemed terminated from receipt of the Contractor of the notice of decision. The termination shall only be based on the ground(s) stated in the Notice to Terminate; and
 - (f) The Head of the Procuring Entity may create a Contract Termination Review Committee (CTRC) to assist him in the discharge of this function. All decisions recommended by the CTRC shall be subject to the approval of the Head of the Procuring Entity.
- 19.2. Pursuant to Section 69(f) of RA 9184 and without prejudice to the imposition of additional administrative sanctions as the internal rules of the agency may provide and/or further criminal prosecution as provided by applicable laws, the procuring entity shall impose on contractors after the termination of the contract the penalty of suspension for one (1) year for the first offense, suspension for two (2) years for the second offense from participating in the public bidding process, for violations committed during the contract implementation stage, which include but not limited to the following:

- (a) Failure of the contractor, due solely to his fault or negligence, to mobilize and start work or performance within the specified period in the Notice to Proceed (“NTP”);

- (b) Failure by the contractor to fully and faithfully comply with its contractual obligations without valid cause, or failure by the contractor to comply with any written lawful instruction of the procuring entity or its representative(s) pursuant to the implementation of the contract. For the procurement of infrastructure projects or consultancy contracts, lawful instructions include but are not limited to the following:
 - (i) Employment of competent technical personnel, competent engineers and/or work supervisors;
 - (ii) Provision of warning signs and barricades in accordance with approved plans and specifications and contract provisions;
 - (iii) Stockpiling in proper places of all materials and removal from the project site of waste and excess materials, including broken pavement and excavated debris in accordance with approved plans and specifications and contract provisions;
 - (iv) Deployment of committed equipment, facilities, support staff and manpower; and
 - (v) Renewal of the effectivity dates of the performance security after its expiration during the course of contract implementation.

- (c) Assignment and subcontracting of the contract or any part thereof or substitution of key personnel named in the proposal without prior written approval by the procuring entity.

- (d) Poor performance by the contractor or unsatisfactory quality and/or progress of work arising from his fault or negligence as reflected in the Constructor's Performance Evaluation System (“CPES”) rating sheet. In the absence of the CPES rating sheet, the existing performance monitoring system of the procuring entity shall be applied. Any of the following acts by the Contractor shall be construed as poor performance:
 - (i) Negative slippage of 15% and above within the critical path of the project due entirely to the fault or negligence of the contractor; and
 - (ii) Quality of materials and workmanship not complying with the approved specifications arising from the contractor's fault or negligence.

- (e) Willful or deliberate abandonment or non-performance of the project or contract by the contractor resulting to substantial breach thereof without lawful and/or just cause.

In addition to the penalty of suspension, the performance security posted by the contractor shall also be forfeited.

20. Force Majeure, Release from Performance

- 20.1. For purposes of this Contract the terms “*force majeure*” and “fortuitous event” may be used interchangeably. In this regard, a fortuitous event or *force majeure* shall be interpreted to mean an event which the Contractor could not have foreseen, or which though foreseen, was inevitable. It shall not include ordinary unfavorable weather conditions; and any other cause the effects of which could have been avoided with the exercise of reasonable diligence by the Contractor.
- 20.2. If this Contract is discontinued by an outbreak of war or by any other event entirely outside the control of either the Procuring Entity or the Contractor, the Procuring Entity’s Representative shall certify that this Contract has been discontinued. The Contractor shall make the Site safe and stop work as quickly as possible after receiving this certificate and shall be paid for all works carried out before receiving it and for any Work carried out afterwards to which a commitment was made.
- 20.3. If the event continues for a period of eighty four (84) days, either party may then give notice of termination, which shall take effect twenty eight (28) days after the giving of the notice.
- 20.4. After termination, the Contractor shall be entitled to payment of the unpaid balance of the value of the Works executed and of the materials and Plant reasonably delivered to the Site, adjusted by the following:
 - (a) any sum to which the Contractor is entitled under **GCC** Clause 28;
 - (b) the cost of his suspension and demobilization;
 - (c) any sum to which the Procuring Entity is entitled.
- 20.5. The net balance due shall be paid or repaid within a reasonable time period from the time of the notice of termination.

21. Resolution of Disputes

- 21.1. If any dispute or difference of any kind whatsoever shall arise between the parties in connection with the implementation of the contract covered by the Act and this IRR, the parties shall make every effort to resolve amicably such dispute or difference by mutual consultation.

- 21.2. If the Contractor believes that a decision taken by the PROCURING ENTITY's Representative was either outside the authority given to the PROCURING ENTITY's Representative by this Contract or that the decision was wrongly taken, the decision shall be referred to the Arbiter indicated in the **SCC** within fourteen (14) days of the notification of the PROCURING ENTITY's Representative's decision.
- 21.3. Any and all disputes arising from the implementation of this Contract covered by the R.A. 9184 and its IRR shall be submitted to arbitration in the Philippines according to the provisions of Republic Act No. 876, otherwise known as the " Arbitration Law" and Republic Act 9285, otherwise known as the "Alternative Dispute Resolution Act of 2004": *Provided, however,* That, disputes that are within the competence of the Construction Industry Arbitration Commission to resolve shall be referred thereto. The process of arbitration shall be incorporated as a provision in this Contract that will be executed pursuant to the provisions of the Act and its IRR: *Provided, further,* That, by mutual agreement, the parties may agree in writing to resort to other alternative modes of dispute resolution.

22. Suspension of Loan, Credit, Grant, or Appropriation

In the event that the Funding Source suspends the Loan, Credit, Grant, or Appropriation to the Procuring Entity, from which part of the payments to the Contractor are being made:

- (a) The Procuring Entity is obligated to notify the Contractor of such suspension within seven (7) days of having received the suspension notice.
- (b) If the Contractor has not received sums due it for work already done within forty five (45) days from the time the Contractor's claim for payment has been certified by the Procuring Entity's Representative, the Contractor may immediately issue a suspension of work notice in accordance with **GCC** Clause 45.2.

23. Procuring Entity's Representative's Decisions

- 23.1. Except where otherwise specifically stated, the Procuring Entity's Representative will decide contractual matters between the Procuring Entity and the Contractor in the role representing the Procuring Entity.
- 23.2. The Procuring Entity's Representative may delegate any of his duties and responsibilities to other people except to the Arbiter, after notifying the Contractor, and may cancel any delegation after notifying the Contractor.

24. Approval of Drawings and Temporary Works by the Procuring Entity's Representative

- 24.1. All Drawings prepared by the Contractor for the execution of the Temporary Works, are subject to prior approval by the Procuring Entity's Representative before its use.
- 24.2. The Contractor shall be responsible for design of Temporary Works.

24.3. The Procuring Entity's Representative's approval shall not alter the Contractor's responsibility for design of the Temporary Works.

24.4. The Contractor shall obtain approval of third parties to the design of the Temporary Works, when required by the Procuring Entity.

25. Acceleration and Delays Ordered by the Procuring Entity's Representative

25.1. When the Procuring Entity wants the Contractor to finish before the Intended Completion Date, the Procuring Entity's Representative will obtain priced proposals for achieving the necessary acceleration from the Contractor. If the Procuring Entity accepts these proposals, the Intended Completion Date will be adjusted accordingly and confirmed by both the Procuring Entity and the Contractor.

25.2. If the Contractor's Financial Proposals for acceleration are accepted by the Procuring Entity, they are incorporated in the Contract Price and treated as a Variation.

26. Extension of the Intended Completion Date

26.1. The Procuring Entity's Representative shall extend the Intended Completion Date if a Variation is issued which makes it impossible for the Intended Completion Date to be achieved by the Contractor without taking steps to accelerate the remaining work, which would cause the Contractor to incur additional costs. No payment shall be made for any event which may warrant the extension of the Intended Completion Date.

26.2. The Procuring Entity's Representative shall decide whether and by how much to extend the Intended Completion Date within twenty one (21) days of the Contractor asking the Procuring Entity's Representative for a decision thereto after fully submitting all supporting information. If the Contractor has failed to give early warning of a delay or has failed to cooperate in dealing with a delay, the delay by this failure shall not be considered in assessing the new Intended Completion Date.

27. Right to Vary

27.1. The Procuring Entity's Representative with the prior approval of the Procuring Entity may instruct Variations, up to a maximum cumulative amount of ten percent (10%) of the original contract cost.

27.2. Variations shall be valued as follows:

- (a) At a lump sum price agreed between the parties;
- (b) where appropriate, at rates in this Contract;
- (c) in the absence of appropriate rates, the rates in this Contract shall be used as the basis for valuation; or failing which

- (d) at appropriate new rates, equal to or lower than current industry rates and to be agreed upon by both parties and approved by the Head of the Procuring Entity.

28. Contractor's Right to Claim

If the Contractor incurs cost as a result of any of the events under **GCC** Clause 13, the Contractor shall be entitled to the amount of such cost. If as a result of any of the said events, it is necessary to change the Works, this shall be dealt with as a Variation.

29. Dayworks

29.1. Subject to **GCC** Clause 43 on Variation Order, and if applicable as indicated in the **SCC**, the Dayworks rates in the Contractor's Bid shall be used for small additional amounts of work only when the Procuring Entity's Representative has given written instructions in advance for additional work to be paid for in that way.

29.2. All work to be paid for as Dayworks shall be recorded by the Contractor on forms approved by the Procuring Entity's Representative. Each completed form shall be verified and signed by the Procuring Entity's Representative within two days of the work being done.

29.3. The Contractor shall be paid for Dayworks subject to obtaining signed Dayworks forms.

30. Early Warning

30.1. The Contractor shall warn the Procuring Entity's Representative at the earliest opportunity of specific likely future events or circumstances that may adversely affect the quality of the work, increase the Contract Price, or delay the execution of the Works. The Procuring Entity's Representative may require the Contractor to provide an estimate of the expected effect of the future event or circumstance on the Contract Price and Completion Date. The estimate shall be provided by the Contractor as soon as reasonably possible.

30.2. The Contractor shall cooperate with the Procuring Entity's Representative in making and considering proposals for how the effect of such an event or circumstance can be avoided or reduced by anyone involved in the work and in carrying out any resulting instruction of the Procuring Entity's Representative.

31. Program of Work

31.1. Within the time stated in the **SCC**, the Contractor shall submit to the Procuring Entity's Representative for approval a Program of Work showing the general methods, arrangements, order, and timing for all the activities in the Works.

- 31.2. An update of the Program of Work shall show the actual progress achieved on each activity and the effect of the progress achieved on the timing of the remaining work, including any changes to the sequence of the activities.
- 31.3. The Contractor shall submit to the Procuring Entity's Representative for approval an updated Program of Work at intervals no longer than the period stated in the **SCC**. If the Contractor does not submit an updated Program of Work within this period, the Procuring Entity's Representative may withhold the amount stated in the **SCC** from the next payment certificate and continue to withhold this amount until the next payment after the date on which the overdue Program of Work has been submitted.
- 31.4. The Procuring Entity's Representative's approval of the Program of Work shall not alter the Contractor's obligations. The Contractor may revise the Program of Work and submit it to the Procuring Entity's Representative again at any time. A revised Program of Work shall show the effect of any approved Variations.
- 31.5. When the Program of Work is updated, the Contractor shall provide the Procuring Entity's Representative with an updated cash flow forecast. The cash flow forecast shall include different currencies, as defined in the Contract, converted as necessary using the Contract exchange rates.
- 31.6. All Variations shall be included in updated Program of Work produced by the Contractor.

32. Management Conferences

- 32.1. Either the Procuring Entity's Representative or the Contractor may require the other to attend a Management Conference. The Management Conference shall review the plans for remaining work and deal with matters raised in accordance with the early warning procedure.
- 32.2. The Procuring Entity's Representative shall record the business of Management Conferences and provide copies of the record to those attending the Conference and to the Procuring Entity. The responsibility of the parties for actions to be taken shall be decided by the PROCURING ENTITY's Representative either at the Management Conference or after the Management Conference and stated in writing to all who attended the Conference.

33. Bill of Quantities

- 33.1. The Bill of Quantities shall contain items of work for the construction, installation, testing, and commissioning of work to be done by the Contractor.
- 33.2. The Bill of Quantities is used to calculate the Contract Price. The Contractor is paid for the quantity of the work done at the rate in the Bill of Quantities for each item.

- 33.3. If the final quantity of any work done differs from the quantity in the Bill of Quantities for the particular item and is not more than twenty five percent (25%) of the original quantity, provided the aggregate changes for all items do not exceed fifteen percent (15%) of the Contract price, the Procuring Entity's Representative shall make the necessary adjustments to allow for the changes subject to applicable laws, rules, and regulations.
- 33.4. If requested by the Procuring Entity's Representative, the Contractor shall provide the Procuring Entity's Representative with a detailed cost breakdown of any rate in the Bill of Quantities.

34. Instructions, Inspections and Audits

- 34.1. The Procuring Entity's and the funding source personnel shall at all reasonable times during construction of the Work be entitled to examine, inspect, measure and test the materials and workmanship, and to check the progress of the construction.
- 34.2. If the Procuring Entity's Representative instructs the Contractor to carry out a test not specified in the Specification to check whether any work has a defect and the test shows that it does, the Contractor shall pay for the test and any samples. If there is no defect, the test shall be a Compensation Event as stated in the SCC.
- 34.3. The Contractor shall permit the Funding Source named in the SCC to inspect at any time the Contractor's accounts and records relating to the performance of the Contractor and to have them audited by auditors appointed by the Funding Source, if so required by the Funding Source.

35. Identifying Defects

The Procuring Entity's Representative shall check the Contractor's work and notify the Contractor of any defects that are found. Such checking shall not affect the Contractor's responsibilities. The Procuring Entity's Representative may instruct the Contractor to search uncover defects and test any work that the Procuring Entity's Representative considers below standards and defective.

36. Cost of Repairs

Loss or damage to the Works or Materials to be incorporated in the Works between the Start Date and the end of the Defects Liability Period shall be remedied by the Contractor at the Contractor's cost if the loss or damage arises from the Contractor's acts or omissions.

37. Correction of Defects

- 37.1. The Procuring Entity's Representative shall give notice to the Contractor of any defects before the end of the Defects Liability Period, which is One (1) year from its completion up to final acceptance by the Procuring Entity.

- 37.2. Every time notice of a defect is given, the Contractor shall correct the notified defect within the length of time specified in the Procuring Entity's Representative's notice.
- 37.3. The Contractor shall correct the defects which he notices himself before the end of the Defects Liability Period.
- 37.4. The Procuring Entity shall certify that all defects have been corrected. If the Procuring Entity considers that correction of a defect is not essential, he can request the Contractor to submit a quotation for the corresponding reduction in the Contract Price. If the Procuring Entity accepts the quotation, the corresponding change in the SCC is a Variation.

38. Uncorrected Defects

- 38.1. The Procuring Entity shall give the Contractor at least fourteen (14) days notice of his intention to use a third party to correct a Defect. If the Contractor does not correct the Defect himself within the period, the Procuring Entity may have the Defect corrected by the third party. The cost of the correction will be deducted from the Contract Price.
- 38.2. The use of a third party to correct defects that are uncorrected by the Contractor will in no way relieve the Contractor of its liabilities and warranties under the Contract.

39. Advance Payment

- 39.1. The Procuring Entity through **PRMF-SC** shall, upon a written request of the contractor which shall be submitted as a contract document, make advance payment to the contractor in an amount not exceeding fifteen percent (15%) of the total contract price, to be made in lump sum or, at the most two, installments according to a schedule specified in the **SCC**.
- 39.2. The Advance payment shall be made only upon the submission to and acceptance by the **PRMF-SC** of an irrevocable standby letter of credit of equivalent value from a commercial bank, or a bank guarantee.
- 39.3. The Advance payment shall be repaid by the Contractor by an amount equal to the percentage of the total contract price used for the advance payment.
- 39.4. The contractor may reduce his standby letter of credit or guarantee instrument by the amounts refunded by the Monthly Certificates in the Advance payment.
- 39.5. The Procuring entity through **PRMF-SC** will provide Advance Payment on the Contract Price as stipulated in the Conditions of Contract, subject to the maximum amount stated in **SCC** Clause 39.1.

40. Progress Payments

- 40.1. The Contractor may submit a request for payment for Work accomplished. Such request for payment shall be verified and certified by the Procuring Entity's Representative. Except as otherwise stipulated in the **SCC**, materials and equipment delivered on the site but not completely put in place shall not be included for payment.
- 40.2. The **PRMF-SC** shall deduct the following from the certified gross amounts to be paid to the contractor as progress payment:
- (a) Cumulative value of the work previously certified and paid for.
 - (b) Portion of the advance payment to be recouped for the month.
 - (c) Retention money in accordance with the condition of contract.
 - (d) Amount to cover third party liabilities.
 - (e) Amount to cover uncorrected discovered defects in the works.
- 40.3. Payments shall be adjusted by deducting therefrom the amounts for advance payments and retention. The Procuring Entity through **PRMF-SC** shall pay the Contractor the amounts certified by the Procuring Entity's Representative within **thirty (30) days** from the date each certificate was issued. No payment of interest for delayed payments and adjustments shall be made by the Procuring Entity through **PRMF-SC**.
- 40.4. The first progress payment may be paid by the Procuring Entity through **PRMF-SC** to the Contractor provided that at least twenty percent (20%) of the work has been accomplished as certified by the Procuring Entity's Representative.
- 40.5. Items of the Works for which a price of "0" (zero) has been entered will not be paid for by the Procuring Entity through **PRMF-SC** and shall be deemed covered by other rates and prices in the Contract.

41. Payment Certificates

- 41.1. The Contractor shall submit to the Procuring Entity's Representative monthly statements of the estimated value of the work executed less the cumulative amount certified previously.
- 41.2. The Procuring Entity's Representative shall check the Contractor's monthly statement and certify the amount to be paid to the Contractor.
- 41.3. The value of Work executed shall:
- (a) be determined by the Procuring Entity's through PRMF-SC Representative;

(b) comprise the value of the quantities of the items in the Bill of Quantities completed; and

(c) Include the valuations of approved variations.

41.4. The Procuring Entity's Representative may exclude any item certified in a previous certificate or reduce the proportion of any item previously certified in any certificate in the light of later information.

42. Retention

42.1. The Procuring Entity through **PRMF-SC** shall retain from each payment due to the Contractor an amount equal to a percentage thereof using the rate as specified in **GCC** Sub-Clause 42.2.

42.2. Progress payments are subject to retention of ten percent (10%), referred to as the "retention money." Such retention shall be based on the total amount due to the Contractor prior to any deduction and shall be retained from every progress payment until fifty percent (50%) of the value of Works, as determined by the Procuring Entity, are completed. If, after fifty percent (50%) completion, the Work is satisfactorily done and on schedule, no additional retention shall be made; otherwise, the ten percent (10%) retention shall again be imposed using the rate specified therefor.

42.3. The total "retention money" shall be due for release upon final acceptance of the Works. The Contractor may, however, request the substitution of the retention money for each progress billing with irrevocable standby letters of credit from a commercial bank, and bank guarantees of amounts equivalent to the retention money substituted for and acceptable to the Procuring Entity through **PRMF-SC** provided that the project is on schedule and is satisfactorily undertaken. Otherwise, the ten (10%) percent retention shall be made. Said irrevocable standby letters of credit, and/or bank guarantees, to be posted in favor of the Procuring Entity shall be valid for a duration to be determined by the concerned implementing office/agency or Procuring Entity and will answer for the purpose for which the ten (10%) percent retention is intended, *i.e.*, to cover uncorrected discovered defects and third party liabilities.

42.4. On completion of the whole Works, the Contractor may substitute retention money with an "on demand" Bank guarantee in a form acceptable to the Procuring Entity.

43. Variation Orders

43.1. Variation Orders may be issued by the Procuring Entity to cover any increase/decrease in quantities, including the introduction of new work items that are not included in the original contract or reclassification of work items that are either due to change of plans, design or alignment to suit actual field conditions resulting in disparity between the preconstruction plans used for purposes of

bidding and the “as staked plans” or construction drawings prepared after a joint survey by the Contractor and the Procuring Entity after award of the contract. All contracts including variation/amendments will be subject to prior review and issuance of a No objection Letter (NOL) by the FMG-FD through the PRMF-SC, The FMG-FD will carry out the review of documents and provide the NOL to the Procuring Entity. The addition/deletion of Works should be within the general scope of the project as bid and awarded. The scope of works shall not be reduced so as to accommodate a positive Variation Order. A Variation Order may either be in the form of a Change Order or Extra Work Order.

- 43.2. A Change Order may be issued by the Procuring Entity to cover any increase/decrease in quantities of original Work items in the contract.
- 43.3. An Extra Work Order may be issued by the Procuring Entity to cover the introduction of new work necessary for the completion, improvement or protection of the project which were not included as items of Work in the original contract, such as, where there are subsurface or latent physical conditions at the site differing materially from those indicated in the contract, or where there are duly unknown physical conditions at the site of an unusual nature differing materially from those ordinarily encountered and generally recognized as inherent in the Work or character provided for in the contract.
- 43.4. Any cumulative Variation Order beyond ten percent (10%) shall be subject of another contract to be bid out if the works are separable from the original contract. In exceptional cases where it is urgently necessary to complete the original scope of work, the Head of the Procuring Entity may authorize a positive Variation Order go beyond ten percent (10%). *Provided, however,* that appropriate sanctions shall be imposed on the designer, consultant or official responsible for the original detailed engineering design which failed to consider the Variation Order beyond ten percent (10%).
- 43.5. In claiming for any Variation Order, the Contractor shall, within seven (7) calendar days after such work has been commenced or after the circumstances leading to such condition(s) leading to the extra cost, and within twenty-eight (28) calendar days deliver a written communication giving full and detailed particulars of any extra cost in order that it may be investigated at that time. Failure to provide either of such notices in the time stipulated shall constitute a waiver by the contractor for any claim. The preparation and submission of Variation Orders are as follows:
 - (a) If the Procuring Entity’s representative/Project Engineer believes that a Change Order or Extra Work Order should be issued, he shall prepare the proposed Order accompanied with the notices submitted by the Contractor, the plans therefor, his computations as to the quantities of the additional works involved per item indicating the specific stations where such works are needed, the date of his inspections and investigations thereon, and the log book thereof, and a detailed estimate of the unit cost of such items of work,

together with his justifications for the need of such Change Order or Extra Work Order, and shall submit the same to the Head of the Procuring Entity for approval.

- (b) The Head of the Procuring Entity or his duly authorized representative, upon receipt of the proposed Change Order or Extra Work Order shall immediately instruct the technical staff of the Procuring Entity's to conduct an on-the-spot investigation to verify the need for the Work to be prosecuted. A report of such verification shall be submitted directly to the Head of the Procuring Entity or his duly authorized representative.
- (c) The Head of the Procuring Entity or his duly authorized representative, after being satisfied that such Change Order or Extra Work Order is justified and necessary shall review the estimated quantities and prices and forward the proposal with the supporting documentation to the Head of Procuring Entity for consideration.
- (d) If, after review of the plans, quantities and estimated unit cost of the items of work involved, the proper office of the procuring entity empowered to review and evaluate Change Orders or Extra Work Orders recommends approval thereof, Head of the Procuring Entity or his duly authorized representative, believing the Change Order or Extra Work Order to be in order, shall approve the same.
- (e) The timeframe for the processing of Variation Orders from the preparation up to the approval by the Head of the Procuring Entity concerned shall not exceed thirty (30) calendar days.

44. Contract Completion

Once the Project reaches an accomplishment of ninety five percent (95%) of the total contract amount, the Procuring Entity may create an inspectorate team to make preliminary inspection and submit a punch-list to the Contractor in preparation for the final turnover of the Project. Said punch-list will contain, among others, the remaining Works, Work deficiencies for necessary corrections, and the specific duration/time to fully complete the Project considering the approved remaining contract time. This, however, shall not preclude the claim of the Procuring Entity for liquidated damages.

45. Suspension of Work

45.1. The Procuring Entity shall have the authority to suspend the work wholly or partly by written order for such period as may be deemed necessary, due to *force majeure* or any fortuitous events or for failure on the part of the Contractor to correct bad conditions which are unsafe for workers or for the general public, to carry out valid orders given by the Procuring Entity or to perform any provisions of the contract, or due to adjustment of plans to suit field conditions as found necessary during

construction. The Contractor shall immediately comply with such order to suspend the work wholly or partly.

- 45.2. The Contractor or its duly authorized representative shall have the right to suspend work operation on any or all projects/activities along the critical path of activities after fifteen (15) calendar days from date of receipt of written notice from the Contractor to the district engineer/regional director/consultant or equivalent official, as the case may be, due to the following:
- (a) There exist right-of-way problems which prohibit the Contractor from performing work in accordance with the approved construction schedule.
 - (b) Requisite construction plans which must be owner-furnished are not issued to the contractor precluding any work called for by such plans.
 - (c) Peace and order conditions make it extremely dangerous, if not possible, to work. However, this condition must be certified in writing by the Philippine National Police (PNP) station which has responsibility over the affected area and confirmed by the Department of Interior and Local Government (DILG) Regional Director.
 - (d) There is failure on the part of the Procuring Entity to deliver government-furnished materials and equipment as stipulated in the contract.
 - (e) Delay in the payment of Contractor's claim for progress billing **beyond thirty (30)** calendar days from the time the Contractor's claim has been certified to by the procuring entity's authorized representative that the documents are complete unless there are justifiable reasons thereof which shall be communicated in writing to the Contractor.
- 45.3. In case of total suspension, or suspension of activities along the critical path, which is not due to any fault of the Contractor, the elapsed time between the effective order of suspending operation and the order to resume work shall allow the Contractor by adjusting the contract time accordingly.

46. Payment on Termination

- 46.1. If the Contract is terminated because of a fundamental breach of Contract by the Contractor, the Procuring Entity's Representative shall issue a certificate for the value of the work done and Materials ordered less advance payments received up to the date of the issue of the certificate and less the percentage to apply to the value of the work not completed, as indicated in the **SCC**. Additional Liquidated Damages shall not apply. If the total amount due to the Procuring Entity exceeds any payment due to the Contractor, the difference shall be a debt payable to the Procuring Entity.
- 46.2. If the Contract is terminated for the Procuring Entity's convenience or because of a fundamental breach of Contract by the Procuring Entity, the Procuring Entity's

Representative shall issue a certificate for the value of the work done, Materials ordered, the reasonable cost of removal of Equipment, repatriation of the Contractor's personnel employed solely on the Works, and the Contractor's costs of protecting and securing the Works, and less advance payments received up to the date of the certificate.

- 46.3. The net balance due shall be paid or repaid within twenty eight (28) days from the notice of termination.
- 46.4. If the Contractor has terminated the Contract under **GCC** Clauses 17 or 18, the Procuring Entity shall promptly return the Performance Security to the Contractor.

47. Extension of Contract Time

- 47.1. Should the amount of additional work of any kind or other special circumstances of any kind whatsoever occur such as to fairly entitle the contractor to an extension of contract time, the Procuring Entity shall determine the amount of such extension; provided that the Procuring Entity is not bound to take into account any claim for an extension of time unless the Contractor has, prior to the expiration of the contract time and within thirty (30) calendar days after such work has been commenced or after the circumstances leading to such claim have arisen, delivered to the Procuring Entity notices in order that it could have investigated them at that time. Failure to provide such notice shall constitute a waiver by the Contractor of any claim. Upon receipt of full and detailed particulars, the Procuring Entity shall examine the facts and extent of the delay and shall extend the contract time completing the contract work when, in the Procuring Entity's opinion, the findings of facts justify an extension.
- 47.2. No extension of contract time shall be granted the Contractor due to (a) ordinary unfavorable weather conditions and (b) inexcusable failure or negligence of Contractor to provide the required equipment, supplies or materials.
- 47.3. Extension of contract time may be granted only when the affected activities fall within the critical path of the PERT/CPM network.
- 47.4. No extension of contract time shall be granted when the reason given to support the request for extension was already considered in the determination of the original contract time during the conduct of detailed engineering and in the preparation of the contract documents as agreed upon by the parties before contract perfection.
- 47.5. Extension of contract time shall be granted for rainy/unworkable days considered unfavorable for the prosecution of the works at the site, based on the actual conditions obtained at the site, in excess of the number of rainy/unworkable days pre-determined by the Procuring Entity in relation to the original contract time during the conduct of detailed engineering and in the preparation of the contract documents as agreed upon by the parties before contract perfection, and/or for equivalent period of delay due to major calamities such as exceptionally destructive

typhoons, floods and earthquakes, and epidemics, and for causes such as non-delivery on time of materials, working drawings, or written information to be furnished by the Procuring Entity, non-acquisition of permit to enter private properties within the right-of-way resulting in complete stoppage of construction activities, and other meritorious causes as determined by the Procuring Entity's Representative and approved by the Head of the Procuring Entity. Shortage of construction materials, general labor strikes, and peace and order problems that disrupt construction operations through no fault of the Contractor may be considered as additional grounds for extension of contract time provided they are publicly felt and certified by appropriate government agencies such as DTI, DOLE, DILG, and DND, among others. The written consent of bondsmen must be attached to any request of the Contractor for extension of contract time and submitted to the Procuring Entity for consideration and the validity of the Performance Security shall be correspondingly extended.

48. Price Adjustment

Except for extraordinary circumstances as determined by NEDA and approved by the GPPB, no price adjustment shall be allowed. Nevertheless, in cases where the cost of the awarded contract is affected by any applicable new laws, ordinances, regulations, or other acts of the GOP, promulgated after the date of bid opening, a contract price adjustment shall be made or appropriate relief shall be applied on a no loss-no gain basis.

49. Completion

The Contractor shall request the Procuring Entity's Representative to issue a certificate of Completion of the Works, and the Procuring Entity's Representative will do so upon deciding that the work is completed.

50. Taking Over

The Project Owner shall take over the Site within seven (7) days from the date the Procuring Entity's Representative issues a certificate of completion and acceptance of the project.

51. Operating and Maintenance Manuals

- 51.1. If "as built" Drawings and/or operating and maintenance manuals are required, the Contractor shall supply them by the dates stated in the SCC.
- 51.2. If the Contractor does not supply the Drawings and or Manuals by the dates stated in SCC, or they do not receive the Procuring Entity's Representative's approval, the Procuring Entity's Representative shall withhold the amount stated in the SCC from payments due to the Contractor.

Section V: Special Conditions of Contract (SCC)

GCC Clause	
1.15	The Intended Completion Date shall be 3 months, exclusive of fifty (50) rainy/unworkable days, after the effectivity date.
1.20	The Procuring Entity is: the Department of the Interior and Local Government (DILG) Regional Office XIII.
1.21	The Procuring Entity's Representative will be the person designated by the HOPE.
1.22	The Site is located in Agusan del Sur and is defined in drawings No. G-02 .
1.26	The Start Date is the effectivity date indicated in the Notice to Proceed.
1.29	The Works consist of the following: earthworks, preparation of sub base course, construction of head wall and canal lining, drainage works, provision of miscellaneous structures, and special items.
2.2	Not applicable.
5.1	The Procuring Entity , through the Project Owner, the Provincial Government of Agusan del Sur, shall give possession of all parts of the Site to the Contractor on the start date.
6.5	<p>The Contractor shall employ the following Key Personnel who shall be assigned exclusively to the Project for the duration of the contract:</p> <p style="padding-left: 40px;">Project Manager (with at least 5 years similar experience), Project Engineer (must be a licensed Civil Engineer with at least 3 years similar experience), Materials Engineer (must be a licensed Engineer accredited with the DPWH and with at least 1 year similar experience), Survey Engineer (with at least 2 years similar experience) Safety Officer (with at least 2 years similar experience and with Certificate of Training on Occupational Safety and Health or other related training) and a Foreman (with at least 5 years similar experience).</p> <p>Each key position shall be filled up by different individuals.</p>
7.4(c)	No further instructions.
7.7	No further instructions.
8.1	Subcontracting is not allowed.
10	The site investigation reports are: none

GCC Clause	
12.2	The Defects Liability Period (DLP) shall be 12 months from its completion.
12.3	No further instructions.
12.5	The warranty period for Semi-permanent Structures such as box culvert, pipe culvert, drainage lined canal, slope protection, and PCCP, is five (5) years.
12.6	Warranty Security shall apply only to Semi-permanent structures.
13	No additional provision.
18.3(h)(i)	No further instructions.
21.2	The Arbiter is: Construction Industry Arbitration Commission 2 nd Floor, Executive Building Center 369 Sen. Gil Puyat Avenue corner Makati Avenue Makati City
29.1	Dayworks are not applicable.
31.1	The Contractor shall submit the Program of Work to the Procuring Entity's Representative within seven (7) days from receipt of Notice of Award (NOA) by the bidder.
31.3	The submission of an updated Program of Work, including Construction Schedule and Quality Control Plan, due to contract amendments shall be within seven (7) days after Contractor's receipt of Notice from Procuring Entity The amount to be withheld for late submission of an updated Program of Work is Php 100,000.00.
34.2	The compensation event may result in contract price increase and/ or extension of contract time.
34.3	The Funding Sources are the Australian Agency for International Development (<i>AusAID</i>) and the Provincial Government of Agusan del Sur.
39.1	The amount of the Advance payment is not to exceed 15% of the total contract amount to be made in lump sum.
40.1	No further instructions.
42.3	The retention money shall be due for release after the defects liability period and issuance of the Certificate of Final Acceptance by the Procuring Entity.

GCC Clause	
51.1	The date by which “as built” drawings are required is not later than seven (7) calendar days from the issuance of Certificate of Completion.
51.2	The amount to be withheld for failing to produce “as built” drawings and/or operating and maintenance manuals by the date required is equivalent to the final payment.

Section VI: Specifications

Technical specifications are annexed in a separate folder.

Section VII: Drawings

The actual Drawings, including site plans, are annexed in a separate folder.

Section VIII: Bill of Quantities

Project : Rehabilitation and Minor Improvement of NRJ-Patin-ay-Lucac-Pisaan Road

Contract Reference : PW-ADS-14-01

Location : Agusan del Sur

Length: 3.00 kms :

PAY ITEM NO.	DESCRIPTION	UNIT	QUANTITY	UNIT COST	BID PRICE
(1)	(2)	(3)	(4)	(5)	(6)
Part B – Other General Requirements					
B.1	Mobilization and Demobilization	Lot	1.00		
B.2	Setting Out and Staking	Lot	1.00		
B.3	Construction Health and Safety Requirements and Environmental Monitoring	Lot	1.00		
B.4	Monthly Progress Report and Schedule Of Works	Lot	1.00		
B.5	Project Sign Board	Each	2.00		
	Sub-total				
Part C – Earthworks					
100(1)	Clearing and Grubbing	Hectare	1.20		
102(2)	Surplus Common Excavation	Cubic meter	1,216.00		
103(3)	Foundation Fill/Gravel Bed	Cubic meter	1.50		
104(2)	Embankment from Borrow	Cubic meter	111.00		
105(2)	Subgrade Preparation (existing pavement)	Square meter	10,500.00		
	Sub-total				
Part D – Sub-base and Base Course					
201	Aggregate Base Course	Cubic meter	2,655.00		
	Sub-total				
Part F – Box Culvert and Headwall					
404(1)	Reinforcing Steel Bars (Grade 40)	Kilograms	128.00		
405(2)	Structural Concrete Class A (fc'=17MPa)	Cubic meter	8.24		
	Sub-total				
Part G – Drainage and Slope Protection Structures					

504(3)b	Cleaning Pipe Culvert in place (910mm dia & up)	Ln.m	28.00		
505 (5)	Grouted Riprap/Slope protection (Class A)	Kilograms	246.00		
506	Stone Masonry	Cubic meter	182.40		
	Sub-total				
Part H- Miscellaneous Structures					
603(3)a	Metal Guardrail –Class A, Type I (Metal Beam), including concrete post	Ln.m	174.12		
	a. Lucac-Pisaan section (647.44 meters)				
	b. Pisaan – Tagapua section (106.68 meters)				
603(3)b	Metal Guardrail End Piece	Pcs	16.00		
	a. Lucac-Pisaan section (12.00 meters)				
	b. Pisaan – Tagapua section (4.00 meters)				
605(1)a	Warning Signs (Triangular)	Each	33.00		
	a. Lucac-Pisaan section (9.00 meters)				
	b. Pisaan – Tagapua section (24.00 meters)				
605(2)a	Regulatory Signs	Each	6.00		
	a. Lucac-Pisaan section (4.00 meters)				
	b. Pisaan – Tagapua section (2.00 meters)				
605(4)	Project Information Sign	Each	1.00		
	Sub-total				
	Total				

BID COST SUMMARY:

COMPONENT	BID AMOUNT (PHP)
A. General Requirements	
B. Parts C to I	
C. Total Cost (A+B)	

Section IX: Bidding Forms

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Bid Form

Date: _____

To: *The Chairperson*
Special Bids and Awards Committee

We, the undersigned, declare that:

- (a) We have examined and have no reservation to the Bidding Documents, including Addenda, for the **Rehabilitation and Minor Improvement of NRJ-Patin-ay-Lucac-Pisaan Road (PW-ADS-14-01)**;
- (b) We offer to execute the Works for this Contract in accordance with the Bid and Bid Data Sheet, General and Special Conditions of Contract accompanying this Bid;
The total price of our Bid is: *[insert information]*;
- (c) Our Bid shall be valid for a period of 120 days from the date fixed for the Bid submission deadline in accordance with the Bidding Documents, and it shall remain binding upon us and may be accepted at any time before the expiration of that period;
- (d) If our Bid is accepted, we commit to obtain a Performance Security in the amount of *[insert percentage amount]* percent of the Contract Price for the due performance of the Contract;
- (e) Our firm, including any subcontractors or suppliers for any part of the Contract, have nationalities from the following eligible countries: *[insert information]*;
- (f) We are not participating, as Bidders, in more than one Bid in this bidding process, other than alternative offers in accordance with the Bidding Documents;
- (g) Our firm, its affiliates or subsidiaries, including any subcontractors or suppliers for any part of the Contract, has not been declared ineligible by the Funding Source;
- (h) We understand that this Bid, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us, until a formal Contract is prepared and executed; and
- (i) We understand that you are not bound to accept the Lowest Calculated Bid or any other Bid that you may receive.

Name: _____

In the capacity of: _____

Signed: _____

Duly authorized to sign the Bid for and on behalf of: _____

Date: _____

Form of Contract Agreement

THIS AGREEMENT, made this *[insert date]* day of *[insert month]*, *[insert year]* between DILG Regional Office XIII located along 1559 Aquino Ave., Km4, Libertad, Butuan City hereinafter called the “Entity”) and *[name and address of Contractor]* (hereinafter called the “Contractor”).

WHEREAS, the Entity is desirous that the Contractor execute the Rehabilitation and Minor Improvement of Rehabilitation and Minor Improvement of NRJ-Patin-ay-Lucac-Pisaan Road (PW-ADS-14-01) and the Entity has accepted the Bid for *[insert the amount in specified currency in numbers and words]* by the Contractor for the execution and completion of such Works and the remedying of any defects therein.

NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

1. In this Agreement, words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract hereinafter referred to.
2. The following documents shall be attached, deemed to form, and be read and construed as part of this Agreement, to wit:
 - (a) General and Special Conditions of Contract;
 - (b) Drawings/Plans;
 - (c) Specifications;
 - (d) Invitation to Bid;
 - (e) Instructions to Bidders (ITB);
 - (f) Bid Data Sheet (BDS)
 - (g) Addenda and/or Supplemental/Bid Bulletins, if any;
 - (h) Bid form, including all the documents/statements contained in the Bidder’s bidding envelopes, as annexes;
 - (i) Eligibility requirements, documents and/or statements;
 - (j) Performance Security;
 - (k) Notice of Award of Contract and the Bidder’s conforme thereto;
 - (l) Other contract documents that may be required by existing laws and/or the Entity.
3. In consideration of the payments to be made by the Provincial Road Management Facility (PRMF) to the Contractor as hereinafter mentioned, the Contractor hereby covenants with the Entity to execute and complete the Works and remedy any defects therein in conformity with the provisions of this Contract in all respects.

4. The Entity hereby covenants to review and sign billing for satisfactory works claimed by the Contractor in consideration of the execution and completion of the Works and the remedying of defects wherein, the Contract Price or such other sum as may become payable under the provisions of this Contract at the times and in the manner prescribed by this Contract, for payment by the PRMF in accordance with the Memorandum of Subsidiary Arrangement signed between the Philippine Government represented by DILG and the Government of Australia and as provided for in Section 7, DILG Memorandum Circular No. 14, series of 2013.

IN WITNESS whereof, the parties thereto have caused this Agreement to be executed the day and year first before written.

Binding Signature of PROCURING ENTITY

Witness:

Binding Signature of Contractor

Witness:

Omnibus Sworn Statement

(REPUBLIC OF THE PHILIPPINES)

CITY/MUNICIPALITY OF _____) S.S.

AFFIDAVIT

I, *[Name of Affiant]*, of legal age, *[Civil Status]*, *[Nationality]*, and residing at *[Address of Affiant]*, after having been duly sworn in accordance with law, do hereby depose and state that:

1. **Select one, delete the other:**

If a sole proprietorship: I am the sole proprietor of *[Name of Bidder]* with office address at *[address of Bidder]*;

If a partnership, corporation, cooperative, or joint venture: I am the duly authorized and designated representative of *[Name of Bidder]* with office address at *[address of Bidder]*;

2. **Select one, delete the other:**

If a sole proprietorship: As the owner and sole proprietor of *[Name of Bidder]*, I have full power and authority to do, execute and perform any and all acts necessary to represent it in the bidding for the Rehabilitation and Minor Improvement of NRJ-Patin-ay-Lucac Pisaan Road of the DILG Regional Office XIII;

If a partnership, corporation, cooperative, or joint venture: I am granted full power and authority to do, execute and perform any and all acts necessary and/or to represent the *[Name of Bidder]* in the bidding as shown in the attached *[state title of attached document showing proof of authorization (e.g., duly notarized Secretary's Certificate issued by the corporation or the members of the joint venture)]*;

3. *[Name of Bidder]* is not "blacklisted" or barred from bidding by the Government of the Philippines or any of its agencies, offices, corporations, or Local Government Units, foreign government/foreign or international financing institution whose blacklisting rules have been recognized by the Government Procurement Policy Board;

4. Each of the documents submitted in satisfaction of the bidding requirements is an authentic copy of the original, complete, and all statements and information provided therein are true and correct;

5. *[Name of Bidder]* is authorizing the Head of the Procuring Entity or its duly authorized representative(s) to verify all the documents submitted;

6. **Select one, delete the rest:**

If a sole proprietorship: I am not related to the Head of the Procuring Entity, members of the Special Bids and Awards Committee (SBAC), the Special Technical Working Group, and the SBAC Secretariat, the Head of the Project Management Office or the end-user unit, and the project consultants by consanguinity or affinity up to the third civil degree;

If a partnership or cooperative: None of the officers and members of [Name of Bidder] is related to the Head of the Procuring Entity, members of the Special Bids and Awards Committee (SBAC), the Special Technical Working Group, and the SBAC Secretariat, the Head of the Project Management Office or the end-user unit, and the project consultants by consanguinity or affinity up to the third civil degree;

If a corporation or joint venture: None of the officers, directors, and controlling stockholders of [Name of Bidder] is related to the Head of the Procuring Entity, members of the Special Bids and Awards Committee (SBAC), the Special Technical Working Group, and the SBAC Secretariat, the Head of the Project Management Office or the end-user unit, and the project consultants by consanguinity or affinity up to the third civil degree;

7. [Name of Bidder] complies with existing labor laws and standards; and
8. [Name of Bidder] is aware of and has undertaken the following responsibilities as a Bidder:
 - a) Carefully examine all of the Bidding Documents;
 - b) Acknowledge all conditions, local or otherwise, affecting the implementation of the Contract;
 - c) Made an estimate of the facilities available and needed for the contract to be bid, if any; and
 - d) Inquire or secure Supplemental/Bid Bulletin(s) issued for the Rehabilitation and Minor Improvement of the Rehabilitation and Minor Improvement of NRJ-Patin-ay-Lucac-Pisaan Road (PW-ADS-14-01)
9. [Name of Bidder] did not give or pay directly or indirectly, any commission, amount, fee, or any form of consideration, pecuniary or otherwise, to any person or official, personnel or representative of the government in relation to any procurement project or activity.

IN WITNESS WHEREOF, I have hereunto set my hand this ___ day of ___, 20__ at _____, Philippines.

Bidder's Representative/Authorized Signatory

[JURAT]

Bid-Securing Declaration

(REPUBLIC OF THE PHILIPPINES)

CITY OF _____) S.S.

X-----X

Invitation to Bid *[Insert reference number]*

To: *[Insert name and address of the Procuring Entity]*

I/We, the undersigned, declare that:

1. I/We understand that, according to your conditions, bids must be supported by a Bid Security, which may be in the form of a Bid-Securing Declaration.
2. I/We accept that: (a) I/we will be automatically disqualified from bidding for any contract with any procuring entity for a period of two (2) years upon receipt of your Blacklisting Order; and, (b) I/we will pay the applicable fine provided under Section 6 of the Guidelines on the Use of Bid Securing Declaration, if I/we have committed any of the following actions:
 - a. Withdrawn my/our Bid during the period of bid validity required in the Bidding Documents; or
 - b. Fail or refuse to accept the award and enter into contract or perform any and all acts necessary to the execution of the Contract, in accordance with the Bidding Documents after having been notified of your acceptance of our Bid during the period of bid validity.
3. I/We understand that this Bid-Securing Declaration shall cease to be valid on the following circumstances:
 - a. Upon expiration of the bid validity period, or any extension thereof pursuant to your request;
 - b. I am/we are declared ineligible or post-disqualified upon receipt of your notice to such effect, and (i) I/we failed to timely file a request for reconsideration or (ii) I/we filed a waiver to avail of said right;
 - c. I am/we are declared as the bidder with the Lowest Calculated and Responsive Bid, and I/we have furnished the performance security and signed the Contract.

IN WITNESS WHEREOF, I/We have hereunto set my/our hand/s this ____ day of [month] [year] at [place of execution].

[Insert NAME OF BIDDER'S AUTHORIZED REPRESENTATIVE]
[Insert signatory's legal capacity]

Affiant

SUBSCRIBED AND SWORN to before me this __ day of [month] [year] at [place of execution], Philippines. Affiant/s is/are personally known to me and was/were identified by me through competent evidence of identity as defined in the 2004 Rules on Notarial Practice (A.M. No. 02-8-13-SC). Affiant/s exhibited to me his/her [insert type of government identification card used], with his/her photograph and signature appearing thereon, with no. _____ and his/her Community Tax Certificate No. _____ issued on _____ at _____.

Witness my hand and seal this __ day of [month] [year].

NAME OF NOTARY PUBLIC

Serial No. of Commission _____
Notary Public for _____ **until** _____
Roll of Attorneys No. _____
PTR No. __, [date issued], [place issued]
IBP No. __, [date issued], [place issued]
Doc. No. ____
Page No. ____
Book No. ____
Series of ____.

1.3 Insurance

- a) In accordance with the Conditions of Contract, the Contractor shall provide insurance as stipulated.
- b) The Contractor shall provide evidence of insurance policies prior to the start of work in accordance with the provisions of the General Conditions of Contract.
- c) With each interim payment request, the Contractor shall submit evidence consisting of receipts of payment or other verification as approved by the Engineer that insurance policies are in effect.
- d) Insurance and Bonds as required by Contract Documents shall not be measured for payment. All necessary and required costs shall be included in the Unit Prices of the Bid Price Schedule.

1.4 Health and Pests

The Contractor shall, at his own expense and throughout the period of the Contract ensure that suitable arrangements are made for the prevention of epidemics and for all necessary welfare and hygiene requirements for his staff and labor, and shall comply with all the regulations and requirements of the local health authorities with respect to disease prevention and control. He shall warn his staff and labor of the dangers of communicable diseases including those transmitted by insects, water, fecal or oral contact, and sexual activity. The Contractor shall take the precautions necessary to protect all staff and laborers employed on the Site from insect nuisance, rats and other pests, and minimize the dangers to health and the general nuisance caused by the same. Should malaria or other insect-borne diseases be prevalent in the area, he shall provide his staff and labor with suitable prophylactics, equip living accommodation with screens and bed-nets, and carry out spraying with approved insecticides, as appropriate and to the Engineer's satisfaction.

1.5 Supply of Drinking Water, Sanitation

The Contractor shall, so far as reasonable and having regard to local conditions, provide on the Site and at his expense an adequate supply of drinking water for the use of Contractor's staff and work people, together with sanitary facilities (portable toilets or latrines), to the satisfaction of the Engineer.

1.6 Working Hours

Subject to any provision to the contrary contained in the Contract, none of the Permanent Works shall, save as hereinafter provided, be carried out during the night, on Sundays, on locally recognized days of rest, or their locally recognized equivalent, without the permission in writing of the Engineer, except when the work is unavoidable or absolutely necessary for the saving of life or property or for the safety of the Works. In this case, the Contractor shall immediately advise the Engineer. The Contractor shall in all dealings with labor in his employment have due regard to all recognized festivals, days of rest, and religious or other customs.

1.7 Disorderly Conduct

The Contractor shall at all time take reasonable precautions to prevent any unlawful, riotous or disorderly conduct by or amongst his employees and see to the preservation of peace and protection of persons and property in the neighborhood of the Works. "Disorderly Conduct" shall include but not be limited to harvesting of natural resources such as firewood or fish by the Contractor's labor when this is done to the detriment of pre-existing local interests.

1.8 Records of Labor and Accidents

The Contractor shall maintain full records of numbers, working hours and wages of labor, safety, health and welfare of persons, accidents, and damage to property and make such reports on these matters immediately available to the Engineer whenever requested.

1.12 Interference with Traffic and Adjacent Properties
In case any operation connected with the Works necessitates diversion, obstruction or closure of any road, railway, waterway, or any other right of way, the approval of the Engineer or the Engineer's Representative and the respective competent authorities shall be obtained well in advance by the Contractor. In case the Contractor's operations obstruct access to adjacent properties, the Contractor shall be responsible to provide reasonable temporary access to the affected properties.

1.13 Transport of Contractor's Equipment or Temporary Works

Where the Contractor intends to use a particular route for the haulage of large quantities of materials, he shall consult well in advance with any affected communities and submit in advance for the Engineer's approval a plan including but not limited to the proposed route, the existing condition of the pavement and bridges, the estimated number and type of vehicle movements per day, a program for monitoring the condition of the pavement and structures, and measures for limiting vehicle speeds and dust nuisance in built-up areas. The Engineer reserves the right to disallow certain haul routes should these in his opinion cause or be likely to cause unreasonable nuisance or hazards to the public. The Engineer's approval will not remove the Contractor's obligations under this Sub-Clause to prevent and repair damage to roads at his expense or his liability for compensation for any accidents caused by his vehicles.

1.14 Maintenance of Existing Drainage Systems and Water Inflow Control

The Contractor shall maintain the existing drainage entering, crossing or affecting the Works. This shall include, where required by the Engineer, the cleaning of all existing channels, ditches, drainage structures and pipes upstream and down-stream to an extent of 100 m beyond the construction limits and the right-of-way of the project.

The Contractor shall take all necessary measures to remove water including ground water flows from the area of his work when necessary and/or as required by the Engineer to allow satisfactory execution of work in progress or for the protection of completed work.

Measurement and Payment

All costs necessary for and associated with the maintenance of existing drainage systems and water inflow control in accordance with the requirements of the General Conditions of Contract shall not be measured for payment, but shall be considered to be included in the unit rates of the Bid Price Schedule.

1.15 Protection of Works from the Weather

The Contractor shall carefully protect all work and materials from injury from any type and/or magnitude of weather.

Damage to constructed components of the project due to weather will not be entitled to additional payment.

Measurement and Payment

Protection of work and materials in accordance with requirements of this Specification shall be considered as included in the lump sum payment as provided for under "Mobilization".

1.16 Warranty Cost

The Contractor shall be responsible for all costs for and associated with the warranty period of the Works in accordance with the provisions of the General Conditions of Contract.

Measurement and Payment

All costs necessary for and associated with the warranty period of the Works in accordance with the requirements of the General Conditions of Contract shall not be measured for payment, but shall be considered to be included in the unit rates of the Bid Price Schedule.

1.17 Mobilization and Demobilization

Scope of Work

This Section includes mobilization, demobilization, assembly, and disassembly of equipment/plants including incidentals necessary to complete the work.

- suitable working conditions. Temporary lighting shall be maintained until the Employer has accepted the Works.
- f) The Contractor shall make all necessary arrangements and pay all installation and usage charges for his office at the Site.
 - g) The Contractor shall furnish temporary sanitary facilities at the Site, as provided herein, for the needs of all construction workers and others performing work or furnishing services on the Project.
 - h) The Contractor (until completion of the Works) shall maintain all existing fences affected by the Works. Fences that interfere with construction operations shall not be relocated or dismantled until written permission is obtained from the fence owner.
 - i) The Contractor will be held responsible for any damage to existing structures, works, materials, or equipment because of his operations or the operations of any of his subcontractors. The Contractor shall repair or replace any damaged structures, works, materials, or equipment to the satisfaction of the Engineer, and at no additional cost to the Employer.
 - j) The Contractor shall be responsible for all damage to streets, roads, railroads, curbs, sidewalks, highways, shoulders, ditches, embankment, culverts, bridges, or other public or private property, which may be caused by the transport of equipment, materials, or people to or from the Works.
 - k) The Contractor shall be responsible for the protection of the Site, and all work, materials, equipment, and all existing or completed facilities thereon, against vandals and other unauthorized persons.
 - l) The Contractor shall construct suitable entry and exit roads to, from and around all temporary facilities.
 - m) Suitable fencing shall be constructed around all temporary facilities.
 - n) Suitable external lighting shall be provided at the entrance to all buildings.
 - o) All sanitary facilities shall be connected to a suitable sewage system.
 - p) During the performance of the works the Contractor shall maintain all temporary facilities in a suitable manner to the satisfaction of the Engineer.
 - q) All construction plant and equipment provided by the Contractor shall, when brought on to the Site, be deemed to be exclusively intended for the construction and completion of the Works and the Contractor shall not remove the same or any part thereof without the approval of the Engineer.
 - r) The Employer shall not at any time be liable for the loss or damage to any of the said construction plant and equipment provided by the Contractor or any subcontractor or supplier.

Demobilization

Demobilization upon request of the Contractor and approved by the Engineer shall include the following:

- a) The dismantling, preparation and loading for removal and shipment of all Contractor's (and Subcontractor's) plant, equipment, and personnel at each site after completion of the works.
- b) Transportation of all the above plant, equipment, and materials from each site to the Contractor's home station or somewhere else outside the sites.
- c) Removal of all supplementary markers furnished and installed by the Contractor, provided that the Engineer has not taken the option to retain the markers.
- d) The clean-up of the Site and the removal of materials, debris, waste, etc., and making good damages or temporary alterations, to the satisfaction of the Engineer.
- e) The restoration, up to a degree acceptable to the Engineer, of damage to the surrounding area (including vegetation, minor structures etc) resulting from the construction or construction-related activities

Measurement

The Lump sum price shall provide for the mobilization and demobilization of all Contractor's plant/equipment and personnel to cover all costs for mobilization and demobilization, transportation, insurance during transportation, port fees, taxes, utilities, support staffs and all other incidentals.

The payment shall cover the dismantling of the work site by the Contractor, with removal of all the alterations, constructional plant and equipment, so that the site is restored to the state it was in before the installations, plant and equipment were placed there.

No.	Description/Particulars	Unit
A.2	Facilities for the Engineer	Month
A.2.1	Provision of Field Office and Quarter for the Engineer, Furnished (Rental Basis)	Month
A.2.2	Field Office Equipment, and Furniture (Rental Basis) 1- Table 70cm x 140cm 3 – Table 70cm x 120cm 8 – Chairs	Month

1	ream – Bond Paper, A3
10	pcs. - Folders, long
10	pcs. - Folders, short
10	pcs. - Brown Envelope, long
10	pcs. - Brown Envelopes, short
10	pcs. - Envelopes, Expanding, long
10	pcs. – Envelopes, Expanding Short
1	pads – Yellow Pad
1	pcs. - Scotch Tape, ¾" x 60m
1	pcs. – Masking Tape, ¾" x 60m
8	pcs. – Ballpens
4	pcs. – Sign pens
2	pcs. – Printer Ink Cartridge
1	pcs. – Post-It pads
2	pcs. – Record Books
4	pcs. – Pencil Leads, 0.50mm
4	pcs. – Pencil Eraser
4	pcs. – Liquid Eraser
2	box – Paper Clips, Coated
2	box – Plastic Coated Fastener
3	pc. – Paste in a bottle 100g
4	pcs. – White Board Markers (red, black and blue)
1	box – Staple Wire
1	box – Compact Disc
1	pc. – Toner for Copier
15	pcs – Purified Drinking Water, 5 gal
6	pcs. – Markers, assorted colors
2	pcs. – Floor Wax, 500ml
1	pcs. – Brooms
2	pcs. – Rugs
2	pcs. – Insect Spray
2	pcs. – Toilet Tissue Paper, 9/pack
1	pc. – Laundry soap

Measurement

The Lump sum price shall provide for the mobilization and demobilization of all the Engineer's Facilities described herein including the Contractor's plant/equipment and personnel and services necessary to provide for these requirements including all mobilization and demobilization, transportation, insurance during transportation, port fees, taxes, utilities, support staff and all other incidentals.

All maintenance services and supplies for the Engineer's Facilities shall be made by the Contractor. Payment for these services are contingent on the proper supply and service operations as described herein.

Payment

Payment for the Engineer's Facilities – Maintenance and Supplies shall be distributed throughout the duration of the Contract. All costs associated with and necessary for compliance with this Specification shall be included in the Lump Sum price. No additional or separate payment will be made in this regard.

The Engineer may at any time withhold payment if (in the opinion of the Engineer) requirements of this Specification section are not provided.

Pay Item	Description	Unit
A.2	Facilities for the Engineer	Month

1.19 Contractor Submissions

All submissions and correspondence including drawings shall be in English and are to be in hard copy and (if required by the Engineer) on computer disk. The standard submission requirements are:

. General

- a) General correspondence - 1 copy
- b) Latest edition copy of all standard regulations, guidelines, specifications, technical papers, monographs, catalogues, and other technical documents which are required - 1 copy
- c) Drawings A1 size - 1 copy
- d) Documents - 1 copy
- e) Schedule of Works - 2 copies
- f) Testing Results, Other Technical Correspondence – 1 copy
- g) Monthly Report - 1 copy

B. Submittal of "As-Built" Drawings

"As-Built drawings on approved reproducible film shall be prepared by the Contractor in Auto CADD for the whole of the Works. The drawing shall be kept up-to-date as the work proceeds with details completed for each item of the Works immediately after work has been completed. Two (2) copies of "As-Built" drawings shall be submitted by the Contractor together with the electronic file within 14 calendar days after the first day of the Defects Liability Period.

No final Certificate shall be issued to the Contractor by the Engineer unless the "As-

- c) No metalwork (sheet piling, reinforcing steel, etc.) shall be stored directly on the ground.
- d) Bulk cement shall be stored in containers shutting out moisture.
- e) Packed cement shall be stored in container boxes to keep from moisture.
- f) PVC pipe, geotextile membranes, plastic liner and other plastic materials shall be stored off the ground on pallets and protected from direct sunlight.

Measurement and Payment

Receiving, handling and storage of materials and equipment in accordance with this Specification section shall not be measured for payment. All necessary and required costs shall be included in appropriate Unit Prices in the Bid Price Schedule.

1.21 Setting out the Work and Staking

1.21.1 Establishment of Lines and Grades prior to commencing Construction

- a) The Contractor shall set construction stakes establishing lines and grades in accordance with the Drawings and shall secure the approval of the Engineer before commencing with construction. The Engineer will, if he deems it necessary, revise the line and grade and require the Contractor to adjust the stakes accordingly. The Contractor shall give the Engineer not less than forty-eight hours notice of his intention to stake out or establish levels for any part of the work in order that arrangements may be made for checking. The Contractor shall measure the staking out and the Engineer will check the measurement. The approved measurement will be the basis of payments.
- b) The surveying and staking shall be performed to obtain close conformance with the lines, grades and details indicated on the drawings or established by the Engineer.
- c) For all roadway and bridge projects the Contractor shall perform a profile and cross-section survey of all existing features and conditions across the cross sections spaced every 20m before commencement of the works. The survey shall extend to the limits indicated in the design drawings. Plotted cross-sections and profiles shall be submitted to the Engineer prior to the commencement of the construction activities. Additional cross-sections shall be taken at the exact same locations (also every 20m) after the installation of each pavement layer in addition to a survey of the final, finished grade. The surveys shots for all cross-sectioning work shall be taken at a minimum of 2m spacing across each cross-section and shall include survey shots at all lane lines, ditches, etc.
- d) The Contractor shall be responsible for the supervision of the surveying and staking personnel. Any errors resulting from the operations of the surveying personnel shall be corrected at the Contractor's expense.

Measurement and Payment

Providing requirements in accordance with the provisions of this Specification section will not be measured, but paid monthly.

All costs associated with and necessary for compliance with the Specification, including providing survey equipment, shall be included in the monthly payment. No additional or separate payment will be made in this regard.

The Engineer may at any time withhold or reduce the payments for the Contractor's setting out of the work and staking if (in the opinion of the Engineer) such work is not provided in accordance with requirements of this Specification section.

connection with the execution of the Work, the Engineer's approval shall be first obtained.

- c) Prior to placing the facilities in any area, all clearing and grubbing operations shall be performed to the satisfaction of the Engineer. The ground elevation of all temporary facilities shall be a minimum 20 cm above the adjacent existing ground. The surface shall be sloped to allow rainwater to adequately drain.
- d) If any utility for water, electricity, drainage, etc., passing through the temporary site will be affected by the Works, the Contractor at his own expense shall provide a satisfactory re-alignment or alternative in full working order to the satisfaction of the owner of the utility and the Engineer, before the cutting or removal or relocation of the existing utility.
- e) On completion of the Contract, or earlier if so directed by the Engineer, all plant, temporary facilities and any other encumbrances shall be removed; the site and land use areas shall be properly cleaned and all damage made good.

Measurement and Payment

Land for construction and other purposes in accordance with this Specification section shall be considered as included in the lump sum payment as provided for under "Mobilization".

1.23 Location and Protection of Utilities and Existing Structures

- a) Before commencing construction work, the Contractor shall undertake a survey to establish the exact location of all utilities affected by the Works. Survey results shall be recorded in plan form to the satisfaction of the Engineer and surface pegs shall be fixed on the site to indicate the location of all underground utilities. These pegs shall remain and be maintained for the duration of the contract.
- b) Where works of either a temporary or permanent nature are to be undertaken by the Contractor in the vicinity of utilities, the Contractor shall adopt appropriate construction methods, provide adequate protective devices and take precautionary measures in order to avoid damage to the utilities. Any damage to utilities caused directly or indirectly by the Contractor's or any Subcontractor's work will be considered the Contractor's responsibility.
- c) The Contractor shall be responsible for locating all existing structures affected by or affecting the work under this Contract, prior to the start of construction. Any delay or extra expense to the Contractor due to the encountering of existing structures shall not constitute a claim for extra work, additional payment, time or damages.

Measurement and Payment

The location and protection of utilities in accordance with this Specification shall be considered as included in the lump sum payment as provided for under "Mobilization".

1.24 Construction Photographs

The Contractor shall be responsible for the production of construction photographs, as described herein.

- a) Photographs of the entire site and pertinent features thereof, shall be taken before the commencement of work at the Site and submitted to the Engineer. The same views shall be re-photographed upon completion of all construction activities, and submitted with the Contractor's application for payment. It is important that the Contractor photographs all adjacent structures in order to have an inventory of the before-construction conditions.
- b) Photographs shall be taken throughout each month indicating the progress of the work, prior to and during any major work activity and at such times and locations as requested by the Engineer, and submitted with the Contractor's monthly report. Hard copies of the photographs and the digital files (burned onto CD) shall be submitted in order for the invoice to be considered complete and suitable for processing.
- c) Photographs shall be taken at intervals of not more than 50 meters along the route of the Works before the commencement of work, and promptly submitted to the Engineer. The same views shall be re-photographed upon completion of construction activities on any section of the Works, and

any soil contaminated by diesel, bitumen or other polluting material, tamping to relieve compaction, grading, replacement of topsoil, and turfing and grassing, as appropriate. Where improvements have been made such as land filling or installation of boreholes or construction of boat landings, these may be retained subject to the agreement of the landowner. The Employer reserves the right to inspect the site of any facilities established or used by the Contractor in connection with the Works and to undertake any corrective measures necessary to restore the land, and to recover the cost from monies due or to become due to the Contractor.

1.26 Filling in Holes and Trenches

The Contractor, upon completion of any part of the work, shall immediately, at no additional cost, fill up all holes and trenches, or carry out the work to them as required by the Engineer, that he may have dug or excavated and are no longer required for the project, and he shall clear away all rubbish and material that is no longer required for the execution of the work. All costs associated with this requirement shall be included in the Contractor's Unit Prices and not be paid for separately.

2. PROJECT SAFETY

2.1 GENERAL

The Contractor shall, as a priority in all his activities, undertakings and endeavors, ensure the continued and continuous safety of the public and all persons directly or indirectly associated with the Works.

During the entire process of constructing the Works -- including preparation of the site and final clean up upon completion -- the Contractor shall exercise the utmost care in order to prevent damage to the environment and adjoining properties.

Due precautions shall be taken by the Contractor, at his own cost, to ensure the safety and protection against accidents of all staff and labor engaged on the Works, local residents in the vicinity of the Works, and the public traveling through the Works. The Contractor shall have in his staff on Site a designated officer qualified to promote and maintain safe working practices. This officer shall have authority to issue instructions and shall take protective measures to prevent accidents, including but not limited to the establishment of safe working practices and the training of staff and labor in their implementation.

The Contractor shall at his own expense provide protective clothing and equipment to all staff and labor engaged on the Works to the satisfaction of the Engineer. Such clothing and equipment shall include, at a minimum, protective footwear for workmen undertaking concrete mixing work, protective footwear and gloves for any workmen performing bituminous paving works, protective footwear, clothing, cream, gauntlet-type gloves, hats, safety glasses or goggles and filter masks for workmen undertaking lime stabilization works, hard hats for workmen engaged in bridge construction, and otherwise as appropriate to the job at hand and to the Engineer's satisfaction.

The Contractor shall also provide hard hats (white color), reflective safety vests, and safety shoes for the Engineers and visiting staff. All equipment provided to the Engineers and visiting staff will remain the property of the Contractor after project handover.

2.2 COMPLIANCE WITH LEGISLATION

- a) The Contractor shall comply with all safety and industrial health legislation including, without limitation, the Rules and Regulations of the Republic of the Philippines and the authorities having jurisdiction.
- b) The Contractor shall comply with all requirements of the appropriate agencies that govern irrigation and drainage facilities.
- c) The Contractor shall comply with all current environmental laws and regulations, be they national or local, related to the following, but not limited to:
 - noise;
 - vibration;
 - air pollution;

The Contractor shall prepare and submit to the Engineer for review and approval no later than 15 days after Notice to Proceed, a Safety, Traffic Control and Environmental Plan, which shall contain, without limitation, the following details:

- a) Safety, environmental and traffic control staff organizational structure, which should identify the personnel to be engaged solely for traffic control, environmental protection and safety assurance (including the Contractor's Safety Officer who will be responsible for all safety on the Site) and the responsibilities of each of the participants
- b) Proposed interaction and communication procedures between the Contractor's construction personnel and traffic control, environmental protection and safety assurance staff. In particular, the establishment of a regular communication and reporting system;
- c) An undertaking signed by the Contractor's Representative to the effect that the Contractor will ensure that safety, industrial health and environmental protection are given highest priority in all aspects of the Works and in discharging his contractual obligations. The Contractor's Representative must also provide the written appointment and authorization to the person assigned to be the Safety Officer;
- d) Frequency, coverage and intent of site safety meetings together with the rationale for attendance;
- e) Frequency, coverage and intent of regular site safety reports;
- f) Methods of promoting an awareness of site safety, environmental protection and industrial health amongst all persons directly or indirectly associated with the Works. This shall include proposals for on site publicity, on-site training courses for all workmen on the Site and at all levels of supervision and management, incentive schemes for the promotion of compliance with safety measures and other similar measures.
- g) An Environmental Control and Protection Program which shall cover, but not be limited to, the following items:
 - storage of volatile liquids and toxic materials,
 - waste control and management;
 - control related to the use of existing roads and bridges by the Contractor's vehicles and
- h) A Traffic Control Plan, which shall cover the means and methods the Contractor intends to take for proper and adequate control of traffic during the course of the Works. This Plan shall address requirements under the Specification

"Maintenance and Protection of Traffic" and shall include but not be limited to:

- the traffic control equipment the Contractor proposes to use for the Works;
 - traffic control signage including location and sign descriptions;
 - how and when the Contractor proposes to use traffic control flag men;
 - traffic control means during both working and non-working periods;
 - traffic control means and devices for night and off-hour periods.
 - traffic control measures for each stage of construction
- j) Understanding of and means of ensuring due compliance with the statutory regulations relating to construction work in the Republic of the Philippines;
 - k) The powers vested in the Safety, Traffic and Environmental Control staff which would enable them to take urgent and appropriate and direct action to make safe the Site and prevent unsafe working practices, undue disruption to the environment, correct improper or inadequate traffic control measures or other infringements of the Safety, Traffic and Environmental Control Plan or statutory regulations;
 - l) Method by which the Safety, Traffic and Environmental Control Plan procedures and practices proposed by subcontractors will be reviewed for compliance with the Site Safety Plan and statutory regulations;
 - l) A complete listing of all the safety equipment and protective clothing which will be required for the Works, including the quantity, sourcing, standards of manufacture, storage provisions and means of ensuring

particular but without limitation, carry out auditing of the operation of the Safety, Health and Environmental Control Plan.

The Safety Officer shall be subject to the Engineer's approval prior to mobilization.

- c) The Contractor's Safety Officer is responsible for ensuring that all safety-related provisions are met. The Employer shall instruct the Contractor to replace the Safety Officer for continued failure to make corrective actions even after being reminded by the Engineer. Repeated occurrences will be the responsibility of the contract's site manager.
- d) The Contractor shall not undertake any works on the Site until the Safety Officer has mobilized to the Site unless otherwise specifically agreed to in writing by the Engineer.
- e) The Contractor shall not remove the Safety Officer from the site without the express written permission of the Engineer. Within fourteen (14) days of any such removal or notice of intent of removal, the Contractor shall nominate a replacement Safety Officer for the Engineer's approval.
- f) The Contractor shall provide the Safety Officer with supporting staff in accordance with the staffing levels set out in the Safety, Traffic and Environmental Control Plan.
- g) The Contractor shall empower the Safety Officer and his staff to instruct employees of the Contractor or of its Subcontractors to cease operations and take urgent and appropriate action to make safe the Site and prevent unsafe working practices or other infringements of the Safety, Traffic and Environmental Control Plan or the statutory regulations.
- h) The Contractor shall ensure that the Safety Officer maintains a daily site records, whereas such records shall comprehensively recorded all relevant matters concerning site safety, environmental and traffic control, inspections and audits, related incidents and the like. The site records shall be available at all times for inspection by the Engineer.
- i) If in the Engineer's opinion, the Safety Officer demonstrates his incapacity to undertake the position, the Engineer will request a replacement. A suitable replacement must be proposed by the Contractor within 3 days, and if acceptable, mobilized within 14 days of the request.

2.6.1 Safety Officers Lines of Communication

The Contractor's Staff Organization Plan shall show direct lines of communication and reporting between the Safety Officer and the Contractor's Project Manager and between the Safety Officer and the Contractor's Director responsible for the Contract. The Contractor's managing director shall instruct and require (in writing) the Project Manager and the Safety officer to be directly accountable in all matters concerning site safety, environmental aspects and proper traffic control.

2.7 SAFETY REPORTS

The Contractor shall submit regular site safety and environmental reports to the Engineer as a requirement of the Safety, Traffic and Environmental Control Plan.

A summary report shall be submitted as part of the Monthly Progress Report. Prior to submission, the Contractor's Project Manager shall endorse the Report. Site safety reports shall comprehensively address all relevant aspects of site safety, environmental and industrial health regulations and, in particular, report on all site safety and environmental inspections/ audits undertaken during the period covered by the report.

2.8 BREACHES OF SITE SAFETY PLAN

Any serious breaches of the Safety, Traffic and Environmental Control Plan or the statutory regulations or disregard for the safety or environmental measures of any persons may be the reason for the Engineer or Employer to exercise their authority to require the Contractor's employee, Subcontractor's employee, the Safety Officer's and/ or the Contractor's Project Manager's removal from the Site. In the case where the deficiency or neglect is serious enough to warrant the Safety Officer's removal, the Contractor will be instructed to stop work, until an acceptable replacement is mobilized. This will not be considered as a basis for an extension of time.

2.9 SUB-CONTRACTOR'S SAFETY PLAN

- a) The Contractor shall provide his Subcontractors with copies of the Safety, Traffic and Environmental Control Plan and shall incorporate into all sub-contract documentation provisions to ensure the

and other means of access, lifting, lighting, signing and guarding equipment. Lights and signs shall be kept clear of obstructions and legible to read. Equipment, which is damaged, dirty, incorrectly positioned or not in working order, shall be repaired or replaced immediately.

2.13 FIRST AID BASE

The Contractor shall establish, maintain and regularly furnish first aid equipment at all camps and work sites to the satisfaction of the Engineer. This equipment should be capable of treating routine, minor construction related injuries such as abrasions or bruises. All serious injuries should be treated at a local hospital.

2.14 SAFETY INFORMATION AND TRAINING

- a) The Contractor shall ensure that safety and industrial health matters are given a high degree of publicity to all persons regularly or occasionally on the Site.
- b) The Contractor shall conduct regular on-site safety training courses. The frequency, coverage and application of which shall be in accordance with the Site Safety Plan. The Contractor shall require that all Subcontractors' employees participate in relevant training courses appropriate to the nature, scale and duration of the subcontract works.

2.15 PLANT & EQUIPMENT

All Construction Plant and equipment used on or around the Site shall be fitted with appropriate safety devices.

2.16 QUALIFIED PERSONNEL

The Contractor must ensure that only suitably qualified personnel shall operate all Construction Plant and equipment used on or around the Site.

2.17 NOTIFICATION OF ACCIDENTS

The Contractor shall notify the Engineer immediately when any accidents occur whether on-site or off-site in which the Contractor, his personnel or Construction plant, or those of his Subcontractors are directly or indirectly involved and which result in any injuries to any persons. Such initial notification may be verbal and shall be followed by a written comprehensive report, explaining the cause of the accident within 24 hours of the accident.

2.18 ASSISTANCE TO THE ENGINEER

The Contractor shall provide full co-operation and assistance in all safety, traffic and environmental control surveillance carried out by the Engineer or the Employer. Any and all deficiencies noted by the Engineer shall be rectified immediately.

2.19 PAYMENT

All costs necessary for and associated with the project safety shall be measured for payment, but under Construction Safety and Health Program and Environmental Management Plan

3.0 ENVIRONMENTAL CONTROL AND PROTECTION

3.1 GENERAL

The Contractor shall be solely responsible for the remedy or mitigation measure(s) required by the environment-related effects of any of his construction or construction-related activities. In case of an environmental problem, the Contractor shall immediately notify the Engineer, and provide a proposed course of action to take. Among the situations which may require such steps are complaints or legal actions by third parties on matters such as environmental damage to property and natural resources, ground subsidence, interruption of groundwater flow, and air, surface and groundwater contamination.

- a) The Contractor shall prepare a detailed Site Environmental Plan (SEP) for the work site, base camp disposal areas, etc., showing arrangements for hauling of excavated materials, disposal of sanitary and other wastes, location of fuel, oil and lubricant depots, sheds for equipment, labor and housing facilities, fuelling areas, vehicle leaning facility, etc., prior to the start of construction for approval of the Engineer. The SEP shall also show all utility services, including water supply, disposal, treatment, etc. The location of nearby watercourse, stream or canal shall be shown. A draft shall be prepared and presented at the pre-construction meeting. The final version is required prior to the first billing.

- water heating in all his camps and living accommodations.
- f) The Contractor shall make his own arrangements at his own expense for water supply for construction and other purposes. Only clean water free from deleterious materials and of appropriate quality for its intended use shall be used. In cases where the local water systems are unable to provide sufficient quantity or quality, the Contractor shall be responsible for providing additional water as required for no additional compensation. Any significant water storage facility (i.e., reservoir) shall remain the property of the counterpart organization after the completion of the works (in reasonably good condition), unless the LGU requires this to be removed, which will be done so at the Contractor's expense. In providing water, the Contractor shall ensure that the rights of and supply to existing users
 - g) are not affected either in quality, quantity or timing. In the event of a dispute over the effect of the Contractor's arrangements on the water supply, the Engineer shall be informed immediately and shall instruct the Contractor as to appropriate remedial actions to be undertaken at the Contractor's expense.
 - h) The Contractor shall not locate any hot-mix or similar potentially polluting plant closer than 500 m to any settlement. Any such plant shall be fitted with dust suppression equipment and shall be operated and maintained at all times in conformity with the manufacturer's specifications, instructions and manuals.

3.2 PREVENTIVE MEASURES

- a) The Contractor shall conform to the environmental laws and other relevant legislation of the Government of the Philippines.
- b) The Contractor shall be responsible for ensuring that no earth, rock or debris is deposited on public or private right-of-way as a result of his operations, including any deposits arising from the movement of Construction Plant or vehicles. The Contractor shall provide a vehicle cleaning facility at the exits from the Site where excavated material is hauled, to the consent of the Engineer.
- c) The Contractor shall at all times ensure that all existing stream courses and drains within, and adjacent to, the Site are kept safe and free from any debris and any excavated materials arising from the Works. The Contractor shall ensure that chemicals and concrete agitator washings are not deposited in the watercourses.
- d) All water and waste products arising on the Site shall be collected, removed from the Site via a suitable and properly designed temporary drainage system and disposed of at a location and in a manner that will cause neither pollution nor nuisance.
- e) The Contractor shall construct, maintain, remove and reinstate as necessary temporary drainage works and take all other precautions necessary for the avoidance of damage by flooding and silt washed down from the Works. It shall also provide adequate precautions to ensure that no spoil or debris of any kind are allowed to be pushed, washed down, fallen or be deposited on land adjacent to the Site.
- e) In the event of any spoil or debris from construction works being deposited on adjacent land or any silt washed down to any area, then all such spoil, debris or material and silt shall be immediately removed and the affected land and areas restored to their natural state by the Contractor to the satisfaction of the Engineer.

3.3 AIR QUALITY CONTROL

- a) The Contractor shall not install any furnaces, boilers or other similar plant or equipment using any fuel that may produce air pollutants without prior written consent of the Engineer pursuant to the environmental laws and other relevant legislation of the Government of the Philippines.
- b) The Contractor shall not burn debris, wastes or other materials on the Site.

3.4 CONSTRUCTION DUST LEVEL CONTROL

- a) The Contractor shall implement dust suppression measures that shall include, but not be limited to the following:
 - Stockpiles of sand and aggregate greater than 20 m³ for use in concrete manufacture shall be

- b) Where the Engineer determines that the dust level is unacceptable, the Engineer may direct the Contractor to take effective remedial measures including, but not limited to, removing dust sources and modifying working procedures.
- c) The Contractor shall inform the Engineer of all steps taken. The Contractor shall submit written reports and proposals for action to the Engineer whenever the Engineer considers the dust levels too high.

3.5 WATER POLLUTION CONTROL

- a) The Contractor shall comply with the environmental laws and other relevant legislation of the Government of the Philippines insofar as they relate to water pollution prevention and control, and monitoring.
- b) The Contractor shall take all necessary precautions against pollution or interference with the supply, or obstruction of the flow of, surface or underground water. These precautions shall include but not be limited to physical measures such as earth bunds of adequate capacity around fuel, oil and solvent storage tanks and stores, oil and grease traps in drainage systems from workshops, vehicle and plant washing facilities and service and fuelling areas and kitchens, the establishment of sanitary solid and liquid waste disposal systems, the maintenance in effective condition of these measures, the establishment of emergency response procedures for pollution events, and dust suppression, all in accordance with normal good practice and to the satisfaction of the Engineer. Should any pollution arise from the Contractor's activities or neglect, he shall clean up the affected area immediately at his own cost and to the satisfaction of the Engineer, and shall pay full compensation to any affected parties.
- c) The Contractor shall ensure that no tools or machinery are washed in any water source or areas that shall drain into an existing watercourse, stream or canal.
- d) The Contractor shall ensure that rain run-off from the construction sites is not deposited directly into any watercourse, stream or canal, without making provisions for suspended solids.
- e) The Contractor shall ensure that all temporary construction facilities are located at least 50 meters away from a watercourse, stream or canal.
- f) The Contractor shall carry out a weekly check of all equipment for prevention of oil and/or lubrication leaks and ensure that all equipment oil and lubrication replacements are performed only in designated maintenance and repair work areas.
- g) The Contractor shall ensure that there will be no disposal (intentional or unintentional) of any type of material or fluids into any watercourses or seawater. This requirement shall include the installation of protective barriers, if required.
- h) The Contractor shall ensure that there will be no disturbance or damage to mangroves, corals, seaweed and all other marine life as a result of construction or construction-related activities. This requirement shall include the installation of protective barriers, if required.
- i) The Contractor shall ensure that there will be no disturbance or damage to the seabed or shoreline at or near the construction limit. This requirement shall include the installation of protective barriers, if required.
- j) The Contractor shall ensure that there will be no disturbance to the river flow or tidal flows at or near the construction limit.
- k) The Contractor shall ensure that there will be no disturbance (i.e., removal of moorings, landing areas, access, etc.) to the local residents' usage of boats or sea craft. This requirement shall include the installation of temporary measures to ensure this, if required.

3.6 NOISE AND VIBRATION CONTROL

- a) The Contractor's attention is drawn to the Conditions of Contract and to the environmental laws and other relevant legislation of the Government of the Philippines.
- b) The Contractor shall consider noise and vibration as an environmental constraint in its design, planning and execution of the Works. The Contractor shall coordinate with the local authorities/residents when loud

Contractor in writing of his consent based on the noise statement submitted in relation to such work. Such consent of the Engineer shall not in any event relieve the Contractor of its obligations under the Contract, nor fetter, limit or restrict the Engineer's powers to give instructions in accordance with the Contract.

- f) The Contractor shall ensure that noise generated by work carried out by the Contractor and its Subcontractors during hours of darkness shall not exceed the maximum permissible noise limits, which the Engineer considers acceptable, whether continuously or intermittently. In the event of a breach of this requirement, the Contractor shall immediately re-deploy or adjust the relevant equipment or take other appropriate measures to reduce the noise levels and thereafter maintain them at levels that do not exceed the acceptable limits. Such measures may include, without limitation, the temporary or permanent cessation of the use of certain items of equipment.

3.7 HAZARDOUS MATERIALS, REFRIGERANTS AND FIRE EXTINGUISHERS

The use of handling storage and disposal of Hazardous Materials, Refrigerants and Fire Extinguishers shall be in accordance with the "appropriate DENR regulations and other relevant regulations of the Government of the Philippines".

3.8 SITE WASTE MANAGEMENT

- a) Road Rehabilitation Project
- Construction aggregate, materials and supplies are transported and stored properly.
 - Excess construction materials, debris, waste and refuse are stored or disposed of properly and safely.
 - Adequate size of containers provided for type of wastes being handled.
 - Construction materials not posing hazard to motorists.
 - Designated disposal area or dumpsite is operated onsite.
 - Waste recovery/recycle/reuse is practiced onsite.
 - Burning of non-biodegradable wastes is avoided or prevented.
 - Waste management unit or person is designated to perform onsite.
- b) Municipal Port Improvement Subproject
- Construction aggregate, materials and supplies are transported and stored properly.
 - Excess construction materials, debris, waste and refuse are stored or disposed of properly and safely.
 - No construction materials or wastes are left floating or submerged at or near construction area.
 - Construction equipment or machines do not pose hazard to boats and sea crafts.
 - Designated disposal area or dumpsite is operated onsite.
 - Waste recovery/recycle/reuse is practiced onsite.
 - Burning of non-biodegradable wastes is avoided or prevented.
 - Waste management unit or person is designated to perform onsite.
- c) Bridge Rehabilitation Subproject
- Construction aggregate, materials and supplies are transported and stored properly.
 - Excess construction materials, debris, waste and refuse are stored or disposed of properly and safely.
 - Adequate size of containers provided for type of wastes being handled.
 - Construction materials not posing hazard to motorists.
 - Designated disposal area or dumpsite is operated onsite.
 - Waste recovery/recycle/reuse is practiced onsite.
 - Burning of non-biodegradable wastes is avoided or prevented.
 - Waste management unit or person is designated to perform on site.

3.10 MINIMIZING CONSTRUCTION IMPACT ON THE LOCAL ROAD SYSTEM

The Contractor shall conduct his construction operations to minimize their impact on the road systems in and around the areas of construction. Measures to accomplish this requirement shall include but not be limited to

Contractor shall at all times keep roads and footpaths affected by his operations free from soil and material spillage.

- b) The Contractor shall keep the length of the project construction areas in
- c) such condition that traffic will be accommodated safely. Traffic control devices and services shall be provided and maintained both inside and outside the project limits as needed to facilitate traffic guidance should this be necessary.
- d) The Contractor shall design a traffic control plan, which will be submitted to the Engineer before the commencement of the works. The plan shall indicate the number, type and spacing of all traffic control devices, signage etc.
- e) Prior to the start of construction operations, the Contractor shall erect such signs, barricades and other traffic control devices as may be required by the drawings, specifications or as directed by the Engineer. Traffic control devices shall be operated only when they are needed and only those that apply to conditions actually in existence.
- f) Temporary fences shall be placed to provide a visual barrier between the work area and adjacent traffic or buildings and at locations directed by the Engineer.
- g) Any devices provided under this Clause that are lost, stolen, destroyed or deemed unacceptable while their use is required on the project shall be replaced by the Contractor without additional compensation.
- h) During non-working hours and following completion of a particular construction operation, all warning signs, except those necessary for the safety of the public, shall be removed or entirely covered so that the unnecessary and/ or misleading sign panel will not be visible.
- i) Retro-reflective sheeting on signs, barricades and other devices shall be kept clean. The Contractor shall promptly correct stretches, rips, and tears in the sheeting. Retro-reflective sheeting must be used on all devices and shall be properly maintained.
- j) Nighttime operations shall be illuminated by a lighting system approved by the Engineer. The lighting system shall be positioned and operated to preclude glare and annoyance to the adjacent residents. Incandescent lights will not be permitted.
- k) The Contractor shall take necessary care at all times during the execution of the works to ensure the existing convenience and safety of residents along and adjacent to the road, and any public highway or port facility that may be affected by the Works. Street lighting shall be relocated as necessary to maintain the same standard of lighting during the course of the Works until new lighting facilities are brought into operation.
- l) The Contractor should thoroughly acquaint himself with existing traffic conditions and understand the importance of maintaining traffic safety and the avoidance of excessive traffic delay. The Contractor shall cooperate with the pertinent agencies regarding traffic control and all details will be subject to the Engineer's approval.
- m) The Contractor shall be responsible for investigating and establishing the requirements for traffic control and safety at the site and shall submit such details in his Safety, Traffic Control and Environmental Plan as required by the Project Safety Specification.
- n) The Contractor's requirements shall include, but not be limited to, construction of detours, temporary bridge approach roads, of traffic control devices and services for the control and protection of traffic through areas of construction. The layout components and method of traffic control measures shall be indicated on the traffic control plan and be subject to approval by the Engineer, before the work is allowed to commence.
- o) Any failure of the Contractor to meet these requirements will entitle the Engineer to issue a "stop work" order, which will remain in effect until corrective measures have been made. Any delay this may cause will not be considered as a basis for additional time. The contractor shall be responsible for the temporary relocation of the existing traffic signals as required in order to proceed with the Works.

In cases where it is necessary or required by the Engineer, the Contractor shall construct and maintain temporary traffic ramps, and furnish all the required labor and materials.

4.4 TRAFFIC CONTROL

- a) In order to facilitate traffic through or around the Works, or wherever ordered by the Engineer, the Contractor shall erect and maintain at prescribed points on the work and at the approaches to the work, traffic signs, barricades, cones and other facilities as necessary or required by the Engineer for the proper direction and control of traffic.
- b) As necessary for proper control of traffic or when/where directed by the Engineer, the Contractor shall furnish and station competent flagmen whose sole duties shall consist of directing the movement of traffic through or around the work. The flagman must be provided with the necessary safety equipment such as reflective safety vest, proper flagging, etc.
- c) The Contractor shall furnish and erect, within or in the vicinity of the project area, such warning and guide signs as may be necessary or ordered by the Engineer.
- d) In order to minimize disruption to traffic flows, the Contractor shall enclose the Site with temporary fences to provide a visual barrier between his work and adjacent traffic.

4.7 PAYMENT

All costs necessary for and associated with maintenance and control of traffic shall be measured for payment, but shall be paid under Construction Safety and Health Program and Environmental Management Plan.

<u>Pay Item</u>	<u>Description</u>	<u>Unit</u>
A.4	Construction Safety and Health Program and Environmental Management Plan	Month

5.0 MONTHLY PROGRESS REPORTS AND SCHEDULE OF WORKS 5.1 DESCRIPTION

Before the seventh calendar day of each month, the Contractor shall submit to the Engineer the Monthly Progress Report, which shall account for all work performed up to and including the last day of the preceding month. Each progress report shall include a narrative describing:

- a) The activities that have been completed with their actual start and completion dates;
- b) The activities on which work is currently in progress and the number of working days required to complete each activity;
- c) The current and anticipated delaying factors, their effect on the construction schedule, and proposed corrective actions and
- d) Any work reported completed, but which is not readily apparent to the Engineer, shall be substantiated with satisfactory evidence.

5.2 REPORT CATEGORIES

In addition to a narrative as described above, the Monthly Report shall include information and data as detailed below for each of the noted categories. The Engineer may at any time require the Contractor to include other categories or additional information in each category if, in the opinion of the Engineer, they are necessary to track the progress and/or requirements of the Works.

5.2.1 Shop & Working Drawing Status Report

The Contractor shall with each Monthly Report submit in tabular format a shop drawing status report, noting the status of all Shop and Working drawings (if required) as of the date of the report.

5.2.2 Schedule of Payment Summary

The Contractor shall, with each Monthly Report, submit in tabular format a summary of payments as of the date of the report. The schedule of payment summary shall note the originally projected payments in accordance with the Schedule of Payment Forecast and the payments to the date of the report.

In addition, the Contractor shall also submit a schedule of past and projected payments in a graphical format (S curve).

- a) With each Monthly Report the Contractor shall present, in tabular format, an on-site equipment listing noting all the Contractor's, Subcontractor's and supplier's equipment on site since the commencement of work including the equipment projected to be needed up to the end of the report period.
- b) The tabulation shall identify the type of equipment, the equipment make and model, as well as the capacity of the equipment (if applicable) and note the date the equipment arrived on site and the date the equipment left the site. In addition the listing shall note if the equipment is in operation or not operating. For any equipment not in operation during the report period, the Contractor shall note the period when the equipment was not in operation and the reason why.

5.2.9 Work Force Tabulation

With each Monthly Report the Contractor shall present, in tabular format, a listing of all Contractor's, Subcontractor's and suppliers senior personnel on site during the report period. The listing shall include the names of all senior personnel, their company affiliation and their position.

5.2.10 Report Formatting

The monthly report shall:

- Be Prepared in A4 size paper
- Be ring bound with a clear acetate or plastic cover
- Have a clearly identifiable cover page indicating the Project title, the Construction Company and the period covered.
- Be written in 12 point font
- Include Drawings on
- Have all photos printed in color

5.2.11 Description

The Schedule of Works, or Construction Schedule, shall incorporate all activities that will affect the Works from commencement to completion including, but not limited to:

- a) the Contractor's mobilization and demobilization;
- b) all site investigation activities;
- c) all surveying and laying out ;
- d) all key and milestone dates;
- e) all interface dates between the Contractor, any interfacing contractors and sub-contractors for the Works;
- f) all Quality Control inspection and testing requirements;
- g) all Submittal, Working Drawing and Shop Drawing preparation;
- h) all Submittal time for review by the Engineer;
- i) all activities associated with the procurement, purchase, fabrication and shipment of goods, materials, and equipment to be incorporated into the Works;
- j) all construction activities for each phase and section of the Works, including testing and commissioning and defects and deficiencies work;
- k) all activities (including required testing) associated with the approval of materials and equipment to be incorporated in the Works;
- l) all public and site holidays; and
- m) such other activities that the Engineer may require to be monitored.

5.3 SCHEDULE OF WORKS SUBMISSION AND NARRATIVE STATEMENT

5.3.1 The Schedule of Works

- a) No later than 15 (fifteen) days after issuance of the Notice to proceed the Contractor shall submit his proposed schedule of works to the Engineer for review and approval. This Schedule of Works shall be in the form and content prescribed herein. Unless the Engineer approves a revised Schedule of Works this shall remain the Schedule of Works for all purposes during the Contract Period.

Schedule of Payment Forecast, so that the total Contract Sum of the Works is reflected on the schedule. All activities shall be resource loaded (as appropriate), indicating all manpower and/or equipment necessary to accomplish the activity within the given time duration.

- d) All activities shall be organized in a logical work breakdown structure, indicating work stages and phases, and shall clearly indicate critical path(s) of each facility and/or segment of the Works.
- e) All activity descriptions shall be unique, each describing discrete elements of work.
- f) Any activity having or creating an imposed constraint shall be fully described and defined by the Contractor in an attached summary to the schedule.
- g) All activities shall have an activity identification number related to the work breakdown structure as well as a unique description, with duration expressed in calendar days.

5.5 SUBMITTAL OF UPDATED SCHEDULES AND ACTIVITY REPORTS

On a monthly basis all activities of the approved Schedule of Works shall be updated to reflect the actual work accomplished to the end of the month and submitted to the Engineer. In addition, an activity report, generated by the schedule computer program, shall also be submitted. The Activity Report shall include the following information and data for each activity:

- a) activity identification number and description;
- b) activity duration expressed in calendar days;
- c) early and late start and finish dates for each activity, as well as planned start and finish dates;
- d) calculated total and free float for each activity;
- e) predecessors(s) and successor(s), accompanying relationships and lag/lead duration(s) for each activity;
- f) imposed time or date constraints on each activity;
- g) an activity calendar;
- h) critical path delay; and
- i) all activities that have a negative float shall be identified and analyzed to identify the impact on the timely completion of the Works.

5.6 REVISIONS TO APPROVED SCHEDULE OF WORKS

After approval by the Engineer, the Schedule of Works will not be revised without either the request or approval of the Engineer.

5.7 SCHEDULING PERSONNEL

The Contractor shall submit, as part of his Staff Organization Plan, the name and resume of his Scheduler, who shall hold reputable professional qualifications acceptable to the Engineer including at least three (3) years relevant experience in the scheduling of civil engineering works. The Scheduler shall be employed by the Contractor full time on the Contract until completion of the Works or such earlier time as accepted by the Engineer.

5.8 WORK NOT COMPLETED BY LATEST SCHEDULED COMPLETION DATE

If at any time during the Project execution, any activity is not completed by its latest scheduled completion date, the Engineer shall be notified within 7 days of the Contractor's plans to re-organize the work force to recover the lost time and prevent delays on any other activity.

5.9 MEASUREMENT AND PAYMENT

The preparation and supply of the Contractor's monthly progress report in accordance with the provisions of this Specification section shall not be measured for payment but paid monthly.

<u>Pay Item</u>	<u>Description</u>	<u>Unit</u>
A.5	Monthly Progress Reports and Schedule of Works	Month

ITEM 100 – CLEARING AND GRUBBING

100.1 Description

This item shall consist of clearing, grubbing, removing and disposing all vegetation

- shall be cut off not more than 150 mm (6 inches) above the ground line or low water level.
- (3) In areas to be rounded at the top of cut slopes, stumps shall be cut off flush with or below the surface of the final slope line.
 - (4) Grubbing of pits, channel changes and ditches will be required only to the depth necessitated by the proposed excavation within such areas.
 - (5) In areas covered by cogon / talahib, wild grass and other vegetations, top soil shall be cut to a maximum depth of 150 mm below the original ground surface or as designated by the Engineer, and disposed outside the clearing and grubbing limits as indicated in the typical roadway section.

Except in areas to be excavated, stump holes and other holes from which obstructions are removed shall be backfilled with suitable material and compacted to the required density.

If perishable material is burned, it shall be burned under the constant care of component watchmen at such times and in such a manner that the surrounding vegetation, other adjacent property, or anything designated to remain on the right of way will not be jeopardized. If permitted, burning shall be done in accordance with applicable laws, ordinances, and regulation.

The Contractor shall use high intensity burning procedures, (i.e., incinerators, high stacking or pit and ditch burning with forced air supplements) that produce intense burning with little or no visible smoke emission during the burning process. At the conclusion of each burning session, the fire shall be completely extinguished so that no smoldering debris remains.

In the event that the Contractor is directed by the Engineer not to start burning operations or to suspend such operations because of hazardous weather conditions, material to be burned which interferes with subsequent construction operations shall be moved by the Contractor to temporary locations clear of construction operations and later, if directed by the Engineer, shall be placed on a designated spot and burned.

Materials and debris which cannot be burned and perishable materials may be disposed off by methods and at locations approved by the Engineer, on or off the project. If disposal is by burying, the debris shall be placed in layers with the material so disturbed to avoid nesting. Each layer shall be covered or mixed with earth material by the land-fill method to fill all voids. The top layer of material buried shall be covered with at least 300 mm (12 inches) of earth or other approved material and shall be graded, shaped and compacted to present a pleasing appearance. If the disposal location is off the project, the Contractor shall make all necessary arrangements with property owners in writing for obtaining suitable disposal locations which are outside the limits of view from the project. The cost involved shall be included in the unit bid price. A copy of such agreement shall be furnished to the Engineer. The disposal areas shall be seeded, fertilized and mulched at the Contractor's expense.

Woody material may be disposed off by chipping. The wood chips may be used for mulch, slope erosion control or may be uniformly spread over selected areas as directed by the Engineer. Wood chips used as mulch for slope erosion control shall have a maximum thickness of 12 mm (1/2 inch) and faces not exceeding 3900 mm² (6 square inches) on any individual surface area. Wood chips not designated for use under other sections shall be spread over the designated areas in layers not to exceed 75 mm (3 inches) loose thickness. Diseased trees shall be buried or disposed off as directed by the Engineer.

All merchantable timber in the clearing area which has not been removed from the right of way prior to the beginning of construction, shall become the property of the Contractor, unless otherwise provided.

Low hanging branches and unsound or unsightly branches on trees or shrubs designated to remain shall be trimmed as directed. Branches of trees extending over the roadbed shall be trimmed to give a clear height of 6 m (20 feet) above the roadbed surface. All trimming shall be done by skilled workmen and in accordance with good tree surgery practices.

Timber cut inside the area staked for clearing shall be felled within the area to be cleared.

100.2.3 Individual Removal of Trees or Stumps

Over 150 mm to 900 mm	Small
Over 900 mm	Large

100.4 Basis of Payment

The accepted quantities, measured as prescribed in Section 100.3, shall be paid for at the Contract unit price for each of the Pay Items listed below that is included in the Bill of Quantities, which price and payment shall be full compensation for furnishing all labor, equipment, tools and incidentals necessary to complete the work prescribed in this Item.

Payment will be made under:

Pay Item Number	Description	Unit of Measurement
100 (1)	Clearing and Grubbing	Hectare
100 (2)	Clearing and Grubbing	Lump Sum
100 (3)	Individual Removal of Trees, Small	Each
100 (4)	Individual removal of Trees, Large	Each

ITEM 101 – REMOVAL OF STRUCTURES AND OBSTRUCTIONS

101.1 Description

This Item shall consist of the removal wholly or in part, and satisfactory disposal of all buildings, fences, structures, old pavements, abandoned pipe lines, and any other obstructions which are not designated or permitted to remain, except for the obstructions to be removed and disposed off under other items in the Contract. It shall also include the salvaging of designated materials and backfilling the resulting trenches, holes, and pits.

101.2 Construction Requirements

101.2.1 General

The Contractor shall perform the work described above, within and adjacent to the roadway, on Government land or easement, as shown on the Plans or as directed by the Engineer. All designated salvable material shall be removed, without unnecessary damage, in sections or pieces which may be readily transported, and shall be stored by the Contractor at specified places on the project or as otherwise shown in the Special Provisions. Perishable material shall be handled as designated in Subsection 100.2.2 Nonperishable material may be disposed off outside the limits of view from the project with written permission of the property owner on whose property the material is placed. Copies of all agreements with property owners are to be furnished to the Engineer. Basements or cavities left by

Structures designated to become the property of the Contractor shall be removed from the right-of-way.

Blasting or other operations necessary for the removal of an existing structure or obstruction, which may damage new construction, shall be completed prior to placing the new work, unless otherwise provided in the Special Provisions.

101.2.3 Removal of Pipes Other than Pipe Culverts

Unless otherwise provided, all pipes shall be carefully removed and every precaution taken to avoid breakage or damaged. Pipes to be re laid shall be removed and stored when necessary so that there will be no loss of damage before re-laying. The Contractor shall replace sections lost from storage or damage by negligence, at his own expense.

101.2.4 Removal of Existing Pavement, Sidewalks, Curbs, etc.

All concrete pavement, base course, sidewalks, curbs, gutters, etc., designated for removal, shall be:

- (1) Broken into pieces and used for riprap on the project, or
- (2) Broken into pieces, the size of which shall not exceed 300 mm (12 inches) in any dimension and stockpiled at designated locations on the project for use by the Government, or
- (3) Otherwise demolished and disposed off as directed by the Engineer. When specified, ballast, gravel, bituminous materials or other surfacing or pavement materials shall be removed and stockpiled as required in Subsection 101.2.1, otherwise such materials shall be disposed off as directed.

There will be no separate payment for excavating for removal of structures and obstructions or for backfilling and compacting the remaining cavity.

101.3 Method of Measurement

When the Contract stipulates that payment will be made for removal of obstructions on lump-sum basis, the pay item will include all structures and obstructions encountered within the roadway. Where the contract stipulates that payment will be made for the removal of specific items on a unit basis, measurement will be made by the unit stipulated in the Contract.

Whenever the Bill of Quantities does not contain an item for any aforementioned removals, the work will not be paid for directly, but will be considered as a subsidiary obligation of the Contractor under other Contract Items.

101.4 Basis of Payment

The accepted quantities, measured as prescribed in Section 101.3, shall be paid for at the Contract unit price or lump sum price bid for each of the Pay Items listed below that is included in the Bill of Quantities which price and payment shall be full compensation for removing and disposing of obstructions, including materials, labor, equipments, tools and incidentals necessary to complete the work prescribed in this Item. The price shall also include backfilling, salvage of materials removed, their custody, preservation, storage on the right-of-way and disposal as provided herein.

102.1.1 Roadway Excavation

Roadway excavation will include excavation and grading for roadways, parking areas, intersections, approaches, slope rounding, benching, waterways and ditches; removal of unsuitable material from the roadbed and beneath embankment areas; and excavating selected material found in the roadway as ordered by the Engineer for specific use in the improvement. Roadway excavation will be classified as "unclassified excavation", "rock excavation", "common excavation", or "muck excavation" as indicated in the Bill of Quantities and hereinafter described.

- (1) **Unclassified Excavation.** Unclassified excavation shall consist of the excavation and disposal of all materials regardless of its nature, not classified and included in the Bill of Quantities under other pay items.
- (2) **Rock Excavation.** Rock excavation shall consist of igneous, sedimentary and metamorphic rock which cannot be excavated without blasting or the use of rippers, and all boulders or other detached stones each having a volume of 1 cubic meter or more as determined by physical measurements or visually by the Engineer.
- (3) **Common Excavation.** Common excavations shall consist of all excavation not included in the Bill of Quantities under "rock excavation" or other pay items.
- (4) **Muck Excavation.** Muck excavation shall consist of the removal and disposal of deposits of saturated or unsaturated mixtures of soils and organic matter not suitable for foundation material regardless of moisture content.

102.1.2 Borrow Excavation

Borrow excavation shall consist of the excavation and utilization of approved material required for the construction of embankments or for other portions of the work, and shall be obtained from approved sources, in accordance with Clause 61 and the following:

- (1) **Borrow, Case 1**

Borrow Case 1 will consist of material obtained from sources designated on the Plans or in the Special Provisions.

- (2) **Borrow, Case 2**

Borrow Case 2 will consist of material obtained from sources provided by the Contractor.

The material shall meet the quality requirements determined by the Engineer unless otherwise provided in the Contract.

102.2 Construction Requirements

102.2.1 General

When there is evidence of discrepancies on the actual elevations and that shown on the Plans, a pre-construction survey referred to the datum plane used in the approved Plan shall be undertaken by the Contractor under the control of the Engineer to serve as basis for the computation of the actual volume of the excavated materials.

All excavations shall be finished to reasonably smooth and uniform surfaces. No materials shall be wasted without authority of the Engineer. Excavation operations shall be conducted so that material outside of the limits of slopes will not be disturbed. Prior to excavation, all necessary clearing and grubbing in that area shall have been performed in accordance with Item 100, Clearing and Grubbing.

102.2.2 Conservation of Topsoil

Where provided for on the Plans or in the Special Provisions, suitable topsoil encountered in excavation and on areas where embankment is to be placed shall be removed to such extent and to such depth as the Engineer may direct. The removed topsoil shall be transported and deposited in storage piles at locations approved by the Engineer. The topsoil shall be completely removed to the required

Excavation areas and borrow pits may be prewatered before excavating the material. When prewatering is used, the areas to be excavated shall be moistened to the full depth, from the surface to the bottom of the excavation. The water shall be controlled so that the excavated material will contain the proper moisture to permit compaction to the specified density with the use of standard compacting equipment. Prewatering shall be

supplemented where necessary, by truck watering units, to ensure that the embankment material contains the proper moisture at the time of compaction.

The Contractor shall provide drilling equipment capable of suitably checking the moisture penetration to the full depth of the excavation.

102.2.5 Presplitting

Unless otherwise provided in the Contract, rock excavation which requires drilling and shooting shall be presplit.

Presplitting to obtain faces in the rock and shale formations shall be performed by: (1) drilling holes at uniform intervals along the slope lines, (2) loading and stemming the holes with appropriate explosives and stemming material, and (3) detonating the holes simultaneously.

Prior to starting drilling operations for presplitting, the Contractor shall furnish the Engineer a plan outlining the position of all drill holes, depth of drilling, type of explosives to be used, loading pattern and sequence of firing. The drilling and blasting plan is for record purposes only and will not absolve the Contractor of his responsibility for using proper drilling and blasting procedures. Controlled blasting shall begin with a short test section of a length approved by the Engineer. The test section shall be presplit, production drilled and blasted and sufficient material excavated whereby the Engineer can determine if the Contractor's methods are satisfactory. The Engineer may order discontinuance of the presplitting when he determines that the materials encountered have become unsuitable for being presplit.

The holes shall be charged with explosives of the size, kind, strength, and at the spacing suitable for the formations being presplit, and with stemming material which passes a 9.5 mm (3/8 inch) standard sieve and which has the qualities for proper confinement of the explosives.

The finished presplit slope shall be reasonably uniform and free of loose rock. Variance from the true plane of the excavated back slope shall not exceed 300 mm (12 inches); however, localized irregularities or surface variations that do not constitute a safety hazard or an impairment to drainage courses or facilities will be permitted.

A maximum offset of 600 mm (24 inches) will be permitted for a construction working bench at the bottom of each lift for use in drilling the next lower presplitting pattern.

102.2.6 Excavation of Ditches, Gutters, etc.

All materials excavated from side ditches and gutters, channel changes, irrigation ditches, inlet and outlet ditches, toe ditchers, furrow ditches, and such other ditches as may be designated on the Plans or staked by the Engineer, shall be utilized as provided in Subsection 102.2.3.

Ditches shall conform to the slope, grade, and shape of the required cross-section, with no projections of roots, stumps, rock, or similar matter. The Contractor shall maintain and keep open and free from leaves, sticks, and other debris all ditches dug by him until final acceptance of the work.

Furrow ditches shall be formed by plowing a continuous furrow along the line staked by the Engineer. Methods other than plowing may be used if acceptable to the Engineer. The ditches shall be cleaned out by hand shovel work, by ditcher, or by some other suitable method, throwing all loose materials on the downhill side so that the bottom of the finished ditch shall be approximately 450 mm (18 inches) below the crest of the loose material piled on the downhill side. Hand finish will not be required, but the flow lines shall be in satisfactory shape to provide drainage without overflow.

specified and shall be finished, as prescribed in Clause 61, Standard Specifications for Public Works and Highways, Volume 1. When necessary to remove fencing, the fencing shall be replaced in at least as good condition as it was originally. The Contractor shall be responsible for the confinement of livestock when a portion of the fence is removed.

102.2.9 Removal of Unsuitable Material

Where the Plans show the top portion of the roadbed to be selected topping, all unsuitable materials shall be excavated to the depth necessary for replacement of the selected topping to the required compacted thickness.

Where excavation to the finished graded section results in a sub grade or slopes of unsuitable soil, the Engineer may require the Contractor to remove the unsuitable material and backfill to the finished graded section with approved material. The Contractor shall conduct his operations in such a way that the Engineer can take the necessary cross-sectional measurements before the backfill is placed.

The excavation of muck shall be handled in a manner that will not permit the entrapment of muck within the backfill. The material used for backfilling up to the ground line or water level, whichever is higher, shall be rock or other suitable granular material selected from the roadway excavation, if available. If not available, suitable material shall be obtained from other approved sources. Unsuitable material removed shall be disposed off in designated areas shown on the Plans or approved by the Engineer.

102.3 Method of Measurement

The cost of excavation of material which is incorporated in the Works or in other areas of fill shall be deemed to be included in the Items of Work where the material is used.

Measurement of Unsuitable or Surplus Material shall be the net volume in its original position. For measurement purposes, surplus suitable material shall be calculated as the difference between the net volume of suitable material required to be used in embankment corrected by applying a shrinkage factor or a swell factor in case of rock excavation, determined by laboratory tests to get its original volume measurement, and the net volume of suitable material from excavation in the original position. Separate pay items shall be provided for surplus common, unclassified and rock material.

The Contractor shall be deemed to have included in the contract unit prices all costs of obtaining land for the disposal of unsuitable or surplus material.

102.4 Basis of Payment

The accepted quantities, measured as prescribed in Section 102.3 shall be paid for at the contract unit price for each of the Pay Items listed below that is included in the Bill of Quantities which price and payment shall be full compensation for the removal and disposal of excavated materials including all labor, equipment, tools, and incidentals necessary to complete the work prescribed in this Item.

Payment will be made under:

Pay Item Number	Description	Unit of Measurement
102 (1)	Unsuitable Excavation	Cubic Meter
102 (2)	Surplus Common Excavation	Cubic Meter
102 (3)	Surplus Rock Excavation	Cubic Meter
102 (4)	Surplus Unclassified Excavation	Cubic Meter

- (e) Soils with very low natural density, 800 kg/m³ or lower.
- (f) Soils that cannot be properly compacted as determined by the Engineer.

104.3 Construction Requirements

104.3.1 General

Prior to construction of embankment, all necessary clearing and grubbing in that area shall have been performed in conformity with Item 100, Clearing and Grubbing.

Embankment construction shall consist of constructing roadway embankments, including preparation of the areas upon which they are to be placed; the construction of dikes within or adjacent to the roadway; the placing and compacting of approved material within roadway areas where unsuitable material has been removed; and the placing and compacting of embankment material in holes, pits, and other depressions within the roadway area.

Embankments and backfills shall contain no muck, peat, sod, roots or other deleterious matter. Rocks, broken concrete or other solid, bulky materials shall not be placed in embankment areas where piling is to be placed or driven.

Where shown on the Plans or directed by the Engineer, the surface of the existing ground shall be compacted to a depth of 150 mm (6 inches) and to the specified requirements of this Item.

Where provided on the Plans and Bill of Quantities the top portions of the roadbed in both cuts and embankments, as indicated, shall consist of selected borrow for topping from excavations.

104.3.2 Methods of Construction

Where there is evidence of discrepancies on the actual elevations and that shown on the Plans, a preconstruction survey referred to the datum plane used in the approved Plan shall be undertaken by the Contractor under the control of the Engineer to serve as basis for the computation of the actual volume of the embankment materials.

When embankment is to be placed and compacted on hillsides, or when new embankment is to be compacted against existing embankments, or when embankment is built one-half width at a time, the existing slopes that are steeper than 3:1 when measured at right angles to the roadway shall be continuously benched over those areas as the work is brought up in layers. Benching will be subject to the Engineer's approval and shall be of sufficient width to permit operation of placement and compaction equipment. Each horizontal cut shall begin at the intersection of the original ground and the vertical sides of the previous cuts. Material thus excavated shall be placed and compacted along with the embankment material in accordance with the procedure described in this Section.

Unless shown otherwise on the Plans or special Provisions, where an embankment of less than 1.2 m (4 feet) below subgrade is to be made, all sod and vegetable matter shall be removed from the surface upon which the embankment is to be placed, and the cleared surface shall be completely broken up by plowing, scarifying, or steeping to a minimum depth of 150 mm except as provided in Subsection 102.2.2. This area shall then be compacted as provided in Subsection 104.3.3. Sod not required to be removed shall be thoroughly disc harrowed or scarified before construction of embankment. Wherever a compacted road surface containing granular materials lies within 900 mm (36 inches) of the subgrade, such old road surface shall be scarified to a depth of at least 150 mm (6 inches) whenever directed by the Engineer. This scarified materials shall then be compacted as provided in Subsection 104.3.3.

When shoulder excavation is specified, the roadway shoulders shall be excavated to the depth and width shown on the Plans. The shoulder material shall be removed without disturbing the adjacent existing base course material, and all excess excavated materials shall be disposed off as provided in Subsection 102.2.3. If necessary, the areas shall be compacted before being backfilled.

boulders greater than 600 mm in diameter will be permitted provided that when placed, they do not exceed 1200 mm (48 inches) in height and provided they are carefully distributed, with the interstices filled with finer material to form a dense and compact mass.

Each layer shall be leveled and smoothed with suitable leveling equipment and by distribution of spalls and finer fragments of earth. Lifts of material containing more than 25 mass percent of rock larger than 150 mm in greatest dimensions shall not be constructed above an elevation 300 mm (12 inches) below the finished subgrade. The balance of the embankment shall be composed of suitable material smoothed and placed in layers not exceeding 200 mm (8 inches) in loose thickness and compacted as specified for embankments.

Dumping and rolling areas shall be kept separate, and no lift shall be covered by another until compaction complies with the requirements of Subsection 104.3.3.

Hauling and leveling equipment shall be so routed and distributed over each layer of the fill in such a manner as to make use of compaction effort afforded thereby and to minimize rutting and uneven compaction.

104.3.3 Compaction

Compaction Trials

Before commencing the formation of embankments, the Contractor shall submit in writing to the Engineer for approval his proposals for the compaction of each type of fill material to be used in the works. The proposals shall include the relationship between the types of compaction equipment, and the number of passes required and the method of adjusting moisture content. The Contractor shall carry out full scale compaction trials on areas not less than 10 m wide and 50 m long as required by the Engineer and using his proposed procedures or such amendments thereto as may be found necessary to satisfy the Engineer that all the specified requirements regarding compaction can be consistently achieved. Compaction trials with the main types of fill material to be used in the works shall be completed before work with the corresponding materials will be allowed to commence.

Throughout the periods when compaction of earthwork is in progress, the Contractor shall adhere to the compaction procedures found from compaction trials for each type of material being compacted, each type of compaction equipment employed and each degree of compaction specified.

Earth

The Contractor shall compact the material placed in all embankment layers and the material scarified to the designated depth below subgrade in cut sections, until a uniform density of not less than 95 mass percent of the maximum dry density determined by AASHTO T 99 Method C, is attained, at a moisture content determined by Engineer to be suitable for such density. Acceptance of compaction may be based on adherence to an approved roller pattern developed as set forth in Item 106, Compaction Equipment and Density Control Strips.

The Engineer shall during progress of the Work, make density tests of compacted material in accordance with AASHTO T 191, T 205, or other approved field density tests, including the use of properly calibrated nuclear testing devices. A correction for coarse particles may be made in accordance with AASHTO T 224. If, by such tests, the Engineer determines that the specified density and moisture conditions have not been attained, the Contractor shall perform additional work as may be necessary to attain the specified conditions.

At least one group of three in-situ density tests shall be carried out for each 500 m of each layer of compacted fill.

Rock

Density requirements will not apply to portions of embankments constructed of materials which cannot be tested in accordance with approved methods.

Embankment materials classified as rock shall be deposited, spread and leveled the full width of the fill with sufficient earth or other fine material so deposited to fill the interstices to produce a dense compact embankment. In addition, one of the rollers, vibrators, or compactors meeting the requirements set forth in Subsection 106.2.1, Compaction Equipment, shall compact the embankment full width with a minimum of three complete passes for each layer of embankment.

104.3.7 Finishing Roadbed and Slopes

After the roadbed has been substantially completed, the full width shall be conditioned by removing any soft or other unstable material that will not compact properly or serve the intended purpose. The resulting areas and all other low sections, holes or depressions shall be brought to grade with suitable selected material. Scarifying, blading, dragging, rolling, or other methods of work shall be performed or used as necessary to provide a thoroughly compacted roadbed shaped to the grades and cross-sections shown on the Plans or as staked by the Engineer.

All earth slopes shall be left with roughened surfaces but shall be reasonably uniform, without any noticeable break, and in reasonably close conformity with the Plans or other surfaces indicated on the Plans or as staked by the Engineer, with no variations therefrom readily discernible as viewed from the road.

104.3.8 Serrated Slopes

Cut slopes in rippable material (soft rock) having slope ratios between 0.75:1 and 2:1 shall be constructed so that the final slope line shall consist of a series of small horizontal steps. The step rise and tread dimensions shall be shown on the Plans. No scaling shall be performed on the stepped slopes except for removal of large rocks which will obviously be a safety hazard if they fall into the ditchline or roadway.

104.3.9 Earth Berms

When called for in the Contract, permanent earth berms shall be constructed of well graded materials with no rocks having a diameter greater than 0.25 the height of the berm. When local material is not acceptable, acceptable material shall be imported, as directed by the Engineer.

Compacted Berm

Compacted berm construction shall consist of moistening or drying and placing material as necessary in locations shown on the drawings or as established by the Engineer. Material shall contain no frozen material, roots, sod, or other deleterious materials. Contractor shall take precaution to prevent material from escaping over the embankment slope. Shoulder surface beneath berm will be roughened to provide a bond between the berm and shoulder when completed. The Contractor shall compact the material placed until at least 90 mass percent of the maximum density is obtained as determined by AASHTO T 99, Method C. The cross-section of the finished compacted berm shall reasonably conform to the typical cross-section as shown on the Plans.

Uncompacted Berm

Uncompacted berm construction shall consist of drying, if necessary and placing material in locations shown on the Plans or as established by the Engineer. Material shall contain no frozen material, roots, sod or other deleterious materials. Contractor shall take precautions to prevent material from escaping over the embankment slope.

104.4 Method of Measurement

The quantity of embankment to be paid for shall be the volume of material compacted in place, accepted by the Engineer and formed with material obtained from any source.

Material from excavation per Item 102 which is used in embankment and accepted by the Engineer will be paid under Embankment and such payment will be deemed to include the cost of excavating, hauling, stockpiling and all other costs incidental to the work.

Material for Selected Borrow topping will be measured and paid for under the same conditions specified in the preceding paragraph.

104.5 Basis of Payment

The accepted quantities, measured as prescribed in Section 104.4, shall be paid for at the Contract unit price for each of the Pay Items listed below that is included in the Bill of Quantities. The payment shall continue

meet the requirements of Section 104.2, Selected Borrow for Topping.

105.3 Construction Requirements

105.3.1 Prior Works

Prior to commencing preparation of the sub grade, all culverts, cross drains, ducts and the like (including their fully compacted backfill), ditches, drains and drainage outlets shall be completed. Any work on the preparation of the Sub grade shall not be started unless prior work herein described shall have been approved by the Engineer.

105.3.2 Sub grade Level Tolerances

The finished compacted surface of the sub grade shall conform to the allowable tolerances as specified hereunder:

Permitted variation from design LEVEL OF SURFACE	+	20 mm
	-	30 mm
Permitted SURFACE IRREGULARITY MEASURED BY 3-m STRAIGHT EDGE		30 mm
Permitted variation from design CROSSFALL OR CAMBER	±	0.5 %
Permitted variation from design LONGITUDINAL GRADE over 25 m length	±	0.1 %

105.3.3 Sub grade in Common Excavation

Unless otherwise specified, all materials below sub grade level in earth cuts to a depth 150 mm or other depth shown on the Plans or as directed by the Engineer shall be excavated. The material, if suitable, shall be set side for future use or, if unsuitable, shall be disposed off in accordance with the requirements of Subsection 102.2.9.

Where material has been removed from below sub grade level, the resulting surface shall be compacted to a depth of 150 mm and in accordance with other requirements of Subsection 104.3.3.

All materials immediately below sub grade level in earth cuts to a depth of 150 mm, or to such greater depth as may be specified, shall be compacted in accordance with the requirements of Subsection 104.3.3.

105.3.4 Sub grade in Rock Excavation

Surface irregularities under the sub grade level remaining after trimming of the rock excavation shall be leveled by placing specified material and compacted to the requirements of Subsection 104.3.3.

105.3.5 Sub grade on Embankment

After the embankment has been completed, the full width shall be conditioned by removing any soft or other unstable material that will not compacted properly. The resulting areas and all other low sections, holes, or depressions shall be brought to grade with suitable material. The entire roadbed shall be shaped and compacted to the requirements of Subsections 104.3.3. Scarifying, blading, dragging, rolling, or other methods of work shall be performed or used as necessary to provide a thoroughly compacted roadbed shaped to the cross-sections shown on the Plans.

105.3.6 Sub grade on Existing Pavement

Where the new pavement is to be constructed immediately over an existing Portland Cement concrete pavement and if so specified in the Contract the slab be broken into pieces with greatest dimension of not more than 500 mm and the existing pavement material compacted as specified in Subsection 104.3.3, as directed by the Engineer. The resulting sub grade level shall, as part pavement

1. The compaction of existing ground below subgrade level in cuts of common material as specified in Subsection 105.3.3.
2. The breaking up or scarifying, loosening, reshaping and recompacting of existing pavement as specified in Subsection 105.3.6. The quantity to be paid for shall be the area of the work specified to be carried out and accepted by the Engineer.

105.4.2 Payment for all work for the preparation of the subgrade, including shaping to the required levels and tolerances, other than as specified above shall be deemed to be included in the Pay Item for Embankment.

105.5 Basis of Payment

The accepted quantities, measured as prescribed in Section 105.4, shall be paid for at the appropriate contract unit price for Pay Item listed below that is included in the Bill of Quantities which price and payment shall be full compensation for the placing or removal and disposal of all materials including all labor, equipment, tools and incidentals necessary to complete the work prescribed in this Item.

Payment will be made under:

Pay Item Number	Description	Unit of Measurement
105 (1)	Subgrade Preparation (Common Material)	Square Meter
105 (2)	Subgrade Preparation (Existing Pavement)	Square Meter
105 (3)	Subgrade Preparation (Unsuitable Material)	Square Meter

ITEM 201 – AGGREGATE BASE COURSE

201.1 Description

This Item shall consist of furnishing, placing and compacting an aggregate base course on a prepared subgrade/subbase in accordance with this Specification and the lines, grades, thickness and typical cross-sections shown on the Plans, or as established by the Engineer.

201.2 Material Requirements

Aggregate for base course shall consist of hard, durable particles or fragments of crushed stone, crushed slag or crushed or natural gravel and filler of natural or crushed sand or other finely divided mineral matter. The composite material shall be free from vegetable matter and lumps or balls of clay, and shall be of such nature that it can be compacted readily to form a firm, stable base.

In some areas where the conventional base course materials are scarce or non-available, the use of 40% weathered limestone blended with 60% crushed stones or gravel shall be allowed, provided that the blended materials meet the requirements of this Item.

The base course material shall conform to Table 201.1, whichever is called for in the Bill of Quantities

The material passing the 19 mm (3/4 inch) sieve shall have a soaked CBR value of not less than 80% as determined by AASHTO T 193. The CBR value shall be obtained at the maximum dry density (MDD) as determined by AASHTO T 180, Method D.

If filler, in addition to that naturally present, is necessary for meeting the grading requirements or for satisfactory bonding, it shall be uniformly blended with the base course material on the road or in a pugmill unless otherwise specified or approved. Filler shall be taken from sources approved by the Engineer, shall be free from hard lumps and shall not contain more than 15 percent of material retained on the 4.75 mm (No. 4) sieve.

201.3 Construction Requirements

201.3.1 Preparation of Existing Surface

The existing surface shall be graded and finished as provided under Item 105, Subgrade Preparation, before placing the base material.

201.3.2 Placing

It shall be in accordance with all the requirements of Subsection 200.3.2, Placing.

201.3.3 Spreading and Compacting

It shall be in accordance with all the requirements of Subsection 200.3.3, Spreading and Compacting.

201.3.4 Trial Sections

Trial sections shall conform in all respects to the requirements specified in Subsection 200.3.4.

201.3.5 Tolerances

The aggregate base course shall be laid to the designed level and transverse slopes shown on the Plans. The allowable tolerances shall be in accordance with following:

Permitted variation from design THICKNESS OF LAYER	± 10 mm
Permitted variation from design LEVEL OF SURFACE	+ 5 mm -10 mm
Permitted SURFACE IRREGULARITY Measured by 3-m straight-edge	5 mm
Permitted variation from design CROSSFALL OR CAMBER	± 0.2%
Permitted variation from design LONGITUDINAL GRADE over 25 m in length	± 0.1%

201.4 Method of Measurement

Aggregate Base Course will be measured by the cubic meter (m³). The quantity to be paid for shall be the design volume compacted in-place as shown on the Plans, and accepted in the completed base course. No allowance shall be given for materials placed outside the design limits shown on the cross-sections. Trial sections shall not be measured separately but shall be included in the quantity of aggregate base course.

201.5 Basis of Payment

The accepted quantities, measured as prescribed in Section 201.4, shall be paid for at the contract unit price for Aggregate Base Course which price and payment shall be full compensation for furnishing and placing all materials, including all labor, equipment, tools and incidentals necessary to complete the work prescribed in this Item.

Payment will be made under:

Pay Item Number	Description	Unit of Measurement
201	Aggregate Base Course	Cubic Meter

the kind of pipe involved. The Contractor shall furnish all jointing materials and shall replace the pipe broken by him, in sufficient lengths to complete the designated length to be re-laid without added compensation. Salvaged pipe to be stockpiled shall be placed as shown on the Plans and as directed by the Engineer. No pipe which has sustained structural damage shall be placed in stockpiles. The Contractor shall dispose off such damaged pipes at an approved locations.

Reconditioning Drainage Structures – Structures such as manholes, inlets, and the likes, designated on the Plans or as directed by the Engineer to be reconditioned shall have all debris removed, leaks repaired, missing or broken metalwork replaced, and each structure left in operating condition.

504.4 Method of Measurement

Measurement will be made by the linear meter of pipe acceptably cleaned, removed, re-laid or stockpile as designated in the Bill of Quantities, irrespective of the kind or size involved.

Pipe removed, cleaned, and re-laid will be measured in their final position.

Pipe removed, cleaned, and stockpiled will be measured by totaling the nominal laying lengths of all pipe units acceptably removed, cleaned, and placed in the stockpile.

Pipe cleaned in place will be measured along the flow line of the pipe line acceptably cleaned a directed.

Measurement of drainage structures reconditioned will be made by actual count of the total number of units of each type acceptably completed.

504.5 Basis of Payment

The quantities as provided in Section 504.4, Method of Measurement, shall be paid for at the contract price bid per unit of measurement for each of the Pay Items listed below that appear in the Bid Schedule, which price and payment shall be full compensation for the work of this item except excavation and backfill which is paid for under Item 103, Structure Excavation.

Excavation and backfill necessary for pipe removal operations shall be done as part of the work of this Item.

The Contractor shall remove and replace without added compensation any pipe damaged by this operations and which cannot be acceptably repaired in place.

Payment will be made under:

Pay Item Number	Description	Unit of Measurement
504 (1)	Removing, cleaning, stockpiling Salvaged culvert pipe	Linear Meter
504 (2)	Removing, cleaning, and re-laying Salvaged culvert pipe	Linear Meter
504 (3)	Cleaning culvert pipe in place	Linear Meter
504 (4)	Reconditioning drainage structures	Each

Class B -	Stones ranging from minimum of 30kg to a maximum of 70kg with at least 50 percent of the stones weighing more than 50kg
Class C -	Stones ranging from minimum of 60kg to a maximum of 100kg with at least 50 percent of the stones weighing more than 80kg
Class D -	Stones ranging from minimum of 100kg to a maximum of 200kg with at least 50 percent of the stones weighing more than 150kg

Sound pieces of broken concrete obtained from the removal of bridges, culverts and other structures may be substituted for stone with the approval of the Engineer.

505.2.2 Filter Materials

When required, the riprap shall be placed on a filter layer to prevent fine embankment materials to be washed out through the voids of the face stones. The grading of the filter material shall be as specified on the Plans, or in the Special Provisions. If not so specified, it will be required that D_{15} of the filter is at least 4 times the size D_{85} for the embankment material, where D_{15} percent and 85 percent, respectively, passing (by mass) in a grain size analysis. Fine aggregate passing grading requirements for Item 405, Structural Concrete, will satisfy foregoing requirements.

505.2.3 Mortar

Mortar for grouted riprap shall consist of sand, cement and water conforming to the requirements given under Item 405, Structural Concrete, mixed in the proportion of one part cement to three parts sand by volume, and sufficient water to obtain the required consistency.

The horizontal and vertical contact surface between stones shall be embedded by cement mortar having a minimum thickness of 20 mm. Sufficient mortar shall be used to completely fill all voids leaving the face of the stones exposed.

505.3 Construction Requirements

505.3.1 Excavation

The bed for riprap shall be excavated to the required depths and properly compacted, trimmed and shaped.

The riprap shall be founded in a toe trench dug below the depth of scour as shown on the Plans or as ordered by the Engineer. The toe trench shall be filled with stone of the same class as that specified for the riprap, unless otherwise specified.

505.3.2 Placing

Stones placed below the water line shall be distributed so that the minimum thickness of the riprap is not less than that specified.

Stones above the water line shall be placed by hand or individually by machines. They shall be laid with close, broken joints and shall be firmly bedded into the slope and against the adjoining stones. Each stone shall be laid with its longest axis perpendicular to the slope in close contact with each adjacent stone. The riprap shall be thoroughly rammed into place as construction progresses and the finished surface shall present an even, tight surface. Interstices between stones shall be filled with small broken fragments firmly rammed into place.

Unless otherwise provided, riprap shall have the following minimum thickness, measured perpendicular to the slope:

water can be obtained and shall be spaced at not more than 2 ft center to center in a staggered manner. The length of the weepholes shall not be less than the thickness of the walls of the abutment and shall be at least 50 mm diameter PVC or other pipe materials accepted by the Engineer. Weepholes must be provided with filter bags as specified in special provision or as directed by the Engineer, and shall be incidental to Pay Item 505.

505.4 Method of Measurement

The quantities to be measured for payment shall be the number of cubic meters of riprap or grouted riprap, as the case may be, including stones placed in the toe trench laid in position and accepted.

Filter layer of granular material, when required, shall be measured separately by the cubic meter in place and accepted.

The computation of the quantities will be based on the volume within the limiting dimensions designated on the Plans or as determined by the Engineer.

505.5 Basis of Payment

The quantities measured as provided under Subsection 505.4 shall be paid for at the contract unit price, respectively, for each of the Pay Items listed below and shown in the Bid Schedule, which price and payment shall be full compensation for excavation and preparation of the bed, for furnishing and placing all materials including backfill and all additional fill to bring the riprap bed up to the lines, grades and dimensions shown on the plans, and all labor, equipment, tools and incidentals necessary to complete the Item.

Payment will be made under:

Pay Item Number	Description	Unit of Measurement
505 (1)	Riprap, Class A	Cubic Meter
505 (2)	Riprap, Class B	Cubic Meter
505 (3)	Riprap, Class C	Cubic Meter
505 (4)	Riprap, Class D	Cubic Meter
505 (5)	Grouted Riprap, Class A	Cubic Meter
505 (6)	Grouted Riprap, Class B	Cubic Meter
505 (7)	Grouted Riprap, Class C	Cubic Meter
505 (8)	Grouted Riprap, Class D	Cubic Meter
505 (9)	Filter layer of granular material	Cubic Meter

ITEM 506 – STONE MASONRY

506.1 Description

This Item shall consist of stone masonry in minor structures, in headwalls for culverts, in retaining walls at the toes of slopes, and at other places called for on the Plans, constructed on the prepared foundation bed, in accordance with this Specification and in conformity with the lines, grades, sections, and dimensions shown on the Plans or as ordered in writing by the Engineer.

more than 10 percent shall pass the 0.15 mm (NO. 100) sieve.

The mortar for the masonry shall be composed of one part of Portland Cement and two parts of fine aggregate by volume and sufficient water to make the mortar of such consistency that it can be handled easily and spread with a trowel. Mortar shall be mixed only in those quantities required for immediate use. Unless an approved mortar mixing machine is used, the fine aggregate and cement shall be mixed dry in a tight box until the mixture assumes a uniform color, after which, water shall be added as the mixing continues until the mortar attains the proper consistency. Mortar that is not used within 90 minutes after the water has been added shall be discarded. Retempering of mortar will not be permitted.

506.3 Construction Requirement

506.3.1 Selection and Placing

When the masonry is to be placed on a prepared foundation bed, the bed shall be firm and normal to, or in steps normal to, the face of the wall, and shall have been approved by the Engineer before any stone is placed.

Care shall be taken to prevent the bunching of small stone or stones of the same size. Large stones shall be used in the corners.

All stones shall be cleaned thoroughly and wetted immediately before being set, and the bed which is to receive them shall be cleaned and moistened before the mortar is spread. They shall be laid with their longest faces horizontal in full beds of mortar, and the joints shall be flushed with mortar.

The exposed faces of individual stones shall be parallel to the faces of the walls in which the stones are set.

The stones shall be so handled as not to jar displace the stones already set. Suitable equipment shall be provided for setting stones larger than those that can be handled by two men. The rolling or turning of stones on the walls will not be permitted. If a stone is loosened after the mortar has taken initial set, it shall be removed, the mortar cleaned off, and the stone re-laid with fresh mortar.

506.3.2 Bed and Joints

Beds for face stones may vary from 20 mm to 50 mm in thickness. They shall not extend an unbroken line through more than 5 stones. Joints may vary from 20 mm to 50 mm in thickness. They shall not extend in an unbroken line through more than two stones. They may be at angles with the vertical from 0° to 45°. Face stone shall bond at least 150 mm longitudinally and 50 mm vertically. At no place shall corners of four stones be adjacent to each other.

Cross beds for vertical faced walls shall be level, and for battered walls may vary from level to normal to the batter line of the face of the wall.

506.3.3 Headers

Headers shall be distributed uniformly throughout the walls of the structures so as to form at least one-fifth of the exposed faces. They shall be of such lengths as to extend from the front face of the wall into the backing of at least 300 mm. When a wall is 450 mm or less in thickness, the headers shall extend entirely from front to back face.

506.3.4 Backing.

Backing shall be built mostly of large stones as shown in the approved Plans or as directed by the Engineer. The individual stones composing the backing and hearting shall be well bonded with the stones in the face wall and with each other. All openings and interstices in the backing shall be filled completely with mortar or with spalls surrounded completely by mortar.

506.3.5 Pointing

Both bed and vertical joints shall be finished as shown on the Plans or as directed by the Engineer. The mortar in joints on top of surface of masonry shall be crowned slightly at the center of the masonry to provide drainage.

506.3 Basis of Payment

The quantity of masonry, determined as provided in Section 506.4, Method of Measurement, shall be paid for at the contract unit price per cubic meter for Stone Masonry, which price and payment shall be full compensation for furnishing and placing all materials, including mortar for masonry, for all necessary excavations, and for all labor, equipment, tools and incidentals necessary to complete the Item.

Payment will be made under:

Pay Item Number	Description	Unit of Measurement
506	Stone Masonry	Cubic Meter

ITEM 603 – GUARDRAIL

Description

This item shall consist of furnishing and constructing posts and guardrails of the types called for in the contract and in accordance with this Specification, at the locations, and in conformity with the lines and grades shown on the Plans, or as required by the Engineer.

603.1 Material Requirements

Materials for the desired type of guardrail shall meet the requirements specified in the following specifications:

1. Wire rope or wire cable AASHTO M 30
2. Chain link fabric AASHTO M 181
3. Metal beam rail AASHTO M 180
4. Timber rail, unless otherwise indicated in the Plans or Special Provisions, any of the following first group Philippine Timber shall be used: Ipil, Molave, Tindalo or Yacal. Only one specie of timber shall be used in the construction of any one continuous length of guardrail.

Timber guardrail shall be well-seasoned, straight and free of injurious defects. They shall be dressed and of sufficient length so that joints shall be on the rail posts.

Guardrail Hardware. Offset brackets of the resilient and non-resilient types shall be of the type specified, or as shown on the Plans, and shall meet the strength requirements specified.

Splices and end connections shall be of the type and design specified or as shown on the Plans, and shall be of such strength as to develop the full design strength of the rail elements.

Unless otherwise specified, all fittings, bolts, washers and other accessories shall be galvanized in accordance with the requirements of AASHTO M 111 or ASTM A 153, whichever may apply. All galvanizing shall be done after fabrication.

Guardrail Post. Posts shall be of either wood, steel, or concrete, as may be specified. Only one kind of post shall be used for any one continuous guardrail.

Wood post shall be fabricated from an approved or specified timber specie and shall be of the quality, diameter or section and length as specified, or as shown on the Plans.

Steel post shall be of the section and length as specified, or as shown on the Plans. They shall be of a copper bearing steel when so specified. Steel shall conform to the requirements of AASHTO M 183 for the grade specified. The posts shall be galvanized or shop painted as may be specified.

to painting after erection shall be given the specified number of coats of paint uniformly applied by thorough brushing using an approved pressure spray.

Galvanized surfaces which have been abraded so that the base material is exposed, threaded portions of all fittings and fasteners and cut ends of bolts shall be protected in a manner as may be specified or directed.

The surfaces and sawed edges of untreated or salt-treated guardrail shall be painted with three coats of white paint to within 200 mm of the ground line. The first 200 mm of posts above the ground shall be painted with two coats of black paint. Painting shall be done only when the timber is dry and clean. Each coat of paint shall be thoroughly dry before the next coat is applied. Paint shall be applied in heavy coats, completely covering every part of the surface and shall be worked well into the joints and open spaces. It shall be thoroughly and evenly spread that no excess paint collects at any point.

Guardrail and posts, after erection has been completed, shall be stained with two applications of approved creosote stain, covering the rails and the exposed portions of the posts. The wood shall be dry before being stained. The first coat shall be thoroughly dry before the second is applied. Stain shall not be applied in damp weather.

For beam type guardrails, metal works not galvanized shall be given one shop coat of red lead, zinc chromate paint or an approved fast-drying rust-inhibitive primer and two field coats of white or aluminum paint. Untreated wood posts shall be given three coats of paints of the color indicated on the Plans, or as specified. Painting shall conform to the requirements of Item 411, Paint.

603.4 Method of Measurement

Guardrail shall be measured by linear meter from center to center of end posts, except where end connections are made on masonry or steel structures, in which case measurement will be to the face of such structures.

End anchorages and terminal sections will be measured as units of each kind shown in Bid Schedule. If no pay item for anchorages or terminal sections appear in the Bid Schedule, measurement therefore shall be included in the linear meter measurement for completed guardrail.

603.5 Basis of Payment

The accepted quantities of guardrail, determined in Subsection 603.4, Method of Measurement, shall be paid for at the contract unit price per linear meter for the type specified, complete in place, which price and payment shall be full compensation for furnishing and placing all materials, including all labor, equipment, tools and incidentals necessary to complete the Item. When so specified, end anchorages and terminal sections will be paid for at the contract unit price for each of the kind specified and completed in place.

Payment will be made under:

Pay Item No.	Description	Unit of Measurement
603 (1)	Guardrail (Wire rope or Wire cable)	Linear Meter
603 (2)	Cable Guardrail 9Chain Link Fabric)	Linear Meter
603 (3a)	Metal Guardrail (Metal Beam)	Linear Meter
603 (3b)	Including Post	Each

The reflective sheeting used on the road signs shall consist of spherical lens elements embedded within a transparent plastic having a smooth, flat surface with a protected pre coat adhesive which shall be pressure sensitive for manual application, or tack free heat activated for mechanical vacuum-heat application.

The minimum reflective brightness values of the reflective sheeting as compared to a magnesium oxide (MgO) shall be as given in Table 605.1. The brightness of the reflective sheeting totally wet by rain, shall be not less than 90% of the given values.

Table 605.1 – Reflective Brightness of Traffic Signs Surfaces

Color	Angle of Incidence	Angle of Divergence	Minimum Reflective Brightness Value Compared with MgO
Red	-4 ⁰	0.5 ⁰	15
	20 ⁰	0.5 ⁰	10
	50 ⁰	0.5 ⁰	3
White	-4 ⁰	0.5 ⁰	75
	20 ⁰	0.5 ⁰	70
	50 ⁰	0.5 ⁰	70
Yellow	-4 ⁰	0.5 ⁰	35
	20 ⁰	0.5 ⁰	35
	50 ⁰	0.5 ⁰	10
Blue	-4 ⁰	0.5 ⁰	6
	20 ⁰	0.5 ⁰	4.5
	50 ⁰	0.5 ⁰	0.5

The reflective sheeting shall be sufficiently flexible to permit application and adhesion to a moderately embossed surface. It shall show no damage when bent 90⁰ over a 50 mm diameter mandrel.

The sheeting shall be solvent-resistant so as to be capable of withstanding cleaning with petrol, diesel fuel, mineral spirits, turpentine methanol.

The sheeting shall show no cracking or reduction in reflectivity after being subjected to the dropping of a 25 mm diameter steel ball from a height of 2 m into its surface.

The adhesive shall permit the reflective sheeting to adhere accurately 48 hours after application of temperatures of up to 90⁰.

The reflective material shall be weather-resistant and, following cleaning in accordance with manufacturer's recommendations, shall show no discoloration, cracking, blistering, peeling or any dimensional change.

Samples of reflective sheeting shall be submitted to the Engineer for approval.

605.2.3 Posts and Frames

Wide flange posts and frames shall be fabricated from structural steel conforming to ASTM A 283 Grade D. In lieu of wide flange steel posts, the Contractor may use tubular steel posts conforming to ASTM A 501. All posts shall be thoroughly cleaned, free from grease, scale and rust and shall be given one coat of rust-inhibiting priming paint and two coats of gray paint in accordance with Item 411, Paint.

605.2.4 Nuts and Bolts

Nuts, bolts, washers and other metal parts shall be hot-dip galvanized after fabrication in accordance with the requirements of AASHTO M 111.

matching the background color.

All newly erected traffic road signs shall be covered until ordered removed by the Engineer.

605.4 Method of Measurement

The quantities of standard reflective warning and regulatory road signs shall be the number of such signs of the size specified, including the necessary posts and supports erected and accepted.

The quantities for standard reflective informatory signs and non-standard reflective informatory signs shall be the number of such, including the necessary posts and supports, erected and accepted.

605.5 Basis of Payment

The quantities measured as determined in Subsection 605.4, Method of Measurement, shall be paid for at the contract unit price for the Pay Items shown in the Bid Schedule which price and payment shall be full compensation for furnishing and installing road signs, for excavation, backfilling and construction of foundation blocks, and all labor, equipment, tools and incidentals necessary to complete the Item.

Payment will be made under:

Pay Item No.	Description	Unit of Measurement
605 (1)	Warning Signs	Each
605 (2)	Regulatory Signs	Each
605 (3)	Informatory Signs	Each



Republic of the Philippines
Provincial Government of
Agusan del Sur



Department of Interior
and Local Government

PHILIPPINES PROVINCIAL ROAD MANAGEMENT FACILITY

TECHNICAL DRAWINGS

REHABILITATION AND MINOR IMPROVEMENT
PW-ADDS- - - - - OF NRJ PATIN-AY-LUCAC-PISAAN ROAD
(LUCAC-PISAAN SECTION)

A. GENERAL

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PROVINCIAL ROAD MANAGEMENT FACILITY (PRMF)

**PROVINCIAL GOVERNMENT
OF AGUSAN DEL SUR**

PAMBAYAN NG PAGSASALAYAG AGUSAN DEL SUR

DESIGNED BY: 
ADOLFO EDUARDO C. PLAZA
PROVINCIAL ENGINEER

DATE: _____

REHABILITATION AND MINOR IMPROVEMENT OF
NEW PATTERAN-ALIBAC-PIVSAAN ROAD
 (ALIBAC-PIVSAAN SECTION)

PROJECT CODE: PR-AG-01-01
LOCATION: SAN FRANCISCO, AGUSAN DEL SUR

DESIGNED BY: 
FRANCO N. LUGO
PROVINCIAL ENGINEER

DATE: _____

APPROVED: 
SHERYL JOHNSON JONES
PHYSICAL WORKS

DATE: _____

PROJECT INFORMATION SIGN DETAIL

PROJECT SIGN BOARD

DESIGNED BY: 
FRANCO N. LUGO
PROVINCIAL ENGINEER

DATE: _____

APPROVED: 
SHERYL JOHNSON JONES
PHYSICAL WORKS

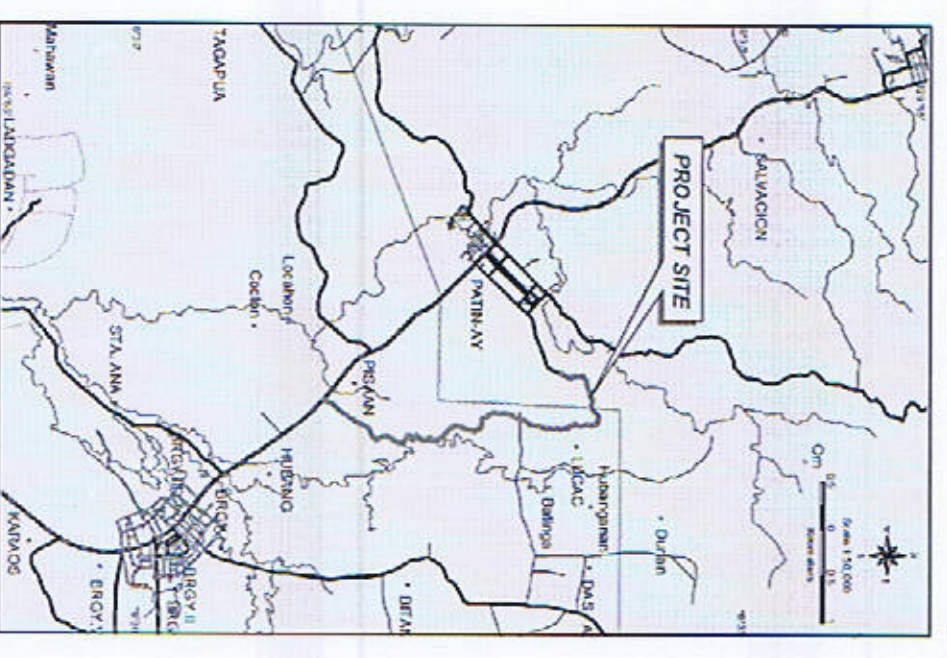
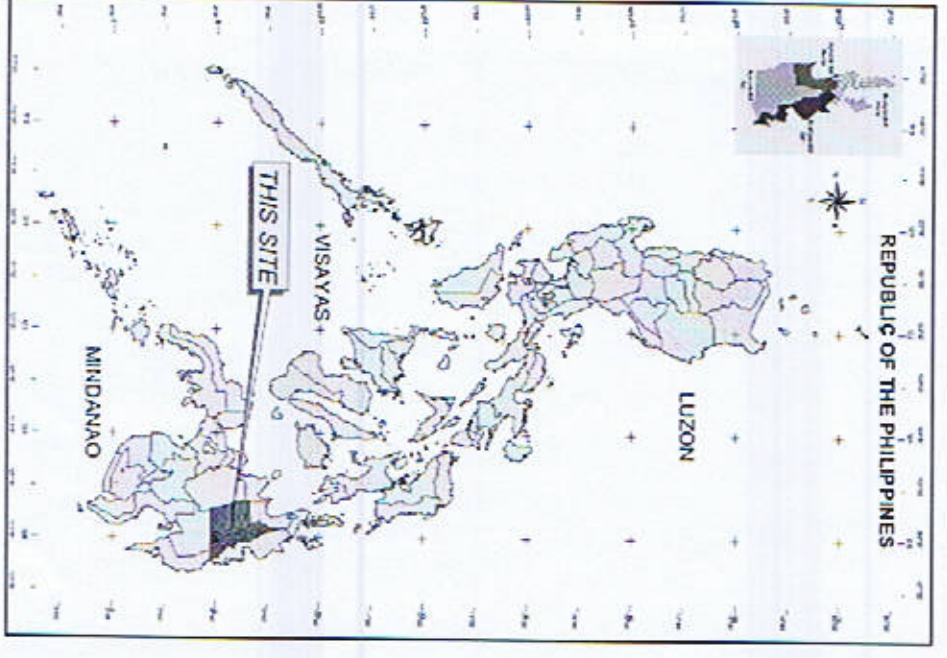
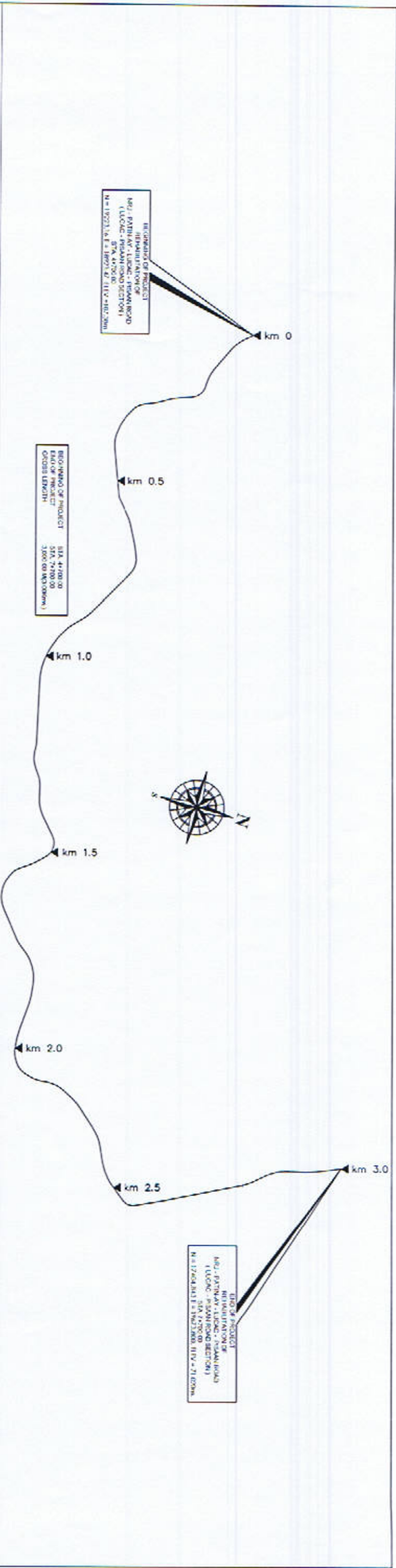
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DATE: _____

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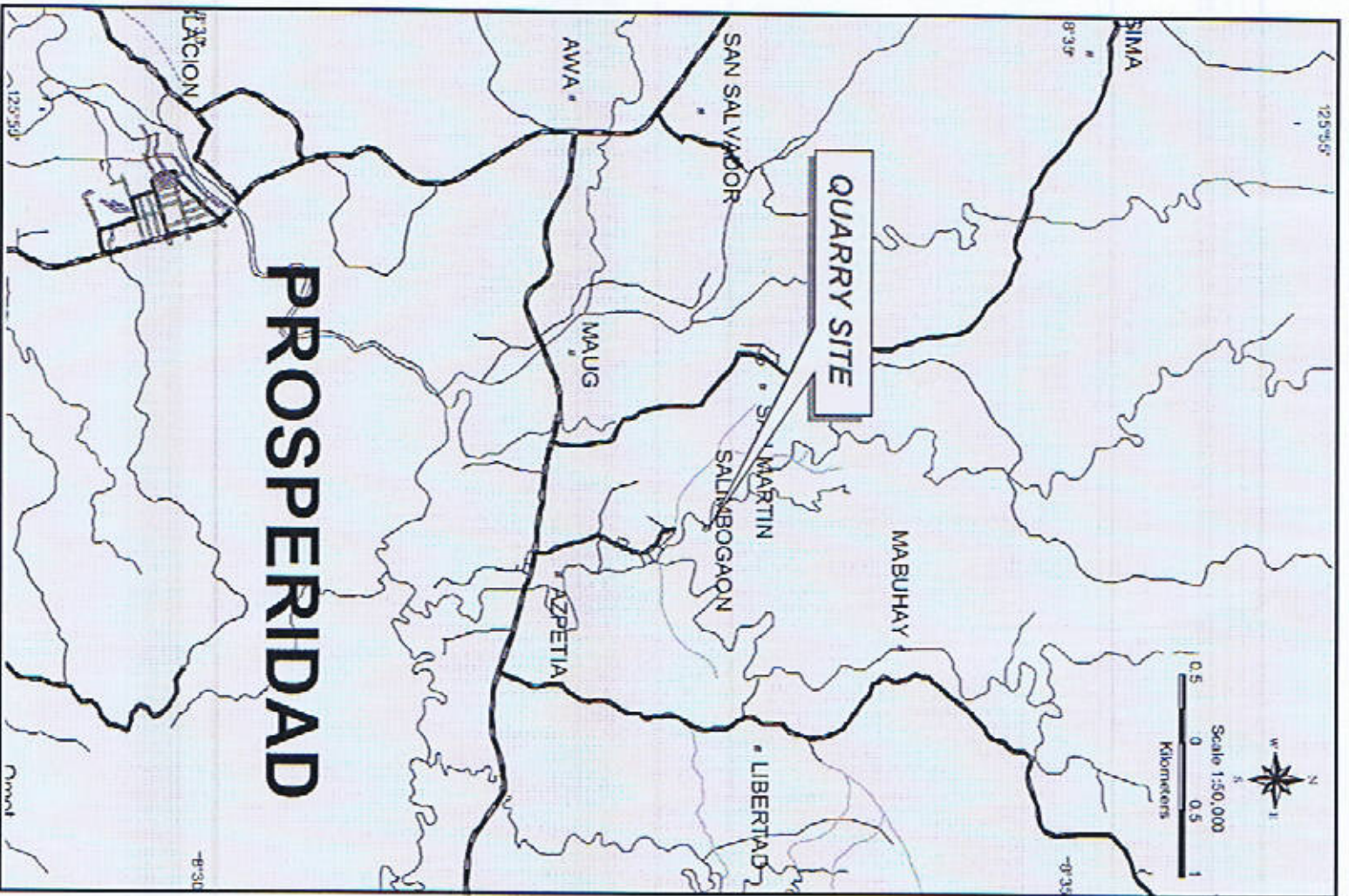
SHEET NO. 25



VICINITY MAP

LOCATION MAP

 Australian AID PROVINCIAL ROAD MANAGEMENT FACILITY (PRMF)	 PRMF	 PROVINCIAL GOVERNMENT OF AGUSAN DEL SUR PATINA-AY PROVINCE ROAD AGUSAN DEL SUR	APPROVED BY:	 MOON EDUARDO E. MATA PROVINCIAL GOVERNOR	PROJECT NAME:	REHABILITATION AND MINOR IMPROVEMENT OF SR-1 PATINA-AY LOCAL (PRSAAN ROAD) (LOCAL - PRSAAN SECTION)	DRAWN BY:	IVAN N. LARRO ENGINEER	DESIGNED BY:	IVAN N. LARRO ENGINEER	DATE:	12-05-2017
	PROVINCIAL GOVERNMENT OF AGUSAN DEL SUR	 ANGEL D. VARGAS PROVINCIAL ENGINEER	PROJECT CODE:	PR-105-1-1	PROJECT LOCATION:	SAN RAMON AGUSAN DEL SUR	DATE:	12-05-2017	APPROVED:	 GERARD JOHNSON JONES PHYSICAL WORKS	SHEET CONTENTS:	LAYOUT PLAN MAP
SHEET NO.:	02	OF	05									



QUARRY SOURCE MAP

Australian AID PROVINCIAL ROAD MANAGEMENT FACILITY (PRMF)		PROVINCIAL GOVERNMENT OF AGUSAN DEL SUR P.A.M. - AY PROPORCIONADO AGUSAN DEL SUR		PROJECT PROPOSAL REHABILITATION AND MINOR IMPROVEMENT OF NIP - PATINAYAN - LEGAL - PISAN ROAD (LICOM - PISAN SECTION)		CONTRACT NO. ADONIS EDWARD C. PLAZA PROVINCIAL GOVERNOR		PROJECT NAME REHABILITATION AND MINOR IMPROVEMENT OF NIP - PATINAYAN - LEGAL - PISAN ROAD (LICOM - PISAN SECTION)		DATE 11/20/11		LOCATION SAN FRANCISCO, AGUSAN DEL SUR		ISSUED BY DIVISION OFFICE		APPROVED BY DIVISION OFFICER		DATE 11/20/11		SCALE MATERIALS SOURCE MAP		SHEET NO. 03 OF 25	

Project : Rehabilitation and Minor Improvement Works of NRJ Patin-ay - Lucac - Pisaan Road (Lucac - Pisaan Section)

Contract Reference : San Francisco, Agusan del Sur

PAY ITEM NO.	DESCRIPTION	UNIT	QTY
(1)	(2)	(3)	(4)
Part B - Other General Requirements			
B.1	Mobilization and Demobilization	lot	1.00
B.2	Setting Out and Staking	kms	3.00
B.3	Construction Health and Safety Requirements and Environmental Monitoring	no.	3.00
B.4	Monthly Progress Report and Schedule Of Works	no.	3.00
B.5	Project Sign Board	each	2.00
Part C - Earthworks			
100(1)	Clearing and Grubbing	ha.	1.20
102(2)	Surplus Common Excavation	cu.m.	1,216.00
103(3)a	Foundation Fill/Gravel Bed	cu.m.	1.50
104(2)	Embankment from Borrow	cu.m.	111.00
105(2)	Subgrade Preparation (Existing pavement)	sq.m.	10,500.00
Part D - Subbase and Base Course			
201	Aggregate Base Course	cu.m.	2,655.00
Part F - Box Culvert/Headwall Construction			
404(1)	Reinforcing Steel Bars (Grade 40)	Kgs	128.00
405(2)	Structural Concrete Class B (f _c '=17MPa)	cu.m.	8.24
Part G - Drainage and Slope Protection Structures			
504(3)b	Cleaning Pipe Culvert in place (910mm and up)	lin.m.	28.00
505(5)	Grouted Riprap (Class A) b. slope protection	cu.m.	246.00
506	Stone Masonry	cu.m.	182.40
Part H - Miscellaneous Structures			
603(3)a	Metal Guardrail - Class A, Type I (Metal Beam), including concrete post	lin.m.	174.12
	a. Lucac - Pisaan Section 67.44 meters		
	b. Pisaan-Tagapua Section 106.68 meters		
603(3)b	Metal Guardrail End Piece	pcs	16.00
	a. Lucac - Pisaan Section 12.00 meters		
	b. Pisaan-Tagapua Section 4.00 meters		
605(1)a	Warning Signs (Triangler)	each	33.00
	a. Lucac - Pisaan Section 9.00 pcs		
	b. Pisaan-Tagapua Section 24.00 pcs		
605(2)a	Regulatory Signs	each	6.00
	a. Lucac - Pisaan Section 4.00 pcs		
	b. Pisaan-Tagapua Section 2.00 pcs		
605(4)	Project Information Sign	each	1.00



PROVINCIAL GOVERNMENT OF AGUSAN DEL SUR
 PATA-AI PROGRAMAD AGRUPAN DEL SUR

CONTRACT NO. **11**
 PROJECT CODE: **7M-425-11**

REHABILITATION AND MINOR IMPROVEMENT OF NRD PATIN-AY - LUCAC - PISAAN ROAD (LUCAC - PISAAN SECTION)

DATE: **11/10/11**

PROJECT LOCATION: **SAN FRANCISCO, AGUSAN DEL SUR**

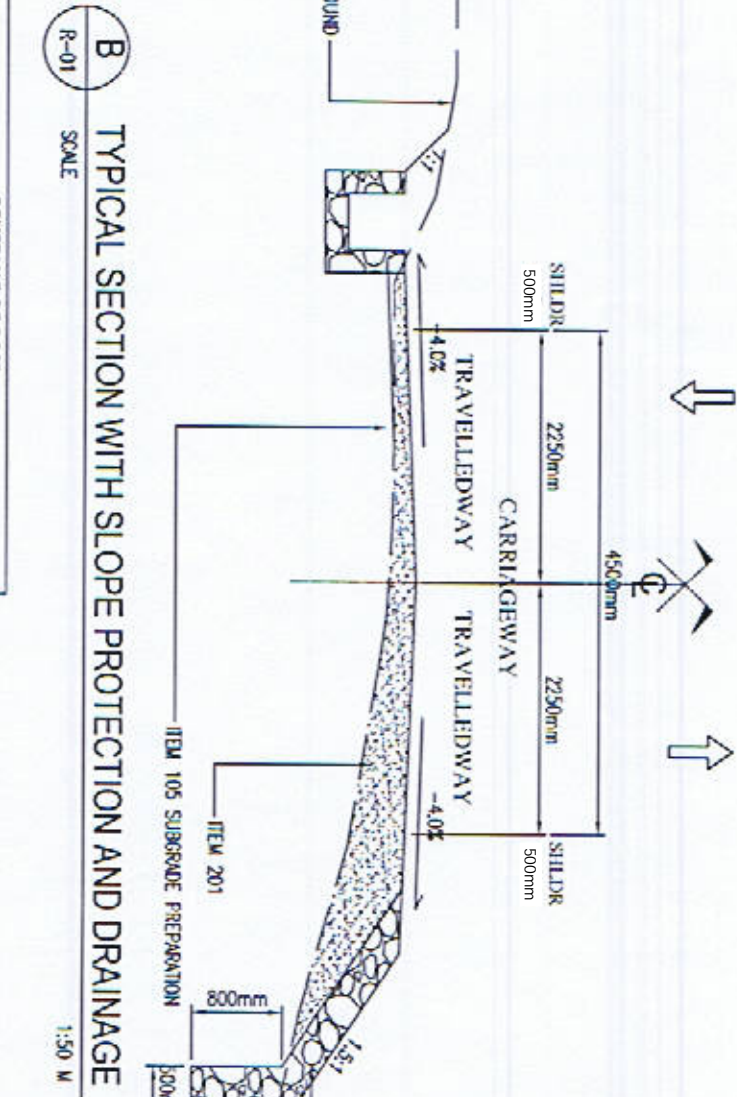
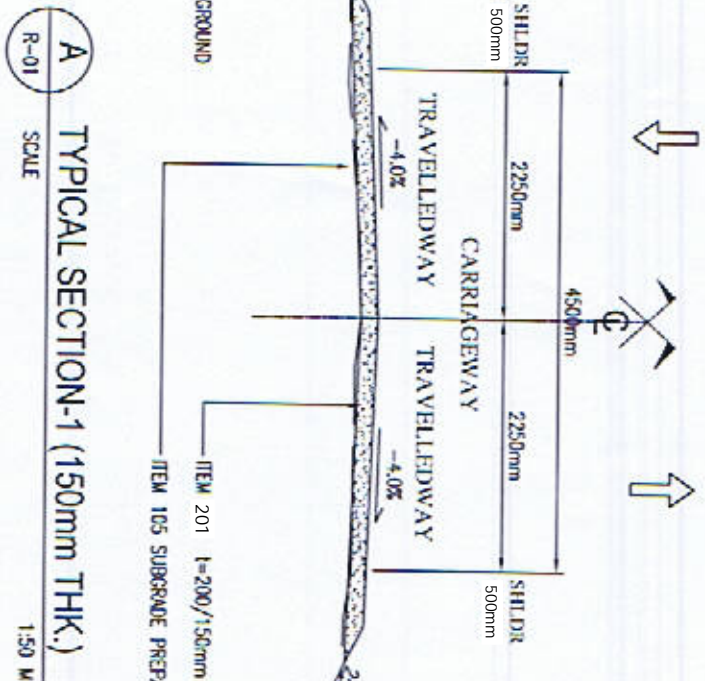
DATE: **11/10/11**

DATE: **11/10/11**

DATE: **11/10/11**

DATE: **11/10/11**

B. ROADWAY



SCHEDULE OF PCCP			
STATION	LENGTH (mtrs)	PROPOSED ROAD WIDTH	
FROM 4+980	TO 5+160	180	4.50
5+430	5+497.5	67.50	4.50
5+737	5+800	63	4.50
6+080	6+260	180	4.50
6+496.5	6+600	103.50	4.50
6+770	6+941	171	4.50
7+219	7+300	81	4.50
7+270	7+450	180	4.50
TOTAL =			1,026.00

ADS - ROAD WIDTH			
STATION	LENGTH (mtrs)	PROPOSED ROAD WIDTH	
FROM 4+700	TO 7+700	3,000	5.50
TOTAL =			3,000.00

C
 TYPICAL SECTION OF PCCP
 SCALE 1:50 M

GRAVEL THICKNESS SCHEDULE			
STATION LIMITS	FINAL RECOMMENDED THICKNESS, mm	LENGTH OF LIMITS (meter)	SECTION TYPE/REMARKS
4+700 TO 5+020	200	320	SECTION 1 / A-7-5(13)
5+020 TO 5+040	200-150	20	Transition
5+040 TO 5+520	150	480	SECTION 1 / A-4(10)
5+520 TO 5+540	150-200	20	Transition
5+540 TO 6+020	200	480	SECTION 1 / A-7-5(26)
6+020 TO 6+040	200-150	20	Transition
6+040 TO 6+520	150	480	SECTION 1 / A-4(7)
6+520 TO 6+540	150-200	20	Transition
6+540 TO 7+020	200	480	SECTION 1 / A-6(17)
7+020 TO 7+040	200-150	20	Transition
7+040 TO 7+720	150	680	SECTION 1 / A-4(7)
TOTAL LENGTH OF PROJECT			3,000

QUANTITY FOR Slope Protection							
STATION LIMITS	TOTAL LENGTH H (m)	Area of Riprap LEFT	Area of Riprap RIGHT	Volume of Riprap LEFT	Area of Excavation LEFT	Area of Excavation RIGHT	Volume of Excavation
4+940.00	20.0	2.21	2.21	44.2	0.24	0.24	0
4+960.00	15.0	2.21	2.21	33.15	0.24	0.24	4.8
4+975.00	15.0	2.21	2.21	33.15	0.24	0.24	3.6
5+302.00	18.0	3.02	3.02	54.36	0.24	0.24	4.32
5+320.00	18.0	3.02	3.02	54.36	0.24	0.24	4.32
5+318.00	18.0	3.02	3.02	54.36	0.24	0.24	4.32
6+710.00	19.0	1.19	1.19	11.08	0.24	0.24	2.4
6+720.00	19.0	1.19	1.19	11.08	0.24	0.24	2.4
6+763.00	49.0	1.19	1.19	47.52	0.24	0.24	9.6
TOTAL		121.0	121.0	245.47	2.45	2.45	29.04

Australian AID
 PROVINCIAL ROAD MANAGEMENT FACILITY (PRMF)

PROVINCIAL GOVERNMENT OF AGUSAN DEL SUR
 PATAVAY PROVINCIAL AGUSAN DEL SUR

PROJECT REPORT
 REHABILITATION AND IMPROVEMENT OF NIA - PATAVAY - ELEAG - PISAN ROAD (ELEAG - PISAN SECTION)

CONTRACT NO. 79-427-
DATE 7/04/01

DESIGNED BY ADRIAN EDWARD K. PLAZA
PROVINCIAL ENGINEER

APPROVED BY RAFAEL B. VILLARINO
PROVINCIAL ENGINEER

PROJECT LOCATION SAN FERNANDO, AGUSAN DEL SUR

DESIGNED BY RAFAEL B. VILLARINO
PROVINCIAL ENGINEER

APPROVED BY RAFAEL B. VILLARINO
PROVINCIAL ENGINEER

DATE 06/09/01

SCALE AS SHOWN

SHEET NO. 25

SCHEDULE OF ROAD SIGN

STATION	LOCATION	REFERENCE NO.	DESCRIPTION
4 + 760	Right Side	R4 (40 KPH)	Speed Restriction Max 40 KPH
4 + 760	Right Side	W1-5(L)	Winding Road (Left)
5 + 360	Left Side	R4 (40 KPH)	Speed Restriction Max 40 KPH
5 + 480	Left Side	W1-5(L)	Winding Road (Left)
6 + 220	Left Side	W1-3(R)	Curve Right
6 + 700	Right Side	R4 (40 KPH)	Speed Restriction Max 40 KPH
6 + 700	Right Side	W1-4(R)	Reverse Curve (Right)
6 + 880	Left Side	W1-5(L)	Winding Road (Left)
6 + 880	Left Side	R4 (40 KPH)	Speed Restriction Max 40 KPH
7 + 200	Left Side	W1-3(L)	Curve Left
7 + 640	Right Side	W2-4	T Junction
7 + 700	Left Side	R4 (40 KPH)	Speed Restriction Max 40 KPH

SCHEDULE OF FLEX BEAM GUARDRAILS

STATION LIMITS		LOCATION	TOTAL LENGTH	CONCRETE POST	NO. OF END PIECE
FROM	TO				
4 + 717	4 + 728.43	Right Side & Left Side	22.86	8	4
5 + 316	5 + 327.43	Left Side	11.43	4	2
6 + 715	6 + 722.62	Right Side	7.62	3	2
7 + 460	7 + 471.43	Right Side & Left Side	22.86	8	4
TOTAL			64.77	23	

NOTES: SCHEDULES HEREIN ARE SUBJECT TO MINOR ADJUSTMENTS/MODIFICATIONS TO SUIT ACTUAL FIELD CONDITION UPON APPROVAL OF ENGINEER



PROVINCIAL ROAD MANAGEMENT FACILITY (PRMF)



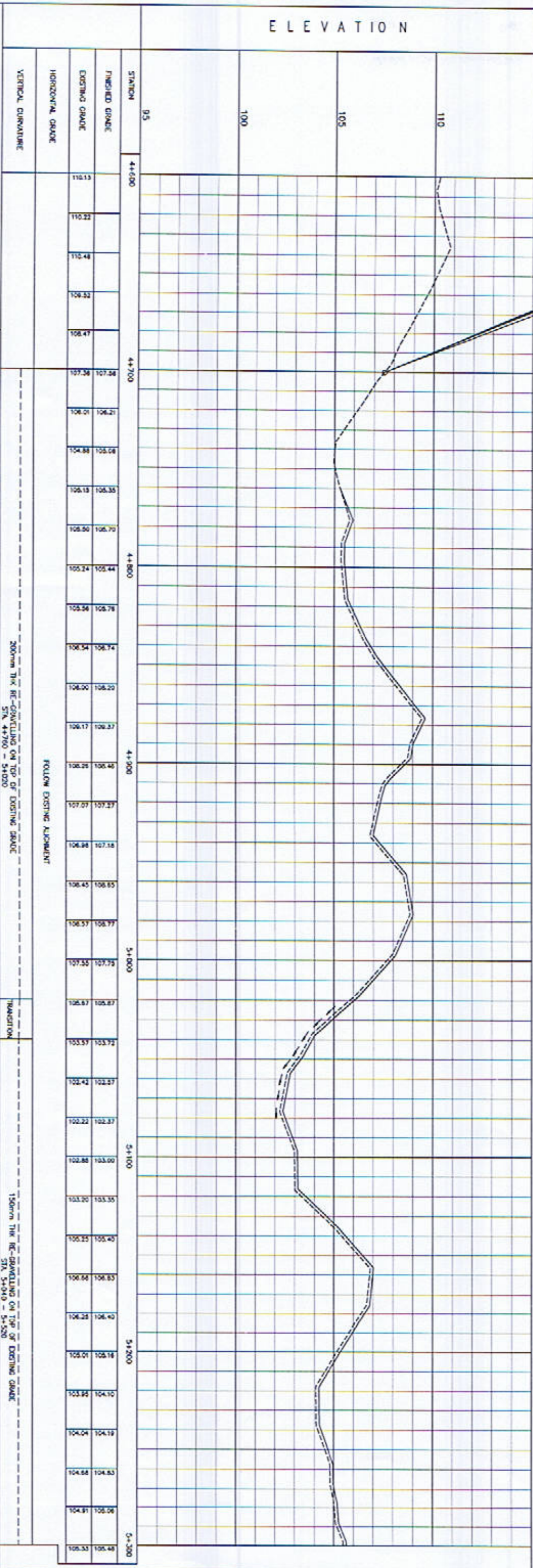
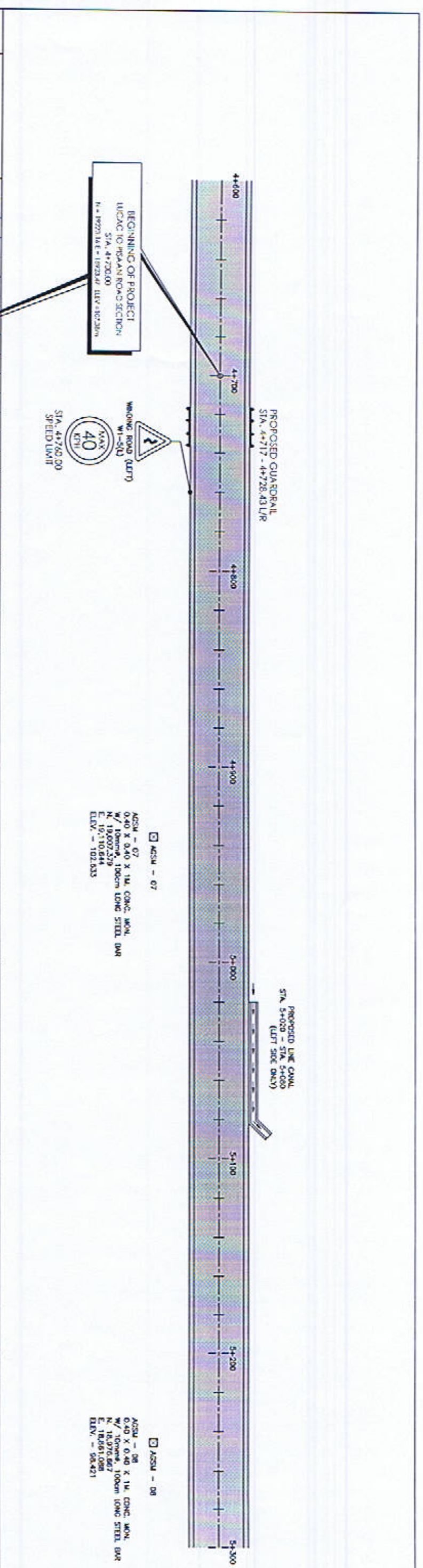
PROVINCIAL GOVERNMENT OF AGUSAN DEL SUR
PUNAN-AY PROBINSYAL AGUSAN DEL SUR

PROJECT NO.	CONTRACT NO.	SUBJECT NAME	DRAWN BY	DATE
		REHABILITATION AND MINOR IMPROVEMENT OF NLU - PULINAY - LITCAC - BRESAN ROAD (LITCAC - PISANAN SECTION)	PAULINA D. YOROSANO	
		PROJECT CODE: PR-405-	DESIGNED BY	
		LOCATION: SAN FRANCISCO, AGUSAN DEL SUR	PAULINA D. YOROSANO	
			DATE	
			APPROVED	
			DATE	

SCALE: AS SHOWN



SHEET 02 OF 25



Australian AID

PROVINCIAL ROAD MANAGEMENT FACILITY (PRMF)

PROVINCIAL GOVERNMENT OF AGUSAN DEL SUR
PATINAY PROVINCE AGUSAN DEL SUR

PROJECT REPORT

PROVINCE AGUSAN DEL SUR

PROJECT NAME REHABILITATION AND IMPROVEMENT OF MAIN PATINAY-LUCAC-PISANAY ROAD (LUCAC-PISANAY SECTION)

PROJECT CODE PR-AG-07

LOCATION SAN FRANCISCO, AGUSAN DEL SUR

DATE 08/07/2010

DESIGNED BY RICHARD O. PLAZA

CHECKED BY RICHARD O. PLAZA

DATE 08/07/2010

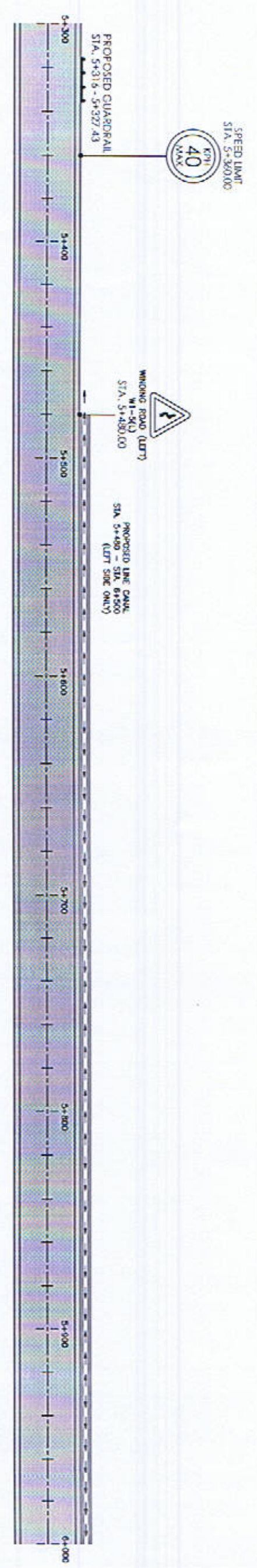
APPROVED BY RICHARD O. PLAZA

DATE 08/07/2010

SCALE PLAN - 1:800H - 50% PROFILE - 1:1000H-1:50V

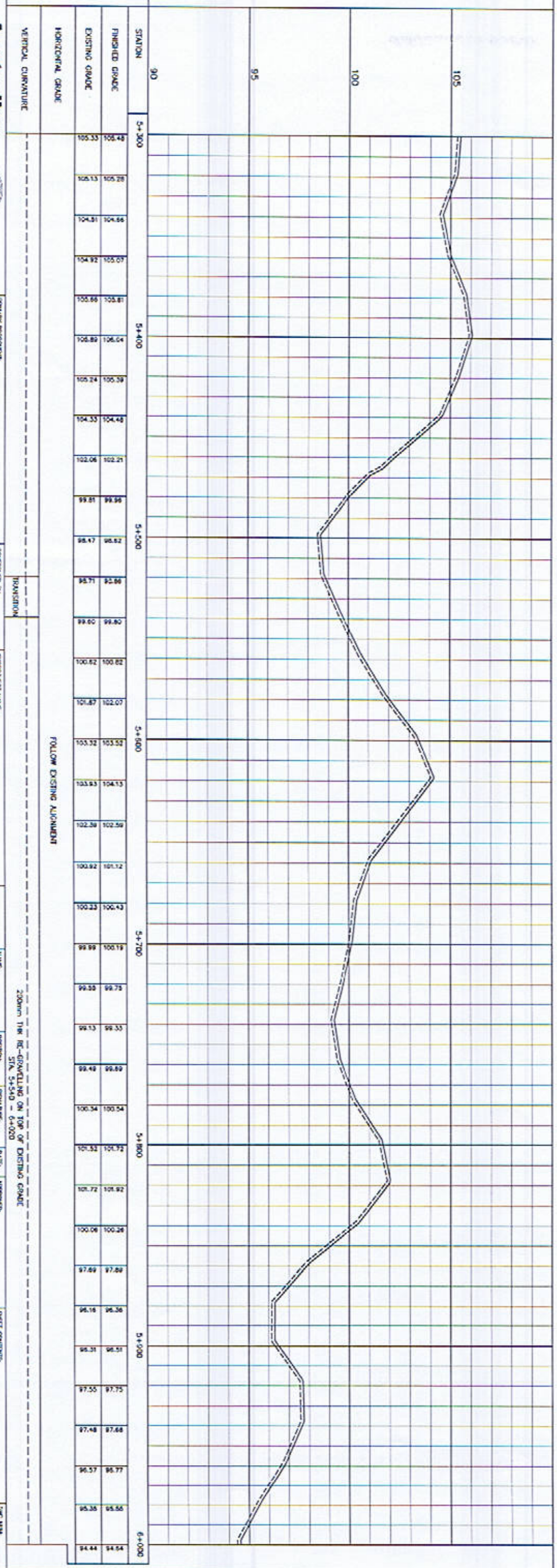
PLAN & PROFILE
STA. 4+600.00 - STA. 5+300.00

DATE 08/07/2010



ASCM - 09
0.40 X 0.40 X 1M CONC. UPR
W/ 10mm⁵, 100CM LONG STEEL BAR
N. 18.875.546
E. 18.428.022
ELV. - 94.053

ELEVATION



FOLLOW EXISTING ALIGNMENT

200mm THK RE-GRAVELLING ON TOP OF EXISTING GRADE
STA. 5+540 - 6+000

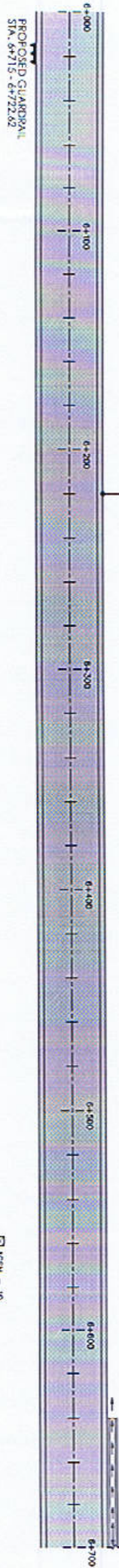
Australian AID

PROVINCIAL ROAD MANAGEMENT FACILITY (PRMF)

PROVINCIAL GOVERNMENT OF AGUSAN DEL SUR

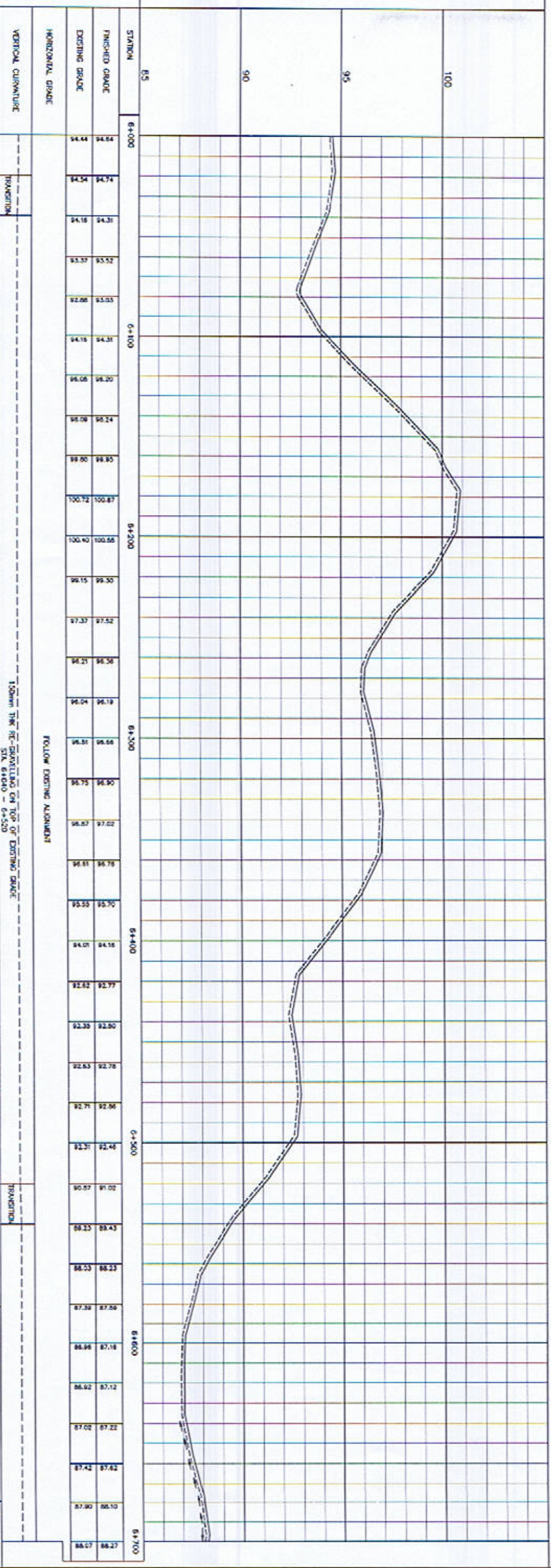
PATINAYAN PROVINCE, AGUSAN DEL SUR

<p>DESIGNED BY: ADUHI</p> <p>DATE: _____</p>	<p>PROJECT NAME: REHABILITATION AND MINOR IMPROVEMENT OF NBI - PATINAYAN - LUCAC - PISAYAN ROAD (LUCAC - PISAYAN SECTION)</p> <p>PROJECT CODE: PR-AGS-001</p> <p>LOCATION: SAN FRANCISCO, AGUSAN DEL SUR</p>	<p>SCALE: PLAN - 1:1000; ELEV. PROFILE - 1:1000; LAYOUT - 1:1000</p>
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ACSM - 10
 0.40 X 0.40 X 1/4 CONC. MON.
 W/ 10mm, 100cm LONG STEEL BAR
 N. 10,015,295
 E. 17,017,168
 ELEV. - 84.463

ELEVATION



STATION	EXISTING GRADE	FINISHED GRADE
6+000	84.44	84.84
6+010	84.54	84.74
6+020	84.18	84.31
6+030	83.57	83.52
6+040	82.06	83.03
6+050	84.15	84.31
6+060	86.06	86.20
6+070	88.08	88.24
6+080	88.80	88.95
6+090	100.72	100.87
6+100	100.70	100.66
6+110	96.15	96.30
6+120	97.37	97.52
6+130	84.21	84.58
6+140	84.04	84.19
6+150	84.51	84.66
6+160	84.75	84.90
6+170	84.87	87.02
6+180	84.81	84.78
6+190	85.53	85.70
6+200	84.01	84.16
6+210	82.82	82.77
6+220	82.33	82.60
6+230	82.63	82.78
6+240	82.71	82.86
6+250	82.31	82.44
6+260	80.87	81.02
6+270	88.25	88.43
6+280	88.03	88.23
6+290	87.39	87.58
6+300	86.94	87.18
6+310	86.62	87.12
6+320	87.02	87.22
6+330	87.42	87.62
6+340	87.90	88.10
6+350	88.07	88.27

FOLLOW EXISTING ALIGNMENT

150mm TRK RE-BROWTLING ON TOP OF EXISTING GRADE
 STA. 6+610 - 6+520

VERTICAL CURVATURE

TRANSITION

TRANSITION

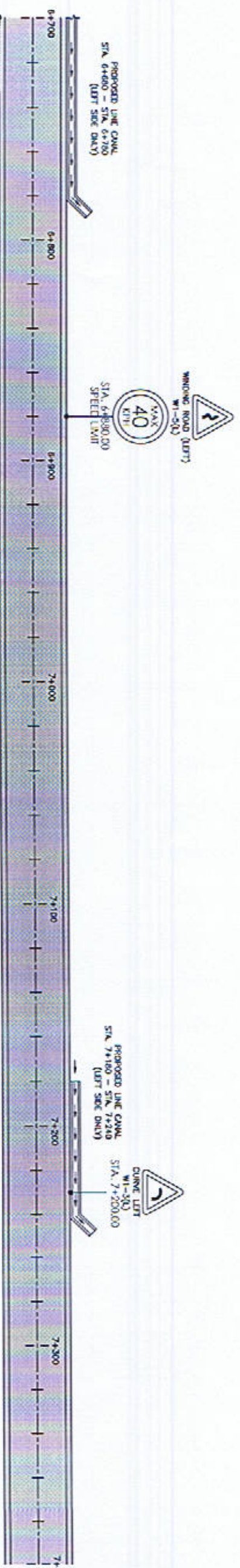
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DATE

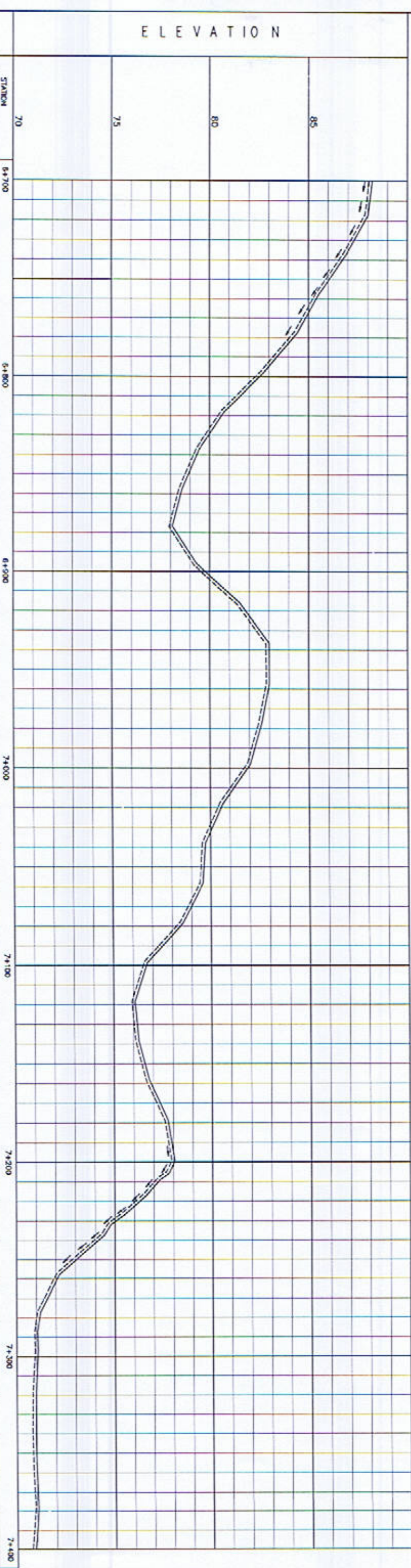
PROVINCIAL ROAD MANAGEMENT FACILITY (PRMF)

PROVINCIAL GOVERNMENT OF AGUSAN DEL SUR

PROJECT NAME: REHABILITATION AND MINOR IMPROVEMENT OF NRI - PATINAY - TERONG - BISAAN ROAD (LUCAC - BISAAN SECTION) PROJECT CODE: PR-465-... LOCATION: SAN RAMON, AGUSAN DEL SUR	DRAWN BY: [Name] CHECKED BY: [Name] DESIGNED BY: [Name]	SHEET NO. 10 OF 25 DATE: [Date]
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ASCM - 11
0.40 X 0.40 X 1M CONC. WSK.
W/ 10mm, 100cm LONG STEEL BAR
N. 19,200,150
E. 17,571,708
ELEV. - 75.765



VERTICAL CURVATURE		200mm THE RE-CROWELLING ON TOP OF EXISTING GRADE STA. 6+540 - 7+020		FOLLOW EXISTING ALIGNMENT		150mm THE RE-CROWELLING ON TOP OF EXISTING GRADE STA. 7+040 - 7+700	
HORIZONTAL CURVATURE		PROPOSED		EXISTING		PROPOSED	

Australian AID

PROVINCIAL ROAD MANAGEMENT FACILITY (PRMF)

PROVINCIAL GOVERNMENT OF AGUSAN DEL SUR
PATER-AV. PROBYNDA AGUSAN DEL SUR

COMPOUND BY: [Signature]

APPROVED BY: [Signature]

DATE: []

DATE: []

PROJECT NAME: REHABILITATION AND MINOR IMPROVEMENT FOR NBI - PATINAYAN - LEGASPI - BISSAN ROAD (LEGASPI - BISSAN SECTION I)

PROJECT CODE: PR-100-

LOCATION: SAN FRANCISCO, AGUSAN DEL SUR

DESIGNED BY: []

DATE: []

CHECKED BY: []

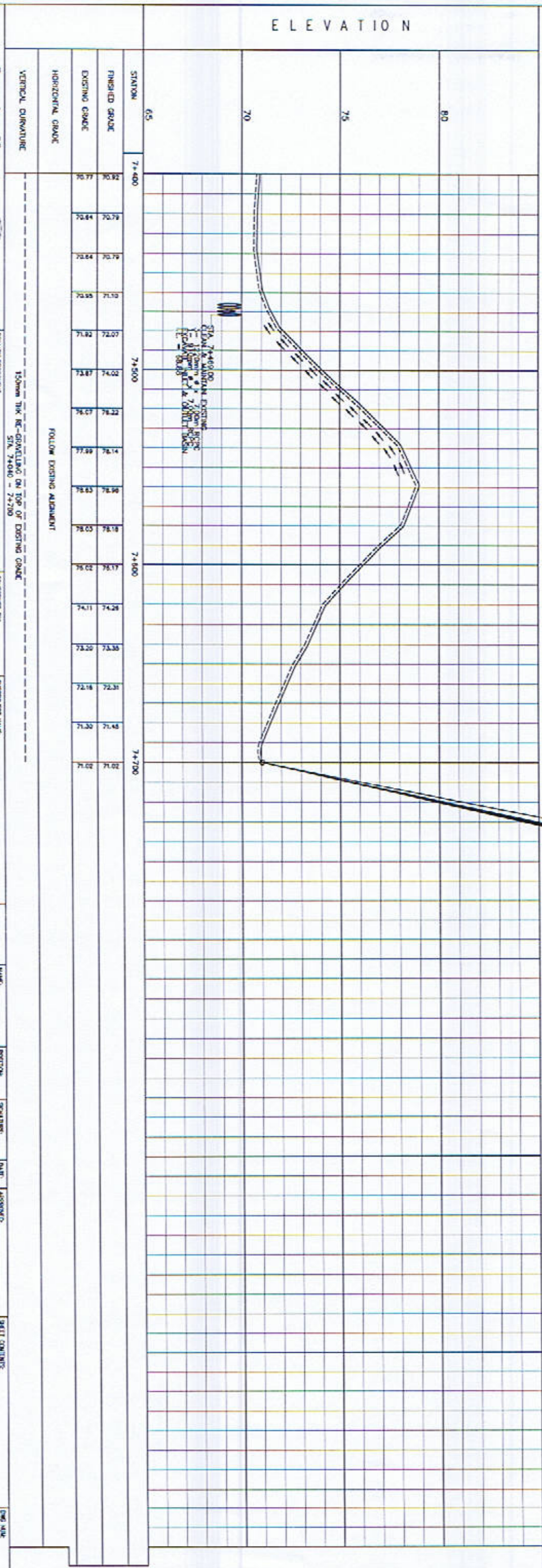
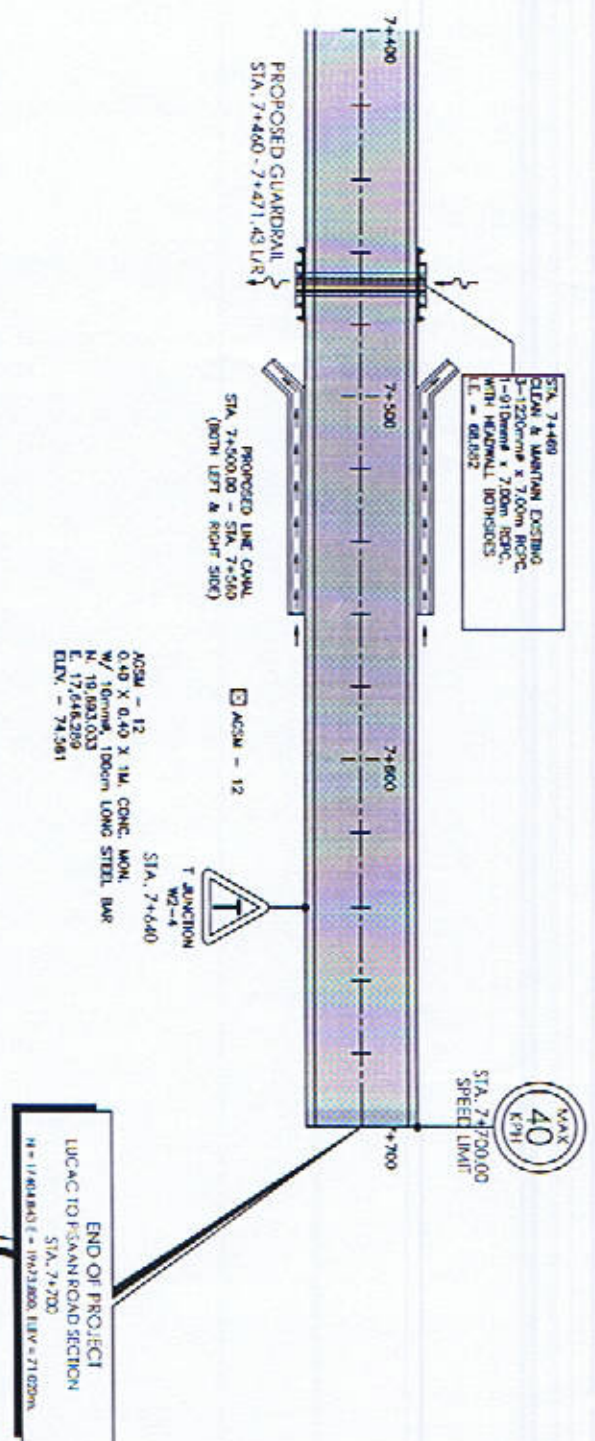
DATE: []

APPROVED BY: [Signature]

DATE: []

SCALE: PLAN - 1:8000; 1:500; PROFILE - 1:1000; 1:1000

SHEET NO. 11 OF 25



VERTICAL CURVATURE

HORIZONTAL GRADE

FOLLOW EXISTING ALIGNMENT

15mm THK RE-CONCRETE ON TOP OF EXISTING GRADE STA. 7+400 - 7+700

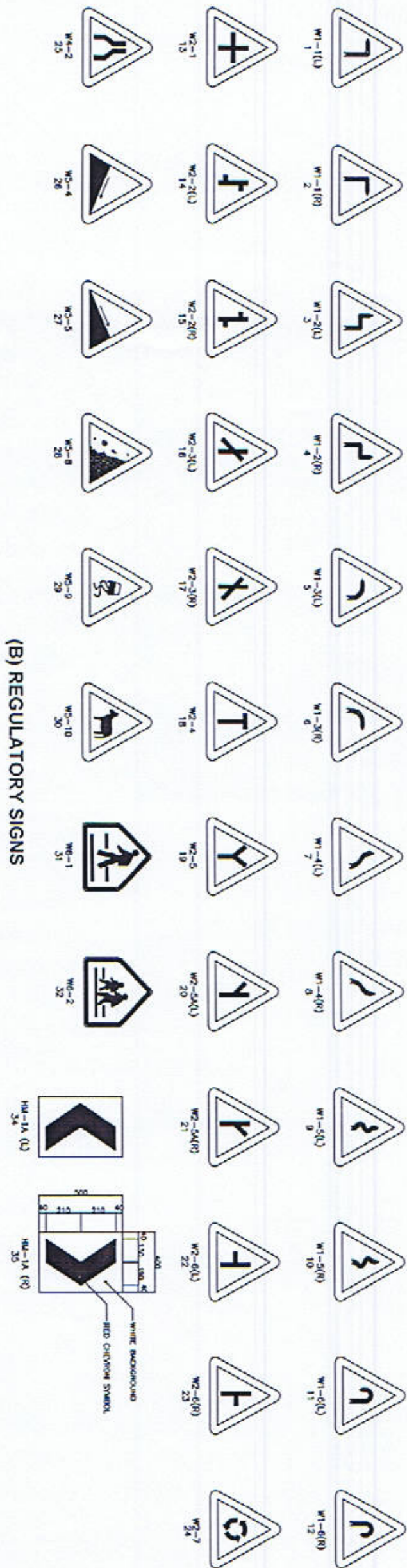
PROVINCIAL ROAD MANAGEMENT FACILITY (PRMF)

PROVINCIAL GOVERNMENT OF AGUSAN DEL SUR

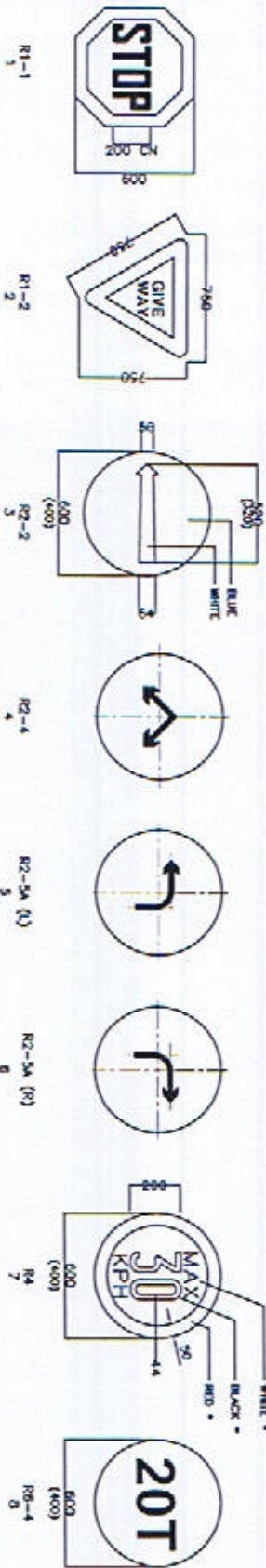
DRAWN BY ADOLPH G. PAJALA PROJECT ENGINEER	CHECKED BY PAMELA D. TIROGANO PROJECT ENGINEER	DESIGNED BY PAMELA D. TIROGANO PROJECT ENGINEER	APPROVED GENERAL MANAGER JONES PROJECT MANAGER
SUBJECT MATTER REHABILITATION AND MINOR IMPROVEMENT OF NB - PATINAY - LUCAC - PISAN ROAD (LUCAC - PISAN SECTION)		SHEET CONTAINS PLAN & PROFILE STA. 7+400.00 - STA. 7+700.00	
DATE: _____		DATE: _____	
LOCATION: SAN FIANZON, AGUSAN DEL SUR		SCALE: PLAN - 1:1000-1:500 PROFILE - 1:1000-1:1000	

C. ROAD STANDARDS AND DETAILS

(A) WARNING SIGNS



(B) REGULATORY SIGNS



LEGEND:

- A. WARNING SIGNS**
1. SHARP TURN (LEFT)
 2. SHARP TURN (RIGHT)
 3. REVERSE TURN (LEFT)
 4. REVERSE TURN (RIGHT)
 5. CURVE (LEFT)
 6. CURVE (RIGHT)
 7. REVERSE CURVE (LEFT)
 8. REVERSE CURVE (RIGHT)
 9. WINDING ROAD (RIGHT)
 10. WINDING ROAD (LEFT)
 11. HAZARDOUS ROAD (LEFT)
 12. HAZARDOUS ROAD (RIGHT)
 13. CROSS ROAD
 14. OTHER CROSS ROAD (LEFT)
 15. OTHER CROSS ROAD (RIGHT)
 16. OTHER CROSS ROAD (LEFT)
 17. OTHER CROSS ROAD (RIGHT)
 18. T JUNCTION
 19. JUNCTION
 20. Y JUNCTION (LEFT)
 21. Y JUNCTION (RIGHT)
 22. SOE ROAD JUNCTION (LEFT)
 23. SOE ROAD JUNCTION (RIGHT)
- B. REGULATORY SIGNS**
1. STOP
 2. GIVE WAY
 3. ROADWORK (PROTRUSION)
 4. ROADWORK (DEPRESSION)
 5. ROADWORK (DIP)
 6. ROADWORK (HUMP)
 7. ROADWORK (POTHOLE)
 8. ROADWORK (SLOPE)
 9. ROADWORK (WATER)
 10. ROADWORK (DRAIN)
 11. ROADWORK (DRAINAGE)
 12. ROADWORK (DRAINAGE)
 13. ROADWORK (DRAINAGE)
 14. ROADWORK (DRAINAGE)
 15. ROADWORK (DRAINAGE)
 16. ROADWORK (DRAINAGE)
 17. ROADWORK (DRAINAGE)
 18. ROADWORK (DRAINAGE)
 19. ROADWORK (DRAINAGE)
 20. ROADWORK (DRAINAGE)
 21. ROADWORK (DRAINAGE)
 22. ROADWORK (DRAINAGE)
 23. ROADWORK (DRAINAGE)
 24. ROADWORK (DRAINAGE)
 25. ROADWORK (DRAINAGE)
 26. ROADWORK (DRAINAGE)
 27. ROADWORK (DRAINAGE)
 28. ROADWORK (DRAINAGE)
 29. ROADWORK (DRAINAGE)
 30. ROADWORK (DRAINAGE)
 31. ROADWORK (DRAINAGE)
 32. ROADWORK (DRAINAGE)

* COLOR CODES OF LETTERS, BACKGROUND AND BORDERS:
() BORDERS WITH BUILT-UP AREAS

SPACING FOR CHEVRON ALIGNMENT SIGN ON HORIZONTAL CURVES

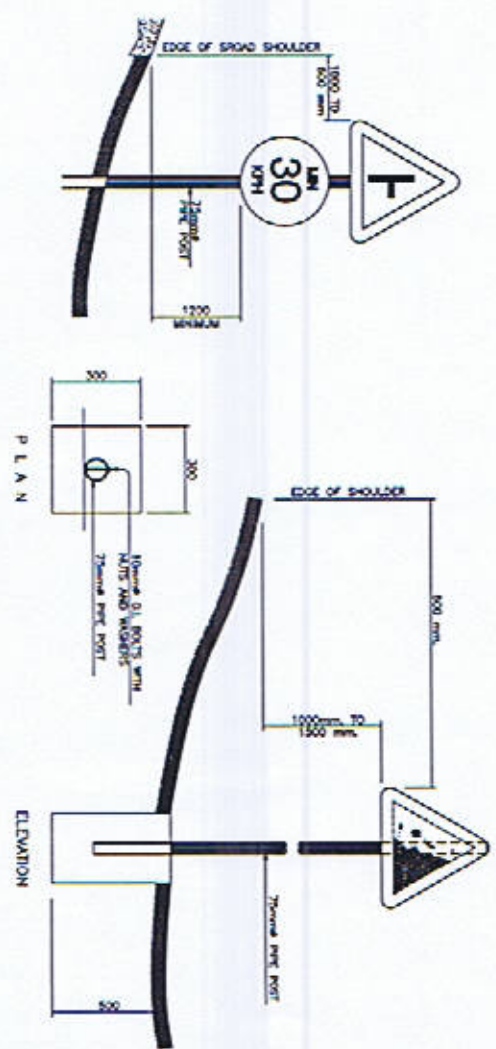
CURVE ADVISORY SPEED (km/h)	CURVE RADII (m)	APPROXIMATE CHEVRON ALIGNMENT SIGN SPACING (m)
≤ 20	≤ 60	12
30 TO 50	80 - 120	24
60 TO 70	120 - 210	36

NOTE: LOCATION HAS 2 FEET OF CHEVRON ALIGNMENT SIGN

GENERAL NOTES:

1. ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE INDICATED.
2. FOR SIGNS OF THE EMERGENCY TYPE, THE SPACING SHALL BE 200mm FOR W1-1 TO 12 AND 600mm FOR W1-13 TO 30 EXCEPT FOR W1-18 AND 17 WHICH IS 200mm.
3. THE SPACING SHALL BE BASED ON WHITE BACKGROUND AND RED BORDERS (SOME W1-10 EXCEPT FOR W1-10 AND 28 WHICH SHALL HAVE A TRANSPARENT YELLOW GREEN BACKGROUND).
4. W1-13 TO 24 THE DIAMETER SHALL BE 600mm OUTSIDE BUT UPWARDS AND DOWNWARDS WITH THE SIGN SHALL BE 500mm. THE SPACING SHALL BE DETERMINED BY THE POSITION IN THE FIELD.
5. THE DIMENSIONS, SIZES OF LETTERS AND NUMERALS, SPACING AND REGULATION SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS OF I.D. 316. PHOSPHORUS ROAD SIGNS SHALL BE 2004.
6. ROAD SIGNS SHALL BE PLAIN ENGLISH FINISH, SUPPORTED AND TREATED WITH CORROSION RESISTANT BONDING AND BACKGROUND OF THE SIGN SHALL AS PRESCRIBED BY THE DRAWING.

1 DETAIL OF INSTALLATION



Australian AID

PROVINCIAL ROAD MANAGEMENT FACILITY (PRMF)

PROVINCIAL GOVERNMENT OF AGUSAN DEL SUR

PROJECT NAME: REHABILITATION AND MINOR IMPROVEMENT OF NRI-PAVING AT LUDAC-PISSAN ROAD (LUDAC-PISSAN SECTION)

PROJECT CODE: 78-62-...

LOCATION: SAN RAMON, AGUSAN DEL SUR

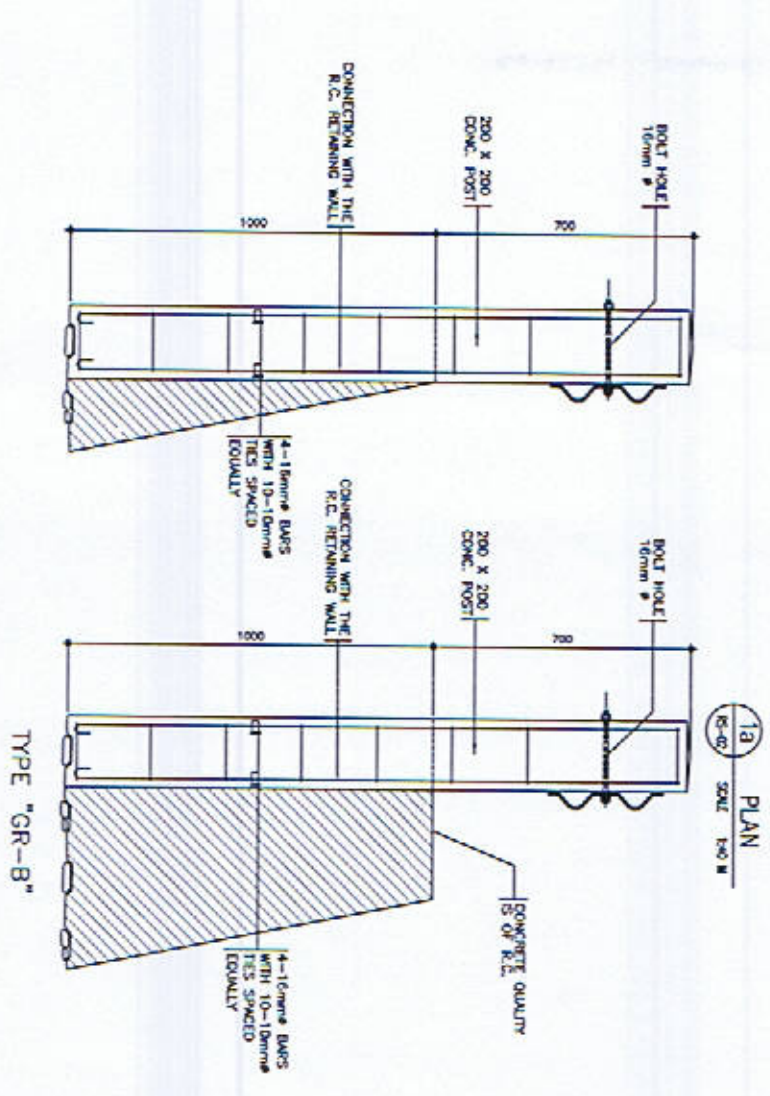
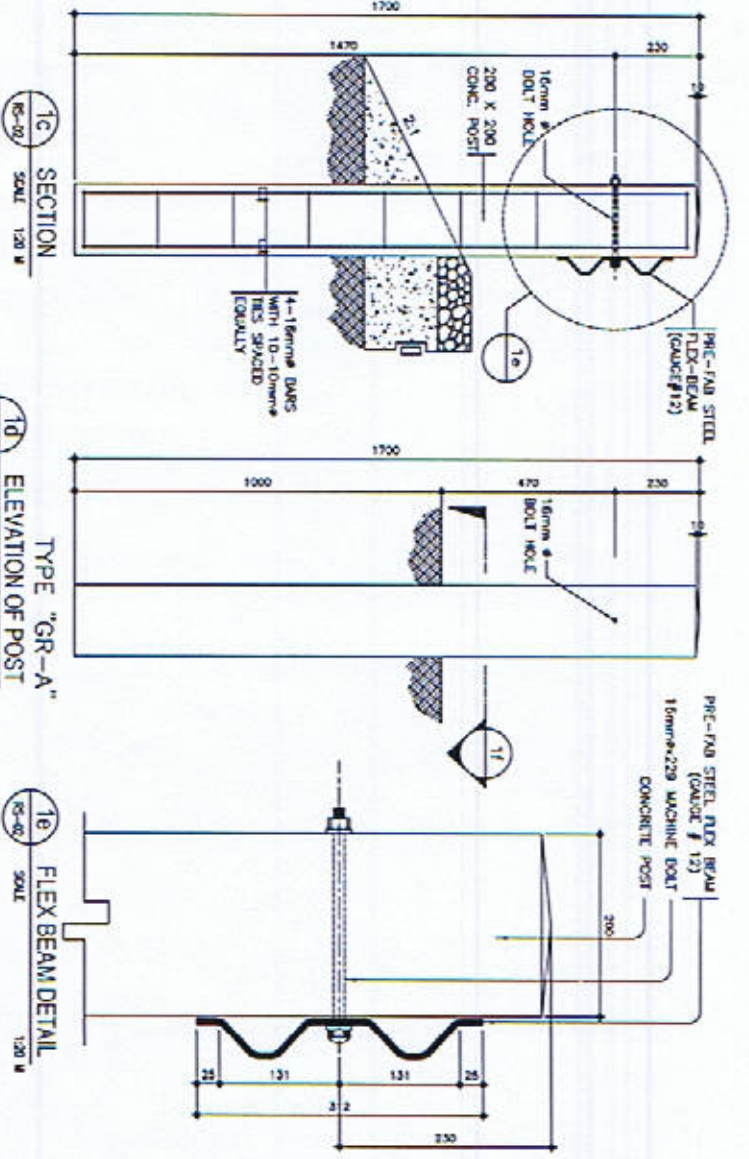
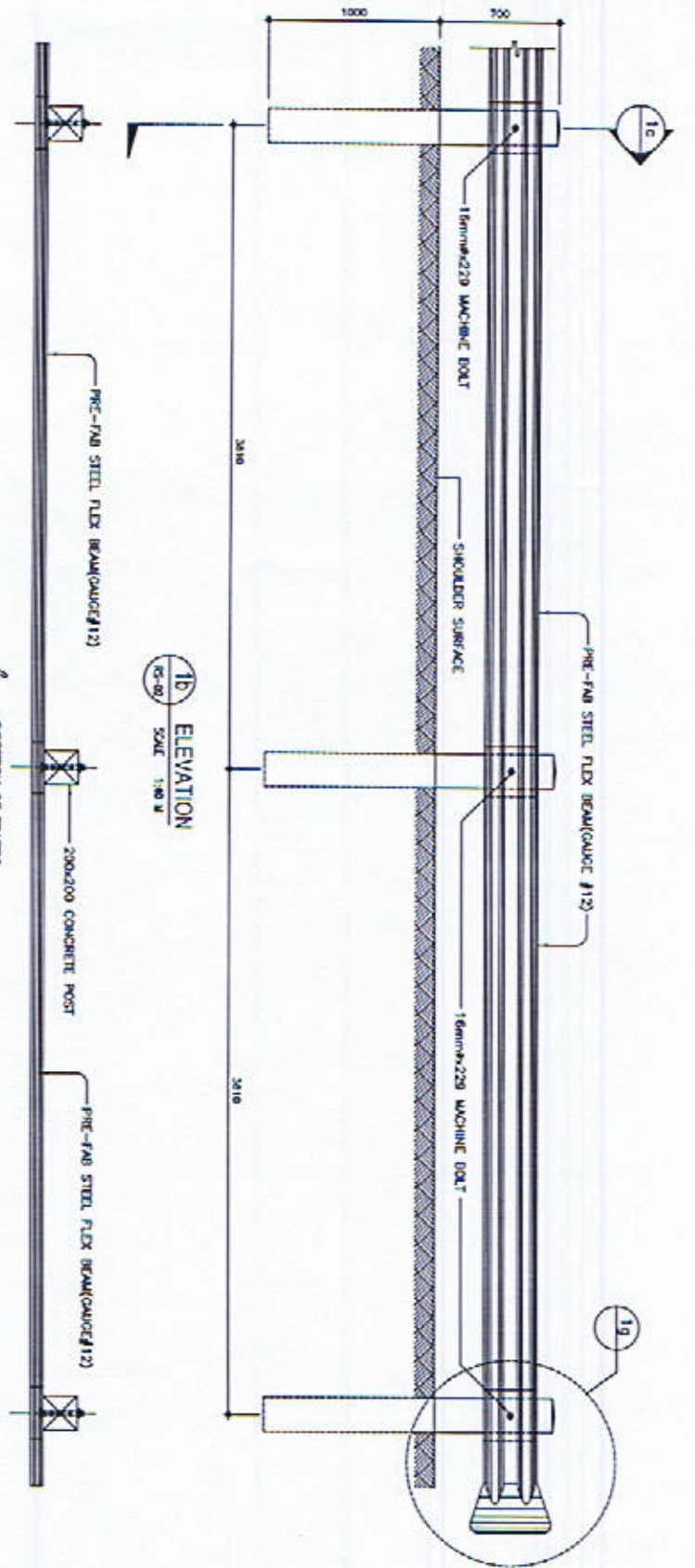
DATE: 14 OF 25

DESIGNED BY: ...

CHECKED BY: ...

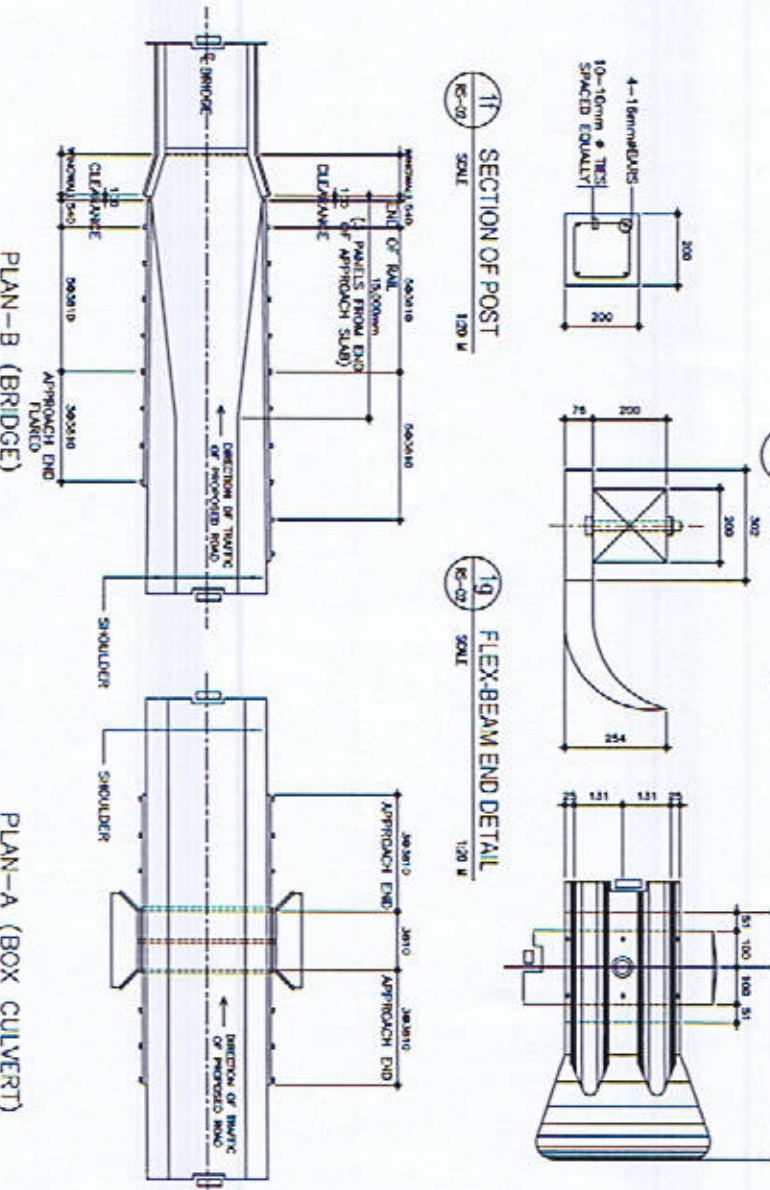
DATE: ...

SCALE: AS SHOWN



GENERAL NOTES:

1. MATERIALS AND WORKMANSHIP SHALL CONFORM WITH STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES REVISION 1990.
2. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SPECIFIED.
3. WHEN CONCRETE POST ARE USED, IT SHALL CONFORM WITH THE REQUIREMENTS OF CLASS "C" CONCRETE, ITEM NO. 501 (4) AND REINFORCING STEEL SHALL CONFORM WITH REQUIREMENTS OF REINFORCING STEEL, ITEM NO. 504.
4. GAUGE OF FLEX-BEAM GUARDRAIL SHALL BE AS INDICATED IN PLAN & SPECIFICATIONS.
5. ALL WELDS SHALL BE WELDED TO THE BOLTS AFTER TIGHTENING.



1h BEAM TYPE GUARDRAIL ON RETAINING WALL
SCALE: 1:20

1 STANDARD FLEX-BEAM GUARDRAIL
SCALE: AS SHOWN

1f SECTION OF POST
SCALE: 1:20

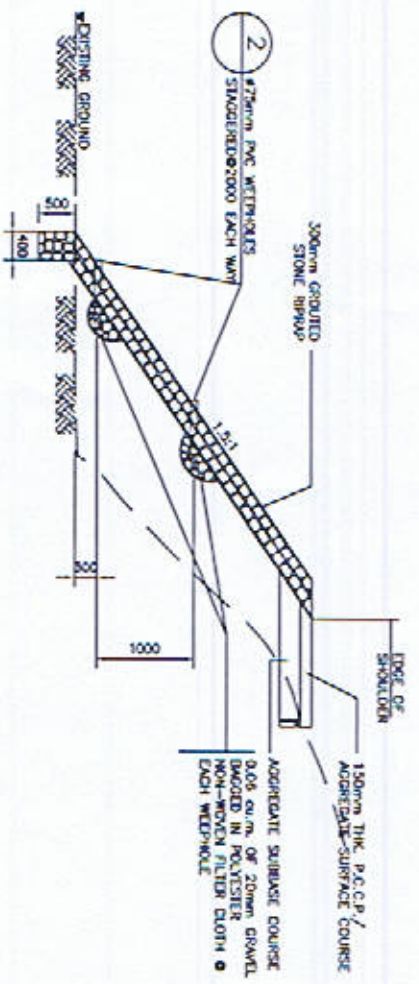
1g FLEX-BEAM END DETAIL
SCALE: 1:20

1h PLAN-B (BRIDGE)
SCALE: AS SHOWN

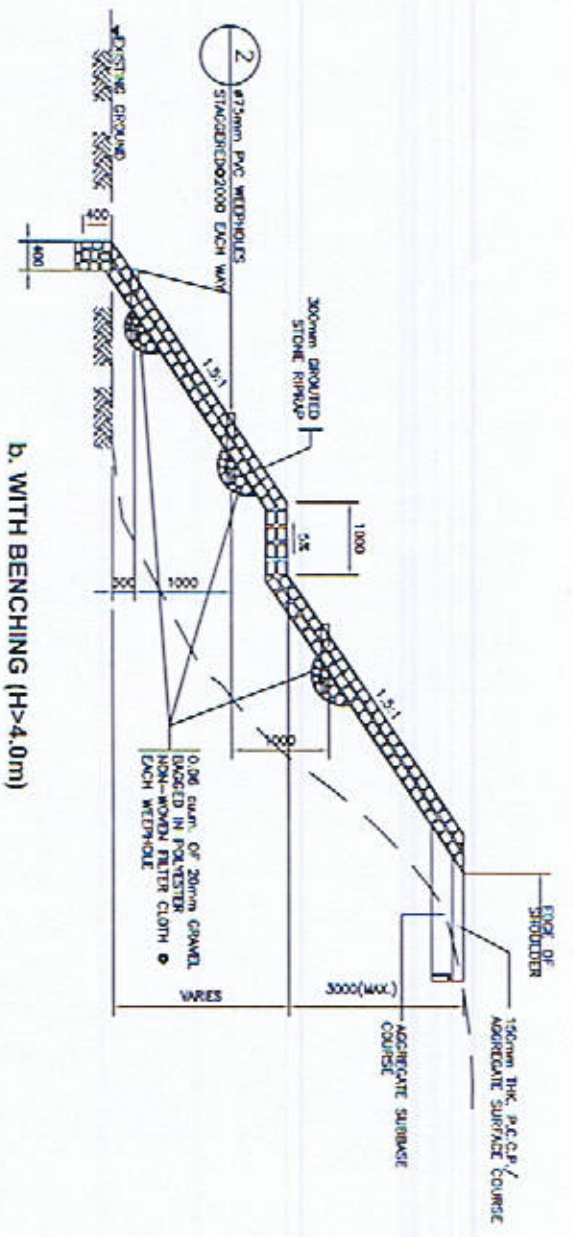
1i PLAN-A (BOX CULVERT)
SCALE: AS SHOWN

PROVINCIAL ROAD MANAGEMENT FACILITY (PRMF)		PROVINCIAL GOVERNMENT OF AGUSAN DEL SUR PAMPAY PROSPERIDAD AGUSAN DEL SUR	
DRAWN BY:	CHECKED BY:	PROJECT NAME:	PROJECT CODE:
DATE:	LOCATION:	REHABILITATION AND MINOR IMPROVEMENT OF NIND - PAVINAY - TICAC - JISANROAD (LEUCAC - PISAN SECTION)	PROJECT NO.:
DRAWN BY:	CHECKED BY:	DRAWN BY:	CHECKED BY:
DATE:	DATE:	DATE:	DATE:
SHEET NO.	SHEET NO.	SHEET NO.	SHEET NO.
15	16	17	18

D. DRAINAGE STANDARDS AND DETAILS

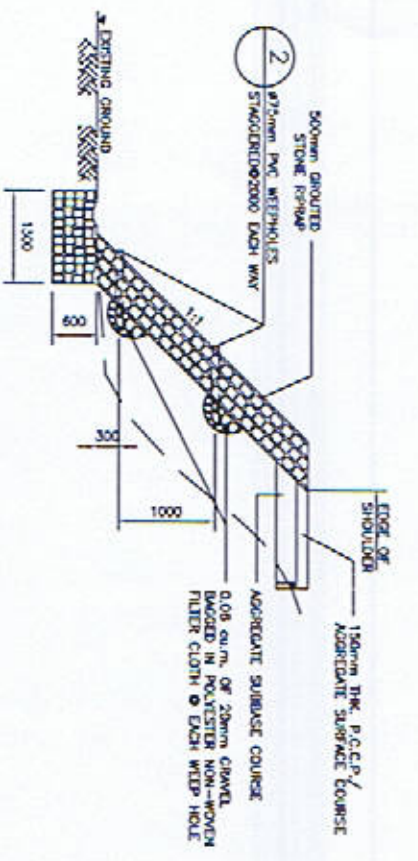


a. WITHOUT BENCHING (H<4.0m)

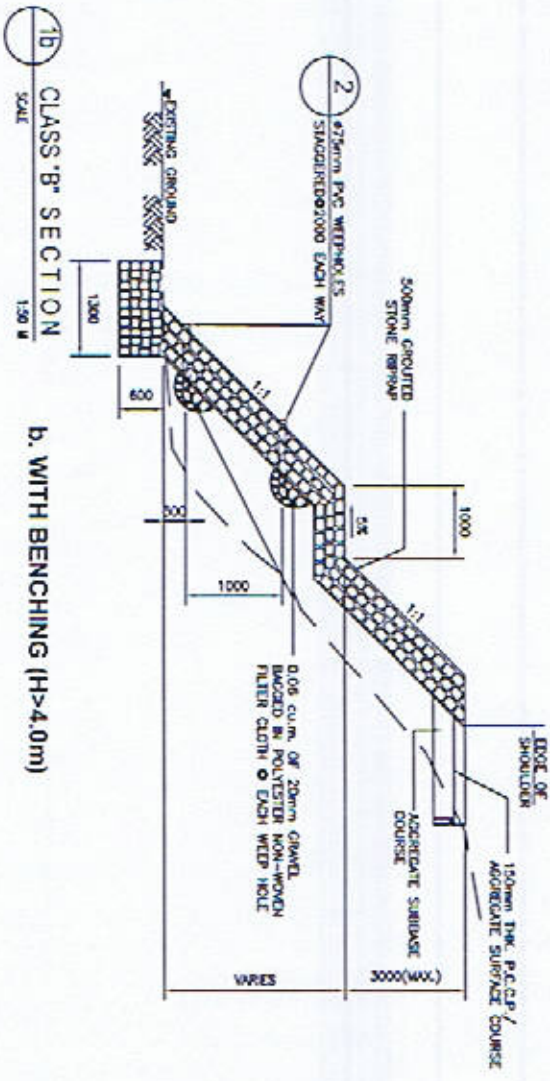


b. WITH BENCHING (H>4.0m)

1a CLASS 'A' SECTION
SCALE 1:50 W



a. WITHOUT BENCHING (H<4.0m)



b. WITH BENCHING (H>4.0m)

1b CLASS 'B' SECTION
SCALE 1:50 W

- GROUTED RIPRAP**
- 250-300mm SHALL BE USED FOR THE FLAGGING AND SHALL BE PLACED WITH THE GROUTED RIPRAP. THE SPACING BETWEEN THE FLAGGING SHOULD BE 150mm TO THE SLOPE AND 200mm TO THE SHOULDER. THE FLAGGING SHOULD BE COMPLETELY FIELD WITH 13 MONING. THE OUTER SURFACE OF THE BORDERS SHALL BE LEFT EXPOSED. AND THE SURFACE OF THE MONING SHALL BE SWEEP WITH A STEEL BROOD.
 - SLOPE OF GROUTED RIPRAP AT THE END OF APPROACH SLABS CAN BE ADJUSTED TO MEET THE SOE GRAB/SLOPE PROTECTION OF THE DIBDCE UPON APPROVAL OF THE EXAMINER.

1 GROUTED RIPRAP SLOPE PROTECTION
SCALE 1:50 W

4 MASONRY RETAINING WALL
SCALE 1:5

SECTION SHOWING WORKING LINES FOR BUILDGE AND PAYMENTS

HEIGHT OF WALL METERS	QUANTITY OF GROUTED RIPRAP PER CU. METER	HEIGHT OF WALL METERS	QUANTITY OF GROUTED RIPRAP PER CU. METER
0.50	0.15	3.00	1.10
1.00	0.25	4.00	1.45
1.50	0.35	5.00	1.80
2.00	0.45	6.00	2.15
2.50	0.55	7.00	2.50
3.00	0.65	8.00	2.85

NOTE: BASE OF 250 CUR. MAX. BASE TO ONE FORTNED TO WORKING LINE AT JOINTS TO BE AWAY TO A DEPTH OF 2.00 TO 3.00.

- DESIGN PARAMETER:**
- UNIT WEIGHT OF SOIL, γ 24.00 kN/m³
 - ANGLE OF FRICTION OF SOIL, ϕ 30°
 - COEFF. OF ACTIVE PRESSURE, K_a 0.333
 - SURCHARGE 10.00 kN/m²



PROVINCIAL ROAD MANAGEMENT FACILITY (PRMF)

PROVINCIAL GOVERNMENT OF AGUSAN DEL SUR
P.O. BOX 100000, AGUSAN DEL SUR

DESIGNED BY: ADRIAN G. PLATA
PROVINCIAL ENGINEER

SUBJECT: REHABILITATION AND MINOR IMPROVEMENT OF N10 - PATINAY - ALICAC - PISMAN ROAD (ALICAC - PISMAN SECTION)
LOCATION: SAN RAFAEL, AGUSAN DEL SUR

DRAWN BY: MARCELINO S. TORRES
CHECKED BY: MARCELINO S. TORRES

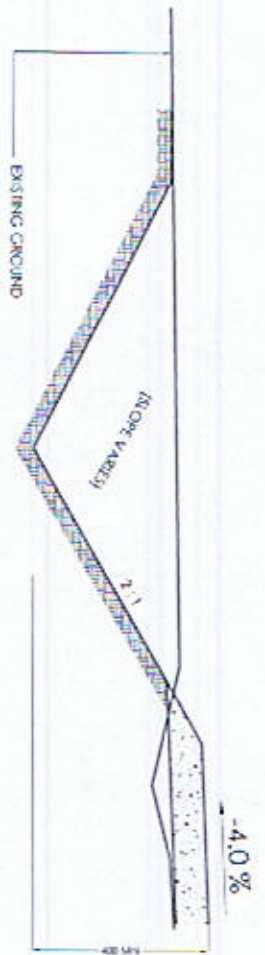
ENGINEER - I
ENGINEER - I

DATE: 15/01/2023

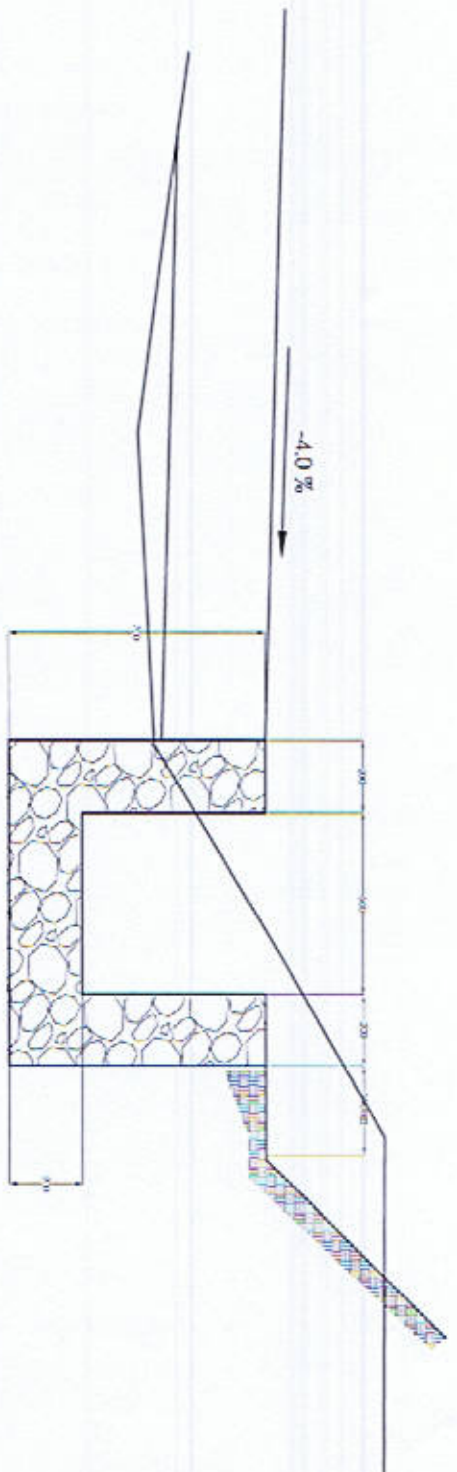
APPROVED BY: BRIVAN JOSEPH JONES
DISTRICT ENGINEER

SCALE: AS SHOWN

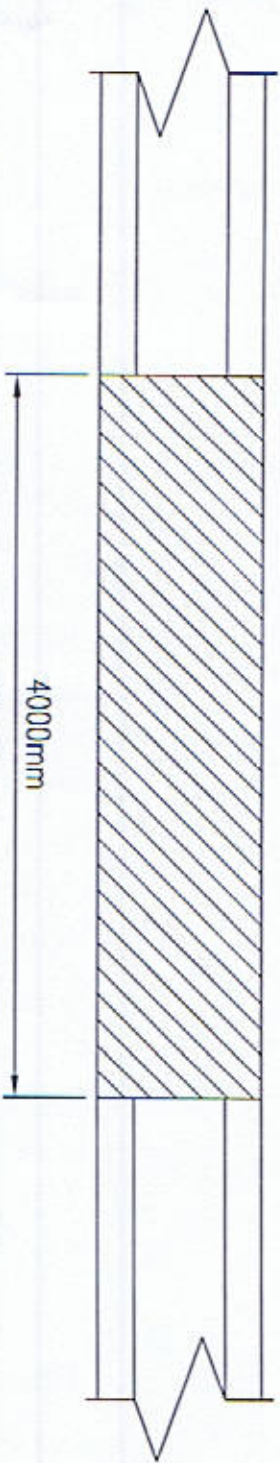
SHEET 12 OF 25
R/A DS-01



1 TRIANGULAR EARTH DITCH DETAIL
SCALE 1:10 M

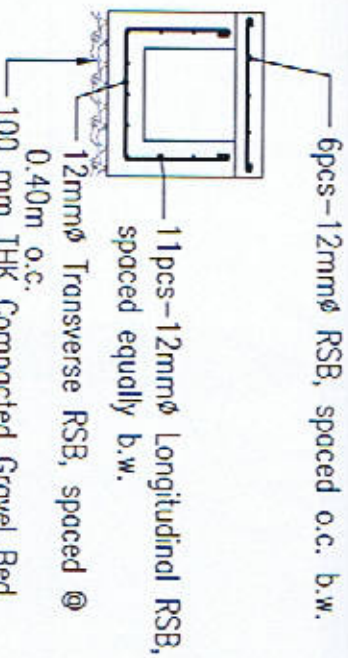


2 RECTANGULAR LINED CANAL DETAIL
SCALE 1:10 M



PLAN

STONE MASONRY (Line Canal)



CROSS-SECTION

3 REINFORCED CONCRETE COVERED CANAL DETAIL
SCALE 1:20 M

SCHEDULE OF REINFORCED CONCRETE COVERED CANAL			
STATION	LENGTH (mtrs)	REMARKS	
FROM 7 + 520	TO 7 + 524	8	BOTH SIDES
7 + 540	7 + 544	8	BOTH SIDES
TOTAL =		16.00	

SCHEDULE OF DRAINAGE STRUCTURE							
STATION	TYPE OF CULVERT	NO. OF BARREL	DIAMETER (mm)	LENGTH	INLET STRUCTURE	INLET STRUCTURE	REMARKS
7 + 469	RCPC	3	1220	7	STRAIGHT HEADWALL	STRAIGHT HEADWALL	CLEAN & MAINTAIN EXISTING 3-1220mm ϕ X 7.00 m RCPC
		1	910	7	STRAIGHT HEADWALL	STRAIGHT HEADWALL	CLEAN & MAINTAIN EXISTING 1-910mm ϕ X 7.00 m RCPC

SCHEDULE OF DRAINAGE STRUCTURE

Australian AID

PROVINCIAL ROAD MANAGEMENT FACILITY (PRMF)

PROVINCIAL GOVERNMENT OF AGUSAN DEL SUR

PROVINCIAL GOVERNMENT OF AGUSAN DEL SUR

PROJECT CODE: PR-AGS-11-01

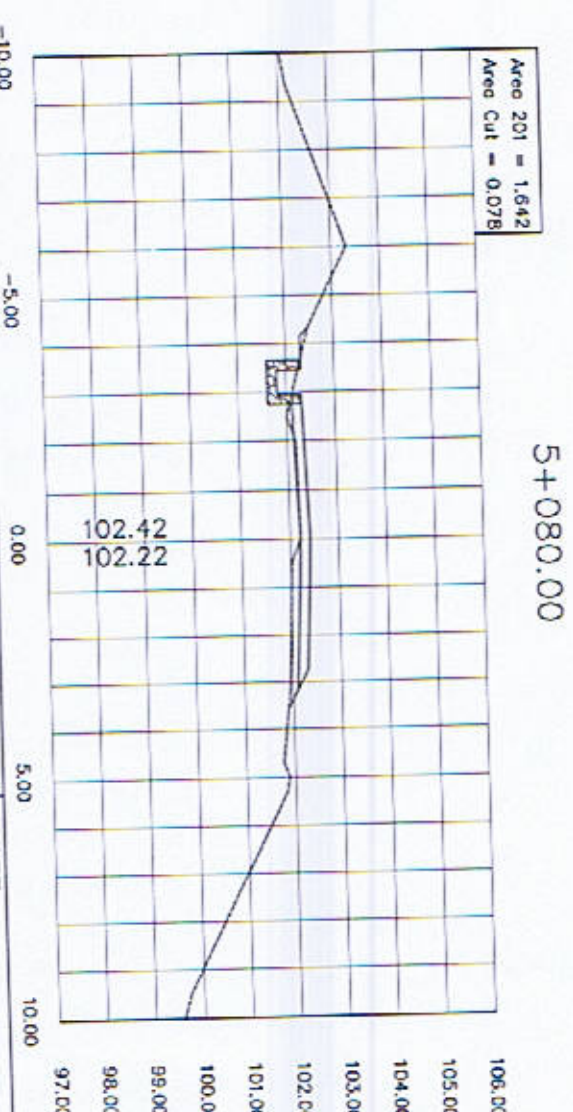
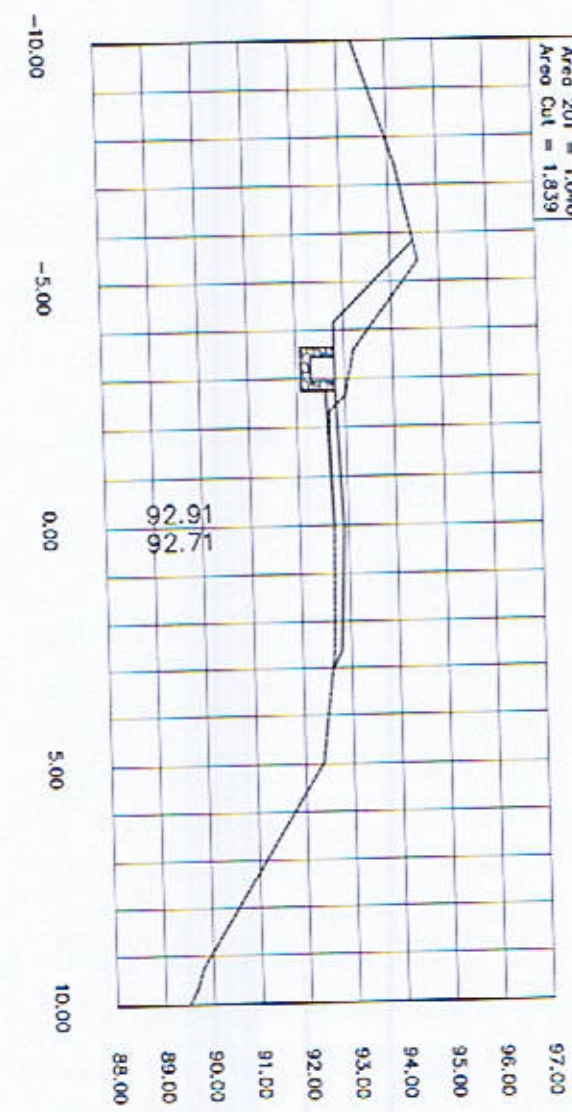
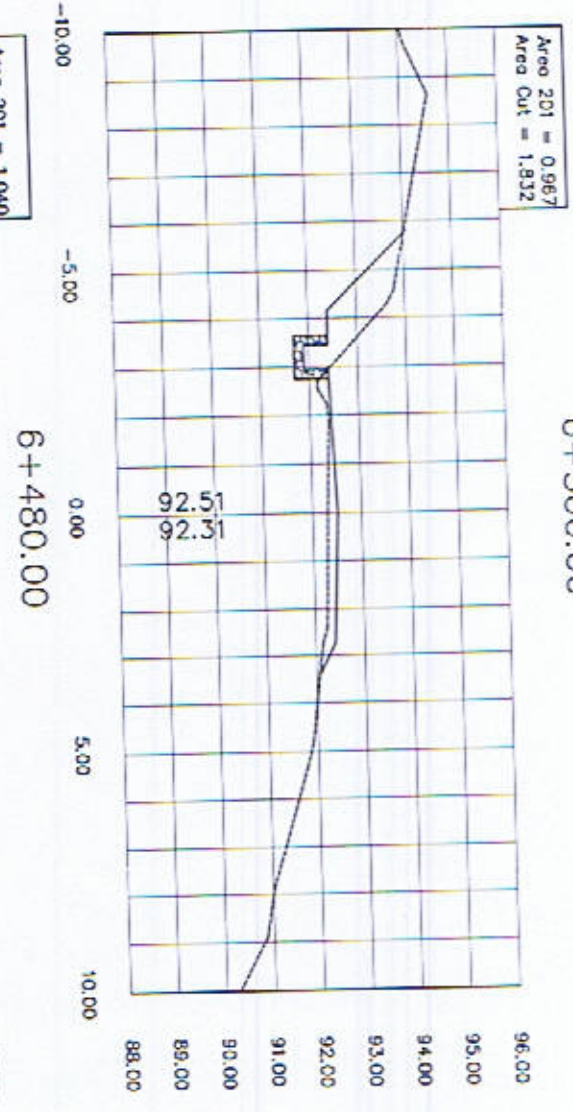
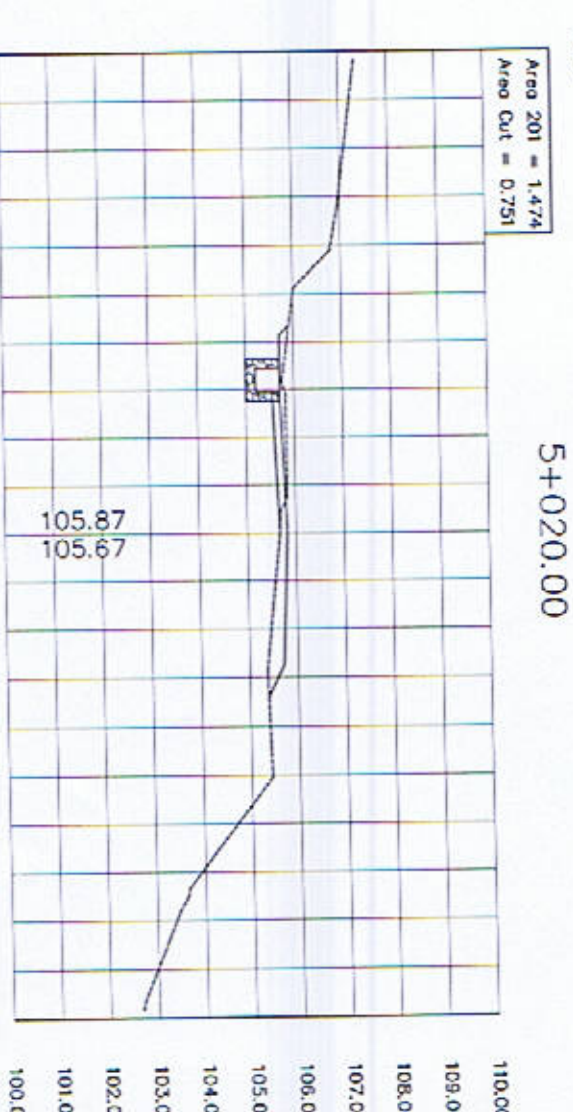
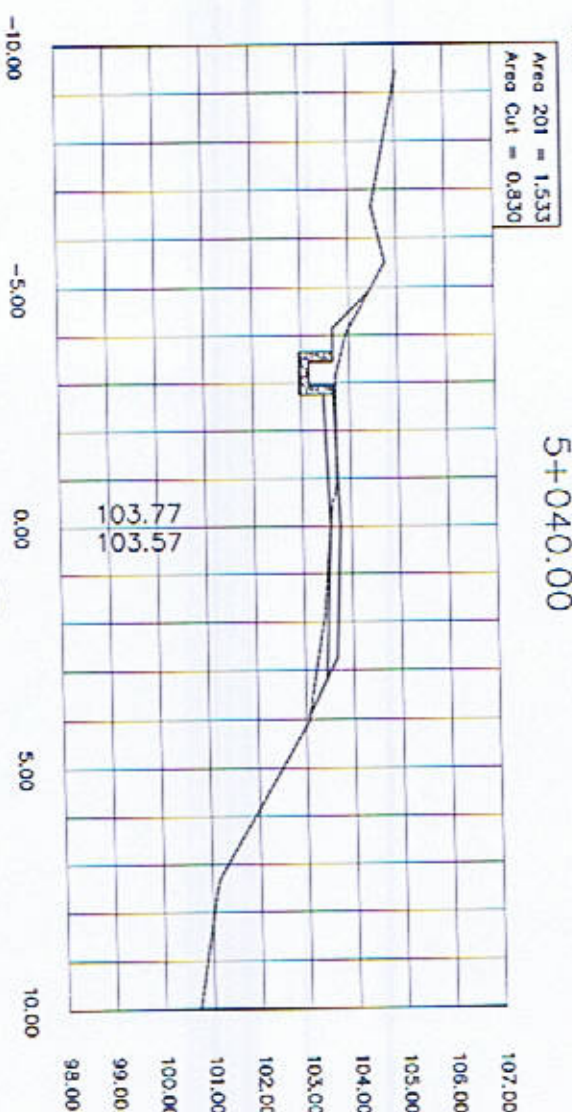
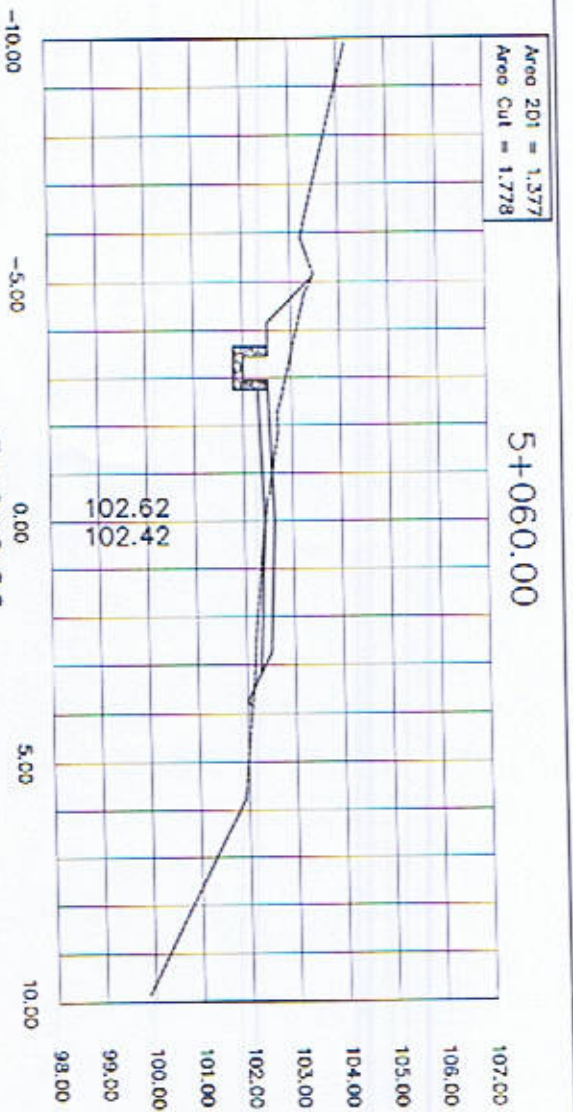
PROJECT NAME: REHABILITATION AND MINOR IMPROVEMENT OF NBI - PATINAY - LUCAC - BIRANAN ROAD (11.00 KM - BIRANAN SECTION)

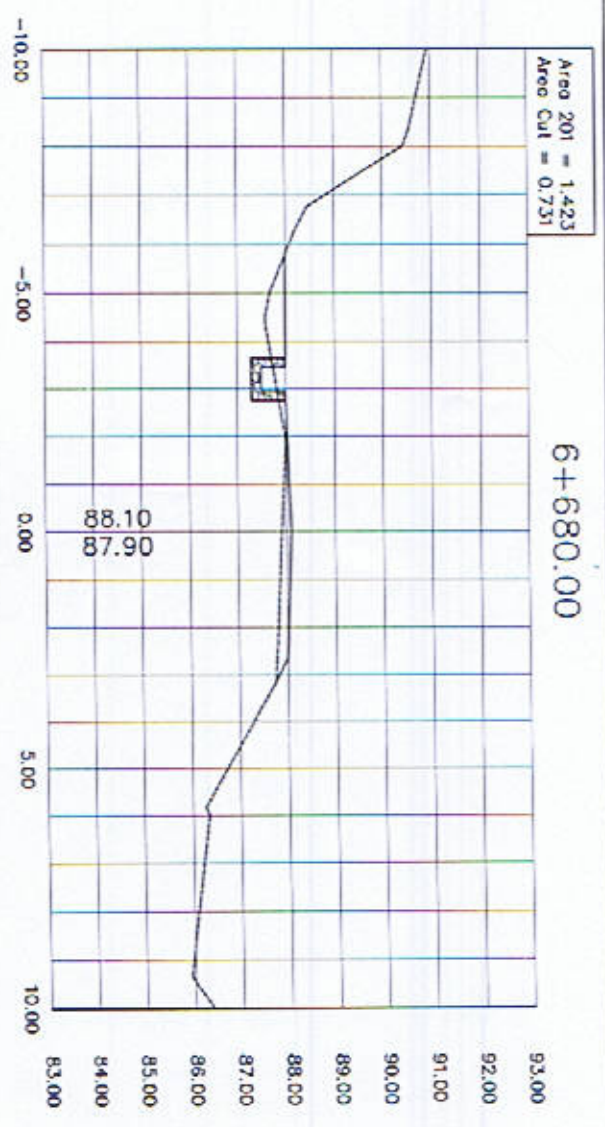
LOCATION: SAN RAMON, AGUSAN DEL SUR

DATE: 9/15/16

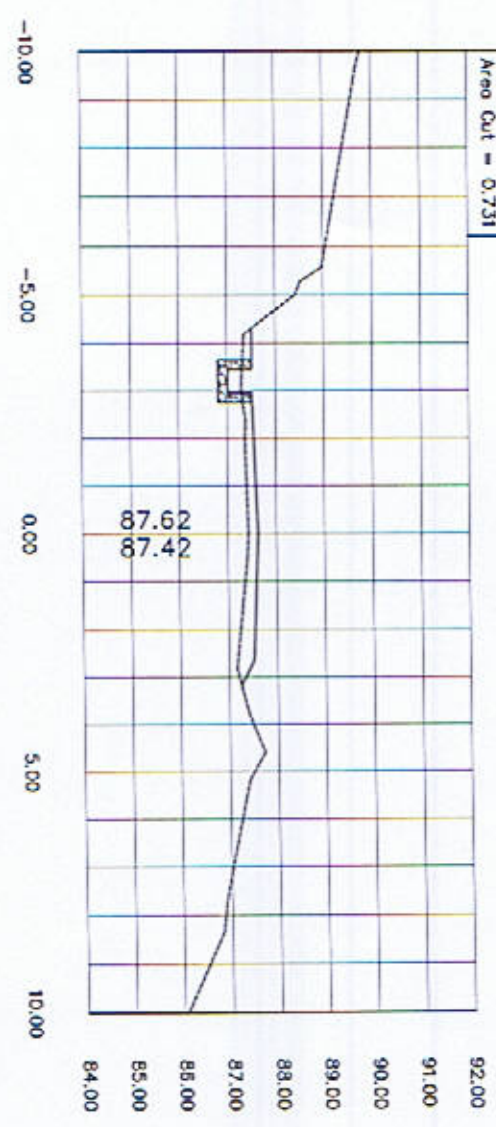
SCALE: AS SHOWN

18 OF 25

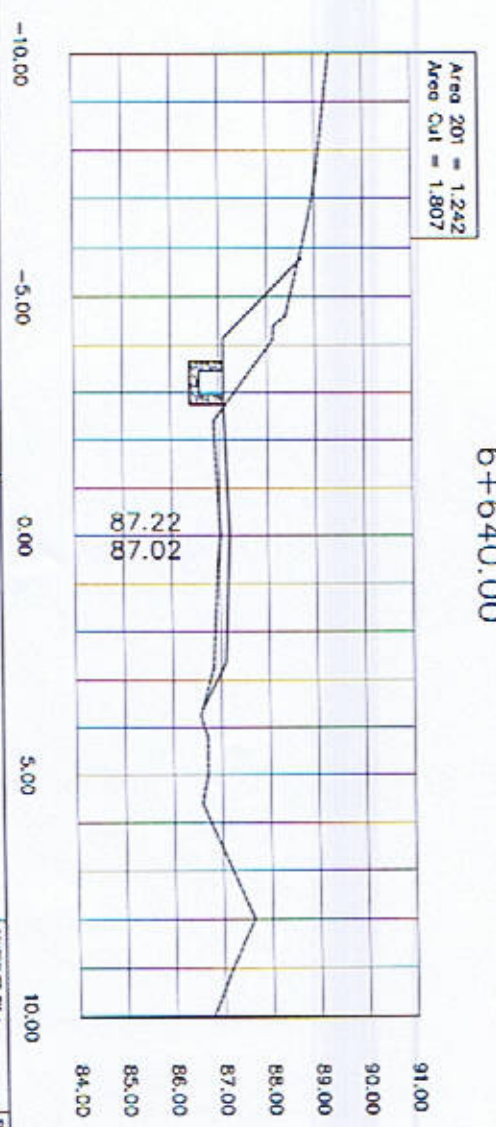




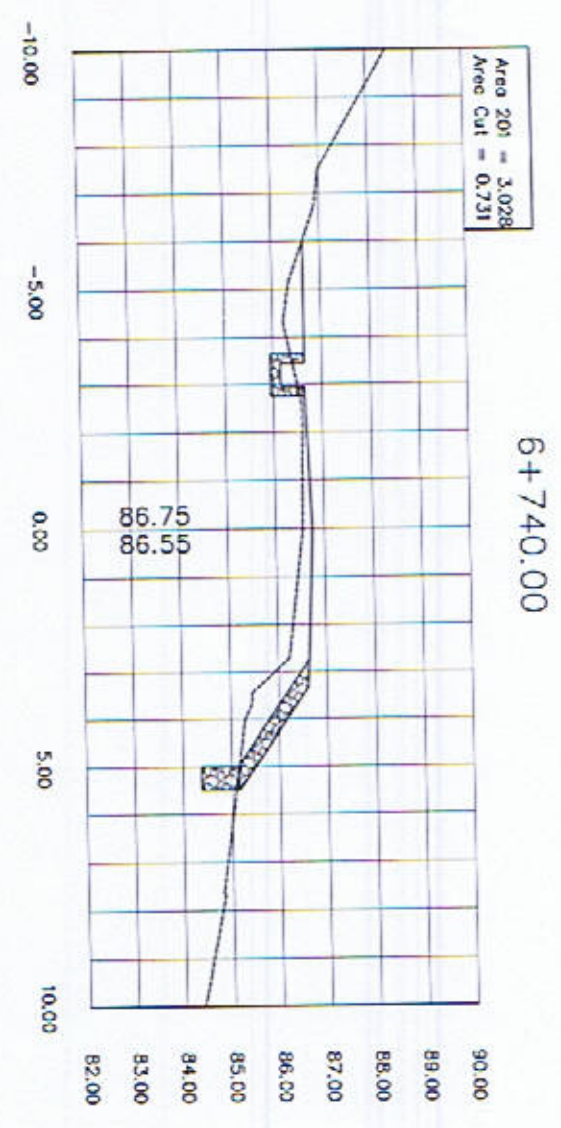
6+680.00



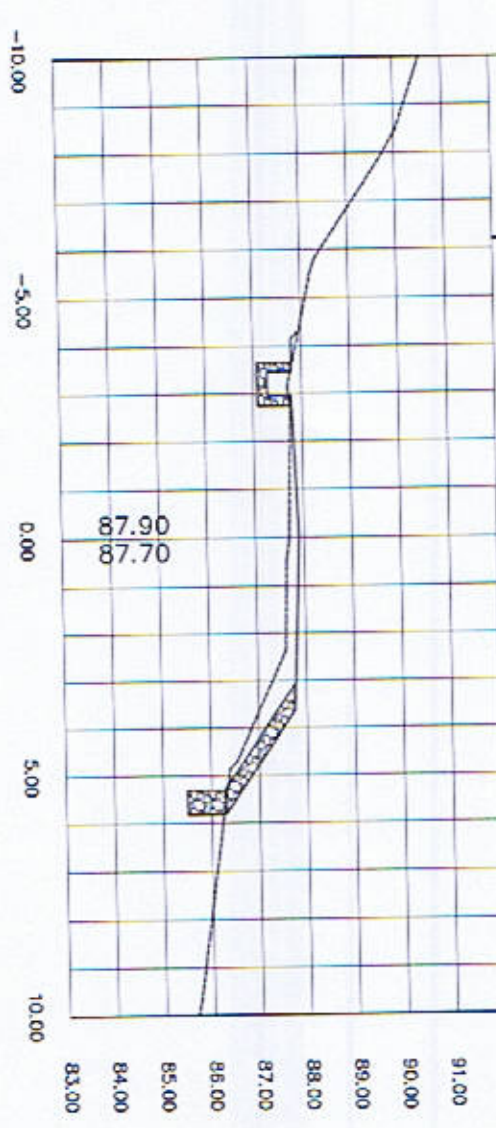
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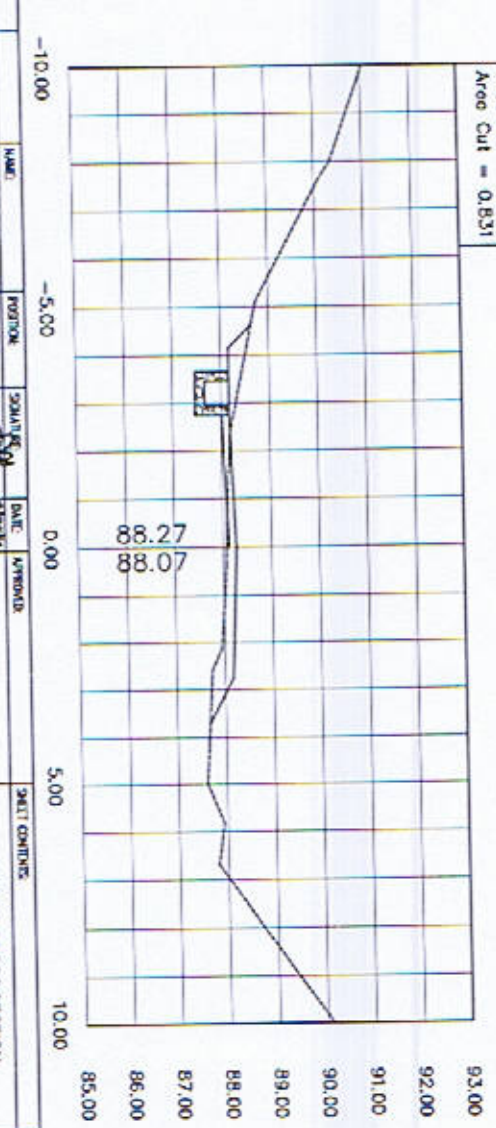
6+640.00



6+740.00



6+720.00



6+700.00

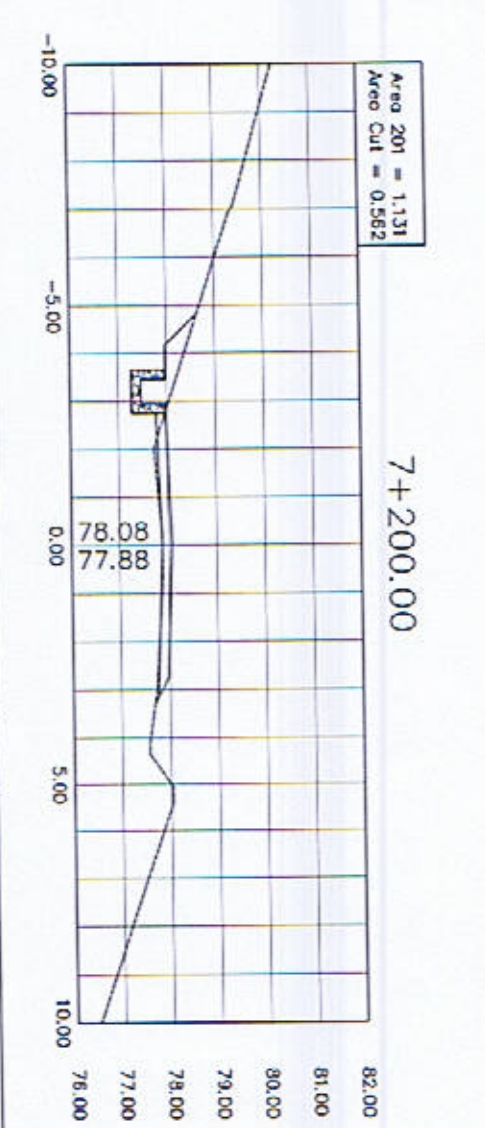
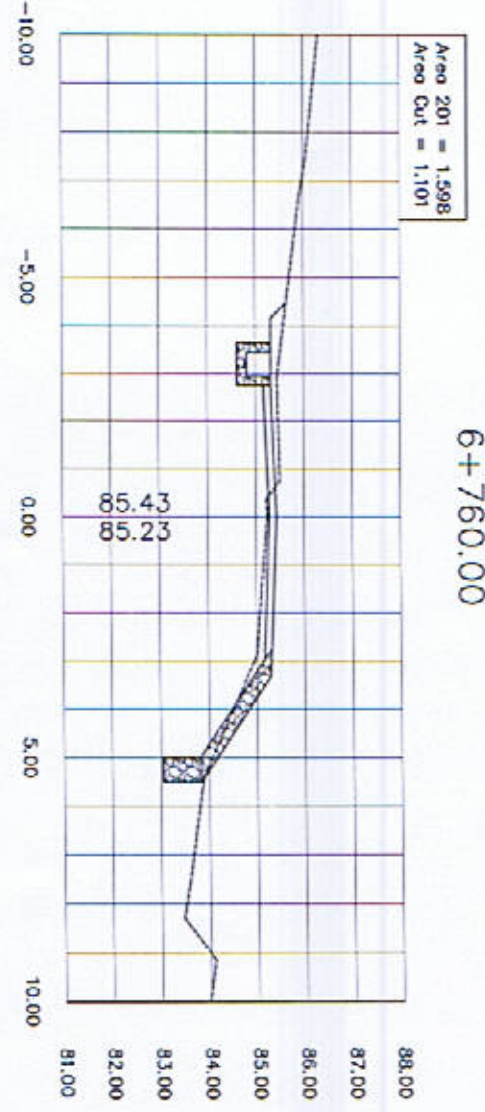
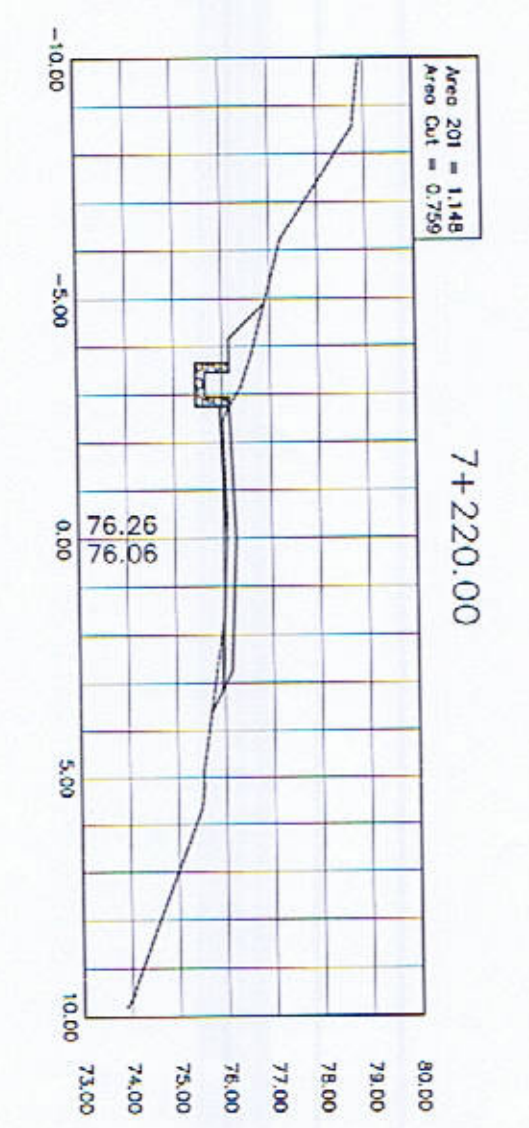
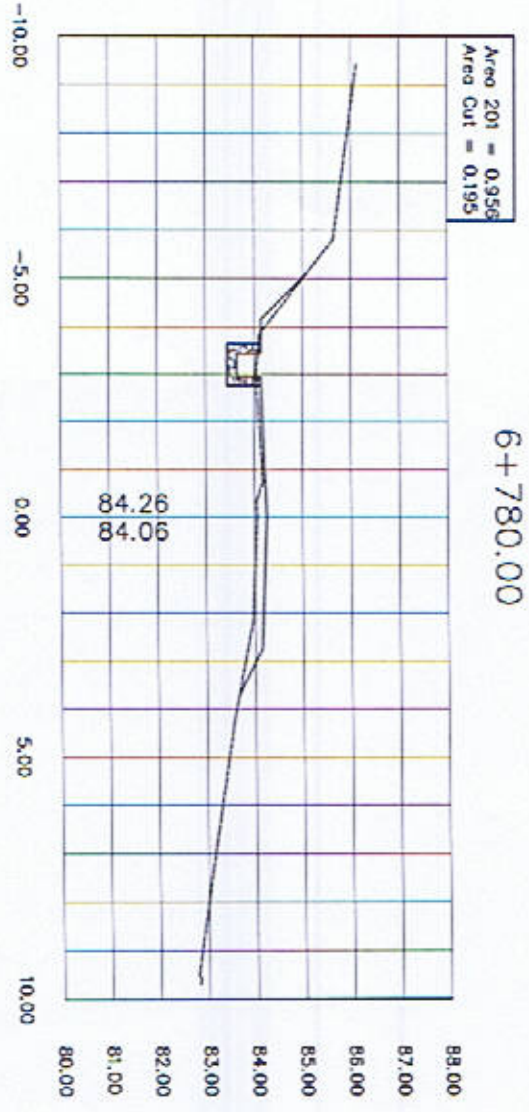
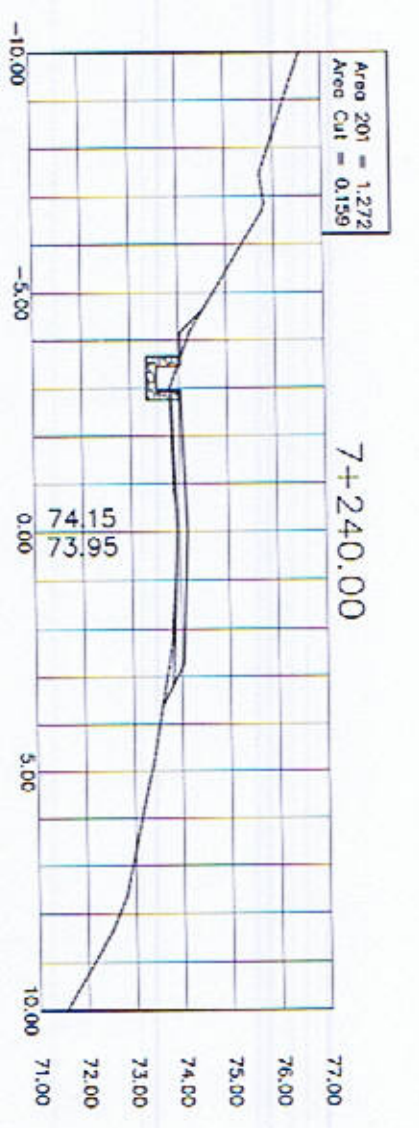
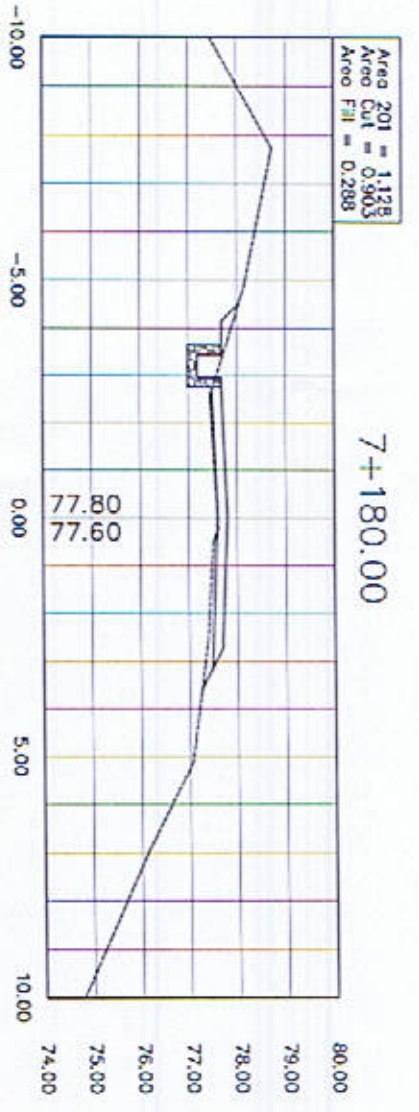
PROVINCIAL ROAD MANAGEMENT FACILITY (PRMF)

PROVINCIAL GOVERNMENT OF AGUSAN DEL SUR
PATINAY-AY PROGRAMAD KASAMA SA SUK

PROVINCIAL ENGINEER

DATE: _____

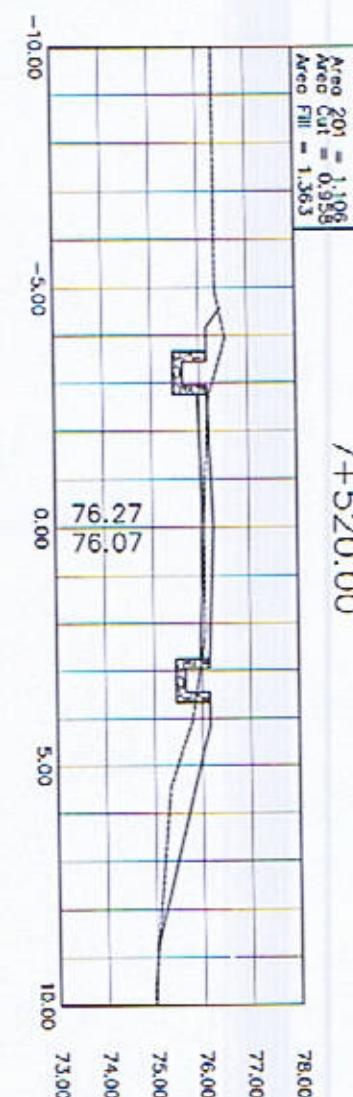
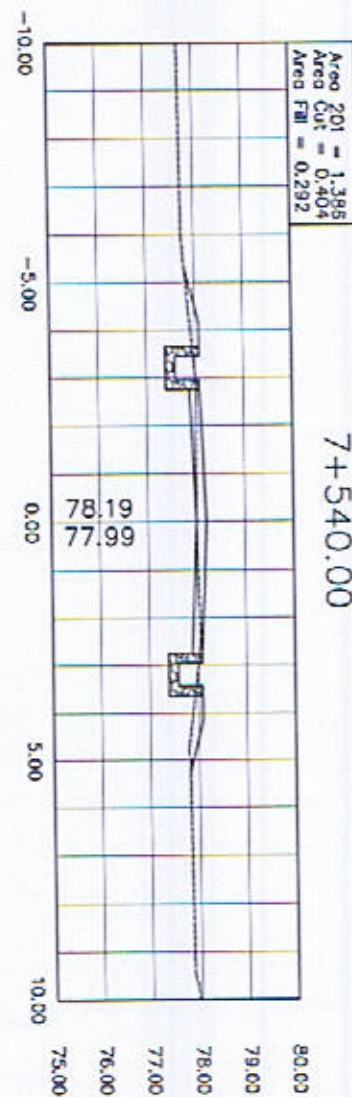
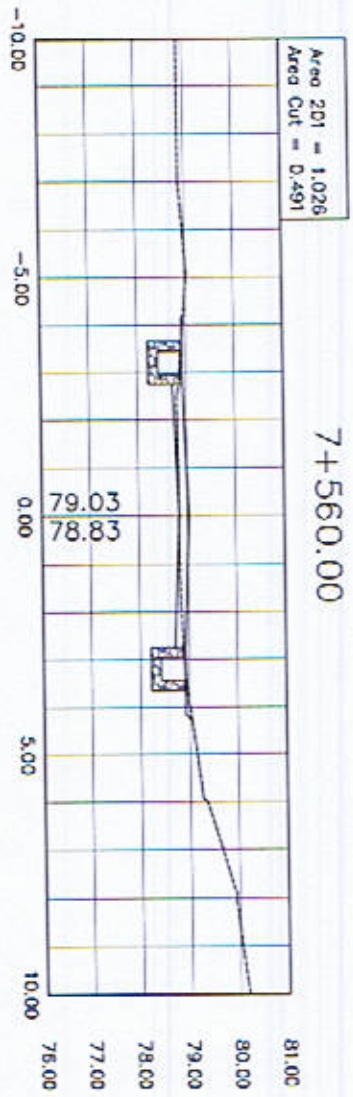
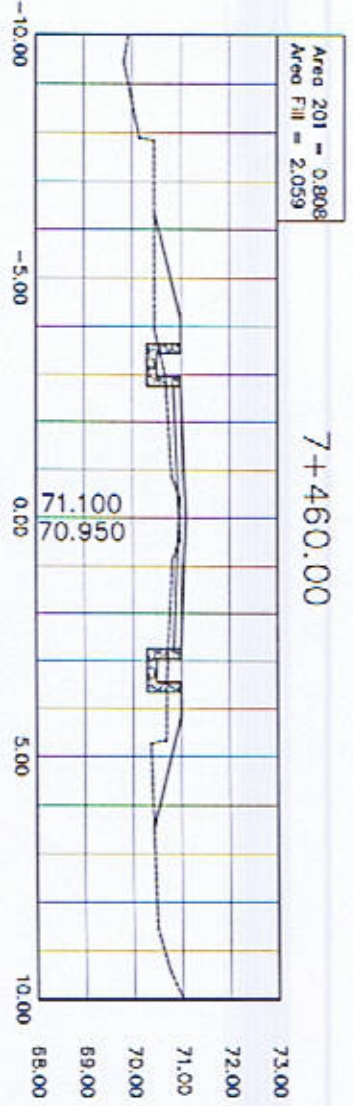
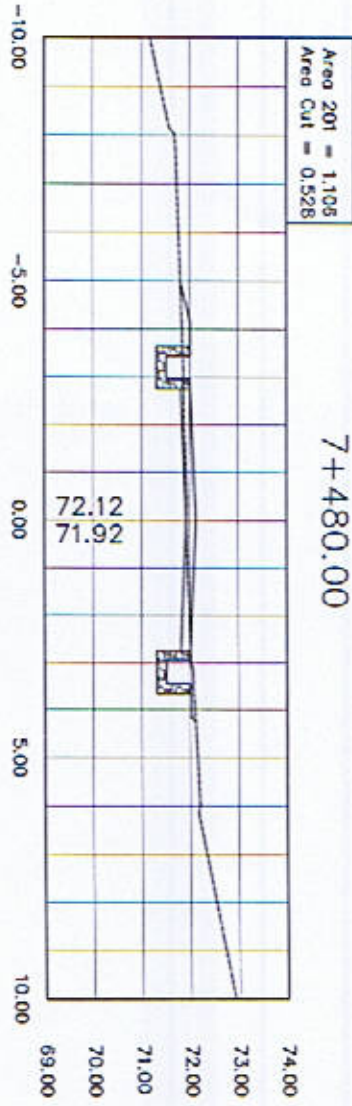
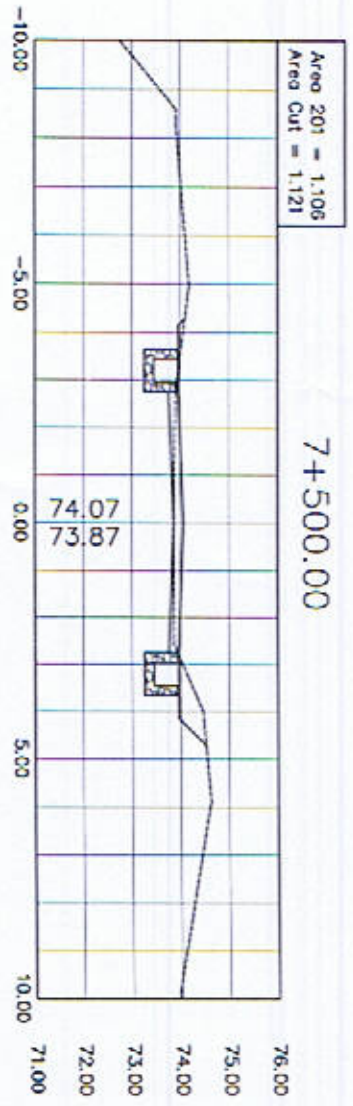
SUBPROJECT NAME	REHABILITATION AND MINOR IMPROVEMENT OF HIGHWAY PATINAY-AY (LICAC-IBSANSSECTION)		
PROJECT CODE	TR-AP-1	LOCATION	SAN FRANCISCO, AGUSAN DEL SUR
DESIGNED BY	PAULITA D. VINCIGANG	INCHARGE ENGINEER	
CHECKED BY	PAULITA D. VINCIGANG	DATE	12/14/2014
APPROVED	GRACIA JANSSEN-JONES	DATE	12/14/2014
DRAINAGE CROSS SECTION		SHEET CONTENTS	
STA 6+640 - 6+740		SCALE 1:25 VERT	
DWG. NAME		SHEET	
RD 05/03		21 OF 25	



PROVINCIAL ROAD MANAGEMENT FACILITY (PRMF)

PROVINCIAL GOVERNMENT OF AGUSAN DEL SUR

DESIGNED BY APPROVED BY DATE	DRAWN BY PREPARED BY CHECKED BY	NAME POSITION DATE	PROJECT NAME PROJECT CODE LOCATION	SHEET NO. DATE	SHEET COMMENTS SCALE 1/2" = 1'	SHEET NO. DATE
[Signature] [Signature] [Signature]	[Signature] [Signature] [Signature]	[Signature] [Signature] [Signature]	REHABILITATION AND MINOR IMPROVEMENT OF NBI - PAMINA - LUCAC - PISAN ROAD (LUCAC - PISAN SECTION) PROJECT CODE: PM-462-1-1 LOCATION: SAN RAMON, AGUSAN DEL SUR	[Signature] [Signature] [Signature]	DRAINAGE CROSS SECTION STA 6+760 - 7+240	22 OF 25



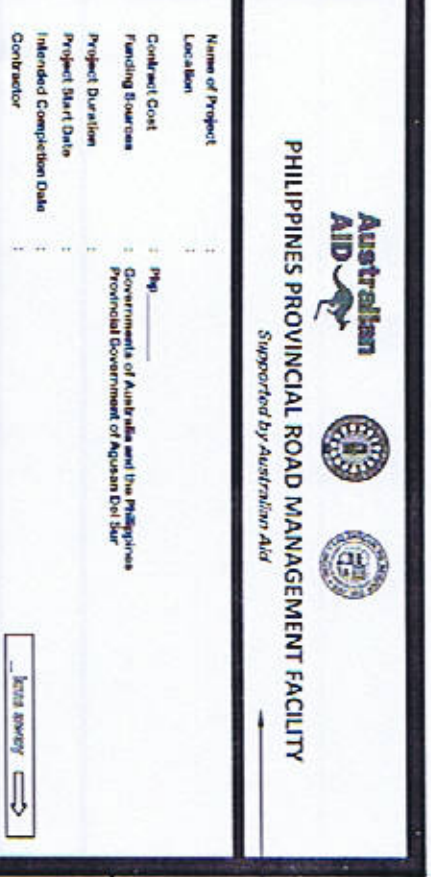
PROVINCIAL ROAD MANAGEMENT FACILITY (PRMF)

PROVINCIAL GOVERNMENT OF AGUSAN DEL SUR

DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS

DRAWN BY: NAME: RAFAEL N. LAGO POSITION: ENGINEER - I CHECKED BY: NAME: ENRIQUE T. LARON POSITION: ENGINEER - I	DESIGNED BY: NAME: RAFAEL N. LAGO POSITION: ENGINEER - I	SUBPROJECT NAME: REHABILITATION AND MINOR IMPROVEMENT OF NB - PATINAY - LUGAC - PISANAN ROAD (LUGAC - PISANAN SECTION)	PROJECT CODE: PR-AG-1-1-1-1	PROJECT LOCATION: SAN FRANCISCO, AGUSAN DEL SUR	DATE: 2013	APPROVED: NAME: GENERAL JAMES JONES POSITION: DISTRICT ENGINEER	SHEET CONTENTS: DRAINAGE CROSS SECTION STA 7+460 - 7+500	DATE: 21 OF 25
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2440



PHILIPPINES PROVINCIAL ROAD MANAGEMENT FACILITY
Supported by Australian Aid

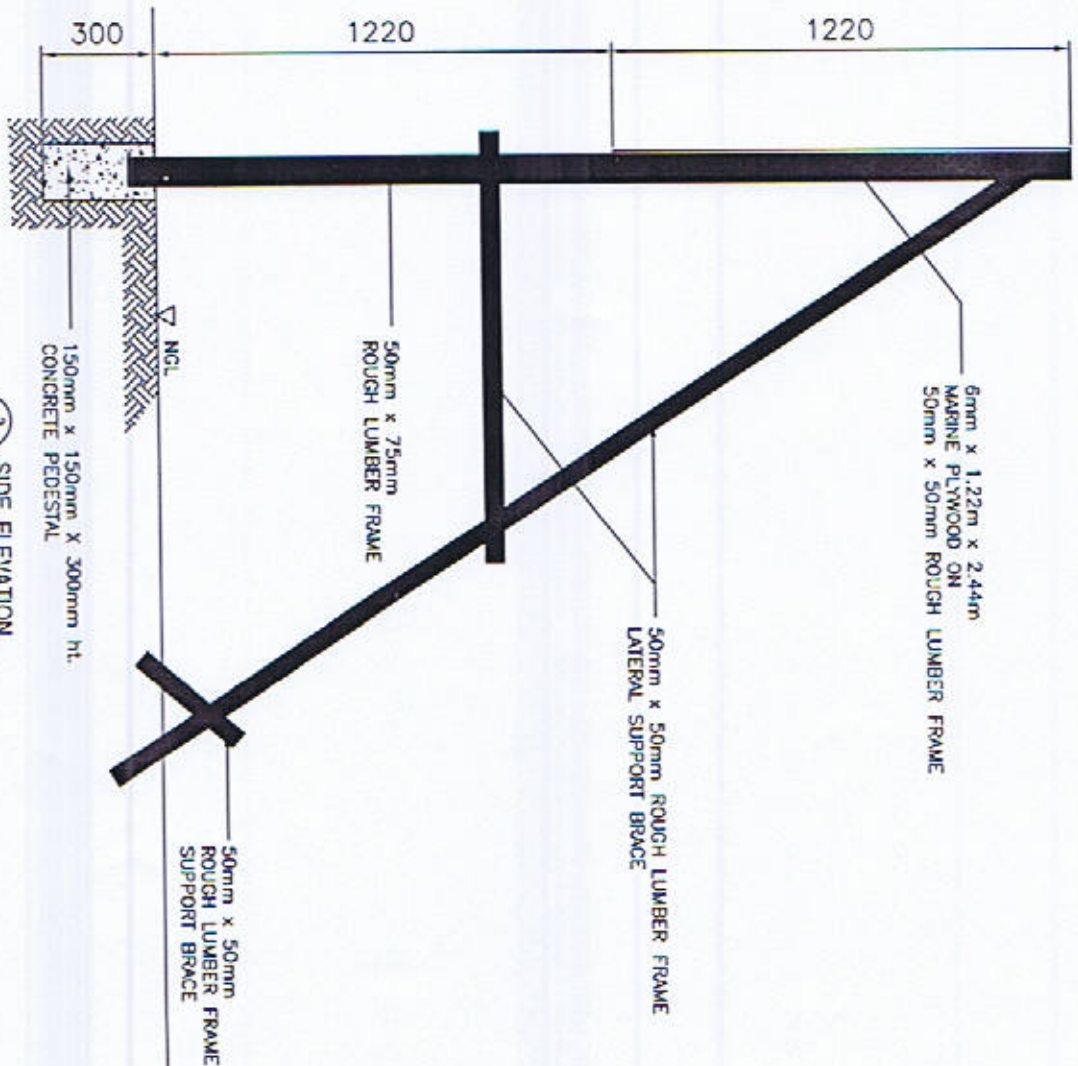
Name of Project :
 Location :
 Contract Cost : P10,000,000
 Funding Sources : Government of Australia and the Philippines
 Project Duration : Provincial Government of Agusan del Sur
 Project Start Date :
 Intended Completion Date :
 Contractor :

TARPAULINE SIGNAGE ON TOP OF
6mm x 1,22m x 2,44m
MARINE PLYWOOD

50mm x 50mm
ROUGH LUMBER FRAME

50mm x 75mm
ROUGH LUMBER FRAME

1 FRONT ELEVATION
SCALE 1:50



6mm x 1,22m x 2,44m
MARINE PLYWOOD ON
50mm x 50mm ROUGH LUMBER FRAME

50mm x 50mm ROUGH LUMBER FRAME
LATERAL SUPPORT BRACE

50mm x 75mm
ROUGH LUMBER FRAME

50mm x 50mm
ROUGH LUMBER FRAME
SUPPORT BRACE

150mm x 150mm x 300mm ht.
CONCRETE PEDESTAL

2 SIDE ELEVATION
SCALE 1:50

PROVINCIAL ROAD MANAGEMENT FACILITY (PRMF)		PROVINCIAL GOVERNMENT OF AGUSAN DEL SUR PATINAY-AY PROVINCEAL AGUSAN DEL SUR		PROJECT SIGN BOARD	
PROJECT NUMBER:	DESIGNED BY:	CHECKED BY:	DATE:	PROJECT NAME:	SHEET NUMBER:
REHABILITATION AND MINOR IMPROVEMENT OF NRJ - PATINAY-AY - LUCAN - PISAN ROAD (ELECTRIFICATION SECTION)	ALBERTO G. PATA PROVINCIAL ENGINEER	RAFAEL D. YONGSONG PROVINCIAL ENGINEER	DATE:	PROJECT SIGN BOARD	SHEET 25 OF 25
PROJECT CODE: PR-AGS-	LOCATION: SAN JUANICO, AGUSAN DEL SUR	DESIGNED BY:	CHECKED BY:	PROJECT SIGN BOARD	SHEET 25 OF 25
NAME:	POSITION:	SCALE:	DATE:	PROJECT SIGN BOARD	SHEET 25 OF 25
RAFAEL D. YONGSONG	ENGINEER	1:50	DATE:	PROJECT SIGN BOARD	SHEET 25 OF 25
RAFAEL D. YONGSONG	ENGINEER	1:50	DATE:	PROJECT SIGN BOARD	SHEET 25 OF 25
RAFAEL D. YONGSONG	ENGINEER	1:50	DATE:	PROJECT SIGN BOARD	SHEET 25 OF 25