



REQUEST FOR QUOTATION

Infrastructure

(Negotiated Procurement-Small Value Procurement)

The City Government of Naga (CGN), through its Bids and Awards Committee (BAC), hereby invites all interested contractors, to quote their lowest price on the project stated below, subject to the Terms of Reference (TOR) and submit the same duly signed by their authorized representative not later than 3:00PM on Monday, July 29, 2024, at the City Procurement Office, City Hall Compound, J. Miranda Avenue, Naga City. Opening of sealed bids will be at 3:00PM on the same day.

Name of Project and Location:	REPLACEMENT OF DAMAGE STRUCTURES FROM ROAD WIDENING (GUARD HOUSE), Naga Imperial Crematory & Columbarry, Bgy. Balatas, Naga City
Contract Reference Number:	009412-2024-01
Approved Budget for the Contract:	P 486,800.00

TERMS OF REFERENCE

I. The following documentary requirements shall be submitted together with the price quotation (**sealed in an envelope**):

1. PhilGEPS Registration Certificate-Platinum (Attach Annex "A" stating that you have a current and updated file of the following Class "A" eligibility documents under Section 23.1(a) and 24.1):
 - a. SEC/DTI/CDA Registration Certificate
 - b. Mayor's/Business Permit
 - c. Tax Clearance
 - d. Philippine Contractors Accreditation Board (PCAB) license and registration
 - e. Audited Financial Statements
2. BIR Registration Certificate
3. Income Tax Return (ITR)
4. Omnibus Sworn Statement
5. Affidavit of Site Inspection

II. Implementation Schedule:

The project should be completed within **sixty (60)** calendar days starting from receipt of Notice to Proceed (NTP).

III. General Conditions:

1. All quotations must be legibly written.
2. Price offers exceeding the Approved Budget for the Contract (ABC) shall be automatically disqualified.
3. Bid offers shall be duly supported by the bidder's detailed computation of estimated costs for each item.
4. Total bid offers shall be inclusive of taxes such as but not limited to VAT, income tax, local tax and other levies.
5. Price quotation will be valid for one hundred and twenty (120) calendar days from date of opening of sealed bids.
5. The price offered shall not be subject to any increase for whatever reason including in cases of devaluation/inflation during the entire duration of the contract.

IV. Award of Contract

The BAC shall recommend to the CGN the award of contract to the bidder with the Lowest Calculated Responsive Bid (LCRB).

V. Performance Security

1. To guarantee the faithful performance of the successful bidder of its obligation under the contract, it shall post a Performance Security within ten (10) calendar days from the receipt of Notice of Award (NOA), which shall answer for any liability arising from the performance of the contract.
2. The performance security shall be denominated in Philippine Pesos and posted in favor of the Procuring Entity in an amount not less than the percentage of the total contract price in accordance with the following schedule:

Form of Performance Security	Amount of Performance Security (Not less than the Percentage of the Total Contract Price)
Cash or cashier's/manager's check issued by a Universal or Commercial Bank. <i>(The Cashier's/Manager's Check may be issued by other banks certified by the BSP as authorized to issue such financial instrument.</i>	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. <i>(The Bank Draft/Guarantee, or Irrevocable Letter of Credit may be issued by other banks certified by the BSP as authorized to issue such financial instrument.</i>	
Surety bond callable upon demand issued by a surety or insurance company duly certified by the Insurance Commission as authorized to issue such security.	Thirty percent (30%)

3. 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.

VI. Contract Signing

1. The CGN shall enter into contract with the winning bidder upon posting of the required Performance Security and insurance coverage. The following documents shall form part of the contract:
 - a. Contract Agreement;
 - b. Terms of Reference;
 - c. Price Quotation Form including the detailed cost computation of estimated costs; and
 - d. Notice of Award

VII. Notice to Proceed (NTP)

The CGN shall issue the NTP to the successful bidder upon approval of the contract by the Head of the Procuring Entity.

VIII. Progress Payments:

1. The contractor may submit a request for payment for work accomplished. Such request for payment shall be verified and certified by the CGN's Project Engineer. Materials and equipment delivered on the site but not completely and properly installed shall not be included for payment.
2. The first progress payment may be paid by the CGN to the contractor provided that at least fifty percent (50%) of the work has been accomplished as certified by

the CGN's Project Engineer.

IX. Warranty Security:

1. To guarantee that the contractor shall perform his responsibilities as prescribed in Section 62.2.3.1(a) of this IRR, it shall be required to post a warranty security in accordance with the following schedule:

Form of Warranty Security	Amount of Warranty Security (Not less than the required percentage of the Total Contract Price)
a. Cash or Letter of Credit issued by a 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. (The Letter of Credit may be issued by other banks certified by the BSP as authorized to issue such financial instrument.)	Five percent (5%)
b) Bank guarantee confirmed by a Universal or Commercial Bank. (The bank draft/guarantee may be issued by other banks certified by the BSP as authorized to issue such financial instrument.)	Ten percent (10%)
c) Surety bond callable upon demand issued by GSIS or a surety or insurance company duly certified by the Insurance Commission as authorized to issue such security.	Thirty percent (30%)

2. The warranty security shall be denominated in Philippine Pesos, remain effective for one (1) year from the date of issuance of the Certificate of Final Acceptance by the CGN.

X. Liquidated Damages

The Contractor shall pay liquidated damages to the CGN at the rate per day of delay.


The applicable liquidated damages is at least one tenth (1/10) of one percent of the cost of the unperformed portion for every day of delay. Once the cumulative amount of liquidated damages reaches ten percent (10%) of the amount of this contract the CGN shall rescind this Contract, without prejudice to the other courses of action and remedies open to it.

For further inquiries, please coordinate with the BAC Secretariat at the address below:

BAC Secretariat/City Procurement Office
GF, Room 108, Main Building, City Hall Compound
J. Miranda Avenue, Concepcion Pequena, Naga City

The City Government of Naga reserves the right to reject any or all price quotations, to waive any minor defects therein, to annul the bidding process, to reject all price quotations, at any time prior to contract award, thereby incurring any liability to the affected bidder(s), and to accept only the offer that is most advantageous to the government.

The CGN assumes no responsibility whatsoever to compensate and indemnify bidders for any expenses incurred in the preparation of their price quotations.


FRANCISCO M. MENDOZA
Chairperson, Bids and Awards Committee

PRICE QUOTATION

TO: **Mr. FRANCISCO M. MENDOZA**
BAC Chairperson

Sir:

After having carefully read and accepted the Terms of Reference for the **PROPOSED REPLACEMENT OF DAMAGE STRUCTURES FROM ROAD WIDENING (GUARD HOUSE), NAGA IMPERIAL CREMATORY & COLUMBARY, BGY. BALATAS, NAGA CITY**, I hereby submit, **in a sealed envelope**, my price quotation, along with the required documents and detailed computation of estimated costs:

Item No.	Item Description/ Specifications/ Scope of Work	Quantity	Unit	Unit Cost	Total Cost
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PROPOSED REPLACEMENT OF DAMAGE STRUCTURES FROM ROAD WIDENING (GUARD HOUSE), NAGA IMPERIAL CREMATORY & COLUMBARY, BGY. BALATAS, NAGA CITY

Contract Reference Number: 009412-2024-01

Approved Budget for the Contract (ABC) – P 486,800.00

(Attached please find the detailed estimates)

Equipment Required:	Welding Machine, Concrete Mixer				
Location:	Bgy. Balatas, Naga City				
102	Excavation	18.00	Cu.M.		
SPL009	Concrete Works	5.70	Cu.M.		
SPL010	Masonry Works	36.50	Sq.M.		
716	Roofing and Roof Framing	9.60	Sq.M.		
SPL016C	Tile Works	14.50	Sq.M.		
00148	Ceiling Works	7.90	Sq.M.		
SPL017	Plumbing Works	2.10	Sq.M.		
00144	Septic Tank	1.00	Unit		
SPL070A	Down Spout/Catch Basin	2.00	Units		
NRTB 9	Electrical Works	16.65	Sq.M.		
NRTB 8	Painting Works	104.00	Sq.M.		
SPLH58	Forms and Scaffolding	1.00	Ls.		
SPL023D-A	Demolition Works	1.00	Ls.		
SPL145	Hardware Accessories	1.00	Ls.		
00152	Safety & Health Program	2.00	Mos.		
SPL001	Sign Board	1.00	Pc.		
T O T A L					

In words:

If our bid is accepted, we undertake to provide the required performance security.

We agree to abide by this bid for the bid validity period of one hundred twenty (120) days and it shall remain binding upon us and may be accepted at any time before the expiration of that period.

Until a formal contract is prepared and executed, this bid, together with your written acceptance thereof and your Notice of Award (NOA) shall be binding upon us.

We understand that you are not bound to accept the lowest or any bid you may receive.

Name of Firm/Offeror

Printed Name and
Signature of
Representative


Address

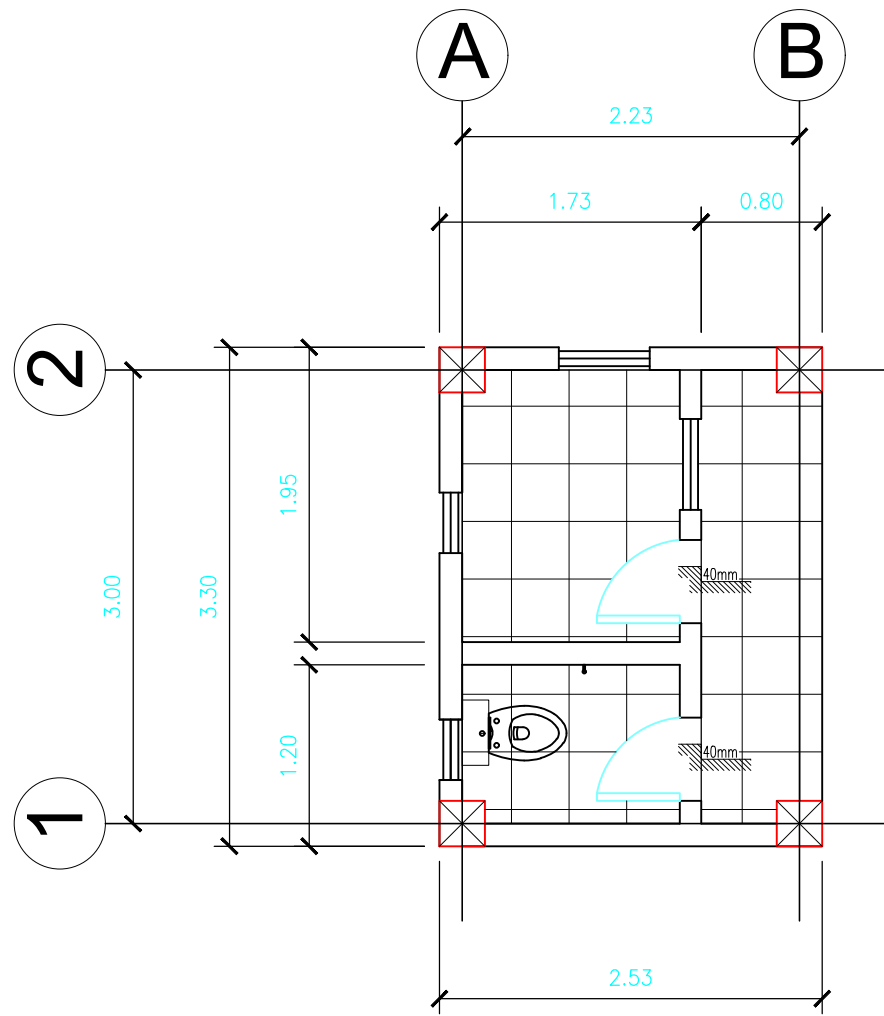
Tel. No./Mobile
No./Email Address

Date

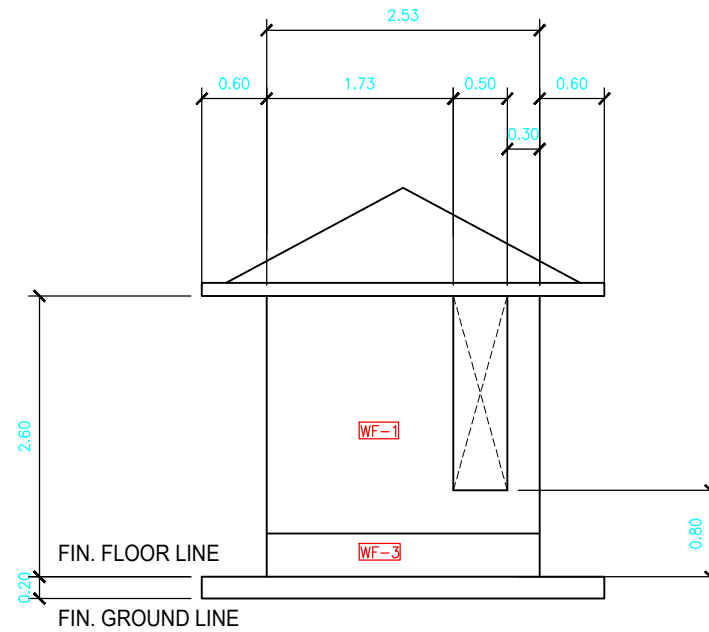



PERSPECTIVE
 SCALE _____ NTS

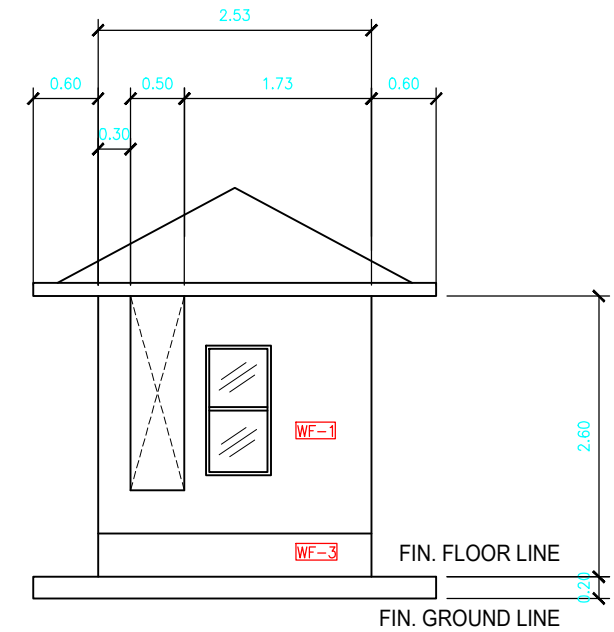
 OFFICE OF THE CITY ENGINEER CITY OF NAGA	PROJECT TITLE:	REVIEWED BY:	RECOMMENDED BY:	APPROVED BY:	PREPARED BY:	SHEET NO.
	PROPOSED REPLACEMENT OF DAMAGED STRUCTURE FROM ROAD WIDENING Location: Brgy. Balatas, Naga Imperial Crematory & Columbarry; Naga City, Camarines Sur	ALEXANDER A. FABIANO SPECIAL PROJECT HEAD	EMMEL M. ADAQUE ENGINEER III	ALEXANDER N. CANING ACTING CITY ENGINEER	NELSON S. LEGACION CITY MAYOR	ENGR. FRANCIS LIMBO D. JAYSON ENGR. SANDY R. BERNACER ENGR. BERNADETTE A. TINDOGAN JOHN RAY V. ALMAZAN



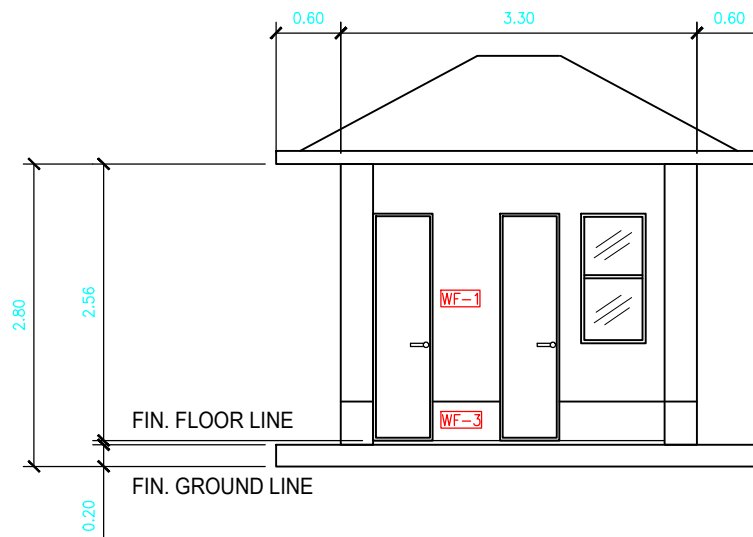
FLOOR PLAN
SCALE 1:70M



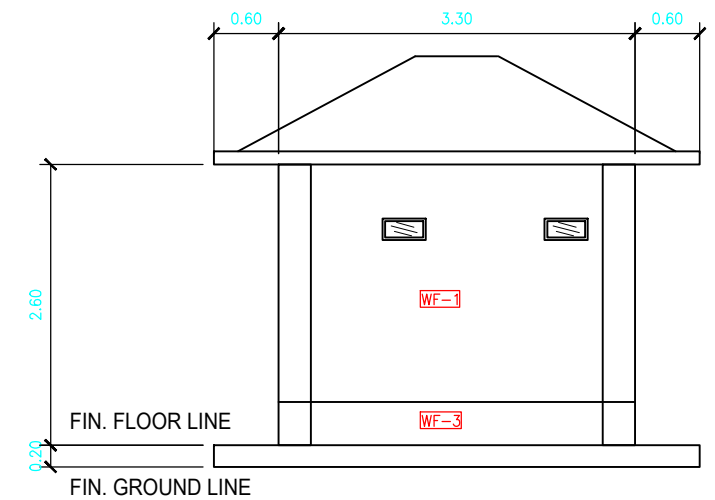
RIGHT SIDE ELEVATION
SCALE 1:70M



LEFT SIDE ELEVATION
SCALE 1:70M



FRONT ELEVATION
SCALE 1:70M



REAR ELEVATION
SCALE 1:70M



PROJECT TITLE:
**PROPOSED REPLACEMENT OF
DAMAGED STRUCTURE FROM
ROAD WIDENING**
Location: Brgy. Balatas, Naga Imperial Crematory
& Columbarry; Naga City, Camarines Sur

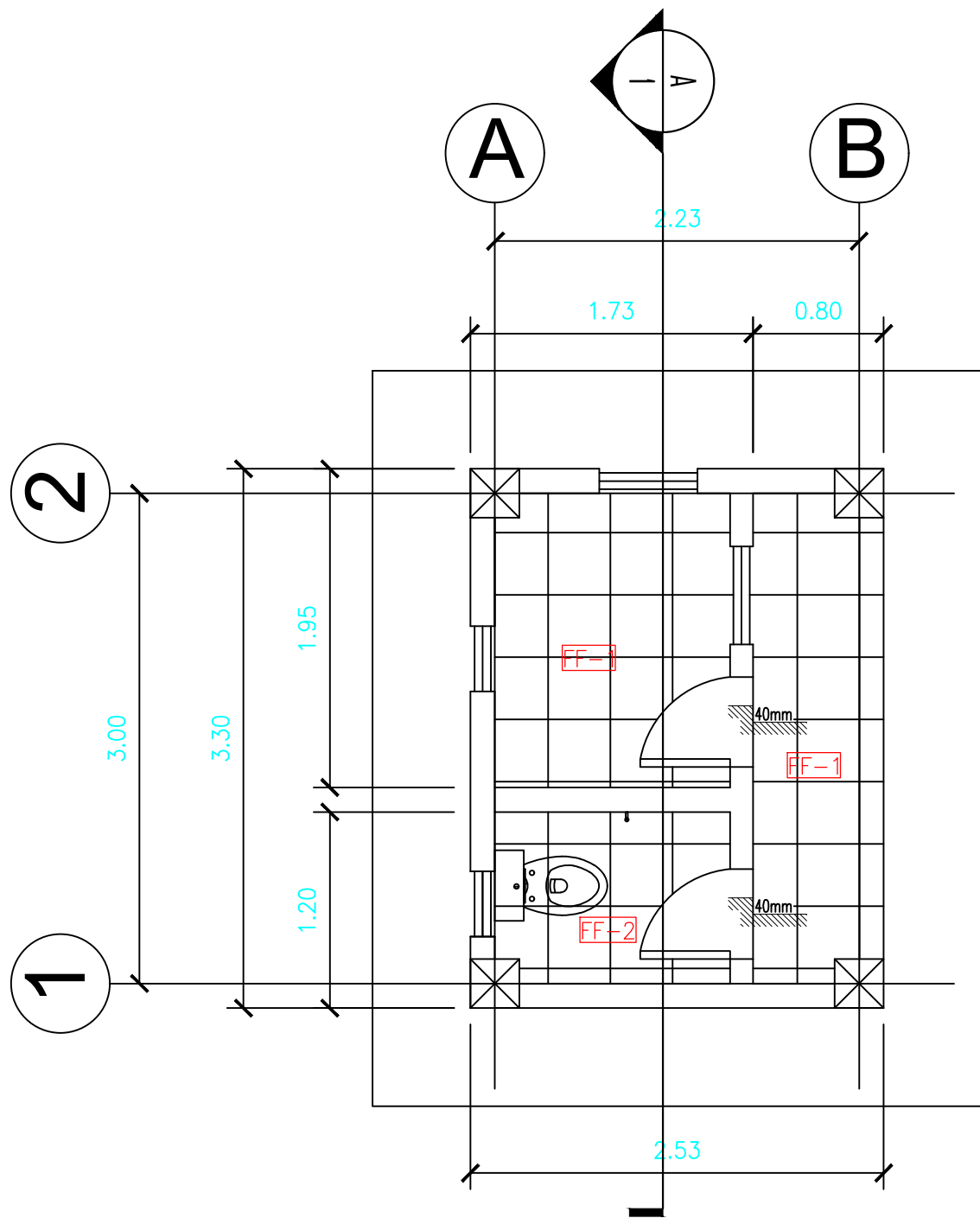
REVIEWED BY:
ALEXANDER A. FABIANO
SPECIAL PROJECT HEAD

RECOMMENDED BY:
EMMEL M. ADAQUE
ENGINEER III

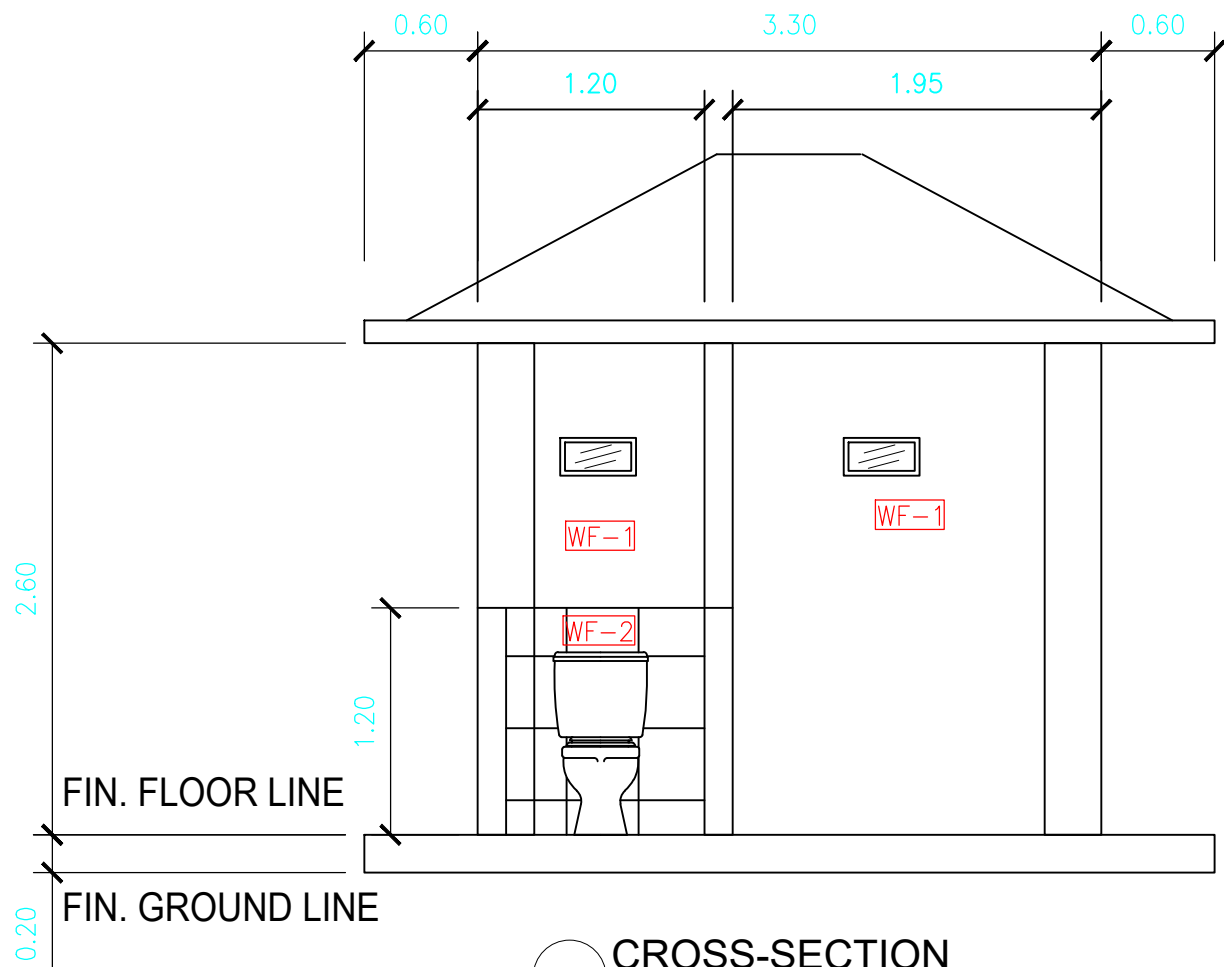
APPROVED BY:
ALEXANDER N. CANING
ACTING CITY ENGINEER

APPROVED BY:
NELSON S. LEGACION
CITY MAYOR

PREPARED BY: ENGR. FRANCIS LIMBO D. JAPON	SHEET NO. A
ENGR. SANDY R. BERNACER	
ENGR. BERNADETTE A. TINDUGAN	
JOHN RAY V. ALMAZAN	



SCHEDULE OF FINISHES
SCALE 1:40M



CROSS-SECTION
SCALE 1:40M

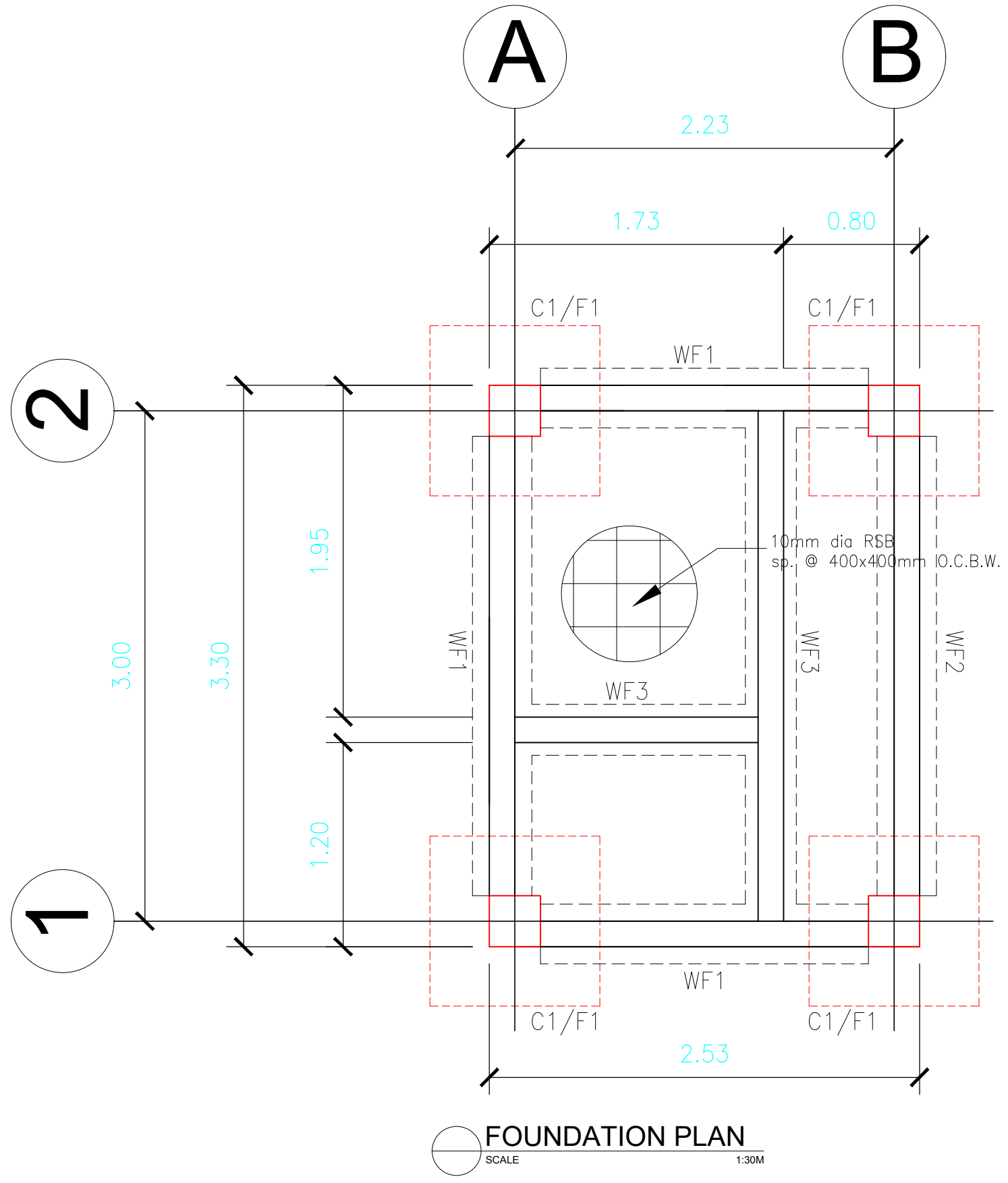
ARCHITECTURAL FINISHES		
FLOOR FINISHES		
FF-1		400X400MM CERAMIC FLOOR TILES MATTE LIGHT CHARCOAL/GRAY
FF-2		400X400MM CERAMIC FLOOR TILES NON-SKID/MATTE LIGHT CHARCOAL/GRAY
WALL FINISHES		
WF-1		SMOOTH CEMENT PLASTER SEMI GLOSS PAINT FINISH BOYSEN 0225 Gray Frost
WF-2		400X400MM CERAMIC FLOOR TILES NON-SKID/MATTE LIGHT CHARCOAL/GRAY
WF-3		SMOOTH CEMENT PLASTER SEMI GLOSS PAINT FINISH BOYSEN 0226 GLAZED GRAY

NOTE:

PAINT:
COLORS MAY VARY DEPENDING ON PAINT QUALITY, PLEASE CONFIRM ON ACTUAL PHYSICAL PAINT SWATCH

TILES:
IF SPECIFIC FINISHES ARE NOT AVAILABLE, SUBMIT SAMPLE OF PROPOSED EQUIVALENT SUBJECT FOR ARCHITECT'S APPROVAL

<p>REPUBLIC OF THE PHILIPPINES OFFICE OF THE CITY ENGINEER CITY OF NAGA</p>	<p>PROJECT TITLE: PROPOSED REPLACEMENT OF DAMAGED STRUCTURE FROM ROAD WIDENING</p>	<p>REVIEWED BY: ALEXANDER A. FABIANO SPECIAL PROJECT HEAD</p>	<p>RECOMMENDED BY: EMMEL M. ADAQUE ENGINEER III</p>	<p>APPROVED BY: ALEXANDER N. CANING ACTING CITY ENGINEER</p>	<p>APPROVED BY: NELSON S. LEGACION CITY MAYOR</p>	<p>PREPARED BY: ENGR. FRANCIS LEMBO D. JAPON ENGR. SANDY R. BERNACER ENGR. BERNADETTE A. TINDUGAN JOHN RAY V. ALMAZAN</p>	<p>SHEET NO. A</p>
	<p>Location: Brgy. Balatas, Naga Imperial Crematory & Columbarry; Naga City, Camarines Sur</p>						



FOUNDATION PLAN
SCALE 1:30M

GENERAL NOTES:

1.0 STANDARDS AND REFERENCES

THE FOLLOWING SHALL GOVERN THE DESIGN, FABRICATION AND CONSTRUCTION OF THE PROJECT.

2.0 DESIGN CRITERIA

2.1 LOADINGS

A. DEAD LOAD	
CONCRETE	-23.56kN/m ²
STEEL	-76.93kN/m ²
150mm THK. CHB WALL	-2.73 kPa
100mm THK. CHB WALL	-2.11 kPa
B. LIVE LOAD	
ROOF	-1.00 kPa
CLASSROOMS	-1.90 kPa
TOILETS	-2.40 kPa
CORRIDORS ABOVE, STAIRS	-3.80 kPa
CORRIDORS ON GROUND	-4.80 kPa

C. WIND LOAD (NSCP 2010)
BASIC WIND VELOCITY, V = 250 KPH
P = qh [(GCp)] (DESIGN WIND PRESSURE)
WHERE: qh = VELOCITY PRESSURE, kPa
GCp = EXTERNAL PRESSURE COEFFICIENT
GCi = INTERNAL PRESSURE COEFFICIENT

D. SEISMIC LOAD (NSCP 2010)
V = _____ (DESIGN BASE SHEAR)
Vmax = _____ Vmin = 0.11 CaW
Vmin = _____
WHERE: W = TOTAL DEAD LOAD
T = NATURAL PERIOD = C (h)
WHERE: C = NUMERICAL COEFFICIENT
h = BUILDING HEIGHT
I = IMPORTANCE FACTOR = 1.50
R = NUMERICAL FACTOR = 8.50
SEISMIC COEFFICIENT Cv = 0.44Nv
Ca = 0.54N
NEAR SOURCE FACTOR (10km) Nv = 1.2
Na = 1.0
Z = SEISMIC ZONE = 0.40 (ZONE 4)
S = SOIL TYPE = D

2.2 DESIGN STRESSES

A. CONCRETE	
B. REINFORCING BARS	
a. FOR BARS 16mmØ AND GREATER	fy = 275 MPa (40,000 psi)
b. FOR BARS LESS THAN 16mmØ	fy = 230 MPa (33,000 psi)
C. STRUCTURAL STEEL, ASTM-A36	fy = 248 MPa (36,000 psi)
D. PURLINS	fy = 248 MPa (36,000 psi)
E. MASONRY UNIT (CHB)	fm = 3.45 MPa (500 psi)
F. WELDS-USED E-60xx ELECTRODE	
a. Ft = 96.60 MPa (14,000 psi)	b. Fv = 69 MPa (10,000 psi)

3.0 FOUNDATION

- 3.1 ASSUMED SOIL BEARING CAPACITY SHALL BE 96 kPa (2,000 PSF)
- 3.1.1 IN CASE THE ACTUAL LOCATION OF THE STRUCTURE IS LESS THAN THE ASSUMED DISTANCE FROM THE SEISMIC SOURCE OF 40m, NOTIFY THE DIRECTOR, BUREAU OF DESIGN FOR PROPER REVISION OF THE DESIGN. REFER TO THE SEISMIC SOURCE MAP PROVIDED IN THE NATIONAL STRUCTURAL CODE OF THE PHILIPPINES OR PHIVOLCS SEISMIC SOURCE MAP.
- 3.1.2 SOIL TEST SHALL BE CONDUCTED PRIOR TO START OF CONSTRUCTION.
- 3.1.3 IN CASE THE ACTUAL SOIL BEARING CAPACITY IS FOUND LESS THAN THE ASSUMED, 144 kPa; NOTIFY THE DIRECTOR, BUREAU OF DESIGN FOR PROPER REVISION OF FOUNDATION.
- 3.1.4 NO FOOTING SHALL REST ON FILL.
- 3.1.5 BOTTOM OF FOOTING SHALL BE AT LEAST 1.00m⁺ BELOW NATURAL GRADE LINE.
- 3.1.6 SOIL BEARING CAPACITY SHALL BE INCREASED BY 33% WHEN IN COMBINATION WITH SEISMIC OR WIND LOAD.
- 3.2 ALL COLUMN FOOTINGS & TIE BEAMS SHALL REST ON 150mm THK. WELL COMPACTED BOULDER.
- 3.3 BACK FILL SHALL BE PLACED IN LAYER AND EACH LAYER SHALL BE 200 mm THK. AND SHALL BE COMPACTED TO 95% MAXIMUM DRY DENSITY.
- 3.4 WHERE LOOSE/SOFT MATERIAL IS ENCOUNTERED AT DEPTH OF EMBEDMENT INDICATED, EXCAVATE TO FIRM LAYER AND REPLACE LOOSE MATERIALS UNDERNEATH THE FOOTING WITHIN THE FOOTING AREA PLUS ½ DEPTH OF SOFT MATERIAL ON ALL SIDES WITH SELECT GRANULAR BACKFILL. COMPACT SELECT GRANULAR BACKFILL TO 95% OF MAXIMUM DRY DENSITY.

4.0 MATERIALS

4.1 CONCRETE

4.1.1 CONCRETE COVER OVER REINFORCING BARS SHALL BE AS FOLLOWS:

A. FOOTINGS, FOOTING-TIE BEAMS (CAST AGAINST FORMS)	75mm
B. BEAMS AND COLUMNS (TO STIRRUPS AND TIES)	40mm
C. WALLS, SIDE OF FOOTING-TIE BEAMS (CAST AGAINST FORMS)	40mm
D. SUSPENDED SLAB	20mm

4.1.2 BEFORE CONCRETE IS POURED, CHECK WITH ALL TRADES TO ENSURE PROPER PLACEMENT OF ALL OPENINGS, SLEEVES, CURBS, CONDUITS, ETC. RELATING TO THE WORK.

4.2 REINFORCING BARS

4.2.1 ALL REINFORCING BARS SHALL BE CLEAN OF RUST, GREASE OR OTHER MATERIALS THAT WILL IMPAIR BOND.

4.2.2 ALL REINFORCING BARS SHALL BE ACCURATELY AND SECURELY PLACED BEFORE POURING CONCRETE OR APPLYING MORTAR OR GROUT.

4.2.3 LAPPED SPLICES SHALL BE ACCURATELY AND SECURELY PLACED BEFORE POURING CONCRETE OR APPLYING MORTAR OR GROUT.

4.2.4 UNLESS OTHERWISE INDICATED, SPLICING OF REINFORCEMENT SHALL BE IN ACCORDANCE WITH ACI-318M, EXCEPT THAT THE MINIMUM LAP SPLICE SHALL BE 40 BAR DIAMETER BUT NOT LESS THAN 600mm.

4.2.5 UNLESS SHOWN OTHERWISE ON PLANS, SPLICES SHALL BE AS FOLLOWS:

- A. INTERMEDIATE BEAMS: TOP BARS SHALL BE SPLICED AT MID-SPAN, AND BOTTOM BARS AT THE SUPPORT.
- B. BEAMS FRAMING TO COLUMNS: TOP BARS SHALL BE SPLICED AT MID-SPAN AND BOTTOM BARS SHALL BE NOT BE SPLICED WITHIN A DISTANCE OF TWICE THE MEMBER DEPTH FROM THE FACE OF THE COLUMN. THE SPLICED LENGTH SHALL NOT BE LESS THAN 600mm.
- C. COLUMNS: LAP SPLICES SHALL BE MADE WITHIN THE CENTER HALF OF HEIGHT AND THE SPLICE SHALL NOT BE LESS THAN 30 BAR DIAMETER. WELDING OR THE USE OF APPROVED MECHANICAL DEVICES MAY BE PERMITTED PROVIDED NOT MORE THAN ALTERNATE BARS ARE WELDED OR SPLICED AT ANY LEVEL AND THE MINIMUM VERTICAL DISTANCE BETWEEN TWO ADJACENT BAR SPLICES SHALL BE 600mm.
- D. CHB WALLS: VERTICAL BARS SHALL BE SPLICED AT THE TOP OF WALL FOOTINGS OR FOOTING-TIE BEAMS AND AT THE BOTTOM OF REINFORCED CONCRETE LINTEL BEAMS OR BEAMS.

4.2.6 UNLESS OTHERWISE INDICATED, ALL BEAMS TERMINATING AT A COLUMN SHALL HAVE TOP AND BOTTOM BARS EXTENDING TO THE FAR FACE OF THE COLUMN, TERMINATING IN A STANDARD 90 HOOK LENGTH OF ANCHORAGE SHALL NOT BE LESS THAN 600mm.

4.2.7 SHOP DRAWING FOR REINFORCEMENT SHALL BE SUBMITTED FOR APPROVAL OF THE ENGINEER PRIOR TO FABRICATION & INSTALLATION.

4.2.8 DEVELOPMENT LENGTH (Ld) OF REINFORCING BARS SHALL BE AS FOLLOWS:

DEVELOPMENT LENGTH	SIZE OF REBARS
	10 mm
	12 mm
	16 mm
	20 mm
	25 mm
	170 mm
	220 mm
	270 mm
	380 mm
	600 mm

4.3 STRUCTURAL STEEL

4.3.1 ALL STRUCTURAL STEEL SHALL CONFORM TO ASTM A36 AND SHALL HAVE A MAXIMUM YIELD STRESS, Fy = 248 MPa (36,000 psi)

4.3.2 ALL STRUCTURAL STEEL SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH THE AISC SPECIFICATIONS AND CODE OF STANDARD PRACTICE AS AMENDED TO DATE.

4.3.3 ALL BOLTS SHALL CONFORM TO ASTM A-307 UNLESS OTHERWISE INDICATED.

4.3.4 SHOP AND FIELD WELDING SHALL BE IN ACCORDANCE WITH AWS D1.1 AND PERFORMED BY QUALIFIED WELDERS.

4.3.5 UNLESS OTHERWISE INDICATED, WELDING ELECTRODES SHALL BE E60.

4.3.6 NO STEEL SHALL BE FABRICATED OR ERECTED UNTIL SHOP DRAWINGS HAVE BEEN APPROVED BY THE STRUCTURAL ENGINEER.

4.3.7 WELDS (CONFORM WITH AMERICAN WELDING STANDARDS) USING E 60xx ELECTRODES. fy = 93.77 MPa.

4.3.8 ANCHOR BOLTS (CONFORM WITH ASTM A-307) ft = 96.60 MPa. fv = 69 MPa.

4.4 CONCRETE HOLLOW BLOCKS (CHB):

4.4.1 UNLESS OTHERWISE INDICATED, CHB USED IN THIS WORK SHALL HAVE A MINIMUM ULTIMATE COMPRESSIVE STRENGTH Fm = MPa (500 psi)

4.4.2 ALL CHB CELLS SHALL BE FILLED SOLIDLY WITH GROUT.

5.0 CONSTRUCTION JOINT

5.1 CONSTRUCTION JOINT NOT INDICATED ON THE PLANS SHALL BE MADE SO AS TO LEAST IMPAIR THE STRENGTH OF THE STRUCTURE AND SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER EXCEPT SLAB ON GRADE.

5.2 UNLESS SHOWN OTHERWISE, SLAB ON GRADE SHALL HAVE CONTROL JOINTS SPACED AT 600mm MAXIMUM CENTER TO CENTER.

5.3 BEAMS CONSTRUCTION JOINT SHALL BE LOCATED WITHIN THE MIDDLE THIRD OF THE SPAN. IT SHALL BE PROVIDED WITH 3 EXTRA STIRRUPS @ 75mm O.C. ON EACH SIDE OF THE JOINT.



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Location: Brgy. Balatas, Naga Imperial Crematory & Columbarry; Naga City, Camarines Sur

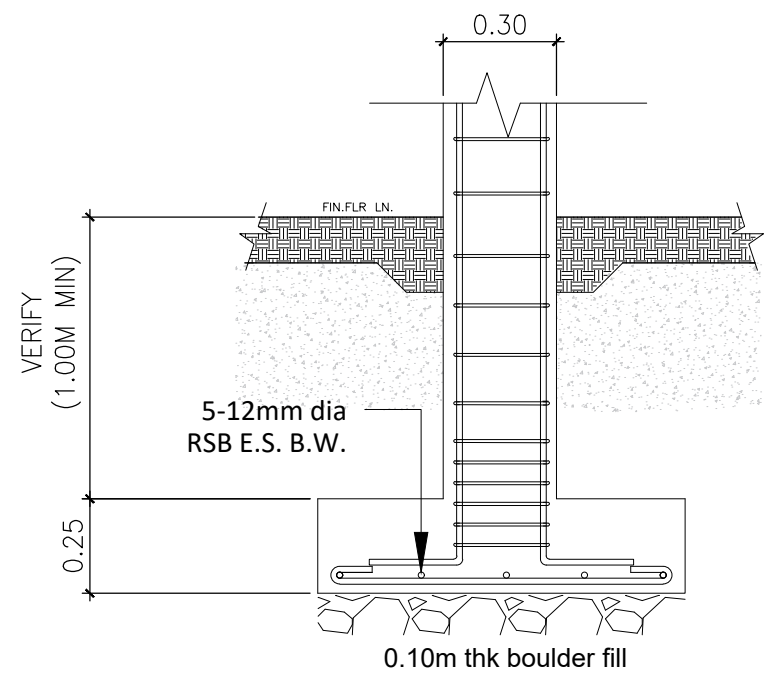
REVIEWED BY:
ALEXANDER A. FABIANO
SPECIAL PROJECT HEAD

RECOMMENDED BY:
EMMEL M. ADAQUE
ENGINEER III

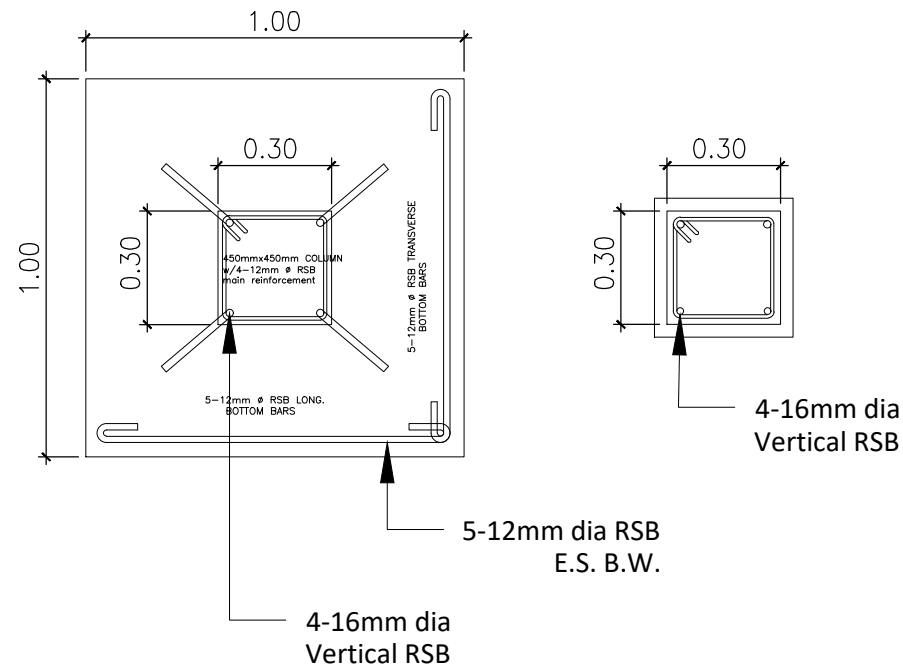
APPROVED BY:
ALEXANDER N. CANING
ACTING CITY ENGINEER

PREPARED BY:
NELSON S. LEGACION
CITY MAYOR

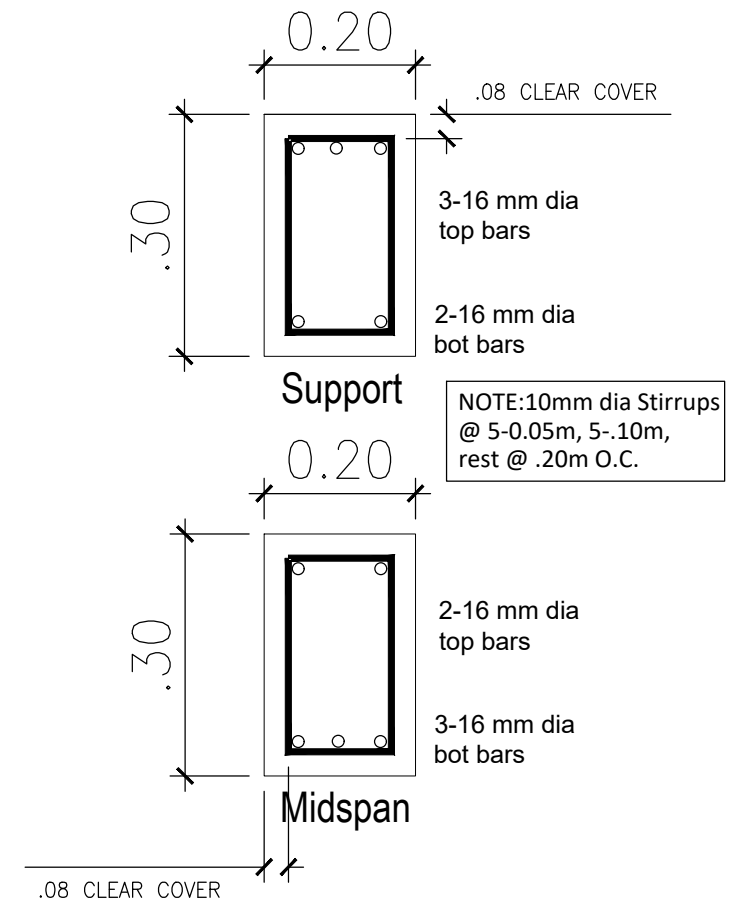
ENGR. FRANCIS LIMBO D. JAPON	
ENGR. SANDY R. BERNACER	
ENGR. BERNADETTE A. TINDOGAN	
JOHN RAY V. ALMAZAN	
	A



C1/F1 SECTION

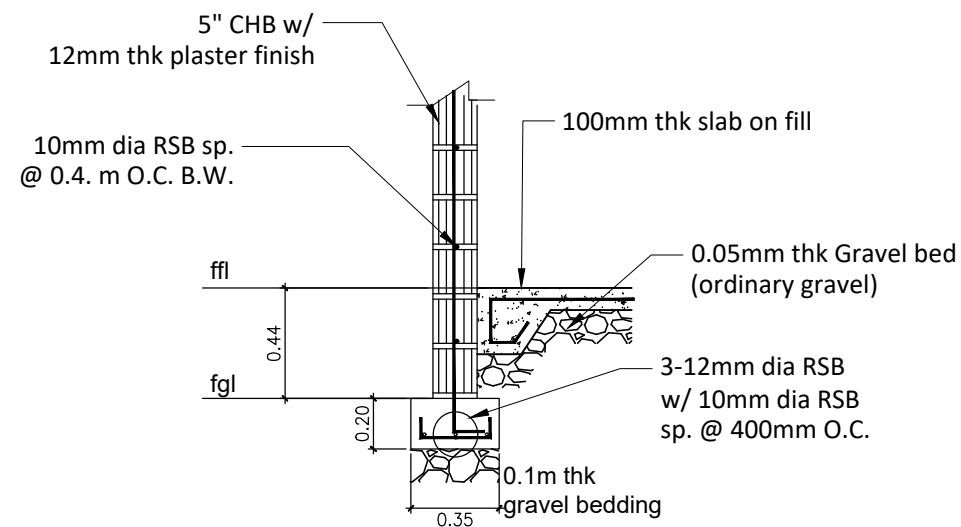


PLAN C1/F1

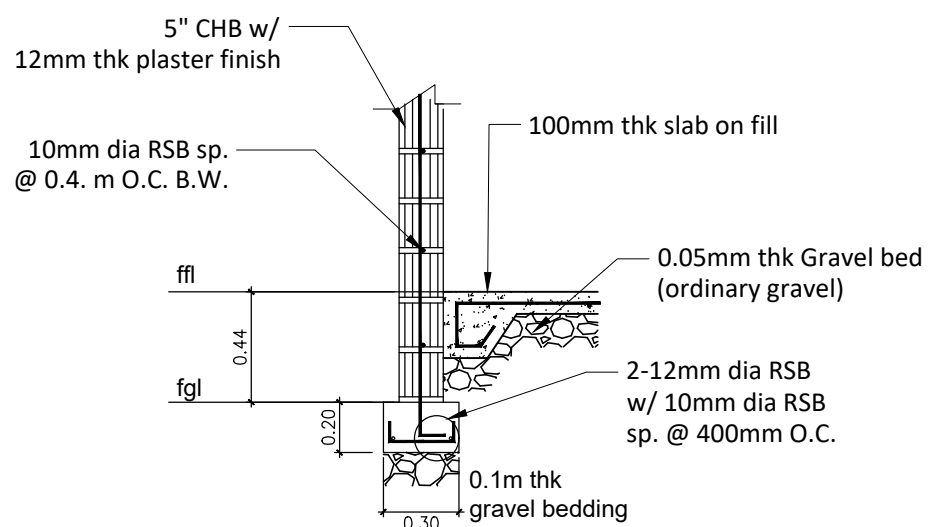


BEAM DETAILS
SCALE 1:10M

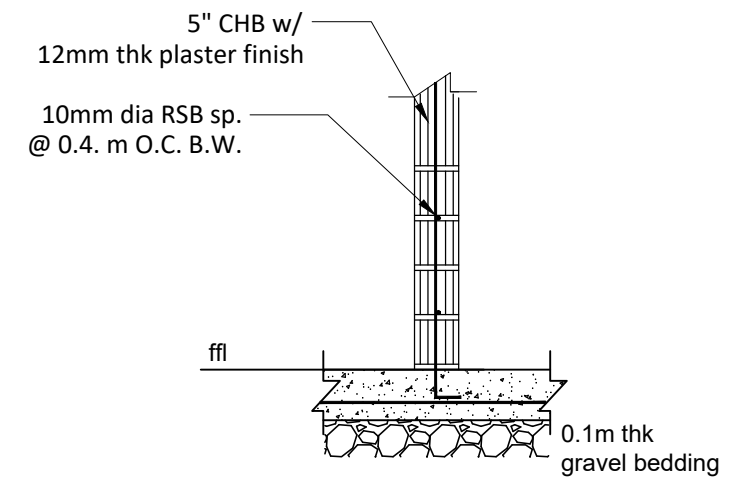
COLUMN & FOOTING DETAILS
SCALE 1:20M



WF1

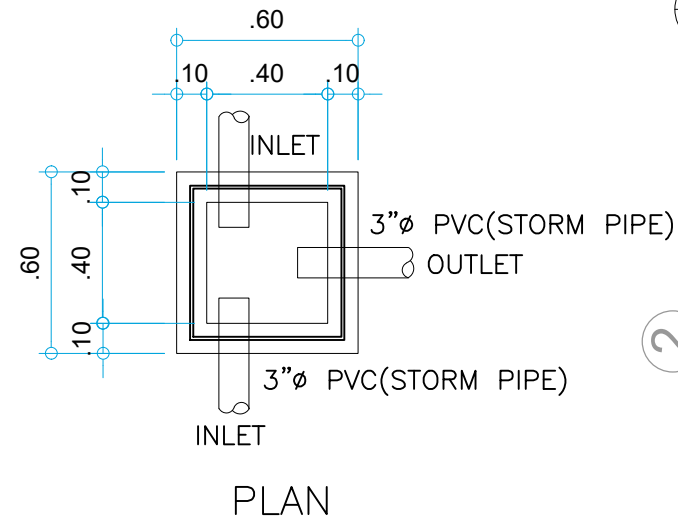
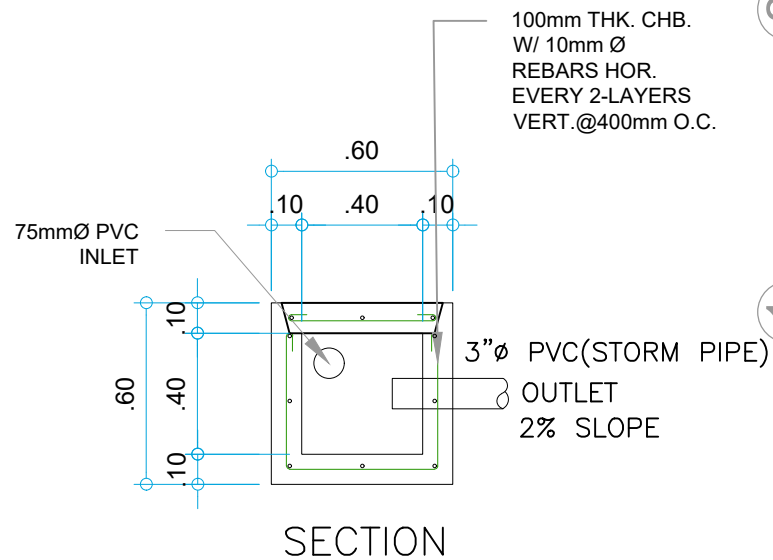


WF2

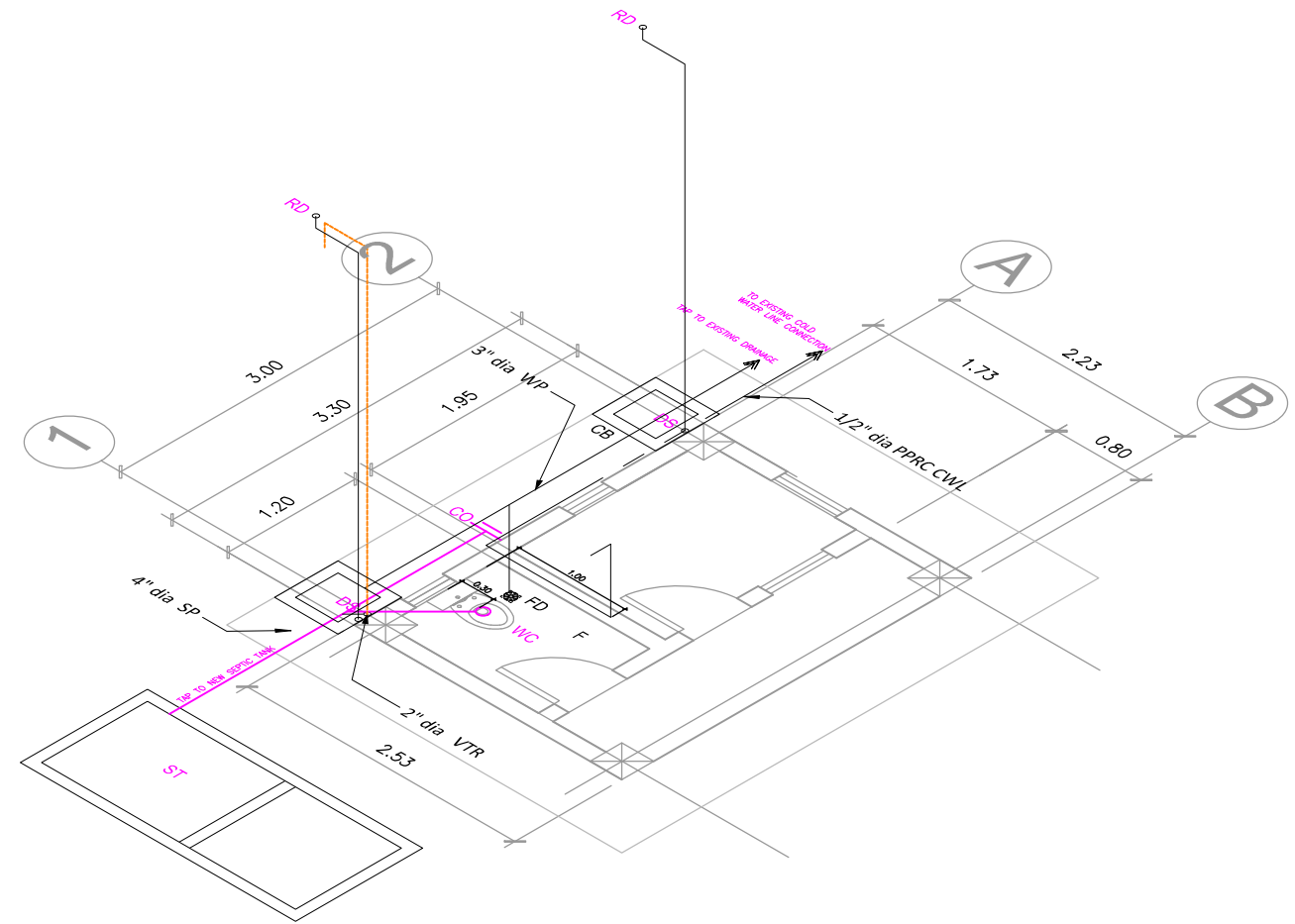
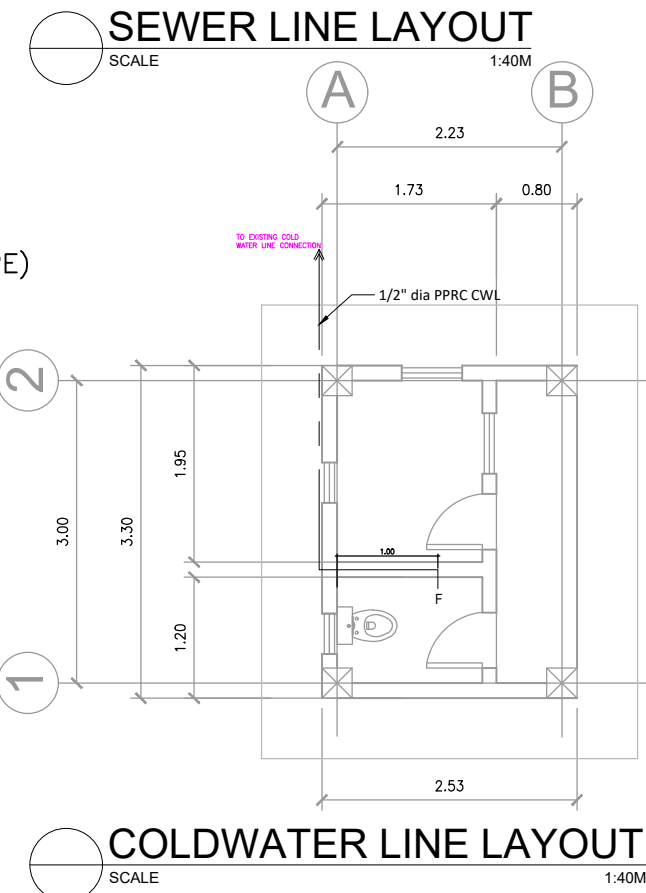
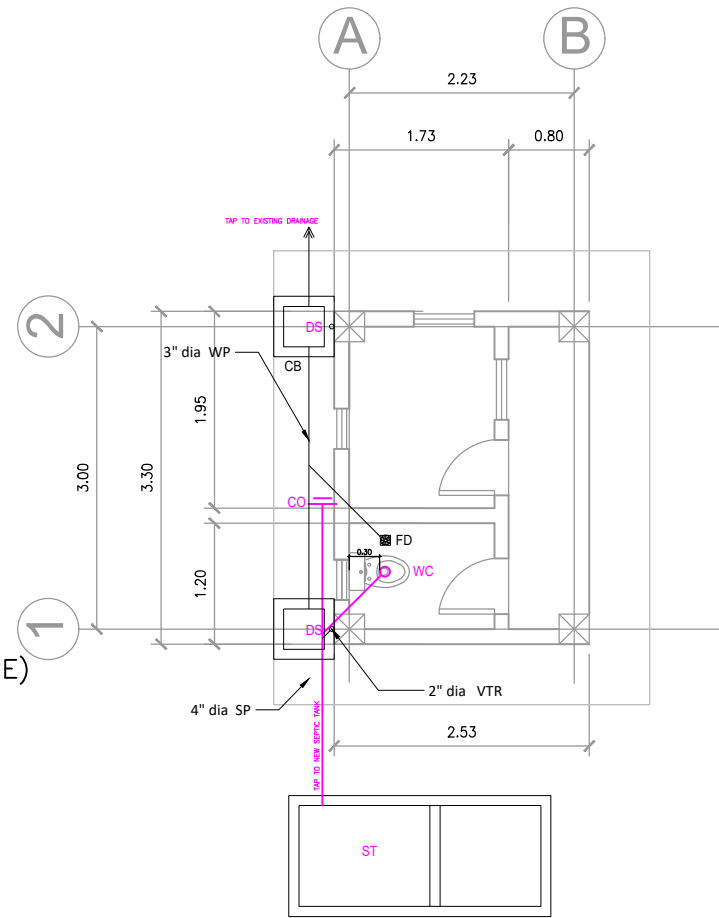


WF3

WALL FOOTING DETAILS
SCALE 1:30M



CATCH BASIN DETAIL
SCALE 1:40M

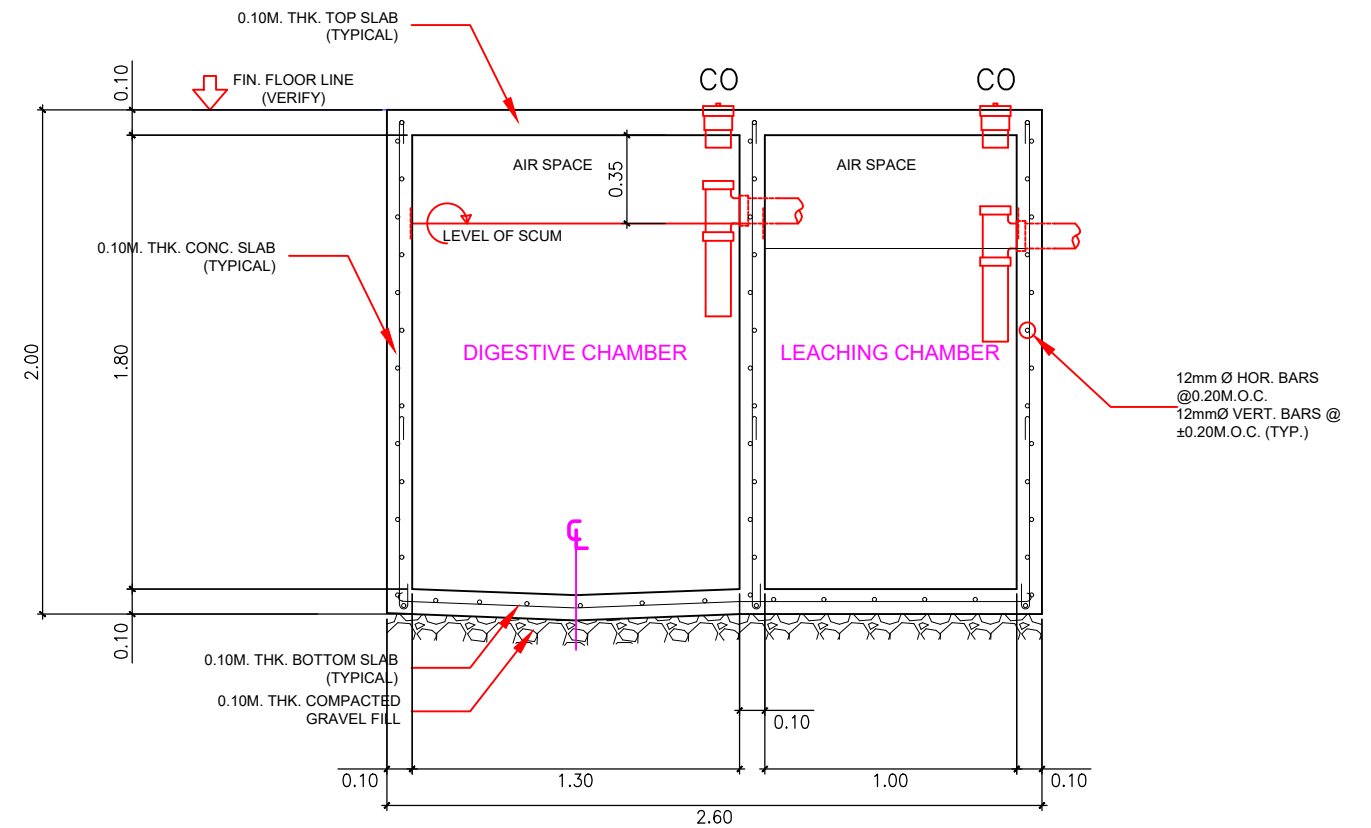
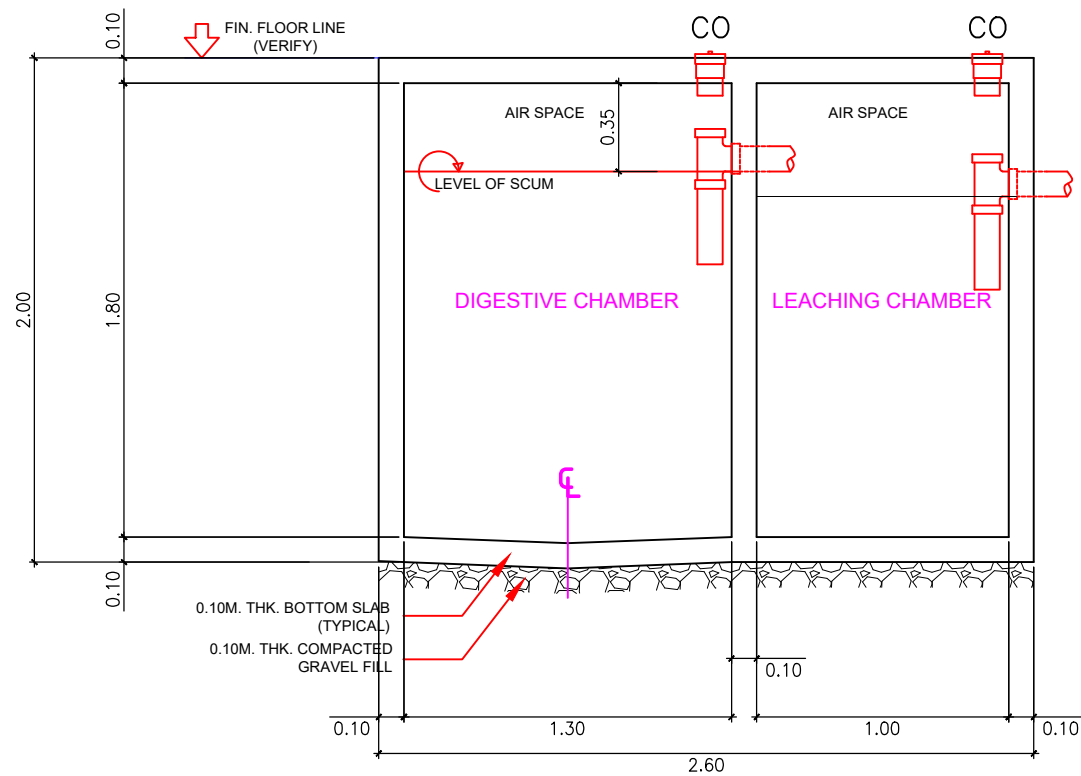
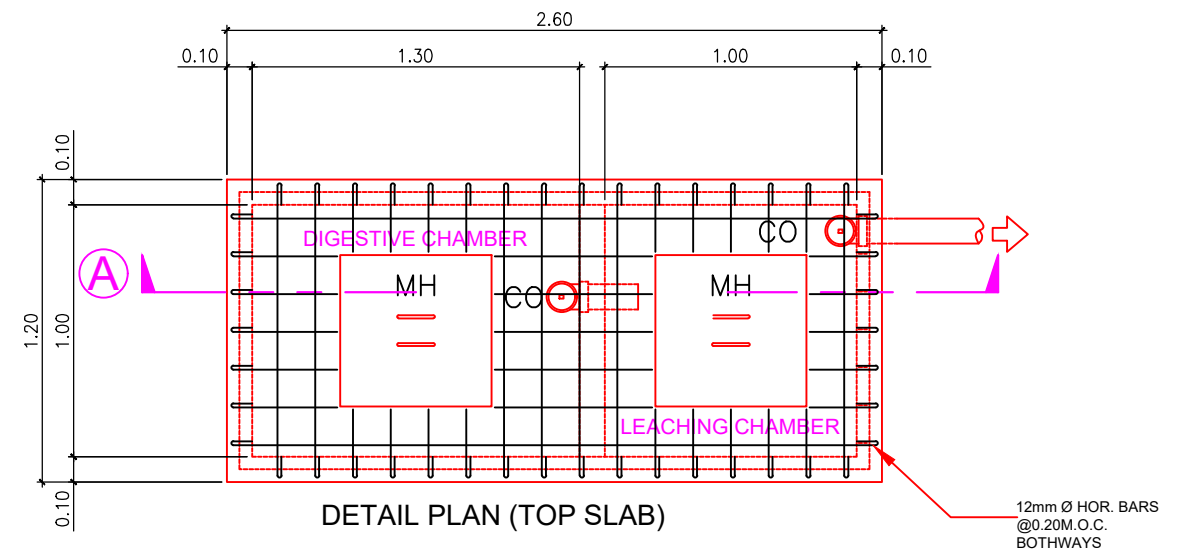
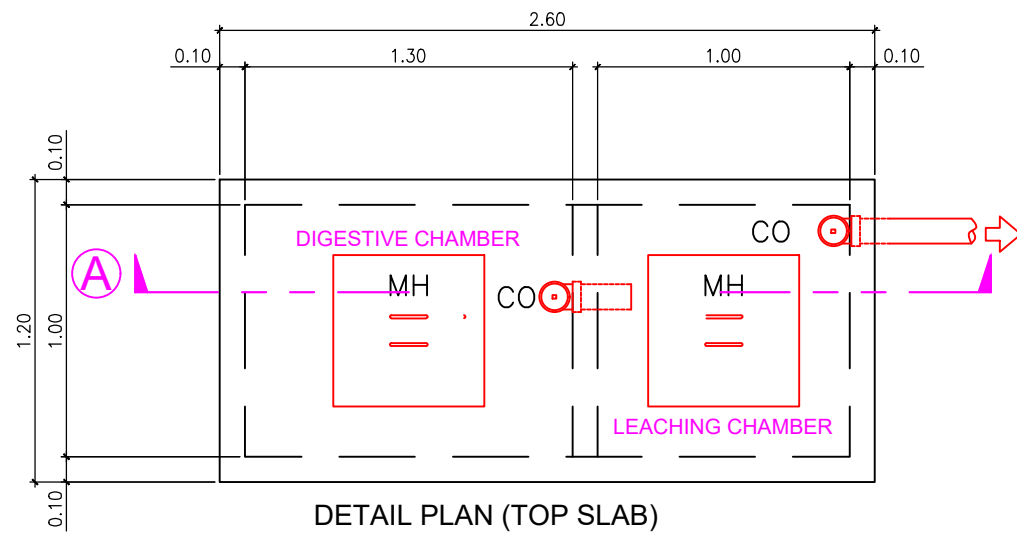


PLUMBING NOTES:

- GRADES OF HORIZONTAL PIPING**
RUN ALL HORIZONTAL PIPINGS IN PERFECT ALIGNMENT AND AT A FORM GRADE OF NOT LESS THAN TWO PERCENT (2%).
- CHANGE IN DIRECTION**
ALL CHANGE IN DIRECTION SHALL BE MADE BY APPROPRIATE USE OF FORTY FIVE DEGREES (45°) WYES, LONG SWEEP QUARTER BEND, SIX-EIGHT OR SIXTEENTH BENDS. WHEN THE CHANGE OF FLOW IS FROM HORIZONTAL TO VERTICAL, 1/8 BEND COMBINATION MAYBE USED ON VERTICAL STACKS AND SHORT QUARTER BENDS MAYBE USED ON WASTE LINE. TEE AND CROSSES MAYBE USED IN VENT PIPES.
- PROHIBITED FITTINGS**
NO DOUBLE HUB OR TEE BRANCH SHALL BE USED ON HORIZONTAL WASTE LINES. THE DRILLINGS AND TAPPINGS OF HOUSE DRAIN, WASTE OR VENT PIPES AND USE OF SADDLE HUB AND BEND ARE PROHIBITED.
- SLEEVES**
PROVIDE PIPE SLEEVES AT WALLS, COLUMN OR SLABS ONE SIZE BIGGER THAN THE ACTUAL SIZE PASSING THROUGH THE WALLS, COLUMNS OR UNDER SLAB TO PROTECT PIPE FROM BREAKAGE.
- PIPE CLEAN-OUTS**
PIPE CLEAN-OUTS ARE REQUIRED UNDER THE FOLLOWING CONDITIONS:
a. EVERY CHANGE IN HORIZONTAL DIRECTIONS EXCEEDING TWENTY-TWO AND ONE-HALF DEGREES (22 1/2°).
b. ONE AND ONE-HALF METERS (1.50 m) INSIDE THE PROPERTY LINE BEFORE THE HOUSE DRAINAGE CONNECTION.
c. EVERY FIFTEEN METERS (15.00 m) IN HORIZONTAL RUN OF PIPES.
d. AT THE END OF ANY HORIZONTAL PIPE LINES.
- THE DIGESTION CHAMBER OF SEPTIC VAULT MUST BE WATERPROOFED.
- NOT LESS THAN 300 mm OF AIR SPACE MUST BE LEFT BETWEEN THE TOP OF THE SEWAGE AND THE UNDER PART OF THE VAULT ROOF SLAB.
- NO SEPTIC VAULT MUST BE CONSTRUCTED UNDER THE BUILDING.
- ALL PLUMBING WORKS SHALL BE DONE BY A LICENSED MASTER PLUMBER AND A LICENSED PLUMBING CONTRACTOR.

PLUMBING LEGEND:

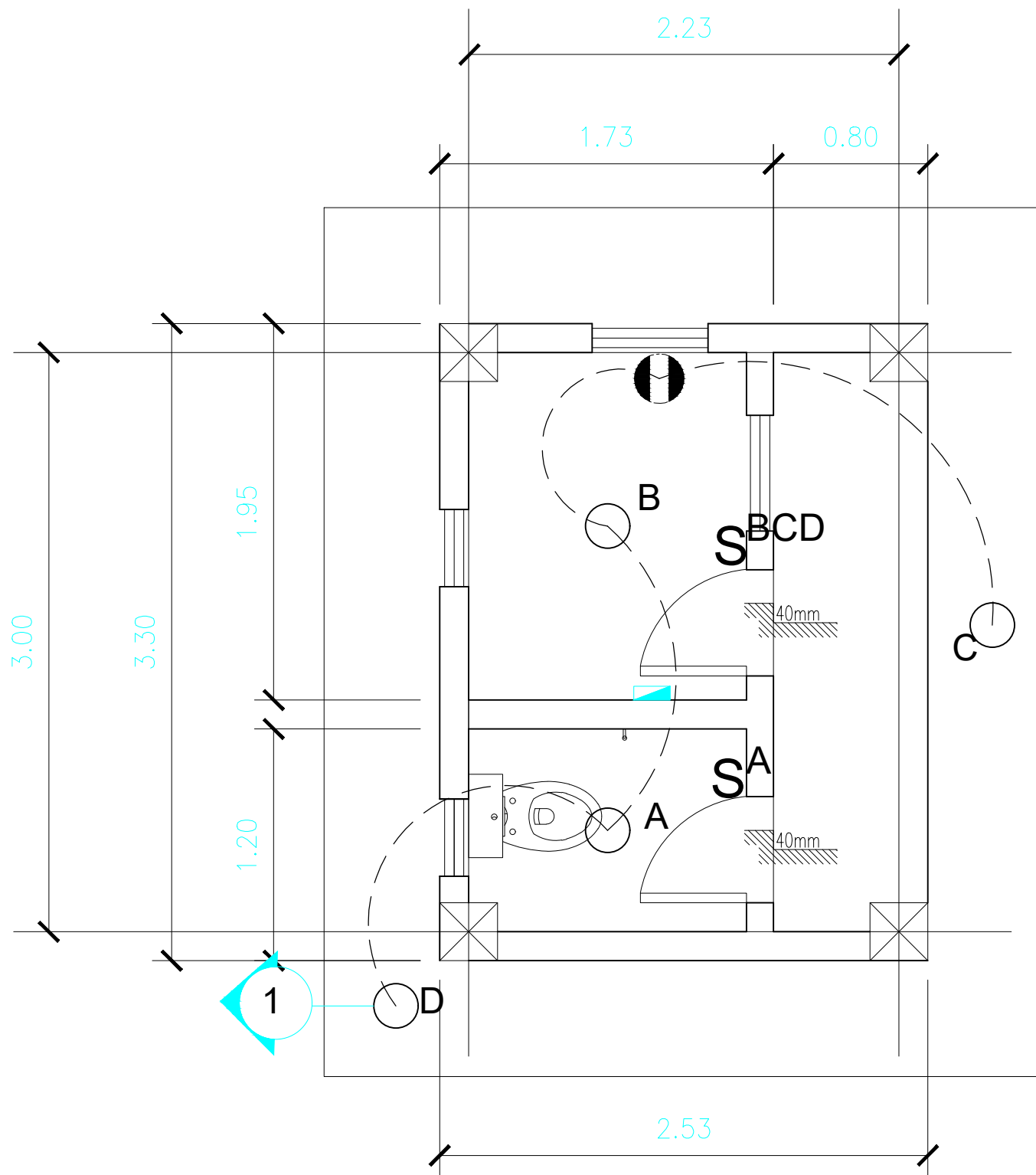
CD	CORRIDOR DRAIN	PVCSP	POLYVINYL CHLORIDE SOIL PIPE (SERIES 1000) (ASTM D2729 / ASTM D3311, ISO 4435 / ASTM D2564)
CO	CLEAN OUT	PVCSS	POLYVINYL CHLORIDE SOIL STACK (SERIES 1000) (ASTM D2729 / ASTM D3311, ISO 4435 / ASTM D2564)
CV	CHECK VALVE	PVCVP	POLYVINYL CHLORIDE VENT STACK (SERIES 600) (ASTM D2729 / ASTM D3311, ISO 4435 / ASTM D2564)
FD	FLOOR DRAIN	PVCVS	POLYVINYL CHLORIDE VENT STACK (SERIES 600) (ASTM D2729 / ASTM D3311, ISO 4435 / ASTM D2564)
FDC	FIRE DEPARTMENT CONNECTION	PVCVTR	POLYVINYL CHLORIDE VENT THRU ROOF (SERIES 600) (ASTM D2729 / ASTM D3311, ISO 4435 / ASTM D2564)
FHC	FIRE HOSE CABINET	PVCWP	POLYVINYL CHLORIDE WASTE PIPE (SERIES 1000) (ASTM D2729 / ASTM D3311, ISO 4435 / ASTM D2564)
HB	HOSE BIBB	RD	ROOF DRAIN
G.I.	GALVANIZED IRON	SD	SINK DRAIN
GT	GREASE TRAP	UD	URINAL DRAIN
GV	GATE VALVE	WM	WATER METER
LAV	LAVATORY		
KS	KITCHEN SINK		
MH	MANHOLE		
PPRC CWL	POLYPROPYLENE RANDOM COPOLYMER COLD WATER LINE, TYPE 3, PN 20 (ISO 15874 / JOINING BY SOCKET FUSION)		
PPRC CWIR	POLYPROPYLENE RANDOM COPOLYMER COLD WATER RISER, TYPE 3, PN 20 (ISO 15874 / JOINING BY SOCKET FUSION)		
PVCDP	POLYVINYL CHLORIDE DRAIN PIPE (SERIES 1000) (ASTM D2729 / ASTM D3311, ISO 4435 / ASTM D2564)		
PVCDs	POLYVINYL CHLORIDE DOWNSPOUT (SERIES 1000) (ASTM D2729 / ASTM D3311, ISO 4435 / ASTM D2564)		



DETAIL OF SEPTIC VAULT

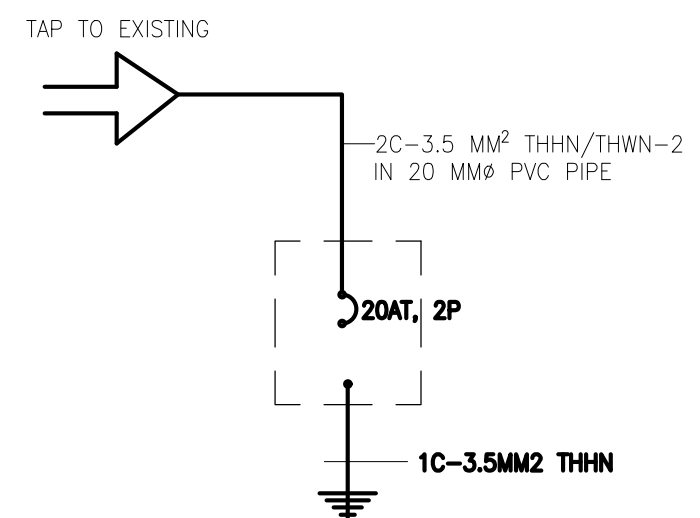
SCALE 1:20M.

<p>REPUBLIC OF THE PHILIPPINES OFFICE OF THE CITY ENGINEER CITY OF NAGA</p>	<p>PROJECT TITLE: PROPOSED REPLACEMENT OF DAMAGED STRUCTURE FROM ROAD WIDENING</p>	<p>REVIEWED BY: ALEXANDER A. FABIANO SPECIAL PROJECT HEAD</p>	<p>RECOMMENDED BY: EMMEL M. ADAQUE ENGINEER III</p>	<p>APPROVED BY: ALEXANDER N. CANING ACTING CITY ENGINEER</p>	<p>APPROVED BY: NELSON S. LEGACION CITY MAYOR</p>	<p>PREPARED BY: ENGR. FRANCIS LIMBO D. JAPON ENGR. SANDY R. BERNACER ENGR. BERNADETTE A. TINDUGAN JOHN RAY V. ALMAZAN KIM R. REFUSIO</p>	<p>SHEET NO. P 2</p>
	<p>Location: Brgy. Balatas, Naga Imperial Crematory & Columbarry; Naga City, Camarines Sur</p>						



LIGHTING & POWER LAYOUT PLAN
SCALE 1:30M

LEGEND	
SYMBOL	DESCRIPTION
	SERVICE ENTRANCE
	SAFETY BREAKER
	LED BULB 9W
	CIRCUIT BREAKER
	POWER OUTLET
	THREE GANG SWITCH
	SINGLE POLE SWITCH
	CIRCUIT HOMERUN



SINGLE LINE DIAGRAM
NOT TO SCALE

- SPECIFICATION:**
1. ALL INSTALLATION SHALL BE IN COMPLIANCE TO P.E.C AND LOCAL ORDINANCES.
 2. ALL INTERIOR CONDUITS SHALL BE PNS 14.
 3. ALL CONDUITS ENTERING JUNCTION BOXES, PULL BOXES, AUXILLIARY GUTTER, PANEL BOARDS AND OTHER METAL BOXES SHALL BE TERMINATED IN APPROVED TYPE ADAPTORS.
 4. ALL LIGHTING FIXTURES SHALL BE GROUNDED AS REQUIRED BY ARTICLE 4.10 OF P.E.C. USE ADDITIONAL INSULATORS FOR TERMINATION AS NECESSARY.
 5. ALL JUNCTION AND UTILITY BOXES SHALL BE METAL GAUGE 16, HOT DIP GALVANIZED.
 6. CLEARANCES OF TERMINAL FROM ALL METAL PARTS SHALL BE OBTAINED.
 7. BENDING RADIUS OF CONDUCTOR SHALL BE COMPLIANT TO P.E.C
 8. DERATING OF CONDUCTOR SHALL BE APPLIED FOR MORE THAN FOUR (4) CONDUCTORS IN CONDUITS OR WIRE WAYS.
 9. ALL INSTALLATIONS SHALL BE UNDER SUPERVISION OF LICENSE ELECTRICAL PRACTITIONERS.
 10. PANEL BOXES AND AUXILLIARY GUTTERS SHALL BE MADE OF 1.5mm G.I POWDER COATED OR ENAMEL FINISHED OVER APPROVED METAL PRIMER.
 11. ALL GROUNDING CONDUCTOR, GROUNDING ROD, SHALL BE BONDED TOGETHER.

SCHEDULE OF LOAD:																		
CKT. NO.	LOAD DESCRIPTION	NO.OF			SWITCHES				AMP.				V	VA	CB	SIZE OF WIRE		
		LO	CO	OTHERS	S1	S2	S3	S3W	AB	BC	CA	AMP.				WIRE	CONDUIT	
1	LED BULB 9WATTS POWER OUTLET	04	01		1		1						0.93	230	216	20,2P	2C-3.5MM2 THHN/THWN WIRE-2 1C-3.5MM2 THHN/THWN WIRE	20MMØ UPVC PIPE

<p>REPUBLIC OF THE PHILIPPINES OFFICE OF THE CITY ENGINEER CITY OF NAGA</p>	<p>PROJECT TITLE: PROPOSED REPLACEMENT OF DAMAGED STRUCTURE FROM ROAD WIDENING</p>	<p>REVIEWED BY: ALEXANDER A. FABIANO SPECIAL PROJECT HEAD</p>	<p>RECOMMENDED BY: EMMEL M. ADAQUE ENGINEER III</p>	<p>APPROVED BY: ALEXANDER N. CANING ACTING CITY ENGINEER</p>	<p>PREPARED BY: NELSON S. LEGACION CITY MAYOR</p>	<p>SHEET NO. A</p>
	<p>Location: Brgy. Balatas, Naga Imperial Crematory & Columbarry; Naga City, Camarines Sur</p>					