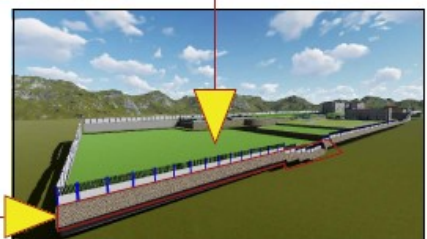
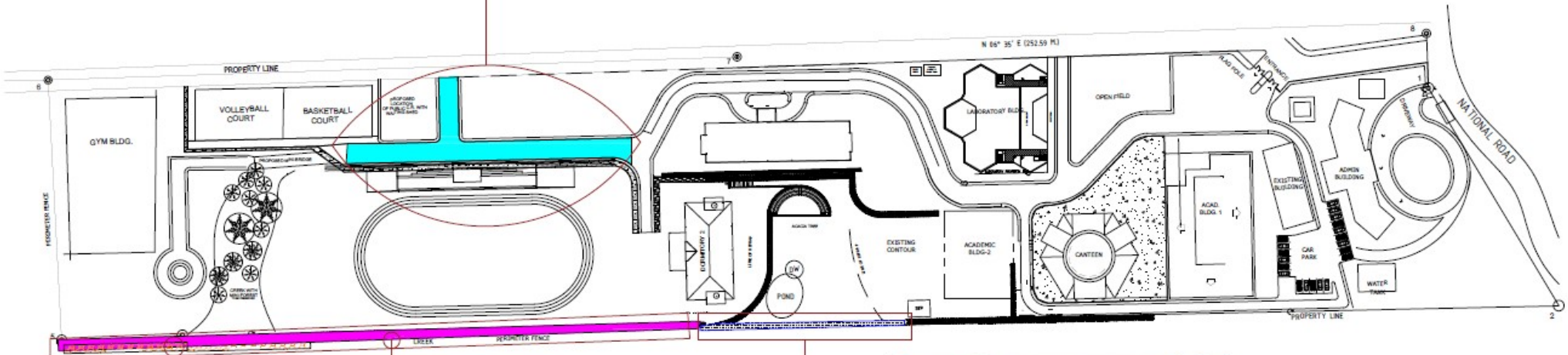
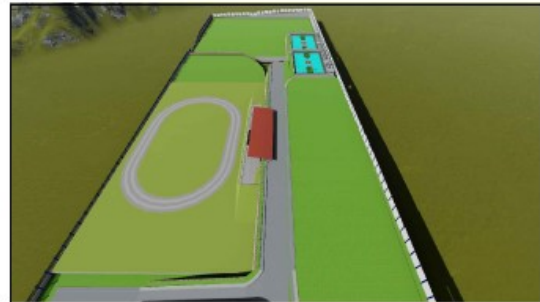
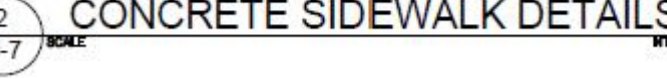
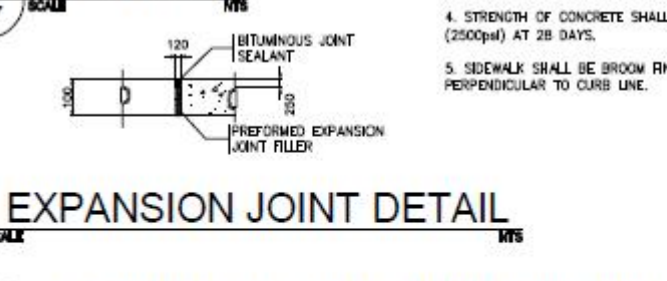
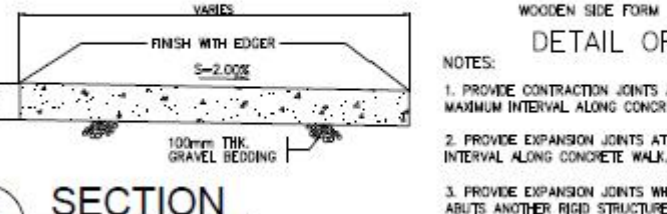
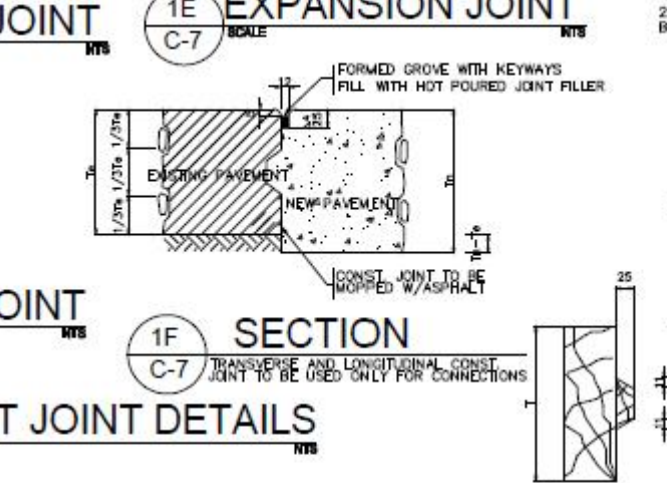
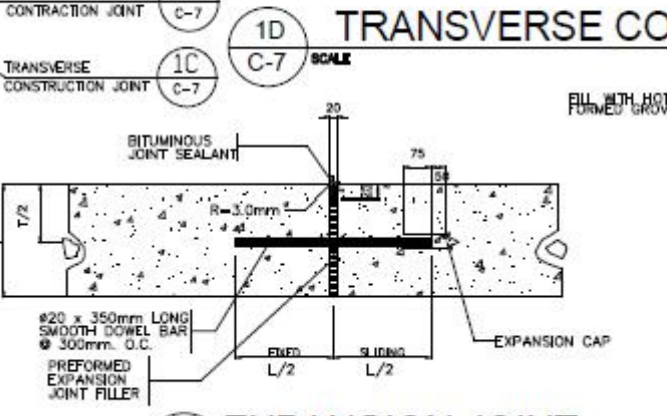
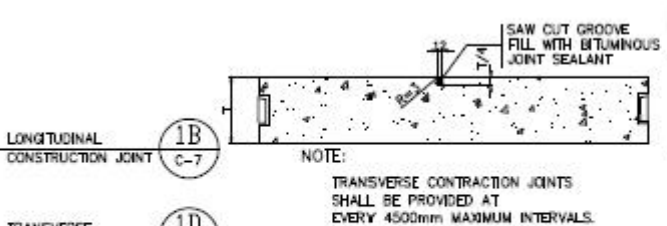
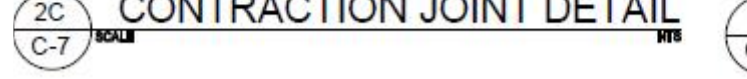
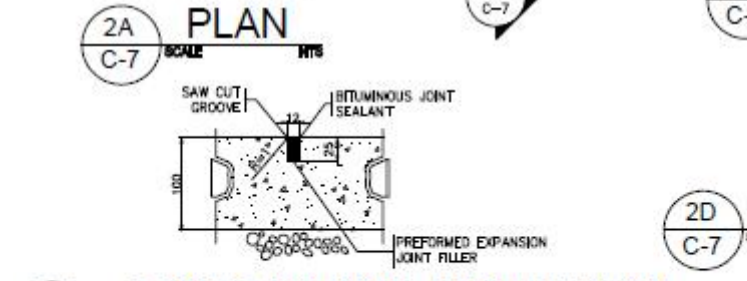
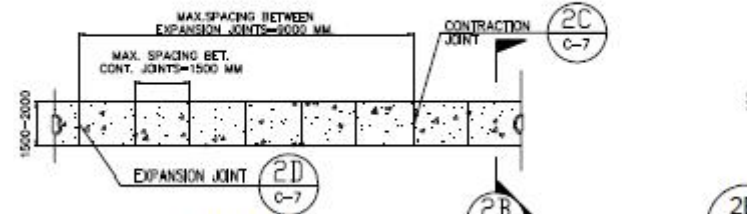
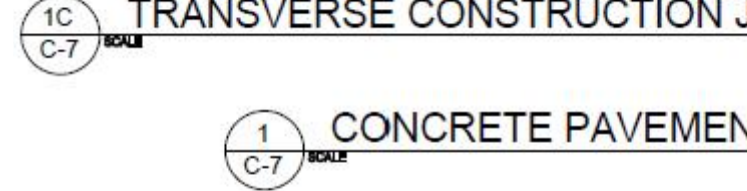
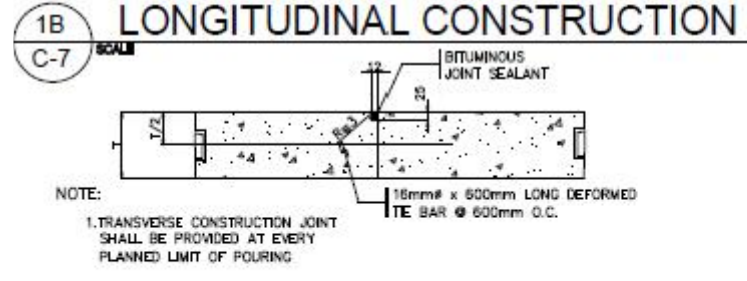
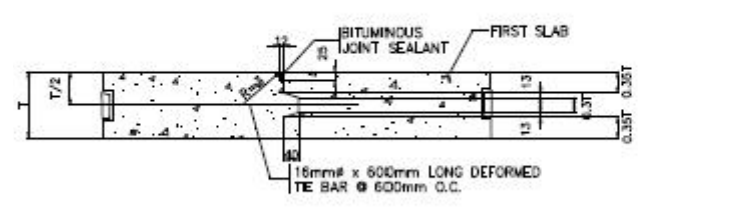
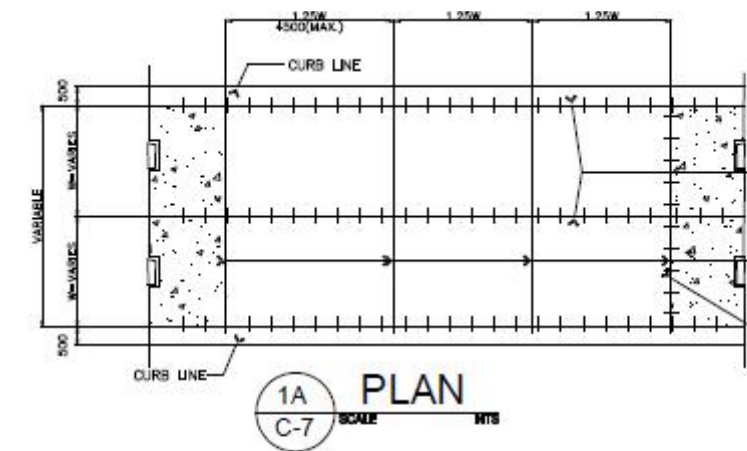


- 162 lm ROAD NETWORK
- 245 lm HALF CONCRETE, HALF STEEL PERIMETER FENCE
- 70 lm RETAINING WALL
- 115 lm SLOPE PROTECTION

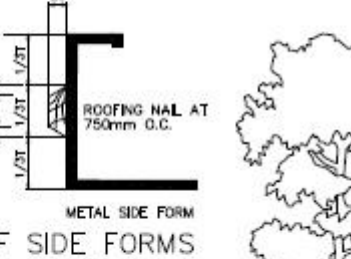
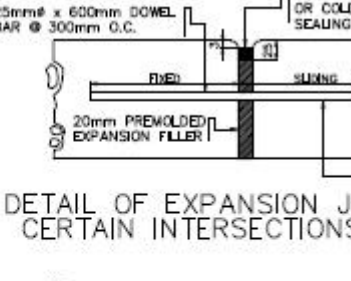
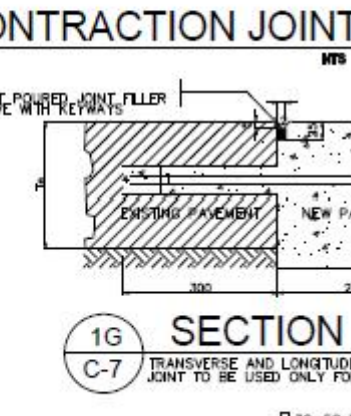


PHILIPPINE SCIENCE HIGH SCHOOL - MIMAROPA REGION CAMPUS  
**SITE DEVELOPMENT PLAN**  
 SCALE: NTS

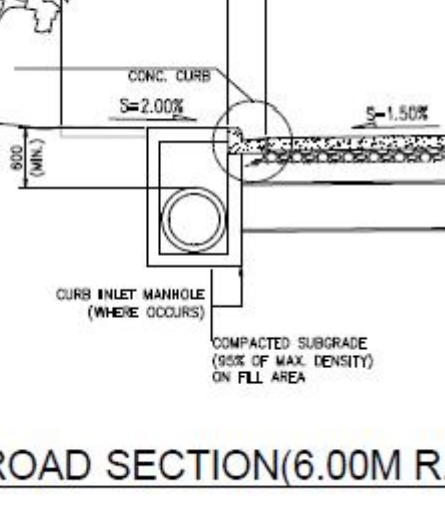
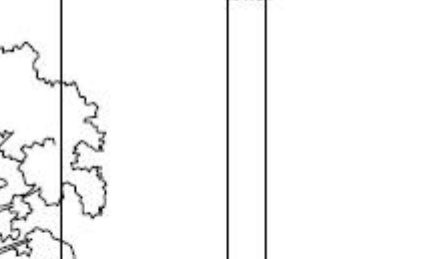
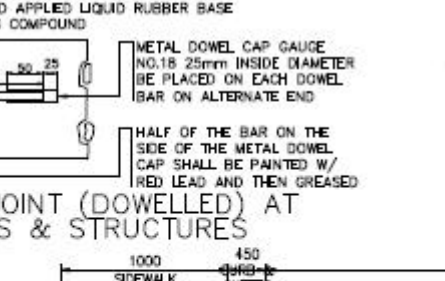
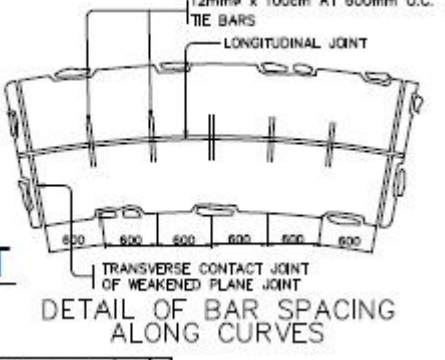
PROJECT TITLE:  <b>CONSTRUCTION OF SITE DEVELOPMENT 2021</b>	PREPARED BY:  <b>KEN JAMES F. FADRIQUELA</b> <small>RESIDENT CIVIL ENGINEER</small>	RECOMMENDING APPROVAL:  <b>MERIAM F. FALLAR</b> <small>ADMINISTRATIVE OFFICER V</small>	APPROVED:  <b>EDWARD C. ALBARACIN</b> <small>CAMPUS DIRECTOR II</small>	SHEET CONTENTS:  AS SHOWN	SHEET NO.:  SDP 0   1
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NOTES:  
 1. PREFORMED EXPANSION JOINT FILLER WITH BITUMINOUS JOINT SEALANT ARE REQUIRED WHERE EXISTING & NEW CONC. PAVEMENT MEET AND WHERE NEW CONC. PAVEMENT ABUTS A RIGID STRUCTURE AND AT UNSYMMETRICAL INTERSECTIONS.  
 2. EXPANSION JOINTS ARE REQUIRED @ EVERY 30.00M OF PAVEMENT.

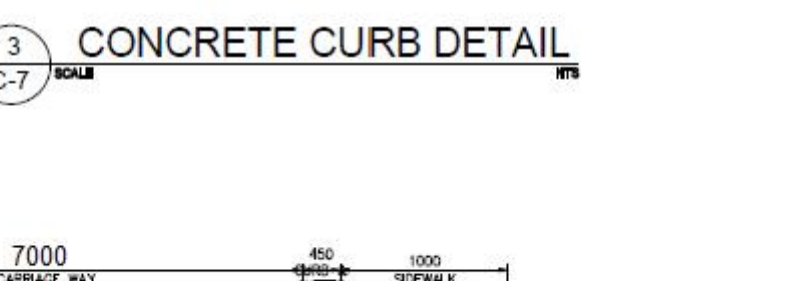


NOTES:  
 1. PROVIDE CONTRACTION JOINTS AT 1500 MM. MAXIMUM INTERVAL ALONG CONCRETE WALK.  
 2. PROVIDE EXPANSION JOINTS AT 9000 MM. MAXIMUM INTERVAL ALONG CONCRETE WALK.  
 3. PROVIDE EXPANSION JOINTS WHERE CONCRETE WALK ABUTS ANOTHER RIGID STRUCTURE.  
 4. STRENGTH OF CONCRETE SHALL BE 17 MPa (2500psi) AT 28 DAYS.  
 5. SIDEWALK SHALL BE BROOM FINISHED PERPENDICULAR TO CURB LINE.

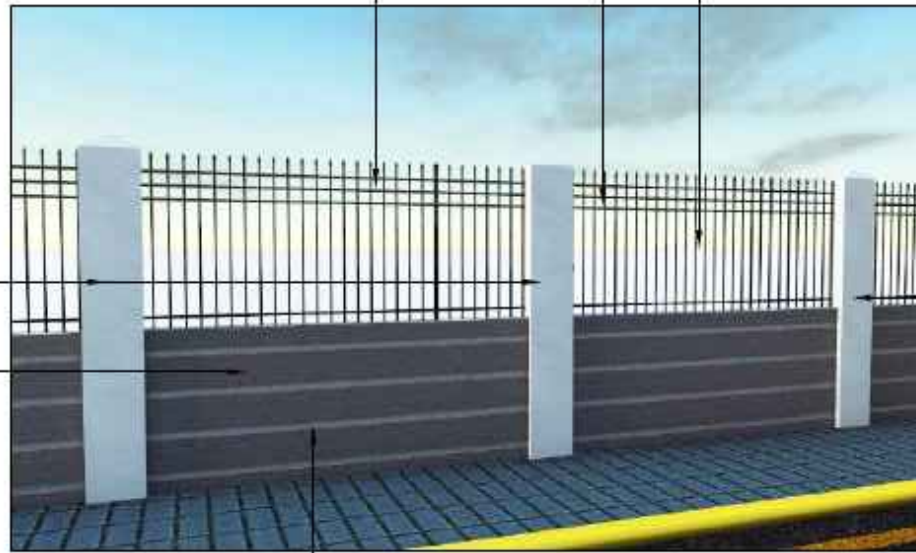


GENERAL NOTES:  
 1. MATERIALS AND WORKMANSHIP SHALL CONFORM WITH THE "DPWH STANDARD SPECIFICATIONS FOR HIGHWAYS, BRIDGES AND AIRPORTS, 1995".  
 2. CONSTRUCTION (CONTACT) JOINTS ARE FORMED WHEN CONCRETE ON ONE SIDE OF THE JOINT IS POURED AHEAD AND ALLOWED TO SET BEFORE POURING ON THE OTHER SIDE.  
 3. AT CONSTRUCTION JOINTS (LONGITUDINAL OR TRANSVERSE) CARE SHOULD BE TAKEN THAT NO CONCRETE FROM THE LAST SLAB PLACED OVERHANGS ANY PORTION OF THE FIRST SLAB.  
 4. TIE BARS SHOULD BE DEFORMED STEEL BARS. ALL DOWEL BARS SHALL BE SMOOTH ROUND STEEL FREE FROM RUST AND OTHER DEFECTS WHICH MIGHT RESTRICT THEIR MOVEMENT.  
 5. TYPE OF WEAKENED PLANE JOINT TO BE USED SHALL BE AS SPECIFIED IN THE PLANS AND ONLY ONE TYPE SHALL BE USED FOR THE WHOLE PROJECT.  
 6. MATERIAL FOR THE METAL SIDE FORM SHALL BE BRAND NEW SHEET METAL GAUGE NO.18 OF IRON FREE FROM RUST AND LINKS.  
 7. AT LEAST SIX (6) SUCCESSIVE DOWELLED BUTT JOINTS AT NORMAL JOINT SPACING SHALL BE PROVIDED BEFORE OR AFTER AN EXPANSION JOINT.  
 8. THE GROOVE OR CRACK ABOVE JOINTS (LONGITUDINAL OR TRANSVERSE) SHALL BE SEALED WITH 30-50 PENETRATION ASPHALT SEAL OR COLD APPLIED LIQUID RUBBER COMPOUND AFTER THE CONCRETE HAD BEEN CURED AND BEFORE OPENING PAVEMENT TO TRAFFIC. PENETRATION ASPHALT SEAL ON CONCRETE PAVEMENT JOINTS SHALL BE POURED IN SUCH MANNER THAT SPILLING SHALL BE PREVENTED THUS, PROVIDE A SMOOTH RIDING TRAVELLING SURFACE.  
 9. ALL TRANSVERSE JOINTS, EXCEPT CONSTRUCTION JOINT, SHALL BE CONTINUOUS FROM EDGE TO EDGE.  
 10. ALL LONGITUDINAL JOINTS SHALL MEET AT INTERSECTIONS WITH NO GAPS OR OFFSET.  
 11. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SPECIFIED.

NOTES:  
 1. TRANSVERSE CONTRACTION JOINTS @ 3.00m MAXIMUM INTERVAL EXCEPT WHERE EXPANSION JOINTS OCCUR. JOINT INTERVALS SHALL NOT BE LESS THAN 1.20m.  
 2. PROVIDE EXPANSION JOINTS AT ALL CURB RETURNS AND AT 1.50m MAXIMUM INTERVAL BETWEEN RETURNS.  
 3. PROVIDE EXPANSION WHERE CONCRETE CURB ABUTS ANOTHER RIGID STRUCTURE.  
 STRENGTH OF CONCRETE SHALL BE 20.6 MPa (3,000 Psi) @ 28 DAYS.



GRILL WORKS  
ON STEEL FENCE  
1" X 1" X 5MM  
THK ANGLE BAR

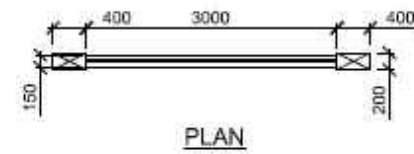


PLASTERED  
CEMENT ON  
PAINTED FINISH  
(The Paint Color  
must be approved  
by the End-User)

PLASTERED CEMENT  
ON PAINTED FINISH



1 PERIMETER FENCE PERSPECTIVE  
A-2 N T S

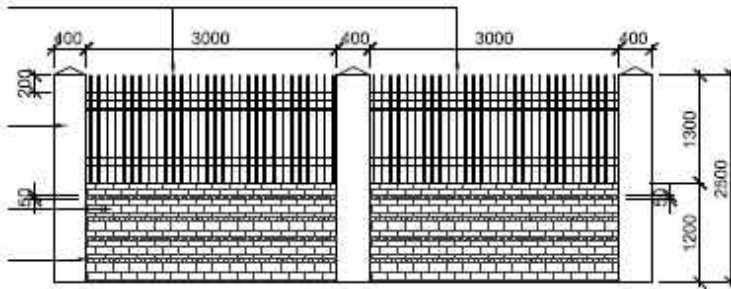


GRILL WORKS  
ON STEEL FENCE  
1" X 1" X 5MM  
THK ANGLE BAR

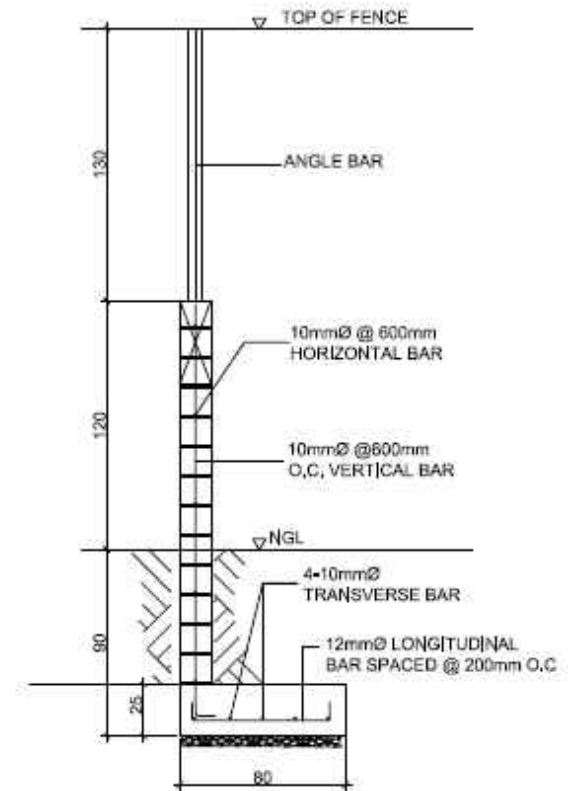
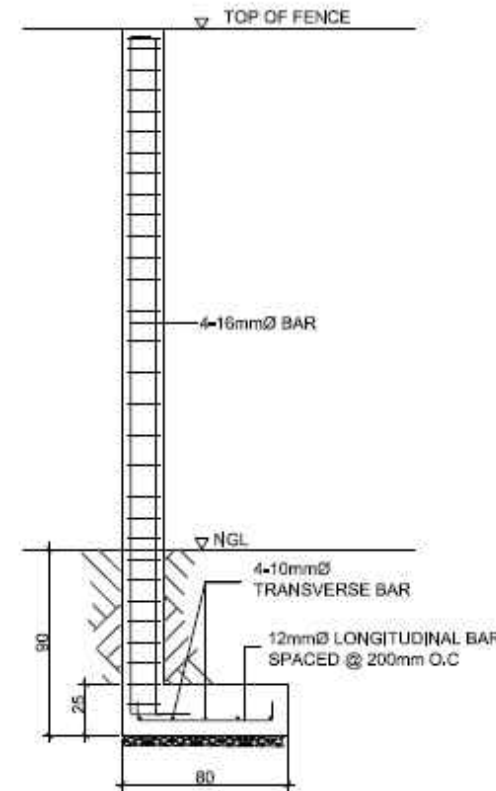
PLASTERED CEMENT  
ON PAINTED FINISH

MARBLE ACCENT

CEMENT GROOVE FINISH



2 PERIMETER FENCE ELEVATION  
A-2 SCALE: 1:50 M



3 PERIMETER FENCE DETAIL  
A-2 SCALE: 1:20 M



REPUBLIC OF THE PHILIPPINES  
DEPARTMENT OF SCIENCE AND TECHNOLOGY  
PHILIPPINE SCIENCE HIGH SCHOOL  
MIMAROPA REGION CAMPUS  
BRGY. RIZAL, ODIONGAN, ROMBLON



PROJECT TITLE:

CONSTRUCTION OF  
SITE DEVELOPMENT 2021

PREPARED BY:

KEN JAMES F. FADRIQUELA  
RESIDENT CIVIL ENGINEER

RECOMMENDING APPROVAL:

MERIAM F. FALLAR  
ADMINISTRATIVE OFFICER V

APPROVED:

EDWARD C. ALBARACIN  
CAMPUS DIRECTOR III

SHEET CONTENTS:

AS SHOWN

SHEET NO.:

SDP

0 3

**A. GENERAL NOTES:**

1. IN THE INTERPRETATION OF THESE DRAWINGS, INDICATED DIMENSIONS SHALL GOVERN AND DISTANCES OR SIZES SHALL NOT BE SCALED FOR CONSTRUCTION PURPOSES.
2. THE CONTRACTOR SHALL COORDINATE WITH THE AR, ME, SE, EE, AND OTHER UTILITIES AND EQUIPMENT PLANS FOR THE EXACT SIZE, NUMBER AND LOCATIONS OF ALL SLEEVES OR OPENINGS THRU FLOOR SLABS, BEAMS AND WALLS AND ALSO BUILDING DIMENSIONS.
3. ALL REINFORCED CONCRETE WORK SHALL BE DONE IN ACCORDANCE WITH THE ACI - 318 - 14 BUILDING CODE, AND ALL STRUCTURAL STEEL WORK SHALL BE DONE IN ACCORDANCE WITH AISC SPECIFICATIONS (LATEST EDITION) IN SO FAR AS THEY DO NOT CONFLICT WITH THE LOCAL BUILDING CODE REQUIREMENTS.
4. ALL SLABS, BEAMS, GIRDERS AND OTHER STRUCTURAL ELEMENTS WHICH ARE NOT INDICATED, DETAILED, DESIGNATED OR INADVERTENTLY OMITTED BUT ARE NECESSARY TO BE COORDINATED WITH ARCHITECTURAL AND OTHER ALLIED ENGINEERING PLANS AS WELL AS TO COMPLETE THE STRUCTURAL WORKS IN ACCORDANCE WITH THE INTENT OF THE PLANS AND SPECIFICATIONS SHALL BE BROUGHT UP DURING PRE-BIDS/MEETINGS/NEGOTIATIONS. IT IS UNDERSTOOD THAT THE CONTRACTOR HAS PROVIDED AND INCLUDED ALL THESE ITEMS IN THEIR BID.

**B. NOTES ON CONCRETE MIXES AND PLACING**

1. UNLESS OTHERWISE INDICATED IN PLANS OR NOTED IN THE SPECIFICATIONS THE MINIMUM 28-DAYS CYLINDER COMPRESSIVE STRENGTH OF CONCRETE  $f'_c$ , SHALL BE AS FOLLOWS:
 

1.1 FOUNDATION & WALLS	28 MPa. (4000 psi)
------------------------	--------------------
2. CONCRETE SHALL BE DEPOSITED IN ITS FINAL POSITION WITHOUT SEGREGATION, RE-HANDLING OR FLOWING. PLACING SHALL BE DONE PREFERABLY WITH BUGGIES, BUCKETS OR WHEEL BARROWS. NO CHUTES WILL BE ALLOWED EXCEPT TO TRANSFER CONCRETE FROM HOPPERS TO BUGGIES, WHEEL BARROWS OR BUCKETS, IN WHICH CASE, THEY SHALL NOT EXCEED SIX THOUSAND (6000mm) IN AGGREGATE LENGTH.
3. NO DEPOSITING OF CONCRETE SHALL BE ALLOWED WITHOUT THE USE OF VIBRATORS UNLESS AUTHORIZED IN WRITING BY THE STRUCTURAL ENGINEER AND ONLY FOR UNUSUAL CONDITIONS WHERE VIBRATION IS EXTREMELY DIFFICULT TO ACCOMPLISH.

**C. NOTES ON REINFORCING STEEL BARS**

1. ALL REINFORCING STEEL BARS SHALL BE NEW BILLET, HOT ROLLED, WELDABLE, DEFORMED BARS CONFORMING TO THE SPECIFICATIONS OF PNS 49: 1986 (ASTM 615) , AND ASTM A706 (GR. 60, WELDABLE) WHOSE GRADE IS SHOWN ON TABLE 1.
 

GRADE	BAR DIAMETER
GRADE 415 ( $f_y = 60 \text{ ksi}$ )	16, 20, 25, 28, 32 MM DIA.
GRADE 275 ( $f_y = 40 \text{ ksi}$ )	10, 12 MM DIA.
GRADE 230 ( $f_y = 33 \text{ ksi}$ )	SMALLER THAN 10 MM DIA.
2. THE SUPPLEMENTARY REQUIREMENTS OF WELDABLE DEFORMED REINFORCING BARS SHALL BE AS FOLLOWS:
  - 2.1 THE MAXIMUM YIELD STRENGTH OF WELDABLE BARS = 540 MPa.
  - 2.2 THE TENSILE STRENGTH SHALL NOT BE LESS THAN 1.25 TIMES THE ACTUAL YIELD STRENGTH.
3. ALL CONCRETE REINFORCEMENT SHALL BE DETAILED, FABRICATED, LABELED, SUPPORTED AND SPACED IN FORMS, SECURED IN THE REQUIRED LOCATION IN ACCORDANCE WITH THE PROCEDURES AND REQUIREMENTS OUTLINED IN THE LATEST EDITION OF THE BUILDING CODE AND THE MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES, ACI - 315.
4. ALL REINFORCING BARS SHALL BE CLEANED THOROUGHLY OF ALL LOOSE RUST, SOIL OR OTHER MATERIAL IMMEDIATELY PRIOR TO PLACING CONCRETE.
5. THE REQUIRED LENGTH OF LAP FOR TENSION SPLICES IS BASED ON THE DEVELOPMENT LENGTH,  $L_d$ , SHOWN IN TABLE 2 FOR RC BEAMS AND GIRDERS, ON THE FOLLOWING CLASSIFICATIONS :

TENSION SPlice CLASSIFICATION	SPLICE LENGTH
CLASS A	1.0 $L_d$
CLASS B	1.3 $L_d$

6. TOP BARS ARE HORIZONTAL BARS WITH AT LEAST 300 mm OF CONCRETE CAST BELOW IT.

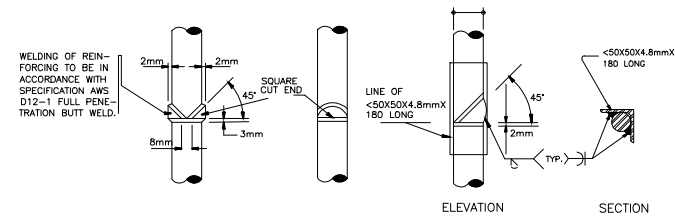
BAR SIZE (mm)	$f'_c = 21 \text{ MPa}$ (3,000 psi)		$f'_c = 28 \text{ MPa}$ (4,000 psi)	
	TOP BARS (mm)	OTHERS (mm)	TOP BARS (mm)	OTHERS (mm)
16#	800	600	700	525
20#	1090	840	1000	730

NOTE: FOR BUNDLE BARS (3 BUNDLES/4 BUNDLES) MULTIPLY ABOVE TABLE BY 1.3

7. THE REQUIRED LENGTH OF LAP FOR COMPRESSION SPLICES SHALL BE AS SHOWN IN TABLE 4.

BAR SIZE (mm)	$f'_c = 21.0 \text{ MPa}$ (3,000psi)	$f'_c = 28.0 \text{ MPa}$ (4,000psi)
16	420	390
20	540	510
25	720	600
28	810	720
32	900	780
36	990	900

8. A FULL WELDED SPLICES SHALL HAVE BARS BUTTED AND WELDED TO DEVELOP IN TENSION AT LEAST 125 PERCENT OF THE SPECIFIED YIELD STRENGTH  $f_y$  OF THE BAR. (SEE FIGURE 1a & 1b))

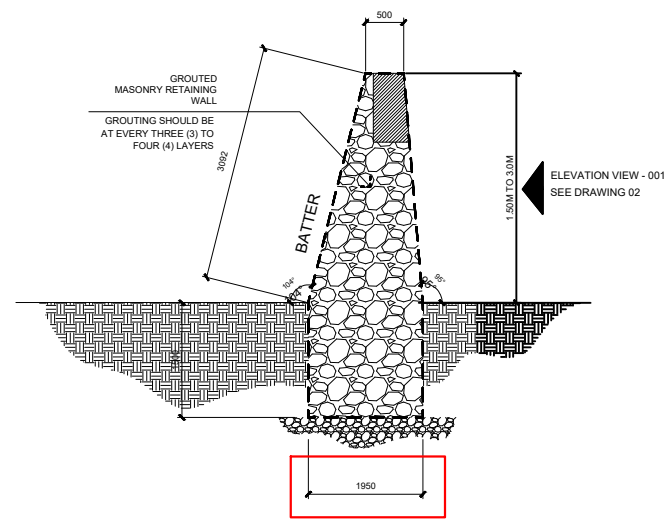


**FIGURE 1a** **FIGURE 1b**  
**TYPICAL WELDED SPLICE DETAILS FOR BARS 25# TO 36#**  
**FIGURE 1**

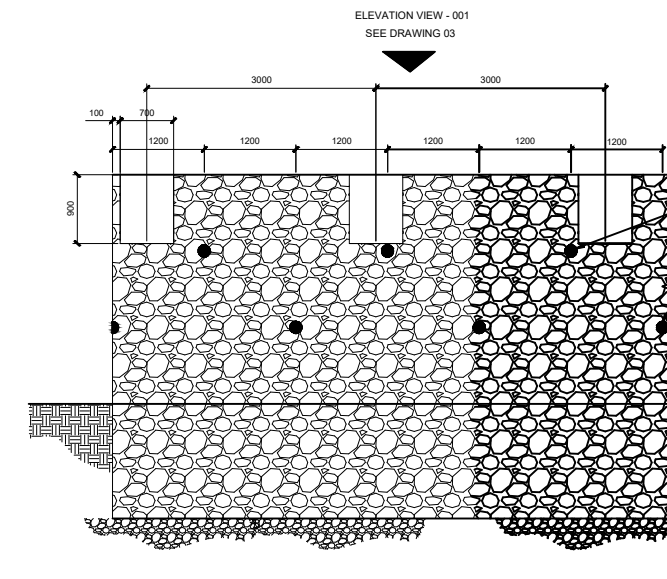
9. ALL WELDING OF REINFORCEMENT SHALL CONFORM TO THE PROVISIONS OF THE STRUCTURAL WELDING CODE-REINFORCING STEEL, AWS D1.4
10. A FULL MECHANICAL CONNECTION (REBAR SPLICER) SHALL DEVELOP IN TENSION OR COMPRESSION, AS REQUIRED, 125 PERCENT OF THE SPECIFIED YIELD STRENGTH  $f_y$  OF THE BAR. IF USED, SUBMIT SAMPLE FOR APPROVAL OF THE STRUCTURAL ENGINEER.
11. CLEAR CONCRETE COVER FOR REINFORCING BARS SHALL BE AS FOLLOWS:
  - 1) CONCRETE CAST AGAINST EARTH - 75 mm
  - 2) CONCRETE EXPOSED TO EARTH OR WEATHER-  
20 mm TO 36 mm BARS - 50 mm  
16 mm BARS AND SMALLER - 40 mm
  - 3) CONCRETE NOT EXPOSED TO EARTH OR WEATHER-  
SLABS, WALLS, JOINTS - 20 mm  
BEAMS AND COLUMNS - 40 mm

**D. NOTES ON FOUNDATION**

1. THE FOUNDATION IS DESIGNED FOR A NET ALLOWABLE SOIL BEARING PRESSURE OF 100 kPa AT A MINIMUM DEPTH OF ONE AND A HALF (1.50) METERS FROM THE NATURAL GRADE LINE.
- NO FOOTING SHALL REST ON FILL. FOOTINGS FOR CHB WALLS AND OTHER MINOR STRUCTURES SHALL BE EMBEDDED AT LEAST 800mm FROM THE NATURAL GRADE LEVEL.
- PROVIDE TEMPORARY REMOVAL OF WATER FROM ANY SOURCE DURING CONSTRUCTION. DEWATERING SHALL BE CAREFULLY AND PROPERLY PERFORMED TO AVOID DISTURBING THE FOUNDATIONS AND SLAB BEARING SURFACES.
- CONTRACTOR SHALL DESIGN, INSTALL AND MONITOR EXCAVATIONS RETENTION SYSTEMS, AS REQUIRED FOR PROTECTION OF ADJACENT PROPERTIES AND PROVIDE ALL MEASURES AND PRECAUTIONS NECESSARY TO MINIMIZE SETTLEMENT AND PREVENT DAMAGE TO ADJACENT EXISTING OR NEW CONSTRUCTION.
- PREPARE CONDITIONS OF CONCRETE SUPPLY AND PLACEMENT OF THE COMPLETE FOUNDATION FOR THE FULL THICKNESS AS A CONTINUOUS MONOLITHIC CASTING.
- DO NOT BACKFILL AGAINST BASEMENT WALLS UNTIL GROUND FLOOR SLABS HAVE BEEN PLACED AND THE CONCRETE HAS ATTAINED THE REQUIRED STRENGTH.
- REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL ELEVATION DETAILS, REFER TO ARCHITECTURAL, MECHANICAL, PLUMBING AND OTHER TRADES FOR SUBSOIL DRAINAGE SYSTEM, MACHINERY ANCHORS AND OTHER EMBEDDED ITEMS, DEPRESSIONS, FINISHES, DOWELS FOR MASONRY WALLS, CURBS, ETC
- SEE TYPICAL DETAIL OF LIMITING SLOPE OF ADJACENT FOOTING AT DIFFERENT ELEVATION. (REFER TO FIGURE 2)

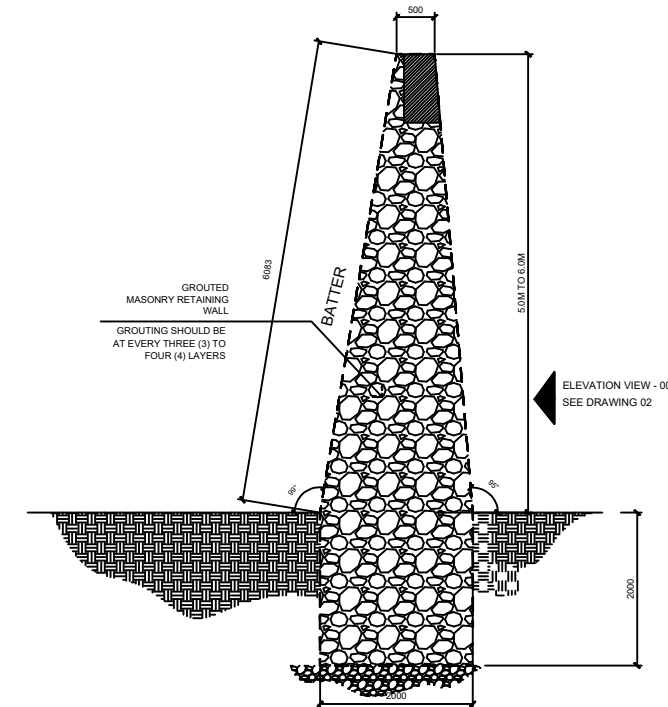


**CROSS SECTION**  
**1A** **GRouted MASONRY RETAINING WALL -1**  
RSP-01 SCALE 1:50m

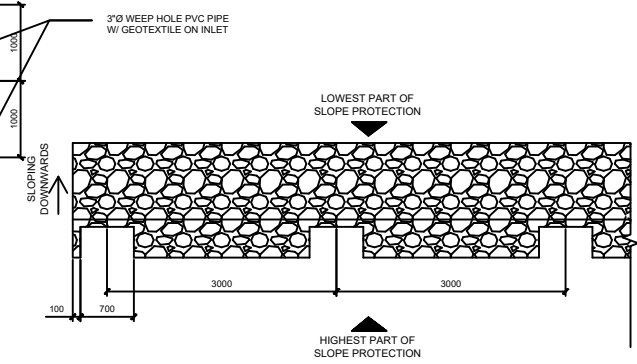


**ELEVATION VIEW - 001**  
**2** **GRouted MASONRY RETAINING WALL -1**  
RSP-01 SCALE 1:50m

**BLOCKING DETAILS**



**CROSS SECTION**  
**1B** **GRouted MASONRY RETAINING WALL -2**  
RSP-01 SCALE 1:50m



**ELEVATION VIEW - 002**  
**3** **GRouted MASONRY RETAINING WALL -1**  
RSP-01 SCALE 1:50m

**BLOCKING DETAILS**

