



REPUBLIC OF THE PHILIPPINES  
**DEPARTMENT OF AGRICULTURE**  
REGIONAL FIELD UNIT NO.5  
SAN AGUSTIN, PULI, CAMARINES SUR

**PROJECT TITLE:**

**CONSTRUCTION OF BURABURAN  
DIVERSION DAM  
LOCATION: MITY, MALAWAN, JUAL, SORSOGON**

PREPARED BY:  
**RABD OFFICE**



# SHEET CONTENT

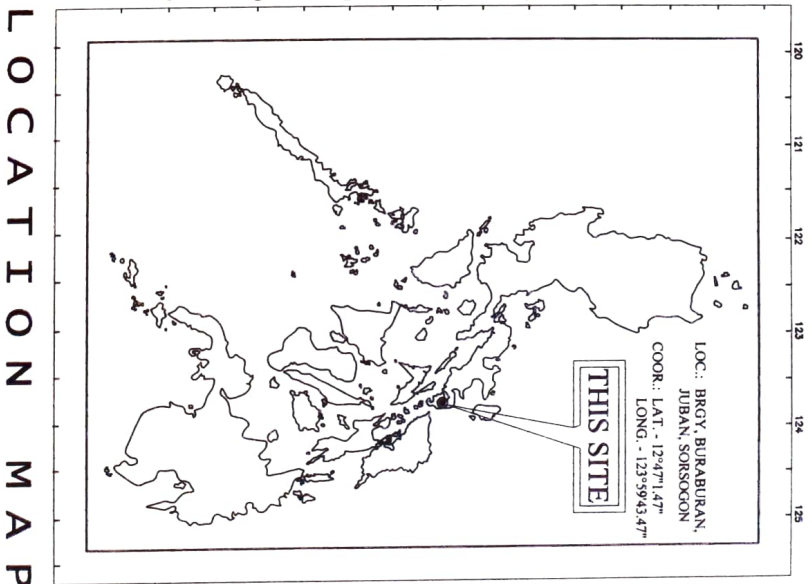
1A	LOCATION MAP, SHEET CONTENT, PROJECT FEATURES
2A	FARM PLAN
3A	SITE DEVELOPMENT PLAN, SLOPE PROTECTION DETAIL
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9A	FABRICATED STEEL GATE DETAIL
10A	PROJECT BILLBOARD DETAIL, CONCRETE MARKER DETAIL

# MAIN PROJECT FEATURES

Name of Project : CONSTRUCTION OF BURABURAN DIVERSION DAM  
 Location: Brgy. Buraburan, Juban, Sorsogon

Coordinates: : LAT. 12°47'1.74"  
 LONG. 123°59'43.47"

1. WATERSHED		b. OUTLET WORKS	
Area(Ha.)	-	Type	STEEL GATE
Present Land-use	-	STEEL GATE WITH ANGLE BAR FRAMING	2 UNITS
Soil Type	-	Maximum discharge (lps)	3990 m
2. HYDROLOGY		c. IRRIGATION WORKS	
Gauge Reference River	-	c1. Canal Length(m)	1320 m
Coordinates	-	c2. Structures	6 units
Gauge River Area(sq. km)	-	Division box	1 unit
Design Flood @ Gauge River(Q yr.cms)	-	Tractor Crossing	5 units
Design Flood @ Diversion Point(Q yr.cms)	-	Turn-out	5 units
3. PROJECT FACILITIES		d. ACCESS ROAD	
a. DAM		Type	Municipal Road
Type	OGEE TYPE	Length(m)	10 km
Crest Elev. (m)	99.80	4. DESIGN SERVICE AREA AND CROPPING PATTERN	
Height(m)	0.80	Cropping Pattern	RICE-RICE-FOLLOW
Length(m)	7.50	Seasonal System Water Requirements(mm)	-
Upstream Apron Elev./Length(m)	99.00 / 3	Service Area(Ha)	19
Downstream Apron Elev./Length(m)	98.30 / 3	Project Cost(P)	-



LOCATION MAP

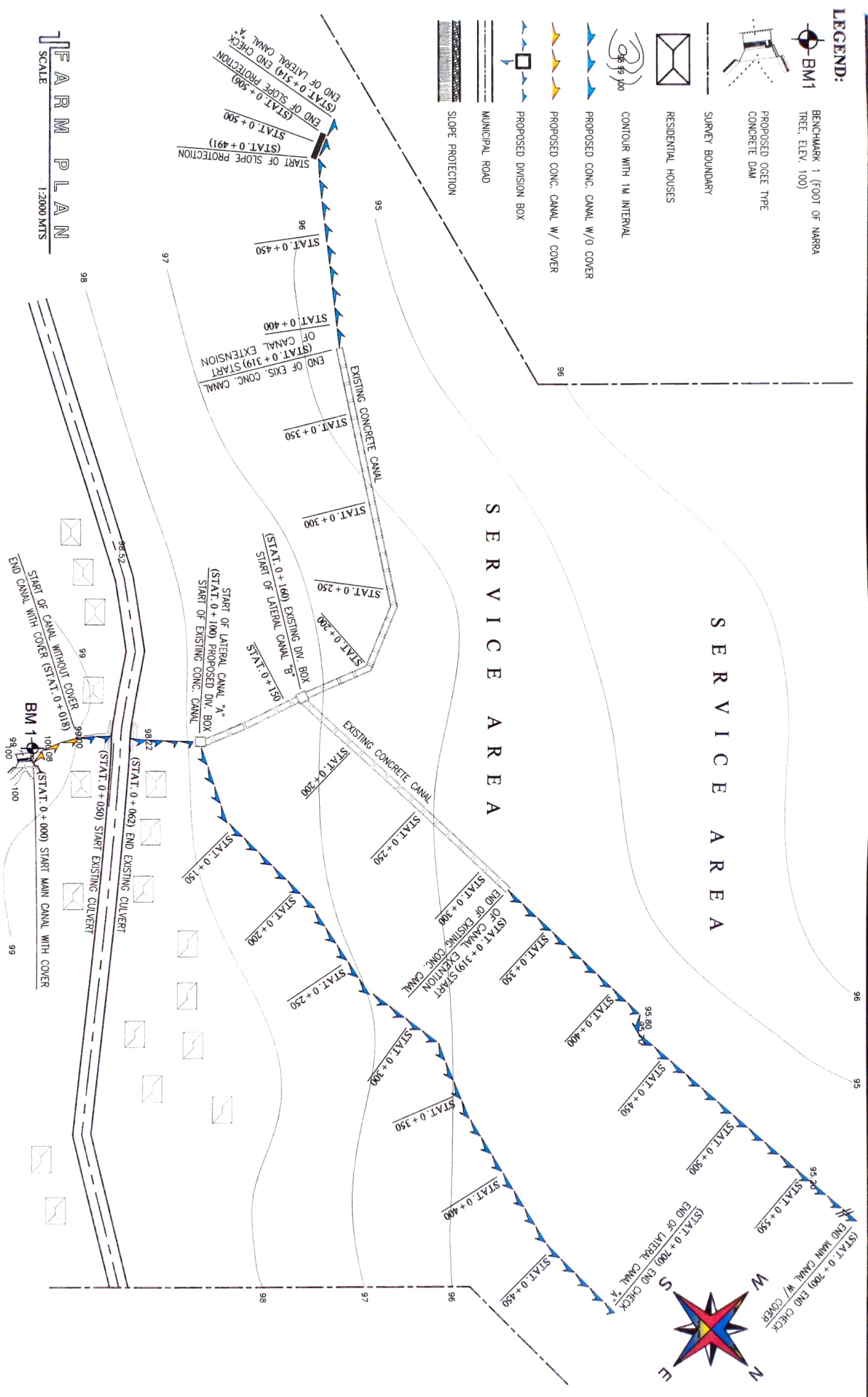


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 REGIONAL FIELD UNIT NO. 5  
 SAN AGUSTIN, PUL, CAMARINES SUR

Name of Project		Requested by		Checked by		Reviewed by		Submitted by		Recommending Approval		Approved by	
CONSTRUCTION OF BURABURAN DIVERSION DAM		ENGR. MICHAEL P. TAPIA Regional Staff		ENGR. ANTONIO B. MIRA Regional II, SORSOGON Field		ENGR. JERRY A. EBONIA Engineer III, SORSOGON Section Head		ENGR. NILDON T. ALBANO Engineer IV, District		LUZ R. MARCELIANO RTD - for Operations and Economic		RODEL F. JORNA, A. MARE Regional Executive Director	
Location		Brgy. Buraburan, Juban, Sorsogon		Strand/Center		AS SHOWN		Contract No.		Date		Sheet No.	
Fund Source		2022 RICE PROGRAM (Tier 1)		AS SHOWN				1		10			

**LEGEND:**

- BENCHMARK 1 (FOOT OF NARRA TREE, ELEV. 100)
- PROPOSED OCEE TYPE CONCRETE DAM
- SURVEY BOUNDARY
- RESIDENTIAL HOUSES
- CONTOUR WITH 1M INTERVAL
- PROPOSED CONC. CANAL W/O COVER
- PROPOSED CONC. CANAL W/ COVER
- PROPOSED DIVISION BOX
- MUNICIPAL ROAD
- SLOPE PROTECTION



**GENERAL PLAN**  
SCALE 1:2000 MTS

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**DEPARTMENT OF AGRICULTURE**  
**REGIONAL FIELD UNIT NO. 5**  
 SAN AGUSTIN, PUL, CAMARINES SUR

Name of Project <b>CONSTRUCTION OF BURABURAN DIVERSION DAM</b>		Reviewed by  ENGR. KAIT P. TARIA Technical Staff		Checked by  ENGR. ANHER B. MIRA Engineer II, Express Services Head		Reviewed by  ENGR. JERRY A. EBONA Engineer III, Express Services Head		Submitted by  ENGR. NILDA A. MABANO Engineer I, Chief Field		Recommending Approved  LUZ R. MARCELINO RTM in Operations and Extension		Approved by  RODEL TORRES M. MABE Regional Engineer - District	
Lead Source 2022 RICE PROGRAM (Tier 1)		Special Concern AS SHOWN											
Date 2021		Sheet No. 2		Total Sheets 10									





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 DEPARTMENT OF AGRICULTURE  
 REGIONAL FIELD UNIT NO. 5  
 SAN AGUSTIN, PULI, CAGAYANES SUR

Name of Project: CONSTRUCTION OF BURABURAN DIVERSION DAM	
Location:	Brgy. Buraburan, Julian, Sorsogon
Fund Source:	2022 RICE PROGRAM (Tier 1)
Special Comment:	AS SHOWN

Proposed by:	ENGR. ARDAY P. TAPIA Technical Staff
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Checked by:	ENGR. ARTHUR D. MIRA Engineer in Charge (Civil)
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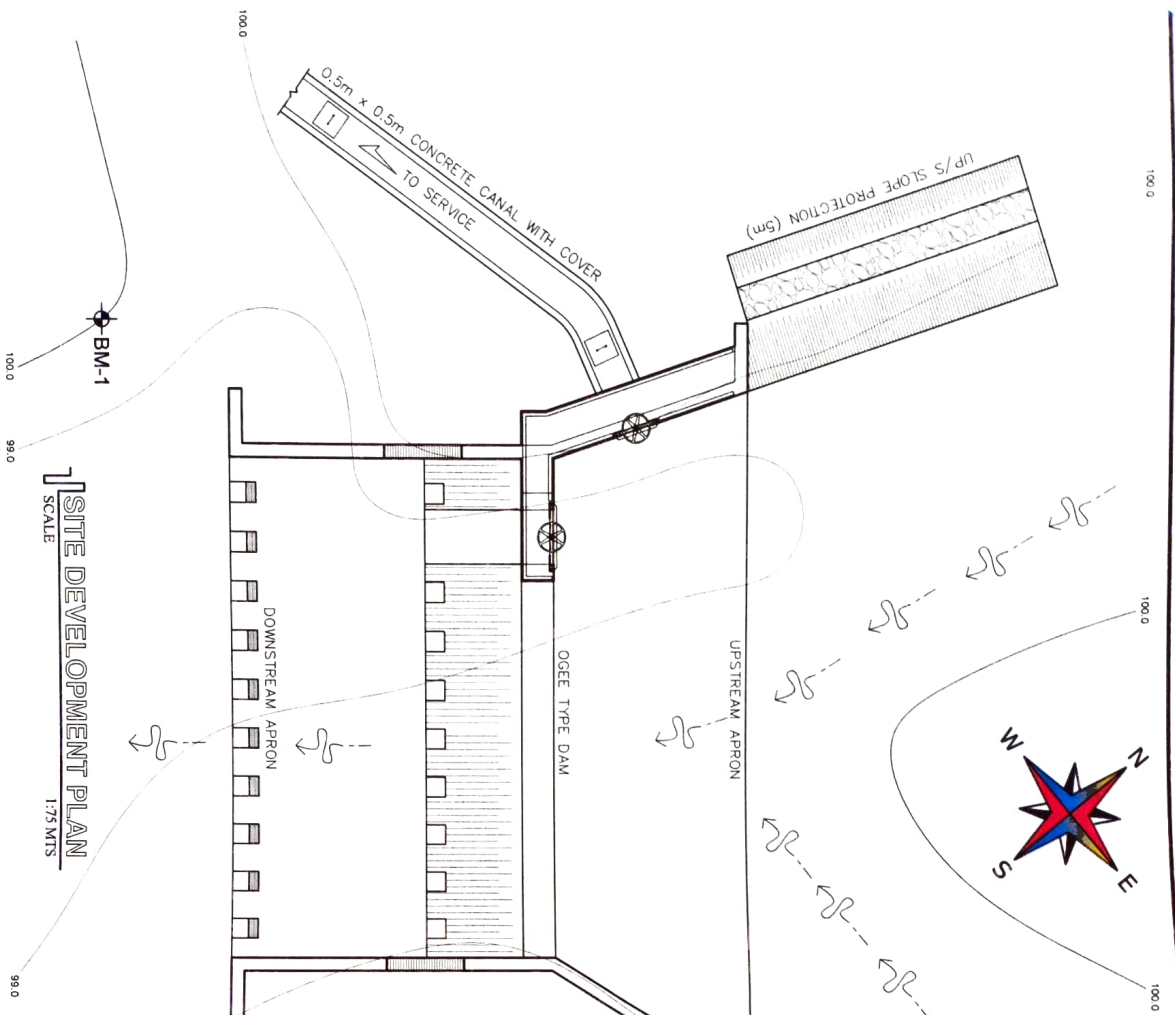
Reviewed by:	ENGR. JERRY A. EBONA Engineer in Charge (Structural)
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Submitted by:	ENGR. NINA T. ALPANO Engineer
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Receiving-Unit Approval:	LIZ E. MARCELINO RFO for Extension and Extension
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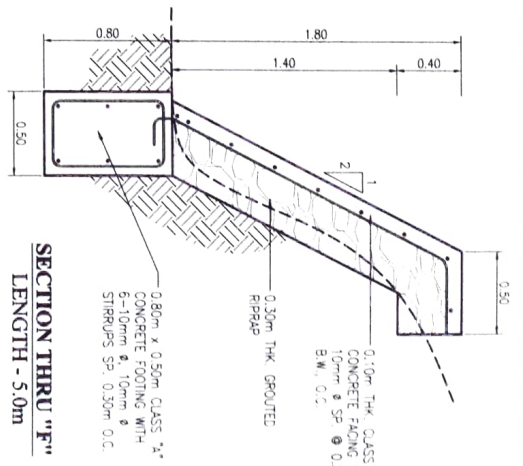
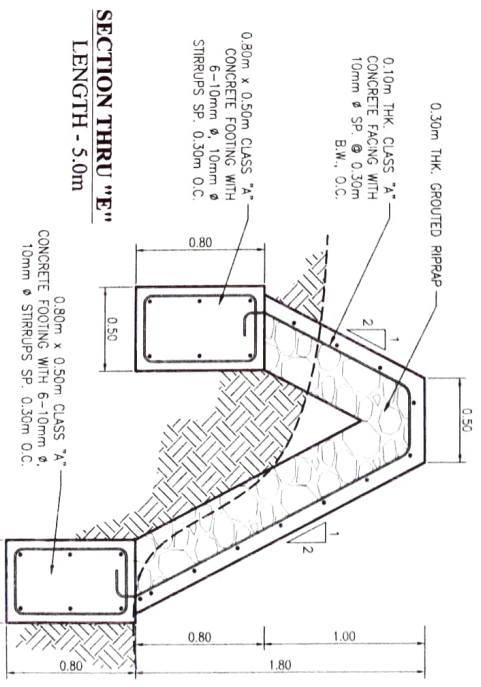
Approved by:	RODEL P. ZARULLA, MABE Regional Executive Officer
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DATE:	3/10
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**SITE DEVELOPMENT PLAN**  
 SCALE: 1:75 MTS

**SLOPE PROTECTION DETAIL @ DAM**  
 SCALE: 1:30 MTS





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 SAN AGUSTIN, PUL. CAMARINES SUR

NAME OF PROJECT	CONSTRUCTION OF BURBURIAN DIVERSION DAM		
LOCATION	Brgy. Burburián, Jubán, Surigao		
FUND SOURCE	State Contingent	Special Contingent	AS SHOWN
2022 BULE PROGRAM (Line 1)			

Prepared by:  
 ENGR. ADAM P. TAYRA  
 Technical Staff

Checked by:  
 ENGR. MITCHELL B. MIRA  
 Engineer in Charge

Reviewed by:  
 ENGR. JERRY A. ERONA  
 Engineer in Charge

Submitted by:  
 ENGR. NILO A. ALBANO  
 Engineer

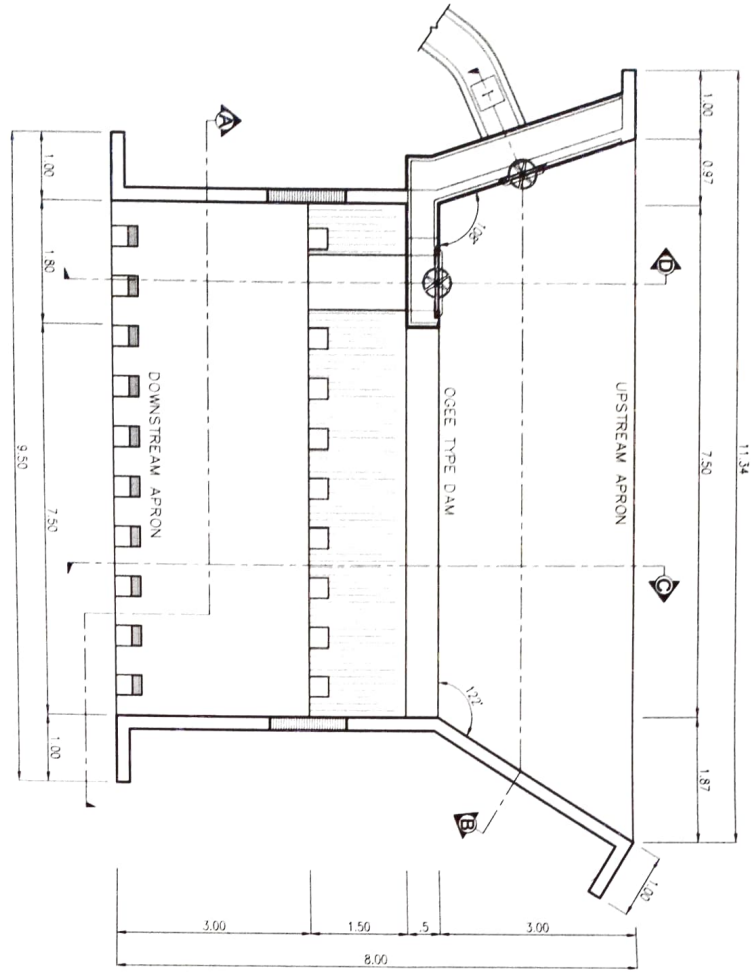
Supervising Engineer:  
 LEZ R. MARCELINO  
 RFO in Charge and Engineer

Approved by:  
 RODEL P. SANCHEZ  
 Regional Director

DATE	APPROVED
4/10	

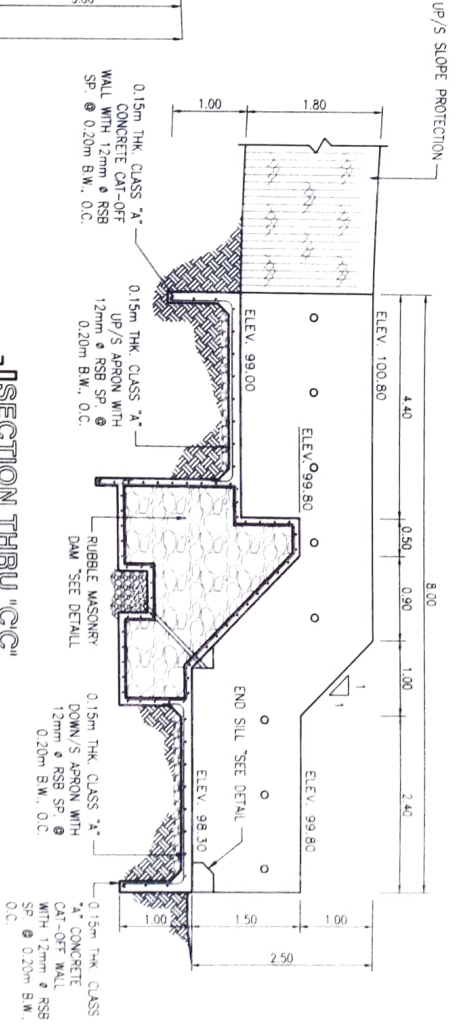
### GENERAL PLAN

SCALE 1:75 MTS



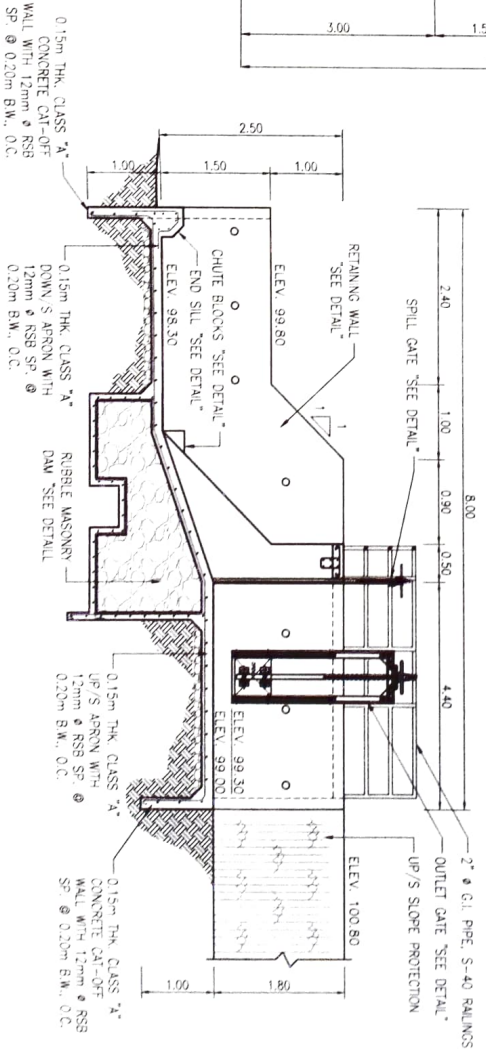
### SECTION THRU 'C-C'

SCALE 1:75 MTS



### SECTION THRU 'D-D'

SCALE 1:75 MTS







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 SAN AGUSTIN, PULU CALABANES SUR

Name of Project: CONSTRUCTION OF BURABURAN DIVERSION DAM  
 Location: Buraburan, Juban, Sorsogon  
 Fund Source: Special Contract  
 2022 RICE PROGRAM (Tier 1)  
 AS SHOWN

Prepared By: ENGR. ARY P. TAPIA  
 Technical Staff

Checked By: ENGR. ATRIX B. MIRA  
 Engineer II (Professional Head)

Reviewed By: ENGR. JERRY A. BERONA  
 Registered Professional Engineer

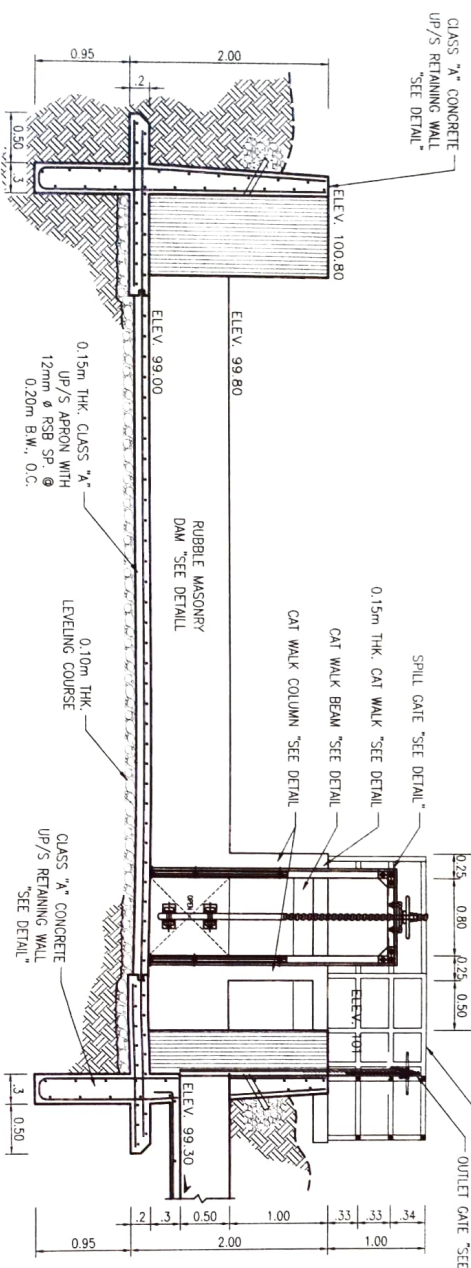
Submitted By: ENGR. NIÑA T. ALBANO  
 Engineer (Civil Field)

Recommending Approval: LIZ R. MARCELINO  
 P.E. for Operations and Extension

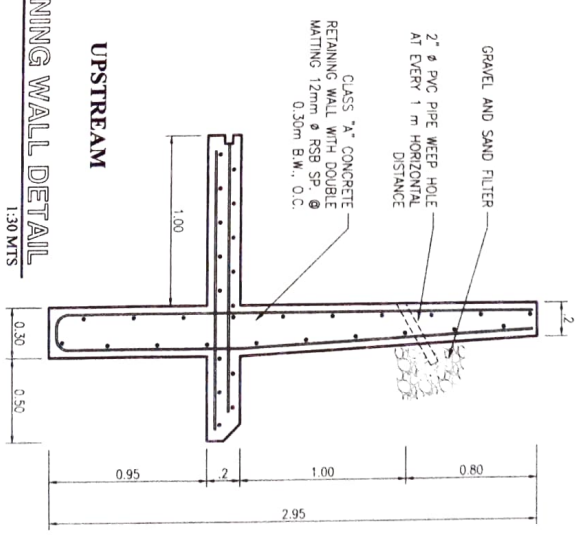
Approved By: RODEL B. TRINILLI, MAIRE  
 Registered Professional Engineer

DATE: 2023  
 SHEET NO.: 5/10

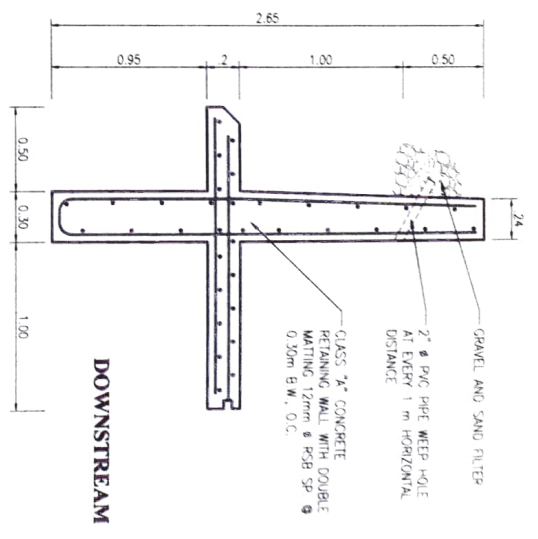
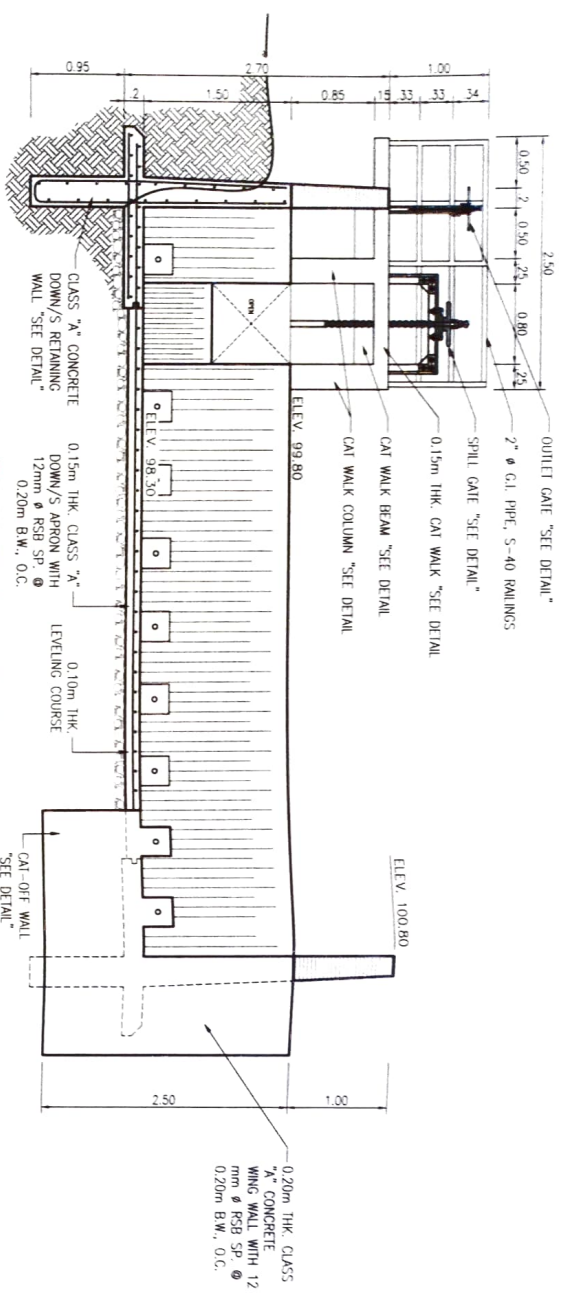
SECTION THRU "BB"  
 SCALE 1:50 MTS

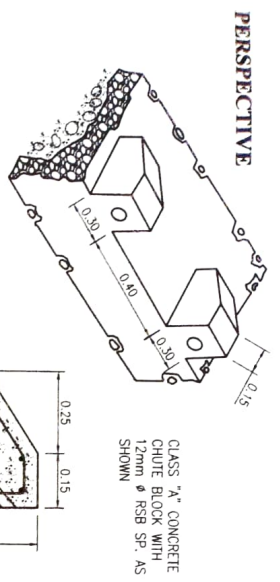


RETAINING WALL DETAIL  
 SCALE 1:30 MTS

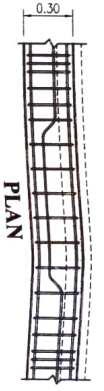
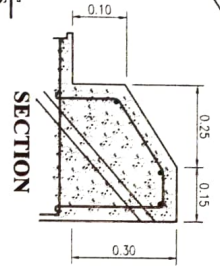


SECTION THRU "AA"  
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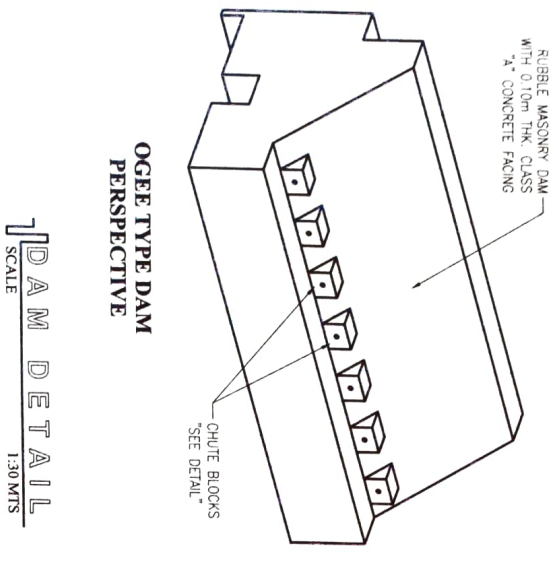
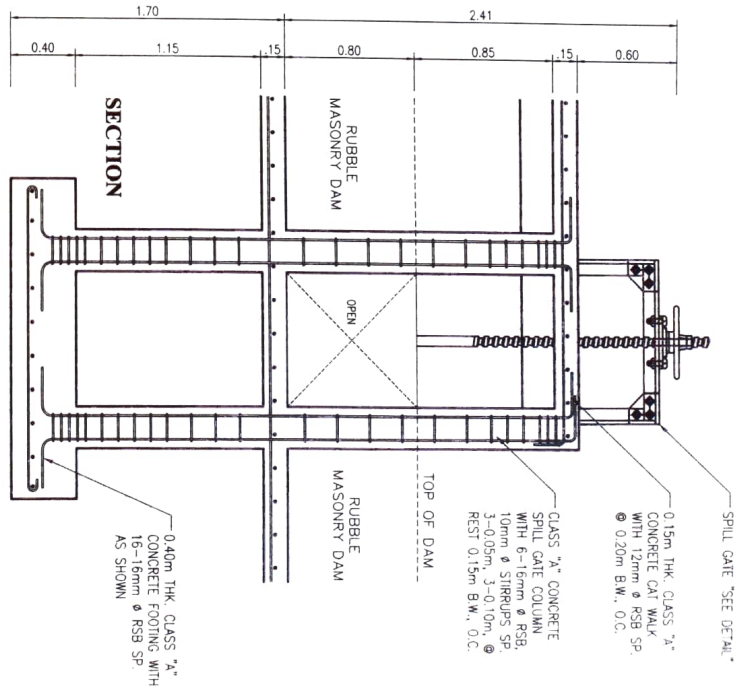


**END SILL DETAIL**  
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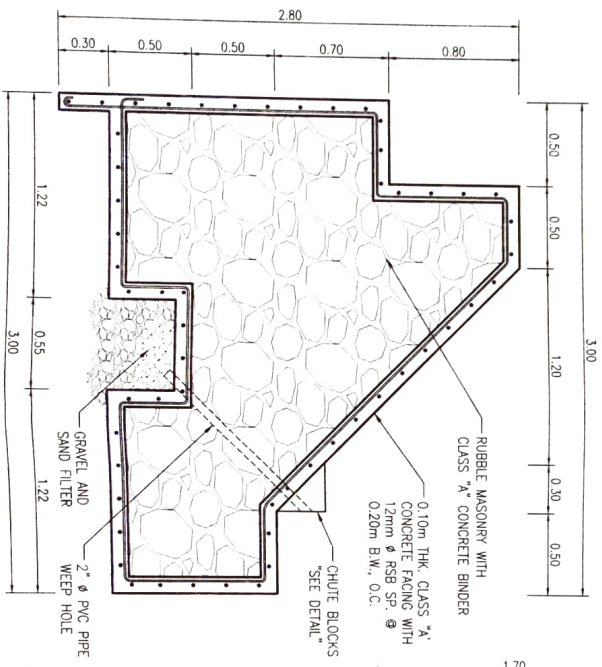


**TYPICAL BEAM DETAIL**  
SCALE 1:30 MTS

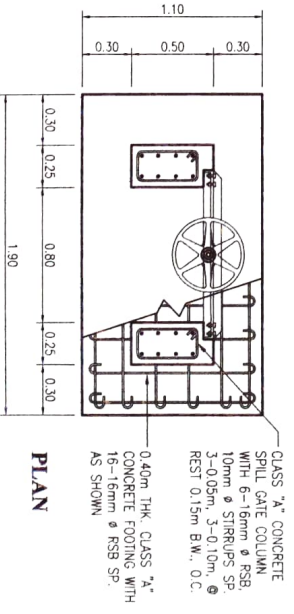
**SECTION**



**DAM DETAIL**  
SCALE 1:30 MTS



**FOOTING AND COLUMN DETAIL @ SPILL GATE**  
SCALE 1:30 MTS



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Name of Project <b>CONSTRUCTION OF BURABURKAN DIVERSION DAM</b>		Prepared by <b>ENGR. ARDREY P. TABIA</b> Technical Staff	Checked by <b>ENGR. ARTHUR B. MIRA</b> Engineer III, CROSS Section Head	Reviewed by <b>ENGR. JERRY A. EBOSA</b> Engineer III, CROSS Section Head	Submitted by <b>ENGR. MILDY V. ALBARANO</b> Engineer I, BUREAU	Recommending Approval <b>ATD R. MARCELIANO</b> ATD for Operations and Training	Approved by <b>RODEL P. ORTIZ</b> Regional Extension Director
Location <b>Brgy. Burabukan, Juban, Sarangani</b>	Drawn by <b>AS SHOWN</b>	Scale <b>AS SHOWN</b>	Project No. <b>2022 RICE PROGRAM (Tier 1)</b>	Date <b>6/10</b>	Sheet No. <b>6/10</b>		





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Name of Project: CONSTRUCTION OF BURABURAN DIVERSION DAM  
 Location: Buraburan, Infanta, Sorsogon  
 Reg. No.: 2022 RICE PROGRAM (Tier 1)  
 Sheet Content: AS SHOWN

Prepared by: ENGR. ARMY P. TAPIA  
 Technical Staff

Checked by: ENGR. ARTHUR B. MIRA  
 Registered Professional Engineer

Reviewed by: ENGR. HERRY A. EBORA  
 Registered Professional Engineer

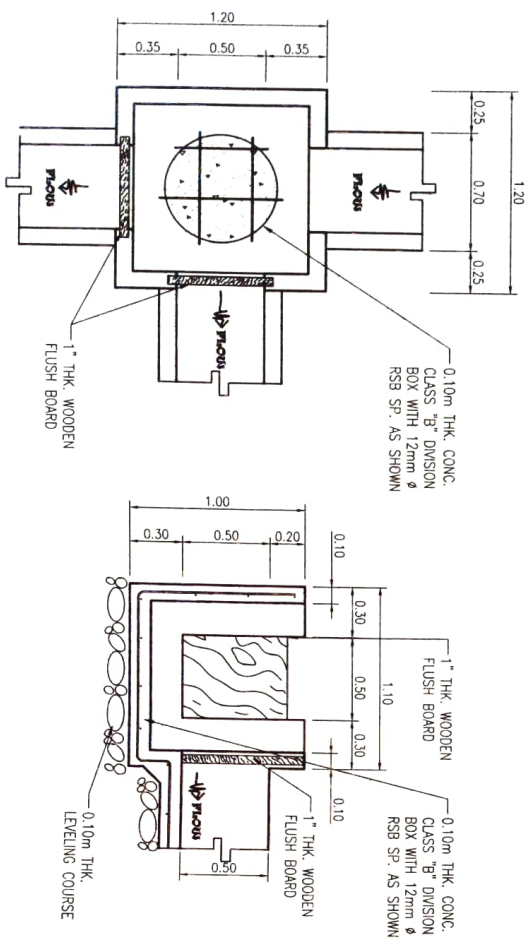
Submitted by: ENGR. MARY T. ALBANO  
 Registered Professional Engineer

Recommending Approval: LUIZ R. MARCELIANO  
 Registered Professional Engineer

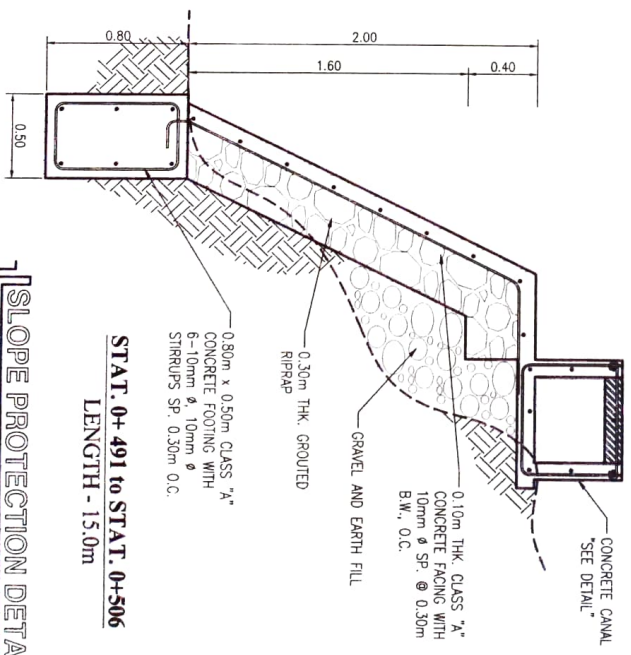
Approved by: ROBERT P. ORNELA, M. MAIRE  
 Registered Professional Engineer

Date: 2023  
 Sheet No.: 7/10

**DIVISION BOX AT STAT. 0+100**  
 SCALE 1:30 MTS

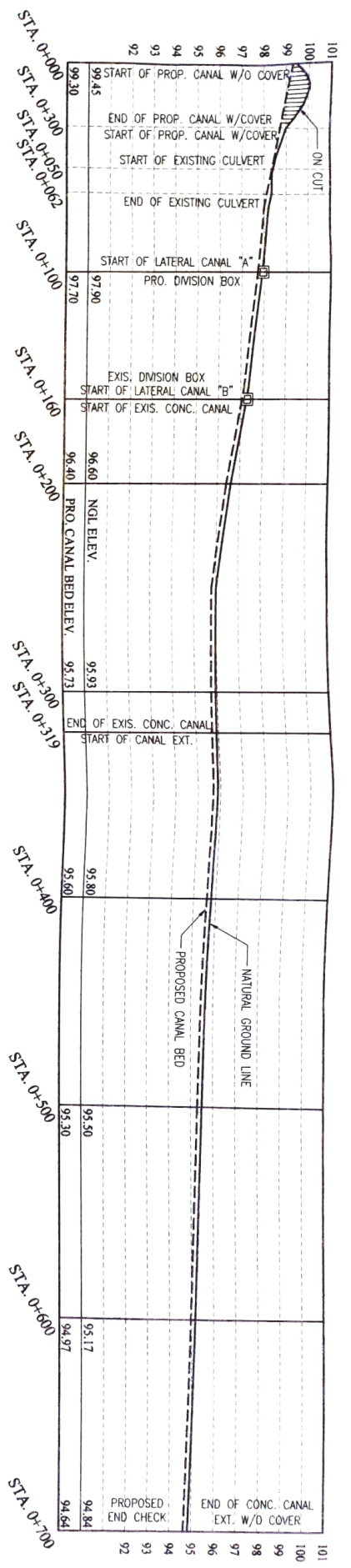


**SLOPE PROTECTION DETAIL**  
 SCALE 1:30 MTS



**STAT. 0+491 to STAT. 0+506**  
 LENGTH - 15.0m

**PROFILE ALONG CENTER OF MAIN CANAL**  
 SCALE V-1:200, H-1:1200 MTS







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 SAN AGUSTIN, PULI, CAMARINES SUR

Method of Project:	CONSTRUCTION OF BURABURAN DIVERSION DAM
Location:	Big, Bumburan, Julu, Sorsogon
Fund Source:	2022 RICE PROGRAM (Tier 1)
Prepared by:	AS SHOWN

Prepared by:  
 ENGR. ARNOLD P. TAPIA  
 Technical Staff

Checked by:  
 ENGR. ABELIO B. MIRA  
 Engineer in Charge (Civil Lead)

Reviewed by:  
 ENGR. JERRY A. EBOKA  
 Engineer III (Civil Section Head)

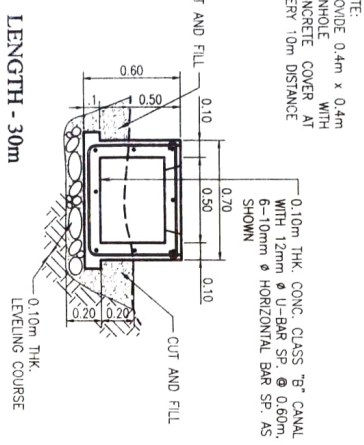
Submitted by:  
 ENGR. MITCHELL BRABANO  
 Engineer (Civil & E&I)

Project/Working Approval:  
 LIZ R. MARTELANO  
 RTO for Operations and Extension

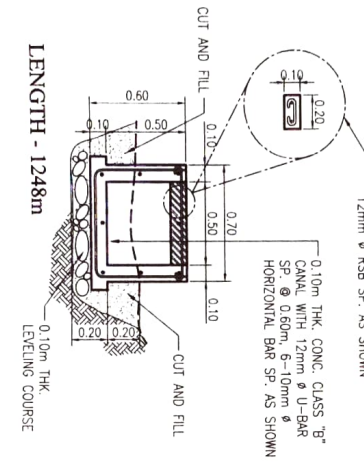
Approved by:  
 RODOLFO T. TORRES  
 Regional Director

DATE:	8/10
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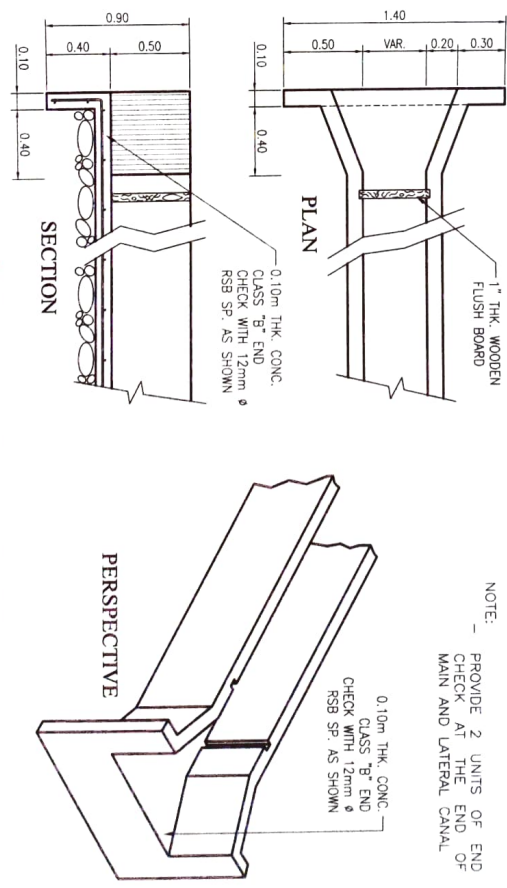
**TYPICAL CANAL W/ COVER DETAIL**  
 SCALE 1:30 MTS



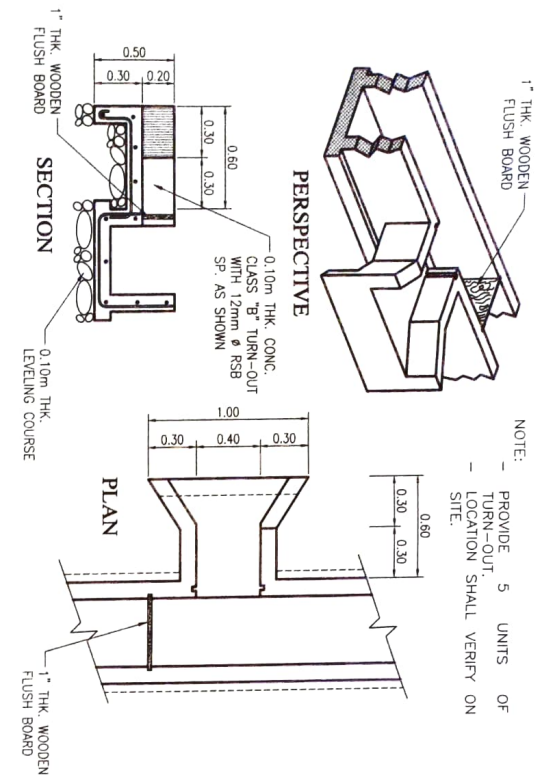
**TYPICAL CANAL W/O COVER DETAIL**  
 SCALE 1:30 MTS



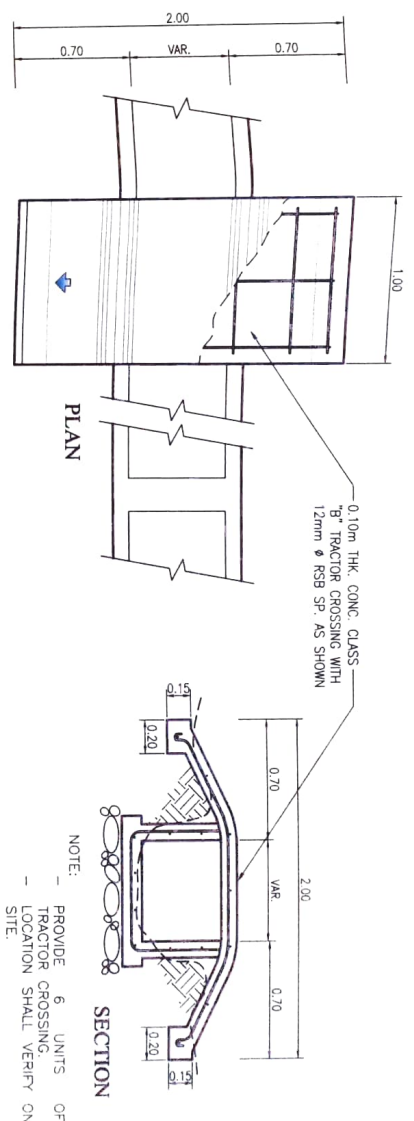
**TYPICAL END CHECK DETAIL**  
 SCALE 1:30 MTS



**TYPICAL DETAIL OF TURN-OUT**  
 SCALE 1:30 MTS



**TYPICAL TRACTOR CROSSING DETAIL**  
 SCALE 1:30 MTS



NOTE:  
 PROVIDE 2 UNITS OF END CHECK AT THE END OF MAIN AND LATERAL CANAL

NOTE:  
 PROVIDE 6 UNITS OF TRACTOR CROSSING. LOCATION SHALL VERIFY ON SITE.

NOTE:  
 PROVIDE 5 UNITS OF TURN-OUT. LOCATION SHALL VERIFY ON SITE.

**SCHEDULE OF DIMENSIONS**

ITEM NO.	QUANTITY	SIZE OF ORIGINAL		SIZE OF NEW		UNIT	LIFTING STIFFENER	SITE OF STIFFENER	VERTICAL AND TOP PLATE		STEEL HANGER	OVER PLATE	FILLER BAR
		W <sub>o</sub>	H <sub>o</sub>	W <sub>n</sub>	H <sub>n</sub>				THICKNESS	DIAMETER			
STILL W/AT OUTLET	1	775	900	800	800	775	15	50	9 X 9 X 9 X 50 ± 50	800	800	800	
A	B	C	D	E	F	G	H	I	J	K	L	M	N
800	800	270	440	800	100	3000	150	150	175	2.54	2.54	2.54	2.54
520	300	170	440	800	100	1940	150	150	175	2.54	2.54	2.54	2.54

**NOTES:**  
 1. Use per standard mill diameter values with the steel thread diameter.

**GENERAL NOTES AND SPECIFICATIONS:**

- The gate shall be provided as per dimensions and shape as shown in the plan view.
- Good quality and shall conform to the following features:
- Gate Slide, Filler Bar, Cover Plates, Gussset Plates and Stopper-Steel Plates Astma 285
- Stopper-Steel Plates Astma 285
- Angle Iron-Structural Steel Astma A36
- Lifting Bars-Cold Rolled Steel Astma A108-527
- Lift Nut-Stop Nut-Structural Steel Astma B92 Grade D
- Handmade Steel Plates from Astma A48 Grade 30
- Fitting-Lip Bits and Nut-Astma 333
- Bolt Thread-Bearing-SWF No. 016 or Equivalent
- Coatings:
- All Steel Parts- Hot Dipped Galvanized
- All parts and the Gate Assembly shall be Mechnically Stamped and the Gate Assembly shall be Mechnically stamped to minimize friction.



**PLAN**

REMOVABLE HANDWHEEL



**SECTION OF HOLD DOWN PLATE**

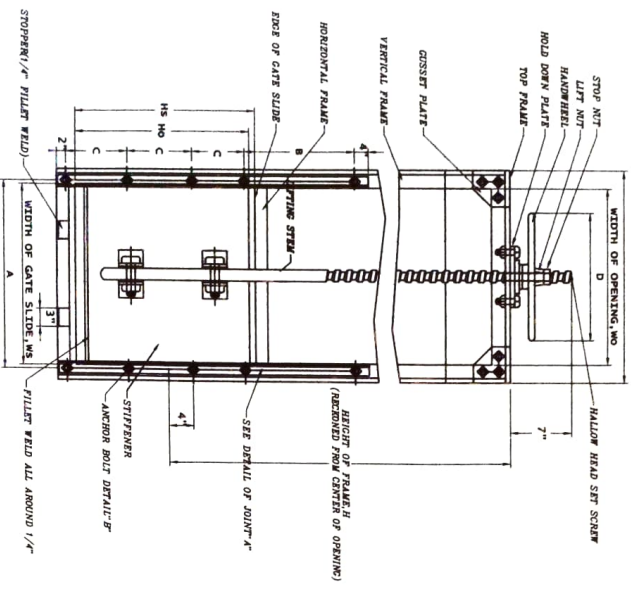


**PLAN**

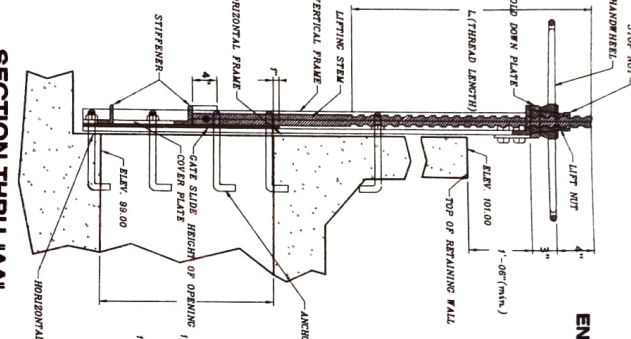
H-TYPE LIFT NUT



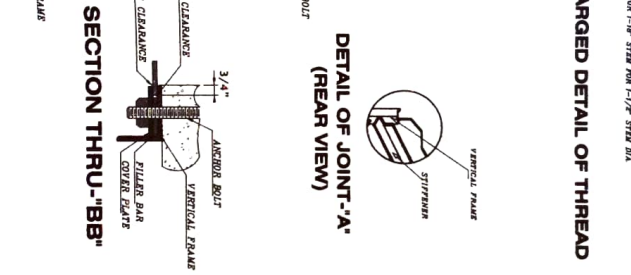
**ENLARGED DETAIL OF THREAD**



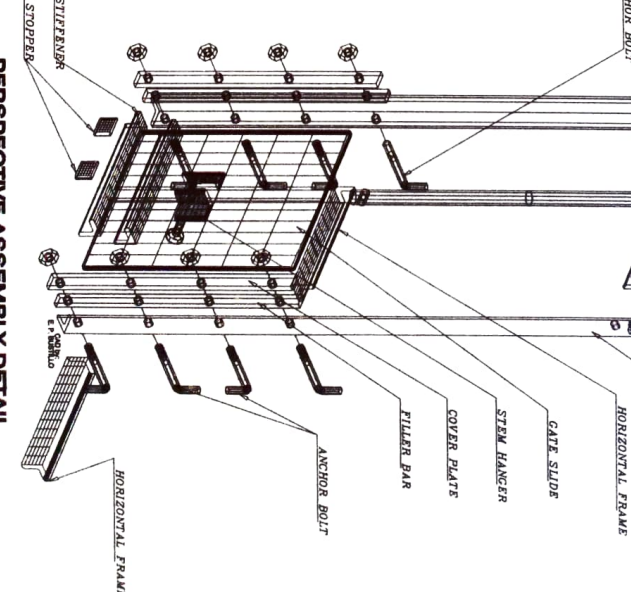
**FRONT ELEVATION**



**SECTION THRU-"AA"**



**DETAIL OF JOINT-"A" (REAR VIEW)**



**PERSPECTIVE ASSEMBLY DETAIL**

**DETAIL OF FABRICATED STEEL GATE**  
 NOT TO SCALE

NAME OF PROJECT: CONSTRUCTION OF BURABURAN DIVERSION DAM  
 LOCATION: Brgy. Buraburan, Jagna, Sorsogon  
 FIELD SOURCE: 2022 RICE PROGRAM (TR-1)  
 AS SHOWN

Prepared by: ENGR. RAJA V H TAVIA  
 Technical Staff

Checked by: ENGR. ANTHON B MIRA  
 Engineer II (Structural Field)

Reviewed by: ENGR. JERRY A BRONA  
 Engineer I (Structural Field)

Submitted by: ENGR. TULLI ALBANO  
 Engineer I (Civil Field)

Recommending Approval: LIZ R. MARCELINE  
 RTO in Charge and Supervisor

Approved by: RODEL P. PENILLAMARBE  
 Regional Engineer



