



GUAM WATERWORKS AUTHORITY

Gloria B. Nelson Public Service Building • 688 Route 15, Mangilao, Guam 96913 • Tel. (671) 300-6036

Invitation To Bid: IFB-02-ENG-2019
Upgrade of the Northern District Wastewater Treatment Plant
GWA Project No. S17-003-OEA

Addendum No.: Step 02 – Addendum 03

Date: April 17, 2019

All Qualified Bidders:

This addendum is issued to modify the previously issued bid documents and/or given for informational purposes, and is hereby made a part of the bid documents. Failure to acknowledge receipt of this addendum shall be grounds for the bidder's disqualification and rejection of the bidder's proposal.

1. Part A – Drying Bed Drawings

The attached drawings titled Northern District Sewerage System – Sludge Drying beds, (file NDSS Sludge Drying Beds.pdf) is added to the As-Built drawings provided with the bid documents.

2. Part B – GWA Request for Information Response No. 5 to Contractor Inquiries

GWA's responses to contractor RFI inquiries are attached to this Addendum.

3. Part C – Permit Update

The building permit status update is as follows:

All Building Permits with signatures have been completed except for the following:

1. Guam Power Authority (GPA)
2. Guam Fire Department (GFD)
3. Contractor's Licensing Board (CLB)– to be completed by selected contractor
4. Department of Public Works (DPW) – to be completed by selected contractor

It is anticipated that the GPA and GFD permit signatures will be completed before the Notice to Proceed is issued.

Bidders are also notified to visit GWA website: www.guamwaterworks.org to ensure that addenda to the bid, answers to questions, and reminders are communicated to all bidders throughout the solicitation process.



MIGUEL C. BORDALLO, P.E.
General Manager *MCB*

Attachment(s):

MCB;gb



GUAM WATERWORKS AUTHORITY

Upgrade of the Northern District Wastewater Treatment Plant

GWA Project No. S17-003-OEA

IFB-02-ENG-2019

Response No. 5 to Step 2 Contractor Inquiries

This Addendum and/or Response to Request for Information (RFI) is issued to modify the previously issued bid documents and/or given for informational purposes and to the extent the responses below modify the bid documents, please treat them as an amendment to the Bid. The following responses are in response to RFIs received.

RFI No.	REFERENCE SECTION	QUESTION/INQUIRY AS SUBMITTED	GWA RESPONSE
10a	Section 101400 - SIGNAGE	Please advise if all the facility/building will receive exterior and interior signage, if it is please provide required signage schedule for each building indicating sign type and location.	Refer to architectural Addendum drawings for building exterior and interior signage plans and details.
10b	Drawing A11.1.3, S11.2.5 and S11.4.6	Please provide specification and additional information for the Odor Control Bldg. metal roofing.	Specification will be updated by Addendum showing the roof in the scope of the ATAD supplier.
10c	Drawing A18.6.1	Storage room for Laboratory Bldg. indicated utility shelving. Please advise if the shelving will be supplied and installed by the contractor, if it is please provide specification and details.	Shelving at Storage Room will be supplied and installed by the contractor. Details of shelvings will be provided under Addendum.
10d	Section 434111	Comment: <u>Requested information by the tank supplier</u> Question: <u>Please confirm and advise if the project is funded by SRF and if AIS acts is applicable.</u>	This project is funded by the Office of Economic Adjustment - Grants; not SRF. The AIS Act does not apply. But the Buy American Act does.
10e	Section 00200 Article 4.02.A.2	Please provide test or inspection reports regarding asbestos and lead based paint that the contractor is expected to encounter during construction indicating location and expected quantity to be encountered.	Refer to plan sheet C2.1.6 and specification 028213.19 & A28213.33 for Asbestos containing material information. See specification 028333.13 for lead materials.

RFI No.	REFERENCE SECTION	QUESTION/INQUIRY AS SUBMITTED	GWA RESPONSE
11a	Section 443119 and MPO.0.6	Clarify which is correct on Section 443119 Biotrickling filter vessel footprint states 22' x 13' while MPO.0.6 Design Criteria states 12' x 4'	The Biotrickling Filter unit footprint is 12' by 4' as stated in design criteria. The biotrickling filter system slab has a dimension of approximately 22' by 13'. The slab layout and dimensions shall be coordinated with the biotrickling filter manufacturer.
11b		Provide detail on what is required for the four (4) fall protection anchor system required to supply.	Section 116000 Part 2.4 Fall Protection Anchor system will be removed by addendum.
11c	Buy American	In regard to the process equipment, we would like to clarify on some selected manufacturers, since Buy American Act applies, that the equipment are of foreign origin. We would like to know that their proposal would still be acceptable for this project.	Compliance certification with the Buy American Act will be required. Specification 013300 Submittal Procedures will be updated by addendum to reflect this requirement.
11d	Structural Drawings	On the Structural Drawings, We would like to clarify if there is still a requirement for base course on all process structures since drawings does not show. If there is still requirement, we request the thickness of Base course for footing, slab-on-grade and wall footing to be followed.	Refer to sheet S0.0.2 "Foundation Subgrade Preparation and Foundation Probe Notes".
11e	Specifications	Please provide the following Specification Section as being referenced from other specification section:	This will be coordinated and provided under Addendum.
		a. Section Metal Laboratory Casework b. Section 115300 — Science casework and Laboratory Equipment c. Section 28311 — Digital, Addressable Fire-Alarm System d. Section 231213 - Facility Fuel-Oil Pumps e. Section 099113 - Exterior Painting f. Section 009123 — Interior Painting g. Section 312000 — Earth Moving h. Section 260943.16 -Addressable-Luminaire Lighting Controls i. Section 260943.23 - Relay-Based Lighting Controls j. Section 232116 — Hydronic Piping Specialties k. Section 071113 — Bituminous Dampproofing l. Section 312317 — Trenching m. Section 231323 — Facility Above Ground Fuel-Oil Storage Tanks	a. Updated by addendum b. Updated by addendum c. Updated by addendum d. Reference to be deleted - No Fuel Oil Pumps e. Updated by addendum f. Updated by addendum g. Updated by addendum h. Updated by addendum i. Updated by addendum j. Reference to be deleted - Not needed. k. Updated by addendum l. Updated by addendum m. Reference to be deleted - Included in section 231113

RFI No.	REFERENCE SECTION	QUESTION/INQUIRY AS SUBMITTED	GWA RESPONSE
11f	Section 260533	Section 260533 is doubled . One is 260533 Raceways and Boxes for Electrical and the other is 260533 Identification for Electrical Systems. Please confirm which to follow?	These two specs sections are not the same. Please refer to the following: 260533 Raceways and Boxes for Electrical and 260553 Identification for Electrical Systems.
11g	Clarification on reference specification	Section 078413 — Penetration Firestopping is this same as Section 078400 Firestopping	Specifications Section 078413 Not Used.
11h	Clarification on reference specification	Section 15820 — Air Duct Accessories is this same as Section 233300 Air Duct Accessories	Yes, reference will be changed to section 233300.
11i	Drawing MP2.2.2	Clarify on Sheet MP2.2.2, Note 4 states Gate guide slots for future cross channel gates (typ 4 location). Please provide what work needs to be done for this.	The channels for future cross channel gates can be flat wall and floor surfaces. No channel hardware will be required for future gates. Note 4 will be deleted by Addendum.
11j	UV Weir	Please provide detail for 316SS Serpentine Weir (Dimension, sizes and connection) or should this be supplied by UV Disinfection Manufacturer.	Section 466656 Part 2.10 states that one fixed serpentine weir per channel shall be provided. Weirs shall be provided by UV equipment manufacturer.
11k	Grates	Please Clarify or specify items on grates: a. On MP1.2.2 for Southern Link, Mentions replace existing grates and supports. Please provide grates to be replaced if FRP, Aluminum or Cast Iron Frames (Typical to 4 each). b. On MP1-1.2.1, mentions New Grates at the 42" Drop Pipe, please confirm material for new grate (Aluminum, FRP or Cast Iron) c. Please clarify which drawing will govern for all grating and covers per each process On MP6.2.1 show alum grating (typ) callout above the serpentine weir location however on the section 1 MP6.3.1 does not show alum grating. Please confirm if there is aluminum Grating at this location	a. MP1.2.2 Replace with Aluminum. b. MP1-1.2.1 Aluminum grates c. MP6.2.1 Aluminum Grates shall be provided above the weirs and effluent channel. Clarification Addendum will be issued.
11l	Access Hatches	Please provide Access Hatch Size and if Double Leaf or Single Leaf for: a. MP15 Sidestream Pump Station b. MP7 Septage Pump Station	The MP-7 Septage Receiving Station hatch is single leaf and 3'0" x 3'0". The MP-15 Side Stream Pump Station is Double leaf. Size, orientation and location shall be per Side Stream Pump Manufacturer and sized to accommodate

RFI No.	REFERENCE SECTION	QUESTION/INQUIRY AS SUBMITTED	GWA RESPONSE
			wetwell diameter.
11m	Specification Section 412203.07 and 116000	A specification was provided for Personnel Davit Cranes Section 412203.07, please provide where this will be located and quantity. Is this the same as the fall protection anchor system being asked in specification Equipment Section 116000 Part 2.4 Fall Protection Anchor System	Location and quantity shown in 412203.07-2.01A&B. Section 116000 Part 2.4 Fall Protection Anchor system will be removed by addendum.
12a	Reference: Trench Details - sewer and water lines – sheet C12.1.8 & C12.1.13.	Details on the above civil drawings indicate 24" compact crushed rock for subbedding / sub-grade improvements "AS NEEDED". Please clarify which utility line shall the 24" subbedding is required? We suggest to direct all bidders to price trench work without including 24" subbedding and if it is required the additional cost to be treated as a change in condition. In this case bidders do not have to make costly assumptions to cover such unforeseen conditions and have the owner to incur unnecessary cost. Also, we would like to clarify if the abovementioned trench details are applicable to all yard piping. Please advise.	24-inch (2ft) Sub-grade shown on Sheet C12.1.8 detail 2 and C12.1.13 detail 5 may be removed. The detail with the subgrade removed shall apply to all piping.
12b	Abandonment of existing underground utility lines	Please advise if we need to grout fill existing abandoned lines	Complete grouting on abandoned lines is not required.
12c	Structural and site demolition.	In order to accurately estimate the structural & site demolition and removal of existing drying beds, please provide us with as-built drawings and environmental assessment report.	Drying bed past design plans are attached to this RFI response.
12d	Substitution Request.	Below the substitution request submitted by Perry Fiberglass Products, please review and advise. Perry Fiberglass Products, Inc. is respectfully requesting to be added to section 43 31 19 part 2.1.A. No exceptions are being taken to the contract documents. Perry Fiberglass Products, Inc. has supplied thirty eight (38) biological and activated carbon adsorbers in North America. Reference list is available upon request. Please visit www.perryfiberglass.com to learn more about our products	Substitution request will not be reviewed per response to RFI No. 9m.

RFI No.	REFERENCE SECTION	QUESTION/INQUIRY AS SUBMITTED	GWA RESPONSE
13a		Please provide Specifications for Motor Control Center (MCC).	No need for separate specifications for Motor Control Center. Motor Control Centers are part of the complete package for the process system. It shall be the contractor's responsibility to furnish the complete system package including the motor control center. The Motor Control Center includes controls, instrumentation, SCADA connections, terminal blocks and other accessories, complete and operational. Contractor shall provide shop drawings which include point to point wiring diagram, equipment layout, data sheets, including conduit and wirings. Refer also to contract drawings for additional requirements.
13b		Reference dwg I&C I10.0.4, tag no. 10-LCP-400 GBT 4 control panel does not have the "A" at the end. All the other GBT control panel are tagged as 10-LCP-100A; 10-LCP-200A; 10-LCP-300A. Please correct.	Tag should be 10-LCP-400A. Revised drawing will be in addendum.
13c		MP14.2.1 shows the Dewatering Polymer Blend Units 13-MXP-516 and 13-MXP-616, which is in Facility 14, Dewatering Bldg. But if you look at the spec section 444463.01 Polymer Feed System, Liquid, the description in section 1.2.B says "Facility 13, Dewatering". Drawings I&C I13.0.5 and I13.0.6 show that these polymer blend units are feeding the dewatering system, not facility 13 (sludge storage tanks). Please correct.	Tag numbers will remain as shown in Bid Documents.
13d		Reference dwg I&C I10.0.5 and I13.0.2 says that the polymer totes 1,2,3, and 4 are by others. Is the owner responsible? Which spec section does the polymer tote fall under? For dewatering facility polymer totes 1 and 2, are these existing or new? MP14.2.1 and I13.0.2 does not indicate if it's existing or new. Please confirm	Owner will provide polymer totes. All totes will be new.
13e		Do you want the Non-Clog Dry-Pit Centrifugal Pumps to be spec section 444257.11 or 444256.11? Because if you try to look for "444257.11" Non-Clog Dry-Pit Centrifugal Pumps (as listed on the specification table of contents), it's not there. But there is a spec section "444256.11", it's named Non-Clog Dry-Pit Centrifugal Pumps	Specification name listed in TOC will be revised by addendum to read 444256.11.

RFI No.	REFERENCE SECTION	QUESTION/INQUIRY AS SUBMITTED	GWA RESPONSE
13f		Spec section 017810 Extended Equipment Warranties, under section 1.2.C #3 calls out for Centrifugal Pumps (444257.11) – there is no spec section located. However, there is a spec section 444256.11 for Non-clog Dry-Pit Centrifugal Pumps. Which is the correct spec section? Is there a spec section missing?	Specification 444257.11 will be renamed to 444256.11 by addendum.
13g		Spec section 017810 Extended Equipment Warranties, section 1.2.C #7 Gravity Belt Thickeners (444626.02) is duplicated in #9. Please correct list.	Based on list review there does not appear to be a duplicate.
13h		It appears the graphical scale(s) on the following drawings are incorrect. Please clarify: a. MP4.2.1 b. MP4.2.4 c. MP4.3.1 d. MP4.3.3 e. MP6.2.2 f. MP6.3.1	Call out scales are correct. Bar scales are incorrect and will be corrected by addendum.
13i		Reference Note 3, Sheet MP6.3.1: a. Please provide more information for this pipe support. b. Is this pipe support mounted to the 42" tee or is it mounted to the top of concrete slab (elevation 274.5 ft)? c. Is this one pipe support or two? d. Is this pipe support concrete or metal? e. Shall the contract furnish and install this pipe support or just furnish?	There will be one concrete pipe support centered on the 42-inch tee, similar to Detail C/MP0.9.2. This will be added by addendum.
13j		The SE (Secondary Effluent) Piping shown on Sheets I4.01 and I4.02 do not match with MP4.01, MP4.2.1 nor C5.1.6. The manholes on the MP and C sheets are not shown on the I sheets. Please clarify	The Mechanical Process and Civil Drawings are correct for Clarifier Effluent Piping and Manholes. Each SE is 30-inch diameter to the respective manhole. I4.01 and I4.02 indicates flow from Clarifier No. 4 into Clarifier No. 1 effluent box and Clarifier No. 3 into Clarifier No. 2 effluent box, respectively. This is incorrect.
13k		Please provide the structural drawings or details for the 6'x6' SMHs shown on Sheets C5.1.6, C5.1.7, C5.1.8 as they appear to be missing.	Detail will be provided by Addendum.

RFI No.	REFERENCE SECTION	QUESTION/INQUIRY AS SUBMITTED	GWA RESPONSE
13l	Reference Secondary Effluent SMH #7:	Reference Secondary Effluent SMH #7: a. Sheet C5.1.7 refers to Detail 1/C12.1.7 (cylindrical pre-cast SMH). b. Profile 1 on Sheet C5.2.8 refers to the structural drawings (6x6). c. Which is correct?	Profile callout on Sheet C5.2.8 is correct, detail will be provided by addendum.
13m	Reference Secondary Effluent SMH #10, #11, #12, #13 and #14	Reference Secondary Effluent SMH #10, #11, #12, #13 and #14 a. Sheet C5.1.8 refers to Detail 1/C12.1.7 (cylindrical pre-cast SMH). b. Profiles on C5.2.9 refers to the structural drawings (6x6). c. Which is correct?	Profile callout on Sheet C5.2.9 is correct, detail will be provided by addendum.
13n	Yard Piping Plan 2 on Sheet C5.1.8	Yard Piping Plan 2 on Sheet C5.1.8 show four pipe pedestals between STA 27+00 and STA 27+73 and refer to the MP drawings a. These pipe pedestals are not shown or called out on the MP drawings. b. Is Detail C/MP0.8.2 (Concrete Cradle Pipe Support) an appropriate detail to use? c. Are there footings under these pipe supports cradles? If yes, please provide footing dimensions.	a. Detail will be updated by addendum See MP0.8.2 b. Yes
13o	Reference – 42" dia. SE Piping:	Reference – 42" dia. SE Piping: a. A callout on Yard Piping Plan 2 Sheet C5.1.8 between STA 26+00 and 27+00 indicates that this piping is ductile iron. b. Piping Schedule on G-5 show that the buried SE piping is HDPE (spec section 330501.00). c. Which is correct? d. For the SE piping between STA 27+00 and STA 27+73, where the piping transitions from buried to exposed, is this section HDPE or ductile iron?	a. Noted b. Noted c. Buried pipe is HDPE and exposed and transitioning pipe shall be DIP as shown on G-5. d. Pipe shall be DIP from Station 26+00 to 27+73
13p		For HDPE pipe penetrations into new concrete structures (secondary clarifiers or sewer manholes), please indicate which detail (from MP0.8.1 and MP0.8.2) shall we use?	Detail will be provided by Addendum.
13q	Reference Profile 1 on Sheet C5.2.7	Reference Profile 1 on Sheet C5.2.7 a. The callout for the beginning of this line at Clarifier #3 indicates that the SE pipe is 24" dia. b. Another callout just downstream of Clarifier #3 indicates that the SE pipe is 30" dia. c. Which is correct?	Bidder may be referring to Permit Set Plans. Bidder shall refer to Construction Set where the call out is 30-inch to 36-inch then to 42-inch.

RFI No.	REFERENCE SECTION	QUESTION/INQUIRY AS SUBMITTED	GWA RESPONSE
13r	Reference SE piping invert elevation at Clarifier #3	Reference SE piping invert elevation at Clarifier #3 a. Sheet MP4.2.1 show the invert elevation for the SE piping at Clarifier #3 is 310.50 ft. b. Profile 1 on Sheet C5.2.7 show the invert elevation for the SE piping at Clarifier #3 is 312.49 ft. c. Which is correct?	Revisions will be provided by Addendum.
13s	Reference Sheet S16.1.1	Reference Sheet S16.1.1: a. The Site Plan inset (upper right-hand corner) of the Sheet indicates that this detail is used in two locations, at the RAS/WAS/Headworks building and at the existing Plant Water. b. Sheet P16.2.1 does not appear to use the S16.1.1 foundation. c. Please clarify, is the foundation shown on S16.1.1 used in two locations or one?	P16.2.1 does not require the foundation provided in S16.1.1. P16.2.2 does require the foundation shown in S16.1.1
13t	Reference Sheet C2.1.2:	There is a callout on Sheet C2.1.2 (on the left-hand side) that says "REPURPOSE EXISTING GENERATOR BUILDING PROCESS 16 (SEE MP. DWGS)". These MP drawings appear to be missing. Please provide.	Reference M and P Drawings, not MP.
14	Bid Submission Requirements Request for Extension	The preliminary RFP specifications and drawings were issued with Step 1, to provide Offerors with the opportunity to assess the complexity of the project. However, with the issuance of the specification and drawings under Step 2, Offerors are tasked with re-evaluate the entire RFP documents for changes. This is proving to be a lengthy & arduous challenge as the revisions were not documented. We respectfully request a 3-week time extension to the current submission date of May 10, 2019 in order to provide sufficient time to review the abundant RFP specifications and drawings, the impact of the changes based on the new scope of works and request supplier/vendor/subcontractor quotes to develop a best value proposal to GWA.	A 2-week RFI and Bid due date extension was granted under Addendum 02.
15		We'd like to request for the As Builts and process diagrams of the existing plant	The As-Built Drawings and Process and Instrumentation Diagrams for the existing facilities were included on the CD with the bid documents, except for the Sludge drying Beds. The design drawings for the Sludge drying beds are attached.

Bidders are also notified to visit GWA website: www.guamwaterworks.org to ensure that addenda to the bid, answers to questions, and reminders are communicated to all bidders throughout the solicitation process.

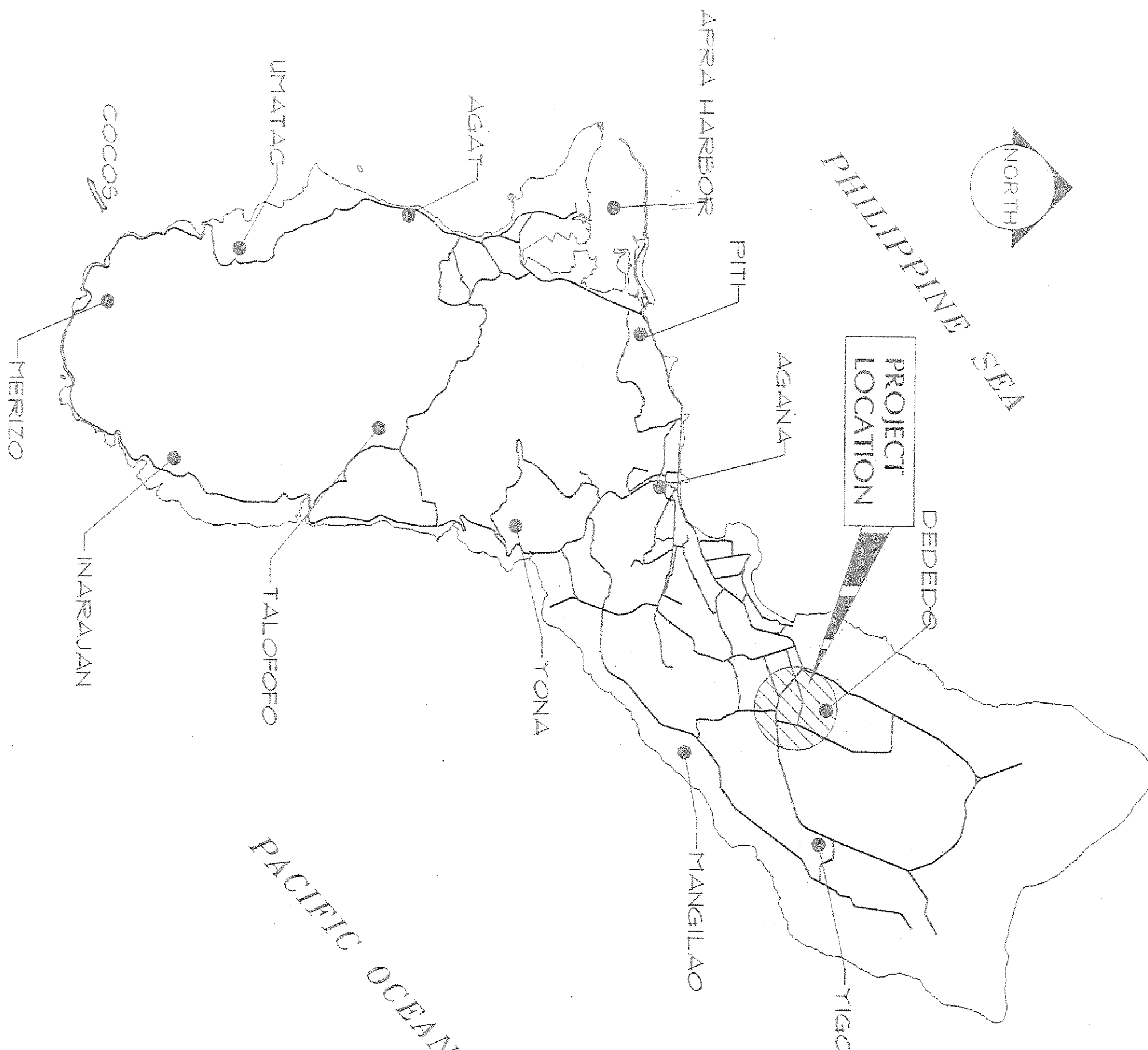
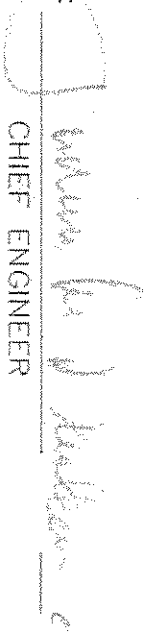
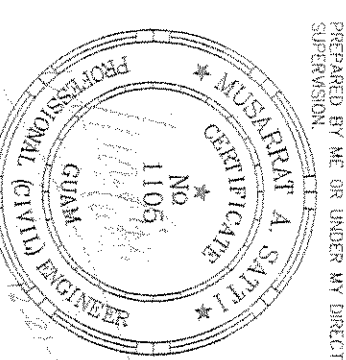
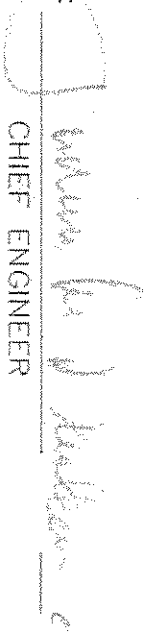
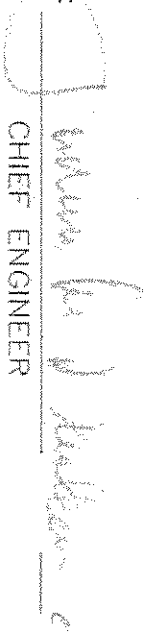


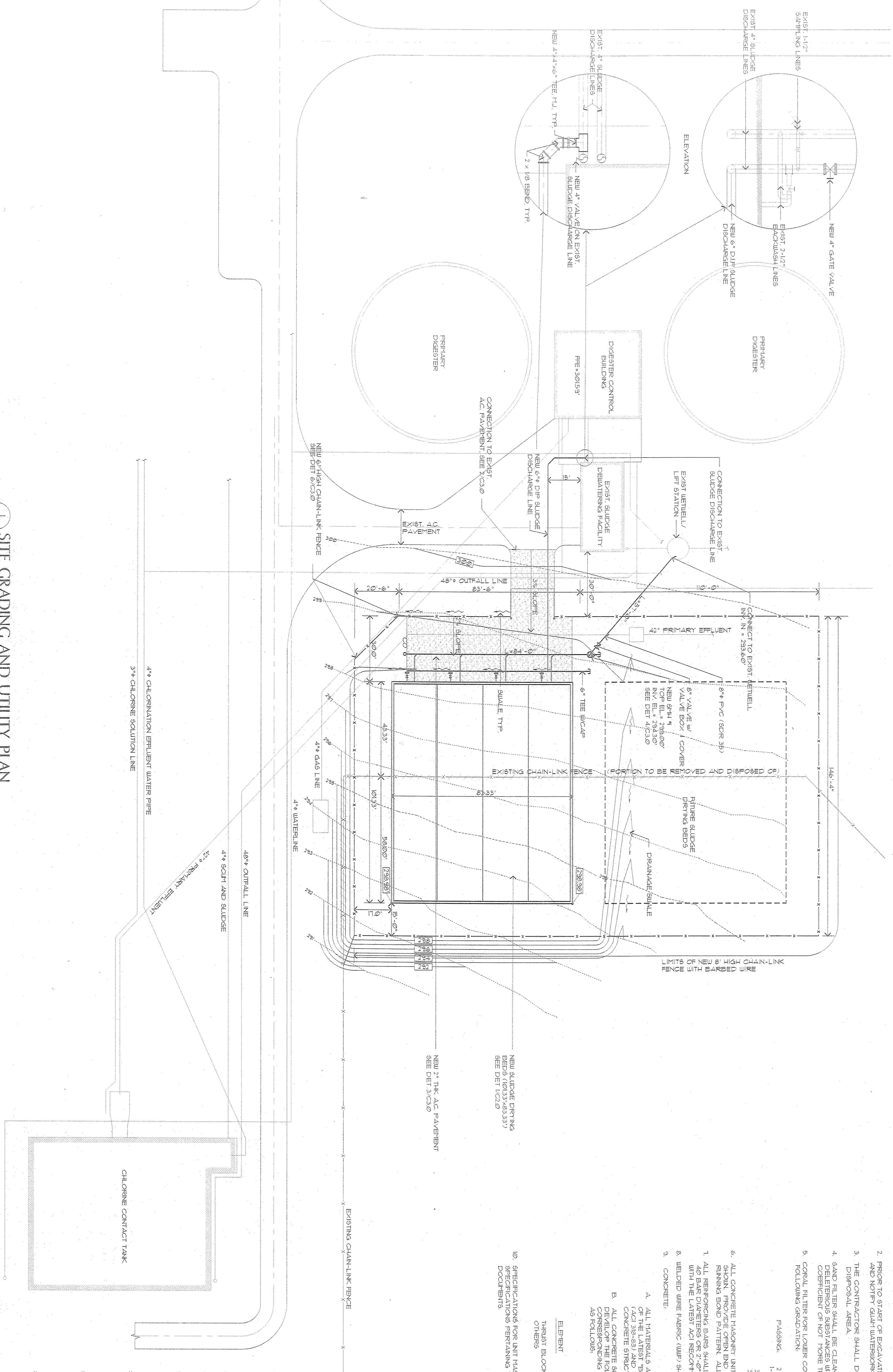
MIGUEL C. BORDALLO, P.E.
General Manager 

MCB;gb

NORTHERN DISTRICT SEWERAGE SYSTEM SLUDGE DRYING BEDS

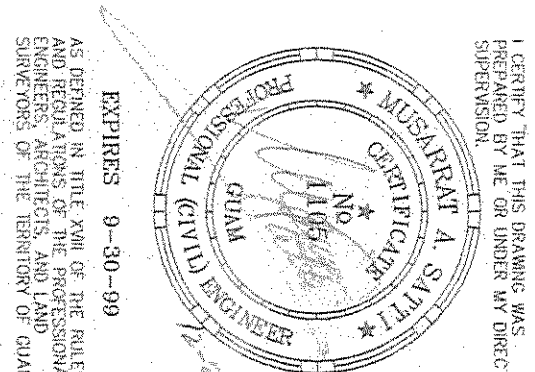
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GUAM WATERWORKS AUTHORITY
GOVERNMENT OF GUAM

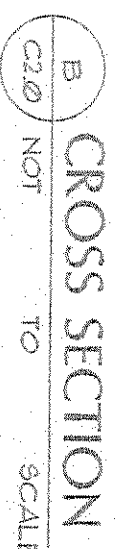
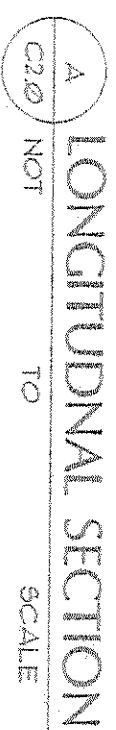
VICINITY MAP	LIST OF DRAWINGS	APPROVALS																																																						
	TS.1 TITLE SHEET C.1 SITE GRADING AND UTILITY PLAN C.2 MISCELLANEOUS DETAILS C.3 MISCELLANEOUS DETAILS	 RICHARD A. QUINTANILLA GENERAL MANAGER GUAM WATERWORKS AUTHORITY DATE JESUS T. SALAS ADMINISTRATOR GUAM ENVIRONMENTAL PROTECTION AGENCY DATE																																																						
<table><tr><td colspan="2">SYMBOL</td><td>DATE</td><td>BY</td><td>REVISION</td><td>APPROVED</td></tr><tr><td colspan="2">PROJECT NO.</td><td colspan="4">S97-001-LOC</td></tr><tr><td colspan="2">DESIGNED BY:</td><td colspan="4">MAS</td></tr><tr><td colspan="2">DRAWN BY:</td><td colspan="4">JMC</td></tr><tr><td colspan="2">CHECKED BY:</td><td colspan="4">MAS</td></tr><tr><td colspan="2">SUPV. BY:</td><td colspan="4">MAS</td></tr><tr><td colspan="2">GUAM WATERWORKS AUTHORITY</td><td colspan="4">TITLE SHEET, VICINITY MAP AND INDEX OF DRAW</td></tr><tr><td colspan="2">PROJECT MANAGER</td><td colspan="4">RECOMMENDED BY: </td></tr><tr><td colspan="2">PROJECT ENGINEER</td><td colspan="4">DATE</td></tr></table>  ENGINEER 1106-00 AS ISSUED IN THIS PLAN OF THE STATE OF GUAM, THE ENGINEER'S SEAL AND SIGNATURE ARE REQUIRED TO BE PLACED ON ALL DRAWINGS OF THE PROJECT OF GUAM.  MS CONSULTANTS ENGINEERING MASTERPLANNING CONSTRUCTION MANAGEMENT P.O. BOX 20841, G.F.E. GUAM 96921 TEL: 646-3916 FAX: 646-3916			SYMBOL		DATE	BY	REVISION	APPROVED	PROJECT NO.		S97-001-LOC				DESIGNED BY:		MAS				DRAWN BY:		JMC				CHECKED BY:		MAS				SUPV. BY:		MAS				GUAM WATERWORKS AUTHORITY		TITLE SHEET, VICINITY MAP AND INDEX OF DRAW				PROJECT MANAGER		RECOMMENDED BY: 				PROJECT ENGINEER		DATE			
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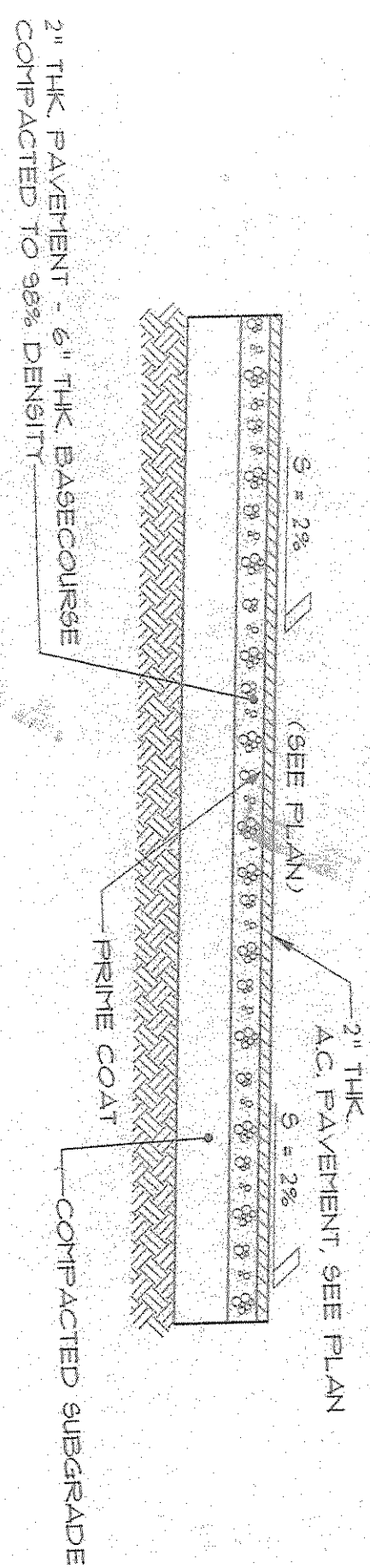


GENERAL NOTES:

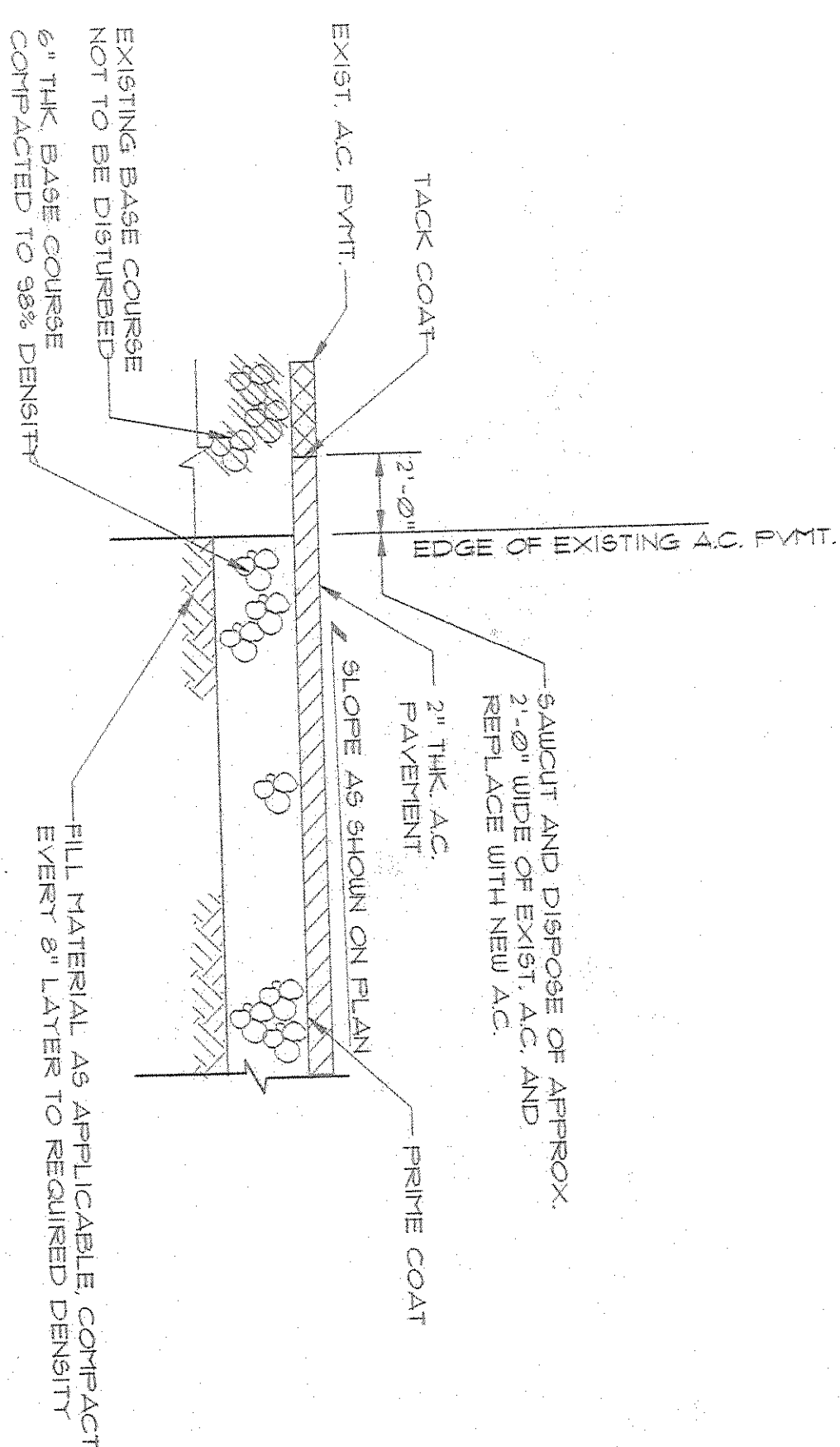
ELEMENT	28-DAY STRENGTH (PSI)	MAXIMUM SIZE AGGREGATE	SUMP (INCHES)
THRUST BLOCK	2500	3/4"	2-1/2 TO 3-
OTHERS	3000	3/4"	2-1/2 TO 3-1/2



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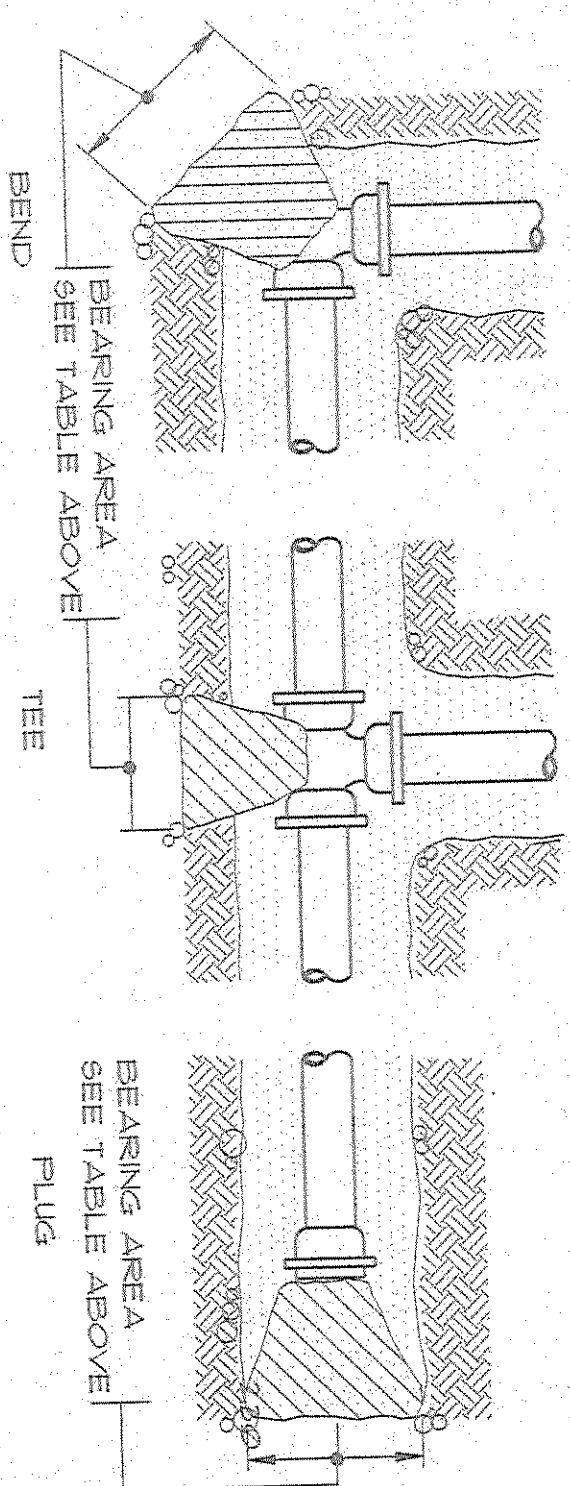
3 TYPICAL AC PAVEMENT SECTION
C300 NOT TO SCALE



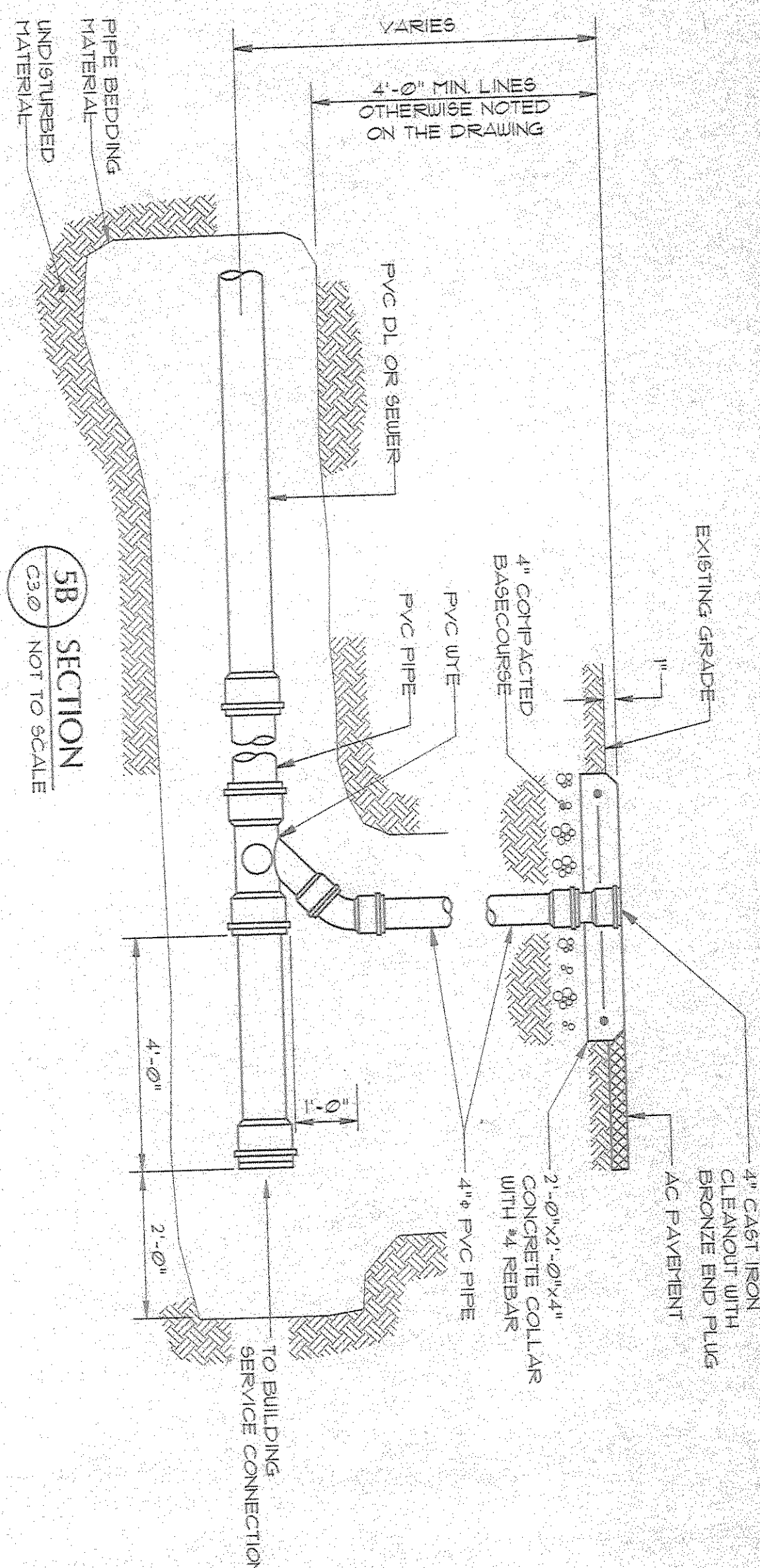
2 AC PAVEMENT CONNECTION (TYP)
C300 NOT TO SCALE

THRUST BLOCK SCHEDULE

FITTINGS	BEARING AREA (SQ. FT.)
1/4 (90°) BEND	4.00
1/8 (45°) BEND	2.20
1/16 (22.5°) BEND	0.60
1/32 (11.25°) BEND	3.00
TEE	3.00
FLUG	3.00

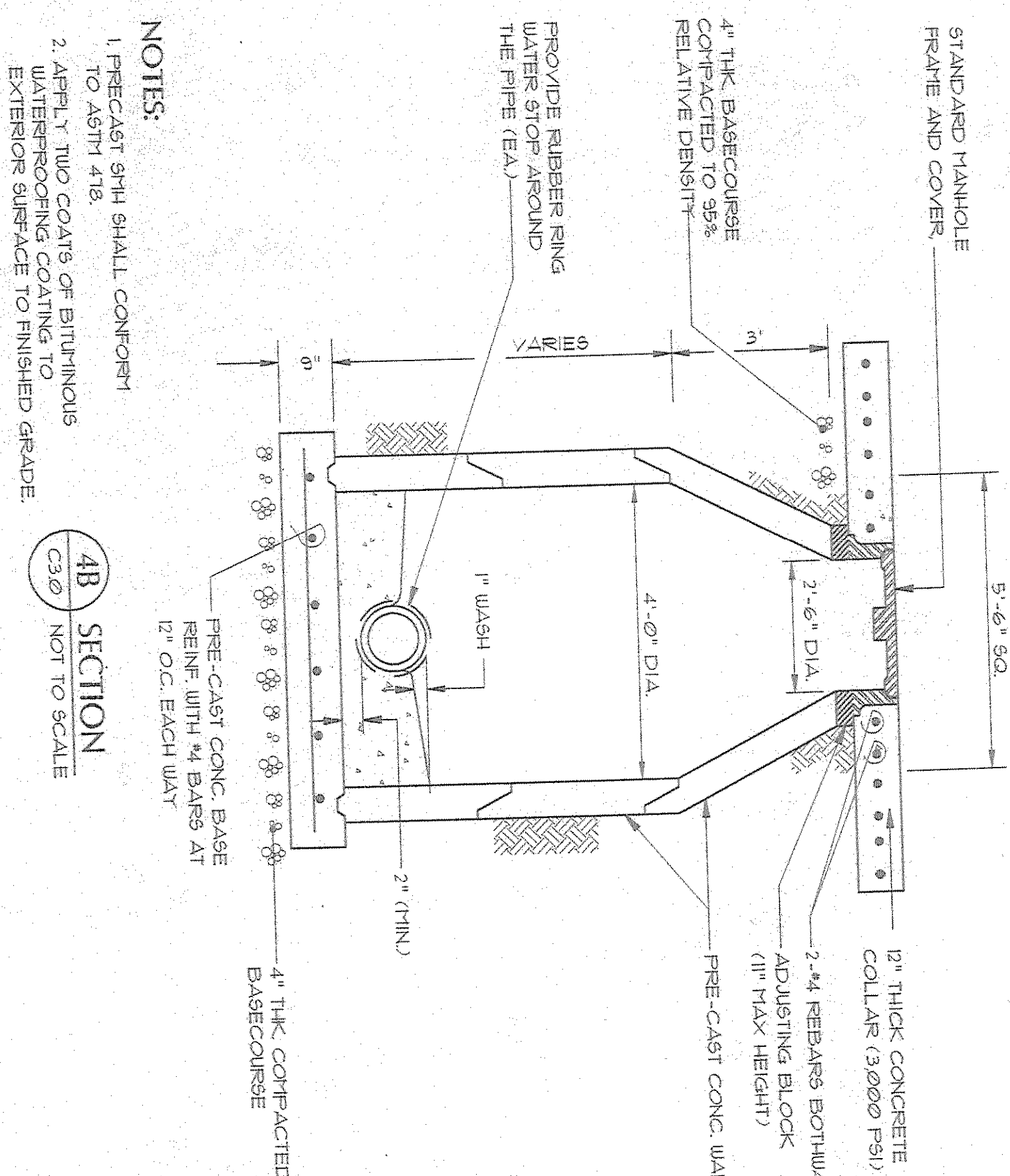


1 HORIZONTAL THRUST BLOCK DETAILS
C300 NOT TO SCALE



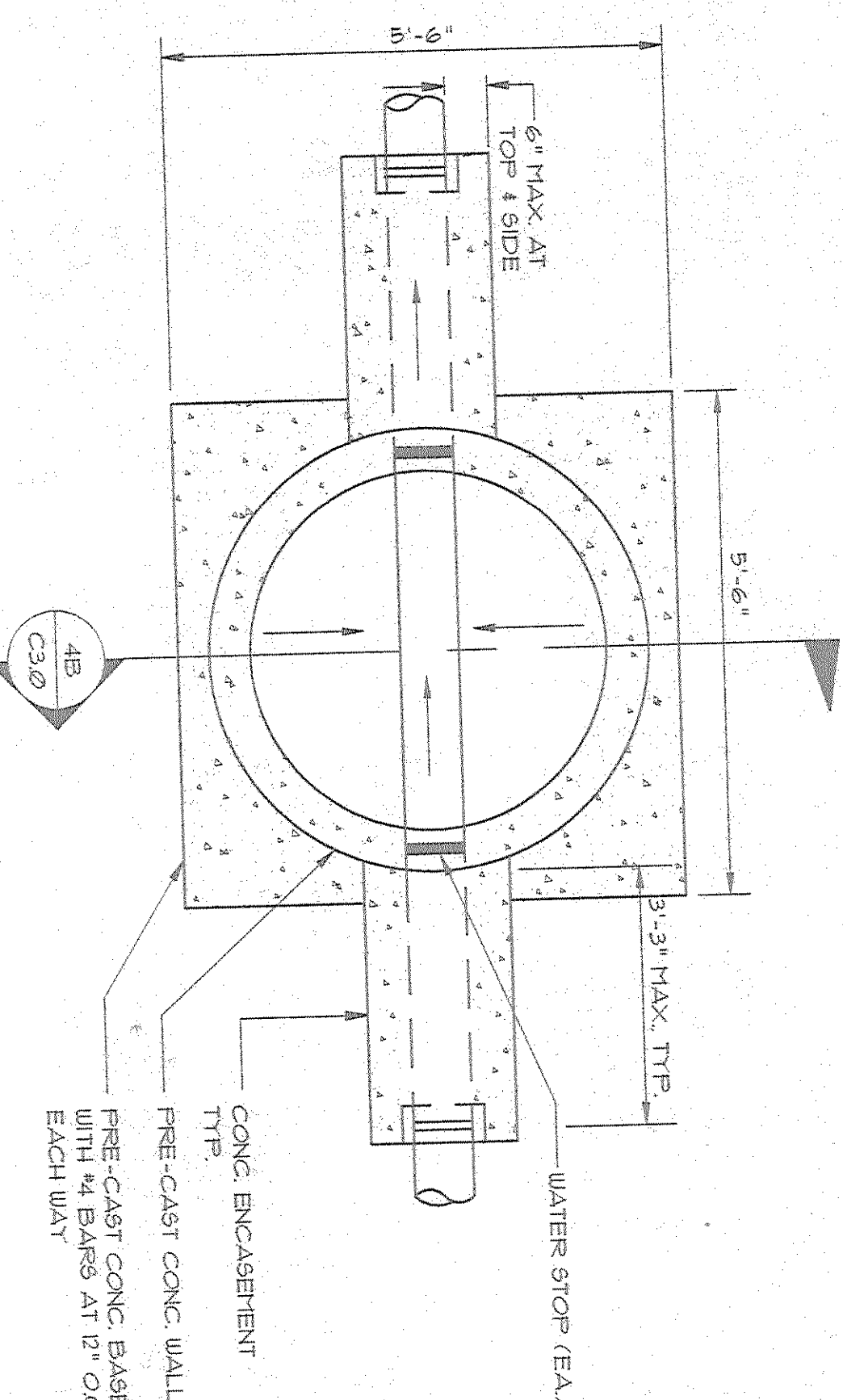
5A PLAN
C300 NOT TO SCALE

5 SEWER CLEANOUT DETAIL
C300 NOT TO SCALE



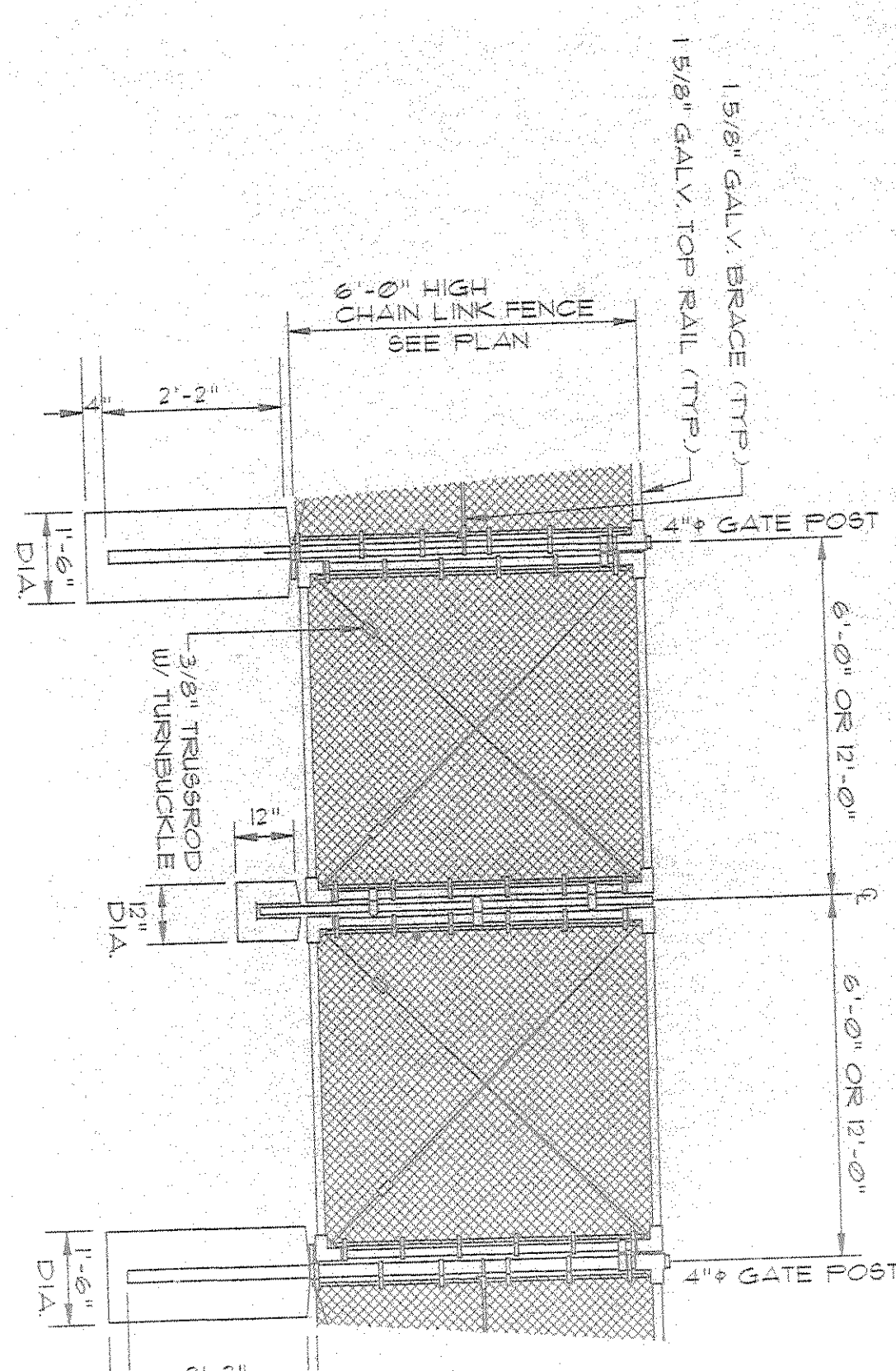
4B SECTION
C300 NOT TO SCALE

NOTES:
1. PRECAST SH. SHALL CONFORM TO ASTM 418.
2. APPLY TWO COATS OF BITUMINOUS WATERPROOFING COATING TO EXTERIOR SURFACE TO FINISHED GRADE.

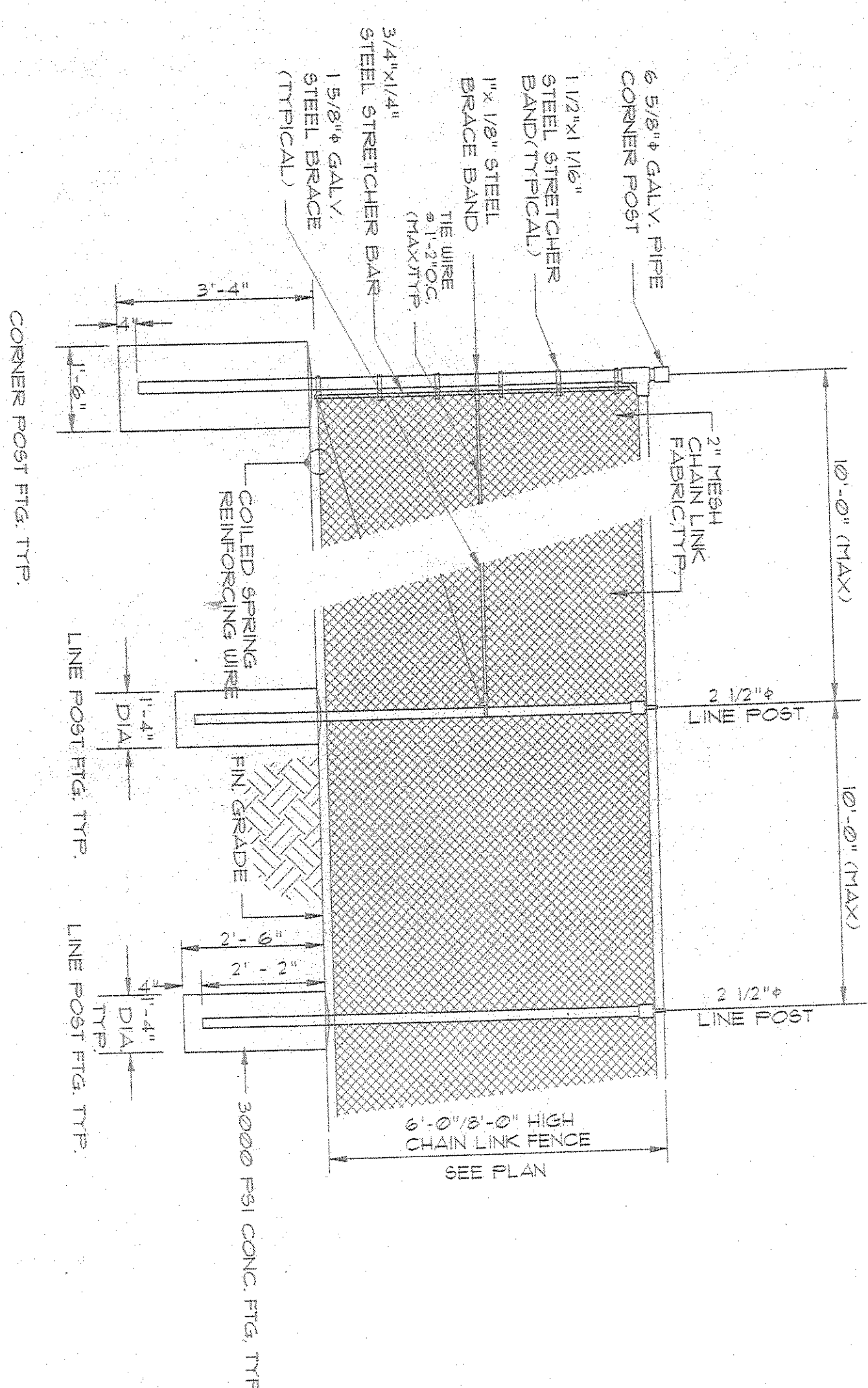


4A PLAN
C300 NOT TO SCALE

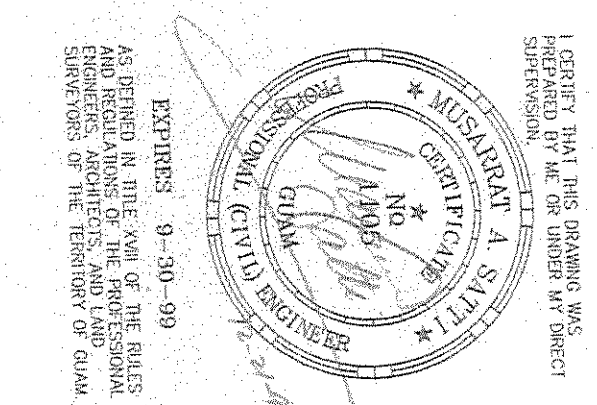
4 STANDARD SEWER MANHOLE
C300 NOT TO SCALE



7 VEHICULAR GATE DETAIL
C300 NOT TO SCALE



6 CHAIN LINK FENCE DETAIL
C300 NOT TO SCALE



SYMBOL	DATE	BY	REVISION
S97-001-LOC			
DESIGNED BY: MAS			
DRAWN BY: MAS			
CHECKED BY: MAS			
SUPV. BY: MAS			
GUAM WATERWORKS AUTHORITY			
RECOMMENDED BY: <i>[Signature]</i>			
CHIEF ENGINEER			
DATE: <i>[Signature]</i>			
GOVERNMENT OF GUAM WATERWORKS AUTHORITY NORTHERN DISTRICT SEWERAGE SYSTEM SLUDGE DRYING BEDS MISCELLANEOUS DETAILS			
MS CONSULTANTS ENGINEERING, ARCHITECTURE, INTERIOR DESIGN, LANDSCAPE ARCHITECTURE, PLANNING, AND CONSTRUCTION MANAGEMENT P.O. BOX 218941, GAR, GUAM 96921 TEL: 644-2016, FAX: 644-2012			
SHEET 2 OF 2			