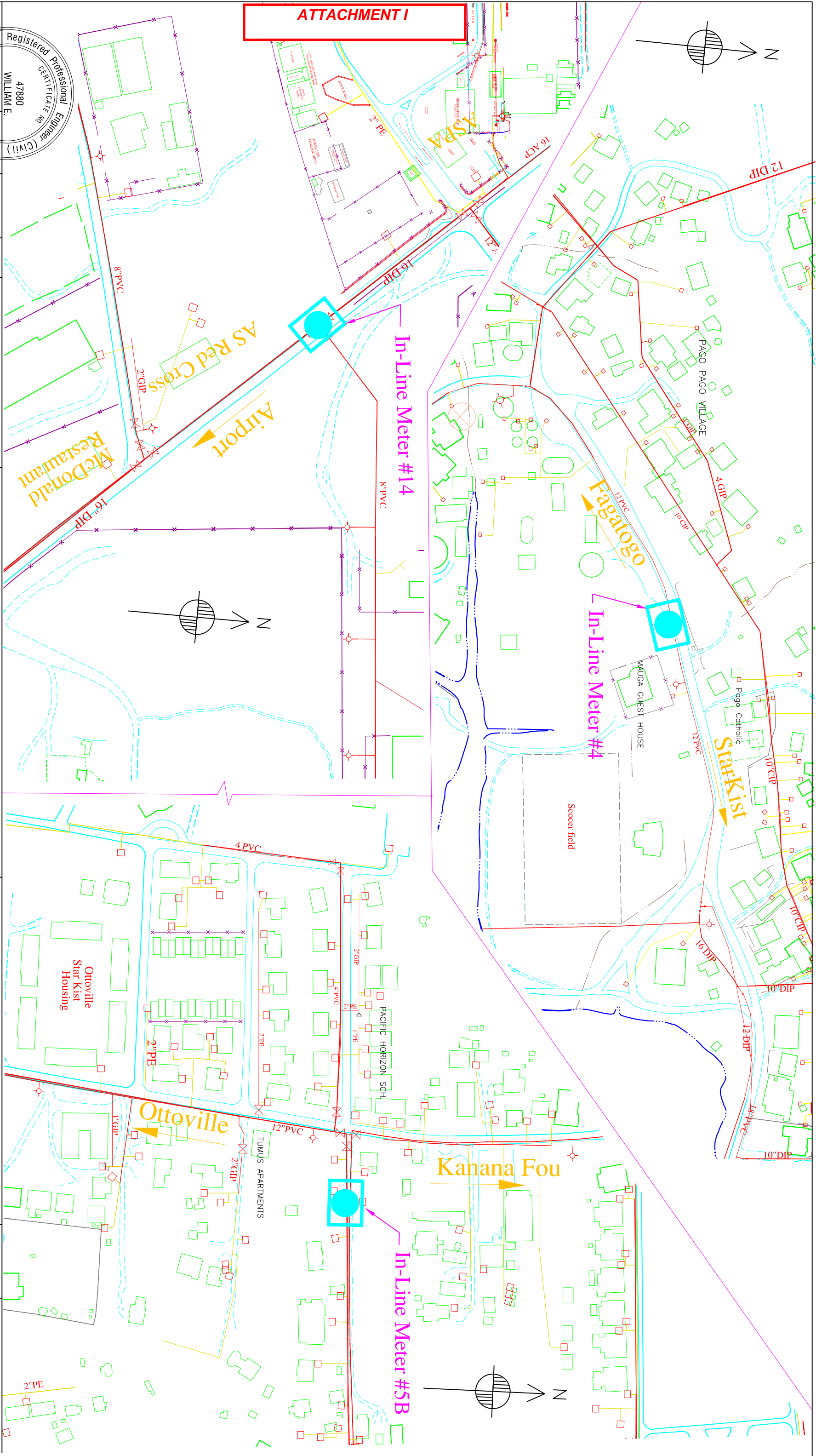


ATTACHMENT I



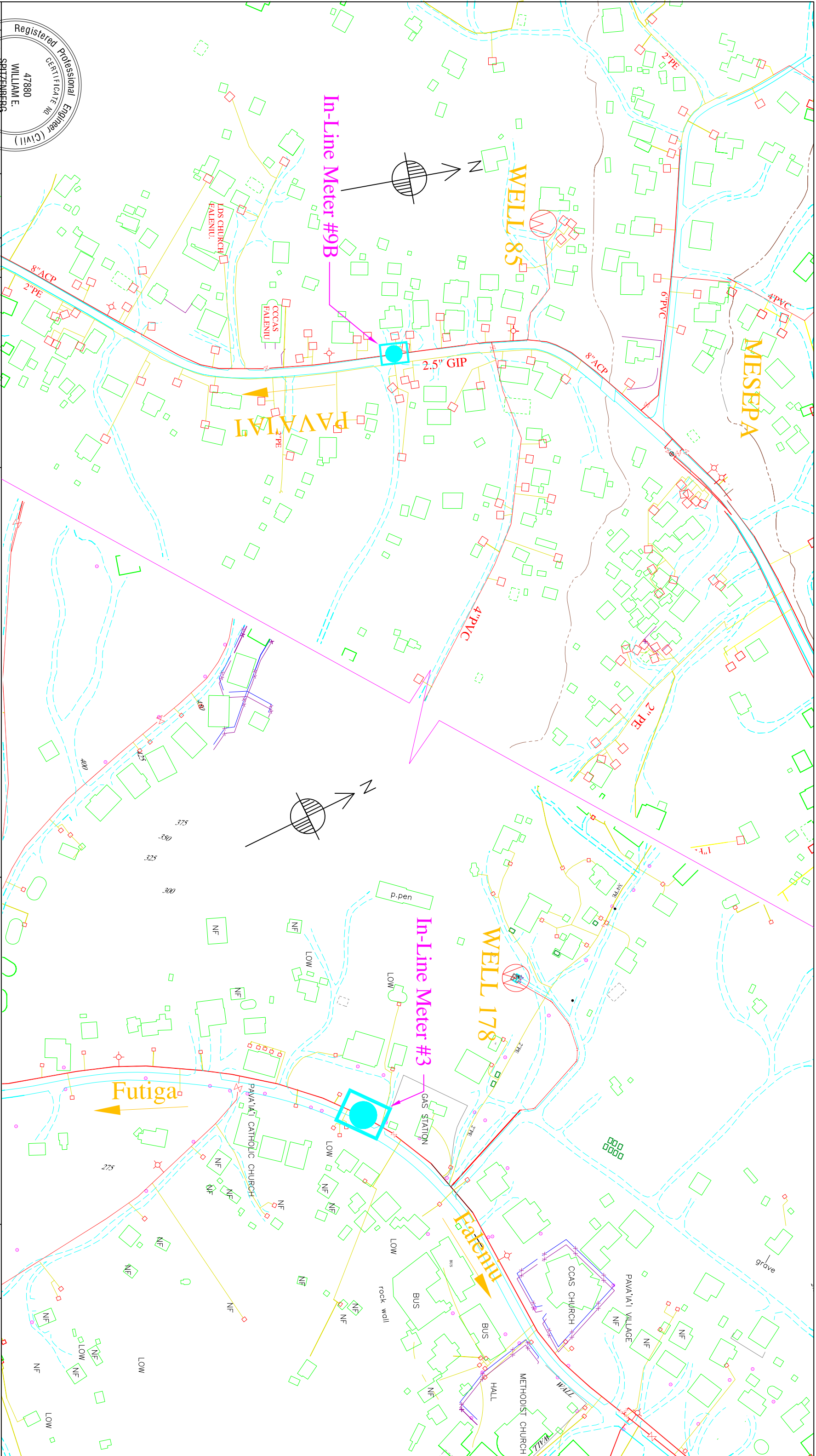
REV. NO	REVISION	CHECKED BY:	APPROVED BY:	DATE

Registered Professional Engineer (Civ. E.)
 WILLIAM E. SPITZENBERG
 47880
 U.S.A.
 Expires 3/31/2019

SP
 AMERICAN SAMOA POWER AUTHORITY
 ENGINEERING SERVICES DIVISION
 TAFUNA, AMERICAN SAMOA
 P.O. BOX 999, PAGO PAGO AM SAMOA 96799, TEL.(684) 699-7198, FAX (684) 699-9675


PROJECT NAME:
SIGNIFICANT WATER LOSS : IN-LINE METERS
 DRAWING TITLE:
SITE PLAN - IN-LINE METERS No.4, 5B & 14
 PROJECT LOCATION:
TUTUILA - AMERICAN SAMOA

SCALE: AS SHOWN	PROJECT NO.:
DATE: OCT. 2017	SHEET NO.:
	SIGNATURE:
	DATE:



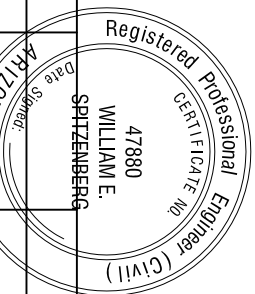
REV. NO	REVISION	CHECKED BY:	APPROVED BY:	DATE

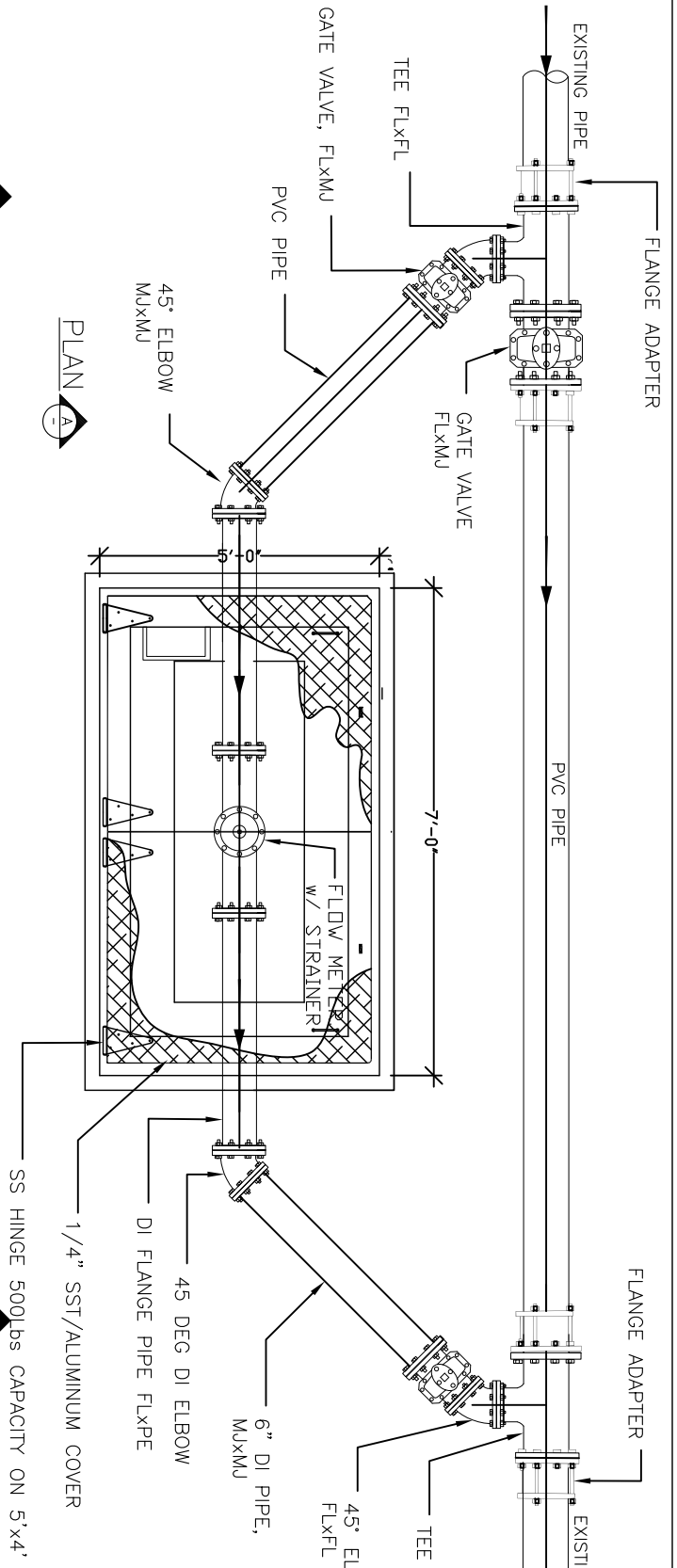
PREPARED BY: L. Tyrell
 CHECKED BY: W. Spitzenberg
 APPROVED BY: W. Spitzenberg


ENGINEERING SERVICES DIVISION
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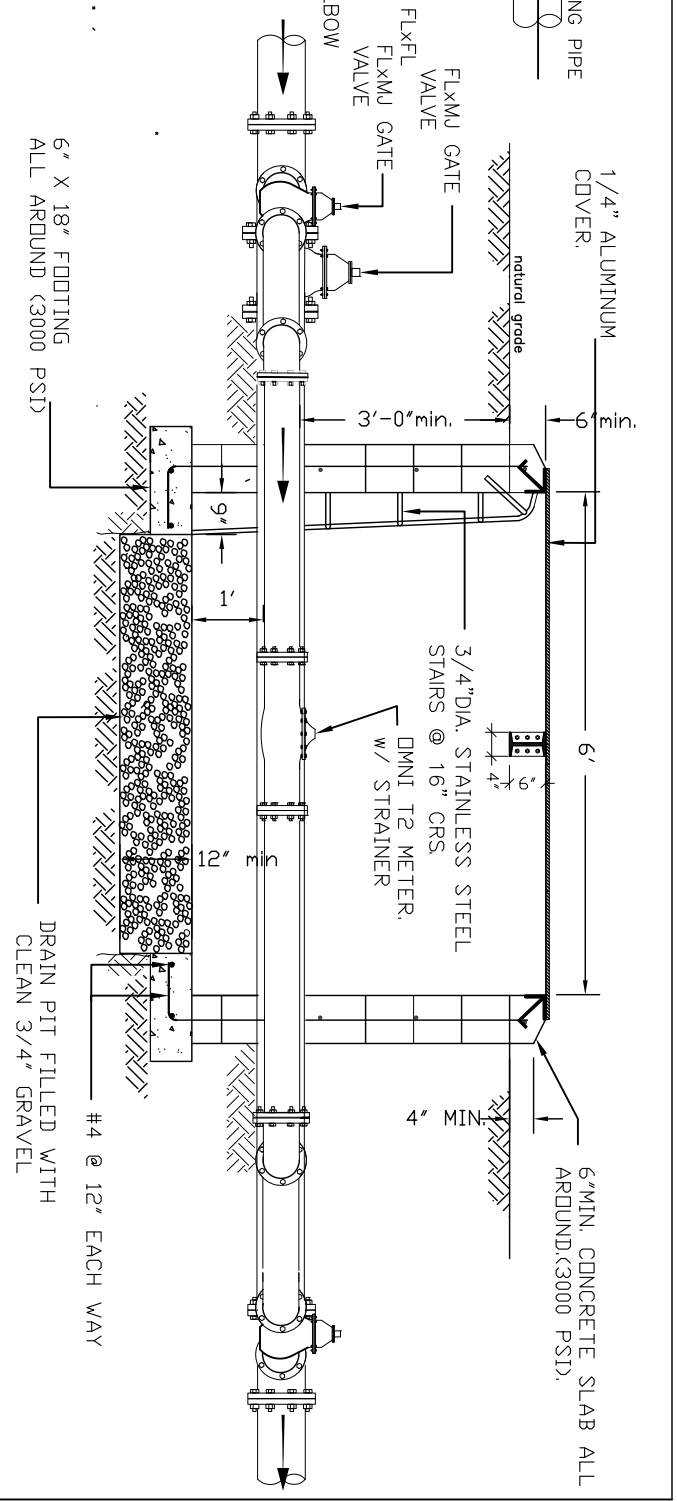
PROJECT NAME: SIGNIFICANT WATER LOSS : IN-LINE METERS
 DRAWING TITLE: SITE PLAN - IN-LINE METERS No.3 & 9B
 PROJECT LOCATION: TUTUILA - AMERICAN SAMOA

SCALE: AS SHOWN	PROJECT NO:
DATE: OCT. 2017	SHEET NO. SH-02
	SIGNATURE: DATE:

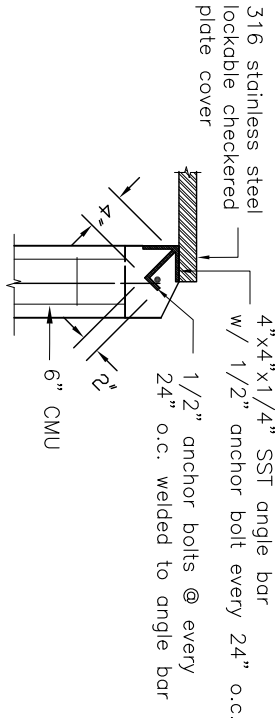




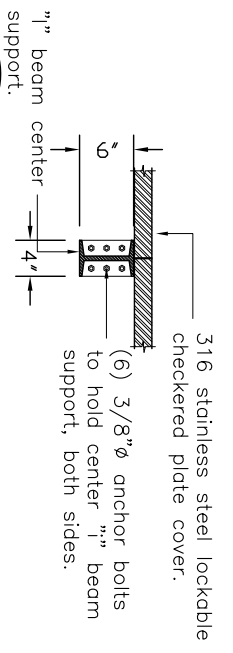
VAULT TOP VIEW
SCALE: NTS



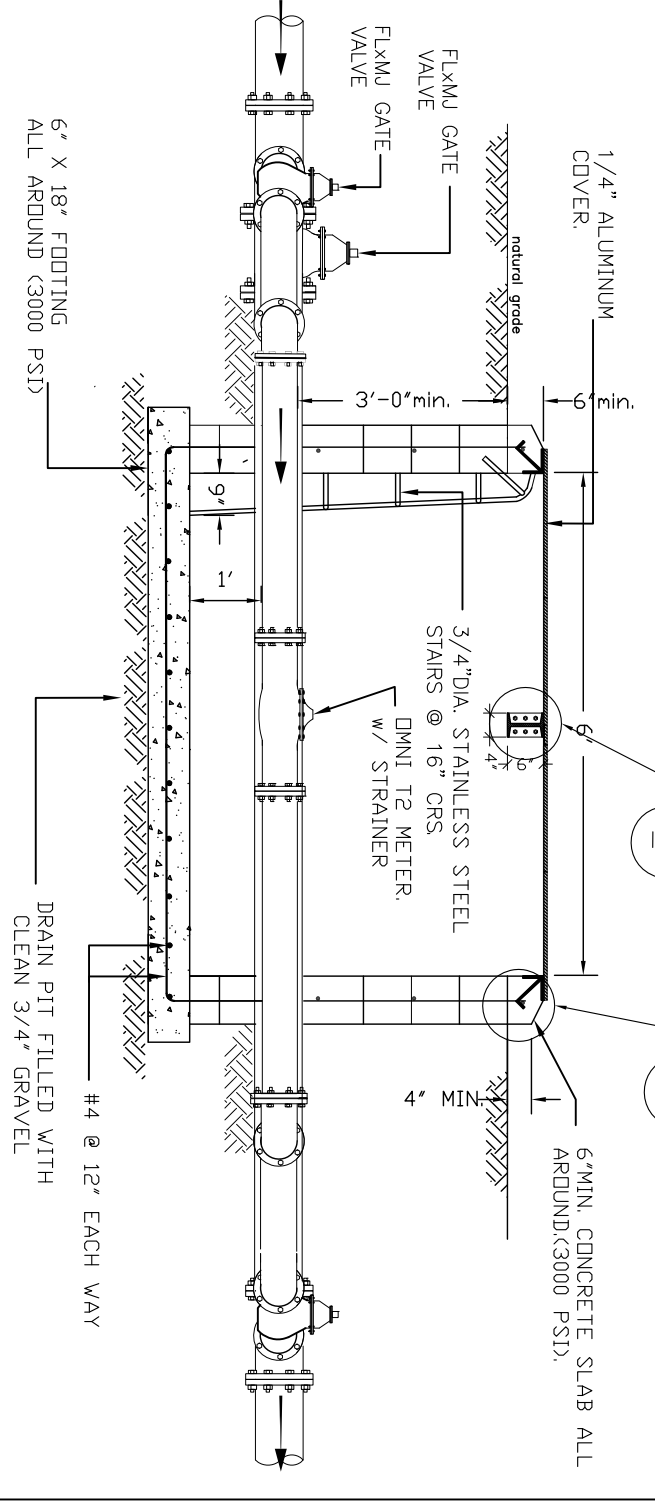
A-A NON-SEALED BOTTOM VAULT.
SCALE: NTS



D1 ANGLE BAR DETAIL
SCALE: NTS



D2 COVER SUPPORT DETAIL
SCALE: NTS



A-A SEALED BOTTOM VAULT.
SCALE: NTS

- Note:
1. Vault shall be securely locked with a padlock.
 2. Vault shall be constructed outside of road ways.
 3. All concrete shall have 3000 psi compressive strength
 4. All exposed pipes shall be DI Pipes.

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REV. NO	REVISION	CHECKED BY:	APPROVED BY:	DATE

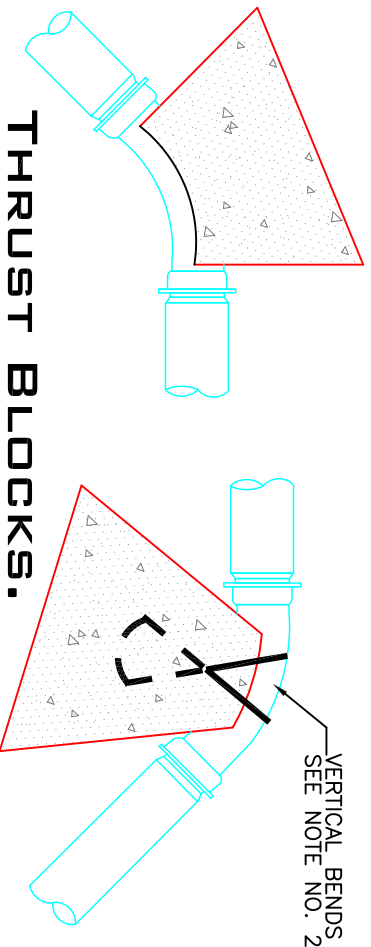
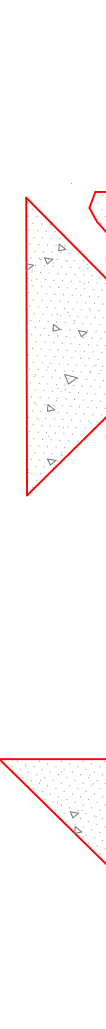
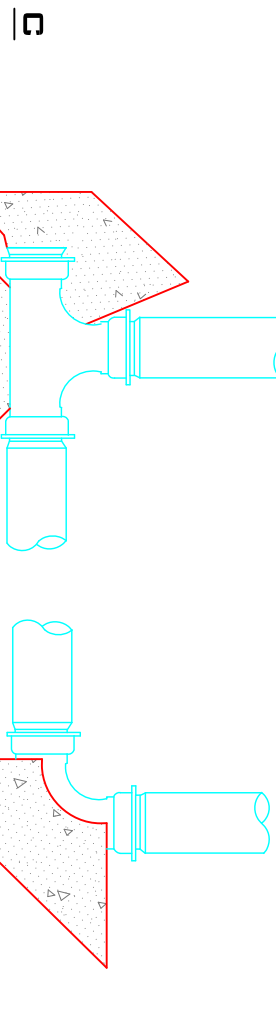
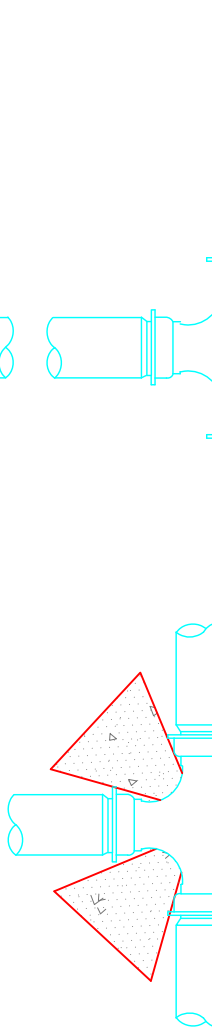
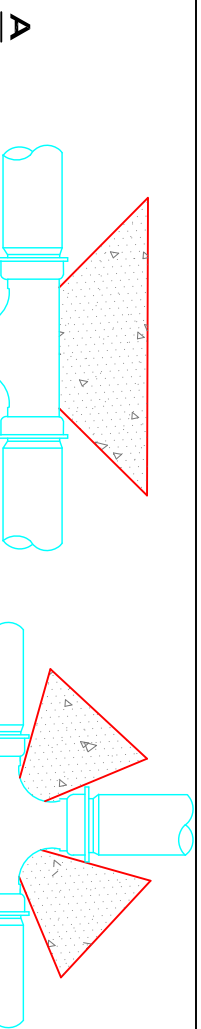
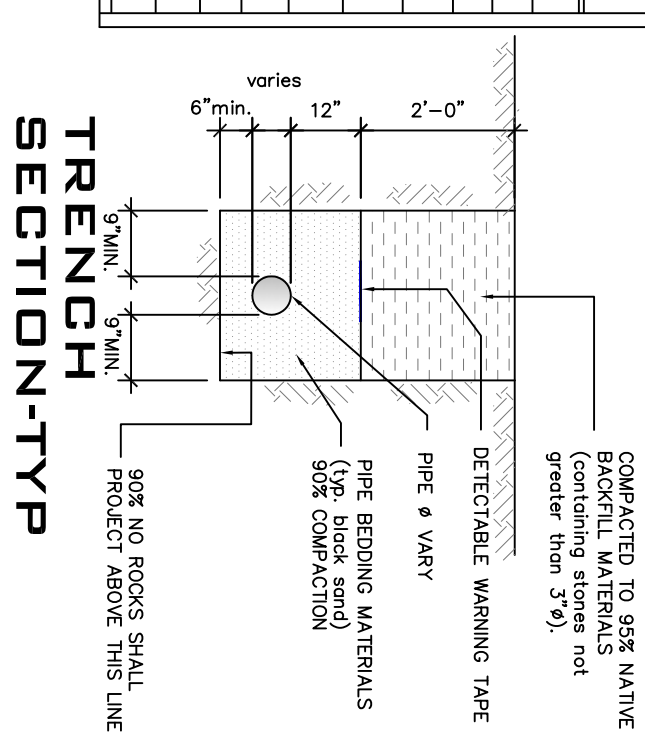
PREPARED BY: L. Tyrrell
 CHECKED BY: W. Spitzenberg
 APPROVED BY: W. Spitzenberg

AMERICAN SAMDA POWER AUTHORITY
 ENGINEERING SERVICES DIVISION
 TAFUNA, AMERICAN SAMDA
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PROJECT NAME: SIGNIFICANT WATER LOSS : IN-LINE METERS PHASE III	SCALE: AS SHOWN	PROJECT NO.:
DRAWING TITLE: IN-LINE METERS VAULT DETAILS		
PROJECT LOCATION: TUTUILA - AMERICAN SAMOA	DATE: OCT. 2017	SHEET NO. SIGNATURE: SH-03

SIZE OF THRUST FACE.

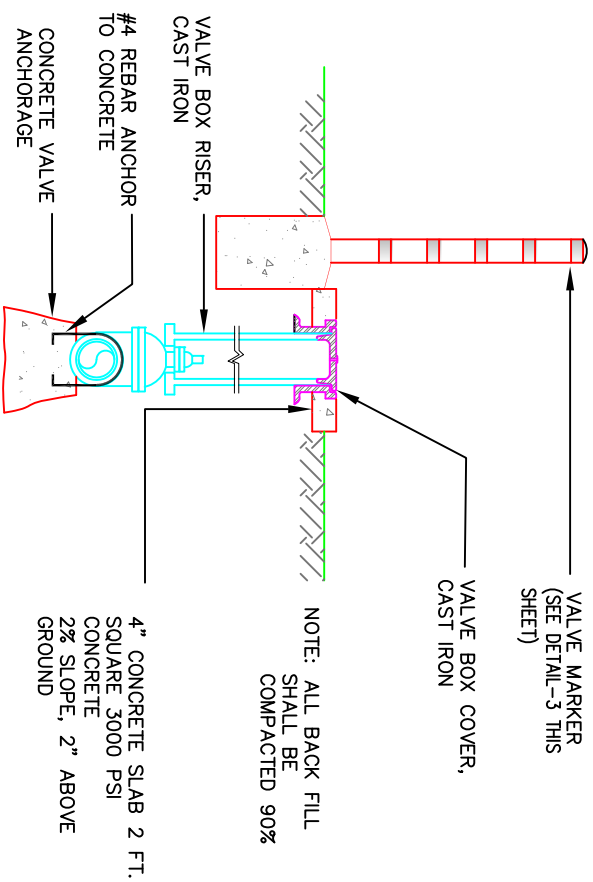
PIPE NOM. SIZE	A TEE OF Plug 60°	B CROSS (EACH)	C PLUG, TEE (EACH)	D 90° BEND	E 45° BEND	F 22-1/2° BEND	G 11-1/4° BEND
2"	7 x 7	6 x 6	7 x 7	9 x 9	6 x 6	5 x 5	4 x 4
4"	14 x 14	12 x 12	14 x 14	16 x 16	12 x 12	9 x 9	6 x 6
6"	20 x 20	17 x 17	20 x 20	24 x 24	18 x 18	13 x 13	9 x 9
8"	26 x 26	22 x 22	26 x 26	31 x 31	23 x 23	16 x 16	12 x 12
10"	33 x 33	28 x 28	33 x 33	39 x 39	31 x 31	20 x 20	14 x 14
12"	39 x 39	33 x 33	39 x 39	47 x 47	34 x 34	25 x 25	17 x 17
14"	43 x 43	36 x 36	43 x 43	51 x 51	37 x 37	27 x 27	19 x 19
16"	49 x 49	41 x 41	49 x 49	58 x 58	43 x 43	30 x 30	22 x 22
18"	55 x 55	46 x 46	55 x 55	65 x 65	48 x 48	34 x 34	24 x 24



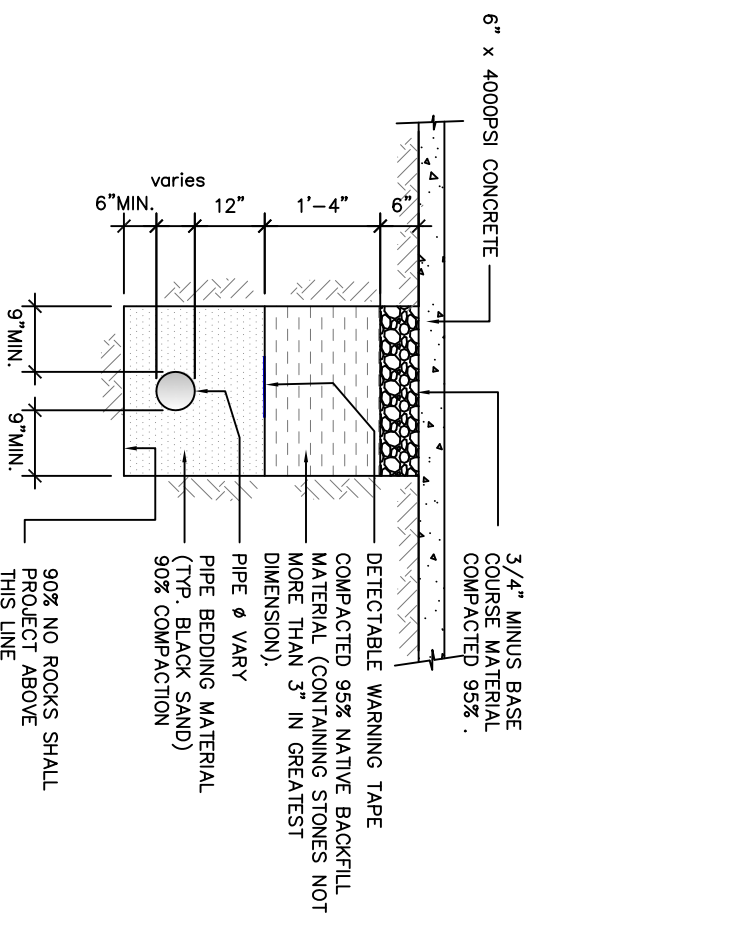
E, F & G.

THRUST BLOCKS.

- NOTES.**
1. ALL VALUES SHOWN ARE MINIMUM FOR A HYDROSTATIC PRESSURE OF 160 PSI AND 2500 PSI
 2. CONCRETE SHALL PASS 2500 PSI CYLINDER TEST PRIOR TO WATER LINE PRESSURE TEST.
 3. THRUST BLOCKS SHALL BE POURED AGAINST UNDISTURBED SOIL.
 4. JOINTS AND FACE OF PIPE PLUGS SHALL BE KEPT CLEAR OF CONCRETE.
 5. REQUIRED THRUST BLOCK SURFACE AREA SHALL BE MET BY CONSTRUCTING BLOCKS WITH REQUIRED HEIGHT AND WIDTH WHILE MAINTAINING REQUIRED THICKNESS.



GATE VALVE DETAIL



ROAD & SIDEWALK DETAIL

Registered Professional Engineer
 CERTIFICATE NO. 47880
 WILLIAM E. SPITZENBERG
 State of Arizona
 U.S.A.
 Expires 3/31/2019

PREPARED BY:	L. Tyrell
CHECKED BY:	W. Spitzenberg
APPROVED BY:	W. Spitzenberg
ISSUE FOR:	

ASPA
 AMERICAN SANDA POWER AUTHORITY

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PROJECT NAME:	SIGNIFICANT WATER LOSS : IN-LINE METERS PHASE III	SCALE:	NTS	PROJECT NO.:	
DRAWING TITLE:	TRENCH, VALVES & THRUSH BLOCKS DETAILS	DATE:	-	SHEET NO.:	SH-04
PROJECT LOCATION:	TUTUILA - AMERICAN SAMOA	DATE:	OCT. 2017	SIGNATURE:	