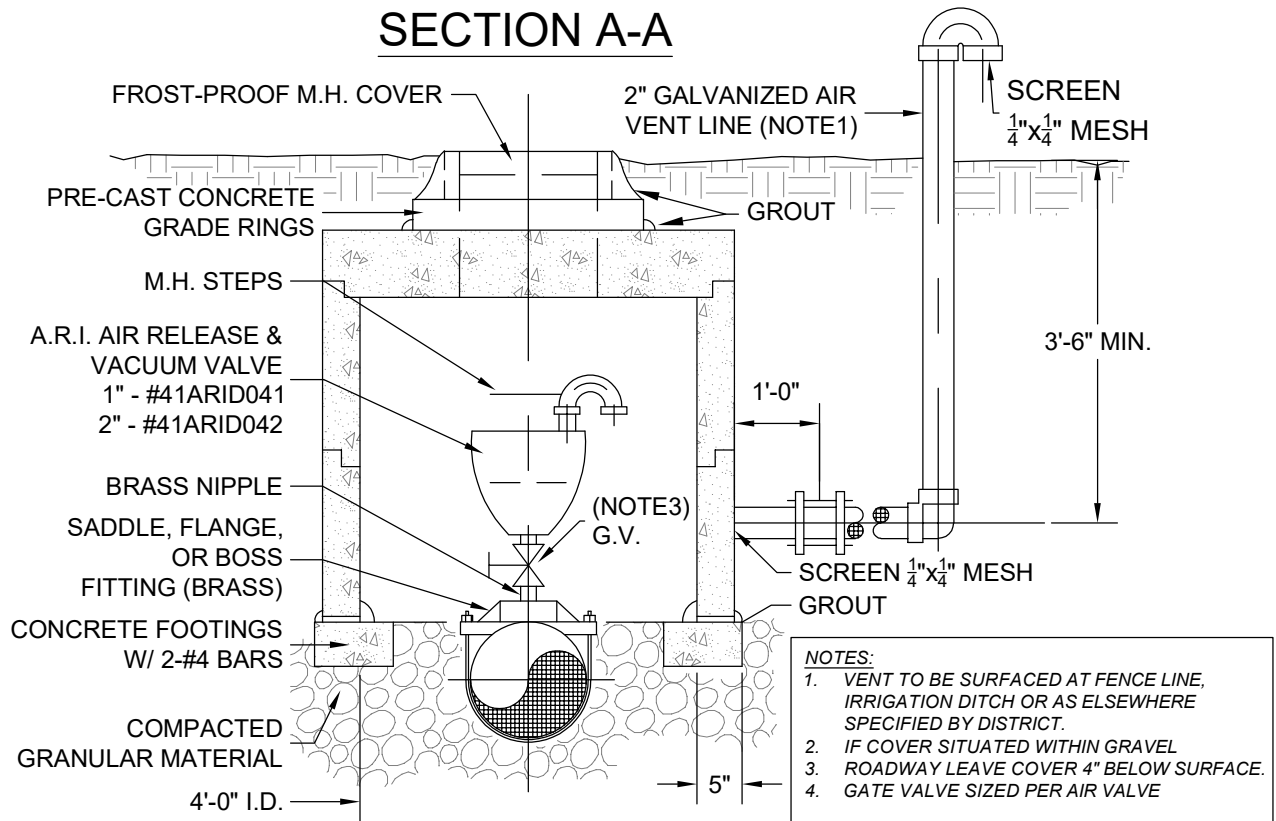
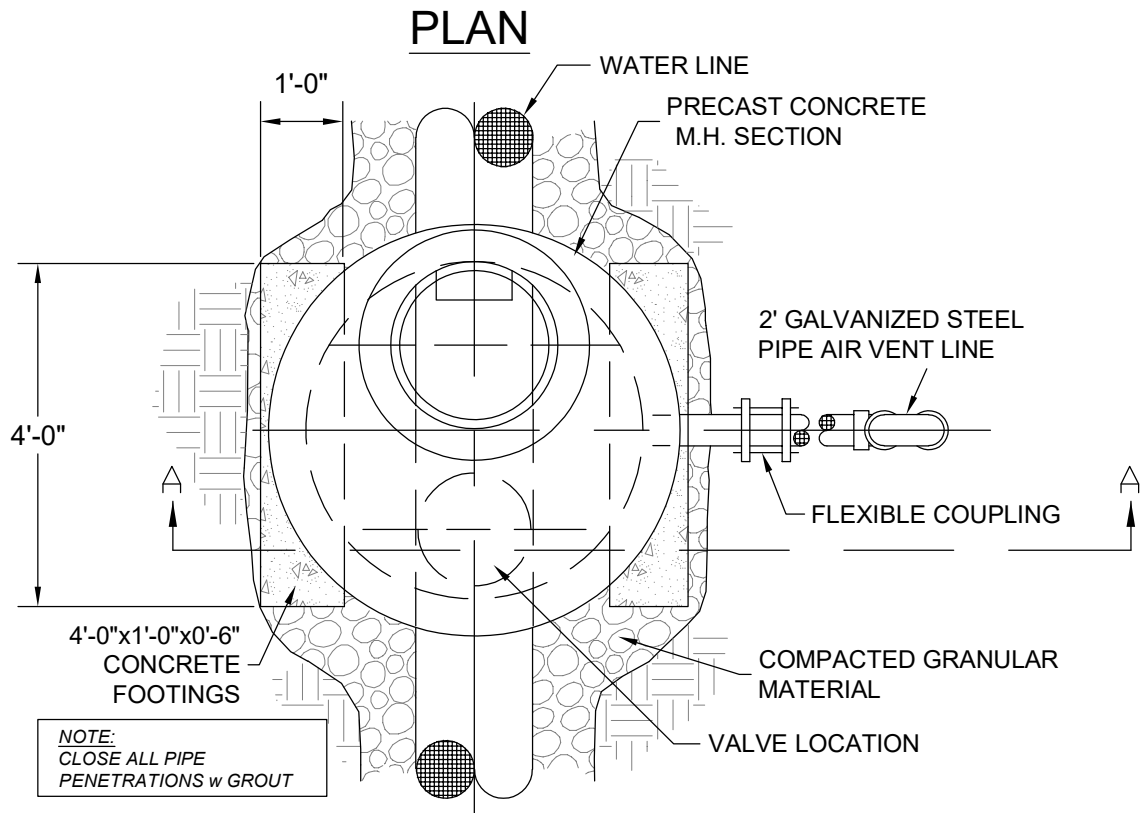




STANDARD CONSTRUCTION DETAILS

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❖ Blowoff Assembly – Type (A)	002
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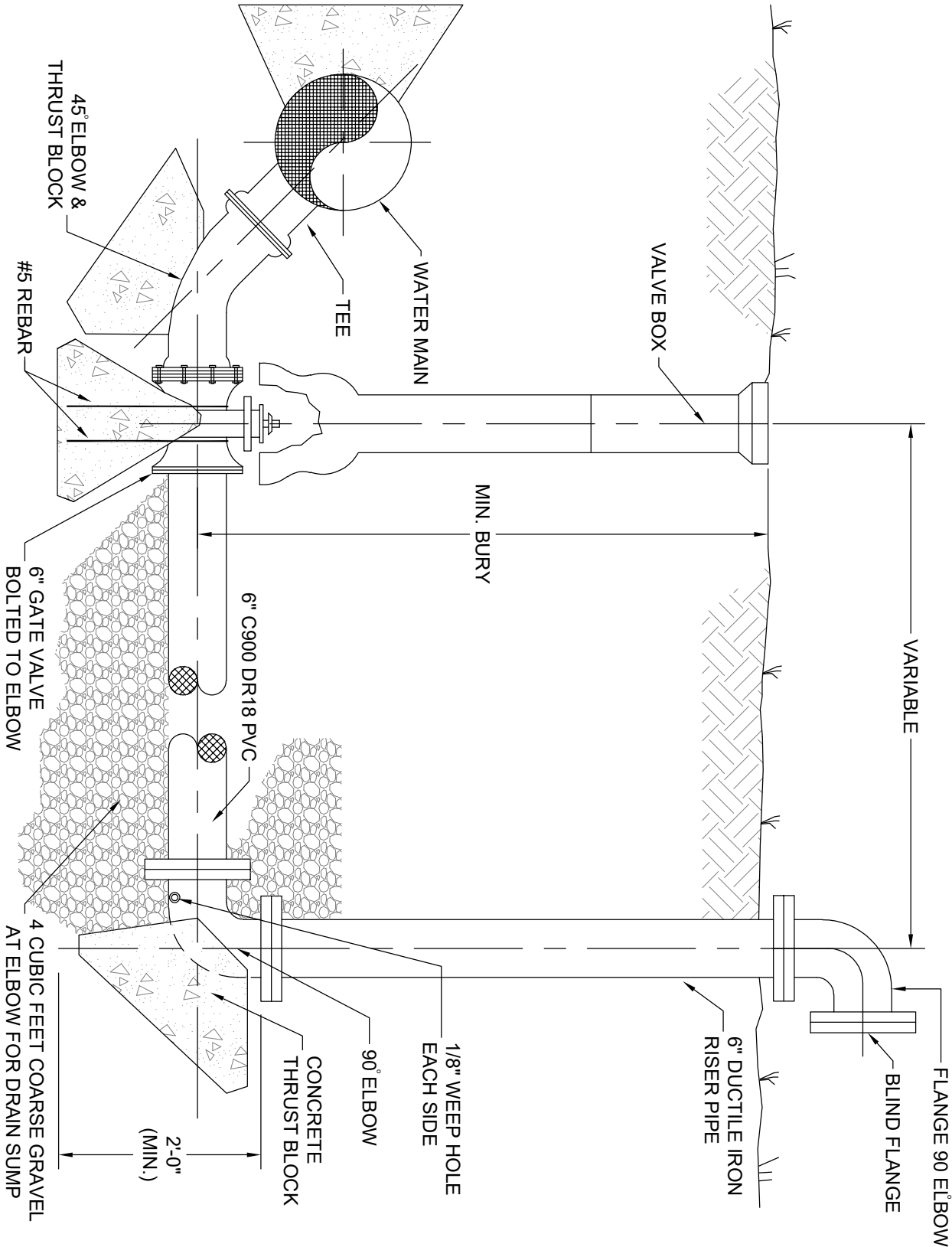
EAST LARIMER COUNTY WATER DISTRICT
AIR RELIEF / VACUUM VALVE WITH VAULT

Designed	N/A	Date	N/A	File No.	esd001_airvac
Drawn	RKB	08/91		Drawing No.	001
Revised	EJV	8/20		NOT TO SCALE	
Approved	RS	8/20		Sheet	01 of 01



EAST LARIMER COUNTY WATER DISTRICT

BLOW OFF ASSEMBLY - TYPE (A)

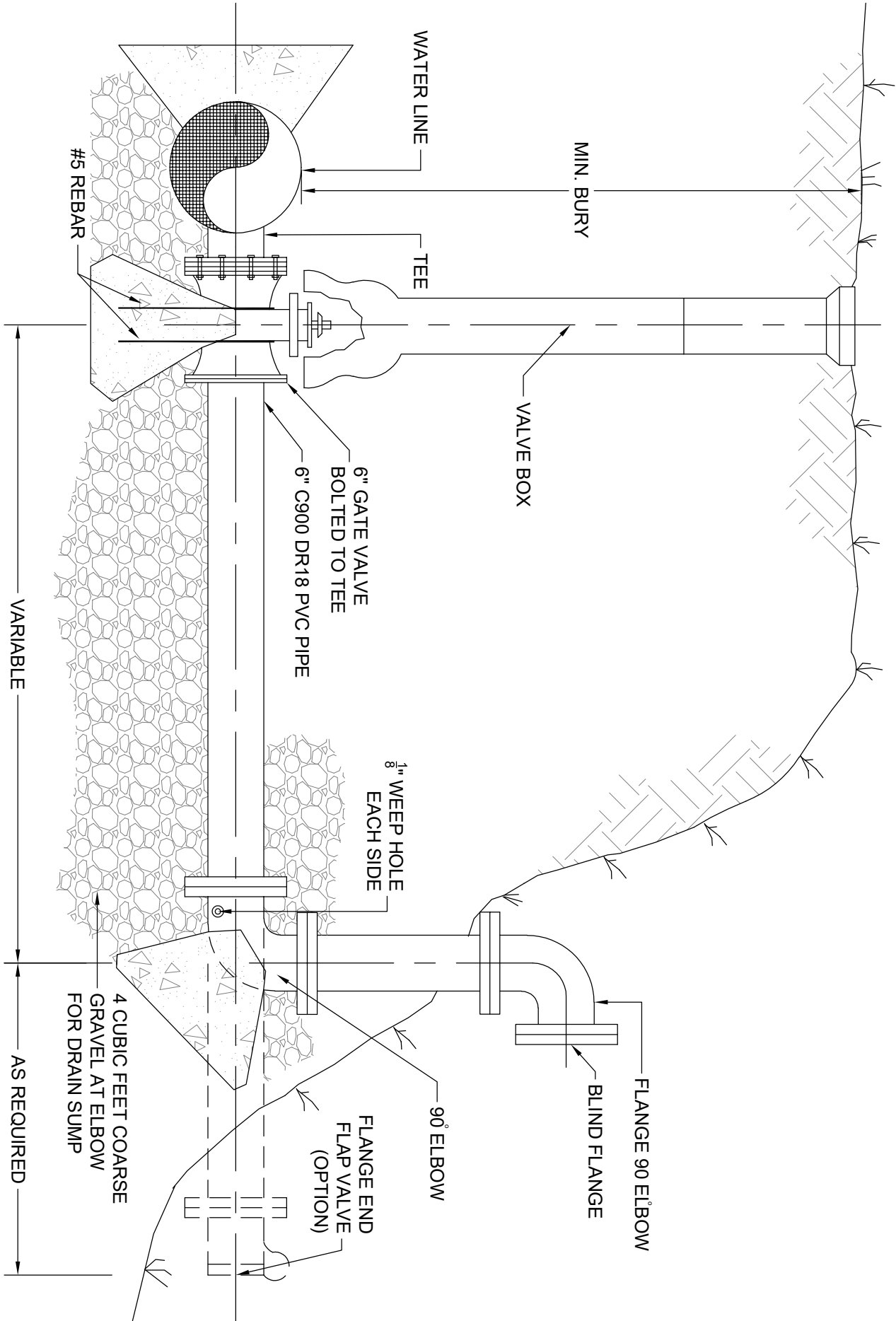


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Drawn	RKB	08/01/91		esd002_blowoff_a
Revised	EJV	8/20		Drawing No.
Approved	RS	8/20		NOT TO SCALE
				Sheet 01 of 02



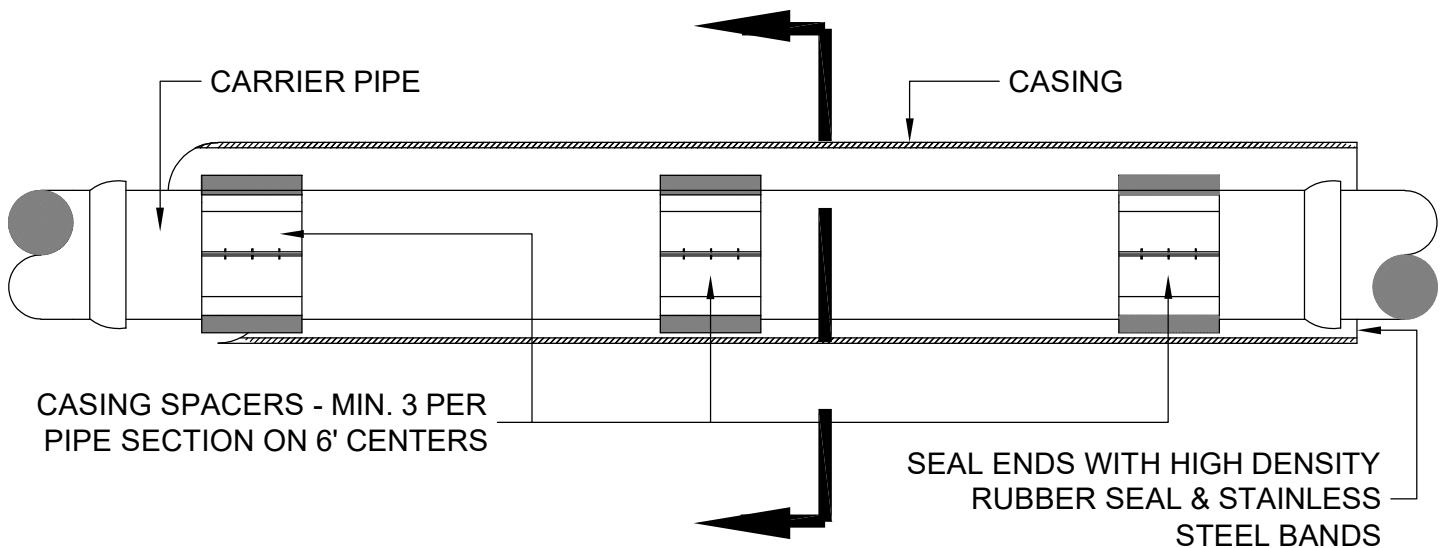
EAST LARIMER COUNTY WATER DISTRICT

BLOW OFF ASSEMBLY - TYPE (B)

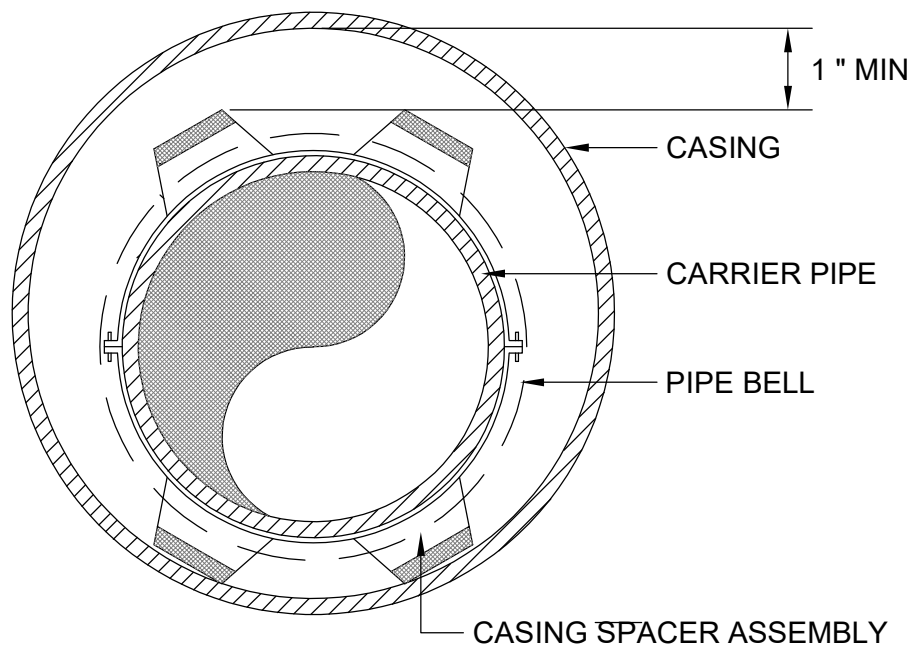


Designed	N/A	Date	N/A	File No.
Drawn	RKB	08/01/91		esd003_blowoff_b
Revised	EJV	8/20		Drawing No.
Approved	RS	8/20		NOT TO SCALE
				Sheet 02 of 02

CENTERLINE SECTION



END SECTION

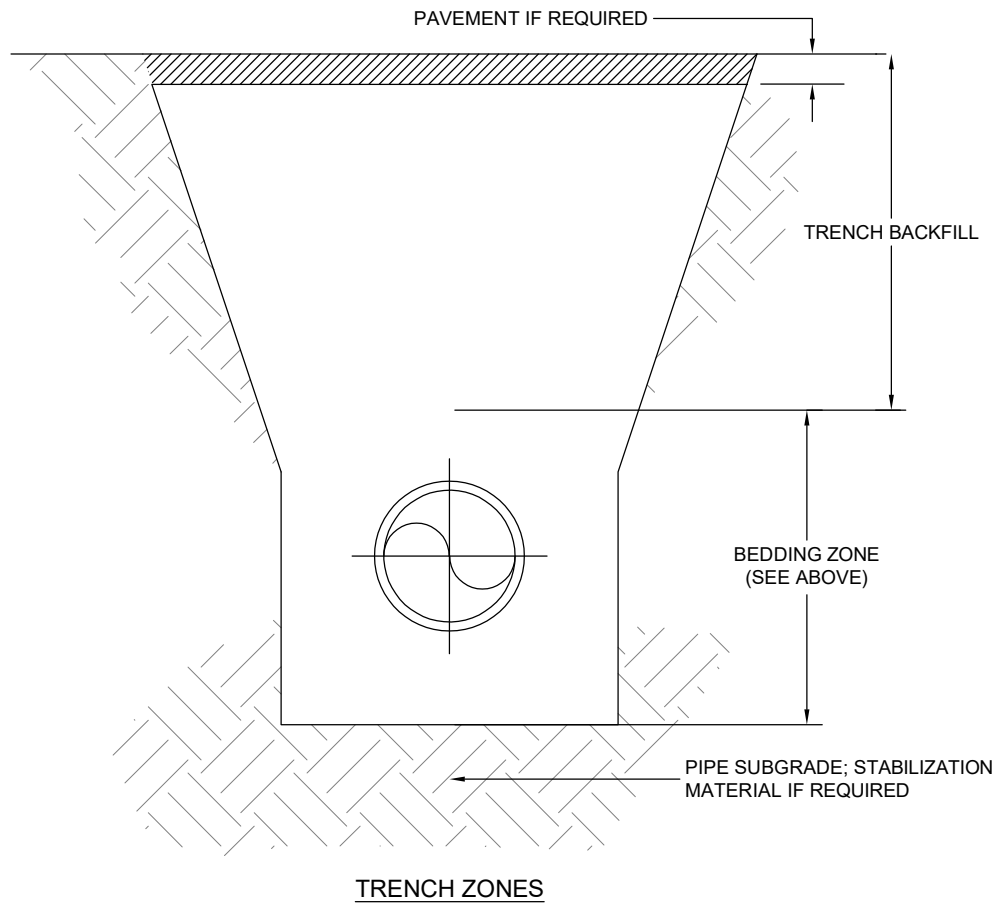
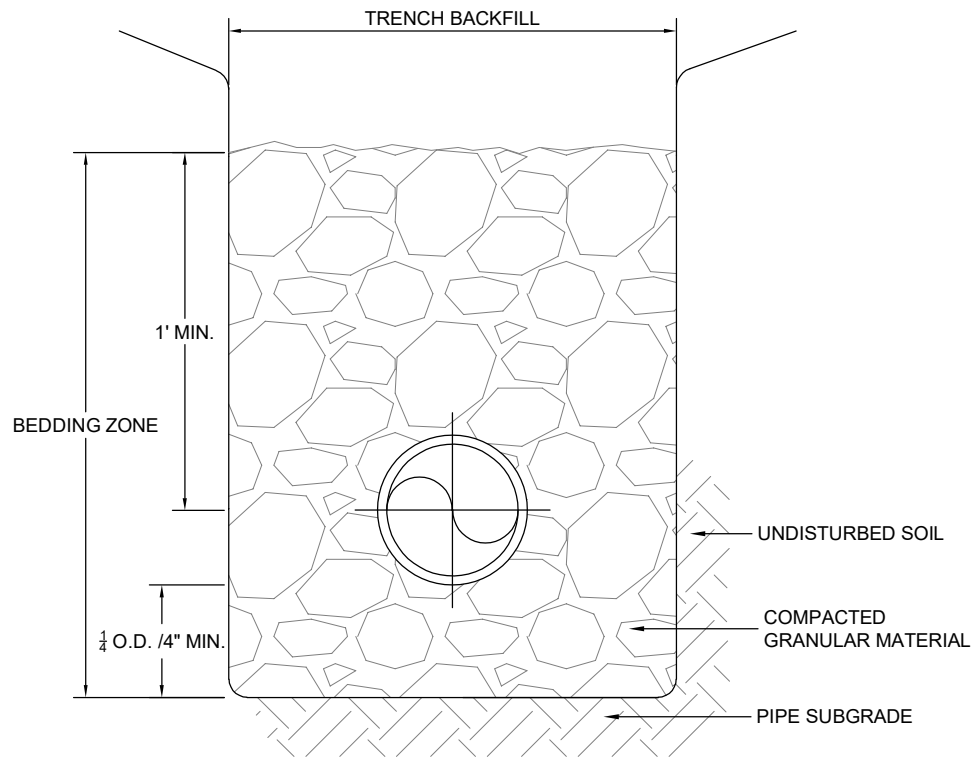


NOTE:
SEE SPECIFICATIONS FOR ACCEPTED CASING SPACER AND END
SEAL MANUFACTURERS AND MODELS.



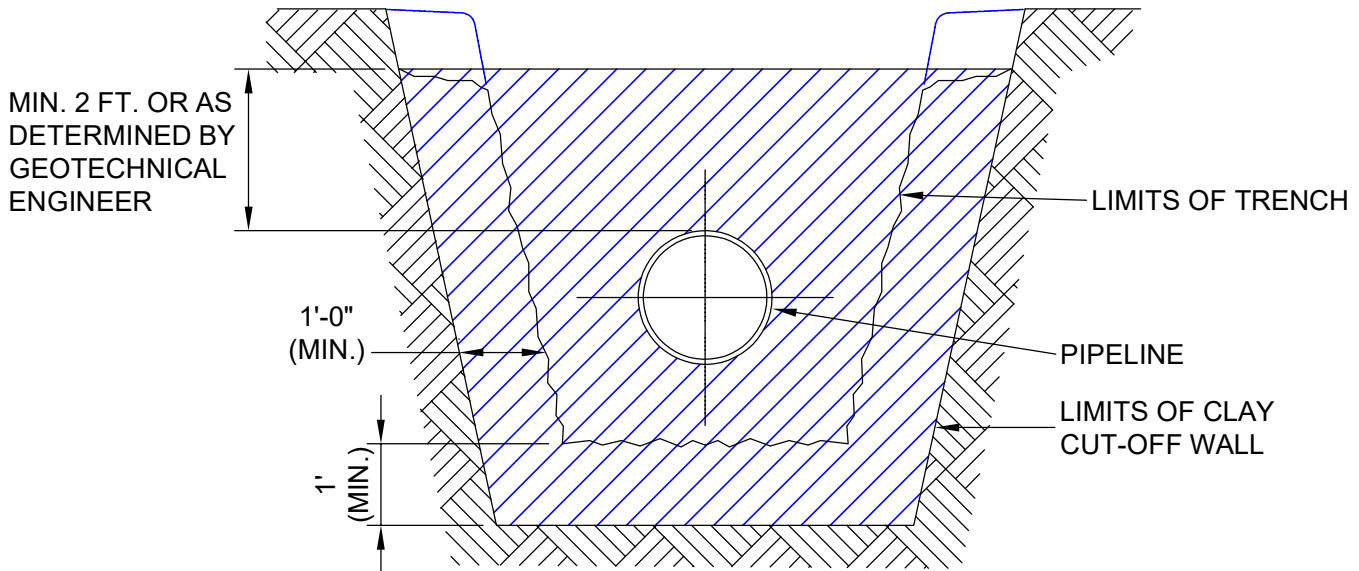
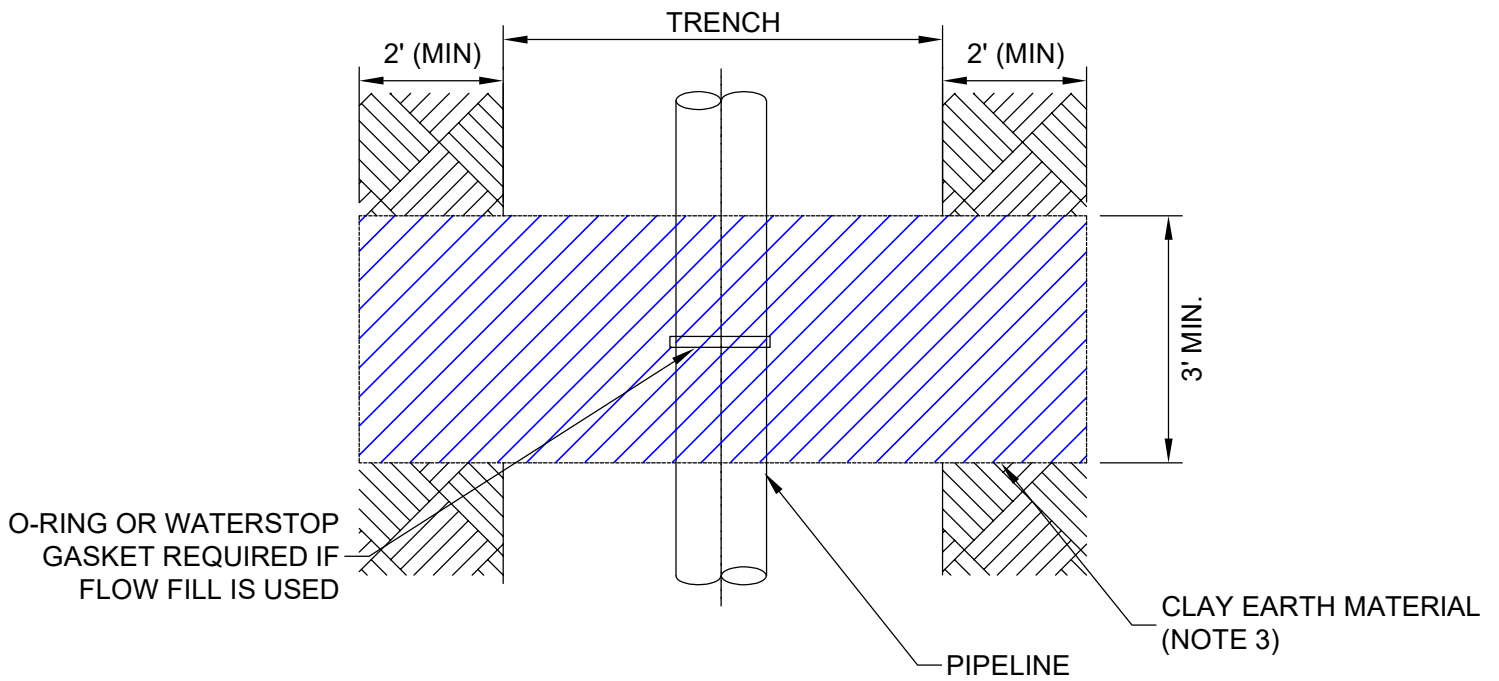
EAST LARIMER COUNTY WATER DISTRICT
BURIED CASING DETAIL

Designed	N/A	Date	N/A	File No.
Drawn	RKB	12/93		esd004_buried_casing
Revised	EJV	8/20		004
Approved	RS	8/20		NOT TO SCALE
				Sheet 01 of 01



EAST LARIMER COUNTY WATER DISTRICT **TRENCH AND BEDDING DETAIL**

Designed	<i>N/A</i>	Date <i>N/A</i>	File No. <i>esd006_bedding_class</i>
Drawn	<i>EJV</i>	<i>08/20</i>	Drawing No. <i>006</i>
Revised	<i>EJV</i>	<i>8/20</i>	NOT TO SCALE
Approved	<i>RS</i>	<i>8/20</i>	Sheet <i>01</i> of <i>01</i>



NOTES:

1. CLAY SHALL BE COMPACTED TO 95% MAXIMUM DENSITY.
2. CLAY MATERIAL TO BE CLASSIFIED AS SC, CL OR ML-CL.
3. FLOW FILL MAY BE USED INSTEAD OF CLAY MATERIAL IF APPROVED BY DISTRICT.



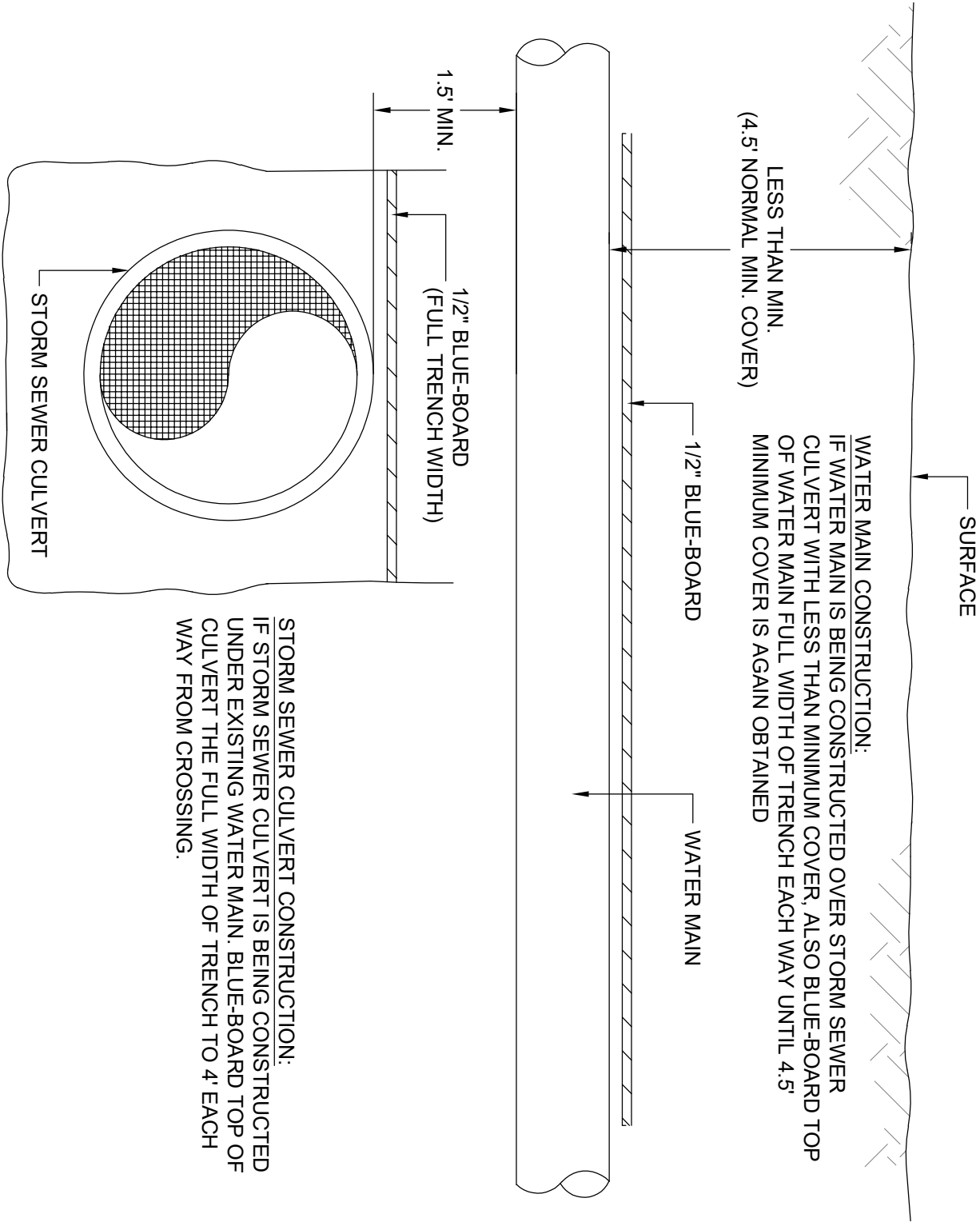
EAST LARIMER COUNTY WATER DISTRICT
CUT-OFF WALL

Designed	N/A	Date N/A	File No. esd007_cut_off_wall
Drawn	RKB	10/01/91	Drawing No. 007
Revised	EJV	8/20	NOT TO SCALE
Approved	RS	8/20	Sheet 01 of 01



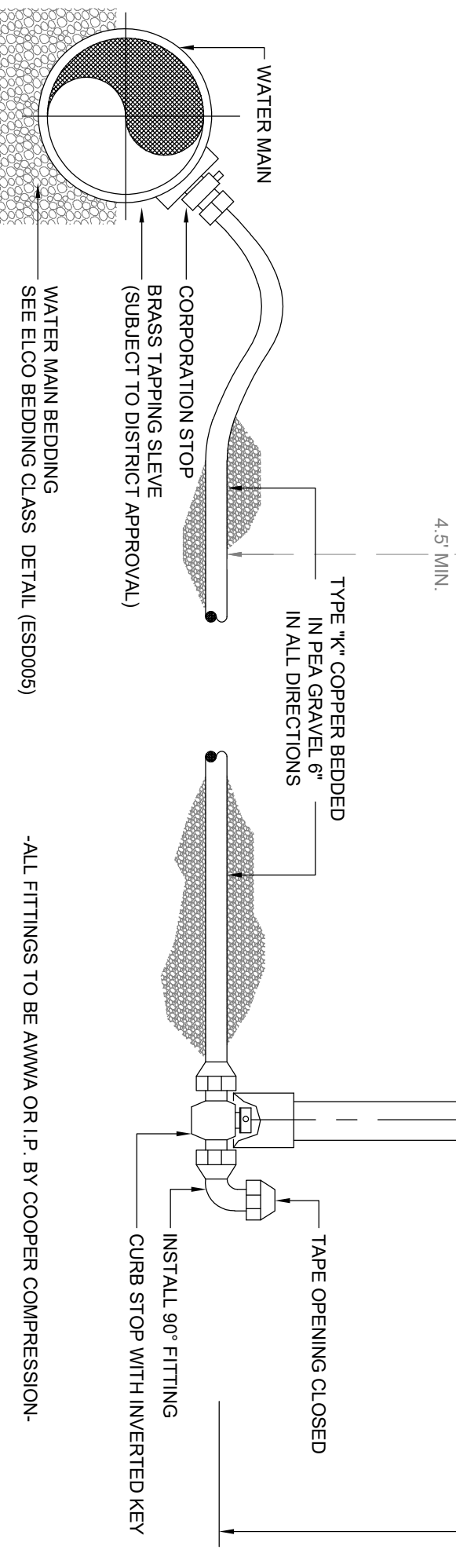
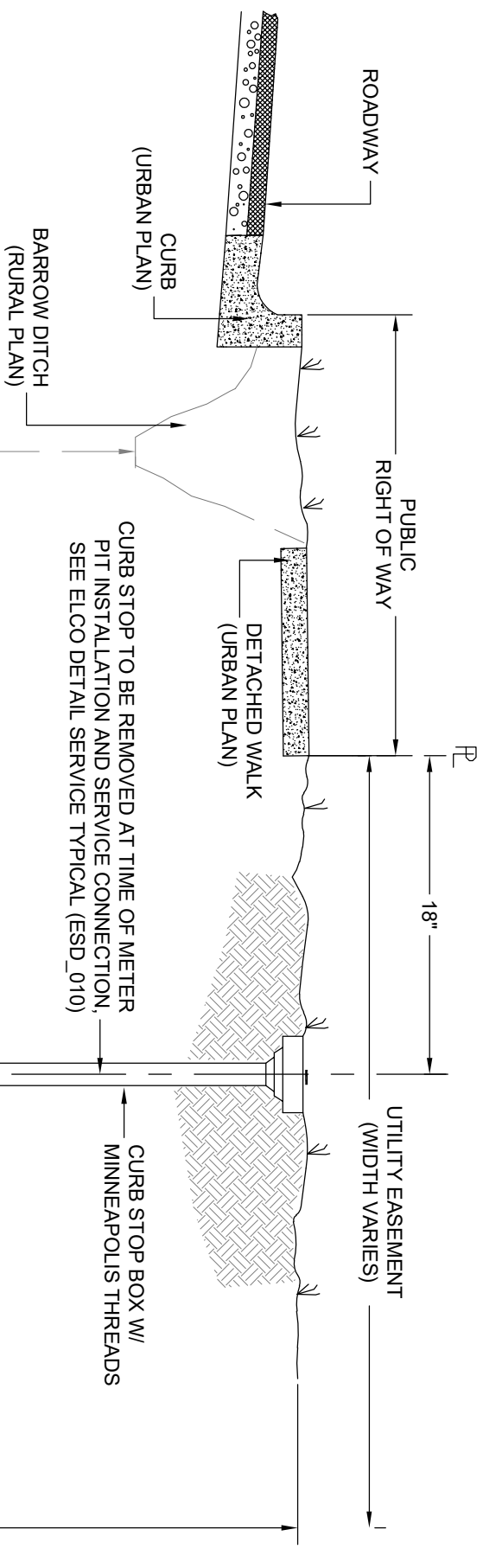
EAST LARIMER COUNTY WATER DISTRICT

INSULATED WATER MAIN AT STORM SEWER OR CULVERT CROSSING



STORM SEWER CULVERT CONSTRUCTION:
IF STORM SEWER CULVERT IS BEING CONSTRUCTED UNDER EXISTING WATER MAIN, BLUE-BOARD TOP OF CULVERT THE FULL WIDTH OF TRENCH TO 4' EACH WAY FROM CROSSING.

Designed	<i>N/A</i>	Date	<i>N/A</i>	File No.
				<i>esd008_crossing_culvert</i>
Drawn	<i>RKB</i>		<i>05/03</i>	Drawing No.
				<i>008</i>
Revised	<i>EJV</i>	<i>8/20</i>		NOT TO SCALE
Approved	<i>RS</i>	<i>8/20</i>		Sheet <i>01</i> of <i>02</i>



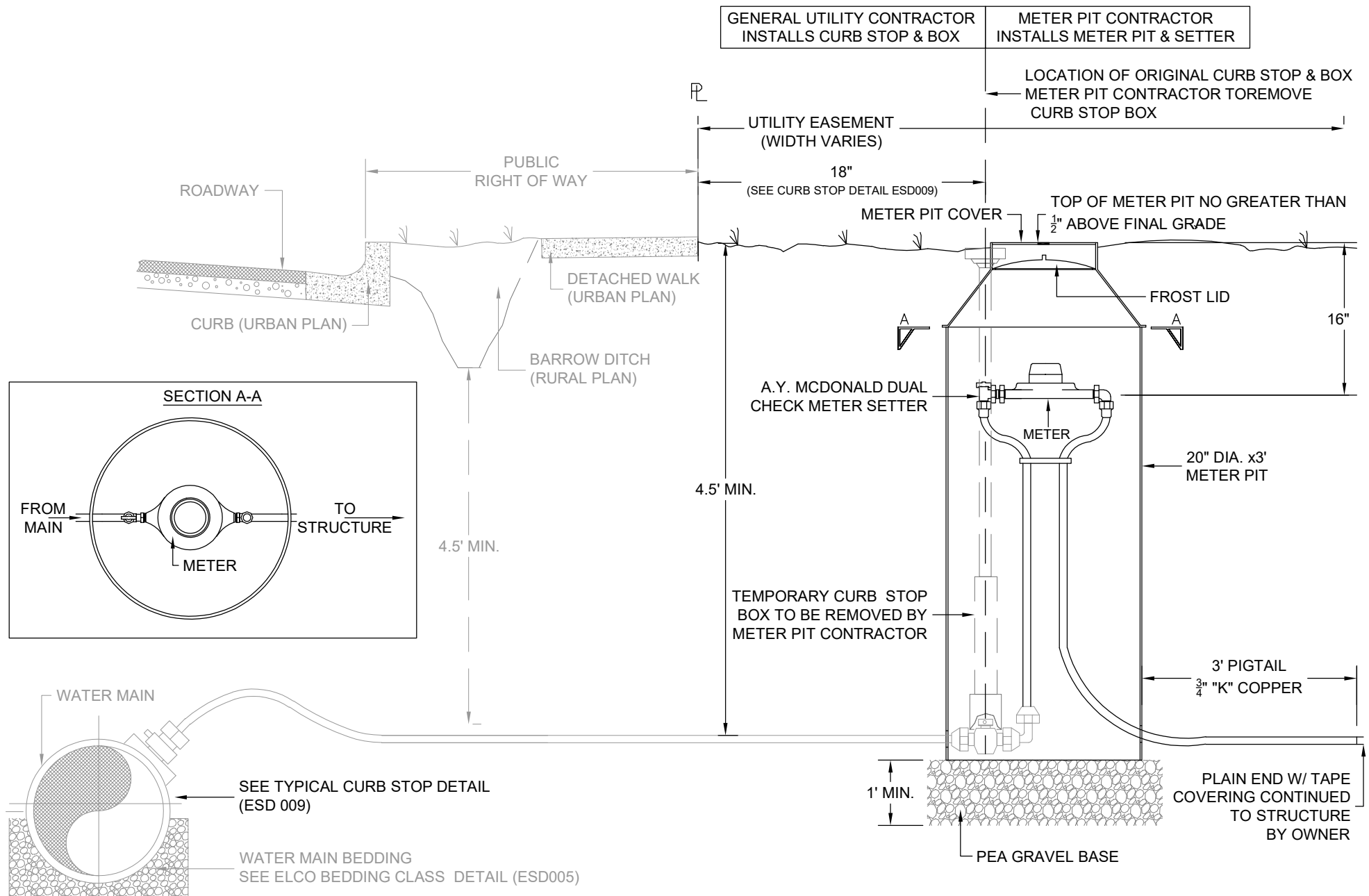
-ALL FITTINGS TO BE AWWA OR I.P. BY COOPER COMPRESSION-



EAST LARIMER COUNTY WATER DISTRICT

TYPICAL $\frac{3}{4}$ " & 1" CURB STOP DETAIL

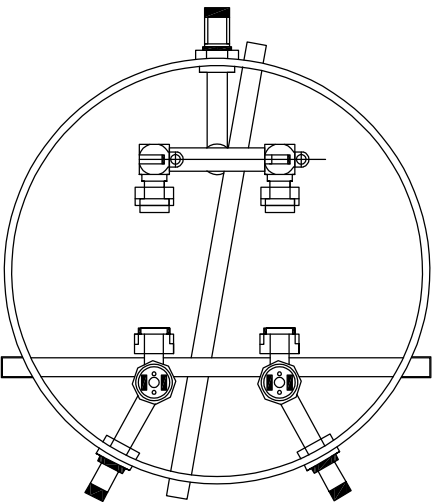
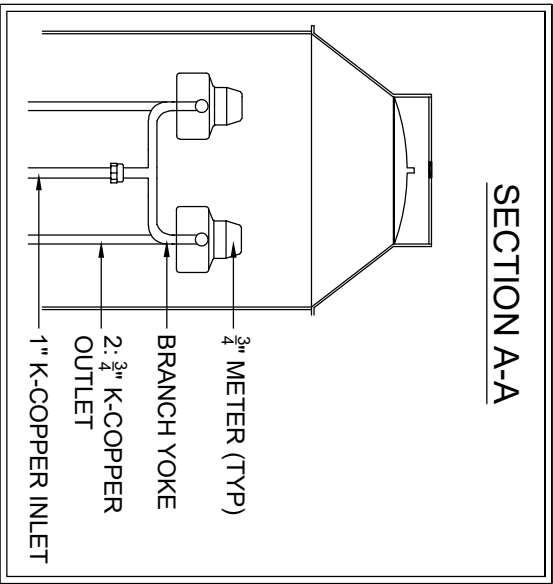
Designed	N/A	Date	N/A	File No.
Drawn	RKB	05/03		esd008_crossing_culvert
Revised	EJV	8/20		Drawing No.
Approved	RS	8/20		NOT TO SCALE
				Sheet 01 of 02



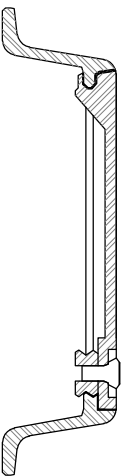
EAST LARIMER COUNTY WATER DISTRICT

TYPICAL $\frac{3}{4}$ " & 1" METER PIT DETAIL

Designed	N/A	Date N/A	File No. esd010_service_typical
Drawn	RKB	10/91	Drawing No. 010
Revised	EJV	8/20	NOT TO SCALE
Approved	RS	8/20	Sheet 01 of 02

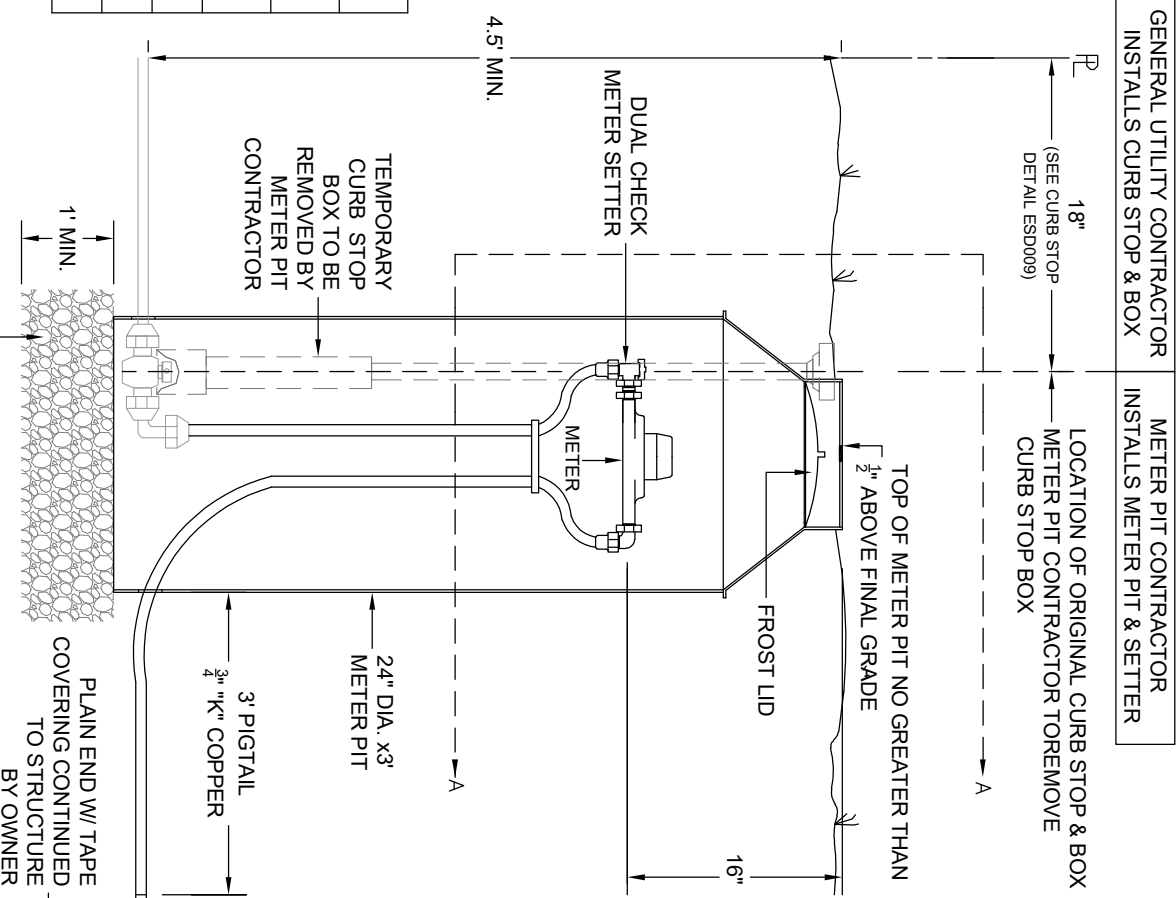


ITEM	NAME	CAT. NO.
A	FORD ANGLE DUAL CHECK VALVE	HHAA34-323-G
B	FORD ANGLE BELL VALVE	BA13-332W
C	FORD "U" BRANCH	U48-43-7.5-G
D	FORD METER IDLER	IDLER #2
E	METER PIT ASSEMBLY	
F	METER PIT LID	

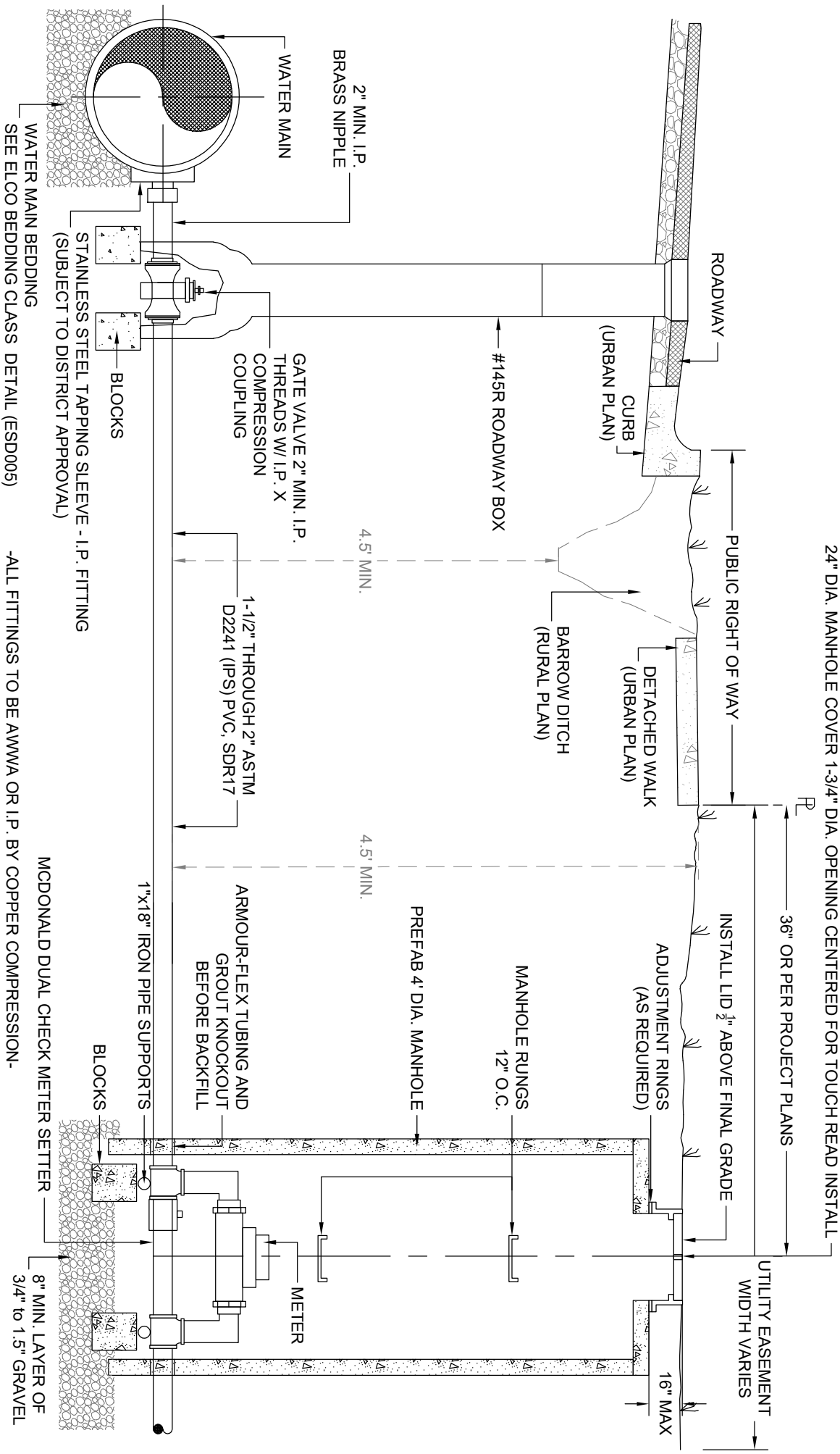


EAST LARIMER COUNTY WATER DISTRICT

TYPICAL 3/4" & DUAL METER PIT DETAIL



Designed	N/A	Date	N/A	File No.	esd071_service_dual
Drawn	EJV	8/20		Drawing No.	011
Revised	EJV	8/20		NOT TO SCALE	
Approved	RS	8/20		Sheet 02 of 03	

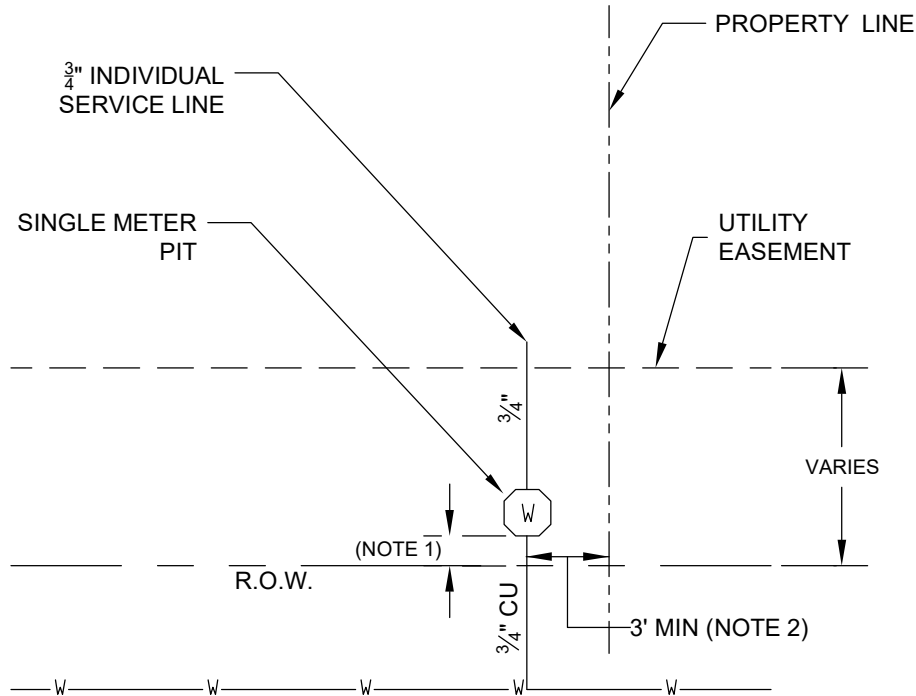


EAST LARIMER COUNTY WATER DISTRICT

LARGE WATER SERVICE DETAIL 1.5"-2"

Designed		Date	File No.	
Drawn	N/A	N/A	esd012_service_large	
	REM	09/91	Drawing No.	
	EJV	8/20	012	
Revised			NOT TO SCALE	
Approved	RS	8/20	Sheet 02 of 03	

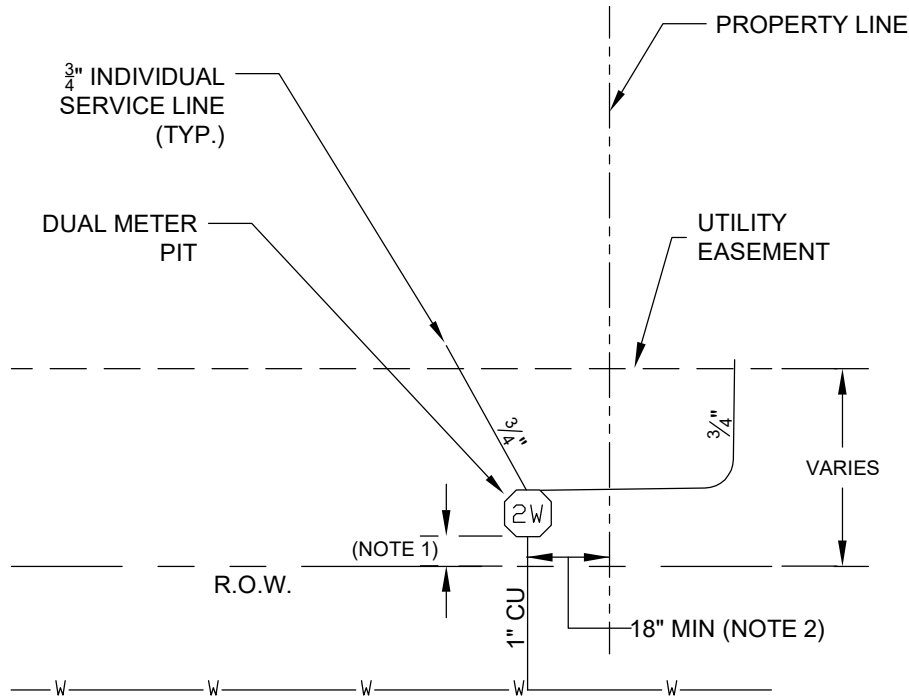
SINGLE METER LAYOUT



NOTES:

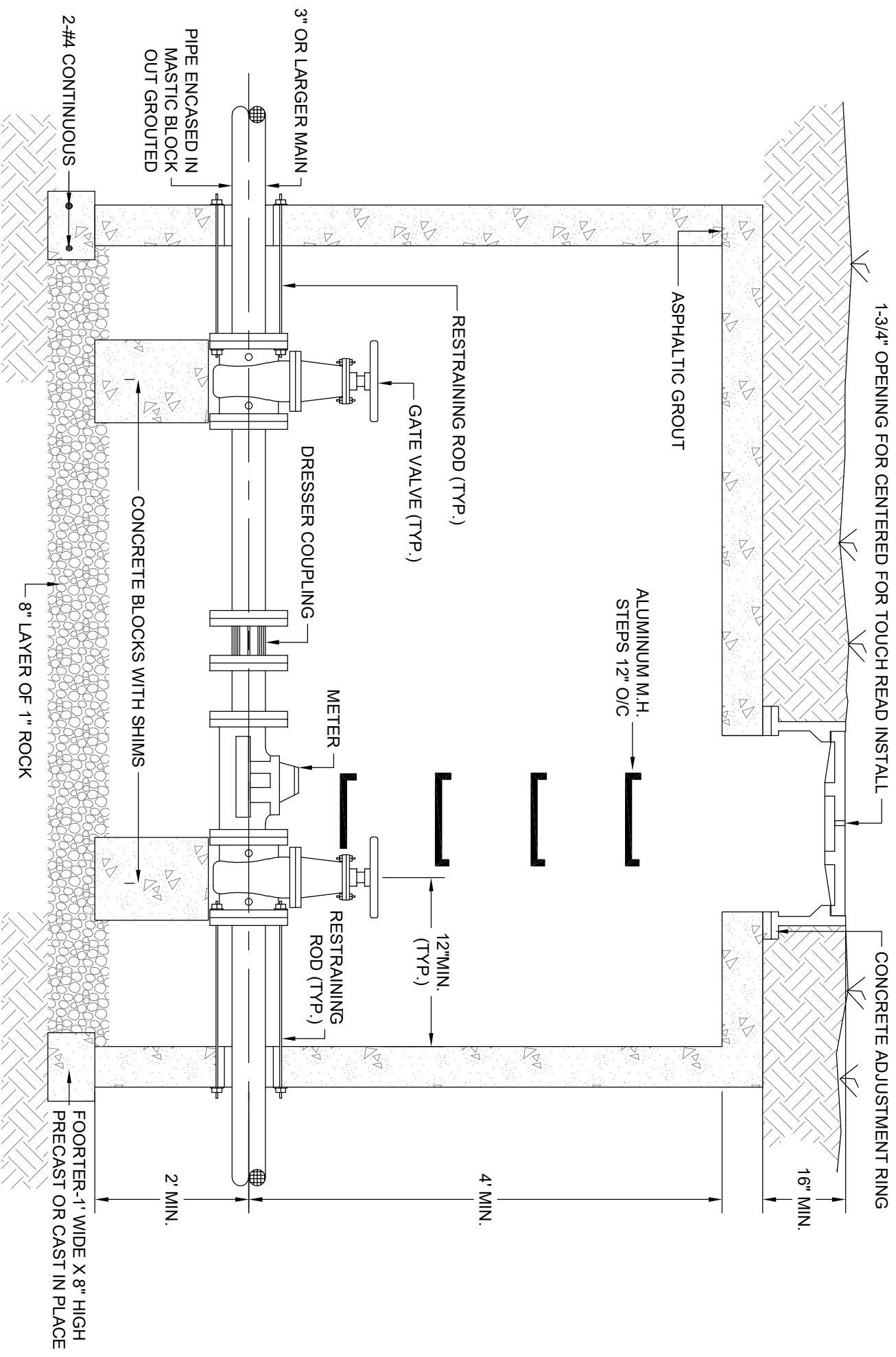
- 1: See Meter Pit Detail
- 2: Distance may need to be modified if drainage or other site specific conditions dictate changes to these dimensions.

DUAL METER LAYOUT



EAST LARIMER COUNTY WATER DISTRICT WATER METER LAYOUT DETAILS

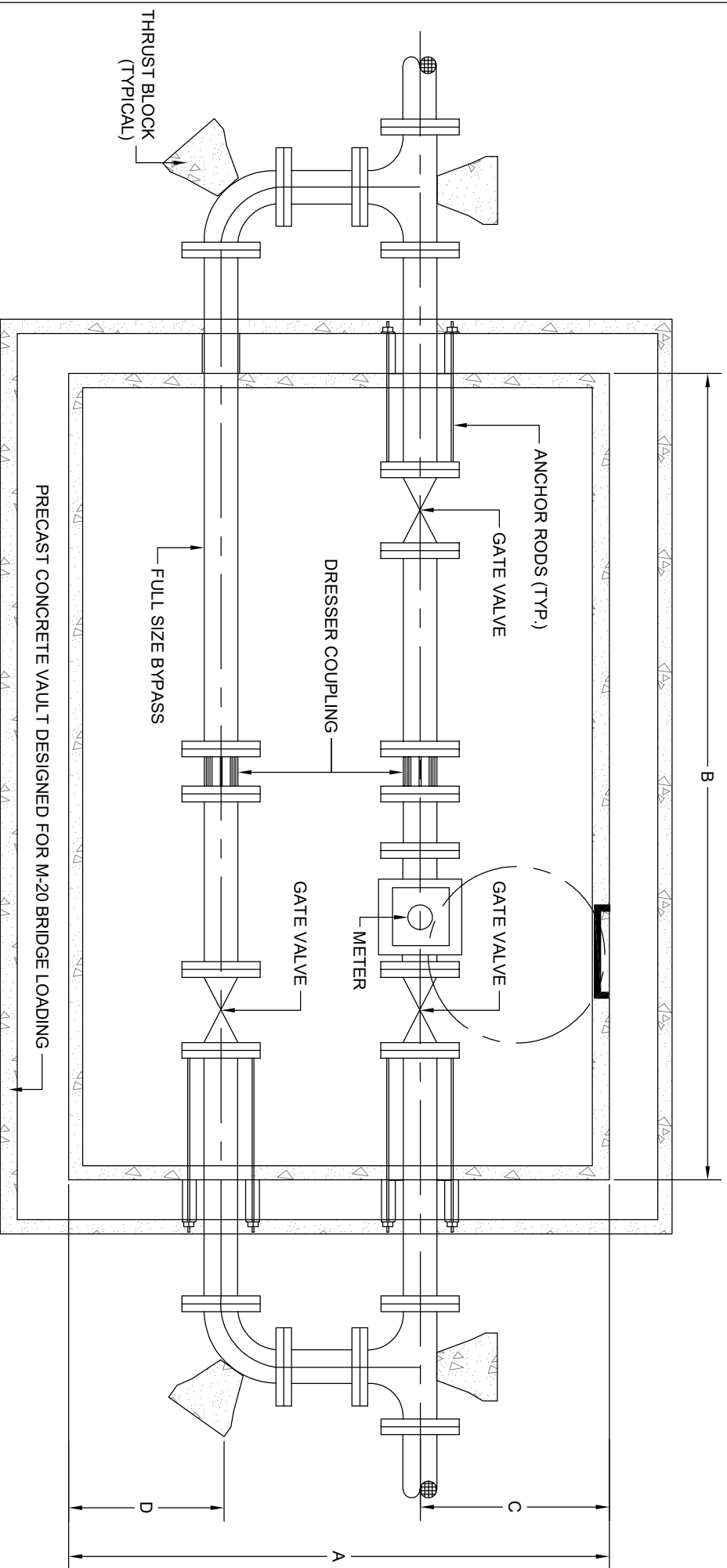
Designed	RS	Date	07/29/20	File No.	esd013_meterpit_layout
Drawn	EJV	Date	07/29/20	Drawing No.	013
Revised	RS	Date	07/29/20	NOT TO SCALE	
Approved	RS	Date	07/29/20	Sheet	01 of 01



EAST LARIMER COUNTY WATER DISTRICT

LARGE METER VAULT SIDE VIEW

Designed	N/A	Date	N/A	File No.	esd014, meter_vault_profile
Drawn	REM		10/99	Drawing No.	014
Revised	EJV		8/20	NOT TO SCALE	
Approved	RS		8/20	Sheet 01 of 02	



METER VAULT DIMENSIONS

METER SIZE	A	B	C	D
3inch	6'	7'	3'-2" MIN.	6"-1' MIN.
4inch	7'	7'	3' MIN.	6"-1' MIN.
6inch	8'	7'	3' MIN.	6"-1' MIN.

GENERAL NOTES:
 IF PRESSURE REDUCING VALVE IS REQUIRED IT SHALL BE
 INSTALLED INSIDE BUILDING, IMMEDIATELY FOLLOWING THE MAIN
 SHUT-OFF VALVE.

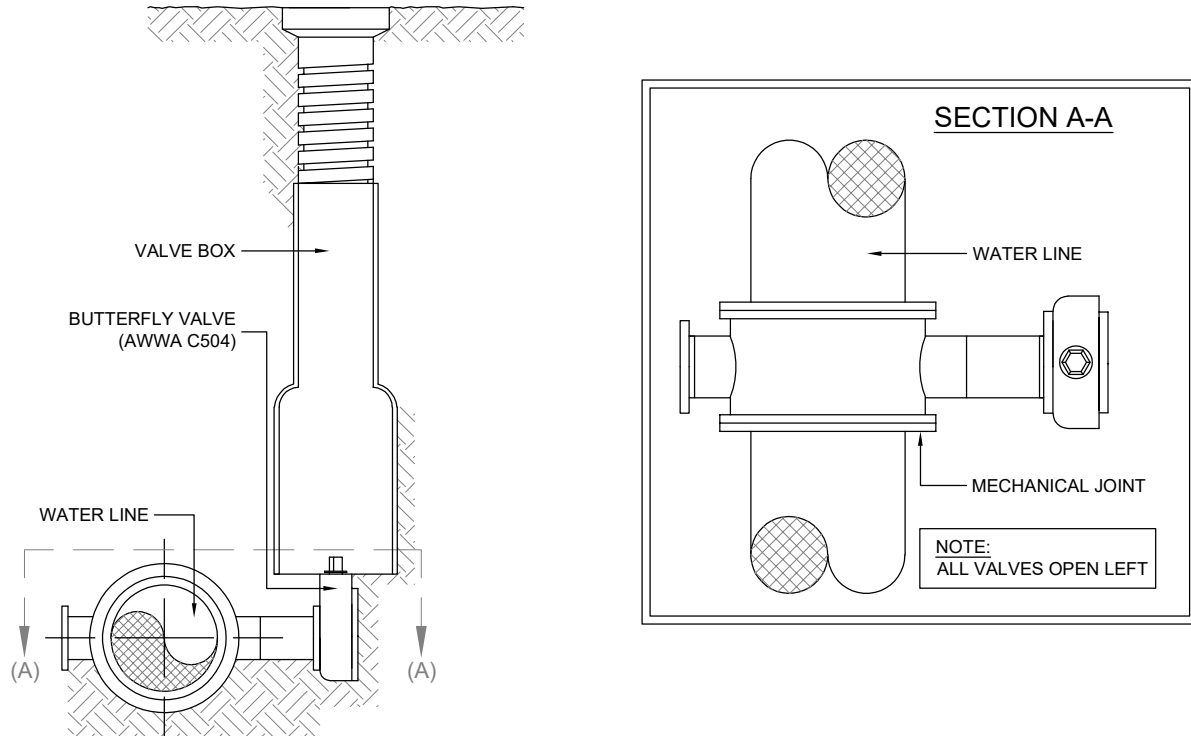


EAST LARIMER COUNTY WATER DISTRICT

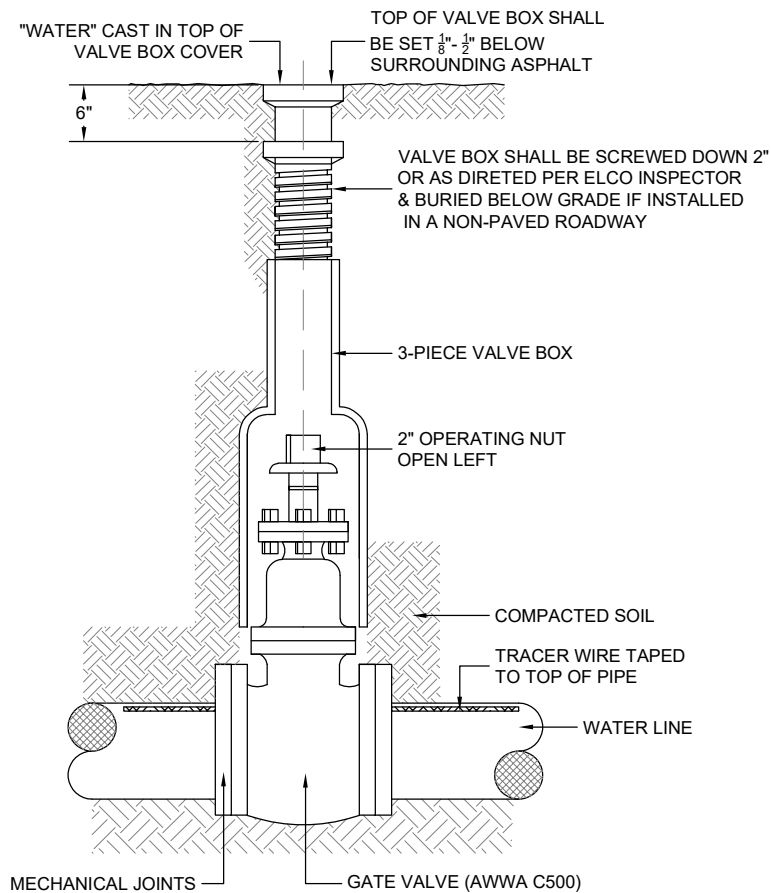
LARGE METER VAULT TOP VIEW

Designed	N/A	Date	N/A	File No.	esd015_meter_vault_plan
Drawn	REM	10/99		Drawing No.	015
Revised	EJV	8/20		NOT TO SCALE	
Approved	RS	8/20		Sheet 02 of 03	

BUTTERFLY VALVE DETAIL

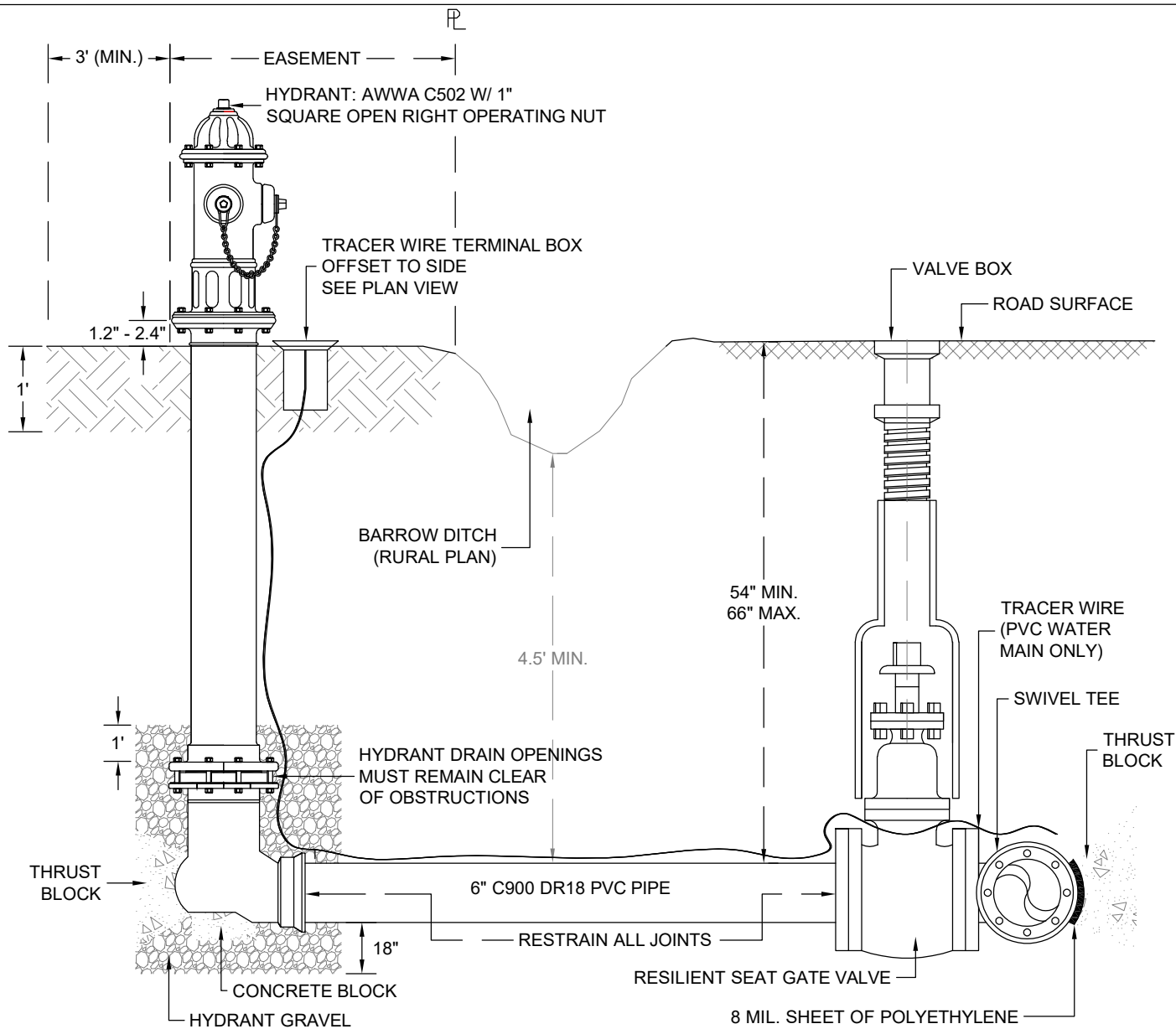


GATE VALVE DETAIL

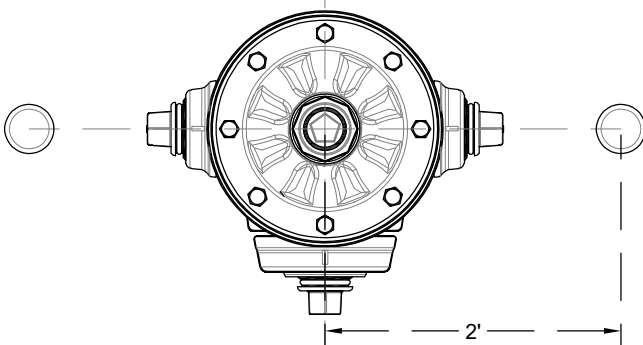


EAST LARIMER COUNTY WATER DISTRICT BUTTERFLY & GATE VALVE DETAILS

Designed	N/A	Date	N/A	File No.	esd016_valve_detail
Drawn	EJV	8/20		Drawing No.	016
Revised	EJV	8/20		NOT TO SCALE	
Approved	RS	8/20		Sheet	01 of 01



PLAN VIEW
TRACER WIRE TERMINAL BOX INSTALLATION



TRACER WIRE TERMINAL BOX INSTALLED EITHER RIGHT OR LEFT OF EACH FIRE HYDRANT ASSEMBLY

NOTES:

NO LANDSCAPING (TREES, SHRUBS, BOULDERS, ETC.), RETAINING WALLS OR FENCES ALLOWED WITHIN 10' OF FIRE HYDRANT.

FIRE HYDRANT PIPING, VALES, ETC. SHALL BE DOUBLE WRAPPED IN POLYETHYLENE.

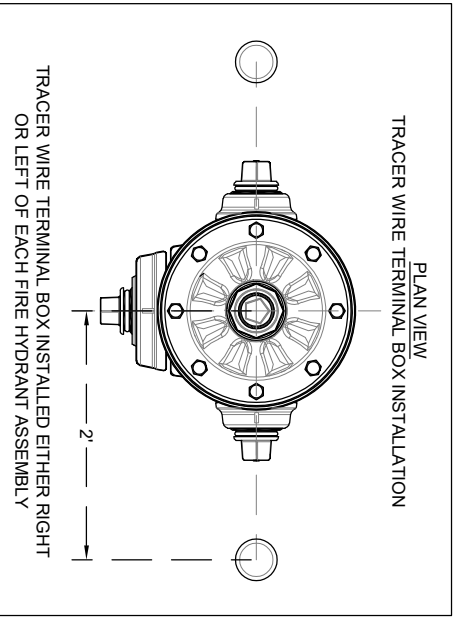
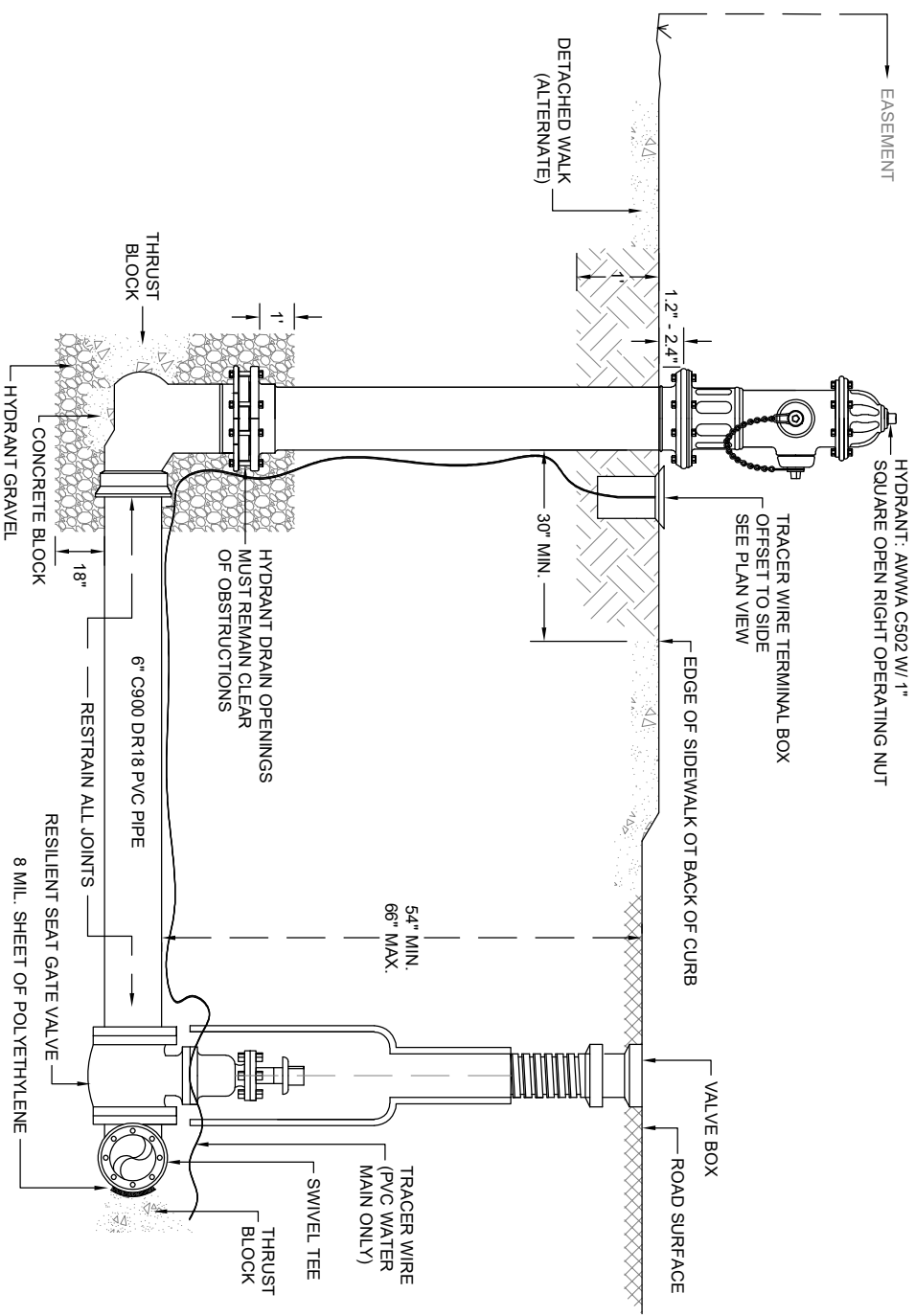
APPROVED PAINT:

BRAND: AERVOE SUPREME RUST SHIELD
COLOR: #5009 EQUIPMENT YELLOW



EAST LARIMER COUNTY WATER DISTRICT TYPICAL FIRE HYDRANT INSTALLATION

Designed	N/A	Date	N/A	File No.	esd017_fire_hydrant
Drawn	EJV	8/20		Drawing No.	017
Revised	EJV	8/20		NOT TO SCALE	
Approved	RS	8/20		Sheet	01 of 02



NOTES:
 NO LANDSCAPING (TREES, SHRUBS, BOULDERS, ETC.), RETAINING WALLS OR FENCES ALLOWED WITHIN 10' OF FIRE HYDRANT.
 FIRE HYDRANT PIPING, VALVES, ETC. SHALL BE DOUBLE WRAPPED IN POLYETHYLENE.

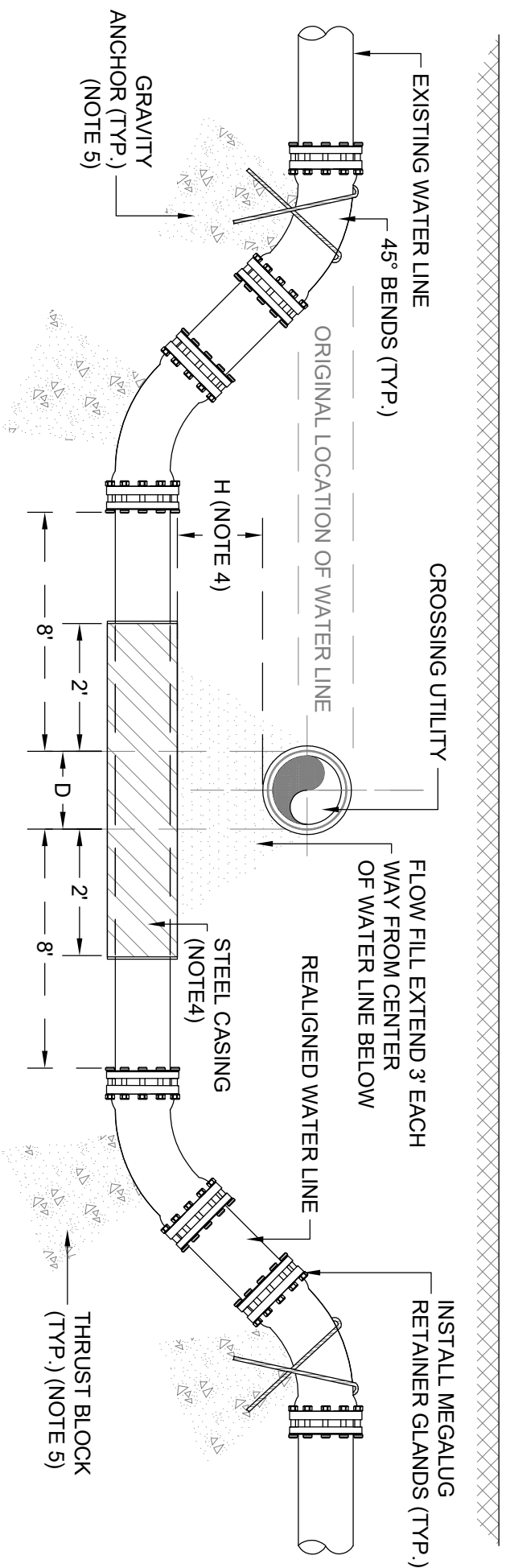
APPROVED PAINT:
 BRAND: AERVOE SUPREME RUST SHIELD
 COLOR: #5009 EQUIPMENT YELLOW



EAST LARIMER COUNTY WATER DISTRICT

TYPICAL FIRE HYDRANT INSTALLATION HIGH DENSITY DEVELOPMENT AREAS

Designed	N/A	Date	N/A	File No.
Drawn	EJV	8/20		esd018, fire hydrant, hd
Revised	EJV	8/20		Drawing No.
Approved	RS	8/20		NOT TO SCALE
				Sheet 02 of 02



GENERAL NOTES:

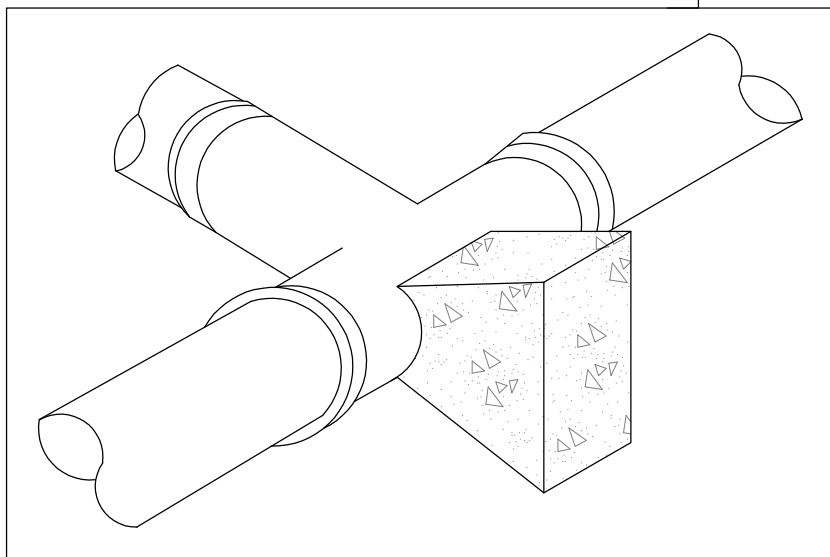
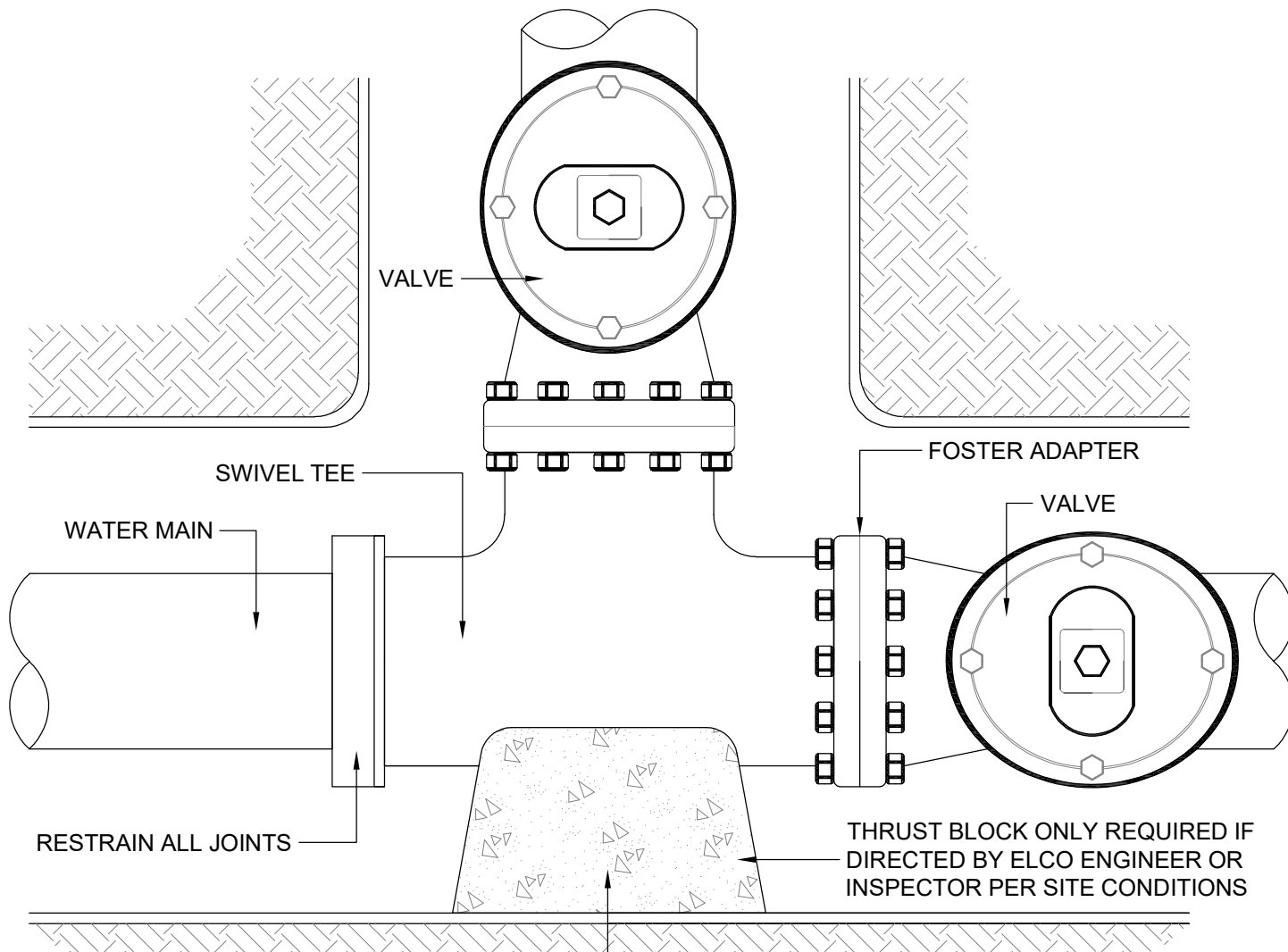
1. SEE THRUST BLOCK DETAIL (ESD 020) FOR SIZING.
2. ALL FITTINGS & JOINTS IN LOWERING AREA TO BE RESTRAINED IN ACCORDANCE WITH SECTION 02615-2.6A OR SECTION 02622-2.2A AS APPLICABLE.
3. ALL D.I.P PIPE & FITTINGS SHALL BE WRAPPED WITH POLYETHYLENE ENCASEMENT.
4. IF CLEARANCE "H" IS LESS THAN 18", INSTALL STEEL CASING WHEN CROSSING UTILITY IS 24" DIAMETER OR GREATER, OR AS REQUIRED BY ELCO BASED ON SITE SPECIFIC CONDITIONS. FOR CROSSING UTILITY OF DIAMETER LESS THAN 24", CASING IS NOT REQUIRED UNLESS SPECIFIED BY ELCO PER SITE SPECIFIC CONDITIONS.
5. ANCHOR AND THRUST BLOCKS TO BE INSTALLED ONLY IF ADEQUATE THRUST RESTRAINT CANNOT BE PROVIDED. ENGINEER TO DETERMINE DISTANCES TO BE RESTRAINED.



EAST LARIMER COUNTY WATER DISTRICT

WATER MAIN LOWERING DETAIL

Designed	N/A	Date	N/A	File No.
Drawn	EJV	8/20		esd019_main_lowering
Revised	EJV	8/20		Drawing No.
Approved	RS	8/20		NOT TO SCALE
				Sheet 02 of 02



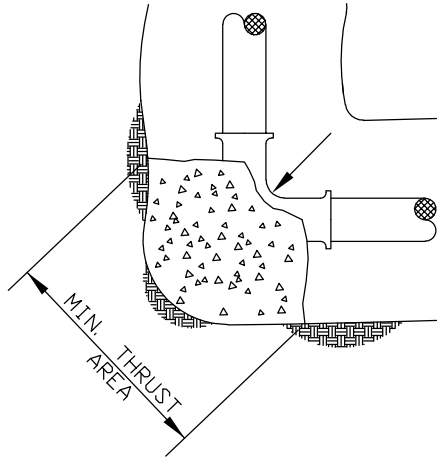
NOTE:
IN-LINE VALVES DO NOT
REQUIRE RESTRAINT UNLESS
DIRECTED BY ELCO ENGINEER
OR FIELD INSPECTOR
PER SITE CONDITIONS.



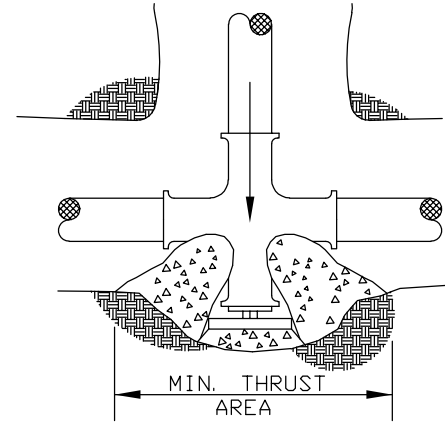
EAST LARIMER COUNTY WATER DISTRICT **GATE VALVE ASSEMBLY & THRUST RESTRAINT**

Designed	N/A	Date	N/A	File No.	esd020_thrust_restraint
Drawn	EJV	8/20		Drawing No.	020
Revised	EJV	8/20		NOT TO SCALE	
Approved	RS	8/20		Sheet	01 of 02

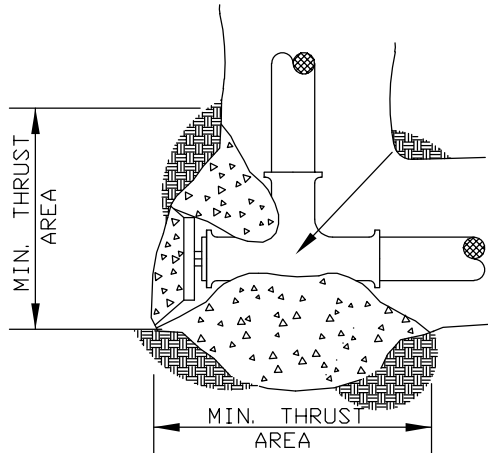
CASE A



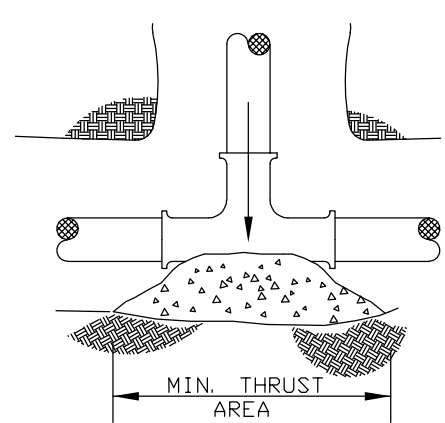
CASE B



CASE C



CASE D

BEARING AREAS FOR VARIOUS FITTINGS (FT²)

SIZE	TEE & PLUG	90° BEND	45° BEND	22 1/2° BEND	11 1/4° BEND
6"	4.0	5.5	3.0	1.5	1.0
8"	6.5	9.0	5.0	2.5	1.5
10"	10.0	14.0	7.5	4.0	2.0
12"	14.0	20.0	11.0	5.5	3.0
14"	19.0	27.0	14.5	7.5	4.0
16"	25.0	35.0	19.0	10.0	5.0
18"	31.5	44.5	24.0	12.5	6.5
20"	38.0	54.5	29.5	15.0	7.5
24"	55.5	78.5	42.5	22.0	11.0
30"	86.5	122.0	66.0	34.0	17.0
36"	124.0	175.5	95.0	48.5	24.5
42"	168.0	237.5	128.5	65.5	33.0

NOTES:

1. ALL CONCRETE SHALL BE POURED AGAINST UNDISTURBED EARTH
2. ALL FITTINGS & PLUGS MUST BE WRAPPED WITH POLYETHYLENE TO PREVENT CONCRETE FROM ADHERING TO THE BOLTS OR PIPE.

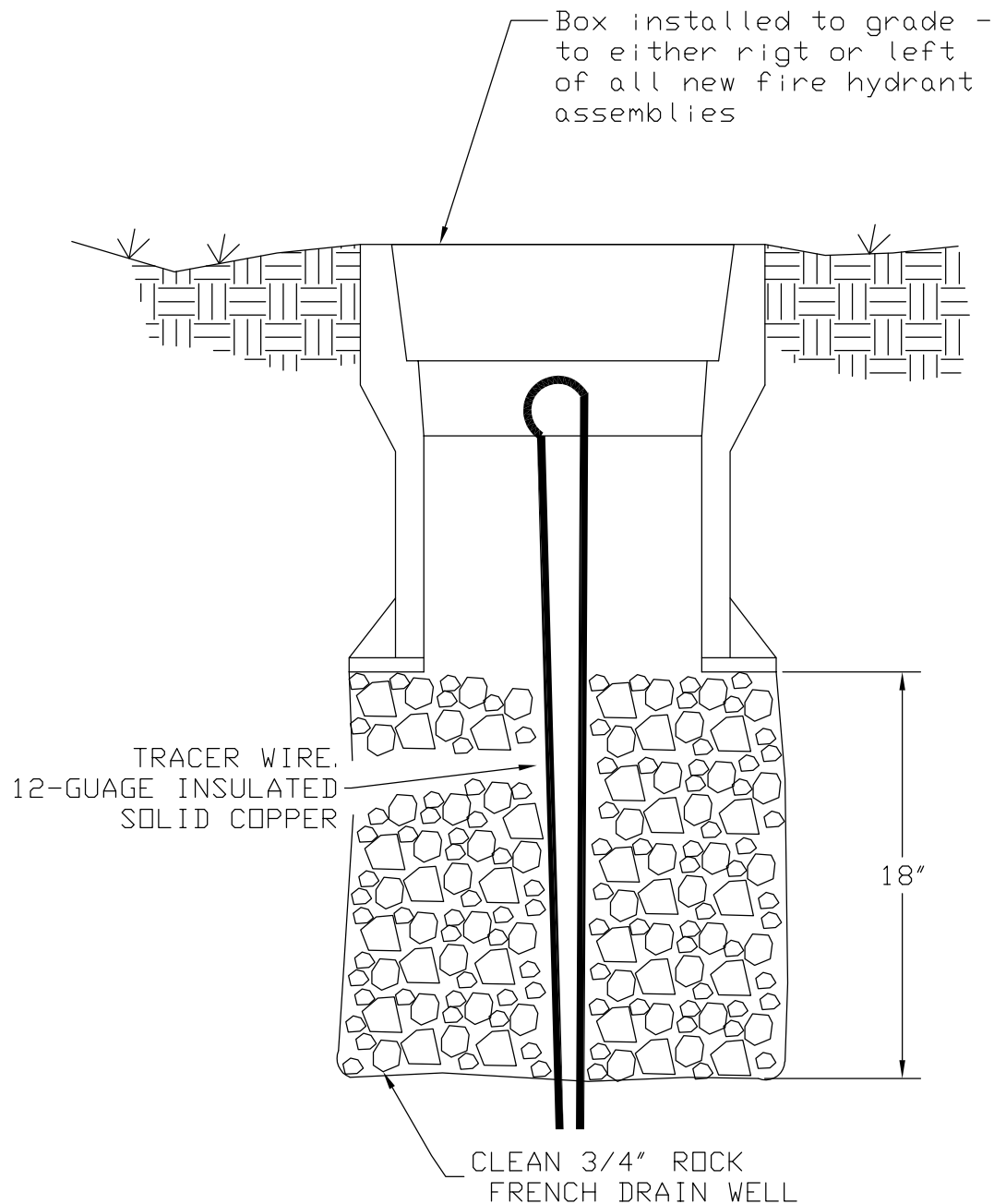


EAST LARIMER COUNTY WATER DISTRICT

TYPICAL THRUST BLOCKS

Designed	N/A	Date	N/A	File No.	esd021_thrust_block
Drawn	RKB	07/92		Drawing No.	021
Revised	EJV	8/20		NOT TO SCALE	
Approved	RS	8/20		Sheet	02 of 02

INSTALLATION DETAIL



NOTES:

1. BOX & LID ASSEMBLY SHALL BE C AND P MANUFACTURING AND SALES MODEL TWAB OR APPROVED EQUAL.
2. TRACER WIRE SHALL NOT BE INSTALLED (BROUGHT TO SURFACE) IN VALVE BOXES.



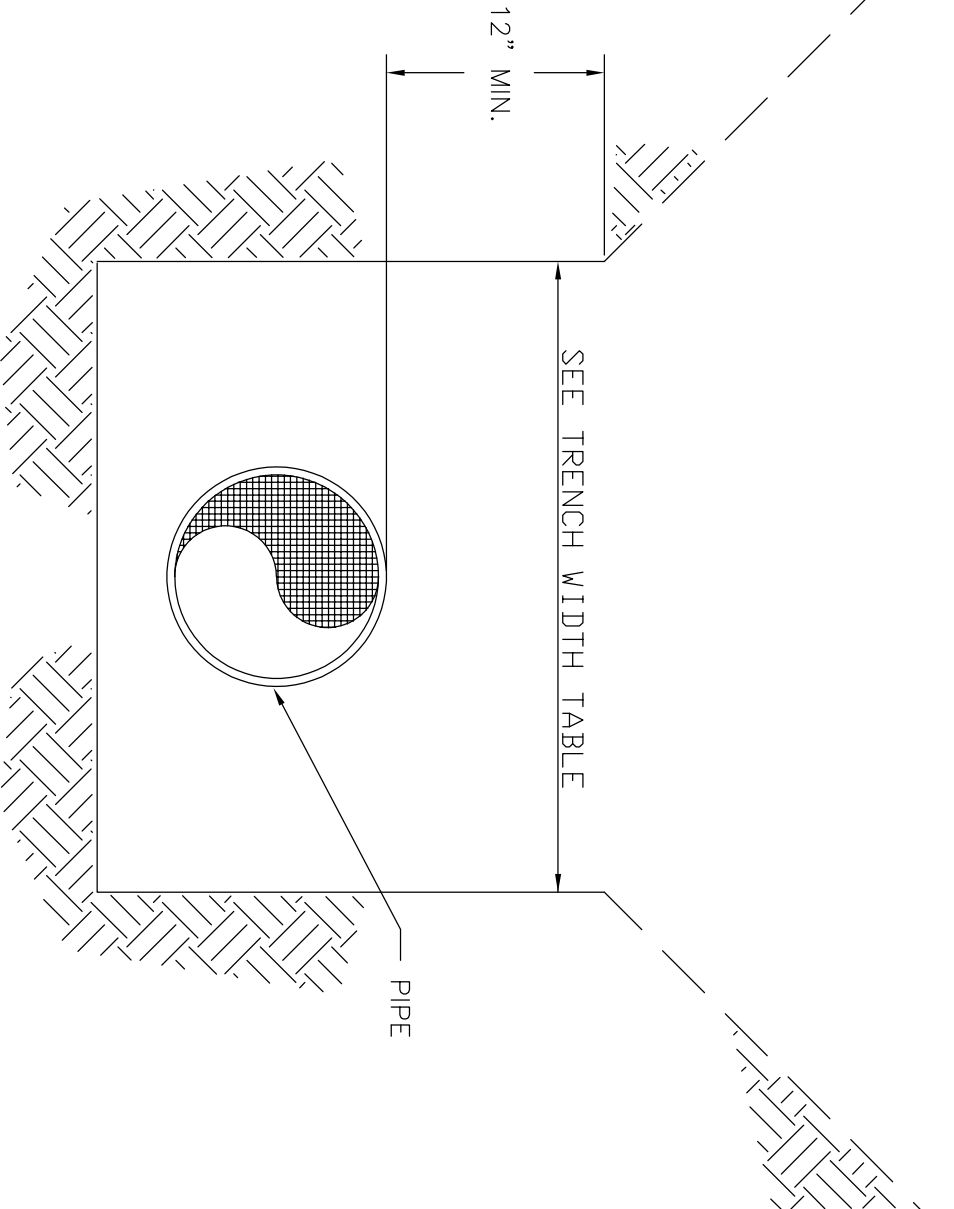
EAST LARIMER COUNTY WATER DISTRICT TRACER WIRE BOX DETAIL

Designed	N/A	Date N/A	File No. esd022_tracer_wire_box
Drawn	EJV	07/21	Drawing No.
Revised	RS	07/21	022
Approved	RS	07/21	NOT TO SCALE
			Sheet 01 of 01



EAST LARIMER COUNTY WATER DISTRICT

TRENCH DETAIL



TRENCH WIDTH TABLE	
PVC OR DUCTILE IRON PIPE	
PIPE DIAMETER (INCHES)	MAXIMUM TRENCH WIDTH (INCHES)
4	28
6	30
8	32
10	34
12	36
14	38
16	40
18	42
24	46

Designed	N/A	Date	N/A	File No.
				esd023_trench_detail
Drawn	RKB	10/91	Drawing No.	
			023	
Revised	EJV	8/20	NOT TO SCALE	
Approved	RS	8/20	Sheet 01 of 01	