Public Works
Standard Drawings
Subcommittee Meeting

Monday, August 10, 2020

UberConference

Welcome and Introductions

July 6th Meeting Summary

Table of Contents
- Add a detail for blow off to the division
- Add curb markings as a general note, The City of Coppell's drawing 4220 is a good example

4010A
- Show the restraint joint graphically
- Add note, "All fittings require a megalug joint restraint in concert with thrust blocking or in reference to Standard Drawing 4040 for General Notes."

4020
- Show the restraint joint graphically

4030
- Revisit when the Subcommittee looks at pipe lowering

4040
- Add a comment about sacrificial anodes if the soil is a certain chemistry. Mathew will send Olivia the exact wording.
- Add a note about joint restraints. Mathew will send Olivia the exact wording.
- Add a note about using a zinc pad or cap. The City of Coppell's drawing 4050 points to the zinc cap and joint restraint.

4050
- Polywrap the gate valve
- Include the mechanical joint restraint
- Include tracer wire
- Include the zinc nut/pad
- This should be the standard for 4"-16", over 16" the city can choose to go horizontal or butterfly.

4060
- Manhole frame and cover should be 30" instead of 24"

4090
- Add note, "Copper or other approved material"
- Show concrete pad from the note
- Increase the manhole to 30"
- Remove table

4100A
- Add note, "Copper or other approved material"
- Show concrete pad from the note
- Increase the manhole to 30"

4100B
- Rename to "Air Vent Standard Dimension and Detail"
- The Subcommittee discussed if there was an instance where the air valve is type 1 installation or type 2 and if 4090 needs its own detail for the vent.

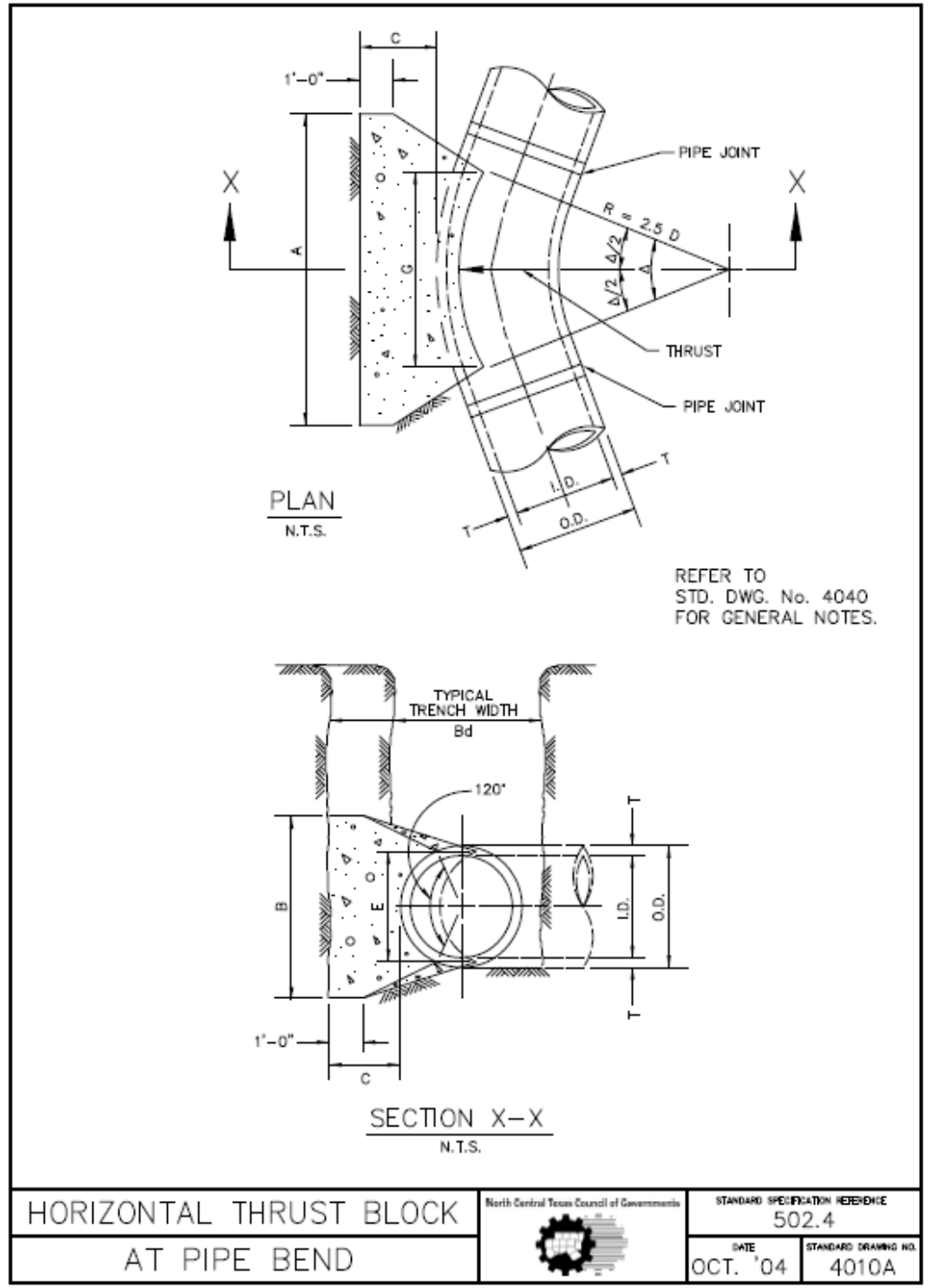
Division 4000: Water Distribution

DIVISION 4000 WATER DISTRIBUTION

TABLE OF CONTENTS

Add a detail for blow off and a detail for curb markings as a general note

Drawing #	*Subject*	*Section I: Item #*
4130	**Water Service Installation** 3/4" or 1" Line	502.10.3. Page 502-26
4140	**Water Service Installation** 1 1/2" or 2" Line	502.10.3. Page 502-26
4150	**4" Combined Service** With 4" Meter	502.10. Pages 502-24 to 502-29
4160	**8" Detector Check** Service With 8" Meter	502.10. Pages 502-24 to 502-29
4170	**8" Fire Line Standpipe** Service With 8" Meter	502.10. Pages 502-24 to 502-29
4180	**4" Domestic Service** With 3" Meter	502.10. Pages 502-24 to 502-29
4190A	**Large Service Meter** Vault Installation	702.5.8.8. Page 702-14
4190B	**Large Service Meter** Precast Vault	702.5.8.8. Page 702-14
4200	**Water Main Lowering** Below Wastewater Main	506.6. Pages 506-4 to 506-5



Show the restraint joint graphically

Add note, “All fittings require a megalug joint restraint in concert with thrust blocking or in reference to Standard Drawing 4040 for General Notes.”

I.D. (IN.)	T (IN.)	Δ = 11.25° C (FT.)	Δ = 22.50° C (FT.)	E (FT.)
4,6,8	0.4	1.5	1.5	0.9
10,12	0.5	1.5	1.5	1.2
16,18	0.6	1.5	1.5	1.6
20	0.7	1.5	1.5	1.8
24	0.9	1.5	1.5	2.1
30	2.9	1.5	1.9	2.6
36	4.5	1.5	2.3	3.3
42	5.0	1.8	2.6	3.8
48	5.5	2.0	3.0	4.3
54	6.0	2.3	3.4	4.8
60	6.5	2.5	3.8	5.3
66	6.8	2.8	4.1	5.7
72	7.5	3.0	4.5	6.3
78	7.5	3.3	4.9	6.7
84	8.0	3.5	5.3	7.2
90	8.5	3.8	5.6	7.7
96	9.0	4.0	6.0	8.2

	Δ = 11.25°								Δ = 22.50°								
			EARTH			ROCK						EARTH			ROCK		
I.D. (IN.)	G (FT.)	THRUST (TONS)	A (FT.)	B (FT.)	VOL. (C.Y.)	A (FT.)	B (FT.)	VOL. (C.Y.)	I.D. (IN.)	G (FT.)	THRUST (TONS)	A (FT.)	B (FT.)	VOL. (C.Y.)	A (FT.)	B (FT.)	VOL. (C.Y.)
4,6,8	0.4	1.0	1.0	1.5	0.1	1.0	1.0	0.1	4,6,8	0.8	2.0	1.5	1.5	0.1	1.0	1.0	0.1
10,12	0.6	2.2	1.5	1.5	0.1	1.0	1.5	0.1	10,12	1.1	4.4	2.0	2.5	0.3	1.5	1.5	0.1
16,18	0.8	5.0	2.0	2.5	0.3	1.5	2.0	0.2	16,18	1.6	9.9	3.0	3.5	0.6	2.0	2.5	0.3
20	0.9	6.2	2.0	3.5	0.4	1.5	3.0	0.3	20	1.8	12.3	3.5	3.5	0.7	2.0	3.0	0.4
24	1.1	8.9	3.0	3.5	0.5	1.5	3.0	0.3	24	2.2	17.7	4.0	4.5	1.0	3.0	3.5	0.5
30	1.4	10.4	3.0	3.5	0.6	2.0	3.5	0.4	30	2.7	20.7	5.0	4.5	1.5	3.0	4.0	0.8
36	1.7	15.0	3.5	4.5	0.9	2.0	4.0	0.5	36	3.3	29.8	5.5	5.5	2.3	4.0	4.0	1.3
42	1.9	20.4	4.5	5.0	1.5	2.5	5.0	0.8	42	3.8	40.5	7.0	6.0	3.9	4.5	5.0	2.1
48	2.2	26.6	4.5	6.0	2.0	2.5	6.0	1.1	48	4.4	52.9	8.0	7.0	5.7	4.5	6.0	2.8
54	2.5	33.7	6.0	6.0	3.0	3.0	6.0	1.4	54	4.9	67.0	9.0	8.0	8.0	6.0	6.0	4.1
60	2.7	41.6	6.0	7.0	3.8	3.0	7.0	1.8	60	5.5	82.7	9.5	9.0	10.6	6.0	7.0	5.3
66	3.0	50.3	6.5	8.0	5.1	3.5	8.0	2.7	66	6.0	100.1	10.5	10.0	14.1	6.5	8.0	7.2
72	3.3	59.9	7.5	8.0	6.3	4.0	8.0	3.3	72	6.6	119.1	11.0	11.0	17.6	7.5	8.0	9.1
78	3.6	70.2	8.0	9.0	8.1	4.0	9.0	3.9	78	7.1	139.8	12.0	12.0	22.5	8.0	9.0	11.7
84	3.8	81.5	8.5	10.0	10.3	4.5	10.0	5.3	84	7.6	162.1	13.0	12.5	27.2	8.5	10.0	14.8
90	4.1	93.5	9.5	10.0	12.2	5.0	10.0	6.3	90	8.2	186.1	14.0	13.5	33.7	9.5	10.0	17.7
96	4.4	106.4	10.0	11.0	15.0	5.0	11.0	7.4	96	8.7	211.7	15.0	14.5	41.2	10.0	11.0	21.8

TABLES OF DIMENSIONS AND QUANTITIES

HORIZONTAL THRUST BLOCK
AT PIPE BEND

North Central Texas Council of Governments

STANDARD SPECIFICATION REFERENCE
502.4

DATE
OCT. '04

STANDARD DRAWING NO.
4010B

I.D. (IN.)	Δ = 30° G (FT.)	THRUST (TONS)	EARTH A (FT.)	EARTH B (FT.)	EARTH VOL. (C.Y.)	ROCK A (FT.)	ROCK B (FT.)	ROCK VOL. (C.Y.)	I.D. (IN.)	Δ = 45° G (FT.)	THRUST (TONS)	EARTH A (FT.)	EARTH B (FT.)	EARTH VOL. (C.Y.)	ROCK A (FT.)	ROCK B (FT.)	ROCK VOL. (C.Y.)
4,6,8	1.0	2.6	2.0	1.5	0.2	1.0	1.5	0.1	4,6,8	1.5	3.9	2.0	2.0	0.2	1.5	1.5	0.1
10,12	1.5	5.9	2.5	2.5	0.3	2.0	1.5	0.2	10,12	2.2	8.7	3.5	2.5	0.5	2.0	2.5	0.3
16,18	2.2	13.2	3.5	4.0	0.8	2.5	3.0	0.4	16,18	3.2	19.5	4.5	4.5	1.2	3.0	3.5	0.6
20	2.4	16.3	4.5	4.0	1.0	3.0	3.0	0.5	20	3.6	24.1	5.5	4.5	1.5	3.5	3.5	0.7
24	2.9	23.4	6.0	4.0	1.4	3.5	3.5	0.7	24	4.3	34.6	8.0	4.5	2.3	4.5	4.0	1.1
30	3.6	27.5	6.5	5.0	1.9	3.5	4.0	0.9	30	5.4	40.6	8.5	5.0	3.2	5.5	4.0	1.6
36	4.4	39.5	7.0	6.0	3.4	4.5	4.5	1.6	36	6.5	58.5	10.0	6.0	5.3	6.5	4.5	2.6
42	5.1	53.8	8.0	7.0	5.1	5.5	5.0	2.5	42	7.5	79.6	11.5	7.0	8.1	8.0	5.0	4.2
48	5.8	70.3	9.0	8.0	7.4	6.0	6.0	3.7	48	8.6	104.0	13.0	8.0	11.9	9.0	6.0	6.3
54	6.5	89.0	10.0	9.0	10.3	7.0	6.5	5.3	54	9.7	131.5	15.0	9.0	17.1	10.5	6.5	8.9
60	7.3	110.0	11.0	10.0	13.9	7.5	7.5	7.3	60	10.7	162.4	16.5	10.0	23.1	11.0	7.5	12.0
66	8.0	132.9	12.5	11.0	18.9	8.5	8.0	9.6	66	11.8	196.5	18.0	11.0	30.1	12.0	8.5	16.2
72	8.7	158.2	13.5	12.0	24.0	9.0	9.0	12.3	72	12.9	233.9	19.5	12.0	38.6	14.0	8.5	20.7
78	9.4	185.6	14.5	13.0	30.0	10.0	9.5	15.6	78	13.9	274.5	21.5	13.0	49.8	14.5	9.5	25.9
84	10.1	215.3	15.5	14.0	37.1	10.5	10.5	19.5	84	15.0	318.4	23.0	14.0	61.2	15.5	10.5	32.6
90	10.9	247.1	16.5	15.0	45.0	11.5	11.0	23.9	90	16.1	365.5	24.5	15.0	74.5	17.5	10.5	39.6
96	11.6	281.2	18.0	16.0	55.5	12.5	11.5	28.9	96	17.1	415.6	26.0	16.0	89.5	18.5	11.5	48.5

I.D. (IN.)	Δ = 67.50° G (FT.)	THRUST (TONS)	EARTH A (FT.)	EARTH B (FT.)	EARTH VOL. (C.Y.)	ROCK A (FT.)	ROCK B (FT.)	ROCK VOL. (C.Y.)	I.D. (IN.)	Δ = 90° G (FT.)	THRUST (TONS)	EARTH A (FT.)	EARTH B (FT.)	EARTH VOL. (C.Y.)	ROCK A (FT.)	ROCK B (FT.)	ROCK VOL. (C.Y.)
4,6,8	2.1	5.6	3.0	2.0	0.3	2.0	1.5	0.2	4,6,8	2.7	7.1	5.0	1.5	0.4	2.0	2.0	0.2
10,12	3.1	12.6	5.5	2.5	0.8	3.5	2.0	0.4	10,12	4.0	16.0	6.5	2.5	1.0	3.5	2.5	0.5
16,18	4.7	28.3	7.5	4.0	1.9	5.5	3.0	0.9	16,18	6.0	36.0	9.0	4.0	2.4	4.5	4.0	1.0
20	5.2	34.9	9.0	4.0	2.3	5.5	3.5	1.2	20	6.6	44.4	10.0	4.5	3.1	6.0	4.0	1.5
24	6.2	50.3	11.5	4.5	3.5	6.5	4.0	1.6	24	7.9	64.0	14.5	4.5	5.0	8.0	4.0	2.1
30	7.8	58.9	12.0	5.0	4.8	7.5	4.0	2.2	30	9.9	75.0	15.0	5.0	6.7	10.0	4.0	3.3
36	9.4	84.9	14.5	6.0	8.2	9.5	4.5	3.8	36	11.9	108.0	18.0	6.0	11.4	12.0	4.5	5.3
42	10.9	115.5	17.0	7.0	12.8	11.0	5.5	6.3	42	13.9	147.0	21.0	7.0	17.8	14.0	5.5	8.7
48	12.5	150.9	19.0	8.0	18.4	13.0	6.0	9.2	48	15.9	192.0	24.0	8.0	26.2	16.0	6.0	12.4
54	14.0	191.0	21.5	9.0	26.0	15.0	6.5	12.9	54	17.9	243.0	27.0	9.0	36.9	18.0	7.0	18.1
60	15.6	235.8	24.0	10.0	35.6	16.0	7.5	17.6	60	19.9	299.8	30.0	10.0	50.3	20.0	7.5	24.0
66	17.1	285.3	26.0	11.0	46.0	18.0	8.0	23.0	66	21.8	362.8	33.0	11.0	66.2	22.0	8.5	32.5
72	18.7	339.5	28.5	12.0	57.8	19.0	9.0	28.4	72	23.8	431.8	36.0	12.0	85.6	24.0	9.0	41.0
78	20.2	398.5	31.0	13.0	75.7	21.0	9.5	37.4	78	25.7	506.7	39.0	13.0	108.2	26.0	10.0	53.2
84	21.8	462.1	33.5	14.0	94.7	22.0	10.5	46.5	84	27.7	587.7	42.0	14.0	134.4	28.0	10.5	64.8
90	23.3	530.5	35.5	15.0	114.4	24.5	11.0	58.2	90	29.0	674.6	45.0	15.0	164.9	30.0	11.5	81.2
96	24.9	603.6	38.0	16.0	136.9	25.5	12.0	70.0	96	31.6	767.5	48.0	16.0	199.0	32.0	12.0	95.1

TABLES OF DIMENSIONS AND QUANTITIES

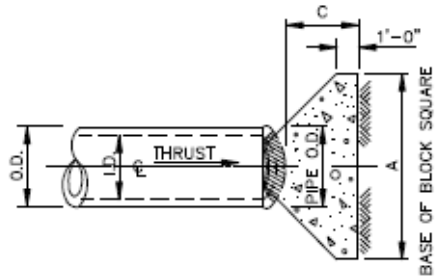
HORIZONTAL THRUST BLOCK AT PIPE BEND

North Central Texas Council of Governments

STANDARD SPECIFICATION REFERENCE
502.4

DATE
OCT. '04

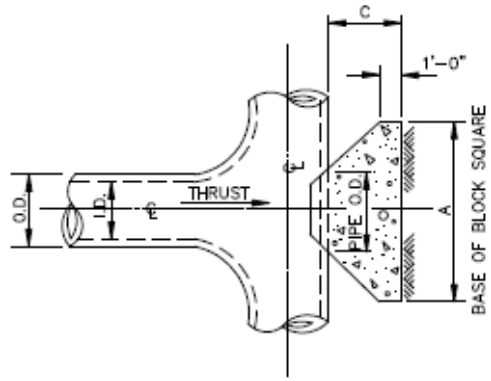
STANDARD DRAWING NO.
4010C



PLAN OF PLUG THRUST BLOCK

N.T.S.

REFER TO
STD. DWG. No. 4040
FOR GENERAL NOTES.



PLAN OF TEE THRUST BLOCK

N.T.S.

			EARTH		ROCK	
I.D. (IN.)	THRUST (TONS)	C (FT.)	A (FT.)	VOL. (C.Y.)	A (FT.)	VOL. (C.Y.)
4,6,8	5.1	1.5	2.5	0.3	2.0	0.2
10,12	11.3	1.5	3.5	0.6	2.5	0.3
16,18	25.5	2.0	5.5	1.6	4.0	0.9
20	31.5	2.0	6.0	1.9	4.0	0.9
24	45.2	2.5	7.0	3.1	5.0	1.7
30	53.0	3.0	7.5	4.1	5.5	2.4
36	76.3	4.0	9.0	7.3	6.5	4.2
42	104.0	4.5	10.5	11.0	7.5	6.2
48	136.0	5.0	12.0	15.6	8.5	8.7
54	172.0	5.5	13.5	21.4	9.5	11.9
60	212.0	6.0	15.0	28.4	10.5	15.7
66	257.0	6.5	16.5	36.8	11.5	20.5
72	305.0	7.5	17.5	47.2	12.5	27.2
78	358.0	8.0	19.0	58.9	13.5	33.7
84	416.0	8.5	20.5	72.3	14.5	41.2
90	477.0	9.0	22.0	87.7	15.5	49.7
96	543.0	9.5	23.5	104.8	16.5	61.0

HORIZONTAL THRUST BLOCK AT TEES AND PLUGS

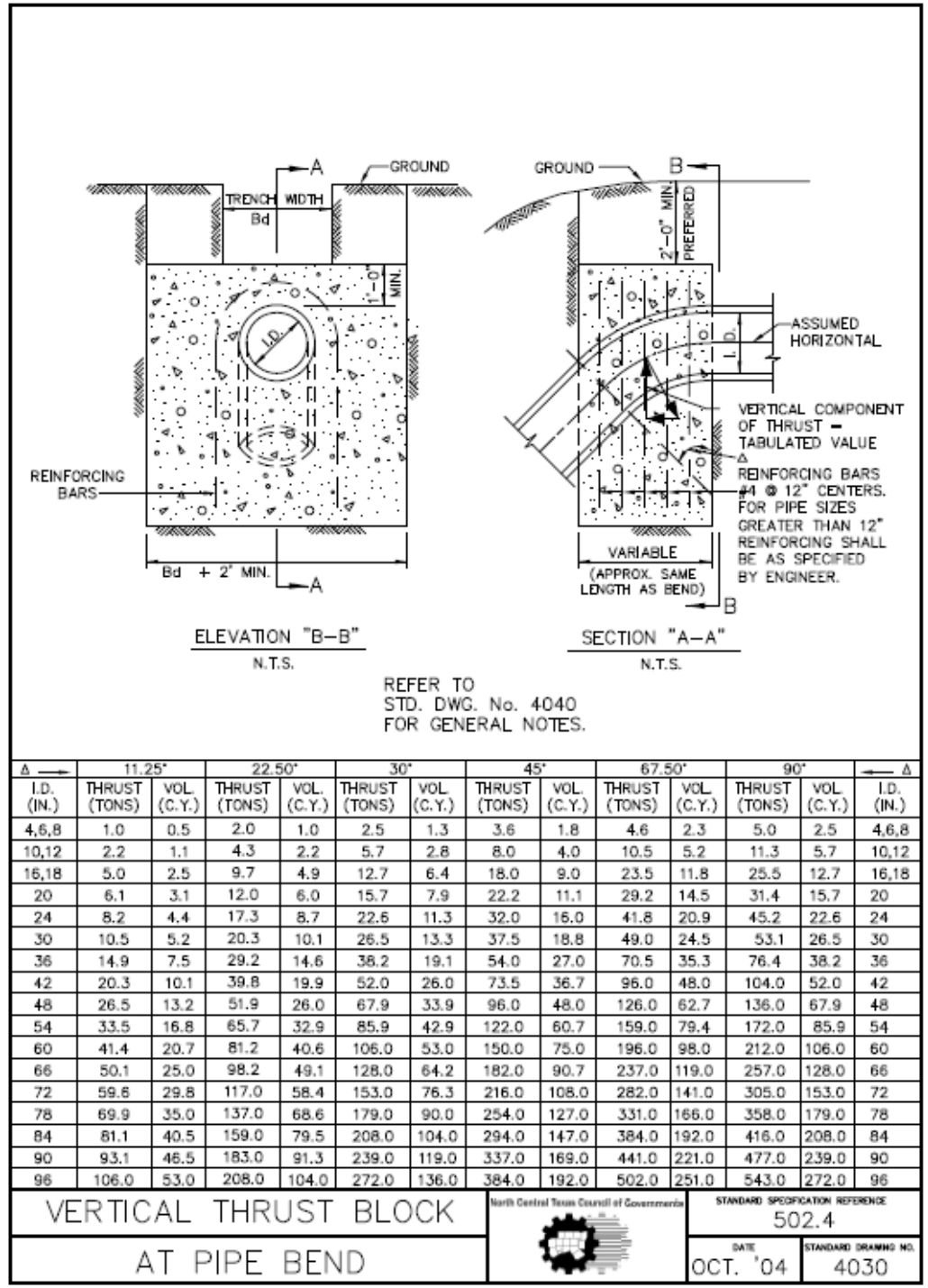
North Central Texas Council of Governments

STANDARD SPECIFICATION REFERENCE
502.4

DATE
OCT. '04

STANDARD DRAWING NO.
4020

Show the restraint joint graphically



ELEVATION "B–B"
N.T.S.

SECTION "A–A"
N.T.S.

REFER TO
STD. DWG. No. 4040
FOR GENERAL NOTES.

Δ	11.25°		22.50°		30°		45°		67.50°		90°		Δ
I.D. (IN.)	THRUST (TONS)	VOL. (C.Y.)	THRUST (TONS)	VOL. (C.Y.)	THRUST (TONS)	VOL. (C.Y.)	THRUST (TONS)	VOL. (C.Y.)	THRUST (TONS)	VOL. (C.Y.)	THRUST (TONS)	VOL. (C.Y.)	I.D. (IN.)
4,6,8	1.0	0.5	2.0	1.0	2.5	1.3	3.6	1.8	4.6	2.3	5.0	2.5	4,6,8
10,12	2.2	1.1	4.3	2.2	5.7	2.8	8.0	4.0	10.5	5.2	11.3	5.7	10,12
16,18	5.0	2.5	9.7	4.9	12.7	6.4	18.0	9.0	23.5	11.8	25.5	12.7	16,18
20	6.1	3.1	12.0	6.0	15.7	7.9	22.2	11.1	29.2	14.5	31.4	15.7	20
24	8.2	4.4	17.3	8.7	22.6	11.3	32.0	16.0	41.8	20.9	45.2	22.6	24
30	10.5	5.2	20.3	10.1	26.5	13.3	37.5	18.8	49.0	24.5	53.1	26.5	30
36	14.9	7.5	29.2	14.6	38.2	19.1	54.0	27.0	70.5	35.3	76.4	38.2	36
42	20.3	10.1	39.8	19.9	52.0	26.0	73.5	36.7	96.0	48.0	104.0	52.0	42
48	26.5	13.2	51.9	26.0	67.9	33.9	96.0	48.0	126.0	62.7	136.0	67.9	48
54	33.5	16.8	65.7	32.9	85.9	42.9	122.0	60.7	159.0	79.4	172.0	85.9	54
60	41.4	20.7	81.2	40.6	106.0	53.0	150.0	75.0	196.0	98.0	212.0	106.0	60
66	50.1	25.0	98.2	49.1	128.0	64.2	182.0	90.7	237.0	119.0	257.0	128.0	66
72	59.6	29.8	117.0	58.4	153.0	76.3	216.0	108.0	282.0	141.0	305.0	153.0	72
78	69.9	35.0	137.0	68.6	179.0	90.0	254.0	127.0	331.0	166.0	358.0	179.0	78
84	81.1	40.5	159.0	79.5	208.0	104.0	294.0	147.0	384.0	192.0	416.0	208.0	84
90	93.1	46.5	183.0	91.3	239.0	119.0	337.0	169.0	441.0	221.0	477.0	239.0	90
96	106.0	53.0	208.0	104.0	272.0	136.0	384.0	192.0	502.0	251.0	543.0	272.0	96

VERTICAL THRUST BLOCK
AT PIPE BEND

North Central Texas Council of Governments

STANDARD SPECIFICATION REFERENCE
502.4

DATE
OCT. '04

STANDARD DRAWING NO.
4030

Revisit when the Subcommittee looks at pipe lowering

GENERAL NOTES FOR ALL THRUST BLOCKS:

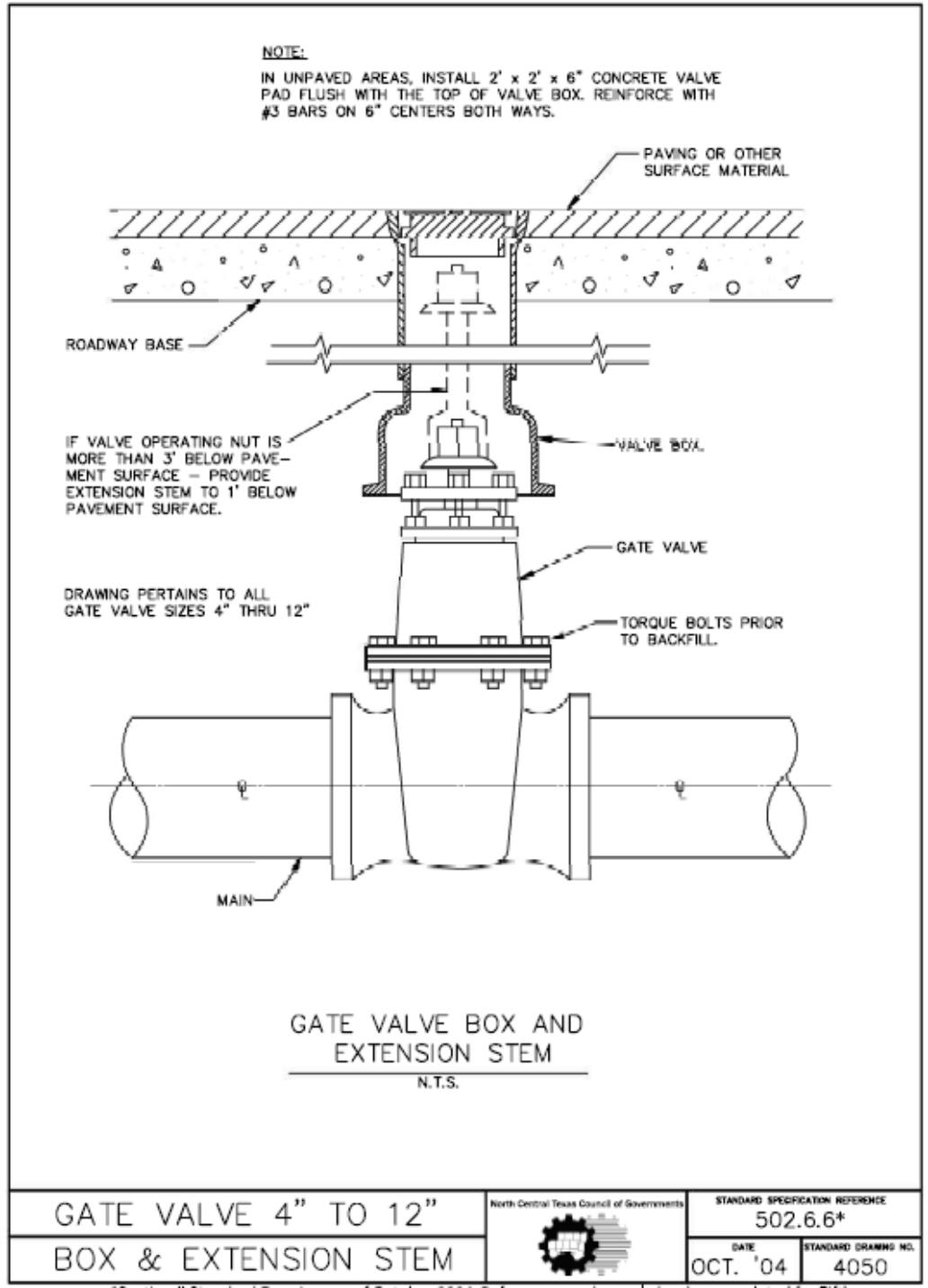
1. CONCRETE FOR BLOCKING SHALL BE CLASS "B".
2. ALL CALCULATIONS ARE BASED ON INTERNAL PRESSURE OF 200 PSI FOR DUCTILE IRON, P.V.C., AND 150 PSI FOR CONCRETE PIPE.
3. VOLUMES OF THRUST BLOCKS ARE NET VOLUMES OF CONCRETE TO BE FURNISHED. THE CORRESPONDING WEIGHT OF THE CONCRETE (CLASS "B") IS EQUAL TO OR GREATER THAN THE VERTICAL COMPONENT OF THE THRUST ON THE VERTICAL BEND.
4. WALL THICKNESS (T) ASSUMED HERE FOR ESTIMATING PURPOSES ONLY.
5. POUR CONCRETE FOR BLOCK AGAINST UNDISTURBED EARTH.
6. DIMENSIONS MAY BE VARIED AS REQUIRED BY FIELD CONDITIONS WHERE AND AS DIRECTED BY THE ENGINEER. THE VOLUME OF CONCRETE BLOCKING SHALL NOT BE LESS THAN SHOWN HERE.
7. THE SOIL BEARING PRESSURES ARE BASED ON 1000 LBS./S.F. IN SOIL AND 2000 LBS./S.F. IN ROCK.
8. USE POLYETHYLENE WRAP OR EQUAL BETWEEN CONCRETE AND BEND, TEE, OR PLUG TO PREVENT THE CONCRETE FROM STICKING TO IT.
9. CONCRETE SHALL NOT EXTEND BEYOND JOINTS.

THRUST BLOCK	North Central Texas Council of Governments	STANDARD SPECIFICATION REFERENCE 502.4	
GENERAL NOTES		DATE OCT. '04	STANDARD DRAWING NO. 4040

Add a comment about sacrificial anodes if the soil is a certain chemistry. Mathew will send Olivia the exact wording.

Add a note about joint restraints. Mathew will send Olivia the exact wording.

Add a note about using a zinc pad or cap. The City of Coppell's drawing 4050 points to the zinc cap and joint restraint.



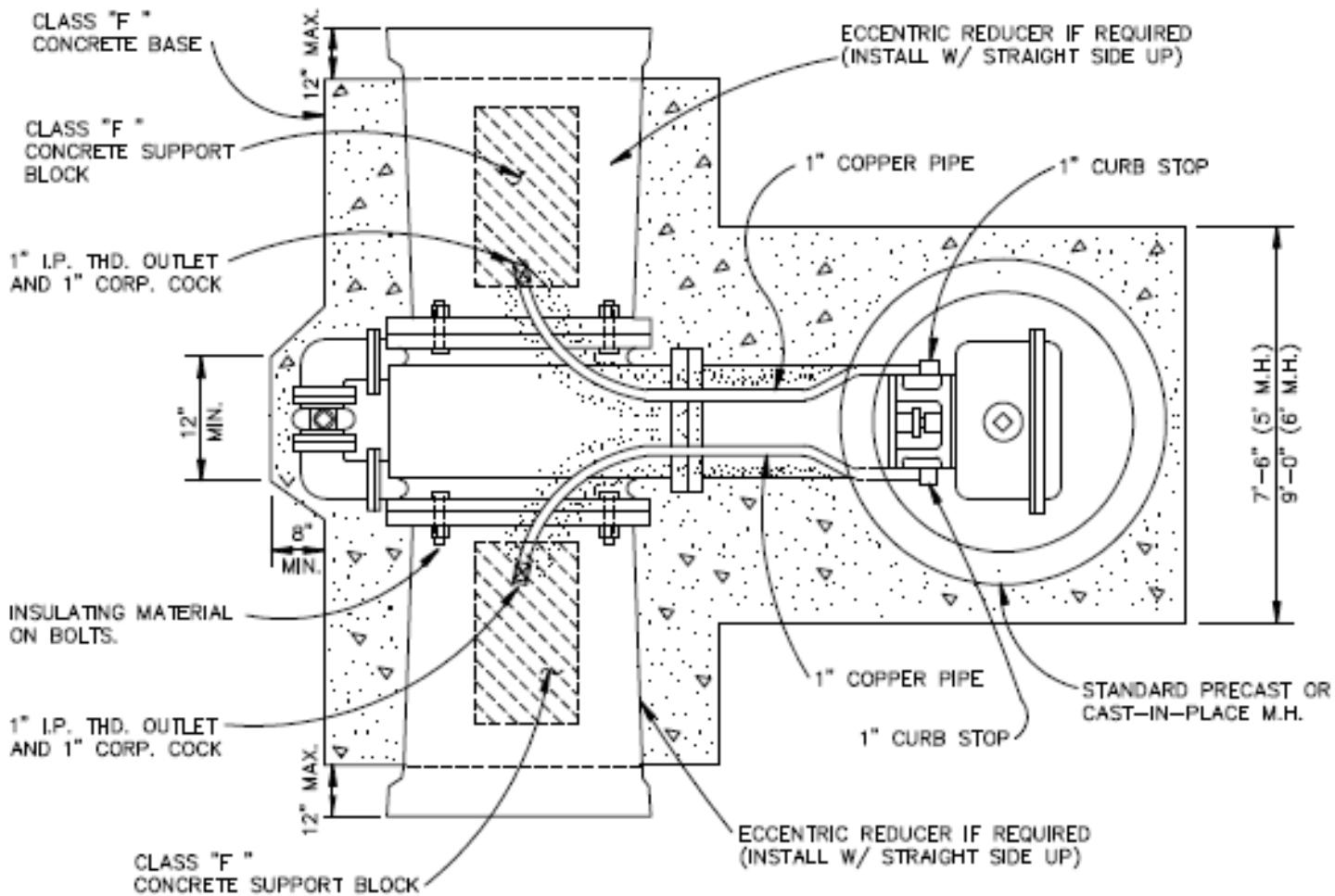
Polywrap the gate valve

Include the mechanical joint restraint

Include tracer wire

Include the zinc nut/pad

This should be the standard for 4”-16”, over 16” the city can choose to go horizontal or butterfly.



PLAN
N.T.S.

Manhole frame and cover should be 30” instead of 24”

STANDARD DRAWING NO. 4060A

VAULT CONSTRUCTION

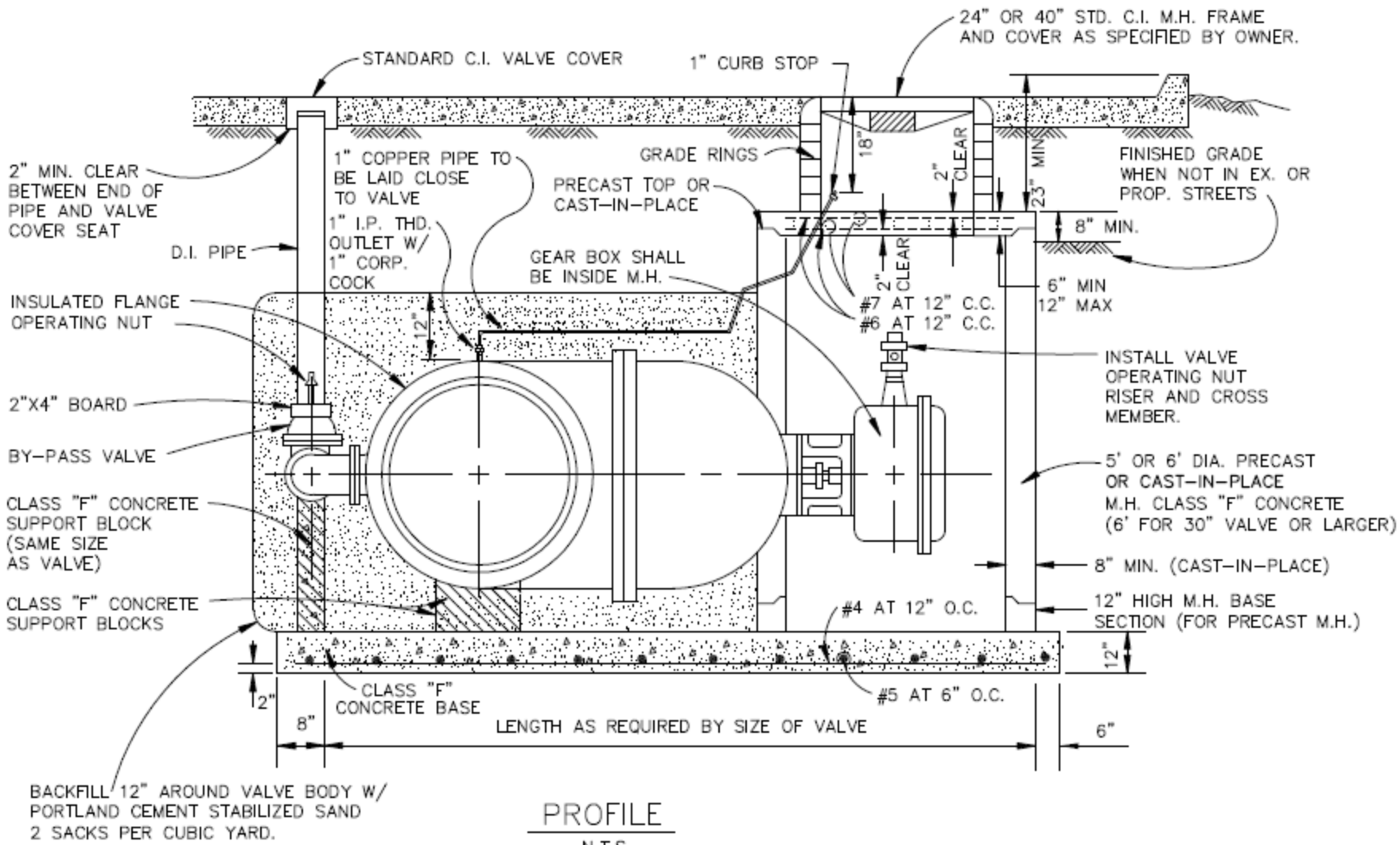
HORIZONTAL GATE VALVE ≧ 16"

North Central Texas Council of Governments

STANDARD SPECIFICATION REFERENCE
702.5.8.8*

DATE
OCT. '04

STANDARD DRAWING NO.
4060A



PROFILE

N.T.S.

STANDARD DRAWING NO. 4060B

VAULT CONSTRUCTION

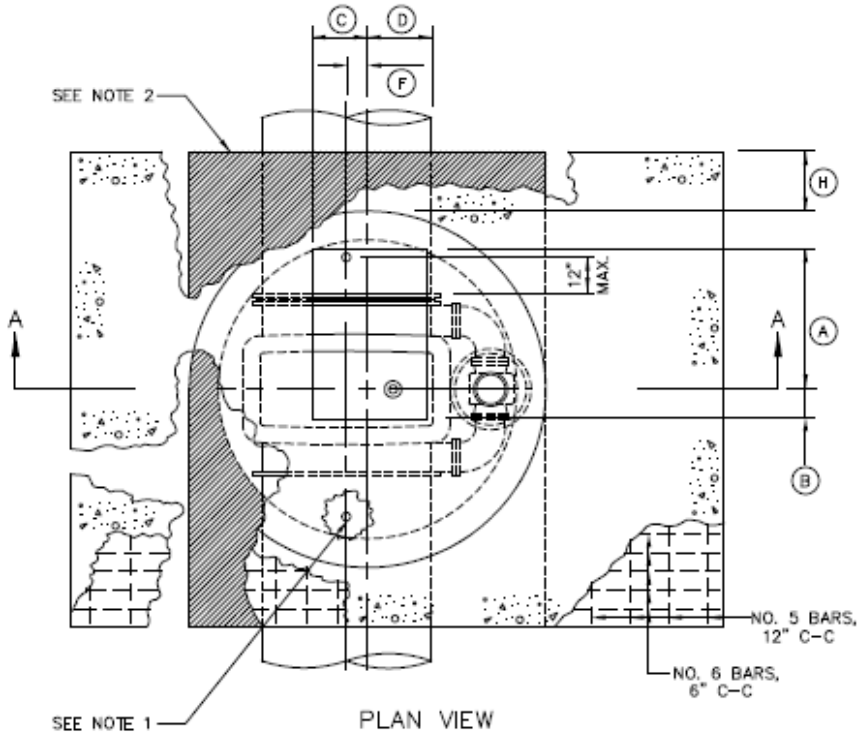
HORIZONTAL GATE VALVE ≥ 16"

North Central Texas Council of Governments

STANDARD SPECIFICATION REFERENCE
702.5.8.8*

DATE
OCT. '04

STANDARD DRAWING NO.
4060B



PLAN VIEW

(LESS MANHOLE FRAME & COVER INSTALLATION)
N.T.S.

GATE VALVE SIZE	DIMENSION TABLE											
	A	B	C	D	E	F	G	H	J	K	L	M
16"	20"	20"	12"	12"	44 1/2"	1"	48"	12"	10"	24"	12"	16"
18"	20"	20"	12"	12"	51 3/8"	2"	48"	12"	12"	24"	12"	18"
20"	22"	18"	12"	12"	56 5/8"	1"	54"	12"	12"	24"	16"	20"
24"	26"	14"	12"	12"	64 3/8"	1"	60"	18"	14"	30"	18"	24"
30"	28"	12"	12"	12"	80 5/8"	3"	66"	18"	18"	30"	20"	30"
36"	32"	8"	12"	12"	90 1/16"	4"	72"	18"	18"	36"	24"	36"
42"	34"	6"	15"	9"	107 3/4"	5"	78"	24"	20"	36"	30"	42"
48"	36"	4"	14"	10"	121 5/8"	4"	90"	24"	26"	42"	36"	48"
54"	36"	4"	9"	15"	142 1/2"	3"	102"	24"	32"	46"	40"	54"

NOTES:
1. PROVIDE CORPORATION AND CURB STOPS A MAXIMUM OF 12" FROM EACH END OF GATE VALVE, AS SHOWN. CORPORATION AND CURB STOP SIZES SHALL BE 1" FOR 16", 20", AND 24" NOMINAL PIPE DIAMETERS; 2" FOR 30" AND LARGER DIAMETERS. 2" TAPS SHALL BE MADE AS A 2" FLANGED OUTLET WITH INSULATED ADAPTOR KIT. COPPER RISERS SHALL BE PROVIDED BETWEEN THE CORPORATION AND CURB STOPS. CURB STOPS SHALL BE INSTALLED AT AN ELEVATION 12" ABOVE THE TOP SURFACE OF VAULT BOTTOM SLAB.
2. POLYURETHANE CUSHION PAD.

VAULT CONSTRUCTION

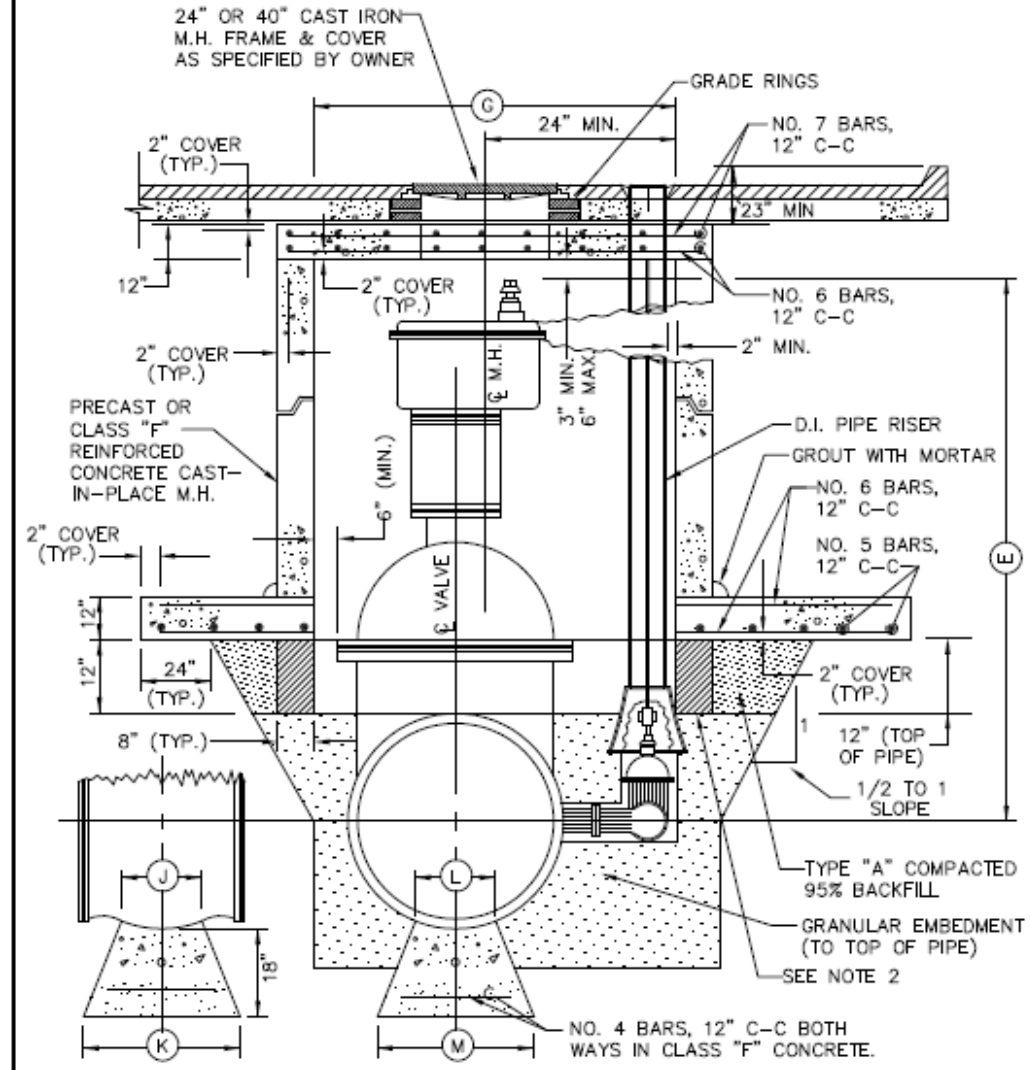
VERTICAL GATE VALVE ≥ 16"

North Central Texas Council of Governments

STANDARD SPECIFICATION REFERENCE: 702.5 *

DATE: OCT. '04

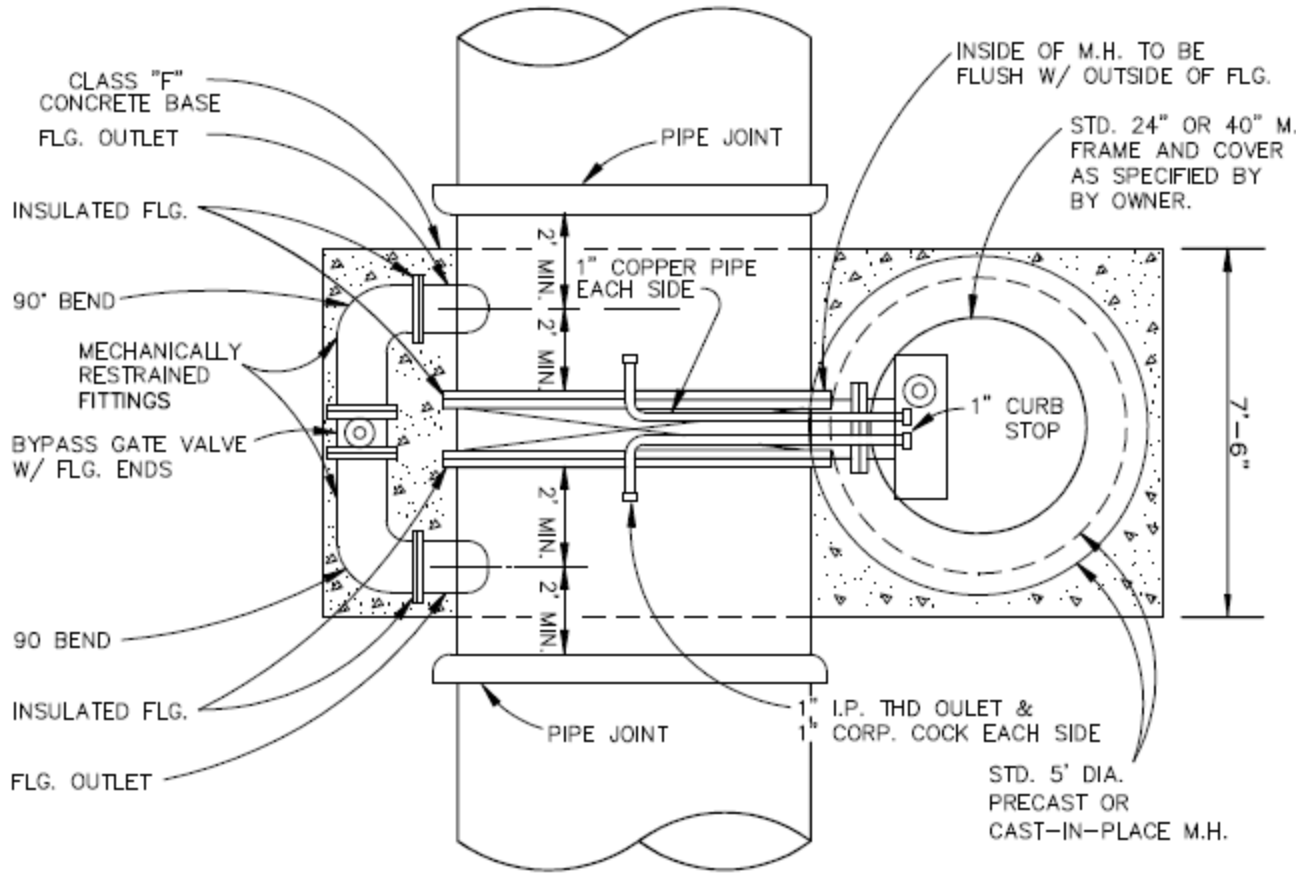
STANDARD DRAWING NO.: 4070A



SECTION "A–A"

REFER TO STD. DWG. 4070A FOR DIMENSION TABLE AND GENERAL NOTES.

VAULT CONSTRUCTION	North Central Texas Council of Governments	STANDARD SPECIFICATION REFERENCE 702.5 *	
VERTICAL GATE VALVE ≥ 16"		DATE OCT. '04	STANDARD DRAWING NO. 4070B



PLAN

N.T.S.

STANDARD DRAWING NO. 4080A

VAULT CONSTRUCTION

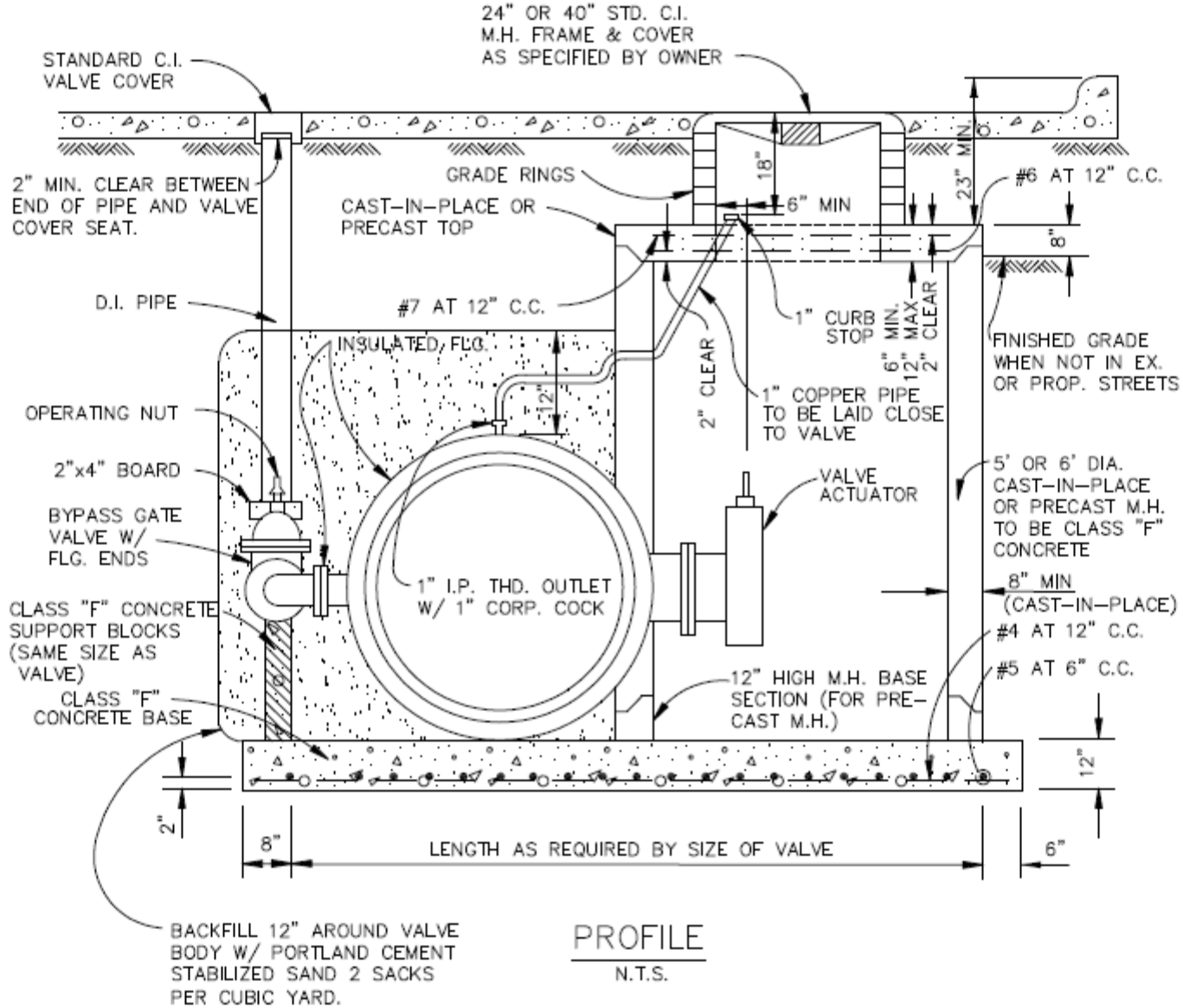
BUTTERFLY VALVE ≧ 48"

North Central Texas Council of Governments

STANDARD SPECIFICATION REFERENCE: 702.5 *

DATE: OCT. '04

STANDARD DRAWING NO.: 4080A



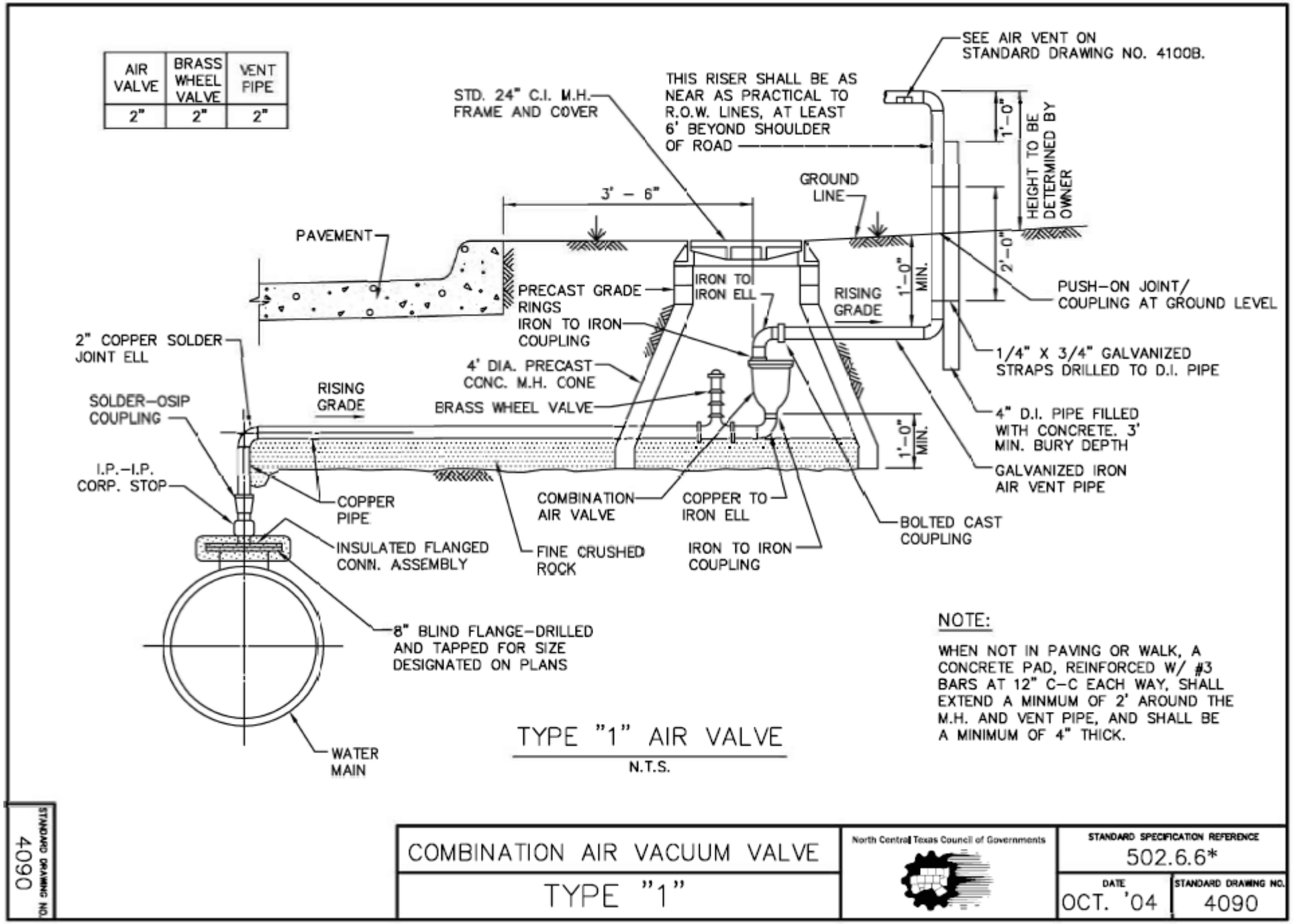
PROFILE
N.T.S.

STANDARD DRAWING NO. 4080B

VAULT CONSTRUCTION
BUTTERFLY VALVE ≧ 48"

North Central Texas Council of Governments

STANDARD SPECIFICATION REFERENCE	
702.5 *	
DATE	STANDARD DRAWING NO.
OCT. '04	4080B



NOTE:

WHEN NOT IN PAVING OR WALK, A CONCRETE PAD, REINFORCED W/ #3 BARS AT 12" C-C EACH WAY, SHALL EXTEND A MINMUM OF 2' AROUND THE M.H. AND VENT PIPE, AND SHALL BE A MINIMUM OF 4" THICK.

TYPE "1" AIR VALVE

N.T.S.

STANDARD DRAWING NO. 4090

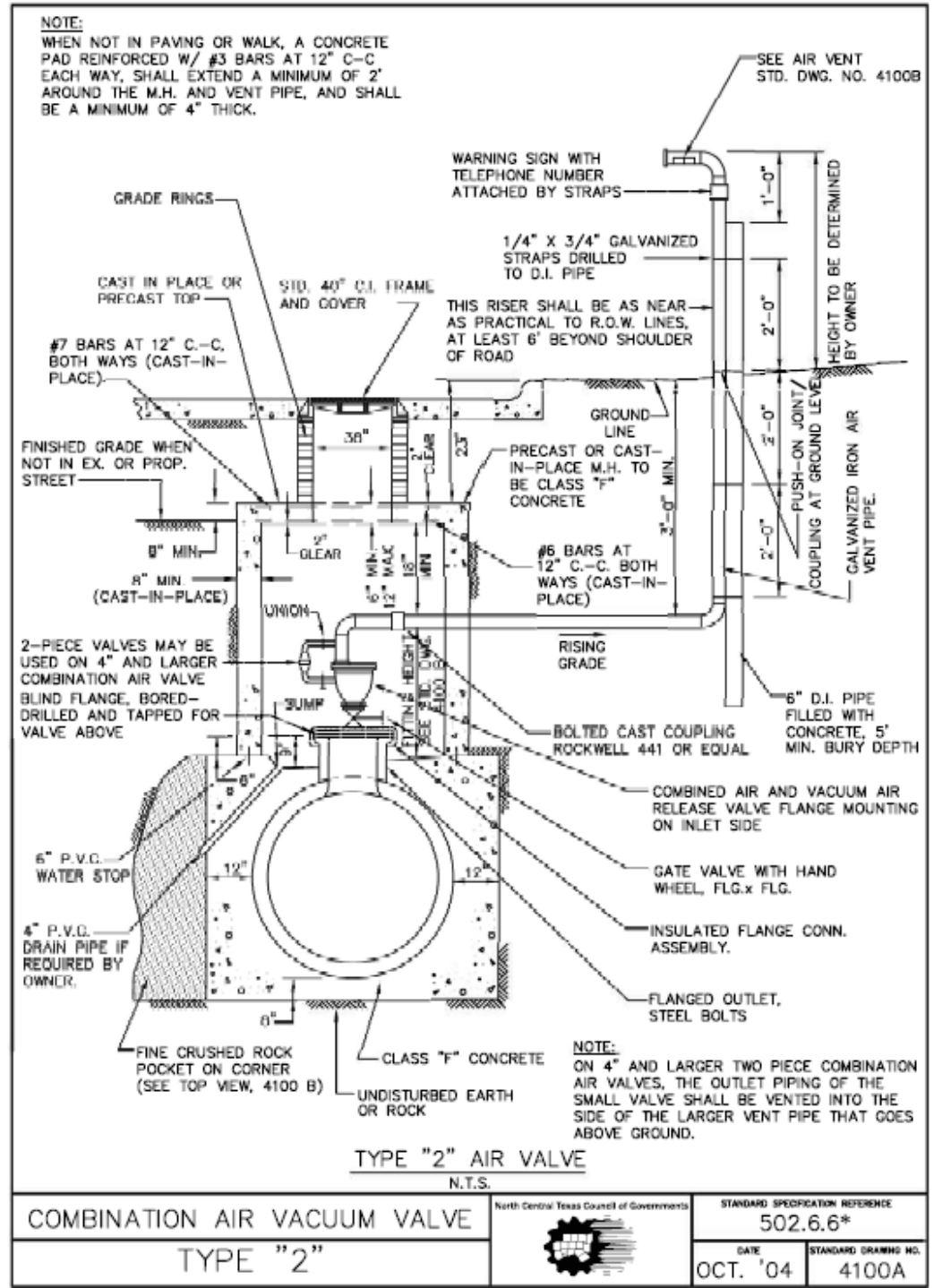
COMBINATION AIR VACUUM VALVE	North Central Texas Council of Governments	STANDARD SPECIFICATION REFERENCE 502.6.6*
TYPE "1"		DATE OCT. '04 / STANDARD DRAWING NO. 4090

Add note, "Copper or other approved material"

Show concrete pad from the note

Increase the manhole to 30"

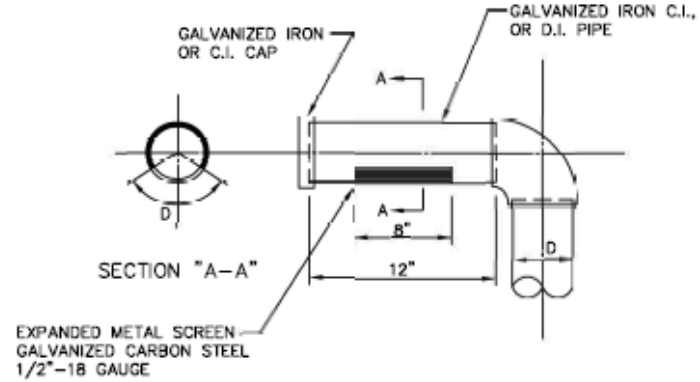
Remove table



Add note, “Copper or other approved material”

Show concrete pad from the note

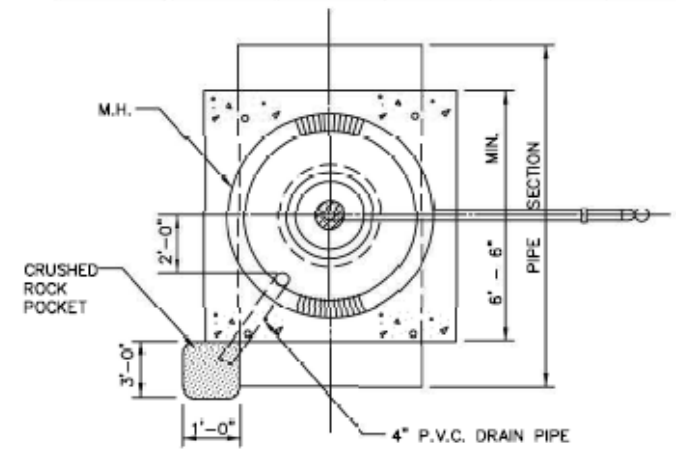
Increase the manhole to 30”



AIR VENT

N.T.S.

AIR VALVE	GATE VALVE	FLG. OUTLET	MIN. FITTING HEIGHT	VENT PIPE D	M.H. DIA.
2"	2"	8"	26"	2"	5'
3"	3"	18"	31"	3"	5'
4"	4"	18"	38"	4"	5'
6"	6"	18"	46"	6"	5'
8"	8"	18"	53"	8"	6'
10"	10"	20"	62"	10"	6'
12"	12"	24"	72"	12"	6'



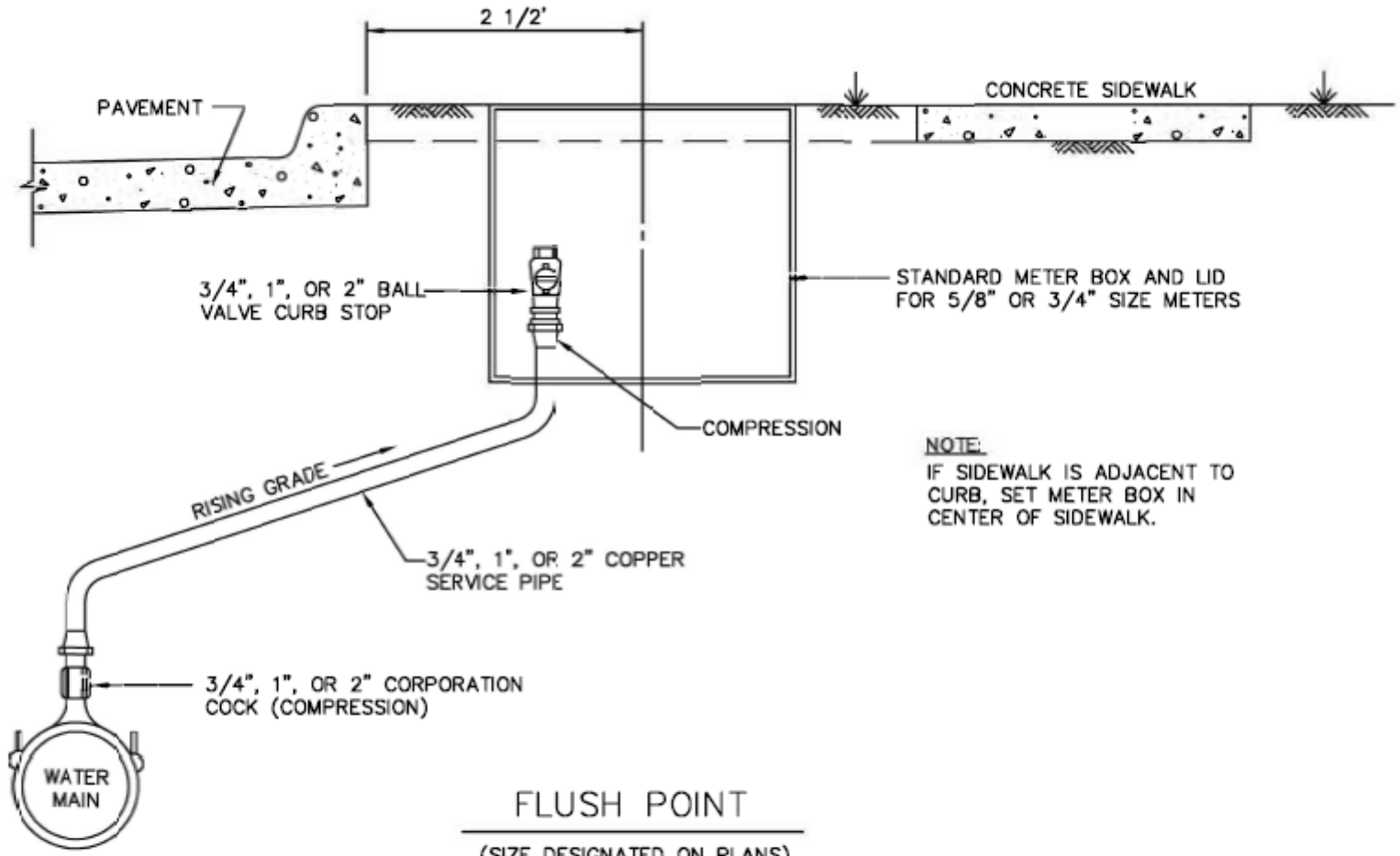
PLAN VIEW

N.T.S.

AIR RELEASE VALVE	North Central Texas Council of Governments	STANDARD SPECIFICATION REFERENCE 502.6.6*	
TYPE "2"		DATE OCT. '04	STANDARD DRAWING NO. 4100B

Rename to “Air Vent Standard Dimension and Detail”

The Subcommittee discussed if there was an instance where the air valve is type 1 installation or type 2 and if 4090 needs its own detail for the vent.



NOTE:
IF SIDEWALK IS ADJACENT TO CURB, SET METER BOX IN CENTER OF SIDEWALK.

FLUSH POINT

(SIZE DESIGNATED ON PLANS)
N.T.S.

STANDARD DRAWING NO. 4110

FLUSH POINT INSTALLATION

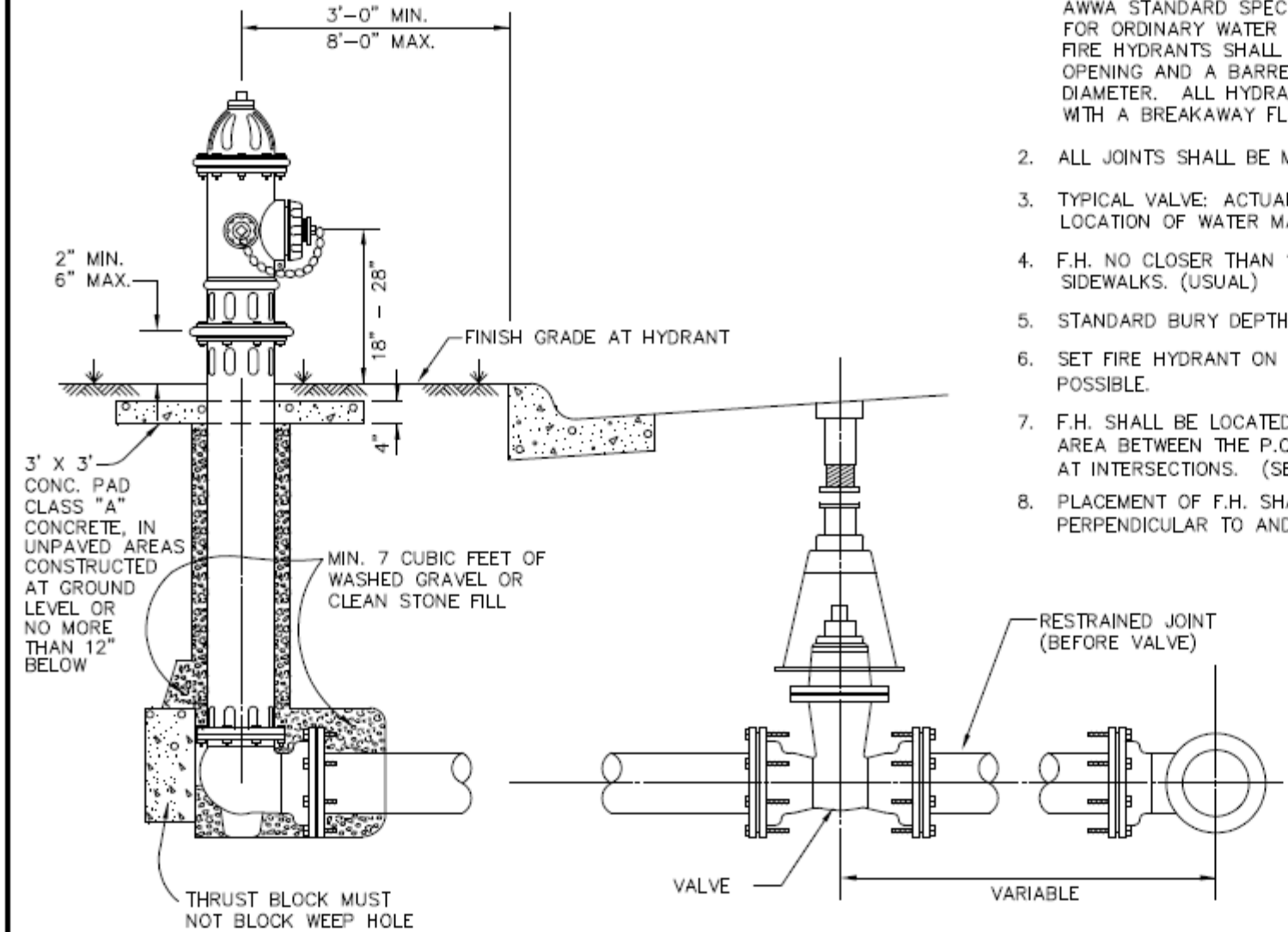
TYPE "1"

North Central Texas Council of Governments

STANDARD SPECIFICATION REFERENCE
502.10.3*

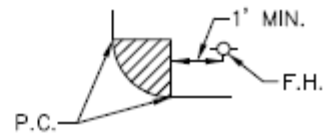
DATE
OCT. '04

STANDARD DRAWING NO.
4110



NOTES:

1. IN GENERAL, ALL FIRE HYDRANTS SHALL CONFORM TO AWWA STANDARD SPECIFICATIONS FOR FIRE HYDRANTS FOR ORDINARY WATER WORKS SERVICE, C–502. FIRE HYDRANTS SHALL HAVE A 5 1/4" MIN. VALVE OPENING AND A BARREL APPROXIMATELY 7" INSIDE DIAMETER. ALL HYDRANTS SHALL BE EQUIPPED WITH A BREAKAWAY FLANGE.
2. ALL JOINTS SHALL BE MECHANICAL JOINTS.
3. TYPICAL VALVE: ACTUAL VALVE LOCATION WILL DEPEND ON LOCATION OF WATER MAIN.
4. F.H. NO CLOSER THAN 18" TO EXISTING OR PROPOSED SIDEWALKS. (USUAL)
5. STANDARD BURY DEPTH 4' FEET
6. SET FIRE HYDRANT ON THE LOT LINE EXTENDED WHEN POSSIBLE.
7. F.H. SHALL BE LOCATED MINIMUM 1 FT. OUTSIDE OF THE AREA BETWEEN THE P.C.'S OF THE CORNER TURNING RADII AT INTERSECTIONS. (SEE PLAN VIEW)
8. PLACEMENT OF F.H. SHALL BE WHERE PUMPER NOZZLE IS PERPENDICULAR TO AND FACING THE NEAREST CURB.



PLAN VIEW
N.T.S.

STANDARD DRAWING NO. 4120

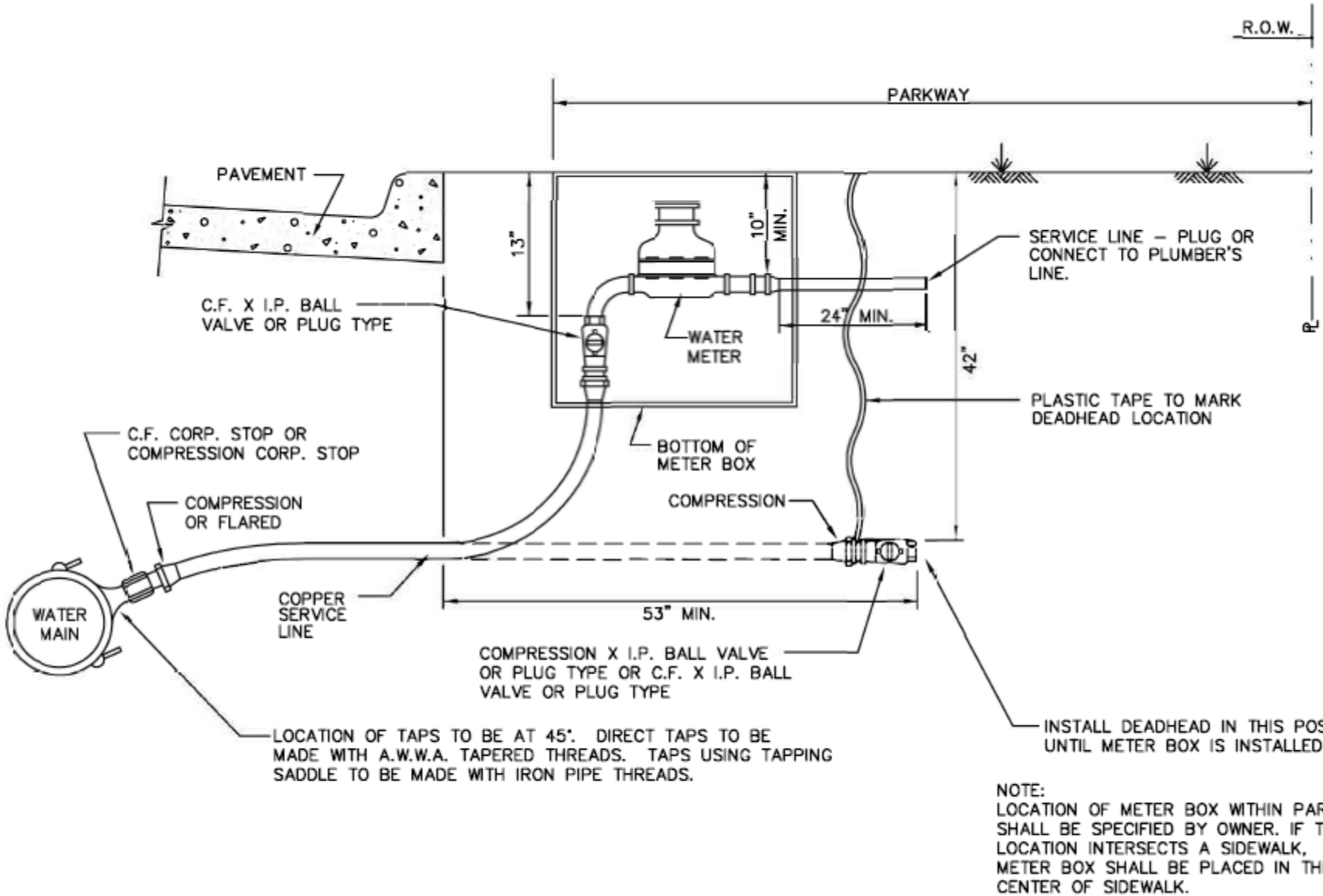
FIRE HYDRANT INSTALLATION

North Central Texas Council of Governments

STANDARD SPECIFICATION REFERENCE 502.3

DATE OCT. '04

STANDARD DRAWING NO. 4120



NOTE:
LOCATION OF METER BOX WITHIN PARKWAY SHALL BE SPECIFIED BY OWNER. IF THE LOCATION INTERSECTS A SIDEWALK, METER BOX SHALL BE PLACED IN THE CENTER OF SIDEWALK.

STANDARD DRAWING NO. 4130

WATER SERVICE INSTALLATION

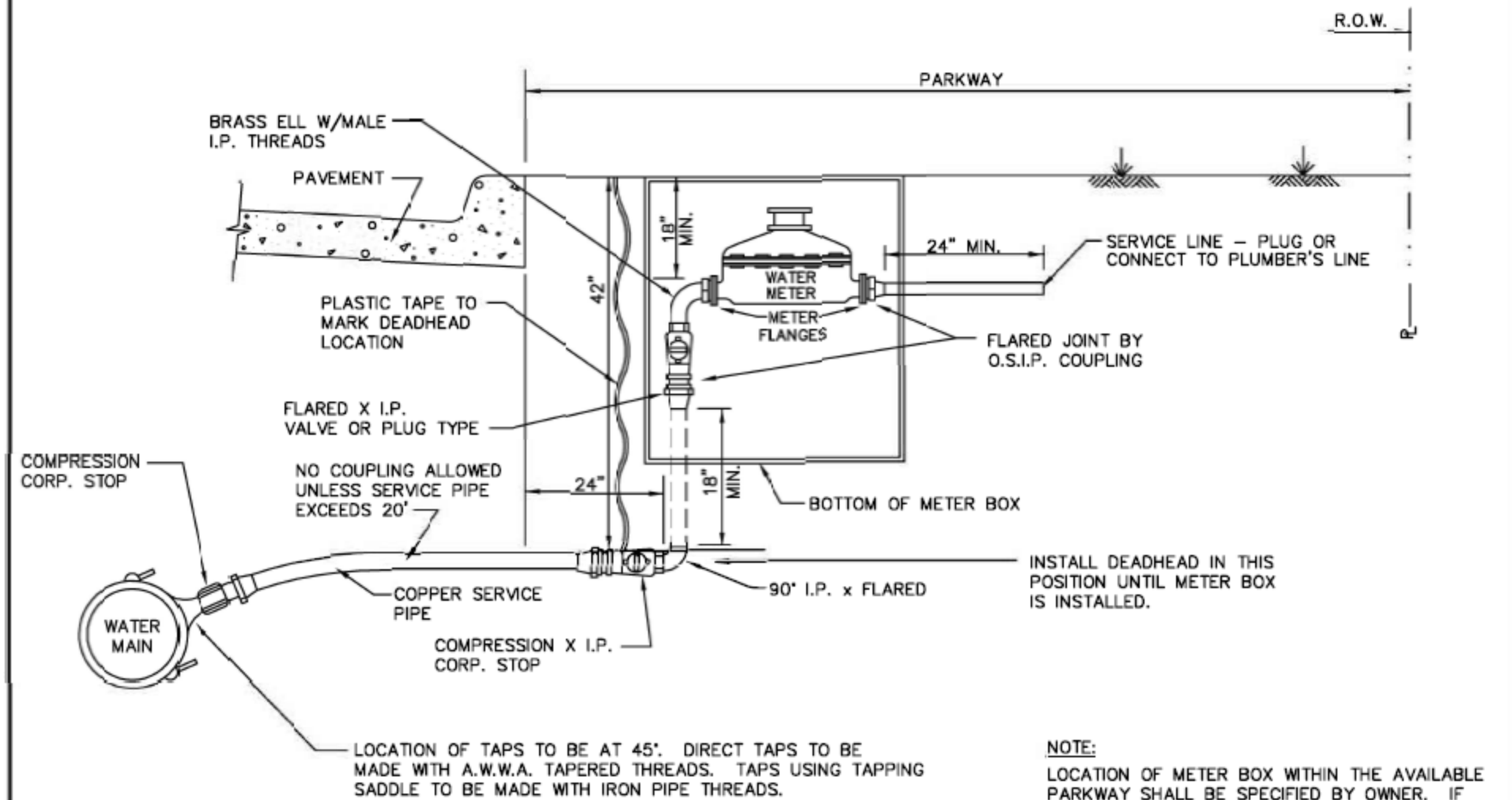
3/4" OR 1" LINE

North Central Texas Council of Governments

STANDARD SPECIFICATION REFERENCE
502.10.3*

DATE
OCT. '04

STANDARD DRAWING NO.
4130



NOTE:

LOCATION OF METER BOX WITHIN THE AVAILABLE PARKWAY SHALL BE SPECIFIED BY OWNER. IF THE LOCATION INTERSECTS A SIDEWALK, METER BOX SHALL BE PLACED IN CENTER OF SIDEWALK.

STANDARD DRAWING NO. 4140

WATER SERVICE INSTALLATION

1 1/2" OR 2" LINE

North Central Texas Council of Governments

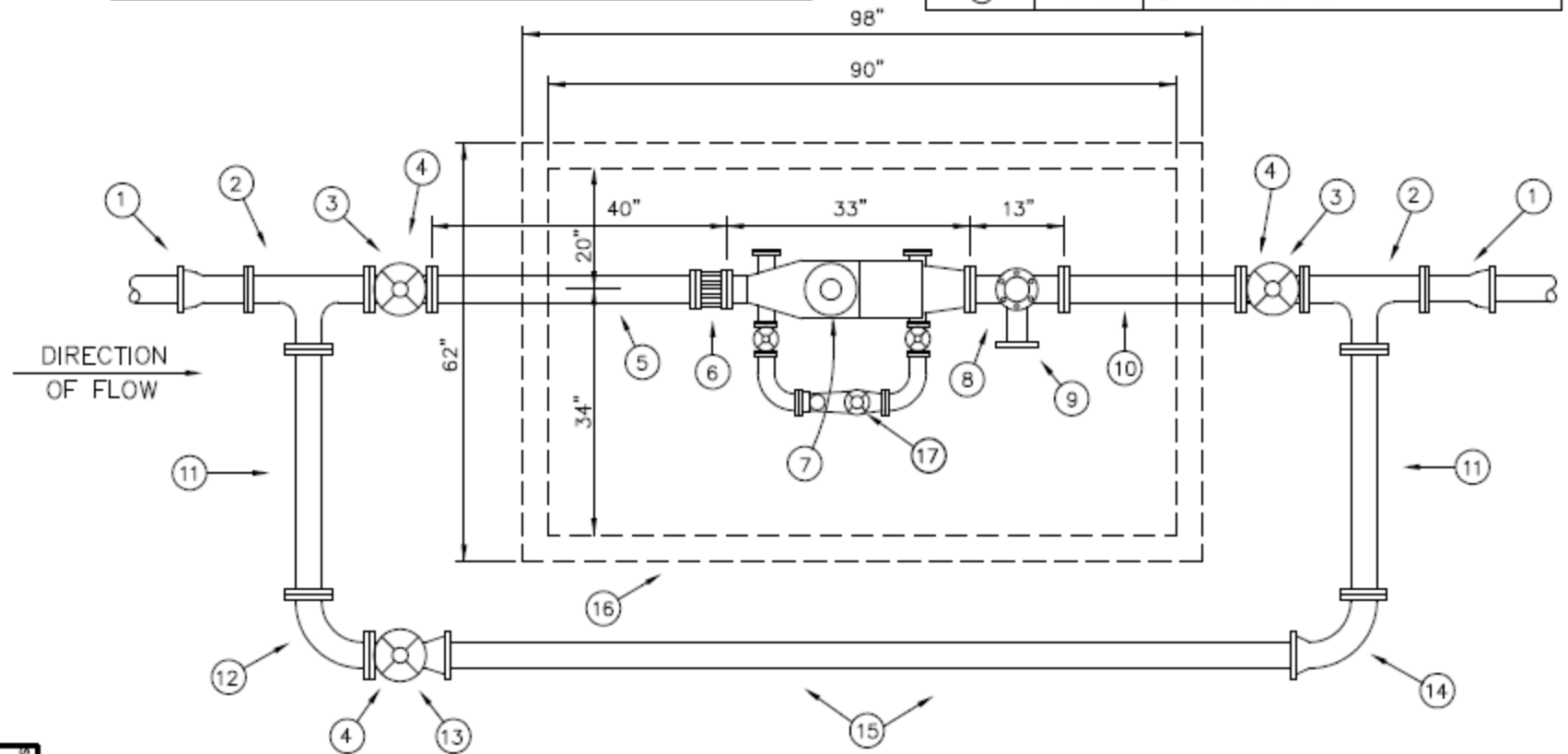
STANDARD SPECIFICATION REFERENCE 502.10.3*

DATE OCT. '04

STANDARD DRAWING NO. 4140

MATERIALS LIST		
PART NO.	QUANTITY	DESCRIPTION
①	2 EA.	4" X 12" D.I. NIPPLE M.J. X F.
②	2 EA.	4" X 4" D.I. TEE F. X F.
③	2 EA.	4" GATE VALVE F. X F.
④	3 EA.	VALVE STACK RISER COVER & LID
⑤	1 EA.	4" X 40" D.I. NIPPLE F. X SLEEVE
⑥	1 EA.	4" FLANGED COUPLING ADAPTER
⑦	1 EA.	4" METER AS SPECIFIED (TYPE F.M. SHOWN)
⑧	1 EA.	4" X 4" D.I. TEE F. X F. (TEST POINT)
⑨	1 EA.	4" BLIND FLG.

MATERIALS LIST		
PART NO.	QUANTITY	DESCRIPTION
⑩	1 EA.	4" X 24" D.I. NIPPLE F. X F.
⑪	2 EA.	4" X 36" D.I. NIPPLE F. X F.
⑫	1 EA.	4" D.I. 90° BEND F. X F.
⑬	1 EA.	4" GATE VALVE F. X M.J.
⑭	1 EA.	4" D.I. 90° BEND M.J. X F.
⑮	1 EA.	4" D.I. PIPE, CLASS 52, APPROX. 10'
⑯	1 EA.	PRECAST METER VAULT
	1 EA.	VAULT FLOOR (NOT SHOWN)
	1 EA.	ACCESS HATCH (NOT SHOWN)
⑰	1 EA.	BY-PASS METER



STANDARD DRAWING NO. 4150

4" COMBINED SERVICE WITH 4" METER

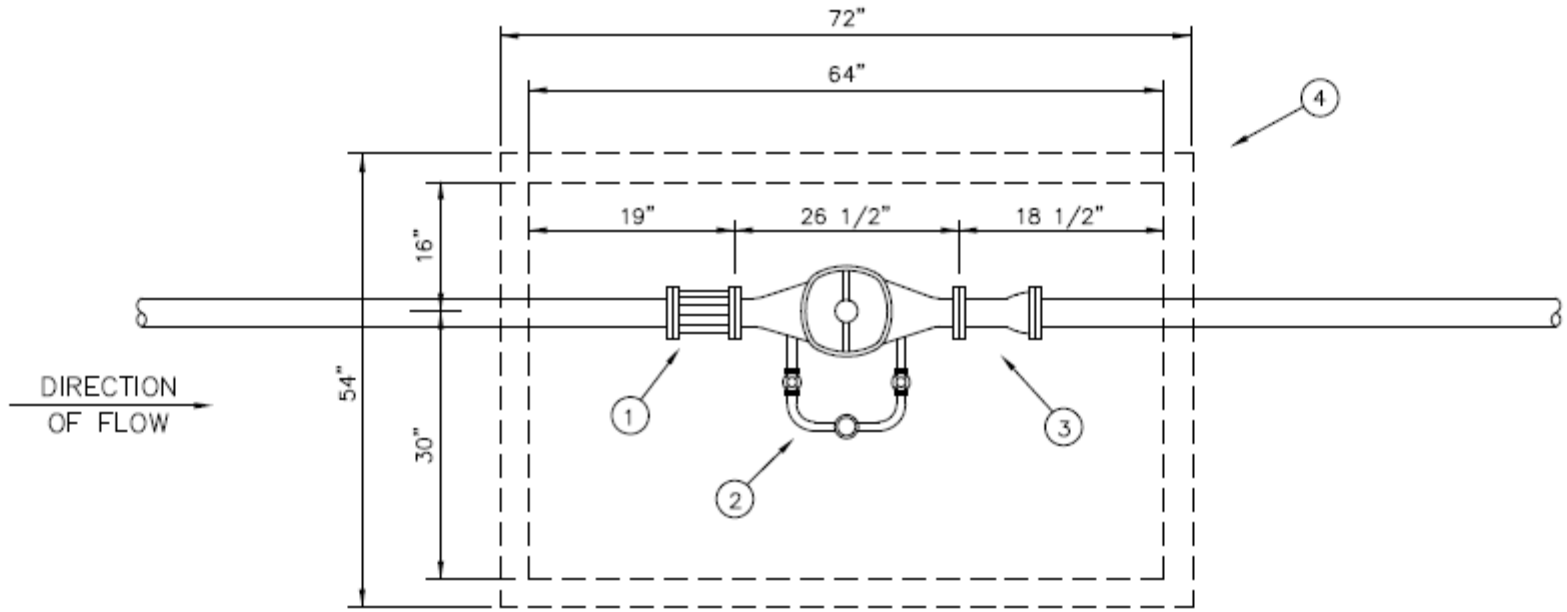
North Central Texas Council of Governments

STANDARD SPECIFICATION REFERENCE 502.10

DATE OCT. '04

STANDARD DRAWING NO. 4150

MATERIALS LIST		
PART NO.	QUANTITY	DESCRIPTION
①	1 EA.	8" FLANGED COUPLING METER ADAPTER
②	1 EA.	8" DETECTOR CHECK VALVE WITH 5/8" BY-PASS METER
③	1 EA.	8" X 12" D.I. NIPPLE M.J. X F.
④	1 EA.	PRECAST METER VAULT
	1 EA.	VAULT FLOOR (NOT SHOWN)
	1 EA.	36" X 48" ACCESS HATCH (NOT SHOWN)



STANDARD DRAWING NO. 4160

8" DETECTOR CHECK SERVICE WITH 8" METER

North Central Texas Council of Governments

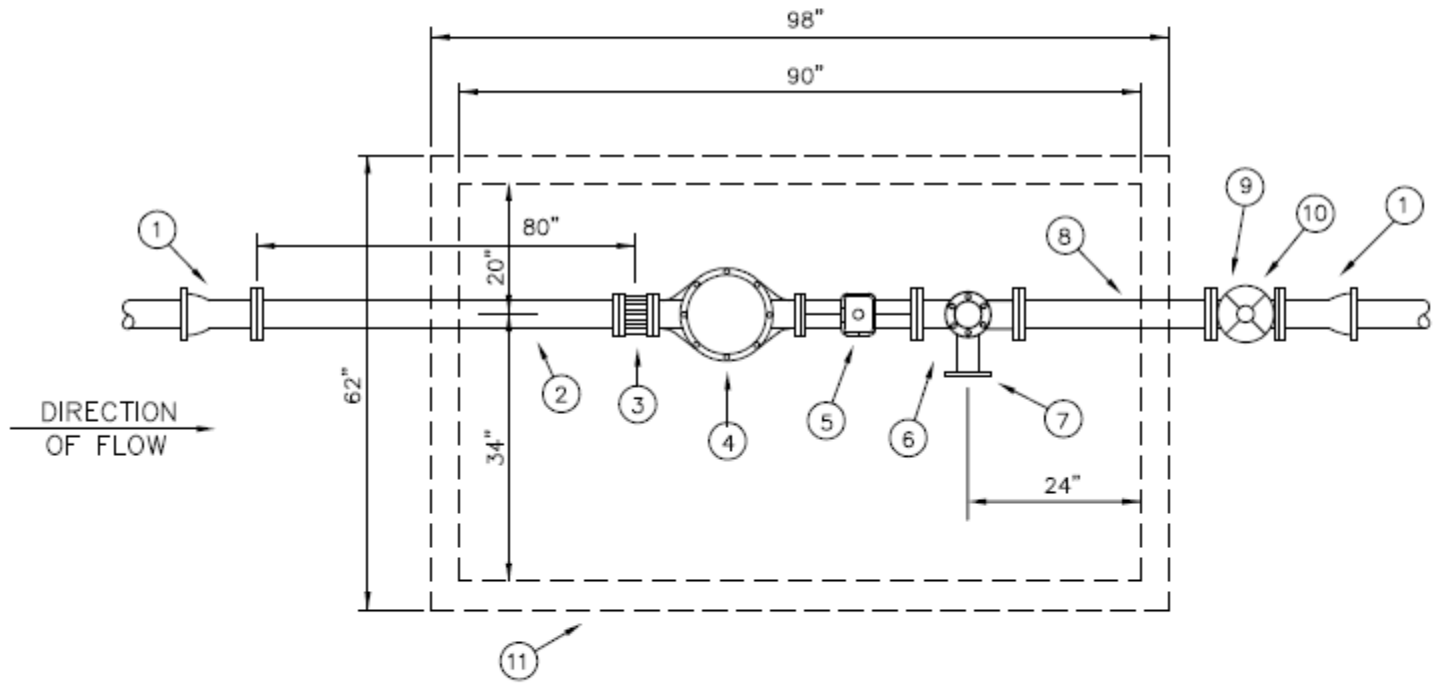
STANDARD SPECIFICATION REFERENCE 502.10

DATE OCT. '04

STANDARD DRAWING NO. 4160

MATERIALS LIST		
PART NO.	QUANTITY	DESCRIPTION
①	2 EA.	8" X 12" D.I. NIPPLE M.J. X F.
②	1 EA.	8" X 36" D.I. NIPPLE F. X SLEEVE
③	1 EA.	8" FLANGED COUPLING ADAPTER
④	1 EA.	8" U.L. APPROVED (FOR TURBINE)
⑤	1 EA.	8" TURBINE METER
⑥	1 EA.	8" X 4" D.I. TEE F. X F. (TEST PT)
⑦	1 EA.	8" BLIND FLG F. X F.

MATERIALS LIST		
PART NO.	QUANTITY	DESCRIPTION
⑧	1 EA.	8" X 24" D.I. NIPPLE F X F.
⑨	1 EA.	8" GATE VALVE F. X F.
⑩	1 EA.	VALVE STACK RISER COVER & LID
⑪	1 EA.	PRECAST METER VAULT
	1 EA.	VAULT FLOOR (NOT SHOWN)
	1 EA.	ACCESS HATCH (NOT SHOWN)



STANDARD DRAWING NO. 4170

8" FIRE LINE STANDPIPE
SERVICE WITH 8" METER

North Central Texas Council of Governments

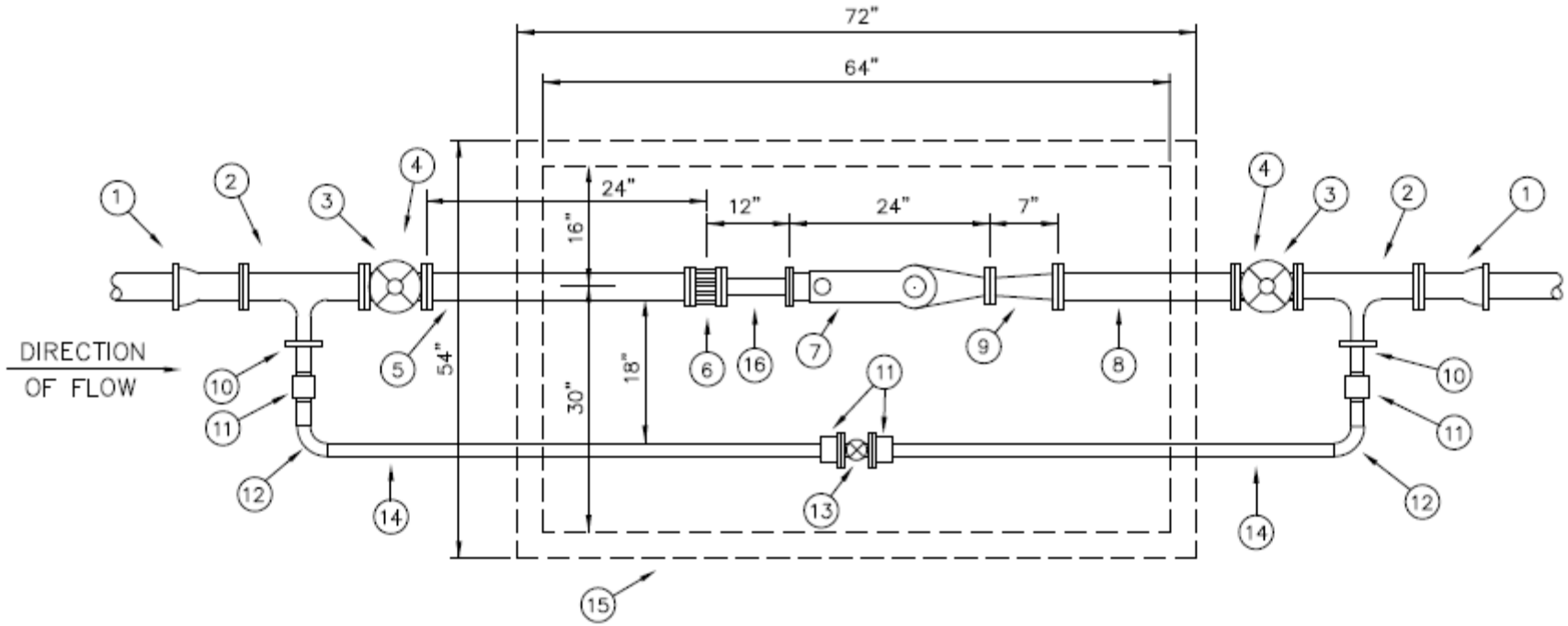
STANDARD SPECIFICATION REFERENCE 502.10

DATE OCT. '04

STANDARD DRAWING NO. 4170

MATERIALS LIST		
PART NO.	QUANTITY	DESCRIPTION
①	2 EA.	4" X 12" D.I. NIPPLE M.J. X F.
②	2 EA.	4" X 2" D.I. TEE F. X F.
③	2 EA.	4" GATE VALVE F. X F.
④	2 EA.	VALVE STACK RISER COVER & LID
⑤	1 EA.	4" X 24" D.I. NIPPLE F. X SLEEVE
⑥	1 EA.	4" X 3" FLANGED RED. COUPLING ADAPTER
⑦	1 EA.	3" METER AS SPECIFIED (TYPE C.T. SHOWN)
⑧	1 EA.	4" X 18" D.I. NIPPLE F. X F.
⑨	1 EA.	4" X 3" D.I. REDUCER F. X F.

MATERIALS LIST		
PART NO.	QUANTITY	DESCRIPTION
⑩	2 EA.	2" COMPANION FLANGE
⑪	4 EA.	2" SOL. X OSIP UNION
⑫	2 EA.	2" SOL. 90° ELL
⑬	1 EA.	2" BALL VALVE
⑭	2 EA.	2" COPPER PIPE, APPROX. 5'
⑮	1 EA.	PRECAST METER VAULT
	1 EA.	VAULT FLOOR (NOT SHOWN)
	1 EA.	ACCESS HATCH (NOT SHOWN)
⑯	1 EA.	3"x12" D.I. NIPPLE F. x SLEEVE



STANDARD DRAWING NO. 4180

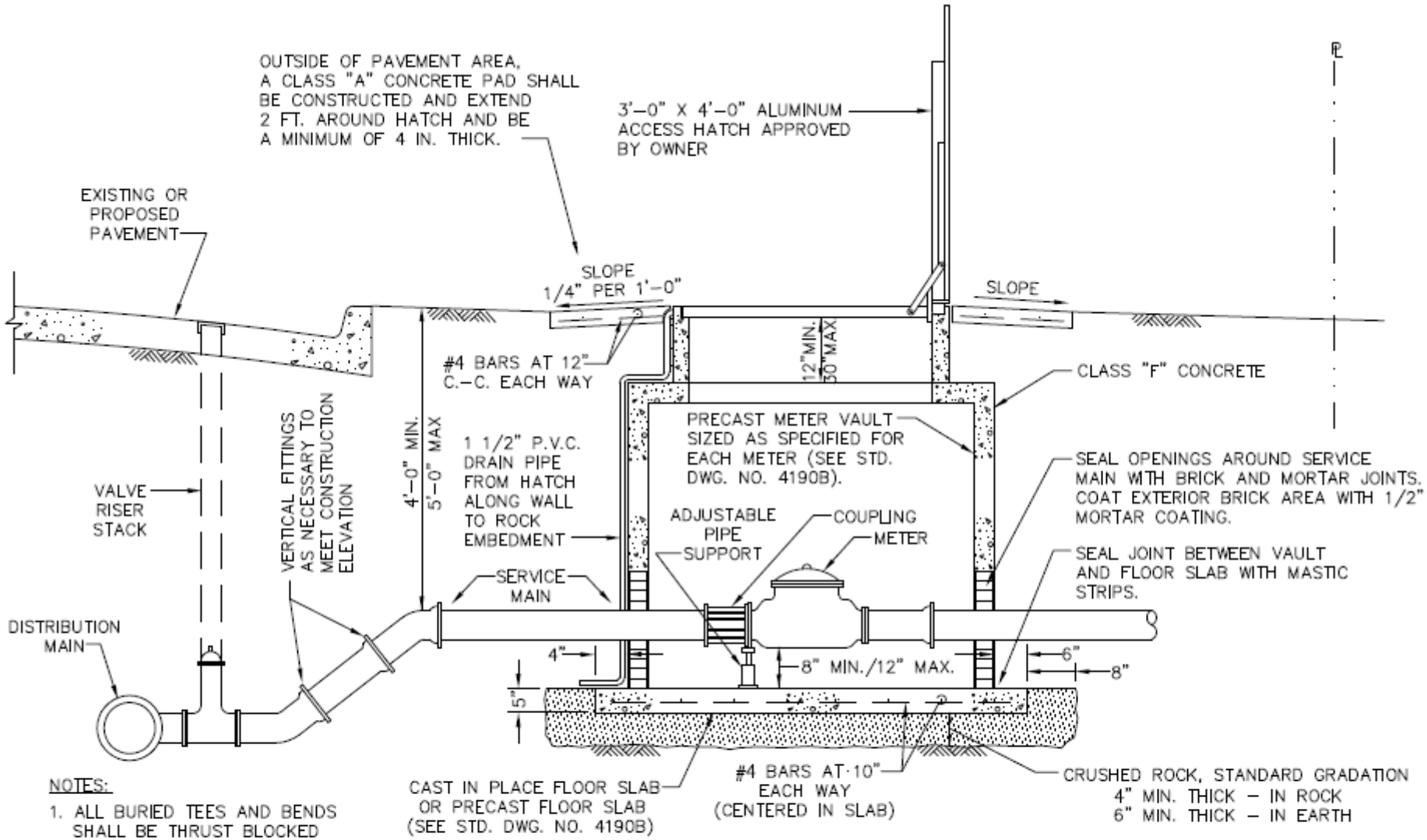
4" DOMESTIC SERVICE WITH 3" METER

North Central Texas Council of Governments

STANDARD SPECIFICATION REFERENCE 502.10

DATE OCT. '04

STANDARD DRAWING NO. 4180



ELEVATION VIEW

(D.C. METER SHOWN) N.T.S.

NOTES:

1. ALL BURIED TEES AND BENDS SHALL BE THRUST BLOCKED PER STANDARD DRAWINGS 4010–4040.
2. BY–PASS LINE MAY BE INSTALLED ON LEFT SIDE OF METER VAULT TO FACILITATE LIMITED WORKING AREA CONDITIONS BY PERMISSION OF OWNER.
3. ALL BURIED D.I. PIPE AND C.I. FITTINGS SHALL BE POLY–WRAPPED AS SPECIFIED FOR THE ADJECENT DISTRIBUTION MAIN.

STANDARD DRAWING NO. 4190A

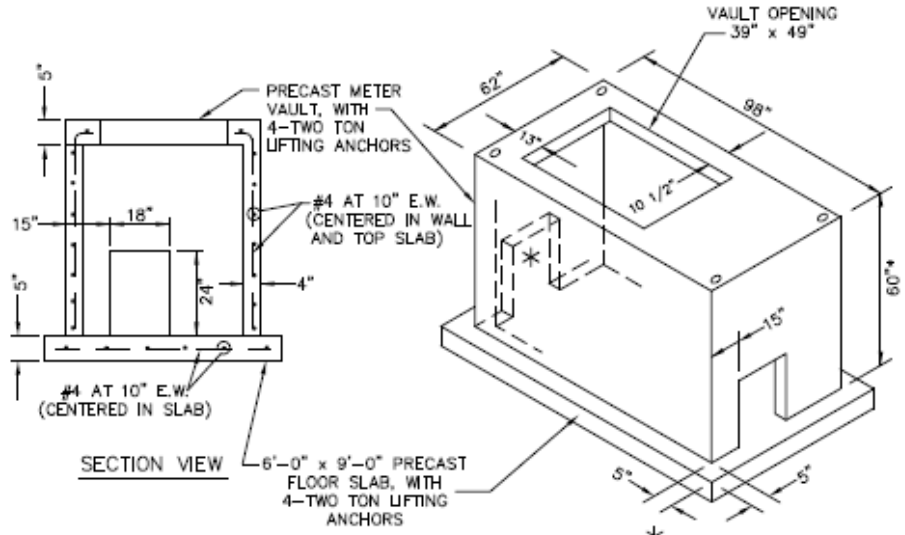
LARGE SERVICE METER VAULT INSTALLATION

North Central Texas Council of Governments

STANDARD SPECIFICATION REFERENCE 702.5 .8.8

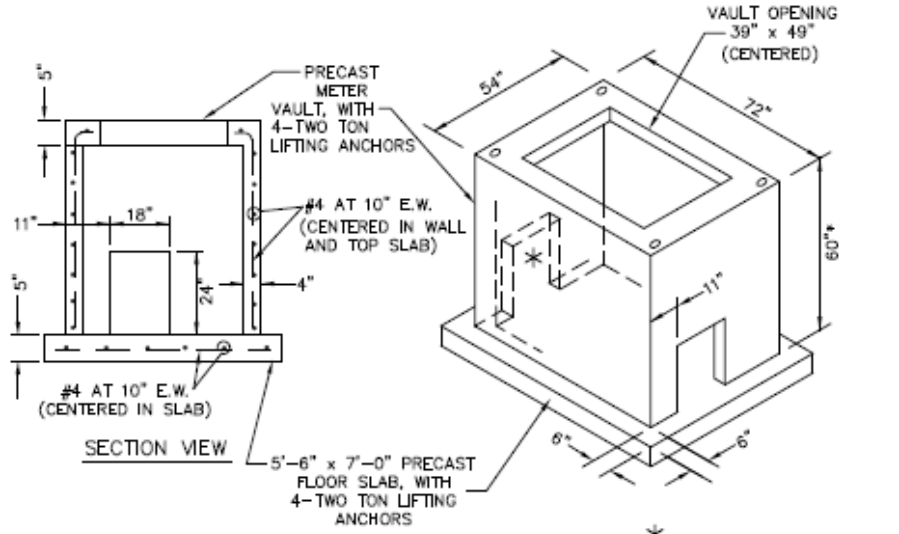
DATE OCT. '04

STANDARD DRAWING NO. 4190A



F.M. METER VAULT

N.T.S.



D.C. METER VAULT

N.T.S.

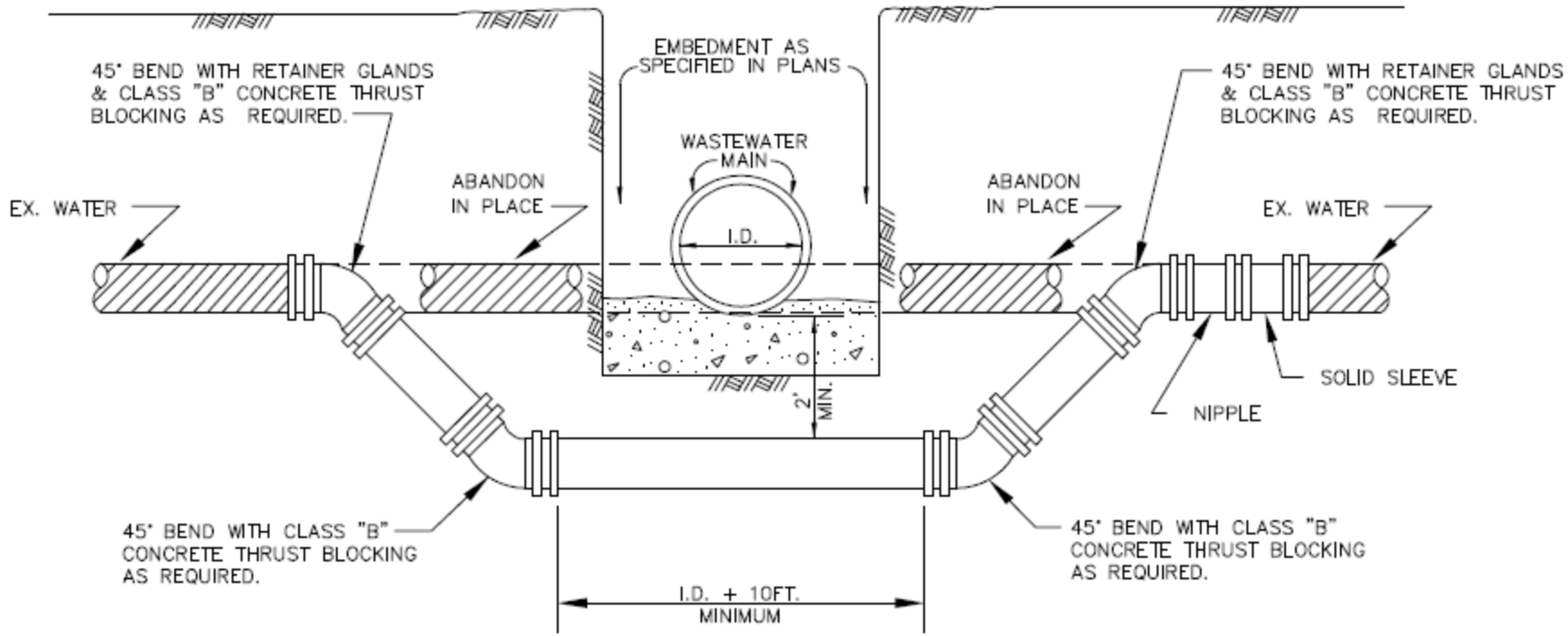
LARGE SERVICE METER PRECAST VAULT

North Central Texas Council of Governments

STANDARD SPECIFICATION REFERENCE
702.5.8.8

DATE
OCT. '04

STANDARD DRAWING NO.
4190B



STANDARD DRAWING NO. 4200

WATER MAIN LOWERING

BELOW WASTEWATER MAIN

North Central Texas Council of Governments

STANDARD SPECIFICATION REFERENCE
506.6

DATE
OCT. '04

STANDARD DRAWING NO.
4200

Next Steps

- Determine action items for Subcommittee Members and NCTCOG staff

Next Standard Drawings Meetings

September 21, 2020
10am-11:30am

UberConference