

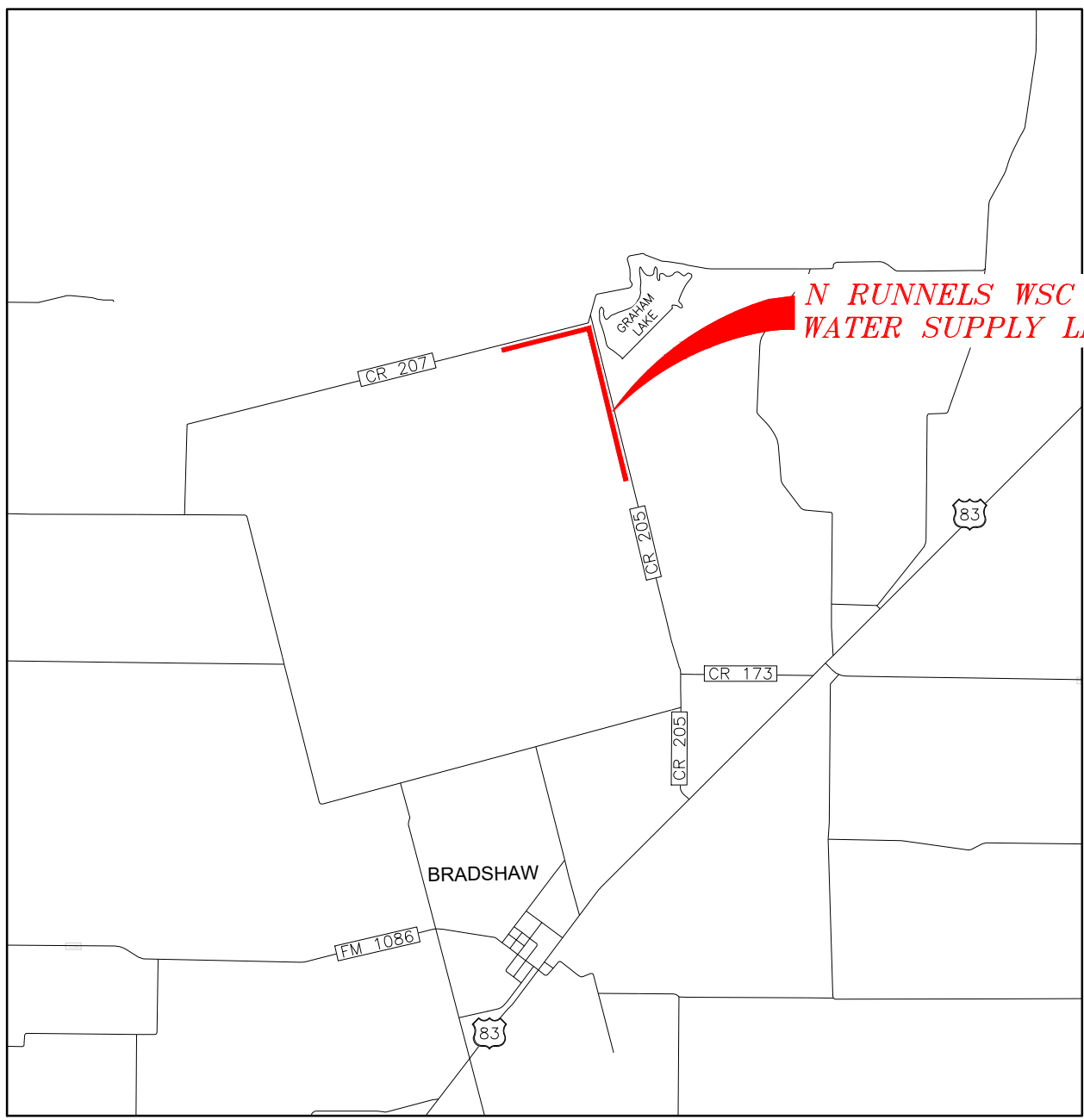
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# NORTH RUNNELS WATER SUPPLY CORPORATION

# STEPHEN LOWERY DEVELOPMENT

## NOVEMBER 2025



**PROJECT VICINITY MAP**  
N.T.S.



### BOARD OF DIRECTORS

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**NOTE:**  
THE DEVELOPER'S SURVEYOR SHALL SET  
ALL CONSTRUCTION SURVEY.



3465 CURRY LANE  
ABILENE, TEXAS 79606  
325.695.1070

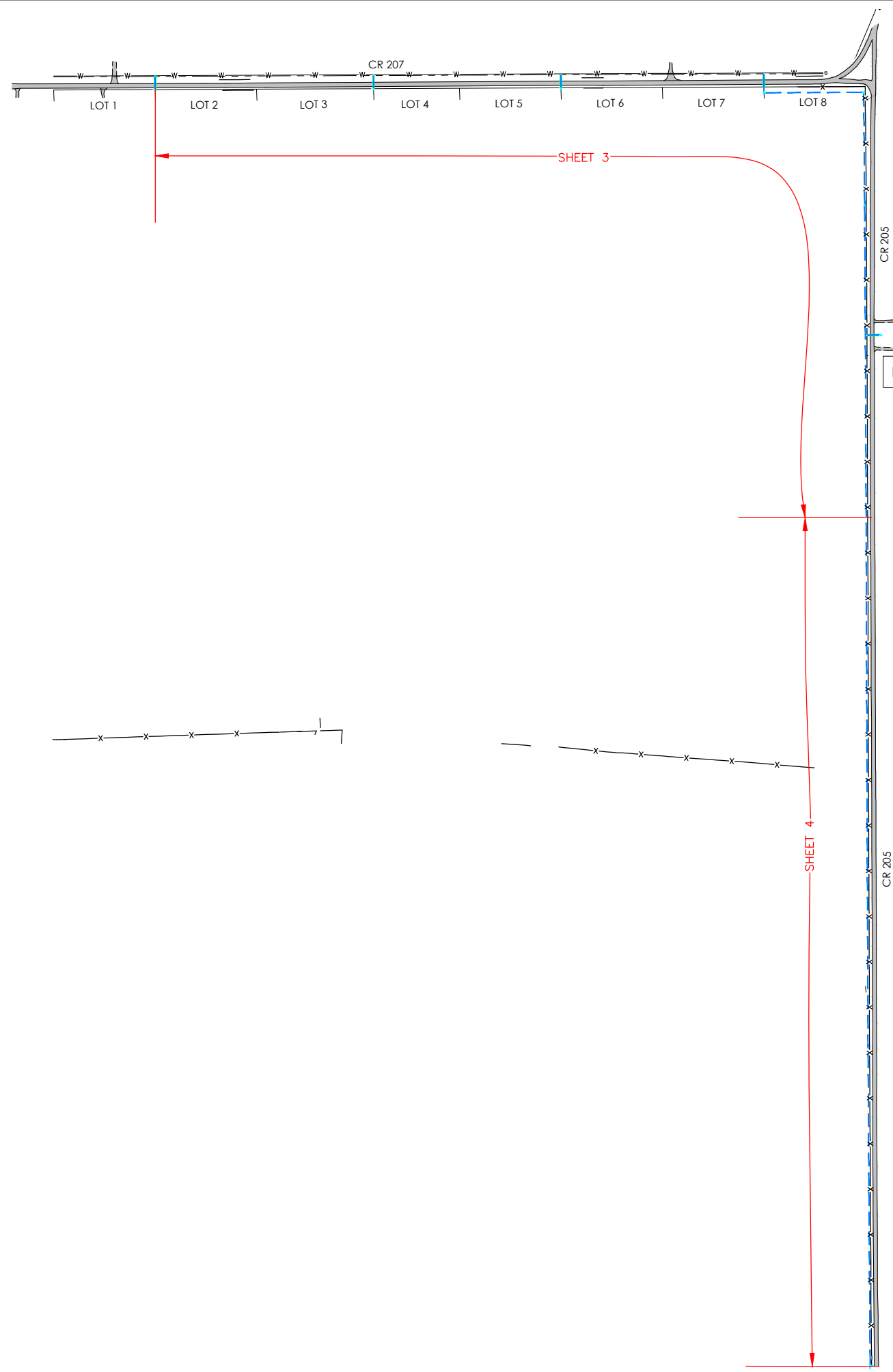
TBPE FIRM # 2448 | TBAE FIRM # BR 2261 | TBPELS FIRM # 10194493



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x:\ws\_north\_runnels\_wsc\25306 - stephen lowery development - north\_runnels\_wsc\Drafting\_Plans\Civil\SHEET 02 SHEET LIST MAP INDEX AND LEGEND.dwg



**MAP INDEX**  
SCALE: 1" = 600'

LEGEND	
	PROPOSED WATER LINE
	PROPOSED BORE AND ENCASEMENT
	PROPOSED REDUCER
	PROPOSED COUPLING
	PROPOSED GATE VALVE
	PROPOSED AIR VALVE
	PROPOSED TEE
	PROPOSED 90° ELL
	PROPOSED PLUG
	PROPOSED FLUSH VALVE
	PROPOSED VALVE, ROW, CASING & PI MARKERS
	EXISTING PAVED ROAD
	EXISTING GRAVEL ROAD
	EXISTING WATER LINE W/METER
	EXISTING FIBER OPTIC LINE
	EXISTING WATER VALVE
	EXISTING FIRE HYDRANT
	EXISTING FAUCET/FLUSH VALVE
	EXISTING UTILITY POLE
	EXISTING FIBER OPTIC BOX
	EXISTING FENCE W/GATE

SHEET LIST	
Sheet Number	Sheet Title
01	COVER
02	SHEET LIST MAP INDEX & LEGEND
03	TCEQ AND GENERAL CONSTRUCTION NOTES
04	WATER LINE PLAN
05	WATER LINE PLAN
06	VALVE DETAILS
07	TYPICAL TRENCH AND PROTECTION DETAILS
08	BORE AND ENCASEMENT DETAILS
09	WATER LINE BLOCKING DETAILS
10	EROSION CONTROL DETAILS



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NORTH RUNNELS WATER SUPPLY CORPORATION  
STEPHEN LOWERY DEVELOPMENT

SHEET LIST MAP INDEX AND LEGEND

NO.	REVISION	DATE

PROJECT # | SCALE | AS SHOWN | AS SHOWN  
25306 | 1" = 100' | AS SHOWN | AS SHOWN

BAR IS ONE INCH IN LENGTH ON ORIGINAL DRAWING.  
CHECK SCALE AND ADJUST ACCORDINGLY.

SEQ.	SHEET
02	02
10	



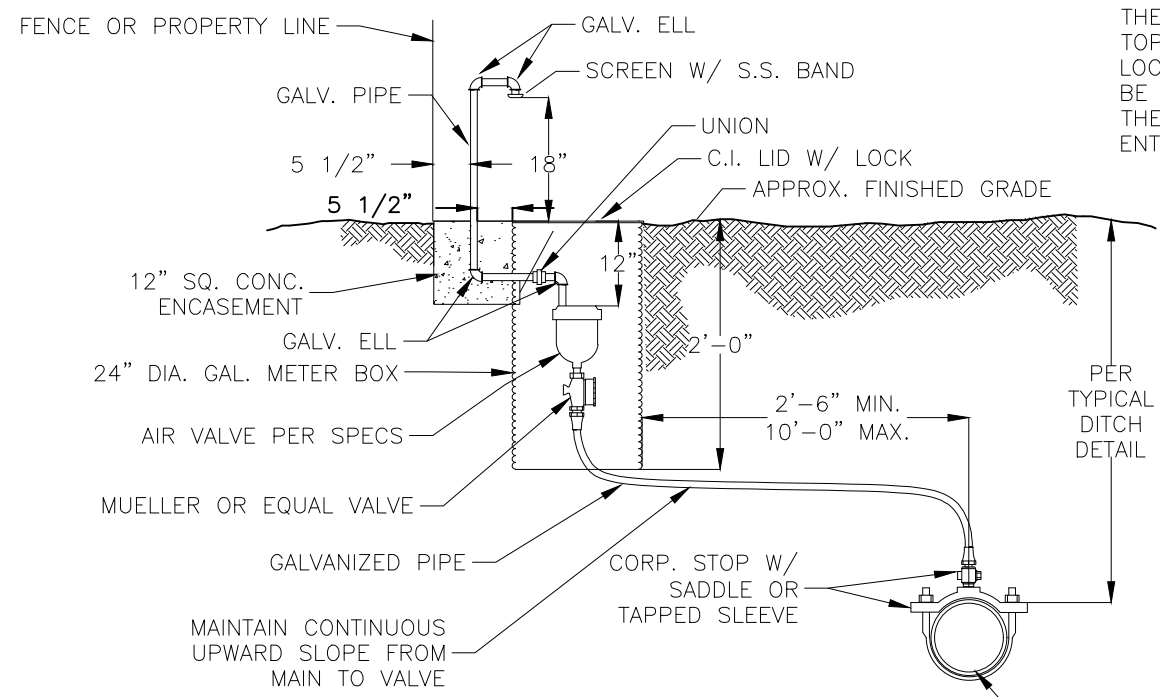




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x:\w\_\north\_\runnels\_wsc\25306 - stephen lowery development - north runnels wsc\Drafting\Plans\Civil\Sheet 06 VALVE DETAILS.dwg



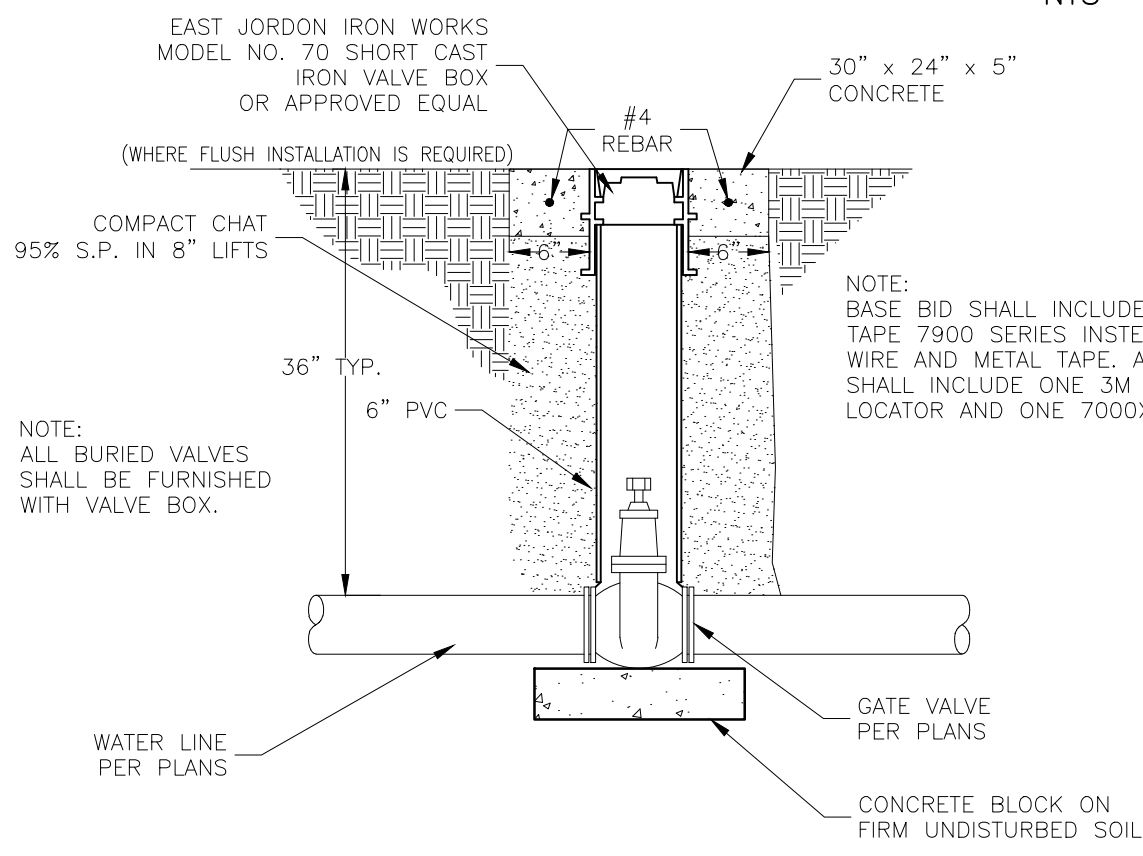
**AIR VALVE & BOX  
NTS**

**NOTE:**  
ALL AIR RELEASE DEVICES SHALL BE INSTALLED IN THE DISTRIBUTION SYSTEM AT ALL POINTS WHERE TOPOGRAPHY OR OTHER FACTORS MAY CREATE AIR LOCKS IN THE LINES. AIR RELEASE DEVICES SHALL BE INSTALLED IN SUCH A MANNER AS TO PRECLUDE THE POSSIBILITY OF SUBMERGENCE OR POSSIBLE ENTRANCE OF CONTAMINANTS.

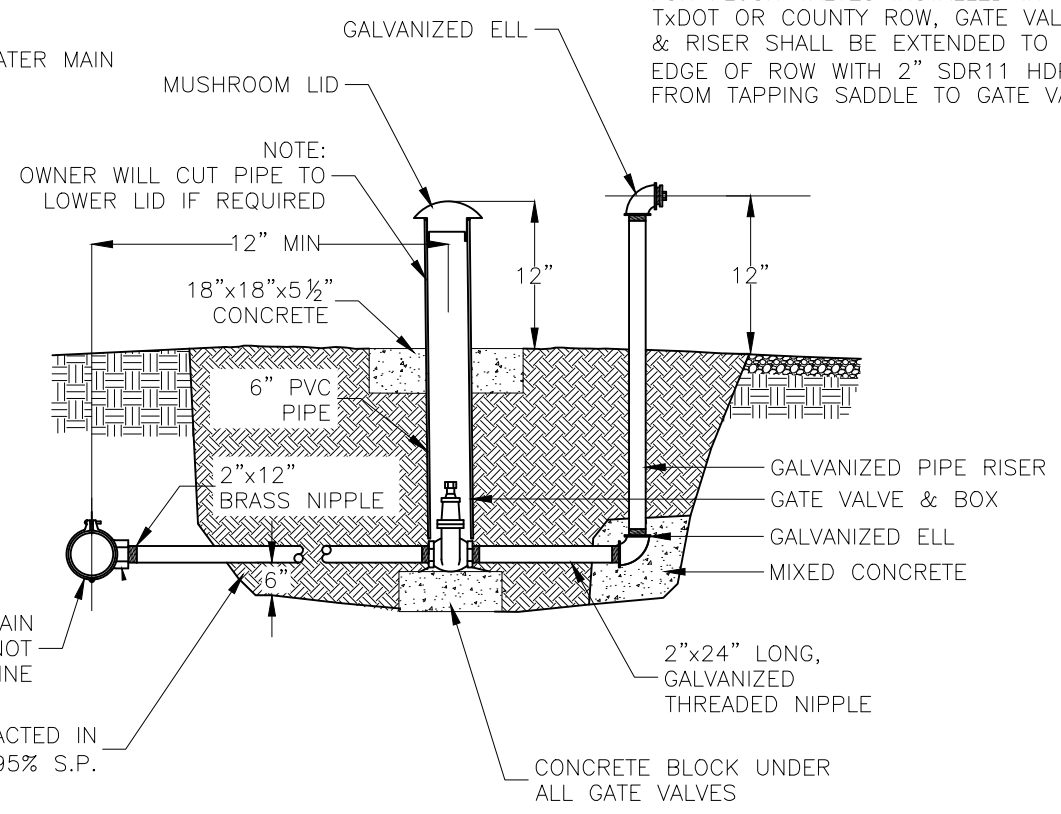
**NOTES:**

1. SIZE (3/4", 1" OR 2") AND TYPE OF AIR VALVE ARE SHOWN ON THE PLANS.
2. CONTRACTOR MAY USE DR11 HDPE PIPE IN PLACE OF GALVANIZED PIPE.

CAV = COMBINATION AIR VALVE  
AV = AIR/VACUUM VALVE



**GATE VALVE & BOX  
NTS**



**2" FLUSH VALVE  
NTS**

**NOTE:**  
FOR FLUSH VALVES INSTALLED IN TxDOT OR COUNTY ROW, GATE VALVE & RISER SHALL BE EXTENDED TO EDGE OF ROW WITH 2" SDR11 HDPE FROM TAPPING SADDLE TO GATE VALVE.

BRASS SADDLE ON MAIN LINE WHERE FV IS NOT ON END OF LINE

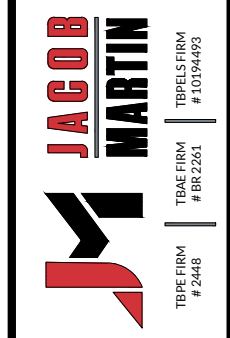
CHAT COMPACTED IN 8" LIFTS 95% S.P.

**NOTE:**  
ALL MATERIAL INCLUDING 2" GV IS IN BID PRICE.

**NOTE:**  
WHERE FLUSH INSTALLATION IS NOT REQUIRED, VALVE BOX SHALL BE 12" ABOVE GROUND WITH CONCRETE.



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NORTH RUNNELS WATER SUPPLY CORPORATION  
 STEPHEN LOWERY DEVELOPMENT  
 VALVE DETAILS

NO.	REVISION	DATE

PROJECT # 25306  
SCALE AS SHOWN  
BARS ONE INCH IN LENGTH ON ORIGINAL DRAWING.  
CHECK SCALE AND ADJUST ACCORDINGLY.



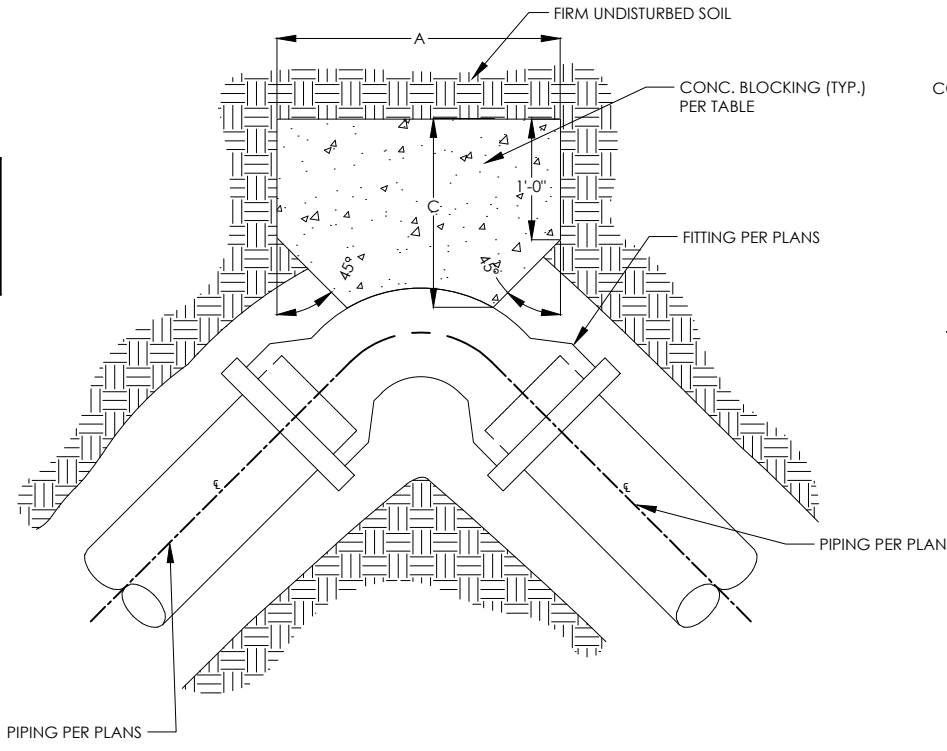


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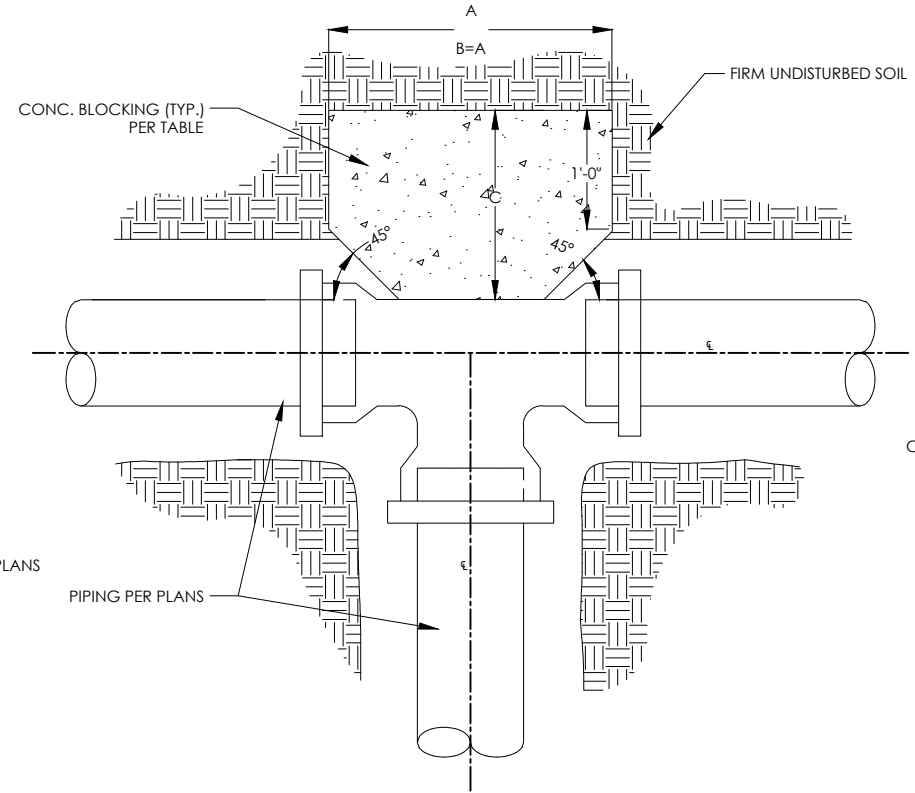
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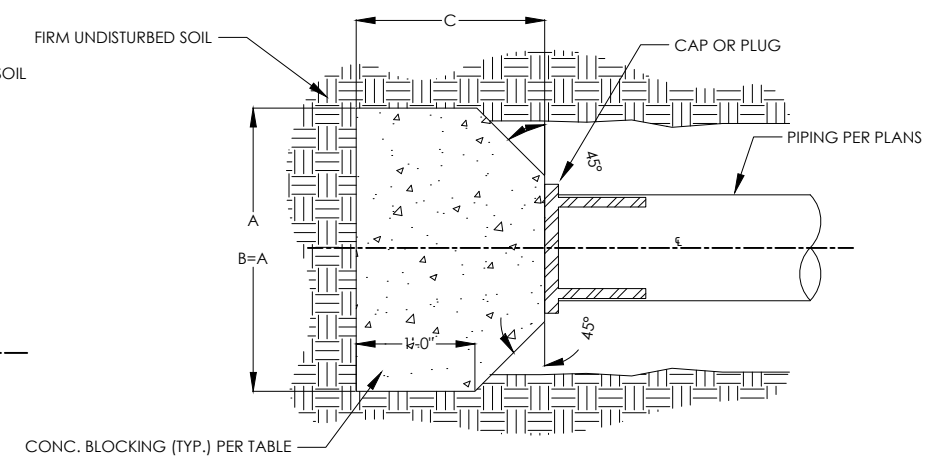
**PLAN OF BEND THRUST BLOCK**



**PLAN OF TEE THRUST BLOCK**

**TYPICAL HORIZONTAL BLOCKING DETAILS**

N.T.S.



**PLAN OF PLUG/CAP THRUST BLOCK**

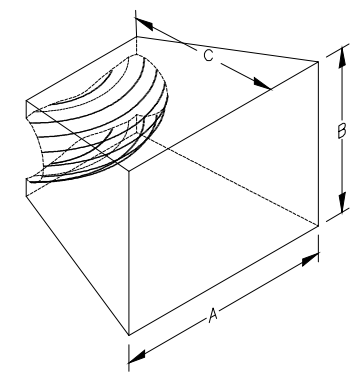
**NOTES:**

1. BLOCKING REQ'D. ON ALL FITTINGS 2" & LARGER.
2. ALL REQUIRED BENDS & FITTINGS MAY NOT BE LABELED ON THE PLANS.
3. PIPE MAY BE CURVED UP TO 75% OF MANUFACTURER'S RECOMMENDED MAXIMUM CURVATURE WITHOUT A BEND AS APPROVED BY OWNER & ENGINEER.
4. ALL DUCTILE IRON FITTINGS AND VALVES TO BE PROTECTED FROM CONCRETE WITH A WRAPPING OF 8 MIL POLYETHYLENE PER SPECS. CONCRETE SHALL NOT EXTEND BEYOND JOINTS.
5. CONTRACTOR SHALL USE MEGA LUG RESTRAINTS FOR ALL FITTINGS. PROTECT BOLTS FROM CONCRETE.
6. CONCRETE FOR BLOCKING SHALL BE CLASS "B".
7. POUR CONCRETE FOR BLOCKS AGAINST UNDISTURBED EARTH.
8. DIMENSIONS MAY BE VARIED AS REQUIRED BY FIELD CONDITIONS AND AS DIRECTED BY THE ENGINEER. THE VOLUME OF CONCRETE BLOCKING SHALL NOT BE LESS THAN SHOWN HERE.

**DIMENSIONS FOR HORIZONTAL CONCRETE THRUST BLOCKS**

FITTING SIZE (INCHES)	11.25° BEND			22.5° BEND			45° BEND			90° BEND			TEES, WYES & PLUGS (CAPS)		
	MINIMUM DEPTH "C" (FEET)	TYPICAL DIMENSIONS OF BEARING AREA IN FEET ("A" X "B")	MINIMUM VOLUME OF CONC. REQUIRED (CUBIC YARDS)	MINIMUM DEPTH "C" (FEET)	TYPICAL DIMENSIONS OF BEARING AREA IN FEET ("A" X "B")	MINIMUM VOLUME OF CONC. REQUIRED (CUBIC YARDS)	MINIMUM DEPTH "C" (FEET)	TYPICAL DIMENSIONS OF BEARING AREA IN FEET ("A" X "B")	MINIMUM VOLUME OF CONC. REQUIRED (CUBIC YARDS)	MINIMUM DEPTH "C" (FEET)	TYPICAL DIMENSIONS OF BEARING AREA IN FEET ("A" X "B")	MINIMUM VOLUME OF CONC. REQUIRED (CUBIC YARDS)	MINIMUM DEPTH "C" (FEET)	TYPICAL DIMENSIONS OF BEARING AREA IN FEET ("A" X "B")	MINIMUM VOLUME OF CONC. REQUIRED (CUBIC YARDS)
2-8	1.5	1 x 1.5	0.1	1.5	1.5 x 1.5	0.1	1.5	2.0 x 2.0	0.1	1.5	5.0 x 1.5	0.2	1.5	2.5 x 2.5	0.3
10, 12	1.5	1.5 x 1.5	0.1	1.5	2.0 x 2.5	0.3	1.5	3.5 x 2.5	0.3	1.5	6.5 x 2.5	0.5	1.5	3.5 x 3.5	0.6
16, 18	1.5	2 x 2.5	0.3	1.5	3.0 x 3.5	0.6	1.5	4.5 x 4.5	0.6	1.5	9.0 x 4.0	1.0	2.0	5.5 x 5.5	1.6
20	1.5	2 x 3.5	0.4	1.5	3.5 x 3.5	0.7	1.5	5.5 x 4.5	0.7	1.5	10.0 x 4.5	1.5	2.0	6.0 x 6.0	1.9
24	1.5	3 x 3.5	0.5	1.5	4.0 x 4.5	1.0	1.5	8.0 x 4.5	1.1	1.5	14.5 x 4.5	2.1	2.5	7.0 x 7.0	3.1
30	1.5	3 x 3.5	0.6	1.9	5.0 x 4.5	1.5	1.9	8.5 x 5.0	1.6	1.9	15.0 x 5.0	3.3	3.0	7.5 x 7.5	4.1
36	1.5	3.5 x 4.5	0.9	2.3	5.5 x 5.5	2.3	2.3	10.0 x 6.0	2.6	2.3	18.0 x 6.0	5.3	4.0	9.0 x 9.0	7.3
42	1.8	4.5 x 5	1.5	2.6	7.0 x 6.0	3.9	2.6	11.5 x 7.0	4.2	2.6	21.0 x 7.0	8.7	4.5	10.5 x 10.5	11.0
48	2.0	4.5 x 6	2.0	3.0	8.0 x 7.0	5.7	3.0	13.0 x 8.0	6.3	3.0	24.0 x 8.0	12.4	5.0	12.0 x 12.0	15.6
54	2.3	6 x 6	3.0	3.4	9.0 x 8.0	8.0	3.4	15.0 x 9.0	8.9	3.4	27.0 x 9.0	18.1	5.5	13.5 x 13.5	21.4
60	2.5	6 x 7	3.8	3.8	9.5 x 9.0	10.6	3.8	16.5 x 10.0	12.0	3.8	30.0 x 10.0	24.0	6.0	15.0 x 15.0	28.4
66	2.8	6.5 x 8	5.1	4.1	10.5 x 10.0	14.1	4.1	18.0 x 11.0	16.2	4.1	33.0 x 11.0	32.5	6.5	16.5 x 16.5	36.8
72	3.0	7.5 x 8	6.3	4.5	11.0 x 11.0	17.6	4.5	19.5 x 12.0	20.7	4.5	36.0 x 12.0	41.0	7.5	17.5 x 17.5	47.2
78	3.3	8 x 9	8.1	4.9	12.0 x 12.0	22.5	4.9	21.5 x 13.0	25.9	4.9	39.0 x 13.0	53.2	8.0	19.0 x 19.0	58.9
84	3.5	8.5 x 10	10.3	5.3	13.0 x 12.5	27.2	5.3	23.0 x 14.0	32.6	5.3	42.0 x 14.0	64.8	8.5	20.5 x 20.5	72.3
90	3.8	9.5 x 10	12.2	5.6	14.0 x 13.5	33.7	5.6	24.5 x 15.0	39.6	5.6	45.0 x 15.0	81.2	9.0	22.0 x 22.0	87.7
96	4.0	10 x 11	15.0	6.0	15.0 x 14.5	41.2	6.0	26.0 x 16.0	48.5	6.0	48.0 x 16.0	95.1	9.5	23.5 x 23.5	104.8

\* VARIES CONSIDERABLY W/DISTANCE BETWEEN PIPE AND BEARING POINT



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ISSUED FOR PERMITTING



NORTH RUNNELS WATER SUPPLY CORPORATION  
STEPHEN LOWERY DEVELOPMENT

WATER LINE BLOCKING DETAILS

DATE	N.T.S.
NO. REVISION	
SEQ.	SHEET
09	09
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PROJECT # SCALE  
25306 AS SHOWN  
BARS ONE INCH IN LENGTH ON ORIGINAL DRAWING.  
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