

PROJECT TYPICAL DETAILS

PREPARED IN THE OFFICE OF:



PROJECT REFERENCE NO. U-5606

SHEET NO. UC-3A

DESIGNED BY: JRG

DRAWN BY: TK & CB

CHECKED BY: DGM

APPROVED BY: DGM

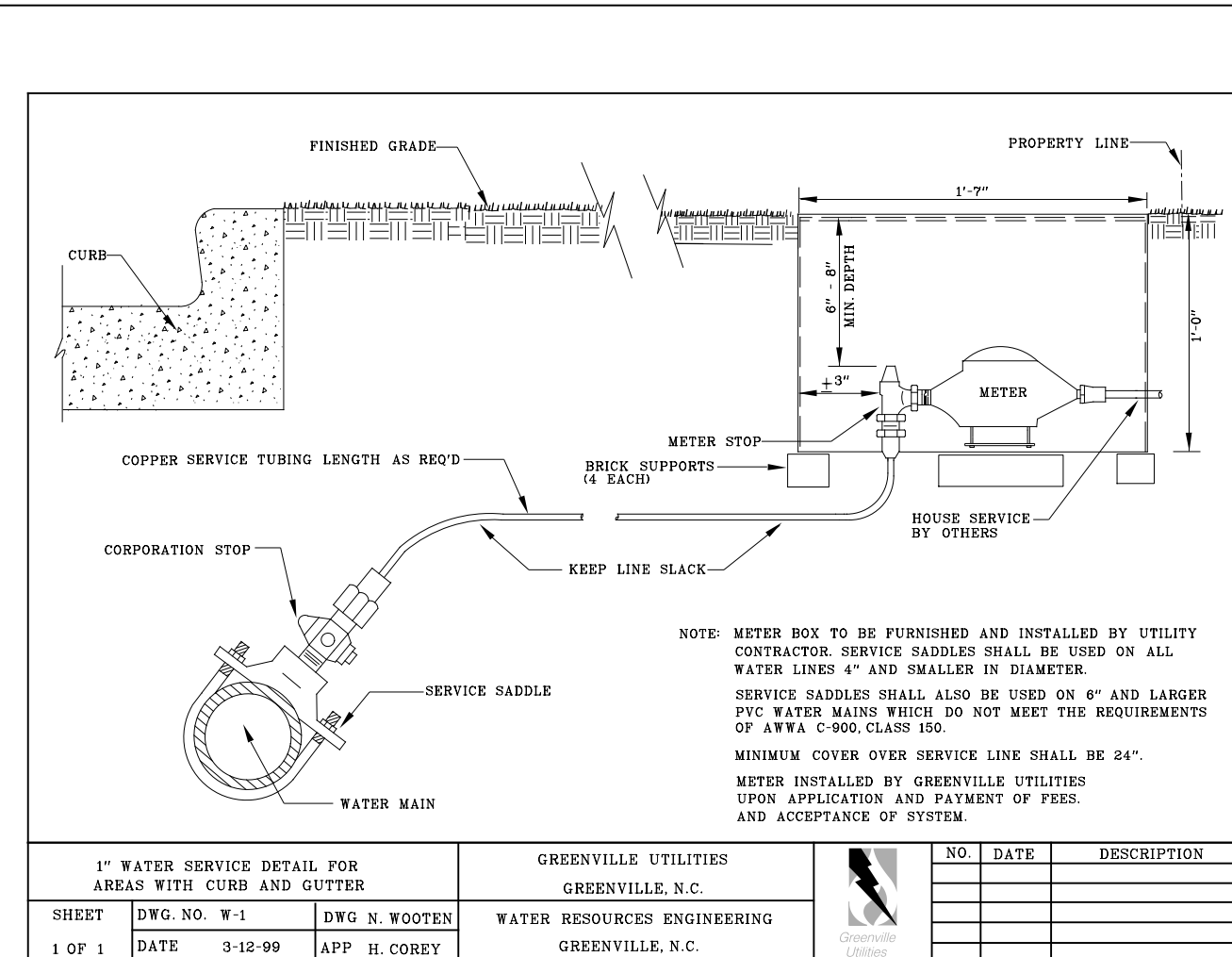
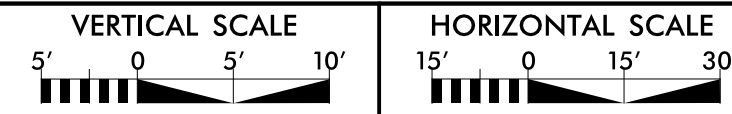
REVISED:

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

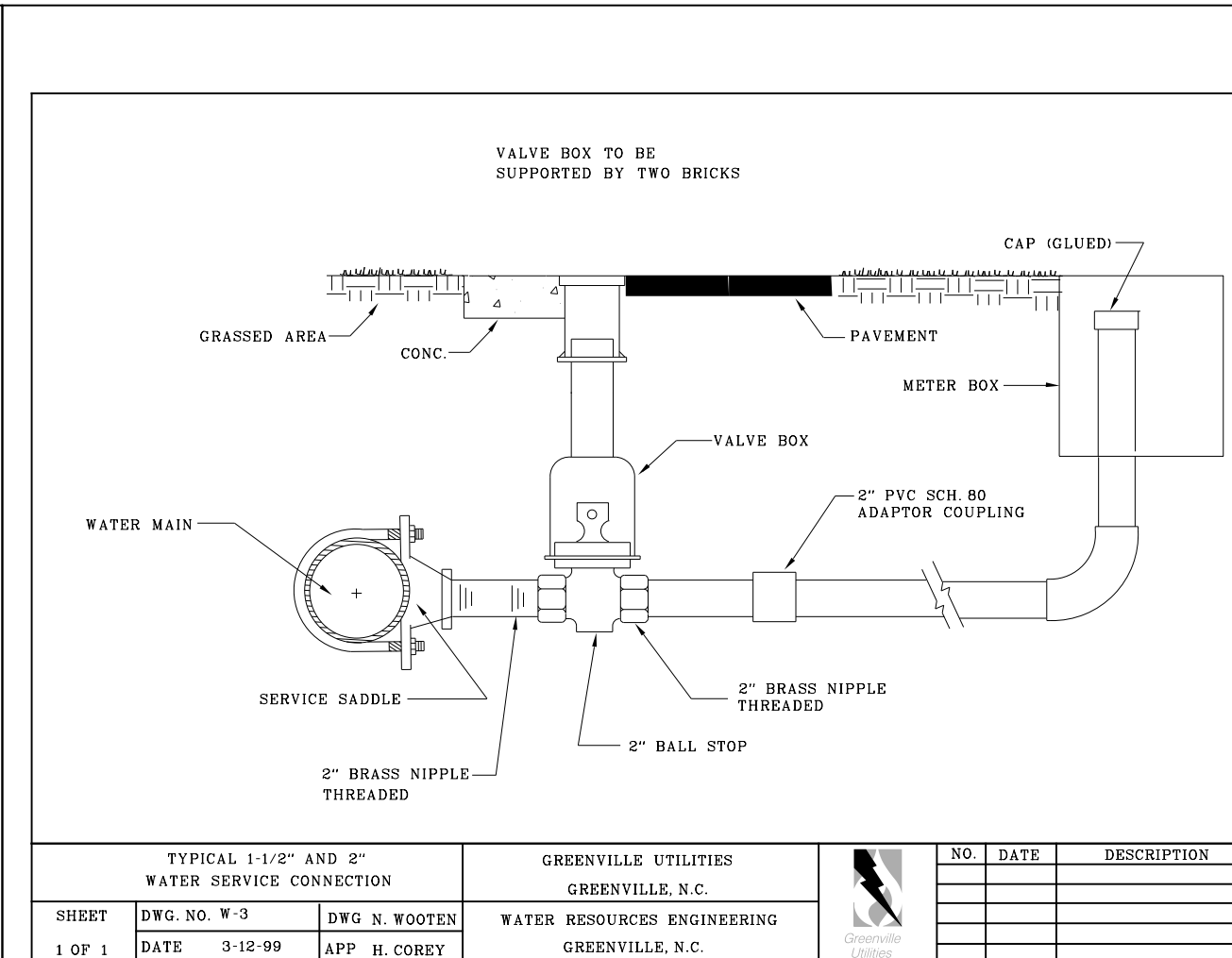
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151



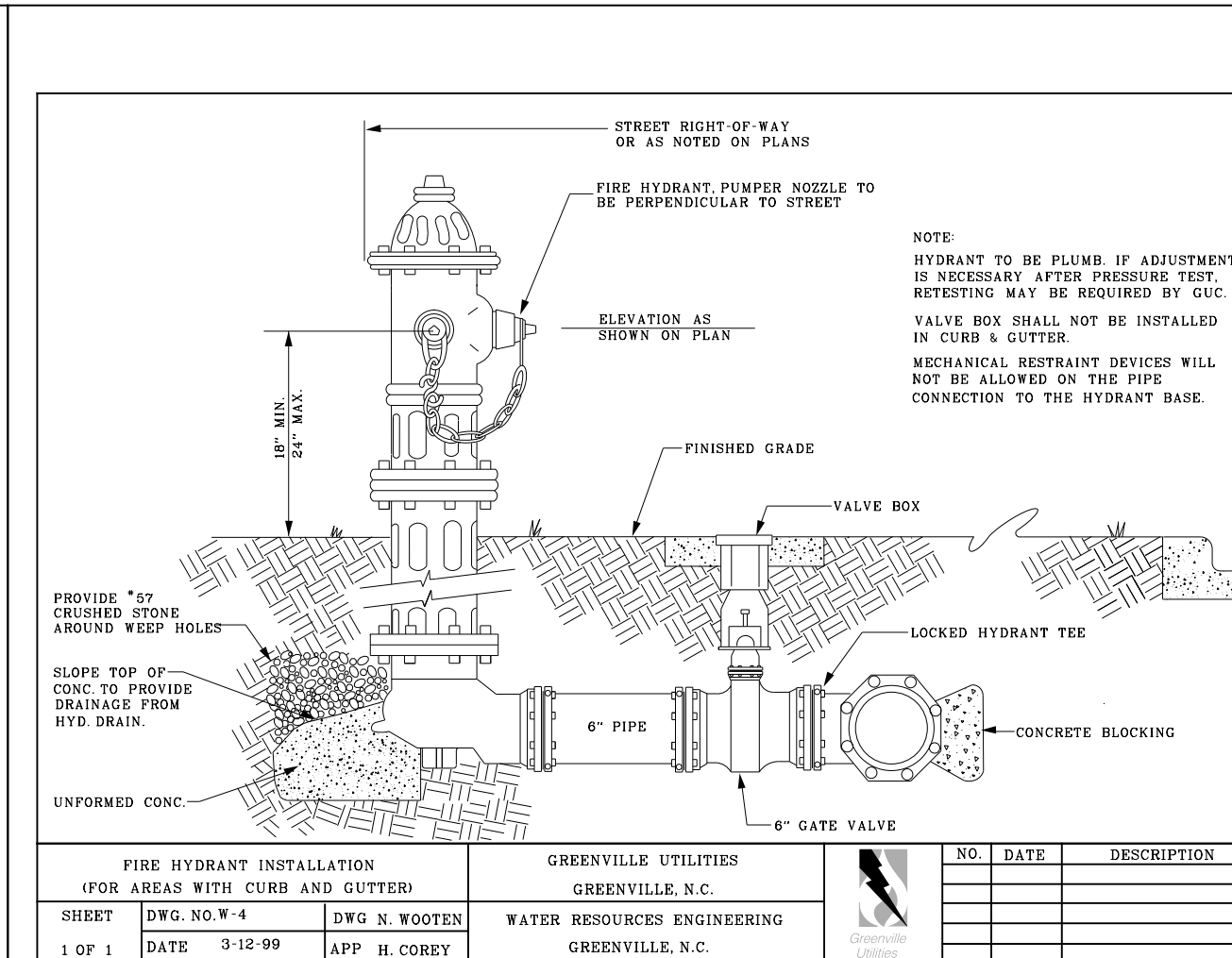
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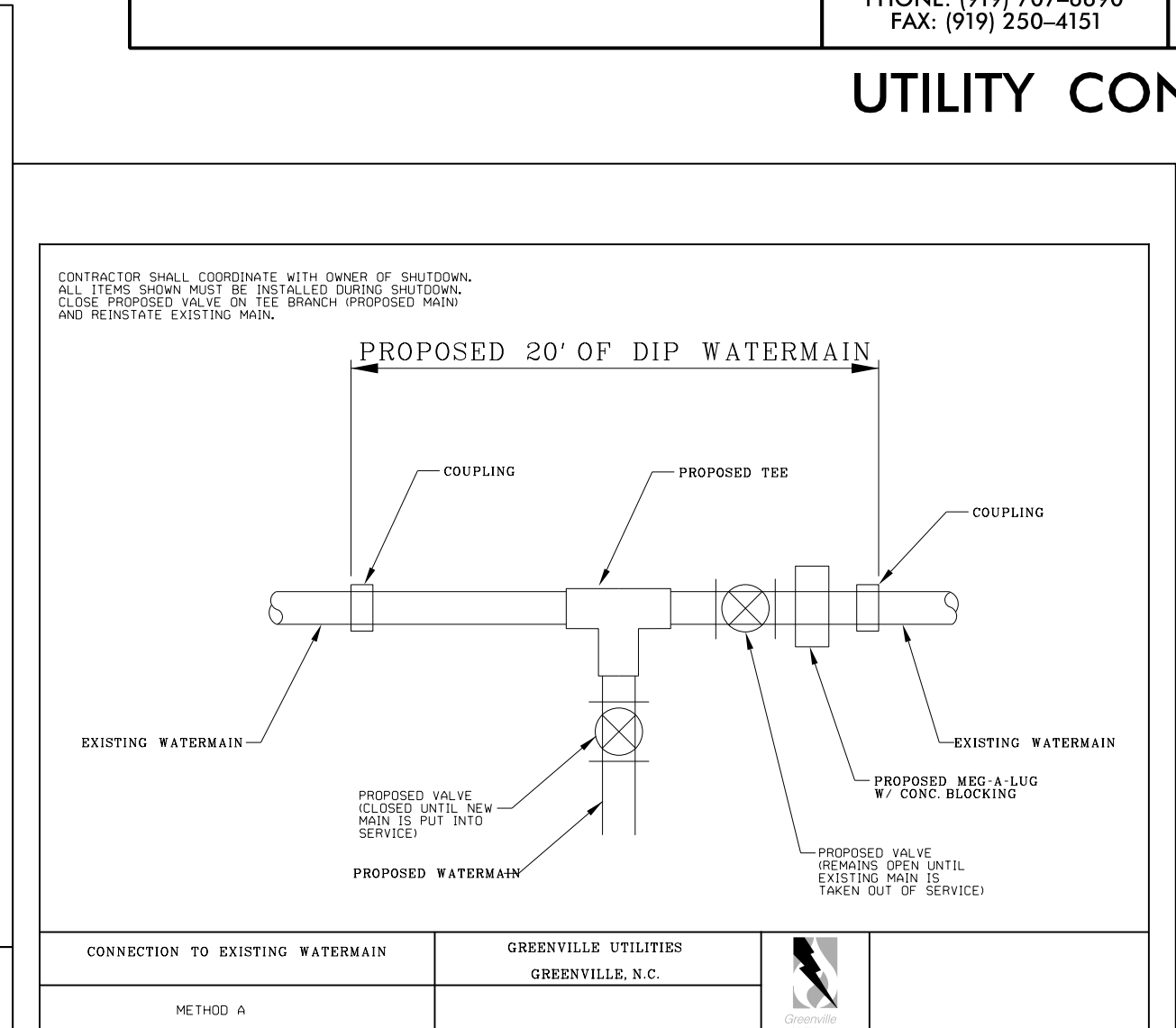
SHEET	DWG. NO. W-1	DWG. N. WOOTEN	WATER RESOURCES ENGINEERING GREENVILLE, N.C.	NO.	DATE	DESCRIPTION
1 OF 1	DATE 3-12-99	APP. H. COREY	GREENVILLE, N.C.			



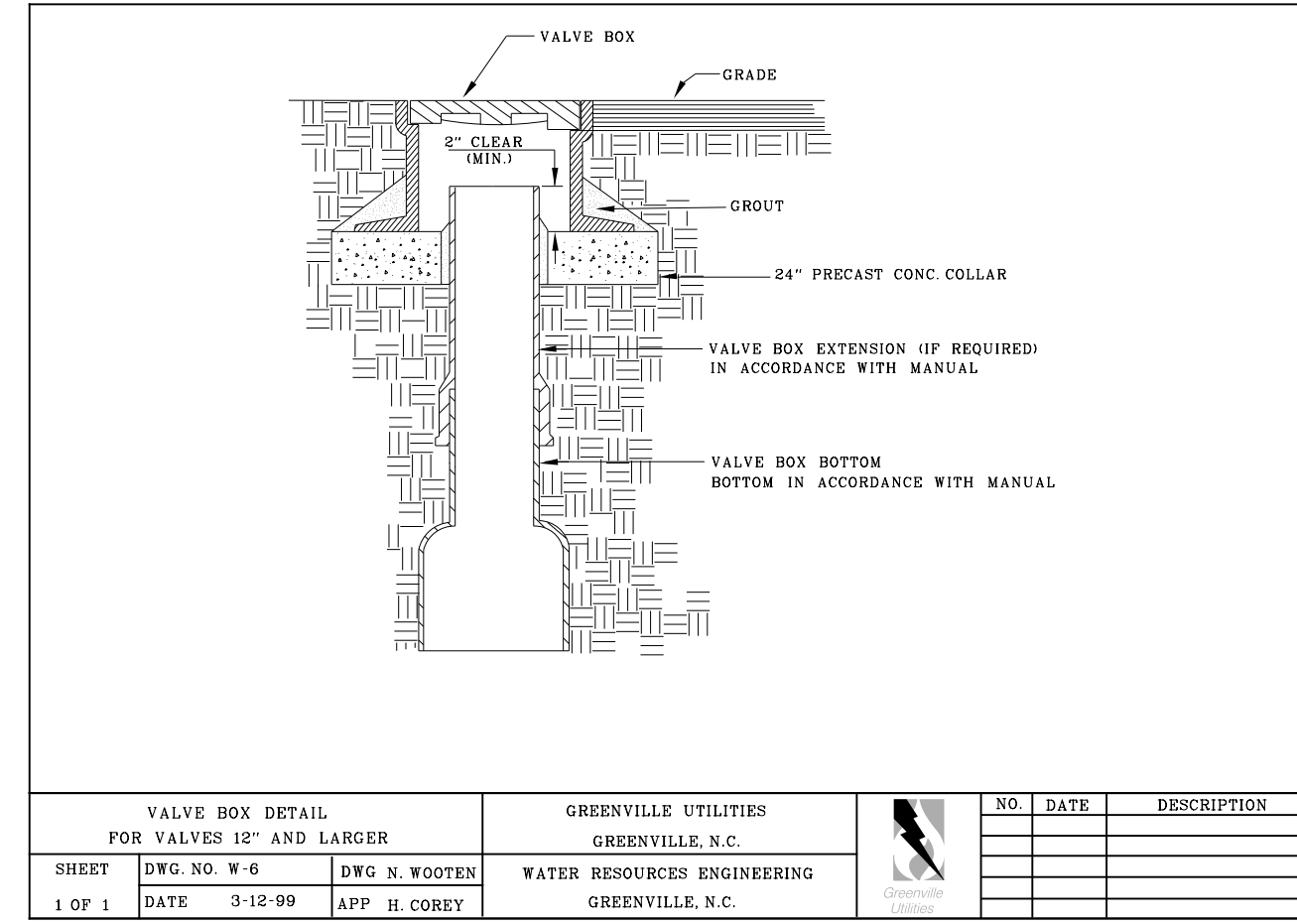
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1 OF 1	DATE 3-12-99	APP. H. COREY	GREENVILLE, N.C.			



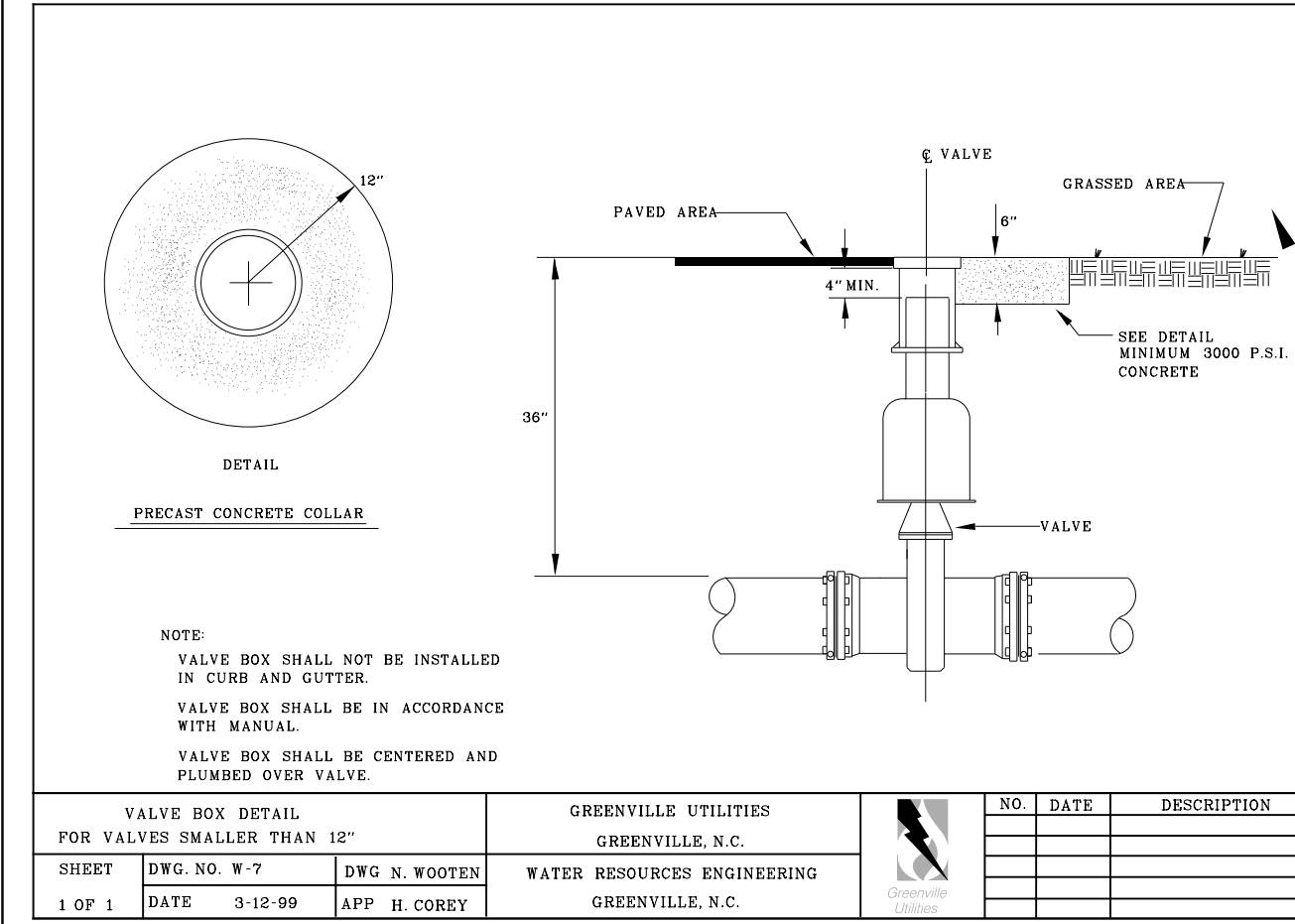
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1 OF 1	DATE 3-12-99	APP. H. COREY	GREENVILLE, N.C.			



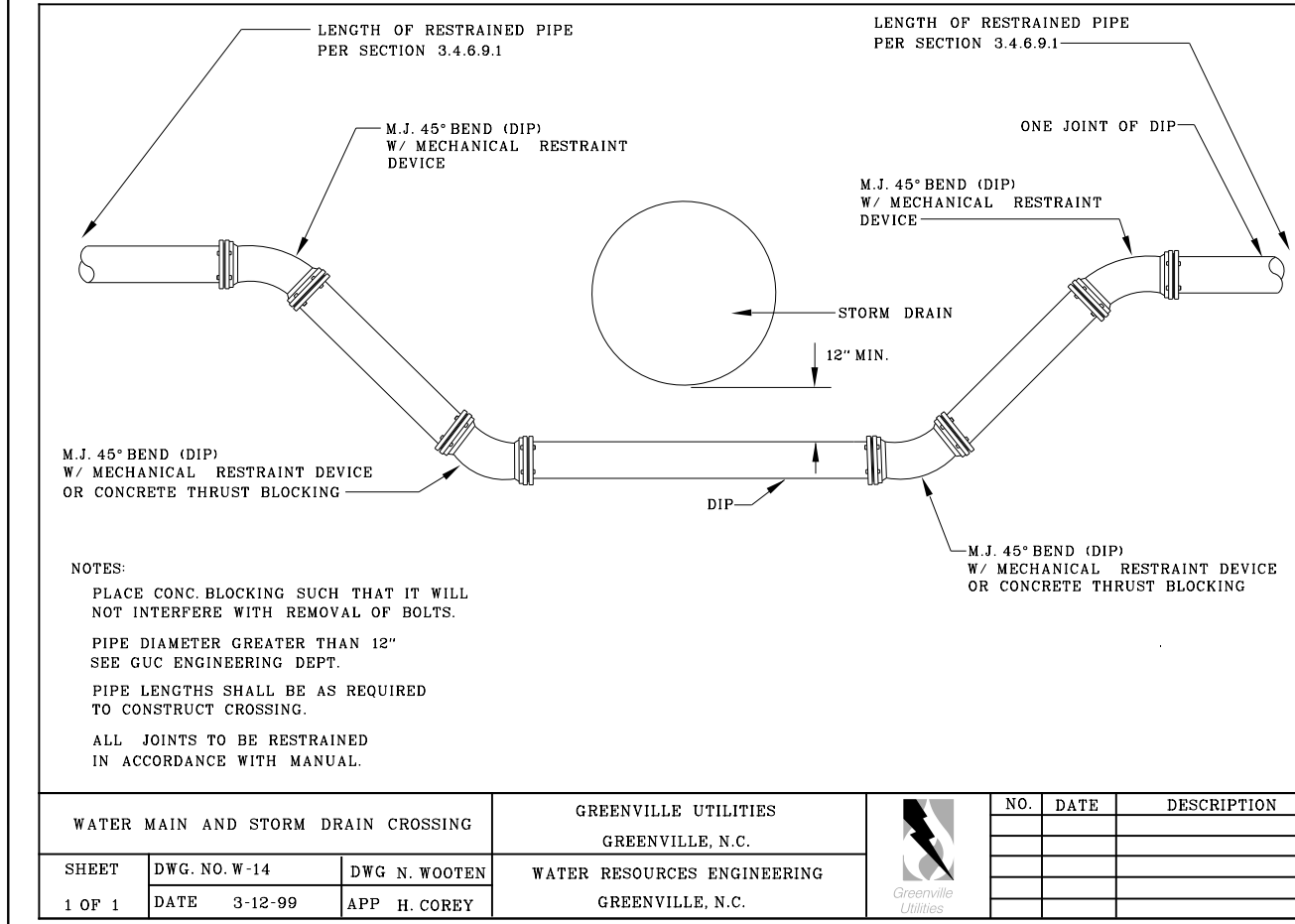
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1 OF 1	DATE 3-12-99	APP. H. COREY	GREENVILLE, N.C.			



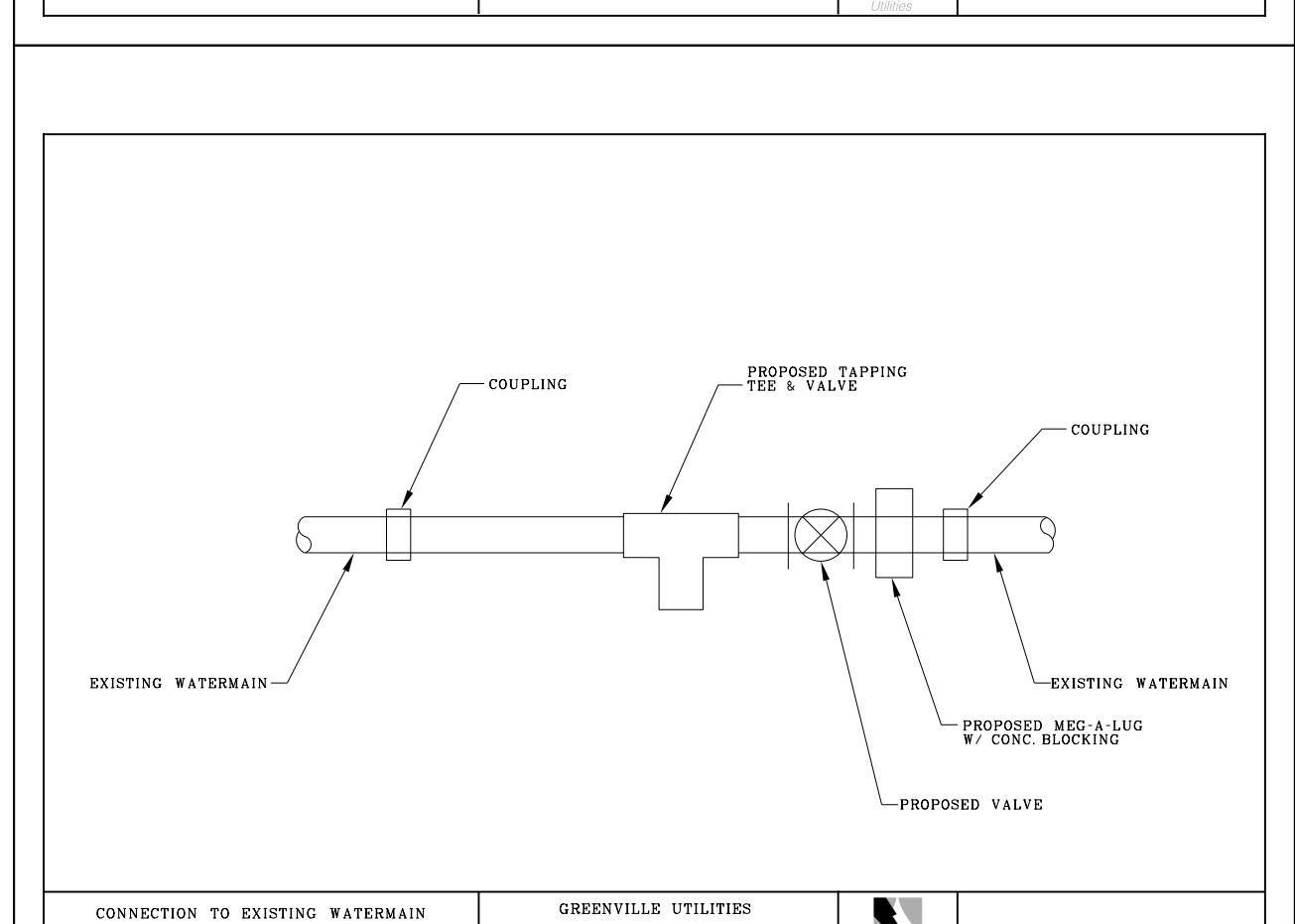
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1 OF 1	DATE 3-12-99	APP. H. COREY	GREENVILLE, N.C.			



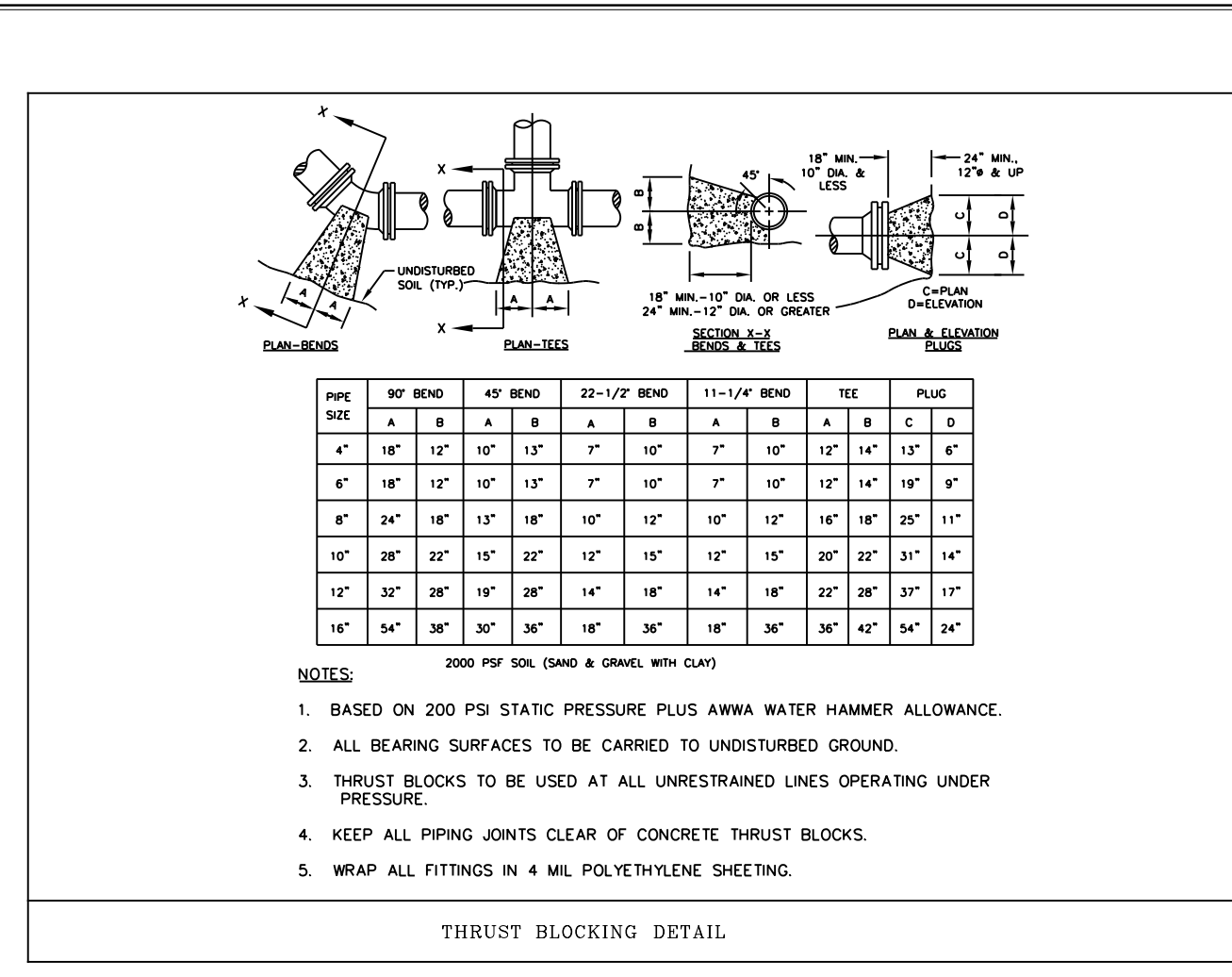
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SHEET	DWG. NO. W-14	DWG. N. WOOTEN	WATER RESOURCES ENGINEERING GREENVILLE, N.C.	NO.	DATE	DESCRIPTION
1 OF 1	DATE 3-12-99	APP. H. COREY	GREENVILLE, N.C.			

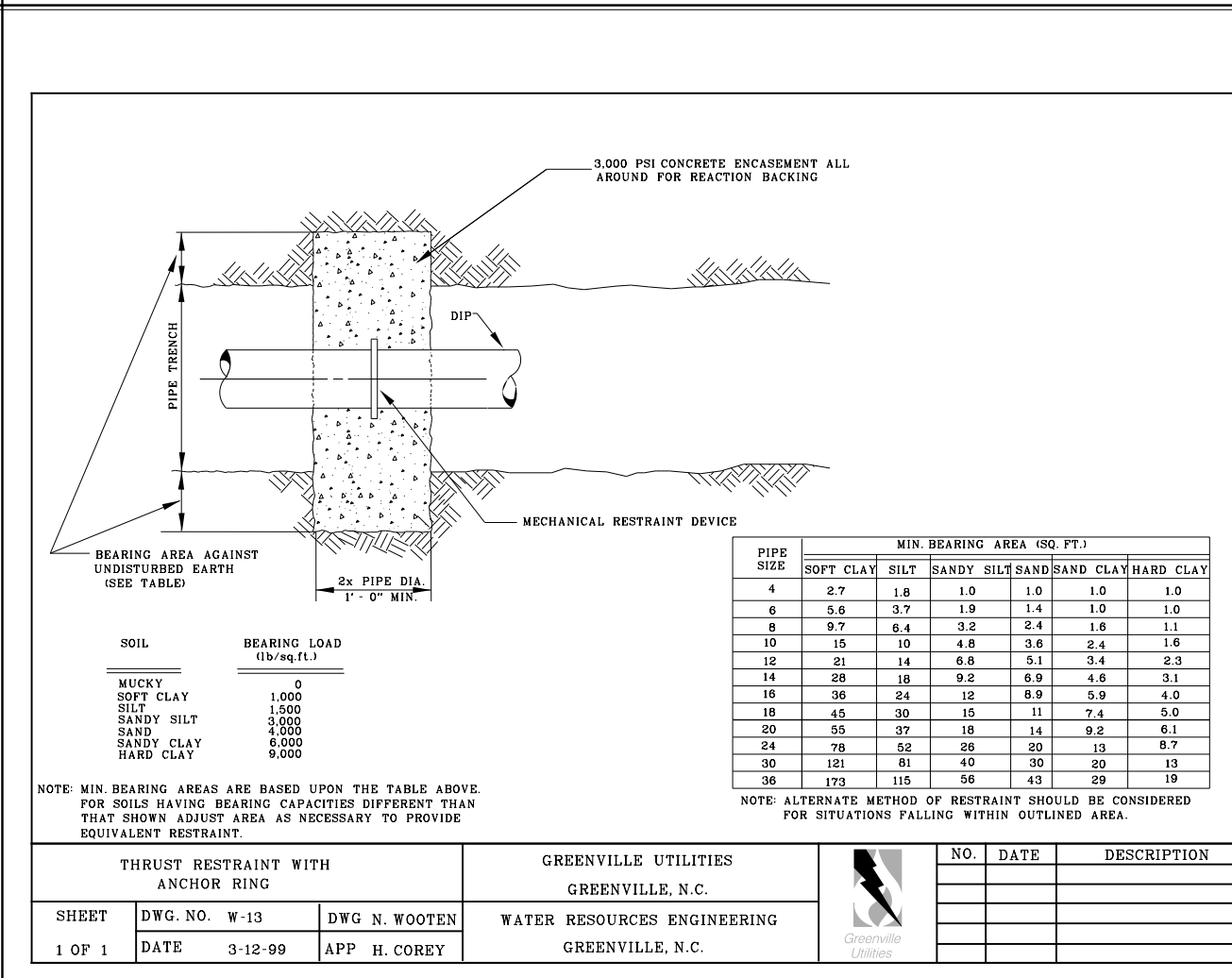


SHEET	DWG. NO. W-15	DWG. N. WOOTEN	WATER RESOURCES ENGINEERING GREENVILLE, N.C.	NO.	DATE	DESCRIPTION
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NOTES:

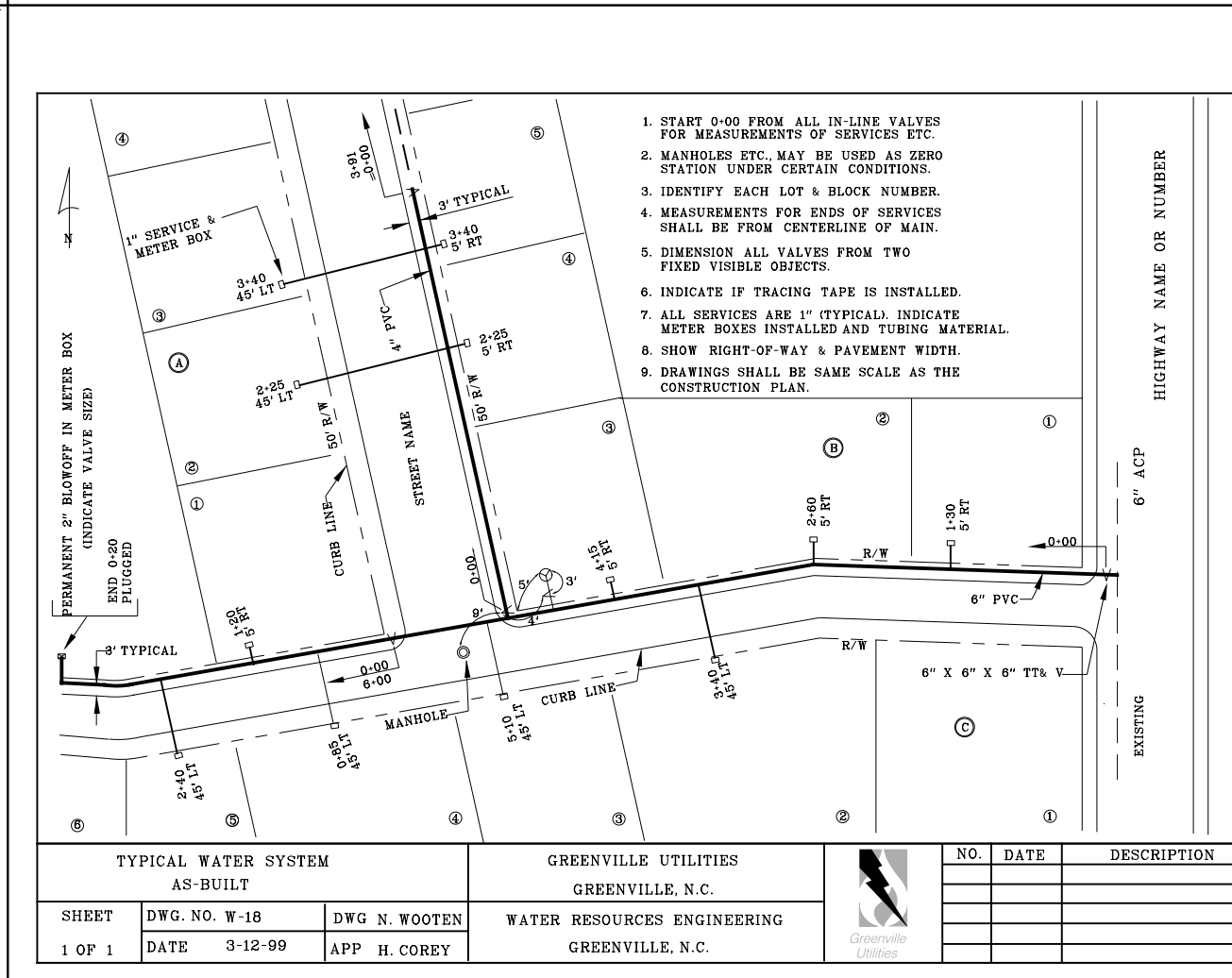
- BASED ON 200 PSI STATIC PRESSURE PLUS AWWA WATER HAMMER ALLOWANCE.
- ALL BEARING SURFACES TO BE CARRIED TO UNDISTURBED GROUND.
- THRUST BLOCKS TO BE USED AT ALL UNRESTRAINED LINES OPERATING UNDER PRESSURE.
- KEEP ALL PIPING JOINTS CLEAR OF CONCRETE THRUST BLOCKS.
- WRAP ALL FITTINGS IN 4 MIL POLYETHYLENE SHEETING.



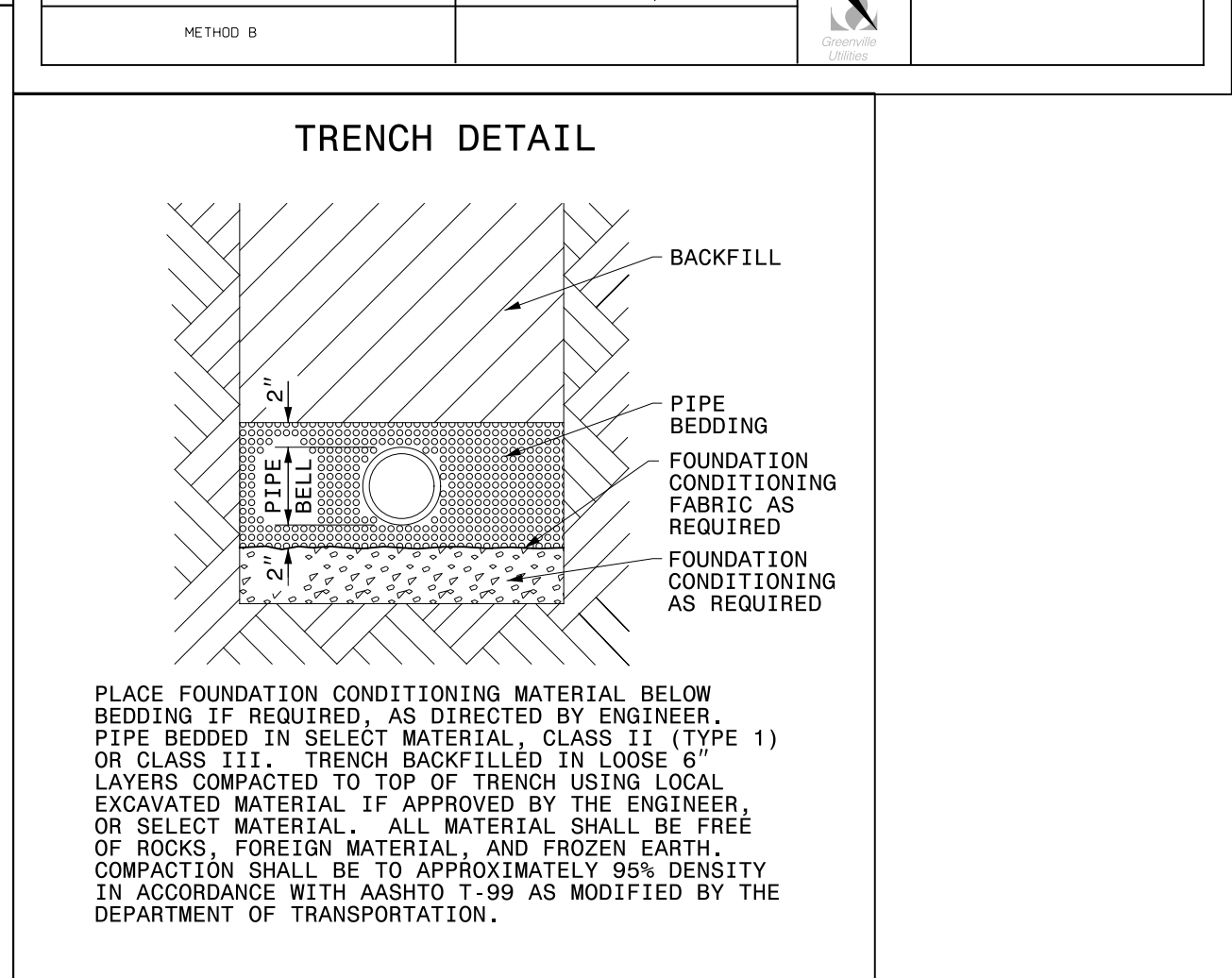
PIPE SIZE	SOFT CLAY	SILT	SANDY SILT	SAND	CLAY SAND	CLAY HARD CLAY
4	2.7	1.8	1.0	1.0	1.0	1.0
6	3.6	2.7	1.8	1.4	1.2	1.0
8	4.5	3.6	2.7	2.4	1.8	1.1
10	5.4	4.5	3.6	3.6	2.4	1.6
12	6.3	5.4	4.5	5.1	3.4	2.3
14	7.2	6.3	5.4	6.6	4.8	3.1
16	8.1	7.2	6.3	8.1	6.6	4.0
18	9.0	8.1	7.2	9.6	9.0	5.0
20	9.9	9.0	8.1	11.1	11.7	6.0
22	10.8	9.9	9.0	12.6	14.4	7.0
24	11.7	10.8	9.9	14.1	17.1	8.0
26	12.6	11.7	10.8	15.6	19.8	9.0
28	13.5	12.6	11.7	17.1	22.5	10.0
30	14.4	13.5	12.6	18.6	25.2	11.0
36	17.1	16.2	15.3	22.5	31.5	13.0

NOTE: WIN BEARING AREAS ARE BASED UPON THE TABLE ABOVE FOR SOILS HAVING BEARING CAPACITY DIFFERENT THAN THAT SHOWN ABOVE. AREA AS NECESSARY TO PROVIDE EQUIVALENT RESTRAINT.

NOTE: ALTERNATE METHOD OF RESTRAINT SHOULD BE CONSIDERED FOR SITUATIONS FALLING WITHIN OUTLINED AREA.



SHEET	DWG. NO. W-16	DWG. N. WOOTEN	WATER RESOURCES ENGINEERING GREENVILLE, N.C.	NO.	DATE	DESCRIPTION
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PLACE FOUNDATION CONDITIONING MATERIAL BELOW BEDDING IF REQUIRED, AS DIRECTED BY ENGINEER. PIPE BEDDED IN SELECT MATERIAL, CLASS II (TYPE 1) OR CLASS III. TRENCH BACKFILLED IN LOOSE 6" LAYERS COMPACTED TO TOP OF TRENCH USING LOCAL EXCAVATED MATERIAL IF APPROVED BY THE ENGINEER OR SELECT MATERIAL. ALL MATERIAL SHALL BE FREE OF ROCKS, FOREIGN MATERIAL, AND FROZEN EARTH. COMPACTION SHALL BE TO APPROXIMATELY 95% DENSITY IN ACCORDANCE WITH ASTM 1-99 AS MODIFIED BY THE DEPARTMENT OF TRANSPORTATION.

UTILITY CONSTRUCTION