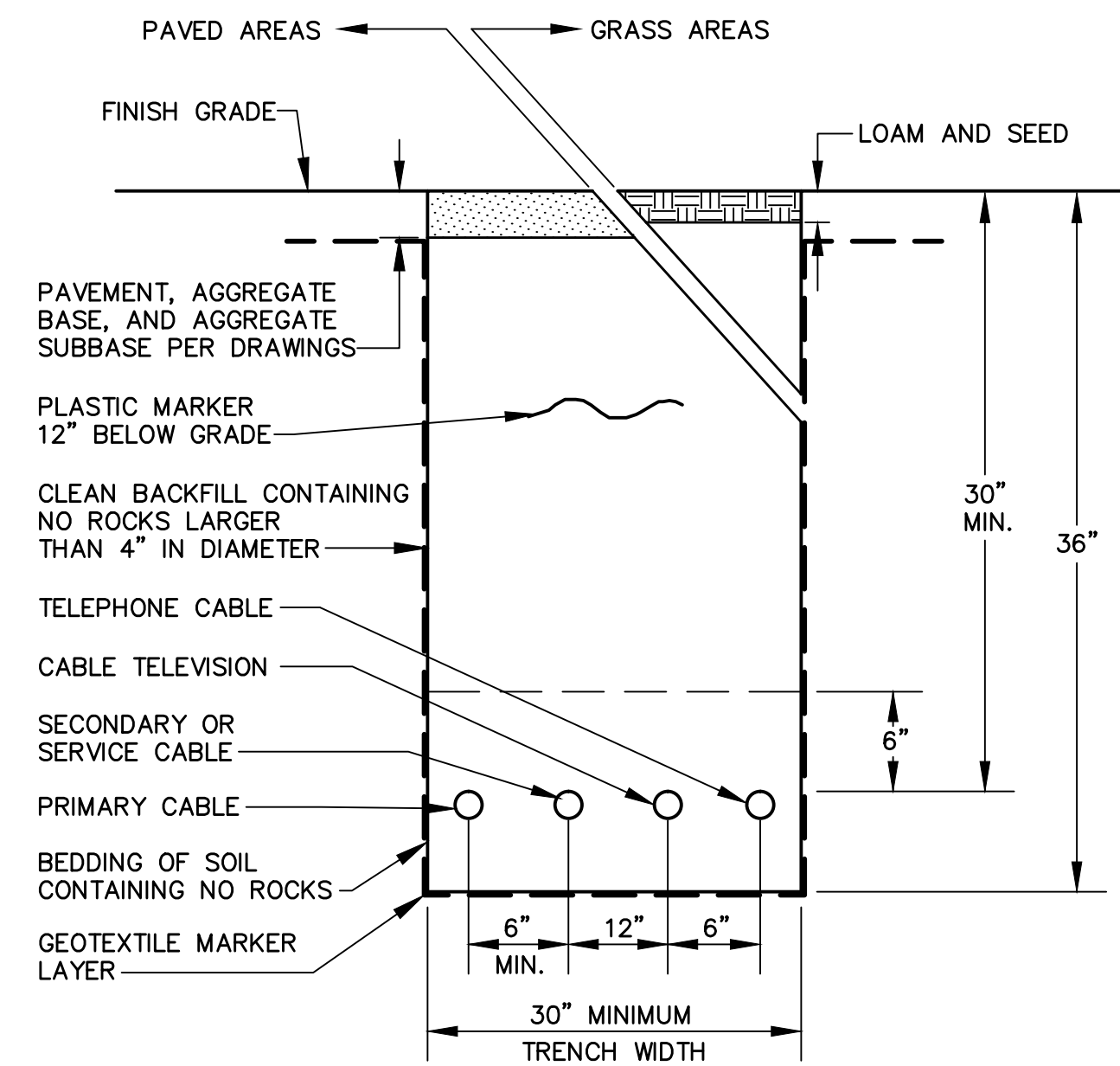


PIPE INSTALLATION NOTES

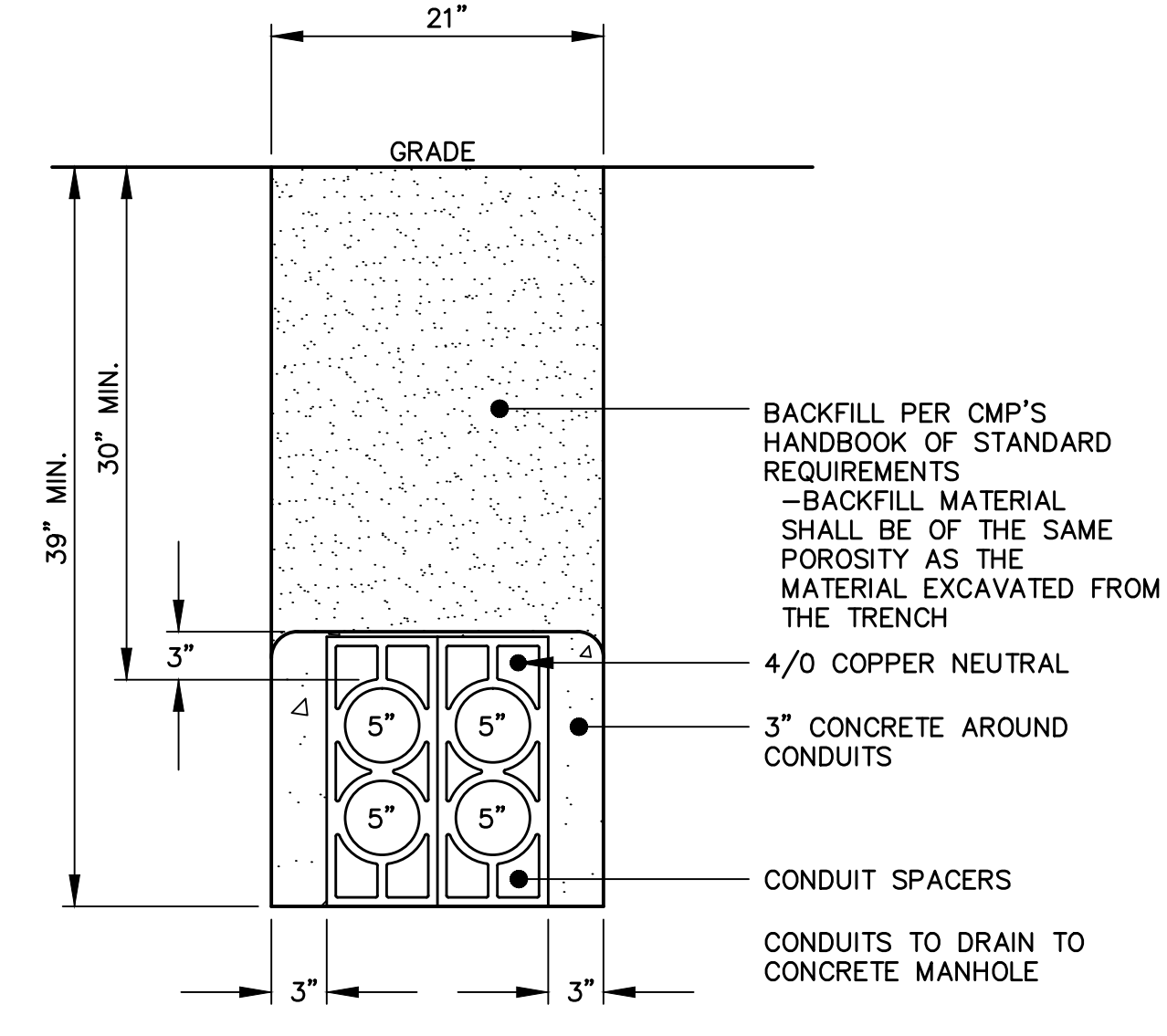
1. ALTERNATE CONSTRUCTION METHODS OR PAYMENT METHODS SHALL BE APPROVED BY THE CITY.
2. IN PAVED AREAS, DEPTHS OF GRAVEL AND HOT MIX ASPHALT PAVEMENT SHALL MATCH THE GREATER OF EXISTING CONDITIONS OR THE REQUIREMENTS FOR THE CORRESPONDING STREET CLASSIFICATION.
3. DIMENSION B SHALL BE SUFFICIENT TO ALLOW CRUSHED STONE BEDDING TO BE PLACED AND COMPACTED UNDER THE HAUNCHES OF THE PIPE; BUT IN ALL CASES DIMENSION B SHALL BE AT LEAST 9".
4. DIMENSION A IS THE MAXIMUM WIDTH ALLOWED FOR CALCULATING PAY QUANTITIES UNDER GRANULAR BORROW, CRUSHED STONE, STRUCTURAL EARTH EXCAVATION, AND STRUCTURAL ROCK EXCAVATION. DIMENSION A SHALL BE BASED ON PIPE DIAMETER D, AS SET FORTH IN THE FOLLOWING TABLE:

PIPE DIAMETER, D (INCHES)	MAX. TRENCH WIDTH, A (FEET)
4	4.0
6	4.0
8	4.0
10	4.0
12	5.0
15	5.0
18	5.0
21	5.0
24	6.0
27	6.0
30	6.0
36	6.0
42	7.0
48	7.0

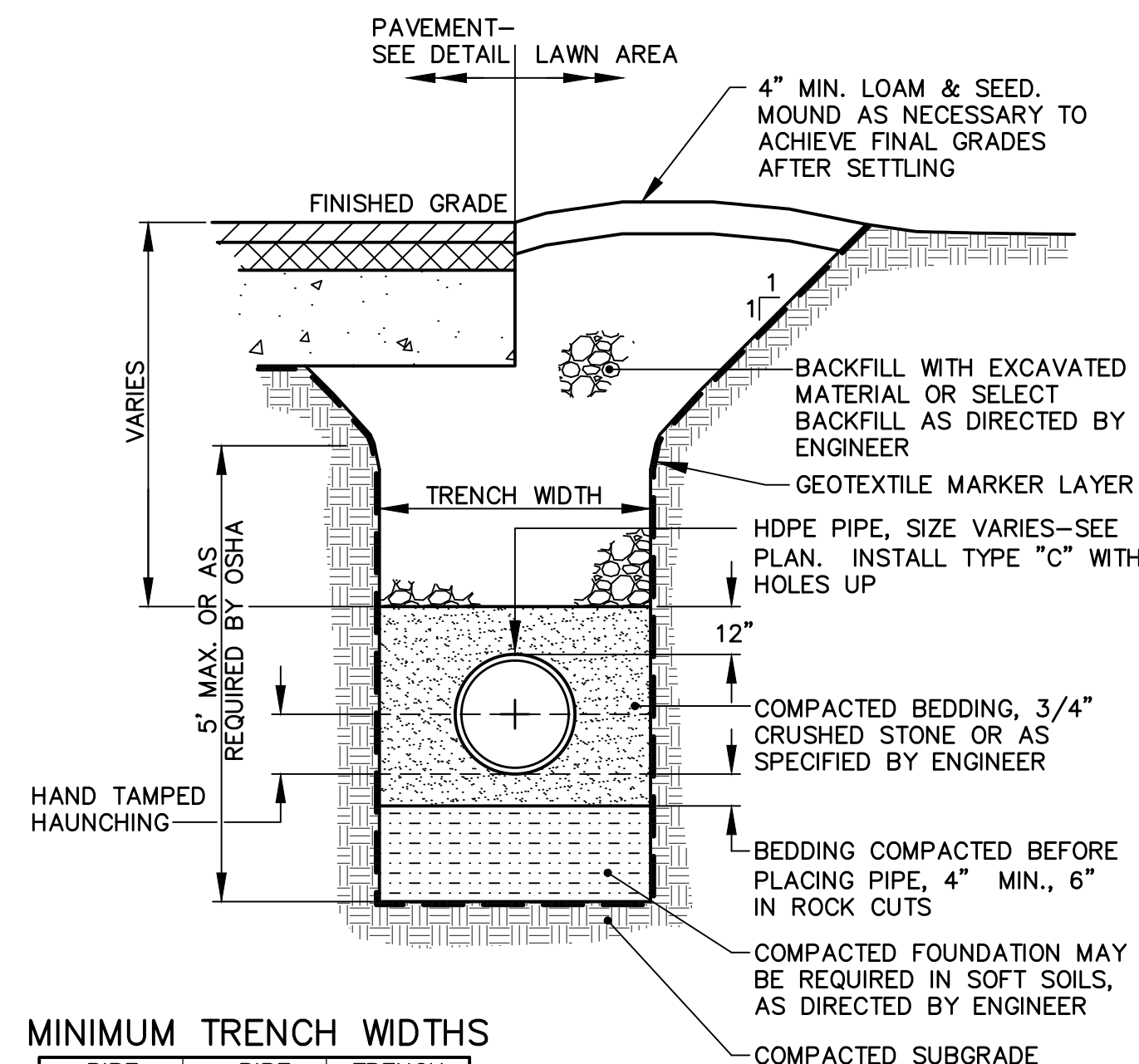
1 TYPICAL PIPE TRENCH INSTALLATION (WITHIN CITY RIGHT-OF-WAY)
NOT TO SCALE



2 UNDERGROUND UTILITY TRENCH DETAIL (WITHIN SITE)
NOT TO SCALE



3 CONCRETE ENCASED DUCT
NOT TO SCALE



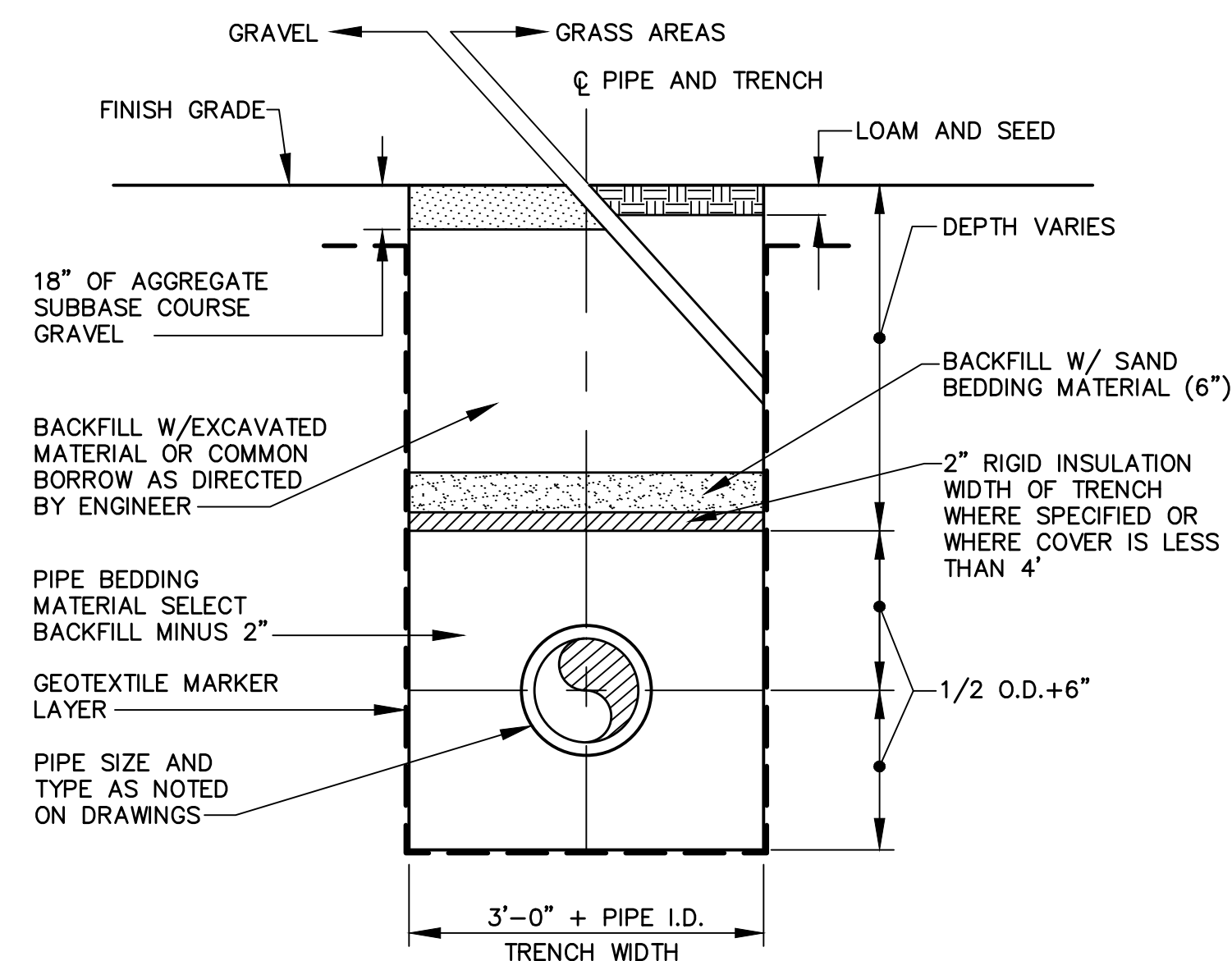
MINIMUM TRENCH WIDTHS

PIPE DIA.	PIPE O.D.	TRENCH WIDTH
12"	14.45"	31"
15"	17.65"	34"
18"	21.10"	39"
24"	28.30"	48"
30"	36.10"	66"
36"	42.25"	78"
42"	47.00"	83"
48"	53.00"	89"
60"	66.30"	102"

NOTES:

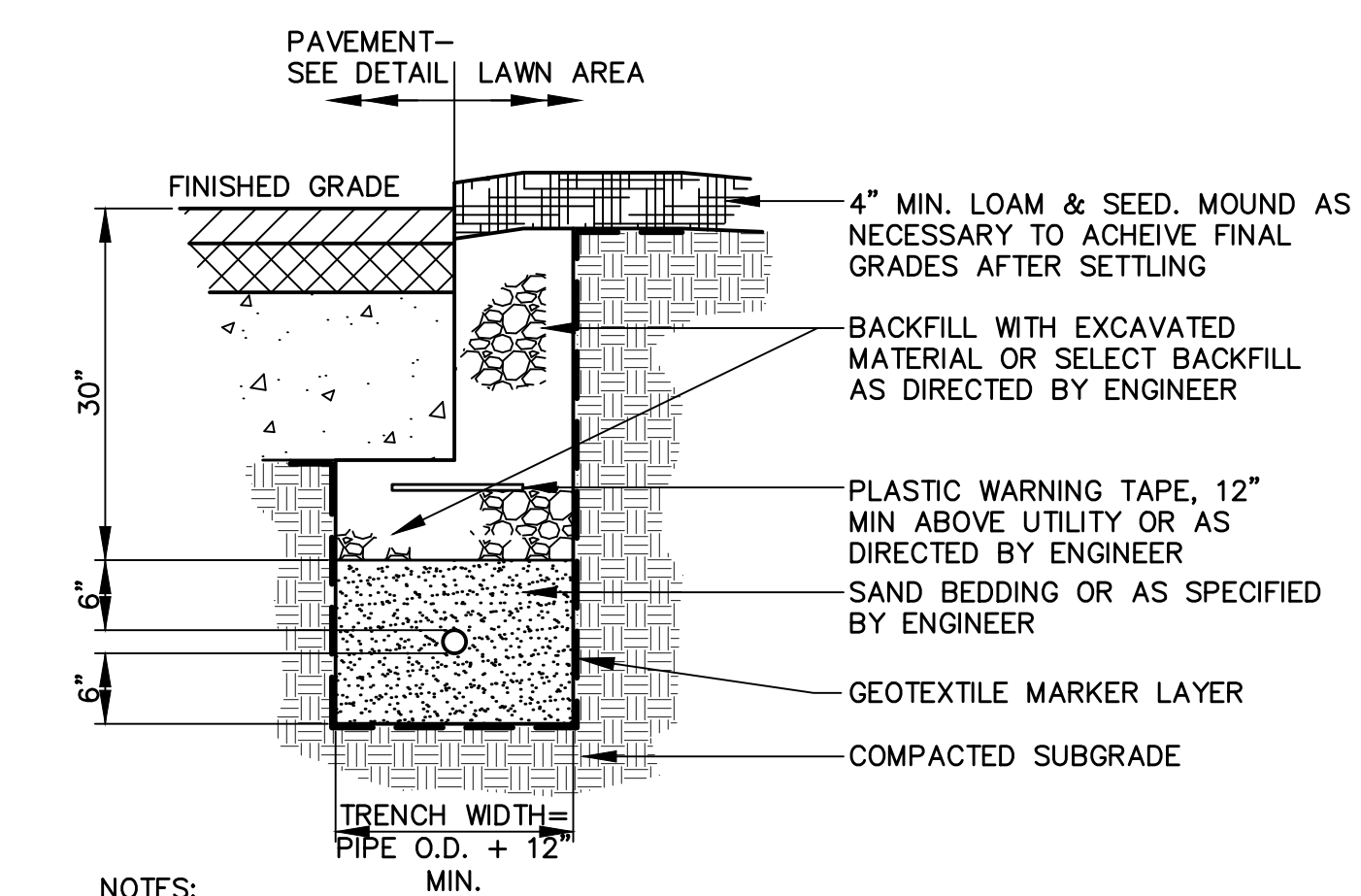
1. WHERE TRENCHES PENETRATE DETENTION BASIN EMBANKMENTS OR OTHER SUCH SPECIAL SECTIONS, BACKFILL SHALL CONFORM TO THE THEIR REQUIREMENTS.
2. INSTALL WATER STOPS EVERY 100' OR AS NECESSARY TO PREVENT FINES FROM MIGRATING.
3. TRENCH WIDTH SHALL BE WIDE ENOUGH TO ACCOMMODATE COMPACTION EQUIPMENT.

4 STORM/SANITARY PIPE TRENCH
NOT TO SCALE



1. SAND BACKFILL AND RIGID INSULATION AS REQUIRED.

5 WATER TRENCH SECTION
NOT TO SCALE



NOTES:

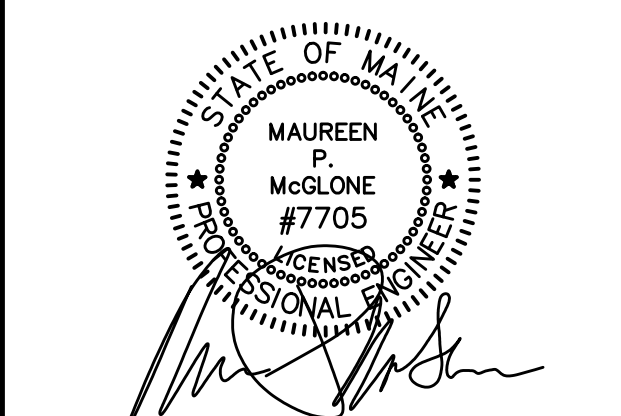
1. ALL WORK TO COMPLY WITH UTILITY COMPANY STANDARDS.
2. CONTRACTOR TO PROVIDE 1/4" POLYPROPYLENE PULL ROPES IN ALL CONDUITS.

6 GAS OR ELECTRIC UTILITY TRENCH SECTION
NOT TO SCALE

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CONSTRUCTION DETAILS

No.	Revision/Issue	Date
B	PER REVIEW COMMENTS	06/09/17
A	CITY SUBMISSION	03/09/17

Design by:	Checked by:
MPM	SJB
Drawn by:	Approved by:
JAR	SJB
Project:	Date:
150.06094	MARCH 2017

Sheet No:
C2.2
Sheet 9 of 22