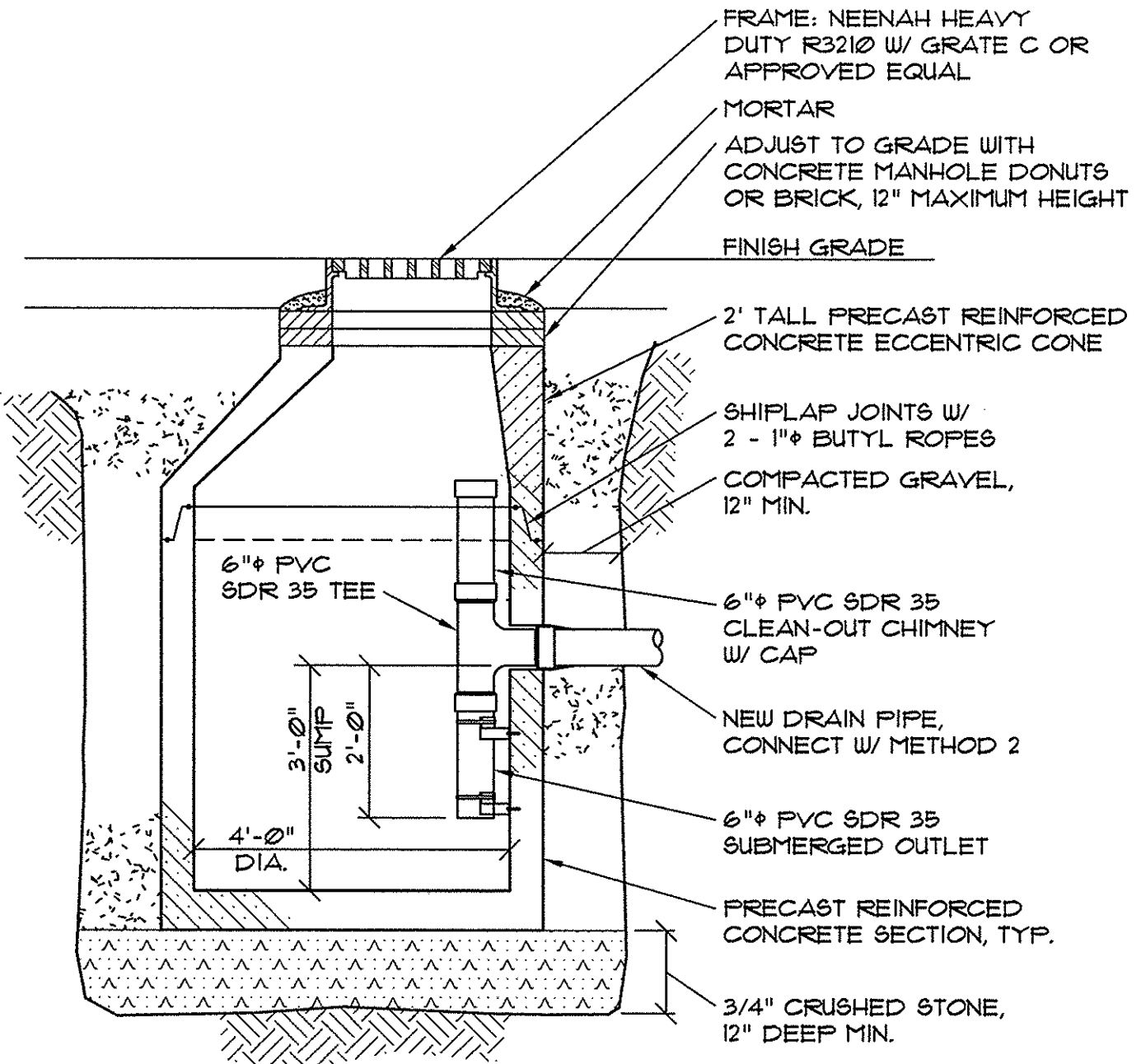
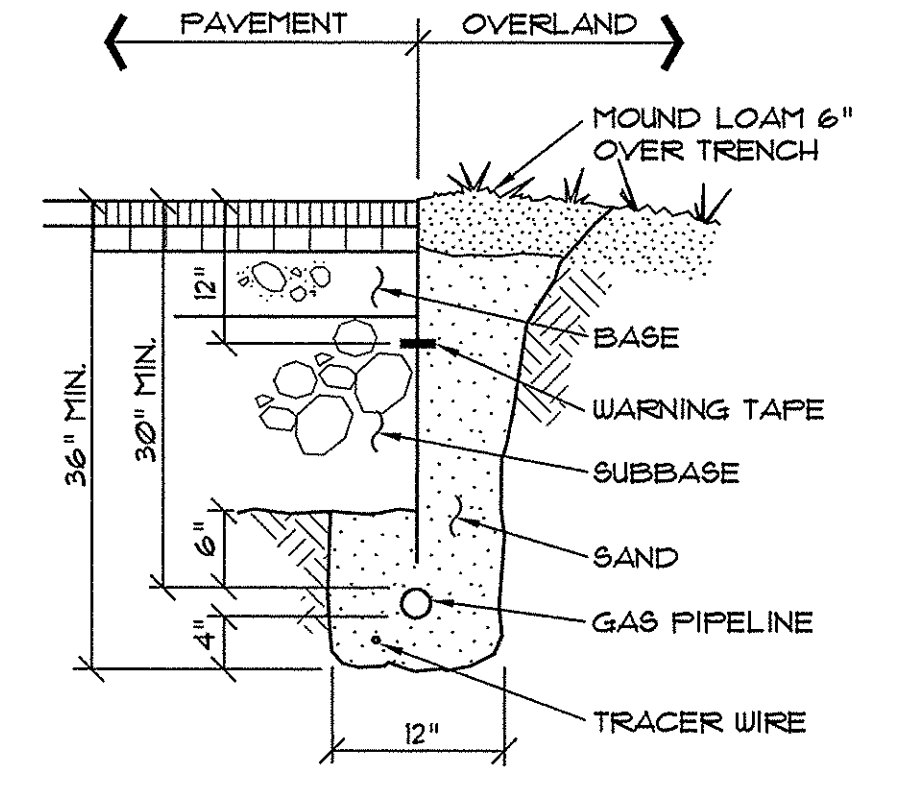


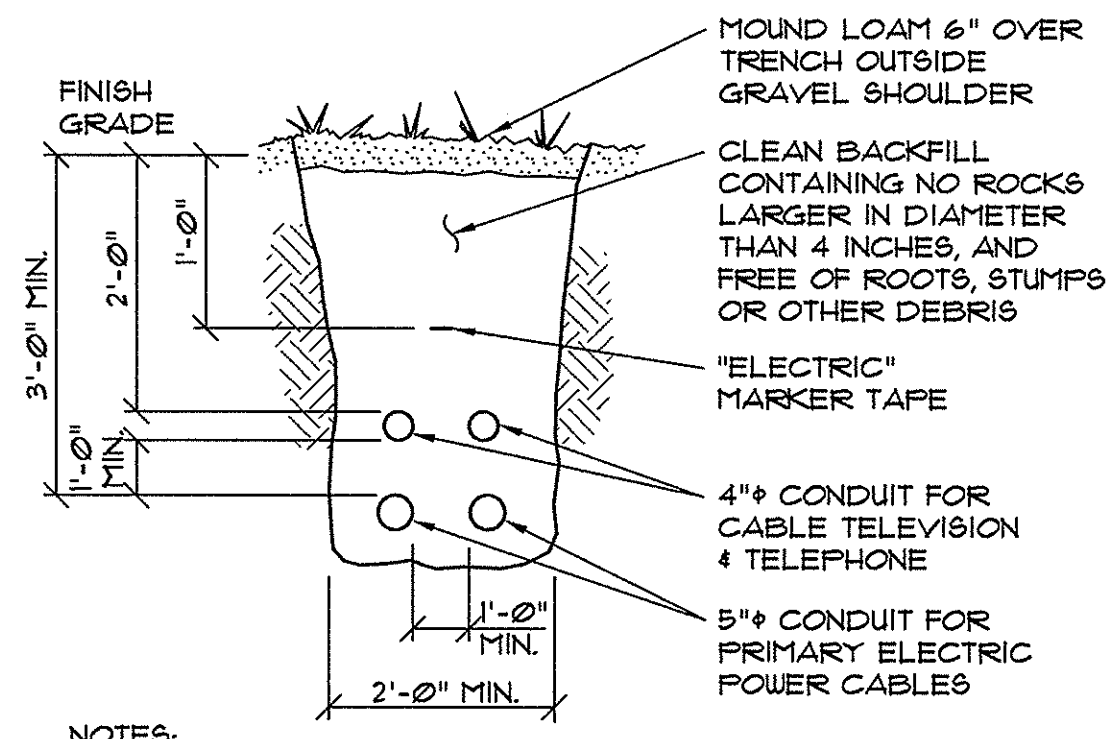
5 CATCHBASIN #2 SECTION (II-2) NOT TO SCALE



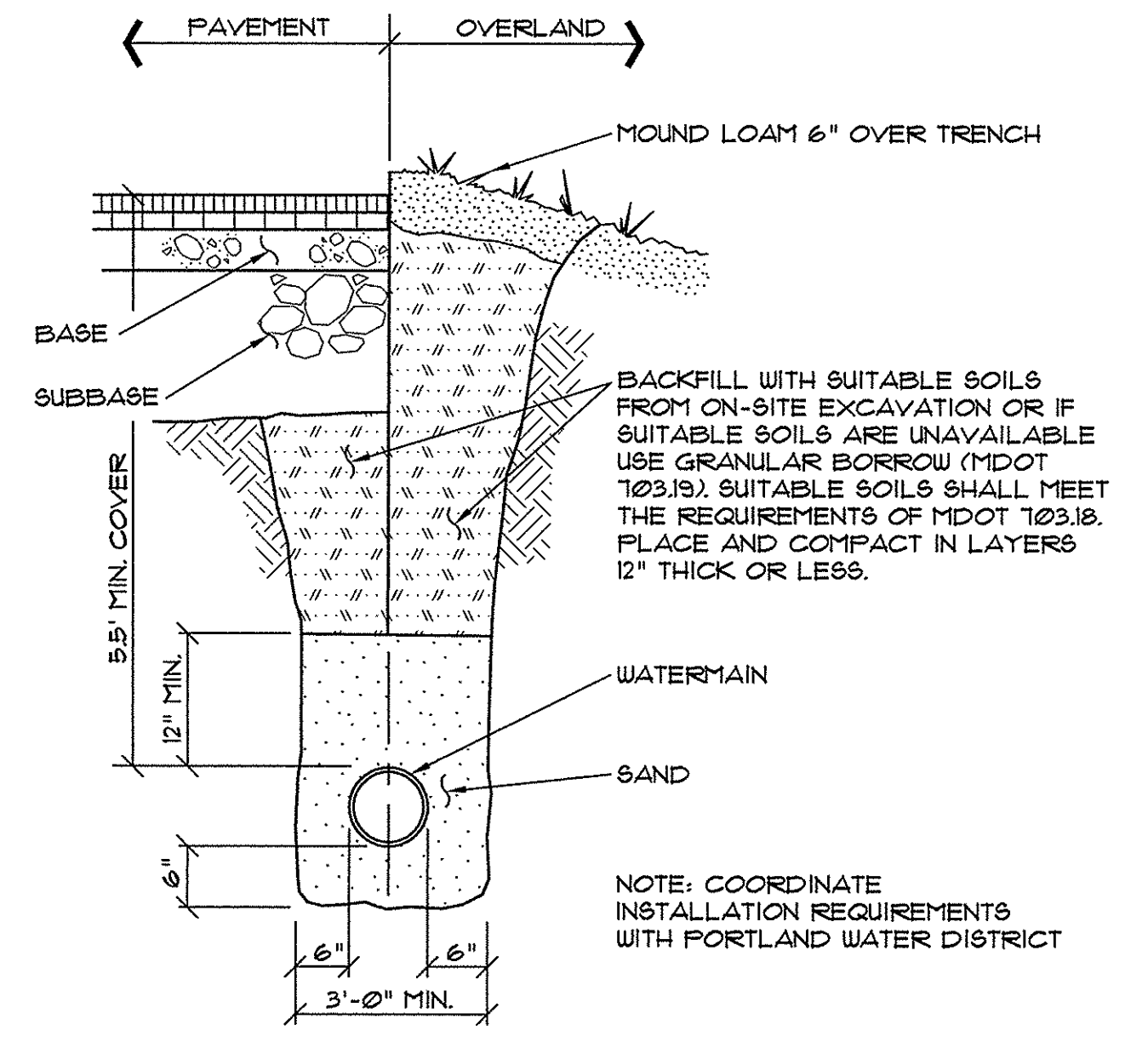
4 CATCHBASIN #1 SECTION NOT TO SCALE



8 GAS PIPING TRENCH SECTION NOT TO SCALE



7 CABLE TRENCH SECTION NOT TO SCALE



6 TYPICAL WATER MAIN SECTION NOT TO SCALE

**UNDERGROUND UTILITIES WARNING TAPE**  
 IDENTIFICATION TAPE TO BE INSTALLED ABOVE ALL NEW UNDERGROUND UTILITIES AND ABOVE ANY EXISTING UTILITIES THAT MAY BE EXPOSED BY THIS CONSTRUCTION.  
 DETECTABLE UNDERGROUND MARKING TAPE TO BE PERMANENT, BRIGHT-COLORED, CONTINUOUS-PRINTED FLASTICIZED ALUMINUM TAPE, INTENDED FOR DIRECT BURIAL. SERVICE NOT LESS THAN 3" WIDE x 5 MILS THICK. PROVIDE TAPE WITH BLACK PRINTING IDENTIFYING THE UTILITY.  
 DETECTABLE WARNING TAPE REQUIRED OVER ALL WATER, SEWER, DRAINAGE, OR GAS UTILITIES. TAPE TO BE TERRA TAPE BY REEF INDUSTRIES, INC., www.reefindustries.com, OR EQUAL.  
 AFWA UNIFORM COLOR CODE:  
 WHITE PROPOSED EXCAVATION  
 PINK TEMPORARY SURVEY MARKINGS  
 RED ELECTRIC POWER LINES, CABLES, CONDUIT AND LIGHTING CABLES  
 YELLOW GAS, OIL, STEAM, PETROLEUM OR GASEOUS MATERIALS  
 ORANGE COMMUNICATION, ALARM OR SIGNAL LINES, CABLES OR CONDUIT  
 BLUE POTABLE WATER  
 PURPLE RECLAIMED WATER, IRRIGATION AND SLURRY LINES  
 GREEN SEWERS AND DRAIN LINES

1 UNDERGROUND UTILITIES WARNING TAPE

- GENERAL NOTES FOR MANHOLES AND CATCH BASINS**
- ALL CONCRETE SHALL HAVE A MINIMUM ULTIMATE COMPRESSIVE STRENGTH OF 4000 LBS. PER SQ. INCH AT THE END OF 28 DAYS, UNLESS OTHERWISE NOTED.
  - MANHOLES MAY BE CONSTRUCTED OF PRECAST REINFORCED CONCRETE, OR CAST IN PLACE.
  - PRECAST REINFORCED CONE BARREL MANUFACTURED PER ASTM SPEC. C-478.
  - ALL STORM AND SEWER MANHOLE COVERS SHALL BE SOLID AND SHALL HAVE ONE 7/8" DIAMETER DRILLED PICK HOLE LOCATED 8" FROM THE CENTER OF THE COVER.
  - ALL SANITARY MANHOLE COVERS SHALL HAVE "SEWER" CAST INTO THE COVER. ALL STORMWATER/DRAIN MANHOLE COVERS SHALL HAVE "DRAIN" CAST INTO THE COVER.
  - ALL MANHOLE RISERS SHALL BE ETHERIDGE 24" OR APPROVED EQUAL.
  - SEWER BRICK SHALL CONFORM TO ASTM SPEC. DESIGNATE ON C-32-63, GRADE MA AND SA.
  - ALL SANITARY MANHOLES SHALL HAVE A WATERPROOFING COATING APPLIED TO THE EXTERIOR SURFACE.
  - CATCH BASIN FRAMES FOR TYPE A4 CATCH BASIN CURB INLETS SHALL BE ETHERIDGE DRSA OR APPROVED EQUAL.
  - CASTINGS SHALL CONFORM TO ASTM DESIGNATION A48-CLASS 35.
  - EXISTING MANHOLES, CATCH BASINS, FRAMES, AND COVERS SHALL BE SALVAGED BY THE CONTRACTOR, AND SHALL REMAIN THE PROPERTY OF THE CITY OF PORTLAND.
  - ALL CATCH BASIN OUTLETS SHALL BE INSTALLED WITH A CASCO TRAP. SEE FIGURE II-09.

2 GENERAL NOTES FOR MANHOLES AND CATCH BASINS (II-4) NOT TO SCALE

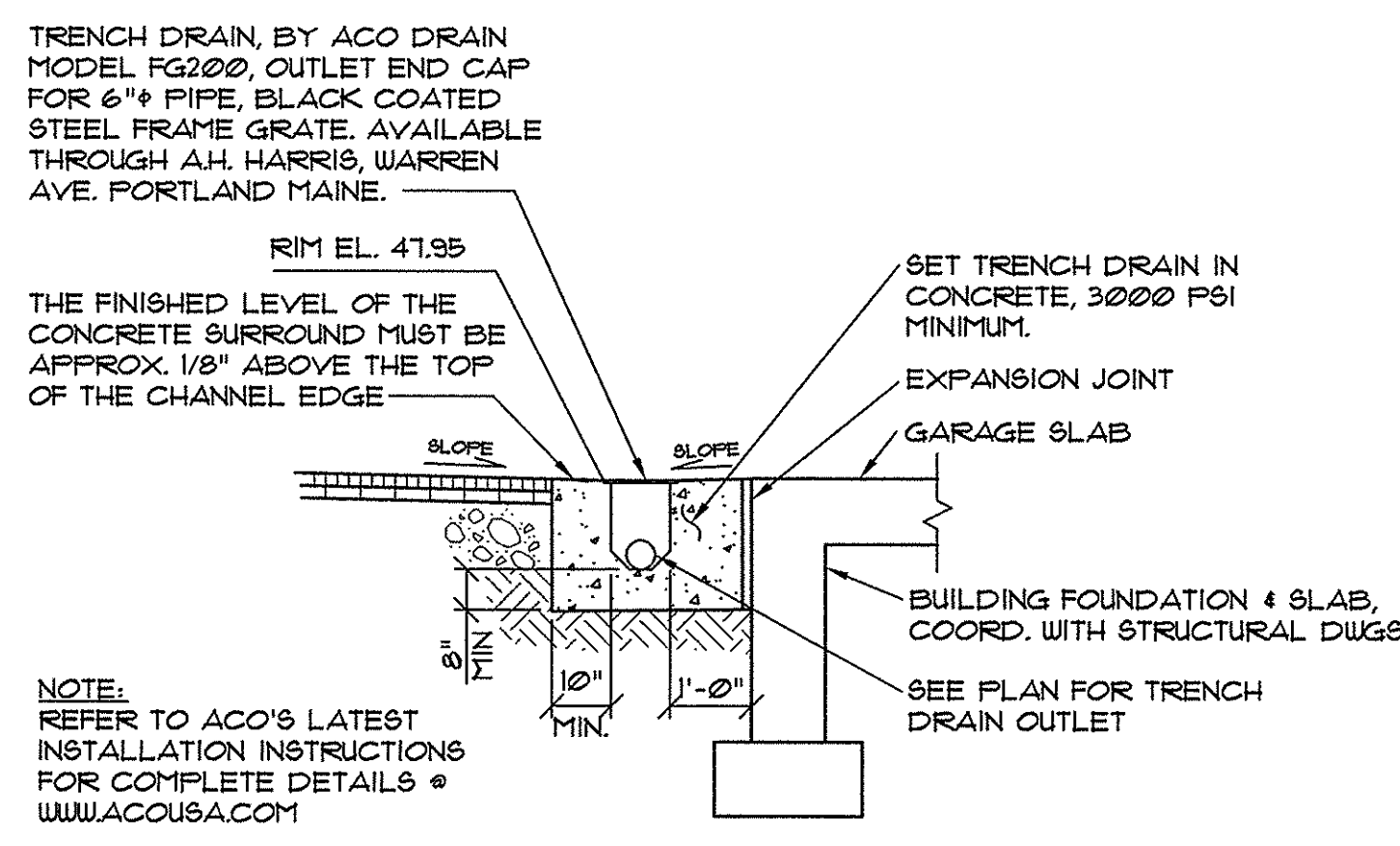
**NOTES:**  
 DEPTH OF BITUMINOUS PAVEMENT AND AGGREGATE COURSES SHALL BE DETERMINED BY STREET CLASSIFICATION.  
 ANY ADVANCE TRENCHING OR PAVEMENT METHODS SHALL BE APPROVED IN ADVANCE BY THE CITY OF PORTLAND, DEPARTMENT OF PUBLIC SERVICES.

**NOTES:**  
 1. ALTERNATIVE CONSTRUCTION METHODS OR PAVEMENT METHODS SHALL BE APPROVED IN ADVANCE 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

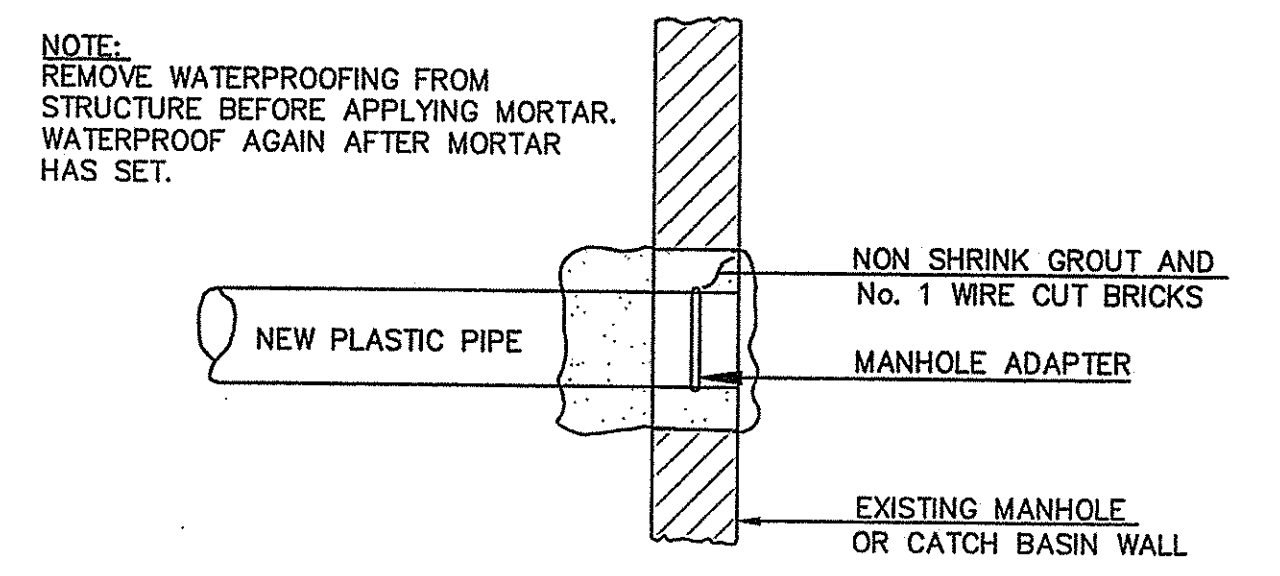
**TYPICAL PIPE TRENCH INSTALLATION (II-12)**  
 PAVED AREAS: AGGREGATE SUBBASE COURSE - GRAVEL TYPE "D", AGGREGATE BASE COURSE - CRUSHED, TYPE "B", HOT BITUMINOUS PAVEMENT GRADING "B", HOT BITUMINOUS PAVEMENT GRADING "C", GRIND TO PROPER DEPTH.  
 UNPAVED AREAS: 4" LOAM AND SEED.  
 3/4" CRUSHED STONE OR SAND 12" ABOVE TOP OF PIPE.  
 3/4" CRUSHED STONE FOR PIPE BEDDING TO PIPE SPRINGLINE.  
 ESTABLISHED TRENCH PROFILE VARIES.  
 2" CRUSHED STONE.

3 TYPICAL PIPE TRENCH INSTALLATION (II-12) NOT TO SCALE

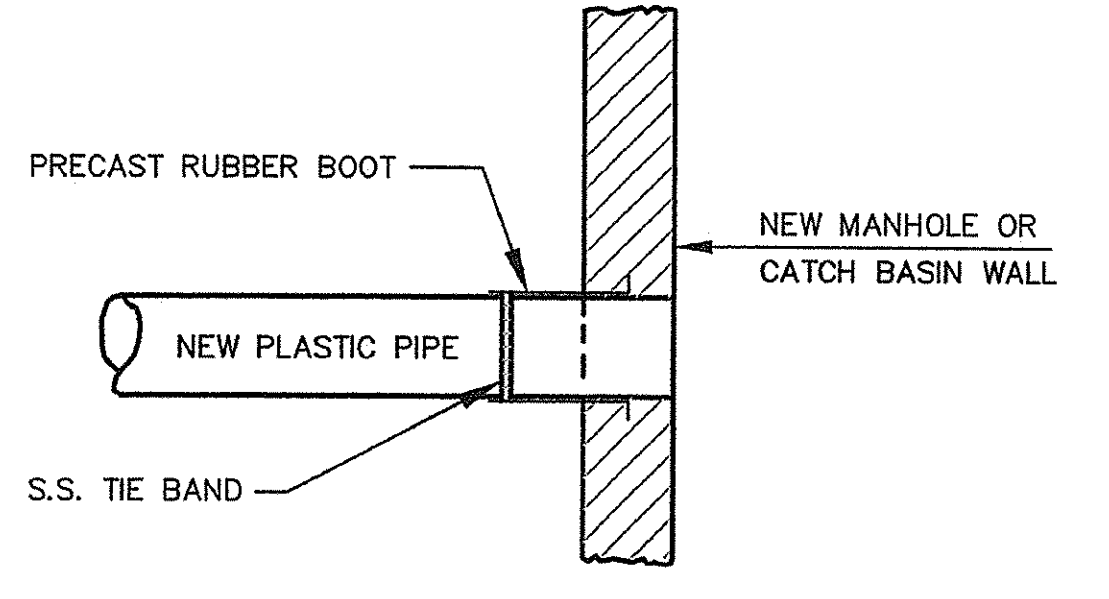


9 TRENCH DRAIN SECTION NOT TO SCALE

**NOTE:** EXISTING MANHOLE OR CATCH BASIN SHALL BE CORE DRILLED FOR PIPE INSTALLATION. IF PIPE DIAMETER IS SO LARGE THAT CORE DRILLING IS PROHIBITED, THE CONTRACTOR MAY SAW CUT THE STRUCTURE TO CREATE PIPE OPENING. THE NEW OPENING MUST THEN BE SEALED AND WATERTIGHT BOTH INSIDE AND OUTSIDE THE STRUCTURE.

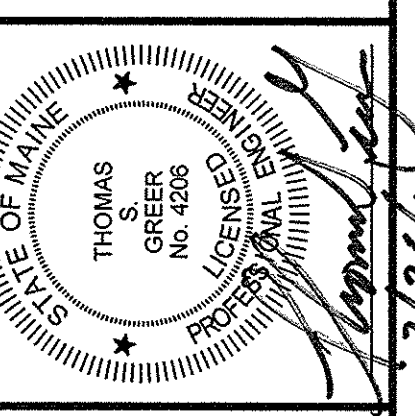


10 PLASTIC PIPE CONNECTION METHODS (II-13 & II-14) NOT TO SCALE



METHOD 2 - NEW CONSTRUCTION

**PINKHAM & GREER CIVIL ENGINEERS**  
 28 WAWMERE AVE. PORTLAND, ME. 04103  
 TEL: 207.781.7247 FAX: 207.781.4545



NO.	REV'D PER STAFF COMMENTS FOR SITE PLAN APPROVAL	DATE	DESCRIPTION
2	3/28/16	3/8/16	REV'D PER STAFF REVIEW COMMENTS

LUMINATO CONDOMINIUM, LLC  
 118 CONGRESS STREET, UNIT 401  
 PORTLAND, MAINE  
 SCALE: AS SHOWN  
 DATE: JANUARY 22, 2016  
 PROJECT: 15178  
 DRN BY: JDC  
 DESG BY: TSG  
 CHK BY: TSG

LUMINATO CONDOMINIUMS  
 189 NEWBURY STREET, PORTLAND, MAINE  
 SITE DETAILS