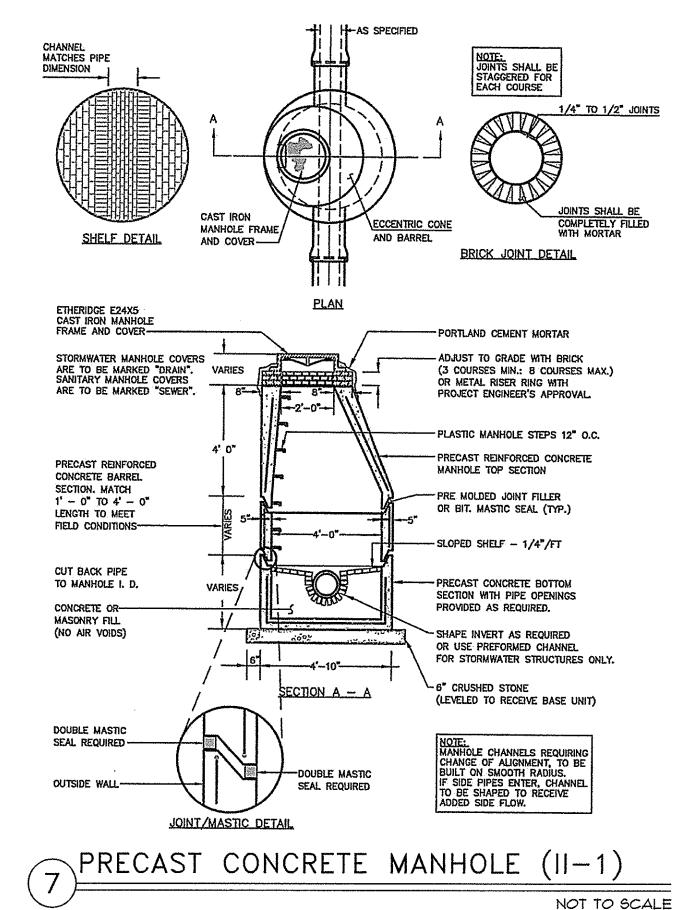


PAVEMENT OVERLAND MOUND LOAM 6" OVER TRENCH MOUND LOAM 6" OVER TRENCH OUTSIDE GRAVEL SHOULDER CLEAN BACKFILL CONTAINING NO ROCKS LARGER IN DIAMETER THAN 4 INCHES, AND FREE OF ROOTS, STUMPS SUBBASE OR OTHER DEBRIS "ELECTRIC" MARKER TAPE 4" CONDUIT FOR 12" THICK OR LESS. CABLE TELEVISION 4 TELEPHONE 5" CONDUIT FOR - WATERMAIN PRIMARY ELECTRIC POWER CABLES 1. INSTALLATION SHALL NOT ALLOW INTER-TWINING OF NOTE: COORDINATE

TYPICAL WATER MAIN SECTION



# 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 PLASTICIZED 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.

APWA UNIFORM COLOR CODE:

PROPOSED EXCAVATION TEMPORARY SURVEY MARKINGS

ELECTRIC POWER LINES, CABLES, CONDUIT AND LIGHTING CABLES

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

SEWERS AND DRAIN LINES

# GENERAL NOTES FOR MANHOLES AND CATCH BASINS

- ALL CONCRETE SHALL HAVE A MINIMUM ULTIMATE COMPRESSIVE STRENGTH OF 4000 Ibs. 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. 4. 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"

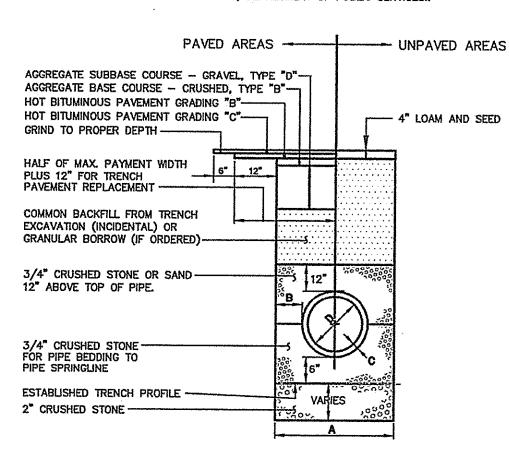
NOT TO SCALE

- CAST INTO THE COVER. ALL STORMWATER/DRAIN MANHOLE COVERS SHALL HAVE "DRAIN" CAST INTO THE
- 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.

- 8. 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 DR5A OR APPROVED EQUAL.
- 10. CASTINGS SHALL CONFORM TO ASTM DESIGNATION A48—CLASS 35. 11. EXISTING MANHOLES, CATCH BASINS, FRAMES, AND COVERS SHALL BE SALVAGED BY THE CONTRACTOR, AND SHALL REMAIN THE PROPERTY OF THE CITY OF PORTLAND.
- 12. ALL CATCH BASIN OUTLETS SHALL BE INSTALLED WITH A CASCO TRAP. SEE FIGURE 11-09.

# GENERAL NOTES FOR MANHOLES AND CATCH BASINS (II-4)

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



ALTERNATIVE CONSTRUCTION METHODS OR PAYMENT METHODS SHALL BE APPROVED IN ADVANCE BY THE CITY.

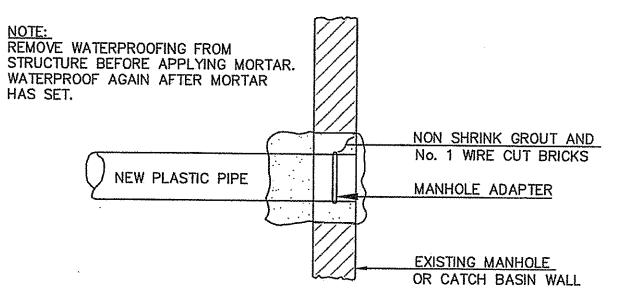
IN PAVED AREAS, DEPTHS OF GRAVEL AND HOT MIX
ASPHALT PAVEMENT SHALL MATCH THE GREATER OF
EXISTING CONDITIONS OR THE REQUIREMENTS FOR THE CORRESPONDING STREET CLASSIFICATION.

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".
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 MAX. TRENCH WIDTH, A

# TYPICAL PIPE TRENCH INSTALLATION (11-12)

NOT TO SCALE

NOT TO SCALE



METHOD 3 - NEW PIPE INTO EXISTING STRUCTURE

PLASTIC PIPE CONNECTION METHODS (II-14)

NOT TO SCALE

Project Name:

# 502 Deering Center

Portland, Maine

### Owner / Applicant:

502 Deering Center, LLC 55 Hamblet Avenue Portland, Maine 04103

#### Consultants:

Lachman Architects & Planners 58 Fore Street, Bldg 30 Portland, Maine 04101 207.831.8585 Contact: Denis Lachman

#### Landscape Architects Carroll Associates

217 Commercial St. Portland, Maine 04101 207.772.1552 Contact: Patrick Carroll

Civil Engineer Pinkham & Greer Civil Engineers 28 Vannah Ave. Portland, ME 04103 207.781.5242

Contact: Thomas Greer

Four Points Associates, Inc. 9 Ralph Avenue Lewiston, Maine 04240 207.577.5840

Contact: Donald Dostie

Drawing Set: Revision No. Date 12-22-16 SITE PLAN REVIEW-FINAL 2-7-17 REV'D PER CITY COMMENTS 3-14-17 REV'D PER CITY COMMENTS 4-12-17 FINAL CITY PLANS

### **PERMITTING**

Drawing Set:

5-5-17 | FINAL CITY PLANS

Drawn: JDC **THOMAS** Checked: GREER No. 4206 TSG CENSE NOVAL V Approved:

Drawing Title: 51517

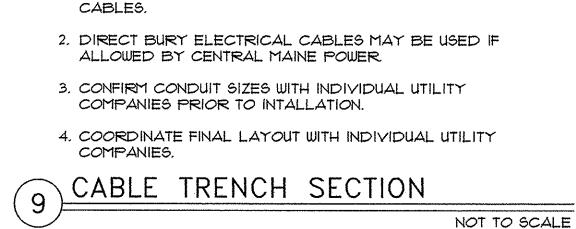
CIVIL DETAILS

Job Number: PG: 16193

Date: 12-22-2016 | Scale: AS SHOWN

Drawing Number:

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2'-0" MIN.

FINISH

GRADE

BACKFILL WITH SUITABLE SOILS FROM ON-SITE EXCAVATION OR IF SUITABLE SOILS ARE UNAVAILABLE USE GRANULAR BORROW (MDOT 7/03.19), SUITABLE SOILS SHALL MEE THE REQUIREMENTS OF MOOT 703.18. PLACE AND COMPACT IN LAYERS INSTALLATION REQUIREMENTS WITH PORTLAND WATER DISTRICT 3'-0" MIN.

NOT TO SCALE