

## 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 COMMUNICATION, ALARM OR SIGNAL LINES, CABLES OR CONDUIT

POTABLE WATER

RECLAIMED WATER, IRRIGATION AND SLURRY LINES

SEWERS AND DRAIN LINES

## GENERAL NOTES FOR MANHOLES AND CATCH BASINS

- 1. ALL CONCRETE SHALL HAVE A MINIMUM ULTIMATE COMPRESSIVE STRENGTH OF 4000 lbs. PER SQ. INCH AT THE END OF 28 DAYS, UNLESS OTHERWISE NOTED.
- 2. 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
- LOCATED 8" FROM THE CENTER OF THE COVER. 5. ALL SANITARY MANHOLE COVERS SHALL HAVE "SEWER" 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.

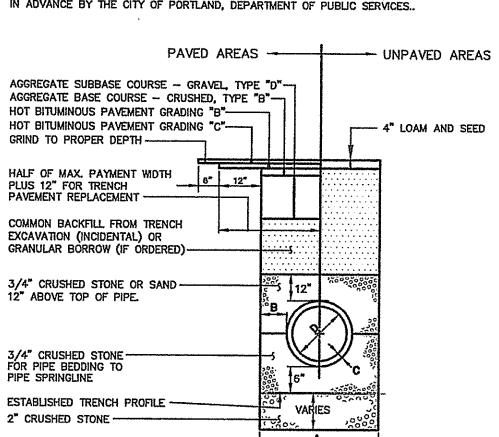
- 8. ALL SANITARY MANHOLES SHALL HAVE A WATERPROOFING COATING APPLIED TO THE EXTERIOR SURFACE.
- 9. CATCH BASIN FRAMES FOR TYPE A4 CATCH BASIN CURB INLETS SHALL BE ETHERIDGE DR5A OR APPROVED EQUAL.
- 10. CASTINGS SHALL CONFORM TO ASTM DESIGNATION
- 11. EXISTING MANHOLES, CATCH BASINS, FRAMES, AND COVERS 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 II-09.

GENERAL NOTES FOR

MANHOLES AND CATCH BASINS (II-4)

NOT TO SCALE

DEPTH OF BITUMINOUS PAVEMENT AND AGGREGATE COURSES SHALL BE DETERMINED BY STREET CLASSIFICATION. ANY ALTERNATE TRENCHING OR PAYMENT METHODS SHALL BE APPROVED



1. ALTERNATIVE CONSTRUCTION METHODS OR PAYMENT 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.

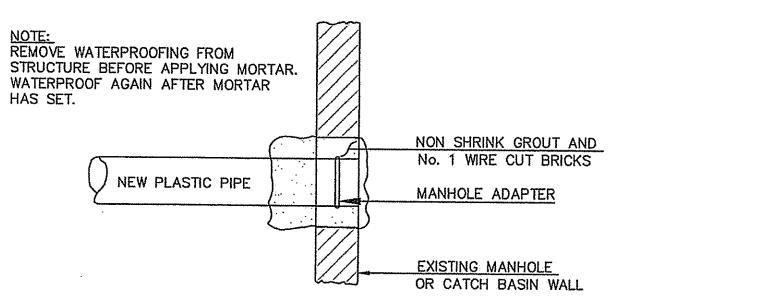
DIMENSION B SHALL BE SUFFICIENT TO ALLOW CRUSHED STONE BEDDING TO BE PLACED AND COMPACTED UNDER THE HAUNCHES OF THE PIPE; BUT IN ALL CASES DIMENSION B SHALL BE AT LEAST 9".

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

\_ \_ \_

YPICAL PIPE TRENCH INSTALLATION (11-12)

NOT TO SCALE



METHOD 3 - NEW PIPE INTO EXISTING STRUCTURE

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 Green

Surveyor Four Points Associates 9 Ralph Avenue Lewiston, Maine 04240 207.577.5840 Contact: Donald Dostie

Drawing Set: Revision No. Date

Drawing Set: **PERMITTING** 

Drawn: Checked:

THOMAS GREER No. 4206 CENSE Approved:

CIVIL DETAILS

Job Number: PG: 16199

Drawing Title: L

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

Drawing Number: