SHRUB PLANTING DETAIL
NOT TO SCALE

NOTES:

1. RECONSTRUCT INTERIOR MANHOLE INVERT AS NECESSARY TO ACCOMMODATE NEW PIPE.
2. PLACE NON-SHRINK GROUT AND WIRE-CUT BRICKS AROUND PIPE CONNECTIONS AS NECESSARY.

NEW PIPE TO EXISTING STRUCTURE
NOT TO SCALE

NOTES:

1. REFER TO THE GRADING & DRAINAGE PLAN FOR LAYOUT, ELEVATIONS OTHER DETAILS.

INLINE DRAIN DETAIL WITH GRATE
NOT TO SCALE

NOTES:

1. REFER TO THE GRADING & DRAINAGE PLAN FOR LAYOUT, ELEVATIONS OTHER DETAILS.

INLINE DRAIN DETAIL WITH DOME
NOT TO SCALE

NOTES:

1. COMPACTED SUBGRADE TO BE SLOPED AS TO DRAIN TO UNDERDRAINS. HIGH POINT LOCATED EQUIDISTANT FROM EITHER UNDERDRAIN.
2. PERFORATIONS IN UNDERDRAIN PIPE TO BE ORIENTED DOWNWARDS.
3. UNDERDRAIN TO HAVE MINIMUM 0.0025 SLOPE (1%).

FOUNDATION DRAIN DETAIL
NOT TO SCALE

METER PIT AND COVER NOTES

1. CONTRACTOR TO SUPPLY THE METER PIT. METER PIT TO BE McDONALD 790-SERIES SINGLE 18-INCH COIL METER PIT OR ¾" FORD COIL PIT SETTER OR AN APPROVED EQUAL. CONTRACTOR TO SUBMIT SHOP DRAWINGS TO ACORN ENGINEERING, INC. AND THE CITY OF PORTLAND.
2. THE METER SHALL BE LOCATED ON PRIVATE PROPERTY, A MINIMUM OF 5' FROM THE PROPERTY LINE AND 2' FACE-TO-FACE FROM ANY SEWER SERVICE.
3. THE METER PIT SHALL BE MADE OF PRECAST CONCRETE SUFFICIENT SIZE TO PROVIDE 5'-6" MINIMUM GROUND COVER FROM FINISHED GRADE TO THE TOP OF THE SERVICE PIPE. ANY SEAMS BETWEEN CONCRETE SECTIONS SHALL BE SEALED WITH MASTIC JOINT. ALL OPENINGS IN THE CONCRETE FOR SERVICE PIPING SHALL BE SEALED WITH A MODULAR SEAL (LINK-SEAK OR SIMILAR).
4. THE INTERIOR OF THE METER PIT SHALL BE A MINIMUM OF 18" IN DIAMETER WITH A CAST IRON FRAME. THE METER PIT COVER SHALL BE CAST IRON, 18" MINIMUM IN DIAMETER, COMPATIBLE WITH THE METER PIT SYSTEM, AND EITHER BE PERMANENTLY LABELED "WATER" OR HAVE NO LABEL. ANY STEEL PLATE MATERIAL SHALL BE COATED WITH A RUST INHIBITOR PAINT.
5. WALL-MOUNTED LADDER RUNGS SHOULD NOT BE INSTALLED WITHIN THE METER PIT.
6. ALL PIPING INSIDE AND EXTENDING THROUGH THE METER PIT SHALL BE MADE OF COPPER, WITH A MINIMUM OF 6" CLEARANCE FROM THE METER PIT FLOOR. BLOCKING SHALL BE INSTALLED AS REQUIRED TO SUPPORT THE PIPE.

METER NOTES

7. ONLY PORTLAND WATER DISTRICT PERSONNEL ARE AUTHORIZED TO INSTALL WATER METERS. PORTLAND WATER DISTRICT PERSONNEL SHALL BE ADDITIONALLY AUTHORIZED TO OPERATE METER VALVES AS NEEDED FOR INSTALLATION AND MAINTENANCE.
8. PORTLAND WATER DISTRICT TO SUPPLY THE WATER METER AND NECESSARY FITTINGS FOR INSTALLATION. IF REQUIRED, A FLANGED METER SPOOL WILL BE AVAILABLE FOR CONTRACTOR PICKUP AT DOUGLASS STREET CUSTOMER SERVICE AND MUST BE INSTALLED BY CONTRACTOR PRIOR TO METER SET. ALL OTHER MATERIALS, INCLUDING VALVES, SHALL BE SUPPLIED AND INSTALLED BY THE CONTRACTOR.
9. THE CONTRACTOR SHALL WILL INSTALLED TWO (2) BALL VALVES 24" APART FOR METER INSTALLATION, ALLOWING FOR THE WATER METER TO BE CENTERED UNDER THE METER PIT OPENING. BALL VALVES SHALL BE SOLDERED IN PLACE.
10. CONTRACTOR TO INSTALL A MINIMUM OF 24" OF RIGID COPPER PIPE BETWEEN THE BALL VALVES.
11. THE METER PIT MAY HOUSE UP TO TWO 5/8", 3/4" OR 1" METERS. INSTALLATION OF MULTIPLE METERS IN A METER PIT MUST RECEIVE PRIOR APPROVAL FROM THE PORTLAND WATER DISTRICT.
12. CONTRACTOR TO COORDINATE METER PIT INSTALLATION WITH THE PORTLAND WATER DISTRICT AND COMPLY WITH PORTLAND WATER DISTRICT AND CITY OF PORTLAND TECHNICAL STANDARDS.

PORTLAND WATER DISTRICT NON-ENTRY METER PIT
NOT TO SCALE

NOTES:

1. TREE PROTECTION FENCING SHALL BE INSTALLED PRIOR TO ANY CONSTRUCTION ACTIVITY.
2. INSTALL PROTECTIVE FENCING TO LIMIT OF DRIPLINE ON TREE OR A MINIMUM OF 6' FROM TRUNK WHEN NECESSARY, WITH PRIOR PERMISSION OF LANDSCAPE ARCHITECT.
3. DO NOT STORE CONSTRUCTION EQUIPMENT, MATERIALS, TOOLS, ETC. WITHIN PROTECTIVE FENCING.
4. MAINTAIN FENCING IN A NEAT AND ORDERLY FASHION THROUGHOUT CONSTRUCTION PERIOD.

TREE PROTECTION DETAIL
NOT TO SCALE

NOTES:
1. MINIMUM UNDERDRAIN SLOPE 0.0025 (0.25%)
2. PERFORATIONS IN UNDERDRAIN PIPE SHALL BE ORIENTED DOWN.

UNDERDRAIN DETAIL – NON FOUNDATION LOCATIONS
NOT TO SCALE

PERMIT LEVEL
NOT ISSUED FOR CONSTRUCTION

Reviewed for Code Compliance
Inspections Division
Portland, Maine

Date: 02/28/18

ISSUED FOR

FINAL APPLICATION	WHS	7/15/16
BUILDING PERMIT	WHS	7/25/16
CITY COMMENT	WHS	9/12/16

DRAWING NAME: DRAINAGE & LANDSCAPING DETAILS

PROJECT NAME: THE BLACK BOX AT 93 WASHINGTON

CLIENT: COTTON STREET HOLDINGS, LLC
75 WASHINGTON AVE SUITE 2H PORTLAND, ME 04101

ACORN ENGINEERING, INC.

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM ACORN ENGINEERING, INC. ANY MODIFICATIONS, WHETHER BY HAND OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO ACORN ENGINEERING, INC.

ACORN ENGINEERING, INC.
158 DANFORTH ST. PORTLAND, MAINE 04102
(207) 775-2655

FILE:	1073_CIVIL
JN:	1073
SCALE:	NTS
DESIGNED BY:	WHS
DRAWN BY:	SJL
CHECKED BY:	WHS

STATE OF MAINE
WILLIAM H. SAVAGE
No. 11497
9-12-16
PROFESSIONAL ENGINEER

DRAWING NO.
C-42