

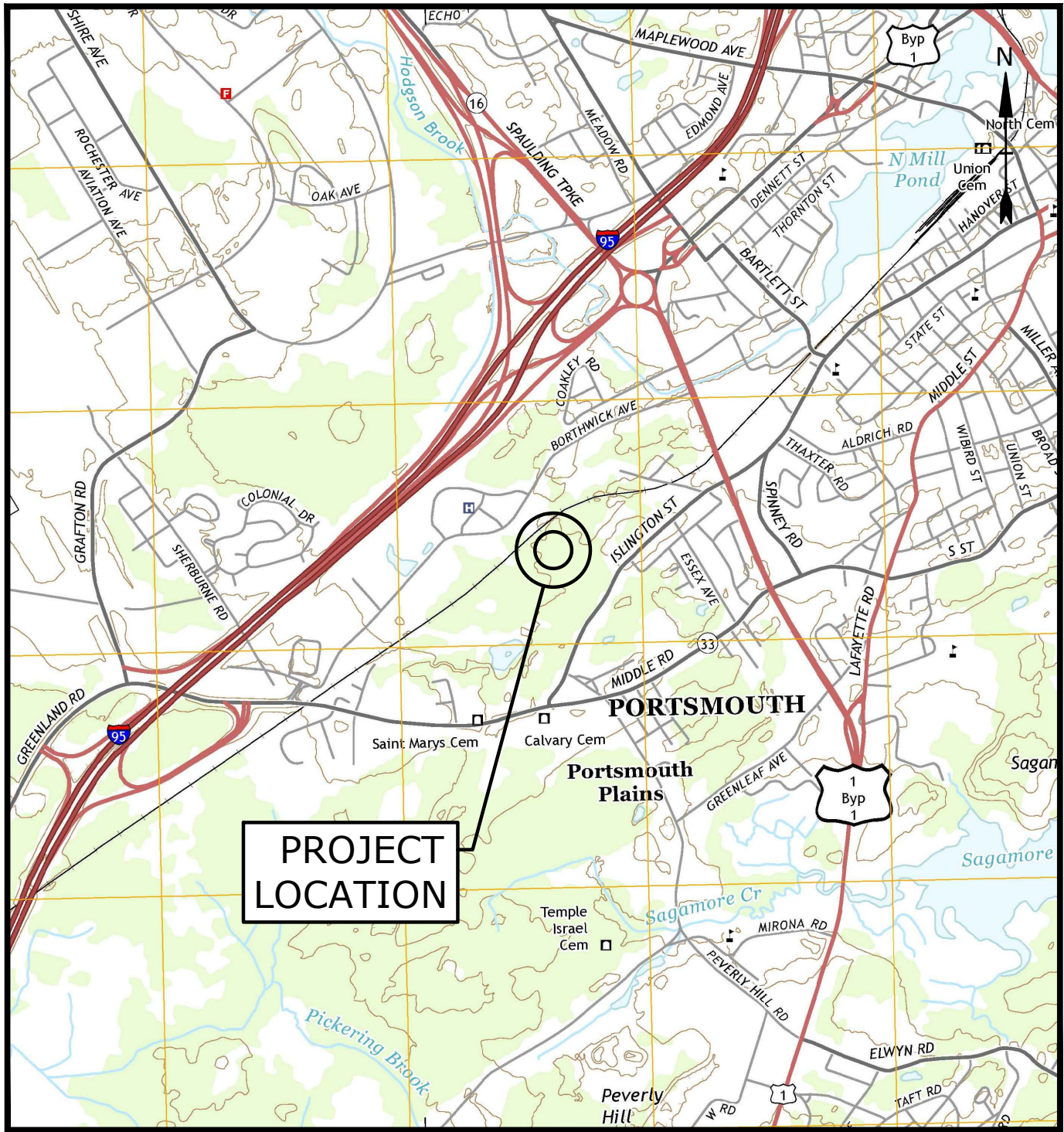
# PROPOSED SUBDIVISION ROAD & OFFICE BUILDING DEVELOPMENT

## PORTSMOUTH, NEW HAMPSHIRE

### PERMIT DRAWINGS

MARCH 20, 2017  
LAST REVISED: FEBRUARY 6, 2018

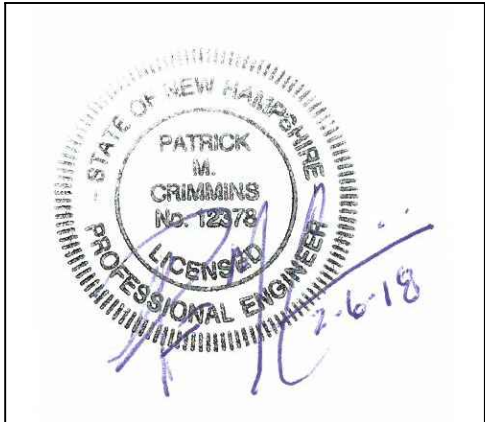
LIST OF DRAWINGS		
SHEET NO.	SHEET TITLE	LAST REVISED
	COVER SHEET	02/06/2018
1 OF 5	LOT CONSOLIDATION & RESUBDIVISION PLAN	02/05/2018
2 OF 5	LOT CONSOLIDATION & RESUBDIVISION PLAN	02/05/2018
3 OF 5	LOT CONSOLIDATION & RESUBDIVISION PLAN	02/05/2018
4 OF 5	LOT CONSOLIDATION & RESUBDIVISION PLAN	02/05/2018
5 OF 5	LOT CONSOLIDATION & RESUBDIVISION PLAN	02/05/2018
G-101	GENERAL NOTES, ABBREVIATIONS & LEGEND SHEET	02/06/2018
C-101	OVERALL EXISTING CONDITIONS PLAN	02/06/2018
C-101.1	EXISTING CONDITIONS/DEMOLITION PLAN	02/06/2018
C-101.2	EXISTING CONDITIONS/DEMOLITION PLAN	02/06/2018
C-102	OVERALL SITE PLAN	02/06/2018
C-102.1	SITE PLAN & ROADWAY PROFILE	02/06/2018
C-102.2	SITE PLAN	02/06/2018
C-103.1	GRADING, DRAINAGE & EROSION CONTROL PLAN	02/06/2018
C-103.2	GRADING, DRAINAGE & EROSION CONTROL PLAN	02/06/2018
C-104.1	UTILITY PLAN & PROFILES	02/06/2018
C-104.2	UTILITY PLAN	02/06/2018
C-105.1	LANDSCAPE PLAN	02/06/2018
C-105.2	LANDSCAPE PLAN	02/06/2018
C-106	BUFFER RESTORATION & PLANTING SEQUENCING PLAN	02/06/2018
C-501	EROSION CONTROL NOTES SHEET	02/06/2018
C-502	DETAILS SHEET	02/06/2018
C-503	DETAILS SHEET	02/06/2018
C-504	DETAILS SHEET	02/06/2018
C-505	DETAILS SHEET	02/06/2018
C-506	DETAILS SHEET	02/06/2018
C-507	DETAILS SHEET	02/06/2018
C-508	DETAILS SHEET	02/06/2018
1 OF 1	PHOTOMETRICS PLAN	02/05/2018
A3.01	EXTERIOR ELEVATIONS	01/12/2018
A3.02	EXTERIOR ELEVATIONS	01/12/2018



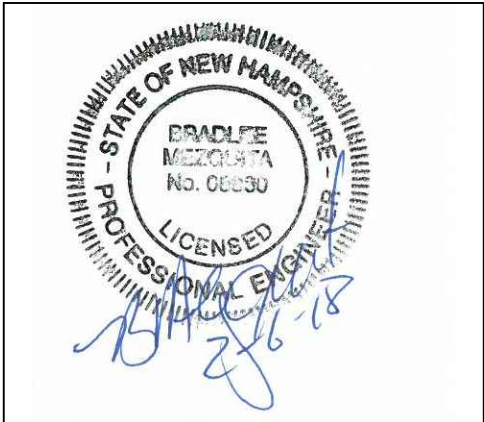
LOCATION MAP  
SCALE: 1" = 2,000'

- CONSTRUCTION NOTES:
1. THE CONTRACTOR SHALL NOT RELY ON SCALED DIMENSIONS AND SHALL CONTACT THE ENGINEER FOR CLARIFICATION IF A REQUIRED DIMENSION IS NOT PROVIDED ON THE PLANS.
  2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONSTRUCTION MEANS AND METHODS, AND FOR SITE CONDITIONS THROUGHOUT CONSTRUCTION. NEITHER THE PLANS NOR THE SEAL OF THE ENGINEER AFFIXED HEREON EXTEND TO OR INCLUDE SYSTEMS REQUIRED FOR THE SAFETY OF THE CONTRACTOR, THEIR EMPLOYEES, AGENTS OR REPRESENTATIVES IN THE PERFORMANCE OF THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING AND IMPLEMENTING SAFETY PROCEDURES AND SYSTEMS AS REQUIRED BY THE UNITED STATES OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA), AND ANY STATE OR LOCAL SAFETY REGULATIONS.
  3. TIGHE & BOND, ASSUMES NO RESPONSIBILITY FOR ANY ISSUES LEGAL OR OTHERWISE, RESULTING FROM CHANGES MADE TO THESE DRAWINGS WITHOUT WRITTEN AUTHORIZATION OF TIGHE & BOND.

PREPARED BY:  
**Tighe&Bond**  
Engineers | Environmental Specialists



PATRICK M. CRIMMINS, P.E.



BRAD MEZQUITA, P.E.

Applicant:

Borthwick Forest, LLC  
c/o The Kane Company  
210 Commerce Way  
Portsmouth, New Hampshire 03801

Survey Consultant:



Serving Your Professional Surveying & Mapping Needs  
102 Kent Place, Newmarket, NH 03857  
(603) 659-6560 www.doucetsurvey.com

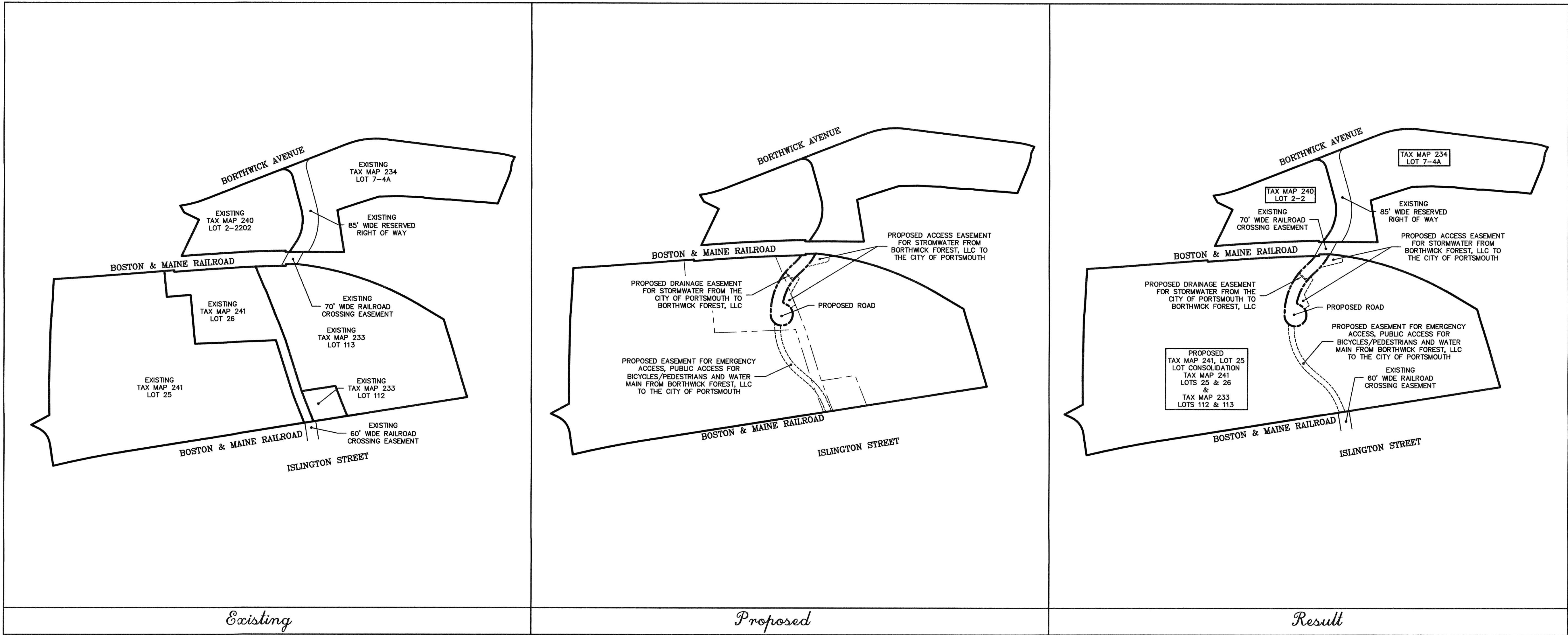
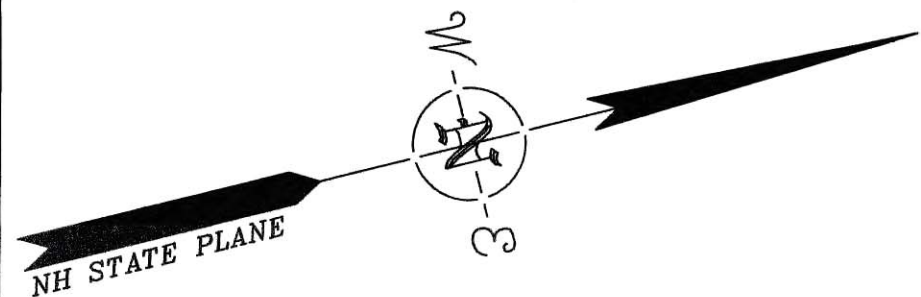
Wetland Consultant:

Gove Environmental Services, Inc.  
8 Continental Dr Bldg 2 Unit H  
Exeter, New Hampshire 03833

COMPLETE SET 31 SHEETS







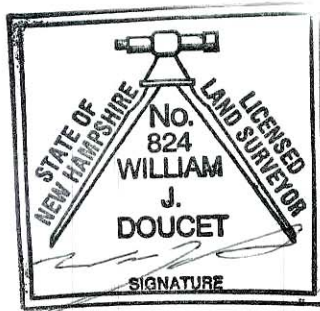
Key Plan (n.t.s.)

LEGEND

	EXISTING PROPERTY LINES
	PROPOSED RIGHT OF WAY
	EXISTING EASEMENT
	PROPOSED EASEMENT
	PROPERTY LINES TO BE ABANDONED

9	2/5/18	REMOVE EASEMENT	MWF
8	11/2/17	FOR RECORDING	MWF
7	9/26/17	REVISE EASEMENTS	MWF
6	4/17/17	ADD ADDITIONAL EASEMENTS	MWF
5	3/17/17	REVISED LAYOUT	MWF
4	3/22/16	REVISED ROAD LAYOUT	MWF
3	3/3/16	REV. LAYOUT & EASEMENTS	MWF
2	1/19/16	REVISED ROAD LAYOUT	MWF
1	11/17/15	PER ATTORNEY	MWF
NO.	DATE	DESCRIPTION	BY

NOTE:  
ALL ELECTRIC, GAS, TEL. WATER, SEWER AND DRAIN SERVICES ARE SHOWN IN SCHEMATIC FASHION, THEIR LOCATIONS ARE NOT PRECISE OR NECESSARILY ACCURATE. NO WORK WHATSOEVER SHALL BE UNDERTAKEN ON THIS SITE USING THIS PLAN TO LOCATE THE ABOVE SERVICES. CONSULT WITH THE PROPER AUTHORITIES CONCERNED WITH THE SUBJECT SERVICE LOCATIONS FOR INFORMATION REGARDING SUCH. CALL DIG-SAFE AT 1-888-DIG-SAFE.



I certify that this survey and plan were prepared by me or by those under my direct supervision and falls under the Urban Survey Classification of the NH Code of Administrative Rules of the Board of Licensure for Land Surveyors. I certify that this survey was made on the ground and is correct to the best of my knowledge and belief. Random traverse survey by Total Station, with a precision greater than 1:15,000.

L.L.S. #824  
2-5-18  
DATE

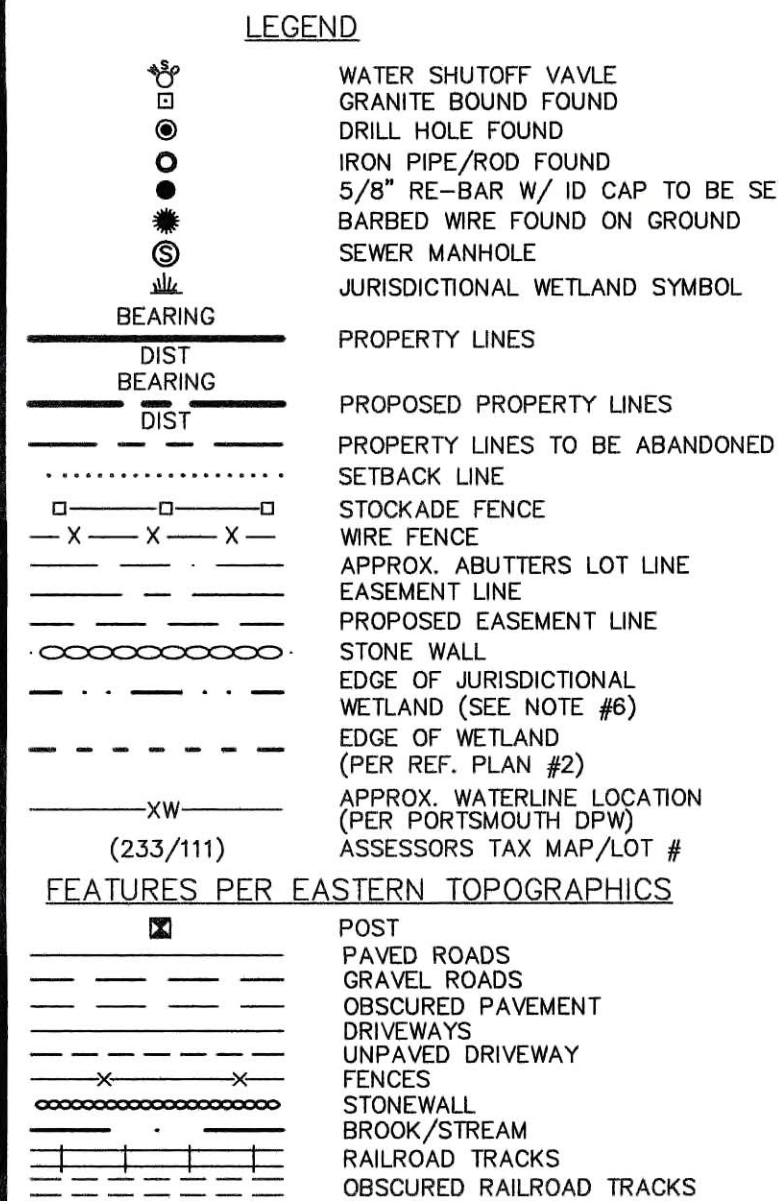
The certifications shown hereon are intended to meet registry of deed requirements and are not a certification to title or ownership of property shown. Owners of adjoining properties are according to current town assessors records.

LOT CONSOLIDATION  
&  
RESUBDIVISION PLAN  
LAND OF BORTHWICK FOREST, LLC  
AND SHOWING LAND OF  
HCA REALTY, INC.  
TAX MAP 233 LOTS 112 & 113, TAX MAP 234  
LOT 7-4A, TAX MAP 240 LOT 2-2202, & TAX  
MAP 241 LOTS 25 & 26 &  
BORTHWICK AVE. & ISLINGTON ST.  
PORTSMOUTH, NH

DRAWN BY:	M.W.F.	DATE:	MARCH 16, 2017
CHECKED BY:	S.V.M.	DRAWING NO.:	3445G
JOB NO.:	3445	SHEET	1 OF 5







1. REFERENCE: TAX MAP 233, LOTS 112 & 113  
TAX MAP 234, LOT 7-4A  
TAX MAP 240, LOT 2-2202  
TAX MAP 241, LOTS 25 & 26

2. PARCEL AREAS: LOT 112: 0.732 AC.  
LOT 113: 13.815 AC.  
LOT 7-4A: 8.085 AC.  
LOT 2-2202: 4.978 AC.  
LOTS 25: 22.807 AC.  
LOT 26: 4.927 AC.

3. OWNER OF RECORD: TAX MAP 233, LOTS 112 (R.C.R.D. BOOK 4754, PAGE 626)  
TAX MAP 233, LOT 113 (R.C.R.D. BOOK 4754, PAGE 626)  
TAX MAP 241, LOT 25 (R.C.R.D. BOOK 4754, PAGE 626)  
TAX MAP 241, LOT 26 (R.C.R.D. BOOK 5670, PAGE 1115)  
BORTHWICK FOREST, LLC  
210 COMMERCE WAY, SUITE 300  
PORTSMOUTH, NH 03801  
R.C.R.D. BOOK 4754, PAGE 626

TAX MAP 234, LOT 7-4A (R.C.R.D. BOOK 4400, PAGE 2048)  
TAX MAP 240, LOT 2-2202 (R.C.R.D. BOOK 5694, PAGE 310)  
HCA REALTY, INC.  
C/O DUCHARME MCWILLIAMS & ASSOC.  
PO BOX 80610  
INDIANAPOLIS, IN 46280

4. ZONE: OR (OFFICE RESEARCH) LOTS 112, 113, 7-4A, 2-2, 25 & 26

DIMENSIONAL REQUIREMENTS:	SRB
MIN. LOT AREA	15,000 SQ. FT.
MIN. FRONTAGE	100 FT.
MIN. FRONT SETBACK	30 FT.
MIN. SIDE SETBACK	10 FT.
MIN. REAR SETBACK	30 FT.
MAX. BUILDING HEIGHT	35 FT.
MAX. BUILDING COVERAGE	20%

WETLAND BUFFER: 100 FT.

5. FIELD SURVEY PERFORMED BY DOUCET SURVEY, INC., BETWEEN 2003 AND 2013. TRAVERSE ADJUSTMENTS BASED ON LEAST SQUARES ANALYSIS. AERIAL TOPOGRAPHY PROVIDED BY EASTERN TOPOGRAPHICS, INC.

6. JURISDICTIONAL WETLANDS DELINEATED BY GOVE ENVIRONMENTAL SERVICES, INC. DURING APRIL 2013 AND AMENDED IN NOVEMBER 2013. WETLANDS DELINEATED IN ACCORDANCE WITH 1987 CORPS OF ENGINEERS WETLANDS DELINEATIONS MANUAL, TECHNICAL REPORT Y-87-1.

7. FLOOD HAZARD ZONE: "X", PER FIRM MAP #3301390260E, DATED 5/17/05.

8. HORIZONTAL DATUM BASED ON NH STATE PLANE COORDINATE SYSTEM ZONE 1800 AS ESTABLISHED BY VERRA & ASSOCIATES IN MAY 2003.

9. VERTICAL DATUM IS BASED ON NGVD 29 PER NHDOT DISK R-50 (379-0150) ELEV.=33.24'.

10. THE INTENT OF THIS PLAN IS TO SHOW THE LOCATION OF BOUNDARIES IN ACCORDANCE WITH AND IN RELATION TO THE CURRENT LEGAL DESCRIPTION, AND IS NOT AN ATTEMPT TO DEFINE UNWRITTEN RIGHTS, DETERMINE THE EXTENT OF OWNERSHIP, OR DEFINE THE LIMITS OF TITLE.

11. DUE TO THE COMPLEXITY OF RESEARCHING ROAD RECORDS AS A RESULT OF INCOMPLETE, UNORGANIZED, OBLITERATED, OR LOST DOCUMENTS, THERE IS AN INHERENT UNCERTAINTY INVOLVED IN ATTEMPTING TO DETERMINE THE LOCATION AND WIDTH OF A ROADWAY RIGHT OF WAY. THE EXTENT OF BORTHWICK FOREST AS DEPICTED HEREON IS BASED ON RESEARCH CONDUCTED AT THE PORTSMOUTH CITY CLERKS OFFICE AND ROCKINGHAM COUNTY REGISTRY OF DEEDS.

12. FINAL MONUMENTATION MAY BE DIFFERENT THAN THE PROPOSED MONUMENTATION SHOWN HEREON, DUE TO THE FACT THAT SUCH CONDITIONS WILL DICTATE THE ACTUAL LOCATION AND TYPE OF MONUMENTS INSTALLED IN THE FIELD. PLEASE REFER TO EITHER THE "MONUMENTATION LOCATION PLAN" TO BE RECORDED OR CONTACT DOUCET SURVEY, INC. FOR CLARIFICATION OF MONUMENTS (A RECORDED PLAN WILL BE PRODUCED AT THE DISCRETION OF DOUCET SURVEY, INC.).

13. AERIAL PHOTOGRAPHY WAS CONDUCTED BY EASTERN TOPOGRAPHICS FROM IMAGES TAKEN DURING 04/2003 WITH A PHOTO SCALE OF 1:3600. CONTOURS AND OBJECTS SHOWN WITHIN OBTAINED AREAS ARE APPROXIMATE AND SHOULD BE VERIFIED BEFORE USE FOR DESIGN OR CONSTRUCTION PURPOSES.

14. THE PARCELS ARE SUBJECT TO, AND/OR IN BENEFIT OF THE FOLLOWING EASEMENTS, RESTRICTIONS, ETC.

A) INTENTIONALLY DELETED.  
TAX MAP 233, LOTS 112-113, TAX MAP 234, LOT 7-4A & TAX MAP 241, LOT 25

B) IN BENEFIT OF AN EASEMENT GRANTED TO ILSINGTON WOODS, LLC BY BOSTON AND MAINE CORPORATION, BOOK 4617, PAGE 2613.  
TAX MAP 233, LOT 113

C) SUBJECT TO A WATER LINE EASEMENT FROM SHUTTLEWORTH TO THE CITY PORTSMOUTH, SEE R.C.R.D. BOOK 583, PAGE 324.

D) SUBJECT TO A WATER LINE EASEMENT FROM SHUTTLEWORTH TO THE CITY PORTSMOUTH, SEE R.C.R.D. BOOK 1409, PAGE 31.

E) IN BENEFIT OF A R.O.W. FROM BOSTON AND MAINE CORP., SEE R.C.R.D. BOOK 2400, PAGE 923.  
TAX MAP 234, LOT 7-4A

F) SUBJECT TO A WATER LINE EASEMENT GRANTED BY SPINNEY TO JONES, SEE R.C.R.D. BOOK 551, PAGE 11. (EXACT LOCATION UNDETERMINED).

G) SUBJECT TO AN ELECTRIC EASEMENT GRANTED BY SAN ANTONIO ET AL TO NH ELECTRIC CO, SEE R.C.R.D. BOOK 992, PAGE 329.

H) SUBJECT TO THE RIGHTS OF THE CITY OF PORTSMOUTH TO CONSTRUCT & MAINTAIN A SEWER LINE, AS MENTIONED BY REFERENCE IN R.C.R.D. BOOK 1361, PAGE 235. NO EASEMENT DOCUMENT FOUND.

I) SUBJECT TO A WATER LINE EASEMENT GRANTED BY ALLEN GREENOUGH TO THE CITY OF PORTSMOUTH, SEE R.C.R.D. BOOK 541, PAGE 254.

J) SUBJECT TO A SEWER EASEMENT GRANTED BY COAKLEY TO THE CITY OF PORTSMOUTH, SEE R.C.R.D. BOOK 984, PAGE 379.

K) SUBJECT TO THE RIGHTS OF THE STATE OF NEW HAMPSHIRE, SEE R.C.R.D. BOOK 1158, PAGE 36

L) SUBJECT TO THE RIGHT GRANTED IN A DEED FROM COAKLEY ET AL TO BEACON CONSTRUCTION CORP., SEE R.C.R.D. BOOK 1361, PAGE 3

M) SUBJECT TO ELECTRIC EASEMENT GRANTED BY COAKLEY ET AL TO NH ELECTRIC CO, SEE R.C.R.D. BOOK 1315, PAGE 306.

N) SUBJECT TO RESTRICTIONS OUTLINED IN A DEED FROM GARLAND ET AL TO PORTSMOUTH PARK TRUST, SEE R.C.R.D. BOOK 2521, PAGE 999.

O) SUBJECT TO RESTRICTIVE EASEMENT AGREEMENT BETWEEN PORTSMOUTH PARK TRUST AND HCA REALTY, INC., SEE R.C.R.D. BOOK 2556, PAGE 1764.

P) GAS LINE EASEMENT RESERVED BY NORTHEAST UTILITIES, BOOK 4392, PAGE 110.

AB) SUBJECT TO AN ACCESS & UTILITY EASEMENT, SEE R.C.R.D. BOOK 4639, PAGE 2128.  
TAX MAP 241, LOT 25

Q) SUBJECT TO WATER RIGHTS GRANTED BY SHURBERNE TO THE PROPRIETORS OF THE PORTSMOUTH AQUEDUCT, SEE R.C.R.D. BOOK 488 PAGE 431.

R) IN BENEFIT OF A R.O.W. FROM BOSTON AND MAINE CORP., SEE R.C.R.D. BOOK 2400, PAGE 923.

S) SUBJECT TO TWO R.O.W.'S RESERVED IN A DEED FROM COAKLEY TO WALDRON, SEE R.C.R.D. BOOK 1559 PAGE 190.

T) IN BENEFIT OF A R.O.W. RESERVED IN A DEED FROM SARGENT TO DEVELATRON CORP., SEE R.C.R.D. BOOK 1563, PAGE 269.  
TAX MAP 233, LOT 113

U) SUBJECT TO A WATER LINE EASEMENT FROM SHUTTLEWORTH TO THE CITY PORTSMOUTH, SEE R.C.R.D. BOOK 583, PAGE 324.

V) SUBJECT TO A WATER LINE EASEMENT FROM SHUTTLEWORTH TO THE CITY PORTSMOUTH, SEE R.C.R.D. BOOK 1409, PAGE 31.

W) IN BENEFIT OF A R.O.W. FROM BOSTON AND MAINE CORP., SEE R.C.R.D. BOOK 2400, PAGE 923.

X) IN BENEFIT OF A 12' R.O.W. TO ILSINGTON STREET, SEE R.C.R.D. BOOK 455, PAGE 449.  
TAX MAP 241, LOT 25

Y) SUBJECT TO AND/OR IN BENEFIT OF ANY PERTINENT EASEMENTS, RESTRICTIONS, ETC. THAT IMPACT TAX MAP 241, LOT 25, SINCE LOT 26 WAS ORIGINALLY PART OF LOT 25.

Z) SUBJECT TO AN ACCESS EASEMENT, SEE R.C.R.D. BOOK 2375, PAGE 808.  
TAX MAP 240, LOT 2-2202

AC) SUBJECT TO A SEWER EASEMENT, SEE R.C.R.D. BOOK 984, PAGE 378

AD) SUBJECT TO A GAS LINE EASEMENT, SEE R.C.R.D. BOOK 4392, PAGE 148.

AE) SUBJECT TO A GAS LINE EASEMENT, SEE R.C.R.D. BOOK 4392, PAGE 110.

AF) SUBJECT TO A 10' WIDE BUFFER, SEE R.C.R.D. BOOK 4639, PAGE 2133.

TAX MAP 233, LOT 111  
 RICHARD L & MARY C. RASH REV. TRUST 2007  
 1507 ISLINGTON STREET  
 PORTSMOUTH, NH 03801  
 R.C.R.D. BOOK 4763, PAGE 1360

TAX MAP 233, LOT 110  
 JASON R. STILES  
 MARGARET ANN KRISTANSEN  
 1527 ISLINGTON STREET  
 PORTSMOUTH, NH 03801  
 R.C.R.D. BOOK 3187, PAGE 1517

TAX MAP 233, LOT 109  
 DENNIS A. & CHERYL A. MINARD  
 1500 ISLINGTON STREET  
 PORTSMOUTH, NH 03801

TAX MAP 233, LOT 108  
 PAUL M. & LAURA L. MANNIE  
 1490 ISLINGTON STREET  
 PORTSMOUTH, NH 03801  
 R.C.R.D. BOOK 2837, PAGE 1263

TAX MAP 233, LOT 107  
 ZAKARY ROBINSON  
 1474 ISLINGTON STREET  
 PORTSMOUTH, NH 03801  
 R.C.R.D. BOOK 5596, PAGE 2951

TAX MAP 233, LOT 107-1  
 MARC C. THERRIEN  
 6 VINE STREET  
 PORTSMOUTH, NH 03801  
 R.C.R.D. BOOK 5712, PAGE 2092

TAX MAP 233, PAGE 106  
 JAMES R. & LINDSAY RICHARD  
 1435 ISLINGTON STREET  
 PORTSMOUTH, NH 03801  
 R.C.R.D. BOOK 5382, PAGE 1684

TAX MAP 233, LOT 115  
 STEPHEN J. CAMARDA  
 7 DEBRA LANE  
 KITTERY, ME 03904  
 R.C.R.D. BOOK 2737, PAGE 2373

TAX MAP 233, LOT 116-1  
 WILLIAM F. & KATJA P. BECKSTED  
 1395 ISLINGTON STREET  
 PORTSMOUTH, NH 03801  
 R.C.R.D. BOOK 3745, PAGE 2748

TAX MAP 233, LOT 116-2  
 TERENCE J. RADICAN II  
 207 ROCKLAND STREET  
 PORTSMOUTH, NH 03801  
 R.C.R.D. BOOK 5565, PAGE 2739

TAX MAP 233, LOT 117  
 JASON BALDWIN  
 1363 ISLINGTON STREET  
 PORTSMOUTH, NH 03801  
 R.C.R.D. BOOK 5254, PAGE 331

TAX MAP 233, LOT 118  
 KEVIN D. & LIZA E. CONLEY  
 1345 ISLINGTON STREET  
 PORTSMOUTH, NH 03801  
 R.C.R.D. BOOK 5622, PAGE 1783

TAX MAP 233, LOT 119  
 CHRISTOPHER H. GARRETT REV. TRUST 2007  
 CHRISTOPHER H. GARRETT, TRUSTEE  
 11 BARBERY LANE  
 PORTSMOUTH, NH 03801  
 R.C.R.D. BOOK 4862, PAGE 1609

1. "PLAT OF LAND BARBERRY LANE PORTSMOUTH, NH FOR NORTHERN UTILITIES, INC.," BY DURGIN-SCHOFIELD ASSOCIATES, DATED 2/21/89, R.C.R.D. PLAN #0-19079.
2. "ALTA/ACSM LAND TITLE SURVEY FOR NORTHLAND DEVELOPMENT, BORTHWICK AVENUE, COUNTY OF ROCKINGHAM, PORTSMOUTH, NH," BY MILLETTE, SPRAGUE & COLWELL, INC. DATED 8/19/97.
3. "GAS LINE AS-BUILT EASEMENT AND CONSERVATION EASEMENT PLAN," BY KIMBALL CHASE COMPANY, INC. DATED 10/31/85, R.C.R.D. PLAN #0-15830.
4. "LAND IN PORTSMOUTH, NH BOSTON AND MAINE CORPORATION TO LANDERS AND GRIFFIN INC.," J.D. BATCHELER ENGINEER OF DESIGN, DATED 2/66, R.C.R.D. PLAN #B43.
5. "SUBDIVISION OF LAND LOCATED IN PORTSMOUTH, NH FOR HOSPITAL CORPORATION OF AMERICA BORTHWICK CHASE COMPANY, INC. DATED 2/23/84.
6. "SUBDIVISION PLAN OF LAND FOR PORTSMOUTH PARK TRUST BORTHWICK AVE. EXT./ COAKLEY RD. COUNTY OF ROCKINGHAM PORTSMOUTH, NH," BY RICHARD P. MILLETTE AND ASSOCIATES, DATED 3/27/85, R.C.R.D. PLAN #0-13747.
7. "PLAT OF PROPERTY AND IMPROVEMENTS, PORTSMOUTH HOSPITAL OFFICE BUILDING, A CONDOMINIUM PORTSMOUTH, NH," BY CESP, INC., DATED 12/12/86, R.C.R.D. PLAN #0-15831.
8. "RIGHT-OF-WAY AND TRACK MAP, CONCORD AND PORTSMOUTH R.R. OPERATED BY THE BOSTON AND MAINE R.R., STATION 33+0 TO STATION 85+80, V28/2" BY VALUATION ENGINEERS, DATED 6/30/14.
9. "RIGHT-OF-WAY AND TRACK MAP, CONCORD AND PORTSMOUTH R.R. OPERATED BY THE BOSTON AND MAINE R.R. STATION 85+80 TO STATION 139+60, V28/3" BY VALUATION ENGINEERS, DATED 6/30/14.
10. "RIGHT-OF-WAY AND TRACK MAP, CONCORD AND PORTSMOUTH R.R. OPERATED BY THE BOSTON AND MAINE R.R., STATION 292R+05 TO STATION 2966+20, V3 NH/54" BY VALUATION ENGINEERS, DATED 6/30/14.
11. "LOT LINE RELOCATION PLAN FOR J. HARRISON HOLMAN OFF ILSINGTON ST. COUNTY OF ROCKINGHAM PORTSMOUTH, N.H." DATED MARCH 6, 1980 BY RICHARD P. MILLETTE AND ASSOCIATES. R.C.R.D. PLAN #0-9356.
12. "REVISION AND CURB GOING TO MORNING CORPORATION PORTSMOUTH, N.H." DATED FEBRUARY 25, 1977 BY THOMAS F. MORAN, INC. R.C.R.D. PLAN #0-8765.
13. "CITY OF PORTSMOUTH DEFENSE HOMES LOCATION PLAN" REVISED JUNE 17, 1941 BY JOHN W. DURGIN, R.C.R.D. PLAN #01106.
14. "PLAN NO. 220 SHOWING PORTION OF PROPERTY OF THE HEIRS OF CORNELIUS COAKLEY TO BE CONVEYED TO BEACON CONSTRUCTION COMPANY" DATED APRIL 28, 1953 BY MOULTON ENGINEERING CO.
15. "SUBDIVISION OF LAND LOCATED IN PORTSMOUTH, N.H." DATED MARCH 6, 1984 BY KIMBALL CHASE COMPANY, INC. R.C.R.D. PLAN #0-13069.
16. "LOT LINE RELOCATION PLAN FOR PORTSMOUTH PARK TRUST AND HOSPITAL CORPORATION OF AMERICA BORTHWICK AVE. EXTENSION COUNTY OF ROCKINGHAM PORTSMOUTH, N.H." DATED JUNE 14, 1985 BY RICHARD P. MILLETTE AND ASSOCIATES. R.C.R.D. PLAN #0-15924.
17. "SUBDIVISION OF LAND PORTSMOUTH, N.H. FOR J. HARRISON HOLMAN DATED MAY 1982 BY JOHN W. DURGIN ASSOCIATES, INC. R.C.R.D. PLAN #0-10843.
18. "LOT LINE REVISION FOR RUTH M. GATS & FREDERICK C. & JACQUELINE O. MURRAY TRUSTEES ILSINGTON STREET PORTSMOUTH N.H." DATED JANUARY 17, 2002 BY E.J. COTE & ASSOCIATES INC. R.C.R.D. PLAN #0-29645.
19. "PERSHING TERRACE PORTSMOUTH, N.H. BELMONT REALTY CO. PROVIDENCE, RI." DATED JULY 1918 BY WM. A. GROVER CIVIL ENGINEER, R.C.R.D. PLAN #082.
20. "PLAN OF RIGHT OF WAY ROBERT W. MESERVE ET. AL TRUSTEES OF THE PROPERTY OF BOSTON & MAINE CORPORATION TO J. HARRISON HOLMAN OFF ILSINGTON ST. COUNTY OF ROCKINGHAM PORTSMOUTH, N.H." DATED DECEMBER 1980 BY RICHARD P. MILLETTE AND ASSOCIATES. R.C.R.D. PLAN #0-10456.
21. "BASE PLAN OF LOT 7-4A BORTHWICK AVENUE COUNTY OF ROCKINGHAM PORTSMOUTH, N.H." DATED NOVEMBER 8, 2002 BY MILLETTE, SPRAGUE & COLWELL, INC.
22. "STREET REVERSION AND LOT LINE RELOCATION PLAN MAP 233-1025 141, 143, 144, 145 & 147 COAKLEY CHASE COAKLEY, DONNA & WILLIAM GLADFIELD, JOSEPH ARNSTEIN AND THE CITY OF PORTSMOUTH FOCH AVENUE, BARBERRY LANE & HAIG AVENUE PORTSMOUTH, N.H. COUNTY OF ROCKINGHAM" DATED JUNE 2001 BY AMBIT ENGINEERING, INC. R.C.R.D. PLAN #0-29809.
23. "LOT LINE REVISION PLAN TAX MAP R-34 LOTS 6 & 7-6 LOCATED ON BORTHWICK AVE., COAKLEY ROAD AND U.S. ROUTE 1 BYPASS IN PORTSMOUTH, N.H. COUNTY OF ROCKINGHAM" DATED OCTOBER 20, 1993 BY KIMBALL CHASE. R.C.R.D. PLAN #0-22686.
24. "LOT LINE REVISION PERSHING TERRACE BARBERRY LANE & FOCH AVENUE PORTSMOUTH, NEW HAMPSHIRE FOR DENNIS N. COAKLEY" DATED SEPTEMBER 25, 1992. BY DURGIN, VERRA & ASSOCIATES, INC. R.C.R.D. PLAN #0-22042.
25. "WATER PIPE EASEMENT PORTSMOUTH, N.H. BOSTON & MAINE RAILROAD-TO-ELDRIDGE BREWING COMPANY, INC." DATED JUNE 1937 BY W.J. CUMMINGS, R.C.R.D. PLAN #0088.
26. "PLAN OF LOT, ILSINGTON ST., PORTSMOUTH, NH FOR EDWIN BOYNTON" DATED MARCH, 1955 BY JOHN W. DURGIN, R.C.R.D. PLAN #1349-227.
27. "PLAN OF PORTSMOUTH NATIONAL RECOVERY MUNICIPAL PROTECT NO. 152" DATED 1933, ON FILE AT NHDOT DISTRICT VI.
28. "LOT LINE REVISION PLAN FOR PORTSMOUTH HOSPITAL OFFICE BUILDING ASSOCIATION, ILSINGTON WOODS, LLC AND HCA REALTY, INC.," BY DOUCET SURVEY, INC., DATED JANUARY 13, 2005. R.C.R.D. PLAN #0-33642.
29. "EASEMENT PLAN FOR ILSINGTON WOODS, LLC AND BOSTON & MAINE CORPORATION" BY DOUCET SURVEY, INC., DATED OCTOBER 20, 2005, R.C.R.D. PLAN #0-33500.

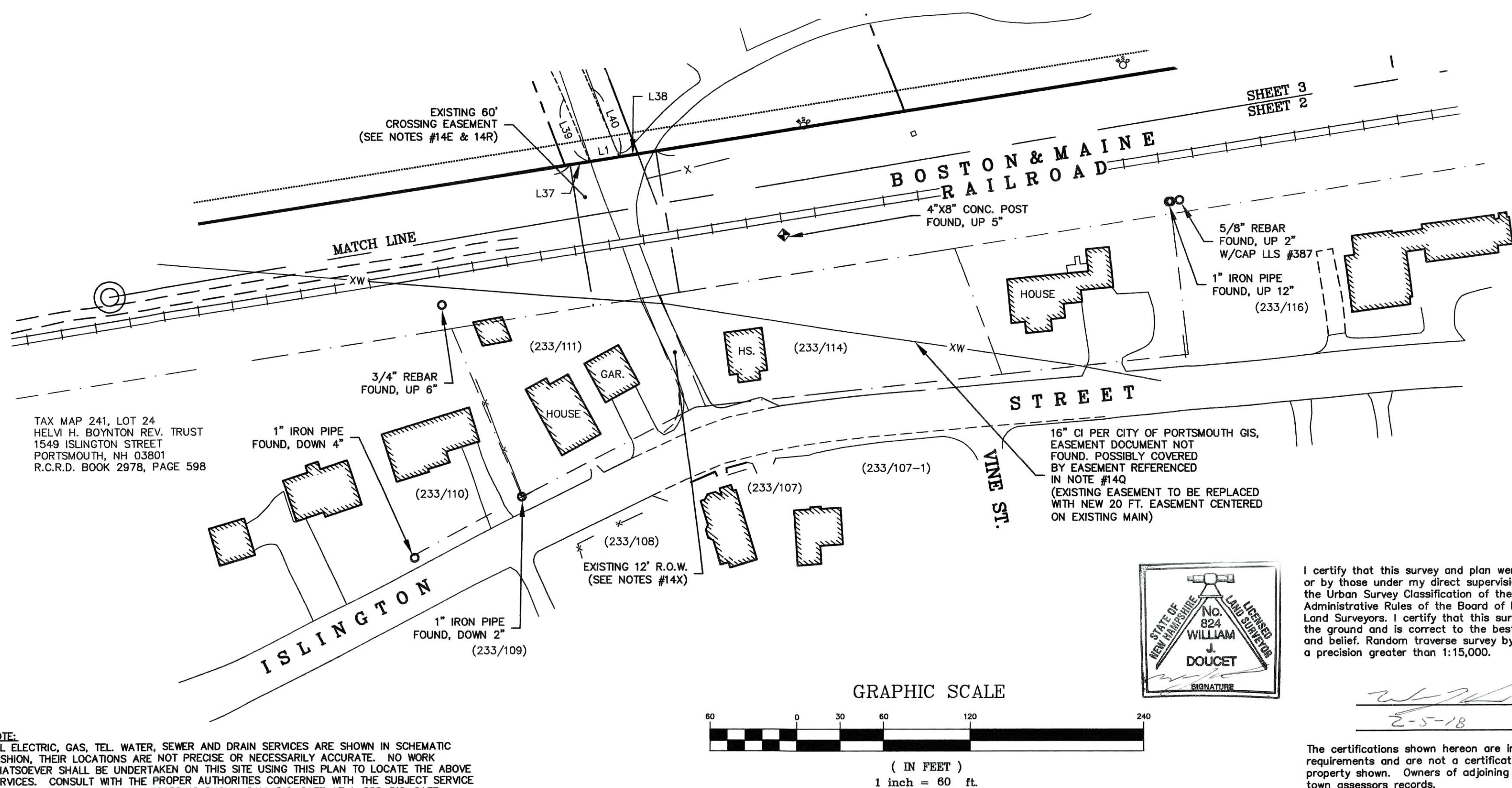
LOT CONSOLIDATION  
&  
RESUBDIVISION PLAN  
LAND OF BORTHWICK FOREST, LLC  
AND SHOWING LAND OF  
HCA REALTY, INC.  
TAX MAP 233 LOTS 112 & 113, TAX MAP 234  
LOT 7-4A, TAX MAP 240 LOT 2-2202, & TAX  
MAP 241 LOTS 25 & 26 &  
BORTHWICK AVE. & ISLINGTON ST.  
PORTSMOUTH, NH

DRAWN BY: M.W.F.	DATE: MARCH 16, 2017
CHECKED BY: S.V.M.	DRAWING NO.: 3445G
JOB NO.: 3445	SHEET 2 OF 5



9	2/5/18	REMOVE EASEMENT	MWF
8	11/2/17	FOR RECORDING	MWF
7	9/26/17	REVISE EASEMENTS	MWF
6	4/17/17	ADD ADDITIONAL EASEMENTS	MWF
5	3/17/17	REVISED LAYOUT	MWF
4	3/22/16	REVISED ROAD LAYOUT	MWF
3	3/3/16	REV. LAYOUT & EASEMENTS	MWF
2	1/19/16	REVISED ROAD LAYOUT	MWF
1	11/17/15	PER ATTORNEY	MWF
NO.	DATE	DESCRIPTION	BY

**NOTE:**  
ALL ELECTRIC, GAS, TEL. WATER, SEWER AND DRAIN SERVICES ARE SHOWN IN SCHEMATIC FASHION, THEIR LOCATIONS ARE NOT PRECISE OR NECESSARILY ACCURATE. NO WORK WHATSOEVER SHALL BE UNDERTAKEN ON THIS SITE USING THIS PLAN TO LOCATE THE ABOVE SERVICES. CONSULT WITH THE PROPER AUTHORITIES CONCERNED WITH THE SUBJECT SERVICE LOCATIONS FOR INFORMATION REGARDING SUCH. CALL DIG-SAFE AT 1-888-DIG-SAFE.



I certify that this survey and plan were prepared by me or by those under my direct supervision and falls under the Urban Survey Classification of the NH Code of Administrative Rules of the Board of Licensure for Land Surveyors. I certify that this survey was made on the ground and is correct to the best of my knowledge and belief. Random traverse survey by Total Station, with a precision greater than 1:15,000.

2-5-18 L.L.S. #824  
DATE

requirements and are not a certification to title or ownership of property shown. Owners of adjoining properties are according to current town assessors records.



BOSTON & MAINE

RAILROAD

SHEET 5  
SHEET 3

TAX MAP 233, LOT 129  
SHIRLY N. GARRETT REV. TRUST 2000  
SHIRLY N. GARRETT, TRUSTEE  
11 BARBERRY LANE  
PORTSMOUTH, NH 03801  
R.C.R.D. BOOK 429B, PAGE 2633

EXISTING 70' RAILROAD  
CROSSING EASEMENT  
(SEE NOTE #14B)

PROPOSED ACCESS EASEMENT  
FOR STORM WATER FROM  
BORTHWICK FOREST, LLC TO  
THE CITY OF PORTSMOUTH

PROPOSED ACCESS EASEMENT  
FOR STORM WATER FROM  
BORTHWICK FOREST, LLC TO  
THE CITY OF PORTSMOUTH

ACCESS EASEMENT  
(SEE NOTE #142)

EXISTING  
TAX MAP 233, LOT 112  
31,900 Sq. Ft.  
0.732 Acres

PROPOSED  
TAX MAP 241, LOTS 25  
1,810,169 Sq. Ft.  
41.556 Acres  
(PROPOSED FRONTAGE=980.30')

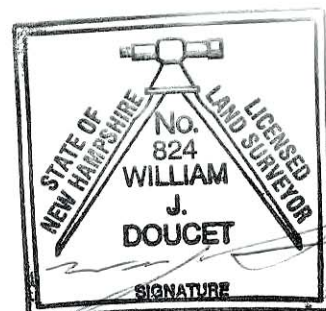
EXISTING  
TAX MAP 233, LOT 113  
601,800 Sq. Ft.  
13.815 Acres

TAX MAP 233, LOT 128  
SHIRLY N. GARRETT REV. TRUST 2000  
SHIRLY N. GARRETT, TRUSTEE  
BARBERRY LANE  
PORTSMOUTH, NH 03801  
R.C.R.D. BOOK 429B, PAGE 2633

DRILL HOLE FOUND  
(N 54°53'58" W, 5.20'  
TO CORNER)

SHEET 3  
SHEET 2

BOSTON & MAINE  
RAILROAD



I certify that this survey and plan were prepared by me  
or by those under my direct supervision and falls under  
the Urban Survey Classification of the NH Code of  
Administrative Rules of the Board of Licensure for  
Land Surveyors. I certify that this survey was made on  
the ground and is correct to the best of my knowledge  
and belief. Random traverse survey by Total Station, with  
a precision greater than 1:15,000.

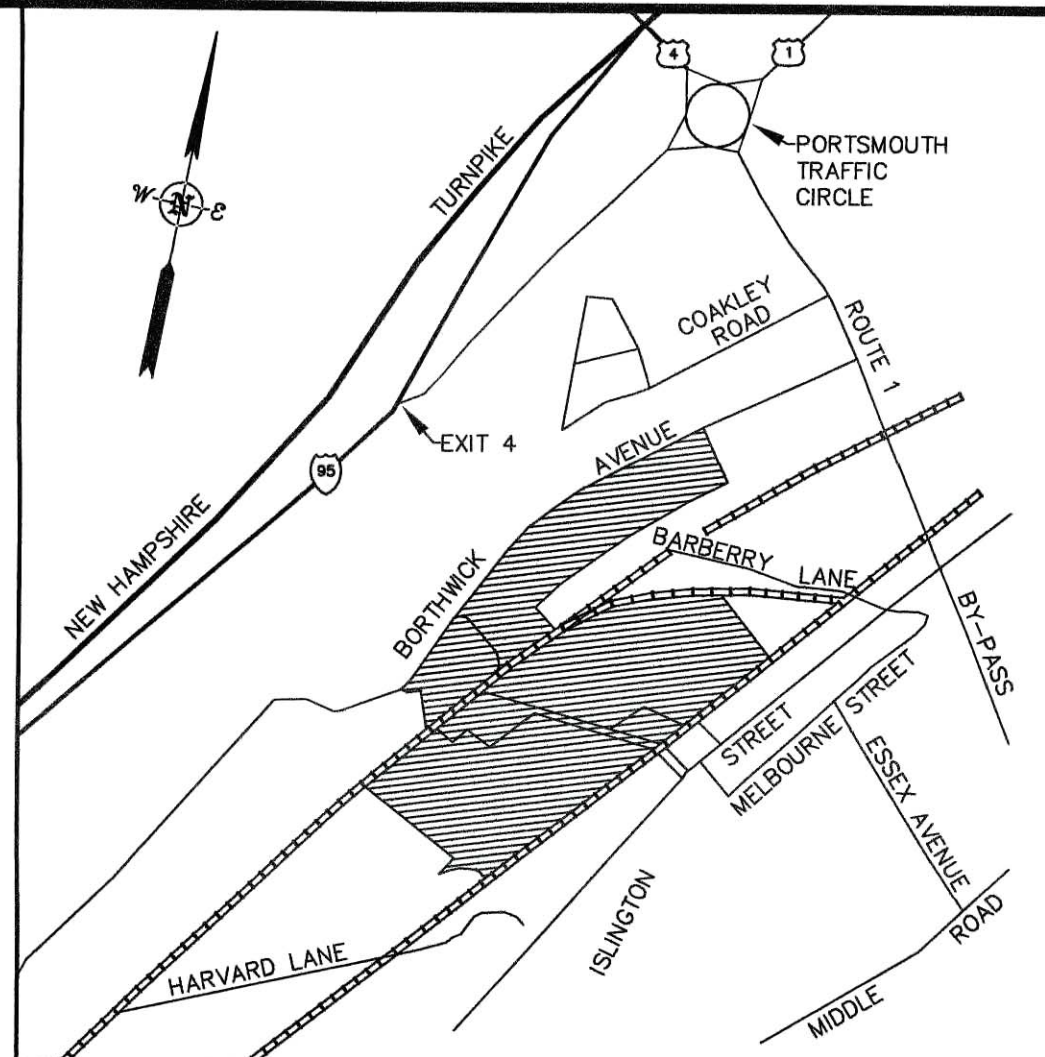
L.L.S. #824

DATE

GRAPHIC SCALE



( IN FEET )  
1 inch = 60 ft.



Location Map (n.t.s.)

BEARING	PROPERTY LINES
DIST	PROPOSED PROPERTY LINES
BEARING	PROPERTY LINES TO BE ABANDONED
DIST	SETBACK LINE
—X—X—X—	STOCKADE FENCE
—X—X—X—	WIRE FENCE
—X—X—X—	APPROX. ABUTTERS LOT LINE
—X—X—X—	EASEMENT LINE
—X—X—X—	PROPOSED EASEMENT LINE
—X—X—X—	STONE WALL
—X—X—X—	EDGE OF JURISDICTIONAL
—X—X—X—	WETLAND (SEE NOTE #6)
—X—X—X—	EDGE OF WETLAND
—X—X—X—	(PER REF. PLAN #2)
—X—X—X—	APPROX. WATERLINE LOCATION
(233/111)	(PER PORTSMOUTH DPW)
FEATURES PER EASTERN TOPOGRAPHICS	ASSESSORS TAX MAP/LOT #
POST	
PAVED ROADS	
GRAVEL ROADS	
OBSCURED PAVEMENT	
DRIVEWAYS	
UNPAVED DRIVEWAY	
FENCES	
STONEWALL	
BROOK/STREAM	
RAILROAD TRACKS	
OBSCURED RAILROAD TRACKS	

SEE SHEET 5 FOR LINE & CURVE TABLES

LOT CONSOLIDATION  
&  
RESUBDIVISION PLAN  
LAND OF BORTHWICK FOREST, LLC  
AND SHOWING LAND OF  
HCA REALTY, INC.

TAX MAP 233 LOTS 112 & 113, TAX MAP 234  
LOT 7-4A, TAX MAP 240 LOT 2-2202, & TAX  
MAP 241 LOTS 25 & 26 &  
BORTHWICK AVE. & ISLINGTON ST.  
PORTSMOUTH, NH

DRAWN BY:	M.W.F.	DATE:	MARCH 16, 2017
CHECKED BY:	S.V.M.	DRAWING NO.:	3445G
JOB NO.:	3445	SHEET	3 OF 5



9	2/5/18	REMOVE EASEMENT	MWF
8	11/2/17	FOR RECORDING	MWF
7	9/26/17	REVISE EASEMENTS	MWF
6	4/17/17	ADD ADDITIONAL EASEMENTS	MWF
5	3/17/17	REVISED LAYOUT	MWF
4	3/22/16	REVISED ROAD LAYOUT	MWF
3	3/3/16	REV. LAYOUT & EASEMENTS	MWF
2	1/19/16	REVISED ROAD LAYOUT	MWF
1	11/17/15	PER ATTORNEY	MWF
NO.	DATE	DESCRIPTION	BY

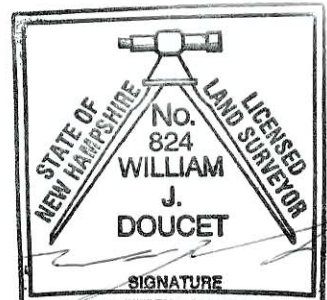
NOTE:  
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FASHION, THEIR LOCATIONS ARE NOT PRECISE OR NECESSARILY ACCURATE. NO WORK  
WHATSOEVER SHALL BE UNDERTAKEN ON THIS SITE USING THIS PLAN TO LOCATE THE ABOVE  
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LOCATIONS FOR INFORMATION REGARDING SUCH. CALL DIG-SAFE AT 1-888-DIG-SAFE.



TAX MAP 240, LOT 2-2001  
CITY OF PORTSMOUTH  
DPW  
PO BOX 628  
PORTSMOUTH, NH 03802  
R.C.R.D. BOOK 2648, PAGE 901

LOT CONSOLIDATION  
&  
RESUBDIVISION PLAN  
LAND OF BORTHWICK FOREST, LLC  
AND SHOWING LAND OF  
HCA REALTY, INC.  
TAX MAP 233 LOTS 112 & 113, TAX MAP 234  
LOT 7-4A, TAX MAP 240 LOT 2-2202, & TAX  
MAP 241 LOTS 25 & 26 &  
BORTHWICK AVE. & ISLINGTON ST.  
PORTSMOUTH, NH

I certify that this survey and plan were prepared by me  
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and belief. Random traverse survey by Total Station, with  
a precision greater than 1:15,000.



L.L.S. #824  
2-5-18 DATE

The certifications shown hereon are intended to meet registry of deed  
requirements and are not a certification to title or ownership of  
property shown. Owners of adjoining properties are according to current  
town assessors records.

TAX MAP 241, LOT 16  
CITY OF PORTSMOUTH  
1 JUNKINS AVENUE  
PORTSMOUTH, NH 03801

EXISTING  
TAX MAP 241, LOT 25  
993,493 Sq. Ft.  
22.807 Acres

PROPOSED  
TAX MAP 241, LOTS 25  
1,810,169 Sq. Ft.  
41.556 Acres  
(PROPOSED FRONTAGE=980.30')

EXISTING  
TAX MAP 241, LOT 26  
214,636 Sq. Ft.  
4.927 Acres

PROPOSED ROAD  
31,660 Sq. Ft.  
0.727 Acres

PROPOSED EASEMENT FOR EMERGENCY  
ACCESS, PUBLIC ACCESS FOR  
BICYCLES/PEDESTRIANS AND WATER  
MAIN FROM BORTHWICK FORREST, LLC  
TO THE CITY OF PORTSMOUTH

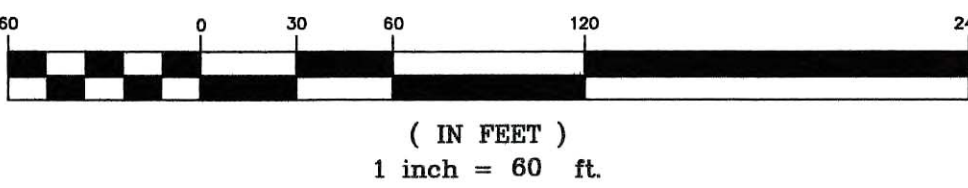
EXISTING 60'  
CROSSING EASEMENT  
(SEE NOTES #14E & 14R)

16" CI PER CITY OF PORTSMOUTH GIS,  
EASEMENT DOCUMENT NOT  
FOUND, POSSIBLY COVERED  
BY EASEMENT REFERENCED  
IN NOTE #14Q  
(EXISTING EASEMENT TO BE REPLACED  
WITH NEW 20 FT. EASEMENT CENTERED  
ON EXISTING MAIN)

TAX MAP 241, PAGE 17  
CITY OF PORTSMOUTH  
DPW  
PO BOX 628  
PORTSMOUTH, NH 03802  
R.C.R.D. BOOK 2147, PAGE 422

NOTE:  
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GRAPHIC SCALE

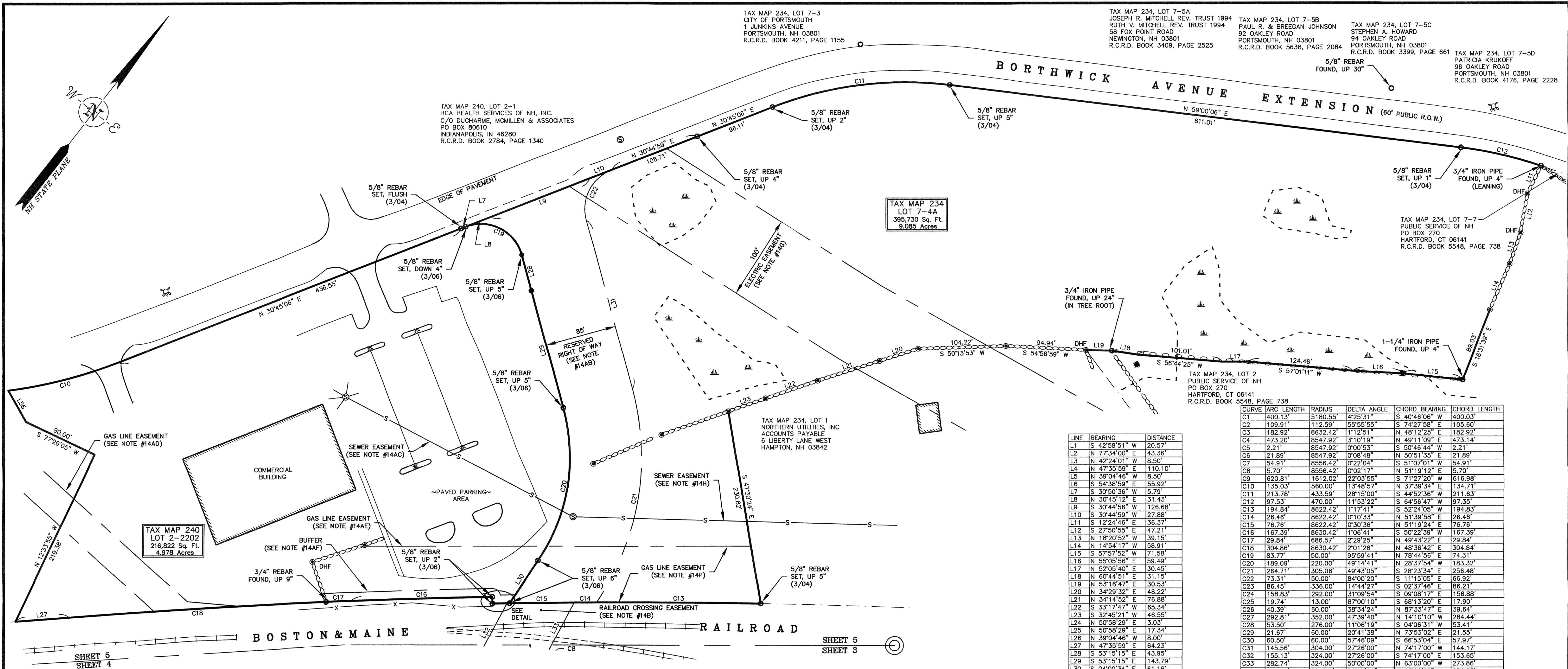


DRAWN BY:	M.W.F.	DATE:	MARCH 16, 2017
CHECKED BY:	S.V.M.	DRAWING NO.:	3445G
JOB NO.:	3445	SHEET	4 OF 5

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3	3/3/16	REV. LAYOUT & EASEMENTS	MWF
2	1/19/16	REVISED ROAD LAYOUT	MWF
1	11/17/15	PER ATTORNEY	MWF
NO.	DATE	DESCRIPTION	BY

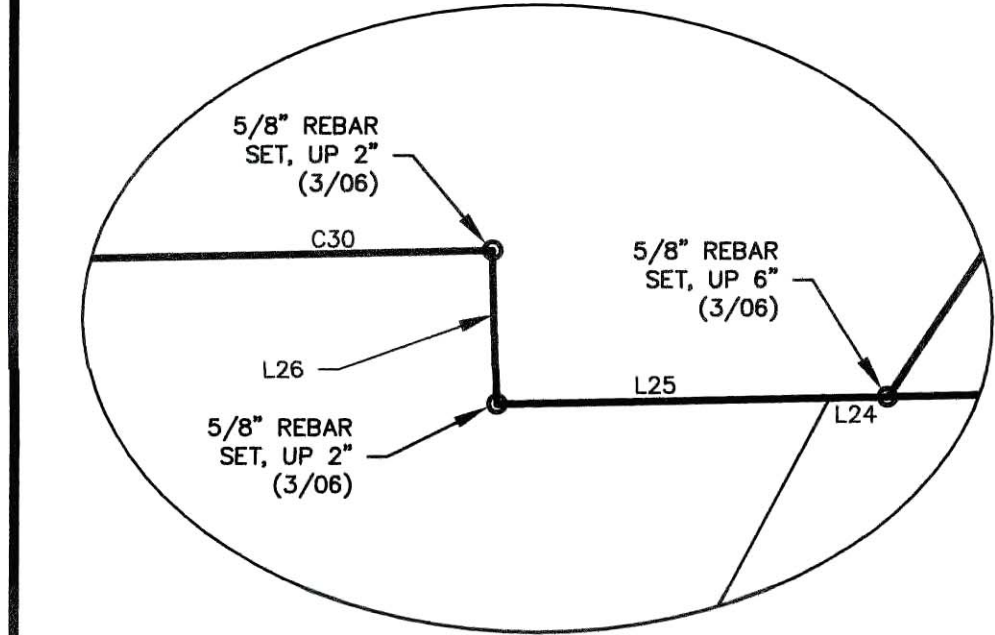






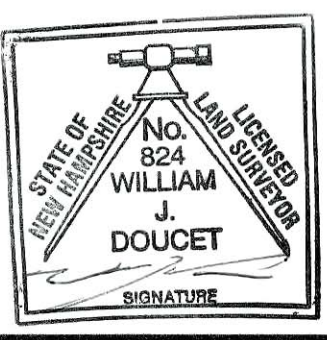
LINE	BEARING	DISTANCE
L1	S 42°58'51" W	20.57'
L2	N 77°34'00" E	43.36'
L3	N 42°24'01" W	8.50'
L4	N 47°35'59" E	110.10'
L5	N 39°04'46" W	8.50'
L6	S 54°38'59" E	55.92'
L7	S 30°50'36" W	5.79'
L8	N 30°45'12" E	31.43'
L9	S 30°44'56" W	126.68'
L10	S 30°44'59" W	27.88'
L11	S 12°24'46" E	36.37'
L12	S 27°50'55" E	47.21'
L13	N 18°20'52" W	39.15'
L14	N 14°54'17" W	58.91'
L15	S 57°57'52" W	71.58'
L16	N 55°05'56" E	59.49'
L17	N 52°05'40" E	30.45'
L18	N 60°44'51" E	31.15'
L19	N 53°16'47" E	30.53'
L20	N 34°29'32" E	48.22'
L21	N 34°14'52" E	76.88'
L22	S 33°17'47" W	65.34'
L23	S 32°45'21" W	46.55'
L24	N 50°58'29" E	3.03'
L25	N 50°58'29" E	17.34'
L26	N 39°04'46" W	8.00'
L27	N 47°35'59" E	64.23'
L28	S 53°15'15" E	43.95'
L29	S 53°15'15" E	143.79'
L30	S 04°00'34" E	61.16'
L31	S 53°15'15" E	207.17'
L32	S 10°00'00" E	85.25'
L33	S 10°00'00" E	75.13'
L34	S 38°00'00" E	5.99'
L35	N 09°39'40" E	24.25'
L36	N 09°39'40" E	24.25'
L37	N 42°58'51" E	13.71'
L38	S 42°58'51" W	25.72'
L39	S 60°34'00" E	48.76'
L40	N 60°34'00" W	51.58'
L41	N 88°00'00" W	78.53'
L42	S 88°00'00" E	78.53'
L43	N 38°00'00" W	19.25'
L44	N 38°00'00" W	11.22'
L45	S 37°55'23" W	126.44'
L46	S 29°34'37" E	34.27'
L47	S 80°20'20" E	19.66'
L48	N 08°02'02" W	95.93'
L49	N 60°43'02" W	65.65'
L50	N 16°50'59" E	30.76'
L51	N 10°00'00" W	3.55'

CURVE	ARC LENGTH	RADIUS	DELTA ANGLE	CHORD BEARING	CHORD LENGTH
C1	400.13'	5180.55'	4°25'31"	S 40°46'06" W	400.03'
C2	109.91'	112.59'	55°55'55"	S 74°27'58" E	105.60'
C3	182.92'	8632.42'	1°12'51"	N 48°12'25" E	182.92'
C4	473.20'	8547.92'	3°10'19"	N 49°11'09" E	473.14'
C5	2.21'	8547.92'	0°00'53"	S 50°46'44" W	2.21'
C6	21.89'	8547.92'	0°08'48"	N 50°51'35" E	21.89'
C7	54.91'	8556.42'	0°22'04"	S 51°07'01" W	54.91'
C8	5.70'	8556.42'	0°02'17"	N 51°19'12" E	5.70'
C9	620.81'	1612.02'	22°03'55"	S 71°27'20" W	616.98'
C10	135.03'	560.00'	13°48'57"	N 37°39'34" E	134.71'
C11	213.78'	433.59'	28°15'00"	S 44°52'36" W	211.63'
C12	97.53'	470.00'	11°53'22"	S 84°56'47" W	97.35'
C13	194.84'	8622.42'	1°17'41"	S 52°24'05" W	194.83'
C14	28.46'	8622.42'	0°10'33"	N 51°39'58" E	28.46'
C15	76.76'	8622.42'	0°30'36"	N 51°19'24" E	76.76'
C16	167.39'	8630.42'	1°06'41"	S 50°22'39" W	167.39'
C17	29.84'	686.57'	2°29'25"	N 49°43'22" E	29.84'
C18	304.86'	8630.42'	2°01'26"	N 48°36'42" E	304.84'
C19	83.77'	50.00'	95°59'41"	N 78°44'56" E	74.31'
C20	189.09'	220.00'	49°14'41"	N 28°37'54" W	183.32'
C21	264.71'	305.06'	49°43'05"	S 28°23'34" E	256.48'
C22	73.31'	50.00'	84°00'20"	S 11°15'05" E	66.92'
C23	86.45'	336.00'	14°44'27"	S 02°37'46" E	86.21'
C24	158.83'	292.00'	31°09'54"	S 09°08'17" E	156.88'
C25	19.74'	13.00'	87°00'10"	S 68°13'20" E	17.90'
C26	40.39'	60.00'	38°34'24"	N 87°33'47" E	39.64'
C27	292.81'	352.00'	47°39'40"	N 14°10'10" W	284.44'
C28	53.50'	276.00'	11°06'19"	S 04°06'31" W	53.41'
C29	21.67'	60.00'	20°41'38"	N 73°53'02" E	21.55'
C30	60.50'	60.00'	57°46'09"	S 66°53'04" E	57.97'
C31	145.56'	304.00'	27°26'00"	N 74°17'00" W	144.17'
C32	155.13'	324.00'	27°26'00"	S 74°17'00" E	153.65'
C33	282.74'	324.00'	50°00'00"	N 63°00'00" W	273.86'
C34	265.29'	304.00'	50°00'00"	N 63°00'00" W	256.95'
C35	28.85'	336.00'	4°55'13"	N 07°12'04" E	28.85'
C36	70.96'	1612.02'	2°31'20"	S 59°09'43" W	70.95'
C37	143.14'	60.00'	136°41'14"	N 04°48'24" W	111.53'
C38	16.39'	292.00'	3°13'00"	S 08°03'10" W	16.39'

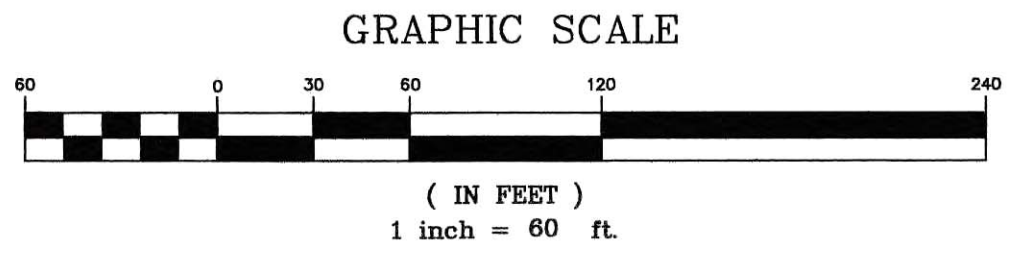


NO.	DATE	DESCRIPTION	BY
9	2/5/18	REMOVE EASEMENT	MWF
8	11/2/17	FOR RECORDING	MWF
7	9/26/17	REVISE EASEMENTS	MWF
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1	11/17/15	PER ATTORNEY	MWF

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- LEGEND**
- WATER SHUTOFF VALVE
  - GRANITE BOUND FOUND
  - DRILL HOLE FOUND
  - IRON PIPE/ROD FOUND
  - 5/8" RE-BAR W/ ID CAP TO BE SET
  - BARBED WIRE FOUND ON GROUND
  - SEWER MANHOLE
  - JURISDICTIONAL WETLAND SYMBOL
  - PROPERTY LINES
  - PROPOSED PROPERTY LINES
  - PROPERTY LINES TO BE ABANDONED
  - SETBACK LINE
  - STOCKADE FENCE
  - WIRE FENCE
  - APPROX. ABUTTERS LOT LINE
  - EASEMENT LINE
  - PROPOSED EASEMENT LINE
  - STONE WALL
  - EDGE OF JURISDICTIONAL WETLAND (SEE NOTE #6)
  - EDGE OF WETLAND (PER REF. PLAN #2)
  - APPROX. WATERLINE LOCATION (PER PORTSMOUTH DPW)
  - ASSESSORS TAX MAP/LOT #
  - FEATURES PER EASTERN TOPOGRAPHICS
  - POST
  - PAVED ROADS
  - GRAVEL ROADS
  - OBSCURED PAVEMENT
  - DRIVEWAYS
  - UNPAVED DRIVEWAY
  - FENCES
  - STONEWALL
  - BROOK/STREAM
  - RAILROAD TRACKS
  - OBSCURED RAILROAD TRACKS



**LOT CONSOLIDATION & RESUBDIVISION PLAN**  
**LAND OF BORTHWICK FOREST, LLC**  
**AND SHOWING LAND OF HCA REALTY, INC.**  
TAX MAP 233 LOTS 112 & 113, TAX MAP 234 LOT 7-4A, TAX MAP 240 LOT 2-2202, & TAX MAP 241 LOTS 25 & 26 & BORTHWICK AVE. & ISLINGTON ST. PORTSMOUTH, NH

DRAWN BY:	M.W.F.	DATE:	MARCH 16, 2017
CHECKED BY:	S.V.M.	DRAWING NO.:	3445G
JOB NO.:	3445	SHEET	5 OF 5





Last Save Date: February 6, 2018 10:42 AM By: CML  
Plot Date: Tuesday, February 06, 2018 Plotted By: Craig M. Langton  
File Location: J:\K0076 The Kane Company - General Proposals\0076-13 Borthwick Forest\Drawings - Figures\AutoCAD\Xref\K0076-13\_DSGN.dwg Layout Tab: G-101

- GENERAL NOTES:**
- THE LOCATIONS OF UNDERGROUND UTILITIES ARE APPROXIMATE AND THE LOCATIONS ARE NOT GUARANTEED BY THE OWNER OR THE ENGINEER. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL UTILITIES, ANTICIPATE CONFLICTS, REPAIR EXISTING UTILITIES AND RELOCATE EXISTING UTILITIES REQUIRED TO COMPLETE THE WORK.
  - COORDINATE ALL WORK WITHIN PUBLIC RIGHT OF WAYS WITH THE CITY OF PORTSMOUTH.
  - THE CONTRACTOR SHALL EMPLOY A NEW HAMPSHIRE LICENSED SURVEYOR OR PROFESSIONAL ENGINEER TO DETERMINE ALL LINES AND GRADES.
  - THE CONTRACTOR SHALL VERIFY LOCATION OF ALL EXISTING UTILITIES. CALL DIG SAFE AT LEAST 72 HOURS PRIOR TO THE COMMENCEMENT OF ANY DEMOLITION/CONSTRUCTION ACTIVITIES.
  - IT IS THE CONTRACTOR'S RESPONSIBILITY TO FAMILIARIZE THEMSELVES AND COMPLY WITH THE CONDITIONS OF ALL OF THE PERMIT APPROVALS.
  - THE CONTRACTOR SHALL OBTAIN AND PAY FOR AND COMPLY WITH ADDITIONAL PERMITS, NOTICES AND FEES NECESSARY TO COMPLETE THE WORK AND ARRANGE FOR AND PAY FOR NECESSARY INSPECTIONS AND APPROVALS FROM THE AUTHORITIES HAVING JURISDICTION.
  - THE CONTRACTOR SHALL PHASE DEMOLITION AND CONSTRUCTION AS REQUIRED TO PROVIDE CONTINUOUS SERVICE TO EXISTING BUSINESSES AND HOMES THROUGHOUT THE CONSTRUCTION PERIOD. EXISTING BUSINESS AND HOME SERVICES INCLUDE, BUT ARE NOT LIMITED TO ELECTRICAL, COMMUNICATION, FIRE PROTECTION, DOMESTIC WATER AND SEWER SERVICES. TEMPORARY SERVICES, IF REQUIRED, SHALL COMPLY WITH ALL FEDERAL, STATE, LOCAL AND UTILITY COMPANY STANDARDS. CONTRACTOR SHALL PROVIDE DETAILED CONSTRUCTION SCHEDULE TO OWNER PRIOR TO ANY DEMOLITION/CONSTRUCTION ACTIVITIES AND SHALL COORDINATE TEMPORARY SERVICES TO ABUTTERS WITH THE UTILITY COMPANY AND AFFECTED ABUTTER.
  - ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE CITY OF PORTSMOUTH DEPARTMENT OF PUBLIC WORKS, STANDARD SPECIFICATIONS AND WITH THE STATE OF NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION, "STANDARD SPECIFICATIONS OF ROAD AND BRIDGE CONSTRUCTION", CURRENT EDITION.
  - CONTRACTOR TO SUBMIT AS-BUILT PLANS ON REPRODUCIBLE MYLARS AND IN DIGITAL FORMAT (.DWG FILE) ON DISK TO THE OWNER AND ENGINEER UPON COMPLETION OF THE PROJECT. AS-BUILTS SHALL BE PREPARED AND CERTIFIED BY A NEW HAMPSHIRE LICENSED LAND SURVEYOR OR PROFESSIONAL ENGINEER.
  - CONTRACTOR SHALL THOROUGHLY CLEAN ALL CATCH BASINS AND DRAIN LINES, WITHIN THE LIMIT OF WORK, OF SEDIMENT IMMEDIATELY UPON COMPLETION OF CONSTRUCTION.
  - THE PROPERTY OWNER SHALL PROVIDE AN AS-BUILT RESTORATION PLAN AND FOLLOW-UP MONITORING ONE AND THREE YEARS AFTER THE RESTORATION WORK HAS BEEN COMPLETED TO INSURE A SURVIVAL RATE OF AT LEAST 80% OF THE NEW PLANTINGS. THE MONITORING PLAN SHALL BE SUBMITTED TO THE PLANNING DEPARTMENT AND SHALL INCLUDE A REQUIREMENT THAT ANY NEW INVASIVE SPECIES FOUND IN THE RESTORATION AREA DURING THE SITE MONITORING BE MECHANICALLY REMOVED.
  - ATV USE SHALL BE PROHIBITED IN THE DESCRIBED BLANDING TURTLE NESTING AREA AND THE IMPACTED AREA SHALL BE SIGNED ACCORDINGLY BY THE PROPERTY OWNER.
  - THE SITE PLAN SHALL BE RECORDED IN THE ROCKINGHAM COUNTY REGISTRY OF DEEDS.
  - ALL IMPROVEMENTS SHOWN ON THE SITE PLAN SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE PLAN BY THE PROPERTY OWNER AND ALL FUTURE PROPERTY OWNERS. NO CHANGES SHALL BE MADE TO THIS SITE PLAN WITHOUT THE EXPRESS APPROVAL OF THE PORTSMOUTH PLANNING DIRECTOR.
  - THE PROPERTY OWNER AND ALL FUTURE PROPERTY OWNERS SHALL BE RESPONSIBLE FOR THE MAINTENANCE, REPAIR AND REPLACEMENT OF ALL REQUIRED SCREENING AND LANDSCAPE MATERIALS.
  - ALL REQUIRED PLANT MATERIALS SHALL BE TENDED AND MAINTAINED IN A HEALTHY GROWING CONDITION, REPLACED WHEN NECESSARY, AND KEPT FREE OF REFUSE AND DEBRIS. ALL REQUIRED FENCES AND WALLS SHALL BE MAINTAINED IN GOOD REPAIR.
  - THE PROPERTY OWNER SHALL BE RESPONSIBLE TO REMOVE AND REPLACE DEAD OR DISEASED PLANT MATERIALS IMMEDIATELY WITH THE SAME TYPE, SIZE AND QUANTITY OF PLANT MATERIALS AS ORIGINALLY INSTALLED, UNLESS ALTERNATIVE PLANTINGS ARE REQUESTED, JUSTIFIED AND APPROVED BY THE PLANNING BOARD OR PLANNING DIRECTOR.

**DEMOLITION NOTES:**

- EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO THE START OF ANY CLEARING OR DEMOLITION ACTIVITIES.
- ALL MATERIALS SCHEDULED TO BE REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR UNLESS OTHERWISE SPECIFIED. THE CONTRACTOR SHALL DISPOSE OF ALL MATERIALS OFF-SITE IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL REGULATIONS, ORDINANCES AND CODES.
- COORDINATE REMOVAL, RELOCATION, DISPOSAL OR SALVAGE OF UTILITIES WITH THE OWNER AND APPROPRIATE UTILITY COMPANY.
- ANY EXISTING WORK OR PROPERTY DAMAGED OR DISRUPTED BY CONSTRUCTION/DEMOLITION ACTIVITIES SHALL BE REPLACED OR REPAIRED TO MATCH ORIGINAL EXISTING CONDITIONS BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
- SAW CUT AND REMOVE PAVEMENT ONE (1) FOOT OFF PROPOSED EDGE OF PAVEMENT OR EXISTING CURB LINE IN ALL AREAS WHERE PAVEMENT TO BE REMOVED ABUTS EXISTING PAVEMENT OR CONCRETE TO REMAIN.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DEMOLITION AND OFF-SITE DISPOSAL OF MATERIALS REQUIRED TO COMPLETE THE WORK, EXCEPT FOR WORK NOTED TO BE COMPLETED BY OTHERS.
- UTILITIES SHALL BE TERMINATED AT THE MAIN LINE PER UTILITY COMPANY AND CITY OF PORTSMOUTH STANDARDS. THE CONTRACTOR SHALL REMOVE ALL ABANDONED UTILITIES LOCATED WITHIN THE LIMITS OF WORK UNLESS OTHERWISE NOTED. CONTRACTOR SHALL VERIFY ORIGIN OF ALL DRAINS AND UTILITIES PRIOR TO REMOVAL/TERMINATION TO DETERMINE IF DRAINS OR UTILITY IS ACTIVE, AND SERVICES ANY ON OR OFF-SITE STRUCTURE TO REMAIN. CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY OF ANY SUCH UTILITY FOUND AND SHALL MAINTAIN THESE UTILITIES UNTIL PERMANENT SOLUTION IS IN PLACE.
- PAVEMENT REMOVAL LIMITS ARE SHOWN FOR CONTRACTOR'S CONVENIENCE. ADDITIONAL PAVEMENT REMOVAL MAY BE REQUIRED DEPENDING ON THE CONTRACTOR'S OPERATION. CONTRACTOR TO VERIFY FULL LIMITS OF PAVEMENT REMOVAL PRIOR TO BID.
- THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL EXISTING STRUCTURES, CONCRETE PADS, UTILITIES AND PAVEMENT WITHIN THE WORK LIMITS SHOWN UNLESS SPECIFICALLY IDENTIFIED TO REMAIN. ITEMS TO BE REMOVED INCLUDE BUT ARE NOT LIMITED TO: CONCRETE, PAVEMENT, CURBS, LIGHTING, MANHOLES, CATCH BASINS, UNDER GROUND PIPING, POLES, STAIRS, SIGNS, FENCES, RAMPS, WALLS, BOLLARDS, BUILDING SLABS, FOUNDATION, TREES AND LANDSCAPING.
- REMOVE TREES AND BRUSH AS REQUIRED FOR COMPLETION OF WORK. CONTRACTOR SHALL GRUB AND REMOVE ALL STUMPS WITHIN LIMITS OF WORK AND DISPOSE OF OFF SITE IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL LAWS AND REGULATIONS.
- CONTRACTOR SHALL PROTECT ALL PROPERTY MONUMENTATION THROUGHOUT DEMOLITION AND CONSTRUCTION OPERATIONS. SHOULD ANY MONUMENTATION BE DISTURBED BY THE CONTRACTOR, THE CONTRACTOR SHALL EMPLOY A NEW HAMPSHIRE LICENSED SURVEYOR TO REPLACE DISTURBED MONUMENTS.
- PROVIDE INLET PROTECTION BARRIERS AT ALL CATCH BASINS/CURB INLETS WITHIN CONSTRUCTION LIMITS AS WELL AS CATCH BASINS/CURB INLETS THAT MAY RECEIVE RUNOFF FROM CONSTRUCTION ACTIVITIES. INLET PROTECTION BARRIERS SHALL BE MAINTAINED FOR THE DURATION OF THE PROJECT. INLET PROTECTION BARRIERS SHALL BE "HIGH FLOW SILT SACK" BY ACF ENVIRONMENTAL OR EQUAL. INSPECT BARRIERS WEEKLY AND AFTER EACH RAIN EVENT OF 0.25 INCHES OR GREATER. CONTRACTOR SHALL COMPLETE A MAINTENANCE INSPECTION REPORT AFTER EACH INSPECTION. SEDIMENT DEPOSITS SHALL BE REMOVED AFTER EACH STORM EVENT OR MORE OFTEN IF THE FABRIC BECOMES CLOGGED OR SEDIMENT HAS ACCUMULATED TO 1/3 THE DESIGN DEPTH OF THE BARRIER.
- SEE ROADWAY IMPROVEMENT PLANS FOR OFF-SITE DEMOLITION.
- THE CONTRACTOR SHALL PAY ALL COSTS NECESSARY FOR TEMPORARY PARTITIONING, BARRICADING, FENCING, SECURITY AND SAFETY DEVICES REQUIRED FOR THE MAINTENANCE OF A CLEAN AND SAFE CONSTRUCTION SITE.

- SAW CUT AND REMOVE PAVEMENT AND CONSTRUCT PAVEMENT TRENCH PATCH FOR ALL UTILITIES TO BE REMOVED AND PROPOSED UTILITIES LOCATED IN EXISTING PAVEMENT AREAS TO REMAIN.
- THE CONTRACTOR SHALL REMOVE AND SALVAGE EXISTING GRANITE CURB FOR REUSE.

**SITE NOTES:**

- PAVEMENT MARKINGS SHALL BE INSTALLED AS SHOWN, INCLUDING PARKING SPACES, STOP BARS, ADA SYMBOLS, PAINTED ISLANDS, FIRE LANES, CROSS WALKS, ARROWS, LEGENDS AND CENTERLINES. ALL MARKINGS EXCEPT CENTERLINE AND MEDIAN ISLANDS TO BE CONSTRUCTED USING WHITE PAVEMENT MARKINGS. ALL THERMOPLASTIC PAVEMENT MARKINGS INCLUDING LEGENDS, ARROWS, CROSSWALKS AND STOP BARS SHALL MEET THE REQUIREMENTS OF AASHTO M249. ALL PAINTED PAVEMENT MARKINGS INCLUDING CENTERLINES, LANE LINES AND PAINTED MEDIANS SHALL MEET THE REQUIREMENTS OF AASHTO M248 TYPE "F".
- ALL PAVEMENT MARKINGS AND SIGNS TO CONFORM TO "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKINGS", AND THE AMERICANS WITH DISABILITIES ACT REQUIREMENTS, LATEST EDITIONS.
- SEE DETAILS FOR PAVEMENT MARKINGS, ADA SYMBOLS, SIGNS AND SIGN POSTS.
- CENTERLINES SHALL BE FOUR (4) INCH WIDE YELLOW LINES.
- PAINTED ISLANDS SHALL BE FOUR (4) INCH WIDE DIAGONAL LINES AT 3'-0" O.C. BORDERED BY FOUR (4) INCH WIDE LINES.
- STOP BARS SHALL BE EIGHTEEN (18) INCHES WIDE, WHITE THERMOPLASTIC AND CONFORM TO CURRENT MUTCD STANDARDS.
- CLEAN AND COAT VERTICAL FACE OF EXISTING PAVEMENT AT SAW CUT LINE WITH RS-1 EMULSION IMMEDIATELY PRIOR TO PLACING NEW BITUMINOUS CONCRETE.
- SEE ARCHITECTURAL/BUILDING DRAWINGS FOR ALL CONCRETE PADS & SIDEWALKS ADJACENT TO BUILDING.
- COORDINATE ALL OFF-SITE SITE WORK WITH ROADWAY IMPROVEMENT PLANS.
- CONTRACTOR TO PROVIDE BACKFILL AND COMPACTION AT CURB LINE AFTER CONCRETE FORMS FOR SIDEWALKS AND PADS HAVE BEEN STRIPPED. COORDINATE WITH BUILDING CONTRACTOR.
- ALL LIGHT POLE BASES NOT PROTECTED BY A RAISED CURB SHALL BE PAINTED YELLOW.
- COORDINATE ALL WORK ADJACENT TO BUILDING WITH BUILDING CONTRACTOR.
- CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING RETAINING WALL DESIGN FROM WALL MANUFACTURERS, AND SUBMITTING DESIGN TO ENGINEER PRIOR TO COMMENCING CONSTRUCTION. CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS AND EQUIPMENT REQUIRED TO CONSTRUCT WALL IN ACCORDANCE WITH DESIGN APPROVED BY THE ENGINEER. RETAINING WALL SHALL BE SEGMENTAL BLOCK WALL SYSTEM AS OUTLINED IN THE SPECIFICATIONS.
- ALL DIMENSIONS ARE TO THE FACE OF CURB UNLESS OTHERWISE NOTED.
- EASEMENTS BETWEEN THE APPLICANT AND THE CITY OF PORTSMOUTH SHALL BE RECORDED PRIOR TO EXECUTED SITE REVIEW AGREEMENT.
- APPLICANT SHALL PROVIDE LIGHT POLE BASE, 24 FT ALUMINUM LIGHT POLE WITH 8 FT ARM AND WIRING FOR STREET LIGHTING. CITY OF PORTSMOUTH TO PROVIDE LED FIXTURES.

**GRADING AND DRAINAGE NOTES:**

- COMPACTION REQUIREMENTS:  
BELOW PAVED OR CONCRETE AREAS 95%  
TRENCH BEDDING MATERIAL AND SAND BLANKET BACKFILL 95%  
BELOW LOAM AND SEED AREAS 90%  
\* ALL PERCENTAGES OF COMPACTION SHALL BE OF THE MAXIMUM DRY DENSITY AT THE OPTIMUM MOISTURE CONTENT AS DETERMINED AND CONTROLLED IN ACCORDANCE WITH ASTM D-1557, METHOD C FIELD DENSITY TESTS SHALL BE MADE IN ACCORDANCE WITH ASTM D-1556 OR ASTM-2922.
- ALL STORM DRAINAGE PIPES SHALL BE HIGH DENSITY POLYETHYLENE (HANCOR HI-Q, ADS N-12 OR EQUAL) OR RCP CLASS IV, UNLESS OTHERWISE SPECIFIED.
- ADJUST ALL MANHOLES, CATCH BASINS, CURB BOXES, ETC. WITHIN LIMITS OF WORK TO FINISH GRADE.
- CONTRACTOR SHALL PROVIDE A FINISH PAVEMENT SURFACE AND LAWN AREAS FREE OF LOW SPOTS AND PONDING AREAS. CRITICAL AREAS INCLUDE BUILDING ENTRANCES, EXITS, RAMPS AND LOADING DOCK AREAS ADJACENT TO THE BUILDING.
- ALL DISTURBED AREAS NOT TO BE PAVED OR OTHERWISE TREATED SHALL RECEIVE 6" LOAM, SEED FERTILIZER AND MULCH.
- ALL STORM DRAIN CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE NHDOT STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES, LATEST EDITION.
- ALL PROPOSED CATCH BASINS SHALL BE EQUIPPED WITH OIL/GAS SEPARATOR HOODS AND 4' SUMPS.

**EROSION CONTROL NOTES:**

- SEE SHEET C-501 FOR GENERAL EROSION CONTROL NOTES AND DETAILS.

**UTILITY NOTES:**

- COORDINATE ALL UTILITY WORK WITH APPROPRIATE UTILITY COMPANY.
  - NATURAL GAS - UNTILT
  - WATER - CITY OF PORTSMOUTH
  - SEWER - CITY OF PORTSMOUTH
  - ELECTRIC - EVERSOURCE
  - TELECOMMUNICATIONS - FAIRPOINT & COMCAST
- ALL WATER MAIN INSTALLATIONS SHALL BE CLASS 52, CEMENT LINED DUCTILE IRON PIPE.
- ALL WATER MAIN INSTALLATIONS SHALL BE PRESSURE TESTED AND CHLORINATED AFTER CONSTRUCTION PRIOR TO ACTIVATING THE SYSTEM. CONTRACTOR SHALL COORDINATE CHLORINATION AND TESTING WITH THE CITY OF PORTSMOUTH WATER DEPARTMENT.
- ALL SEWER PIPE SHALL BE PVC SDR 35 UNLESS OTHERWISE STATED.
- CONNECTION TO EXISTING WATER MAIN SHALL BE CONSTRUCTED TO CITY OF PORTSMOUTH STANDARDS.
- EXISTING UTILITIES TO BE REMOVED SHALL BE CAPPED AT THE MAIN AND MEET THE DEPARTMENT OF PUBLIC WORKS STANDARDS FOR CAPPING OF WATER AND SEWER SERVICES.
- ALL ELECTRICAL MATERIAL WORKMANSHIP SHALL CONFORM TO THE NATIONAL ELECTRIC CODE, LATEST EDITION, AND ALL APPLICABLE STATE AND LOCAL CODES.
- THE EXACT LOCATION OF NEW UTILITY SERVICES AND CONNECTIONS SHALL BE COORDINATED WITH THE BUILDING DRAWINGS AND THE APPLICABLE UTILITY COMPANIES.
- ALL UNDERGROUND CONDUITS SHALL HAVE NYLON PULL ROPES TO FACILITATE PULLING CABLES.
- THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL MANHOLES, BOXES, FITTINGS, CONNECTORS, COVER PLATES, AND OTHER MISCELLANEOUS ITEMS NOT NECESSARILY DETAILED ON THESE DRAWINGS TO RENDER INSTALLATION OF UTILITIES COMPLETE AND OPERATIONAL.
- CONTRACTOR SHALL PROVIDE EXCAVATION, BEDDING, BACKFILL AND COMPACTION FOR NATURAL GAS SERVICES.
- A 10-FOOT MINIMUM EDGE TO EDGE HORIZONTAL SEPARATION SHALL BE PROVIDED BETWEEN ALL WATER AND SANITARY SEWER LINES. AN 18-INCH MINIMUM OUTSIDE TO OUTSIDE VERTICAL SEPARATION SHALL BE PROVIDED AT ALL WATER/SANITARY SEWER CROSSINGS.
- SAW CUT AND REMOVE PAVEMENT AND CONSTRUCT PAVEMENT TRENCH PATCH FOR ALL PROPOSED UTILITIES LOCATED IN EXISTING PAVEMENT AREAS TO REMAIN
- HYDRANTS, GATE VALVES, FITTINGS, ETC. SHALL MEET THE REQUIREMENTS OF THE CITY OF PORTSMOUTH.
- COORDINATE TESTING OF SEWER CONSTRUCTION WITH THE CITY OF PORTSMOUTH.

- ALL SEWER PIPE WITH LESS THAN 6' OF COVER SHALL BE INSULATED.
- CONTRACTOR SHALL COORDINATE ALL ELECTRIC WORK INCLUDING BUT NOT LIMITED TO: CONDUIT CONSTRUCTION, MANHOLE CONSTRUCTION, UTILITY POLE CONSTRUCTION, OVERHEAD WIRE RELOCATION, AND TRANSFORMER CONSTRUCTION WITH POWER COMPANY.
- SITE LIGHTING SPECIFICATIONS, CONDUIT LAYOUT AND CIRCUITRY FOR PROPOSED SITE LIGHTING AND SIGN ILLUMINATION SHALL BE PROVIDED BY THE PROJECT ELECTRICAL ENGINEER.
- CONTRACTOR SHALL CONSTRUCT ALL UTILITIES AND DRAINS TO WITHIN 10' OF THE FOUNDATION WALLS AND CONNECT THESE TO SERVICE STUBS FROM THE BUILDING.
- FINAL DESIGN FOR ALL ELECTRIC, TELECOMMUNICATIONS, AND GAS WORK SHALL BE COORDINATED WITH THE UTILITY COMPANY AND CITY OF PORTSMOUTH PRIOR TO CONSTRUCTION.
- THE APPLICANT SHALL HAVE A SITE SURVEY CONDUCTED BY A RADIO COMMUNICATIONS CARRIER APPROVED BY THE CITY'S COMMUNICATIONS DIVISION. THE RADIO COMMUNICATIONS CARRIER MUST BE FAMILIAR AND CONVERSANT WITH THE POLICE AND RADIO CONFIGURATION. IF THE SITE SURVEY INDICATES IT IS NECESSARY TO INSTALL A SIGNAL REPEATER EITHER ON OR NEAR THE PROPOSED PROJECT, THOSE COSTS SHALL BE THE RESPONSIBILITY OF THE PROPERTY OWNER. THE OWNER SHALL COORDINATE WITH THE SUPERVISOR OF RADIO COMMUNICATIONS FOR THE CITY.

**LANDSCAPE NOTES:**

- THE CONTRACTOR SHALL FURNISH AND PLANT ALL PLANTS IN QUANTITIES AS SHOWN ON THIS PLAN. NO SUBSTITUTIONS WILL BE PERMITTED UNLESS APPROVED BY OWNER. ALL PLANTS SHALL BE NURSERY GROWN.
- ALL PLANTS SHALL BE NURSERY GROWN AND PLANTS AND WORKMANSHIP SHALL CONFORM TO THE AMERICAN ASSOCIATION OF NURSERYMEN STANDARDS, INCLUDING BUT NOT LIMITED TO SIZE, HEALTH, SHAPE, ETC., AND SHALL BE SUBJECT TO THE APPROVAL OF THE LANDSCAPE ARCHITECT PRIOR TO ARRIVAL ON-SITE AND AFTER PLANTING.
- PLANT STOCK SHALL BE GROWN WITHIN THE HARDINESS ZONES 4 THRU 7 ESTABLISHED BY THE PLANT HARDINESS ZONE MAP, MISCELLANEOUS PUBLICATIONS NO. 814, AGRICULTURAL RESEARCH SERVICE, UNITED STATES DEPARTMENT AGRICULTURE, LATEST REVISION.
- PLANT MATERIAL SHALL BARE THE SAME RELATIONSHIP TO FINISHED GRADE AS TO THE ORIGINAL PLANTING GRADE PRIOR TO DIGGING.
- THE NUMBER OF EACH INDIVIDUAL PLANT TYPE AND SIZE PROVIDED IN THE PLANT LIST OR ON THE PLAN IS FOR THE CONTRACTOR'S CONVENIENCE ONLY. IF A DISCREPANCY EXISTS BETWEEN THE NUMBER OF PLANTS ON THE LABEL AND THE NUMBER OF SYMBOLS SHOWN ON THE DRAWINGS, THE GREATER NUMBER SHALL APPLY.
- NO SUBSTITUTION OF PLANT MATERIALS WILL BE ALLOWED WITHOUT THE PRIOR WRITTEN APPROVAL OF THE OWNER'S REPRESENTATIVE.
- THE CONTRACTOR SHALL LOCATE, VERIFY AND MARK ALL EXISTING AND NEWLY INSTALLED UNDERGROUND UTILITIES PRIOR TO ANY LAWN WORK OR PLANTING. ANY CONFLICTS WHICH MIGHT OCCUR BETWEEN PLANTING AND UTILITIES SHALL IMMEDIATELY BE REPORTED TO THE OWNER SO THAT ALTERNATE PLANTING LOCATIONS CAN BE DETERMINED.
- ALL DISTURBED AREAS NOT TO BE PAVED OR OTHERWISE TREATED, SHALL RECEIVE 6" OF LOAM AND SEED. NO FILL SHALL BE PLACED IN ANY WETLAND AREA.
- THREE INCHES (3") OF UNTREATED BARK MULCH IS TO BE USED AROUND THE TREE AND SHRUB PLANTING AS SPECIFIED IN THE DETAILS. WHERE BARK MULCH IS TO BE USED IN A CURBED ISLAND THE BARK MULCH SHALL MEET THE TOP INSIDE EDGE OF THE CURB. ALL OTHER AREAS SHALL RECEIVE 6" INCHES OF LOAM AND SEED.
- SEE PLANTING DETAILS AND SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
- TREE STAKES SHALL REMAIN IN PLACE FOR NO LESS THAN 6 MONTHS AND NO MORE THAN 1 YEAR.
- PLANTING SHALL BE COMPLETED FROM APRIL 15TH THROUGH OCTOBER 1ST. NO PLANTING DURING JULY AND AUGUST UNLESS SPECIAL PROVISIONS ARE MADE FOR DROUGHT.
- PARKING AREA PLANTED ISLANDS TO HAVE MINIMUM OF 1'-0" TOPSOIL PLACED TO WITHIN 3 INCHES OF THE TOP OF CURB ELEVATION. REMOVE ALL CONSTRUCTION DEBRIS BEFORE PLACING TOPSOIL.
- TREES SHALL BE PRUNED IN ACCORDANCE WITH THE LATEST EDITION OF ANSI A300 'TREES, SHRUBS AND OTHER WOOD PLANT MAINTENANCE STANDARD PRACTICES.
- ALL PLANTS SHALL BE WATERED THOROUGHLY TWICE DURING THE FIRST 24 HOUR PERIOD AFTER PLANTING. ALL PLANTS SHALL BE WATERED WEEKLY, OR MORE OFTEN, IF NECESSARY DURING THE FIRST GROWING SEASON. LANDSCAPE CONTRACTOR SHALL COORDINATE WATERING SCHEDULE WITH OWNER DURING THE ONE (1) YEAR GUARANTEE PERIOD.
- EXISTING TREES AND SHRUBS SHOWN ON THE PLAN ARE TO REMAIN UNDISTURBED. ALL EXISTING TREES AND SHRUBS SHOWN TO REMAIN ARE TO BE PROTECTED WITH A 4-FOOT SNOW FENCE PLACED AT THE DRIP LINE OF THE BRANCHES OR AT 8 FEET MINIMUM FROM THE TREE TRUNK. ANY EXISTING TREE OR SHRUB SHOWN TO REMAIN, WHICH IS REMOVED DURING CONSTRUCTION, SHALL BE REPLACED BY A TREE OF COMPARABLE SIZE AND SPECIES TREE OR SHRUB.
- THE CONTRACTOR SHALL GUARANTEE ALL PLANTINGS TO BE IN GOOD HEALTHY, FLOURISHING AND ACCEPTABLE CONDITION FOR A PERIOD OF ONE (1) YEAR BEGINNING AT THE DATE OF ACCEPTANCE OF SUBSTANTIAL COMPLETION. ALL GRASSES, TREES AND SHRUBS THAT, IN THE OPINION OF THE LANDSCAPE ARCHITECT, SHOW LESS THAN 80% HEALTHY GROWTH AT THE END OF ONE YEAR PERIOD SHALL BE REPLACED BY THE CONTRACTOR.
- UPON EXPIRATION OF THE CONTRACTOR'S ONE YEAR GUARANTEE PERIOD, THE OWNER SHALL BE RESPONSIBLE FOR LANDSCAPE MAINTENANCE INCLUDING WATERING DURING PERIODS OF DROUGHT
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL PLANTING AND LAWNS AGAINST DAMAGE FROM ONGOING CONSTRUCTION. THIS PROTECTION SHALL BEGIN AT THE TIME THE PLANT IS INSTALLED AND CONTINUE UNTIL THE FORMAL ACCEPTANCE OF ALL THE PLANTINGS.
- PRE-PURCHASE PLANT MATERIAL AND ARRANGE FOR DELIVERY TO MEET PROJECT SCHEDULE AS REQUIRED IT MAY BE NECESSARY TO PRE-DIG CERTAIN SPECIES WELL IN ADVANCE OF ACTUAL PLANTING DATES.

ABBREVIATIONS			
AASHTO	AMERICAN ASSOCIATION OF STATE HIGHWAY & TRANSPORTATION OFFICIALS	ID	INSIDE DIAMETER
		INV	INVERT
AC	ACRES	L	LENGTH
		LF	LINEAR FEET
ADA	AMERICANS WITH DISABILITIES ACT	MAX	MAXIMUM
AGGR	AGGREGATE	MIN	MINIMUM
AOT	ALTERATION OF TERRIAN	NCSS	NATIONAL COOPERATIVE SURVEY
BLDG	BUILDING	PC	POINT OF CURVATURE
BMP(S)	BEST MANAGEMENT PRACTICE(S)	UD	UNDERDRAIN
		NRCC	NORTHEAST REGIONAL CLIMATE CENTER
BOC	BOTTOM OF CURB	USCS	UNIFIED SOIL CLASSIFICATION SYSTEM
BOW	BOTTOM OF WALL	NRCS	UNITED STATES DEPARTMENT OF AGRICULTURE
CB	CATCH BASIN		CONSERVATION SERVICE
CCB	CAPE COD BERM	OC	ON CENTER
CMP	CORRUGATED METAL PIPE	OD	OUTSIDE DIAMETER
CONST	CONSTRUCT	PAD	PROPOSED AREA DRAIN
COORD	COORDINATE	PC	POINT OF CURVATURE
DIA	DIAMETER	PCB	PROPOSED CATCH BASIN
DIP	DUCTILE IRON PIPE	PD MH	PROPOSED DRAINAGE MANHOLE
DMH	DRAINAGE MANHOLE	PI	POINT OF INTERSECTION
DWG	DRAWING	POS	PROPOSED OUTLET STRUCTURE
ELEV	ELEVATION	PROP	PROPOSED
EP	EDGE OF PAVEMENT	PSMH	PROPOSED SEWER MANHOLE
EXIST	EXISTING	PT	POINT OF TANGENCY
FFS	FLARED END SECTION	PVC	POLYVINYL CHLORIDE
FF	FINISHED FLOOR	PVMT	PAVEMENT
HDPE	HIGH DENSITY POLYETHYLENE	PVD	PROPOSED YARD DRAIN
HMA	HOT MIX ASPHALT	R	RADIUS
HMP	HOT MIX PAVEMENT	RCP	REINFORCED CONCRETE PIPE
HW	HEADWALL	RL	ROOF LEADER
HYD	HYDRANT		

**LEGEND**

	UTILITY POLE
	UTILITY POLE (PER AERIAL TOPOGRAPHY)
	LIGHT POLE
	LIGHT POLE (PER ARRIAL TOPOGRAPHY)
	IRON ROD FOUND
	DRILL HOLE SET (UNLESS OTHERWISE NOTED)
	5/8" RE-BAR W/ID CAP TO BE SET
	BARBED WIRE FOUND ON GROUND
	SEWER MANHOLE (PER AERIAL TOPOGRAPHY)
	SEWER MANHOLE
	GAS GATE VALVE
	WATER GATE VALVE
	WATER SHUTOFF VALVE
	CATCH BASIN (PER AERIAL TOPOGRAPHY)
	TREE (PER AERIAL TOPOGRAPHY)
	FENCE POST
	HYDRANT
	HYDRANT (PER AERIAL TOPOGRAPHY)
	BOULDER (PER AERIAL TOPOGRAPHY)
EP	EDGE OF PAVEMENT
EOG	EDGE OF GRAVEL
DHF	DRILL HOLE FOUND
	WETLAND
	STRUCTURES
	PILE
	STONE WALL
	REMNANT STONE WALL
	BOX WIRE FENCE
	CHAINLINK FENCE
	RAILROAD TRACKS
	EDGE OF WETLAND (SEE REFERENCE PLAN #32 & #36)
	EDGE OF WETLAND
	TREE LINE
	WATER LINE
	UNDERGROUND GAS LINE (WITNESSED BY ABOVE GROUND MARKER)
	OVERHEAD WIRE
	SEWER LINE
	EASEMENT LINE
	OBSCURED AREA
	PARKING OUTLINE
	MINOR CONTOUR
	MAJOR CONTOUR
	PROPERTY LINES
	APPROXIMATE ABBUTERS LINE
	STREAM
	ZONING BOUNDARY
	PROPOSED RIGHT OF WAY LINE
	100' WETLAND BUFFER LINE
	SETBACK LINE
	PROPOSED TREELINE
	PROPOSED GAS SERVICE
	PROPOSED UNDERGROUD ELECTRIC/COMMUNICATION
	PROPOSED WATER
	PROPOSED SEWER
	PROPOSED CONTOUR
	PROPOSED PAVEMENT
	PROPOSED PERIMETER EROSION CONTROL
	PROPOSED LIMIT OF CLEARING
	PAVEMENT TO BE REMOVED
	APPROXIMATE LIMIT OF WORK

**Tighe&Bond**  
Engineers | Environmental Specialists

## Proposed Subdivision Road & Office Building Development

Borthwick Forest, LLC

Portsmouth,  
New Hampshire

J	2/6/2018	Planning Board Submission
I	1/12/2018	GMP Submission
H	11/3/2017	For Submission to RCRD
G	8/31/2017	Revised TAC Submission
F	6/2/2017	AoT Submission
E	5/11/2017	Planning Board Submission
D	4/24/2017	TAC & ConCom Submission
C	3/31/2017	TAC Submission
B	3/29/2017	Conditional Use Permit Submission
A	3/20/2017	TAC Submission

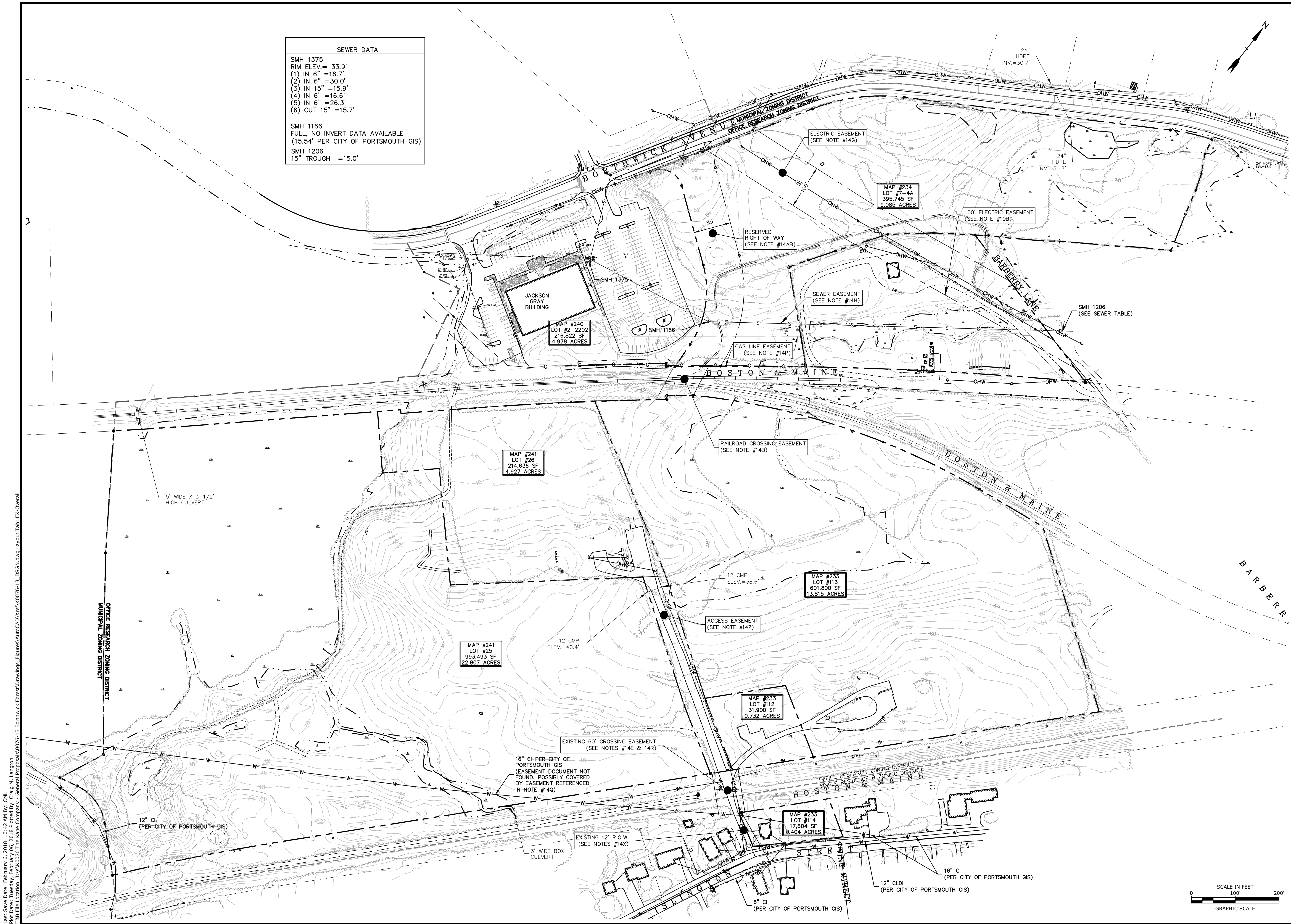
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DATE:		3/20/2017
FILE:		K0076-13_DSGN.DWG
DRAWN BY:		CML
CHECKED:		PMC
APPROVED:		BLM

**GENERAL NOTES,  
ABBREVIATIONS & LEGEND  
SHEET**

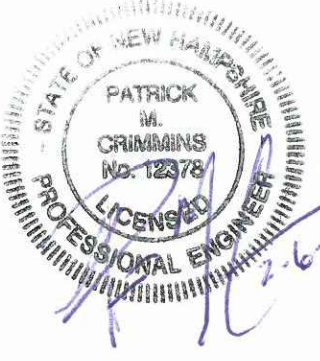
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**G-101**





SEWER DATA	
SMH 1375	
RIM ELEV. = 33.9'	
(1) IN 6" = 16.7'	
(2) IN 6" = 30.0'	
(3) IN 15" = 15.9'	
(4) IN 6" = 16.6'	
(5) IN 6" = 26.3'	
(6) OUT 15" = 15.7'	
SMH 1166	
FULL, NO INVERT DATA AVAILABLE	
(15.54' PER CITY OF PORTSMOUTH GIS)	
SMH 1206	
15" TROUGH = 15.0'	



## Proposed Subdivision Road & Office Building Development

Borthwick Forest, LLC

Portsmouth,  
New Hampshire

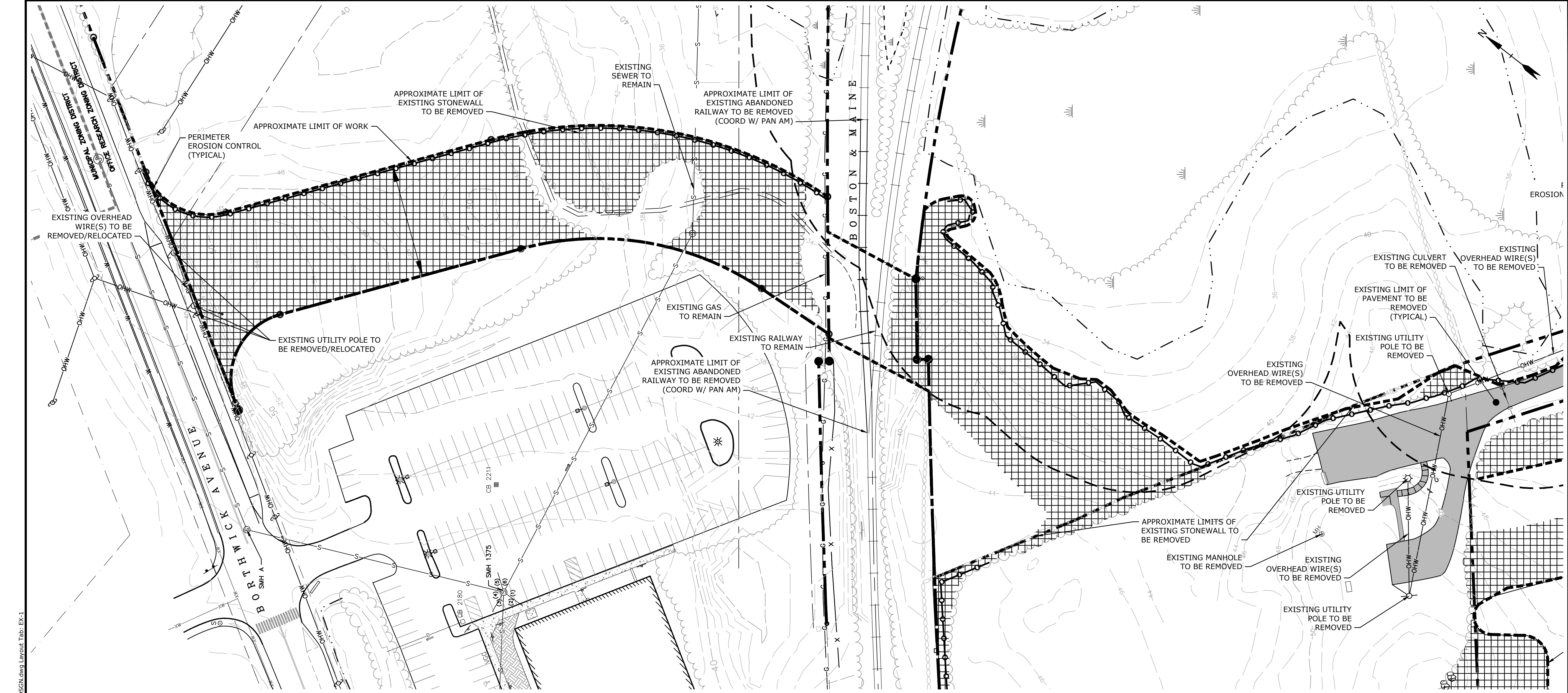
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G	1/12/2018	GMP Submission
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FILE:		K0076-13_DSGN.DWG
DRAWN BY:		CML
CHECKED:		PMC
APPROVED:		BLM

OVERALL EXISTING  
CONDITIONS PLAN

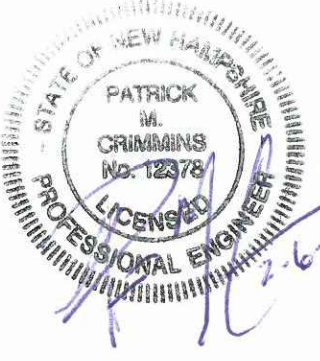
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C-101





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Plot Date: Tuesday, February 06, 2018 Plotted By: Craig M. Langdon  
File Location: J:\K0076 The Kane Company - General Proposals\0076-13 Borthwick Forest\Drawings - Figures\AutoCAD\K0076-13\_DSGN.dwg Layout Tab: EX-1



## Proposed Subdivision Road & Office Building Development

Borthwick Forest, LLC

Portsmouth,  
New Hampshire

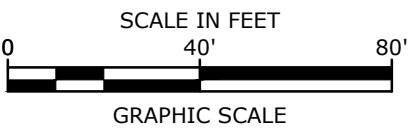
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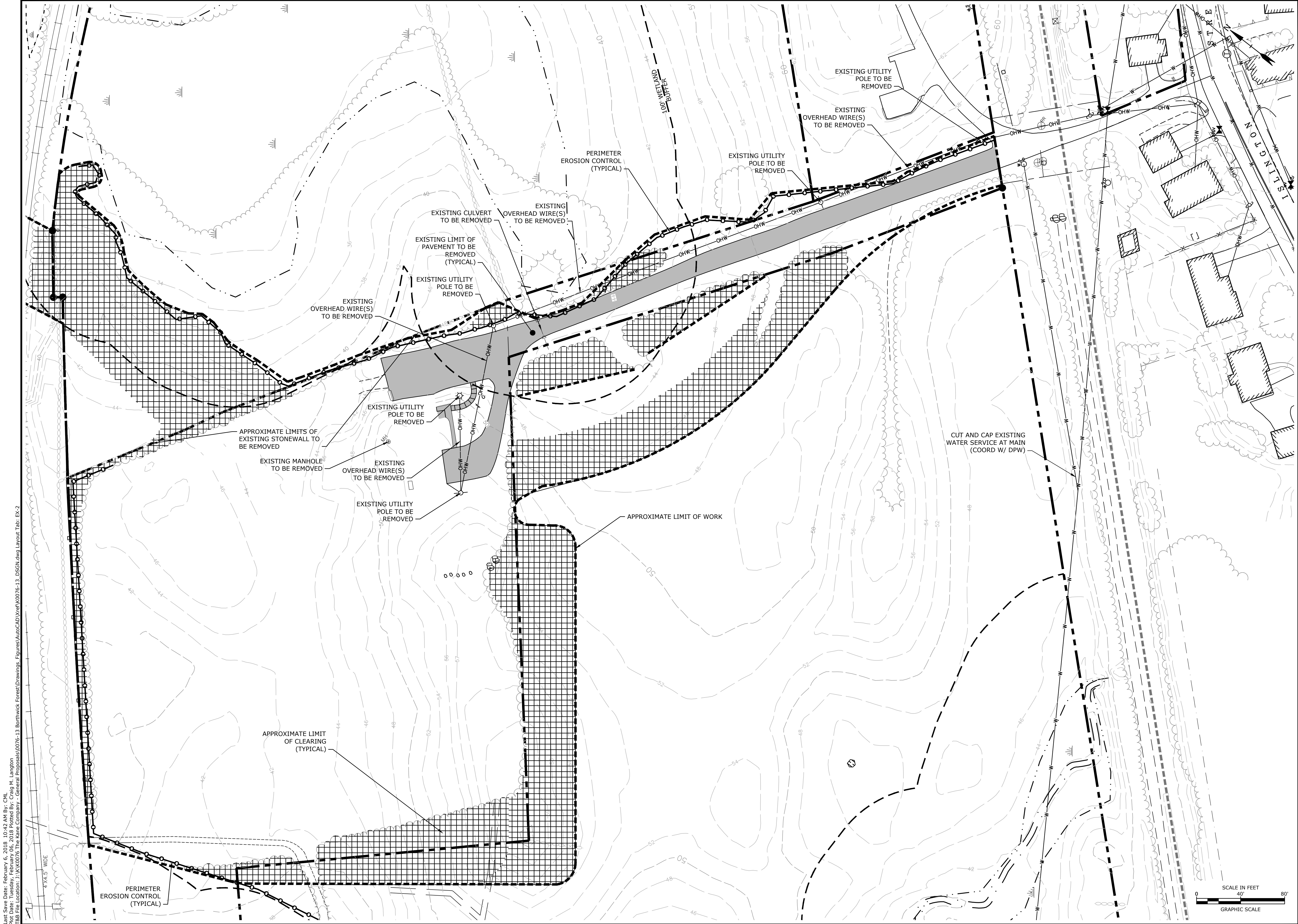
EXISTING CONDITIONS/  
DEMOLITION PLAN

SCALE: AS SHOWN

C-101.1







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File Location: J:\K0076 The Kane Company - General Proposals\0076-13 Borthwick Forest\Drawings - Figures\AutoCAD\Xref\K0076-13\_DSGN.dwg Layout Tab: EX-2

**Tighe&Bond**  
Engineers | Environmental Specialists

STATE OF NEW HAMPSHIRE  
PROFESSIONAL ENGINEER  
BRADLEY M. MCDONALD  
No. 06830  
LICENSED  
10/26/17

STATE OF NEW HAMPSHIRE  
PROFESSIONAL ENGINEER  
PATRICK M. CRAMINS  
No. 12376  
LICENSED  
2-6-18

**Proposed  
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Borthwick Forest, LLC

Portsmouth,  
New Hampshire

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PROJECT NO: K0076-13

DATE: 3/20/2017

FILE: K0076-13\_DSGN.DWG

DRAWN BY: CML

CHECKED: PMC

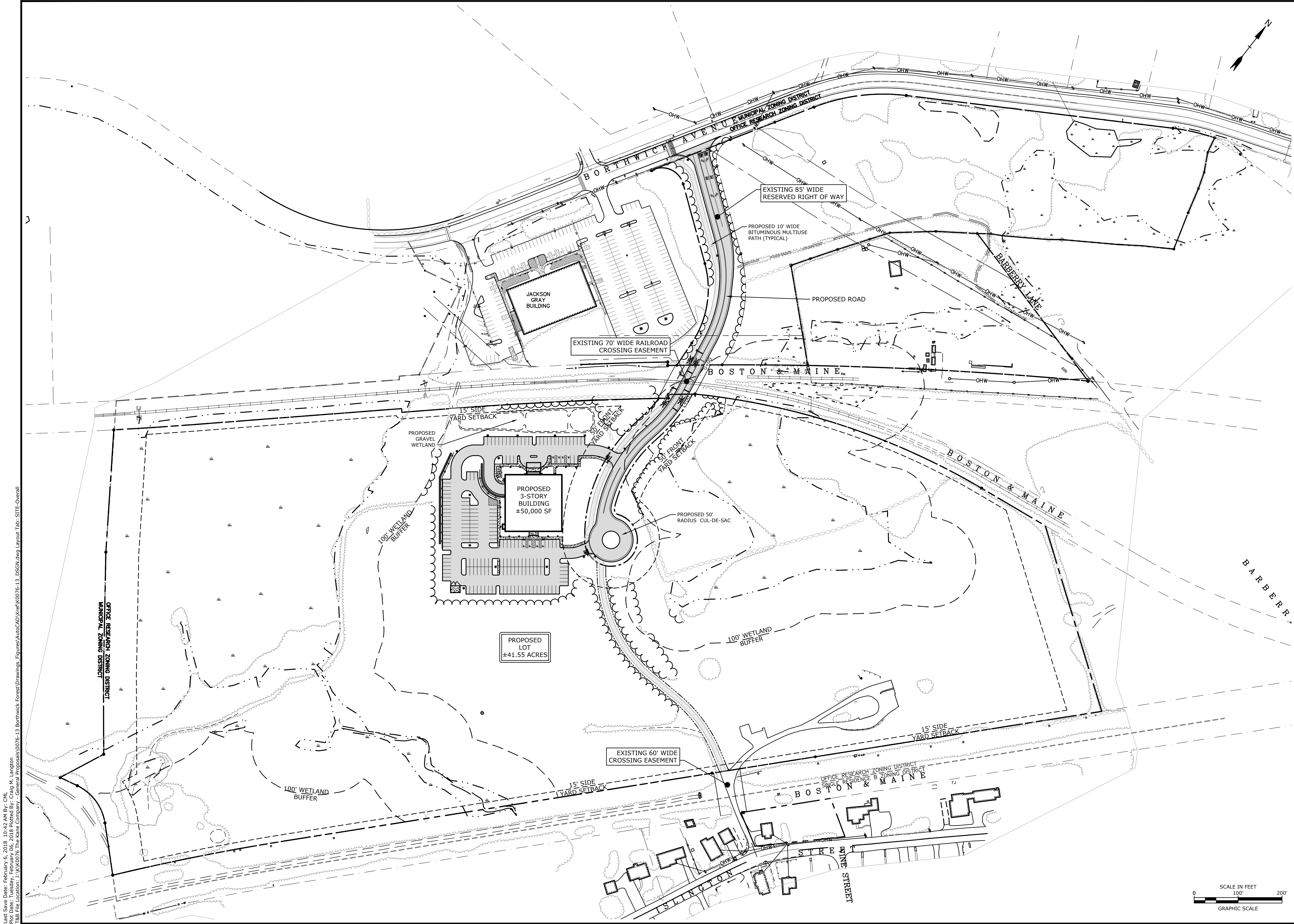
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EXISTING CONDITIONS/  
DEMOLITION PLAN

SCALE: AS SHOWN

C-101.2





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File Location: J:\K0076 The Kane Company - General Proposals\0076-13 Borthwick Forest\Drawings - Figures\AutoCAD\Xref\K0076-13\_DSGN.dwg Layout Tab: SITE-Overall

**Tighe&Bond**  
Engineers | Environmental Specialists

**Proposed  
Subdivision Road  
& Office Building  
Development**

Borthwick Forest, LLC

Portsmouth,  
New Hampshire

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FILE:	K0076-13_DSGN.DWG
DRAWN BY:	CML
CHECKED:	PMC
APPROVED:	BLM

OVERALL SITE PLAN

SCALE: AS SHOWN

C-102





Proposed  
Subdivision Road  
& Office Building  
Development

Borthwick Forest, LLC

Portsmouth,  
New Hampshire

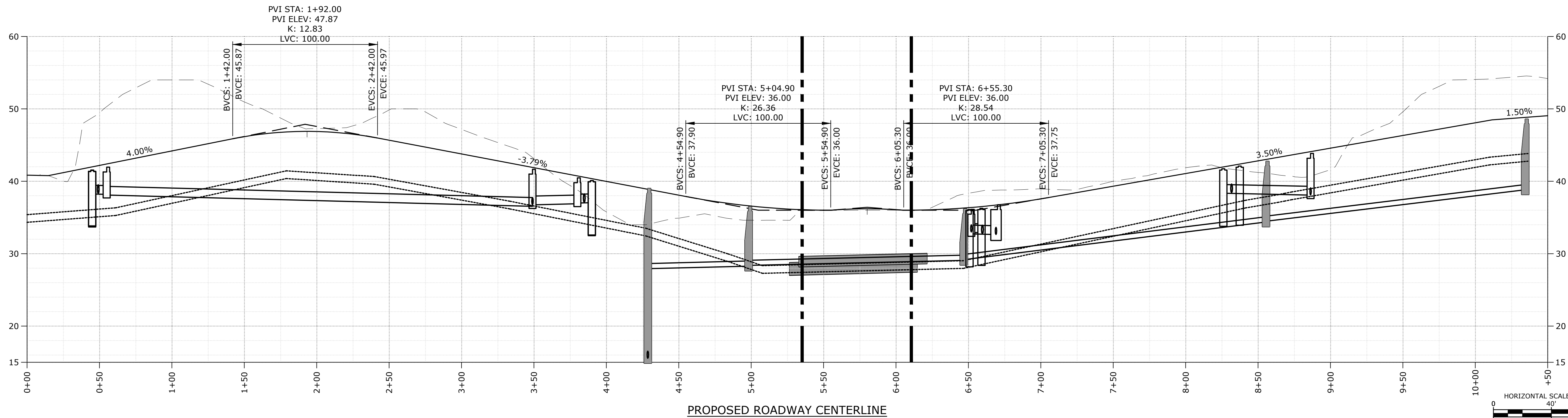
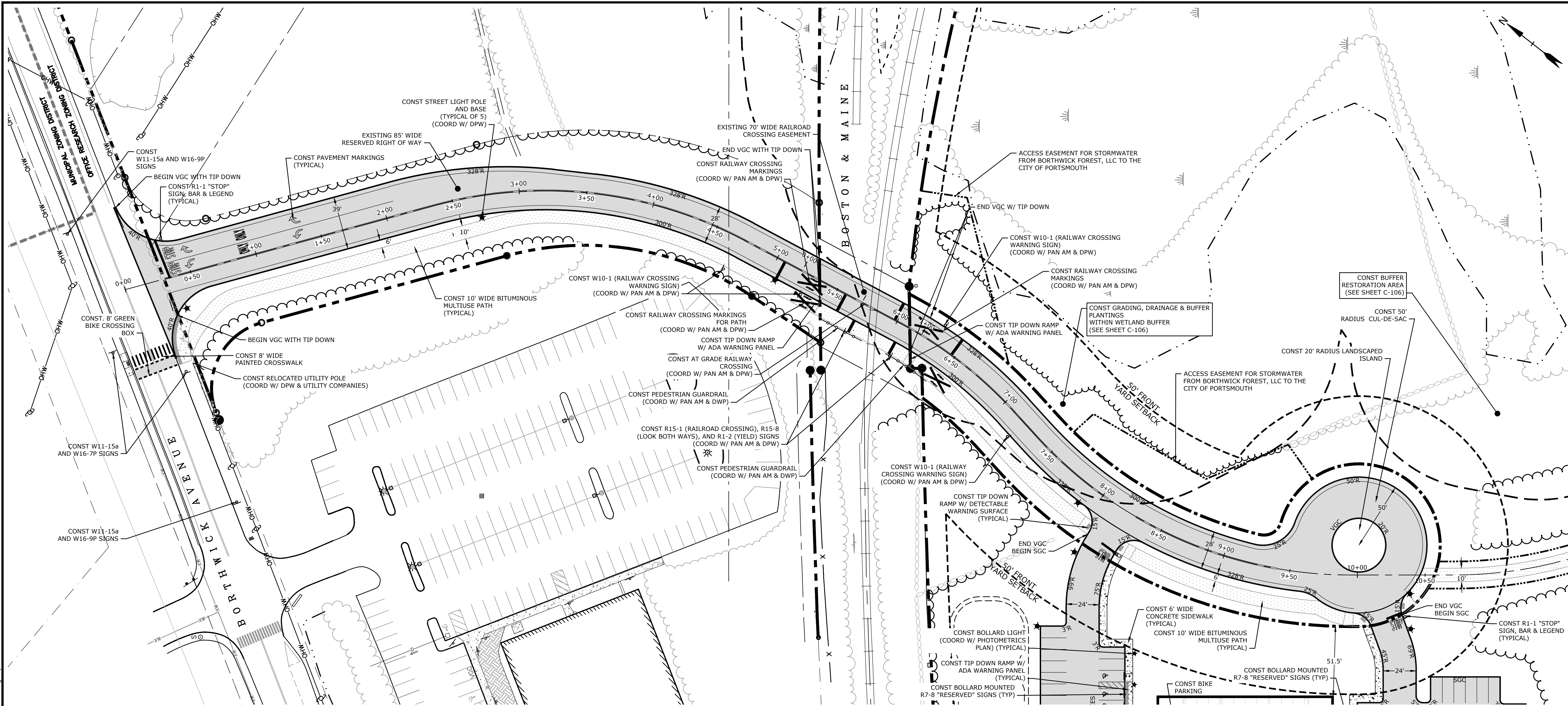
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F	6/2/2017	AsT Submission
E	5/11/2017	Planning Board Submission
D	4/24/2017	TAC & ConCom Submission
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MARK	DATE	DESCRIPTION

PROJECT NO: K0076-13  
DATE: 3/20/2017  
FILE: K0076-13\_DSGN.DWG  
DRAWN BY: CML  
CHECKED: PMC  
APPROVED: BLM

SITE PLAN

SCALE: AS SHOWN

C-102.1

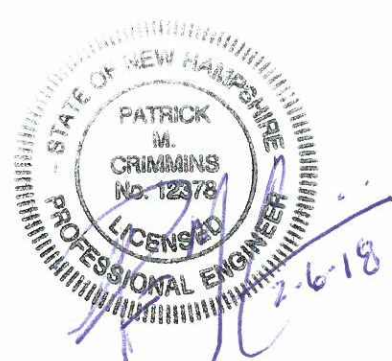
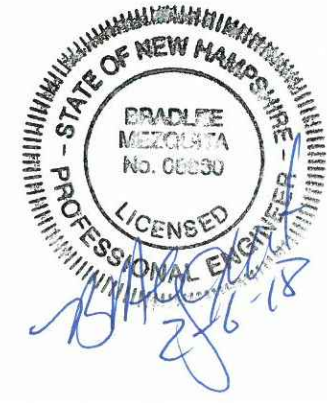




C-102.2







Proposed  
Subdivision Road  
& Office Building  
Development

Borthwick Forest, LLC

Portsmouth,  
New Hampshire

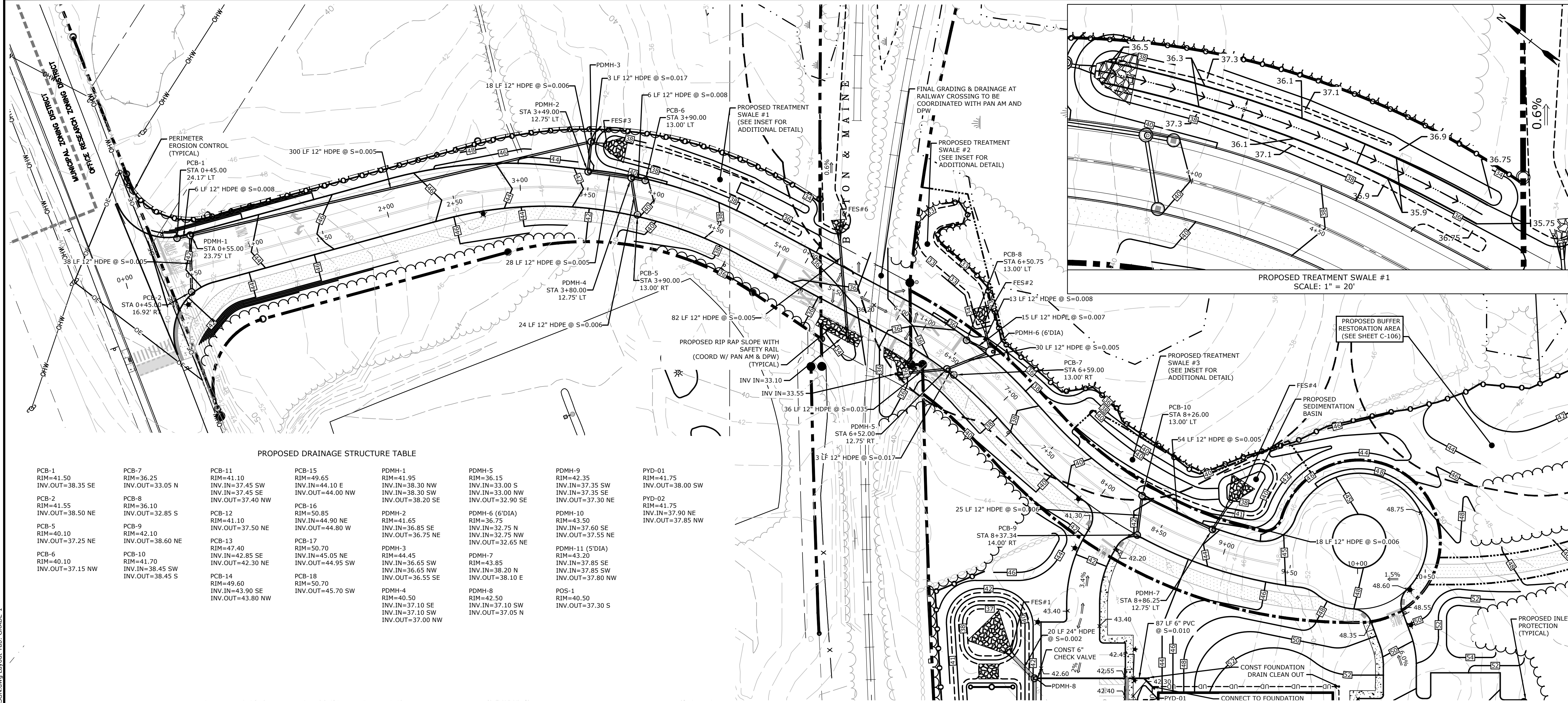
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CHECKED:	PMC
APPROVED:	BLM

GRADING, DRAINAGE &  
EROSION CONTROL PLAN

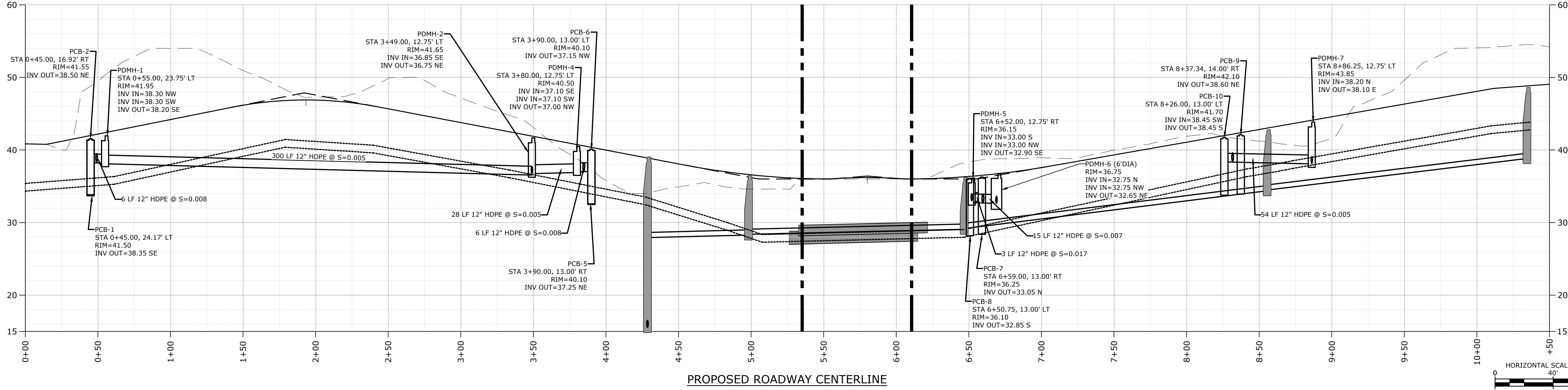
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C-103.1

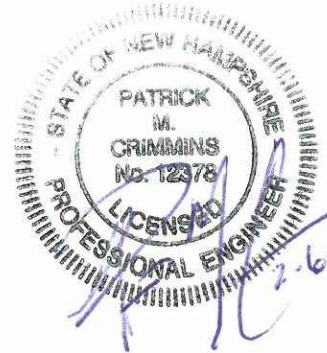


PROPOSED DRAINAGE STRUCTURE TABLE

PCB-1 RIM=41.50 INV.OUT=38.35 SE	PCB-7 RIM=36.25 INV.OUT=33.05 N	PCB-11 RIM=41.10 INV.IN=37.45 SW INV.IN=37.45 SE INV.OUT=37.40 NW	PCB-15 RIM=49.65 INV.IN=44.10 E INV.IN=44.00 NW	PDMH-1 RIM=41.95 INV.IN=38.30 NW INV.IN=38.30 SW INV.OUT=38.20 SE	PDMH-5 RIM=36.15 INV.IN=33.00 S INV.IN=33.00 SE	PDMH-9 RIM=42.35 INV.IN=37.35 SW INV.IN=37.35 SE INV.OUT=37.30 NE	PYD-01 RIM=41.75 INV.OUT=38.00 SW
PCB-2 RIM=41.55 INV.OUT=38.50 NE	PCB-8 RIM=36.10 INV.OUT=32.85 S	PCB-12 RIM=41.10 INV.OUT=37.50 NE	PCB-16 RIM=50.85 INV.IN=44.90 NE INV.IN=44.80 W	PDMH-2 RIM=41.65 INV.IN=36.85 SE INV.IN=36.75 NE	PDMH-6 (6'DIA) RIM=36.75 INV.IN=32.75 N INV.IN=32.75 NW INV.OUT=32.65 NE	PDMH-10 RIM=43.50 INV.IN=37.60 SE INV.IN=37.55 NE	PYD-02 RIM=41.75 INV.IN=37.90 NE INV.OUT=37.85 NW
PCB-5 RIM=40.10 INV.OUT=37.25 NE	PCB-9 RIM=42.10 INV.OUT=38.60 NE	PCB-13 RIM=47.40 INV.IN=42.85 SE INV.OUT=42.30 NE	PCB-17 RIM=50.70 INV.IN=45.05 NE INV.OUT=44.95 SW	PDMH-3 RIM=44.45 INV.IN=36.65 SW INV.IN=36.65 NW INV.OUT=36.55 SE	PDMH-7 RIM=43.85 INV.IN=38.20 N INV.IN=37.85 SW INV.OUT=37.80 NW	PDMH-11 (5'DIA) RIM=43.20 INV.IN=37.85 SE INV.IN=37.85 SW INV.OUT=37.80 NW	
PCB-6 RIM=40.10 INV.OUT=37.15 NW	PCB-10 RIM=41.70 INV.IN=38.45 SW INV.OUT=38.45 S	PCB-14 RIM=49.60 INV.IN=43.90 SE INV.OUT=43.80 NW	PCB-18 RIM=50.70 INV.OUT=45.70 SW	PDMH-4 RIM=40.50 INV.IN=37.10 SE INV.IN=37.10 SW INV.OUT=37.00 NW	PDMH-8 RIM=42.50 INV.IN=37.10 SW INV.OUT=37.05 N	POS-1 RIM=40.50 INV.OUT=37.30 S	







Proposed  
Subdivision Road  
& Office Building  
Development

Borthwick Forest, LLC

Portsmouth,  
New Hampshire

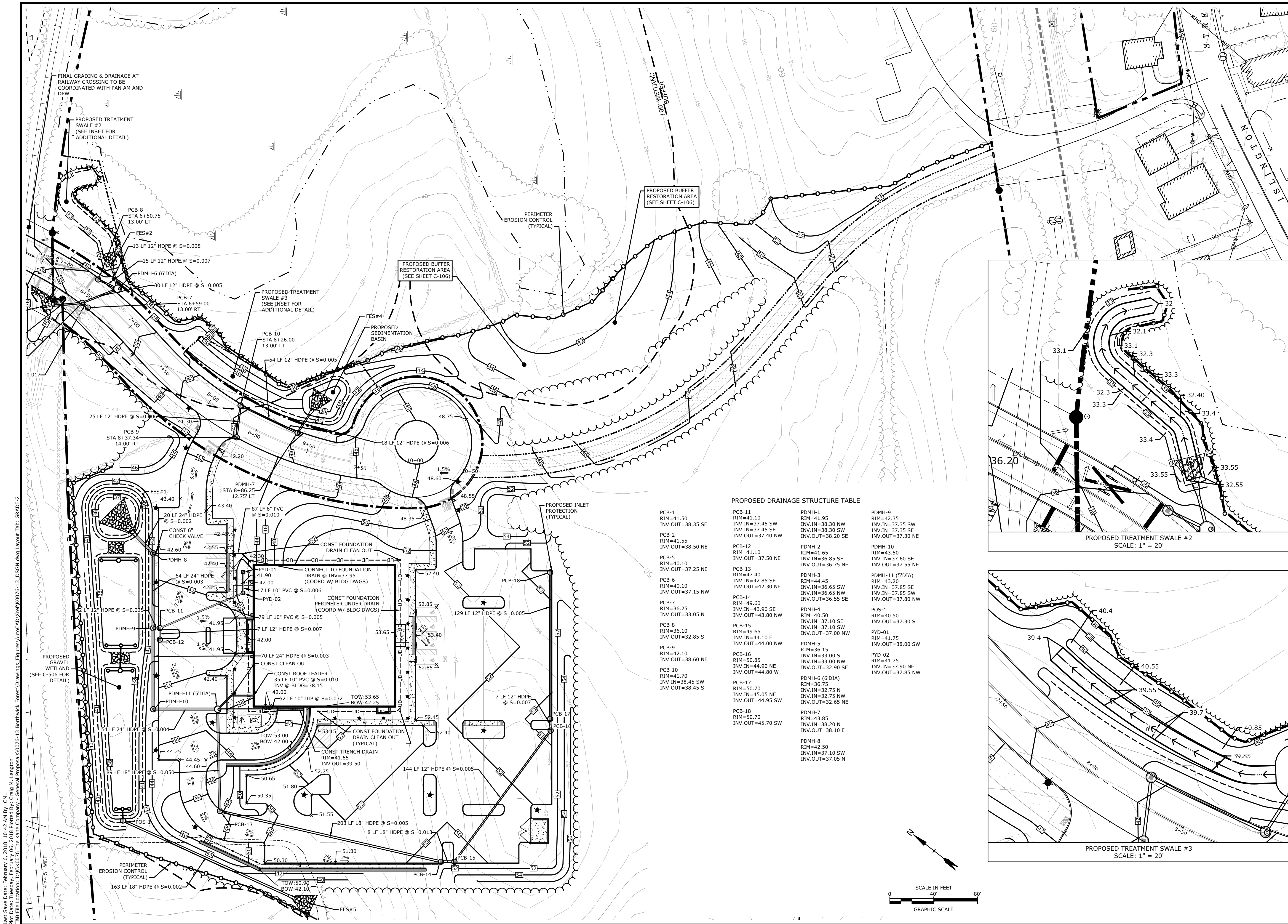
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MARK	DATE	DESCRIPTION

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FILE:	K0076-13_DSGN.DWG
DRAWN BY:	CML
CHECKED:	PMC
APPROVED:	BLM

GRADING, DRAINAGE &  
EROSION CONTROL PLAN

SCALE: AS SHOWN

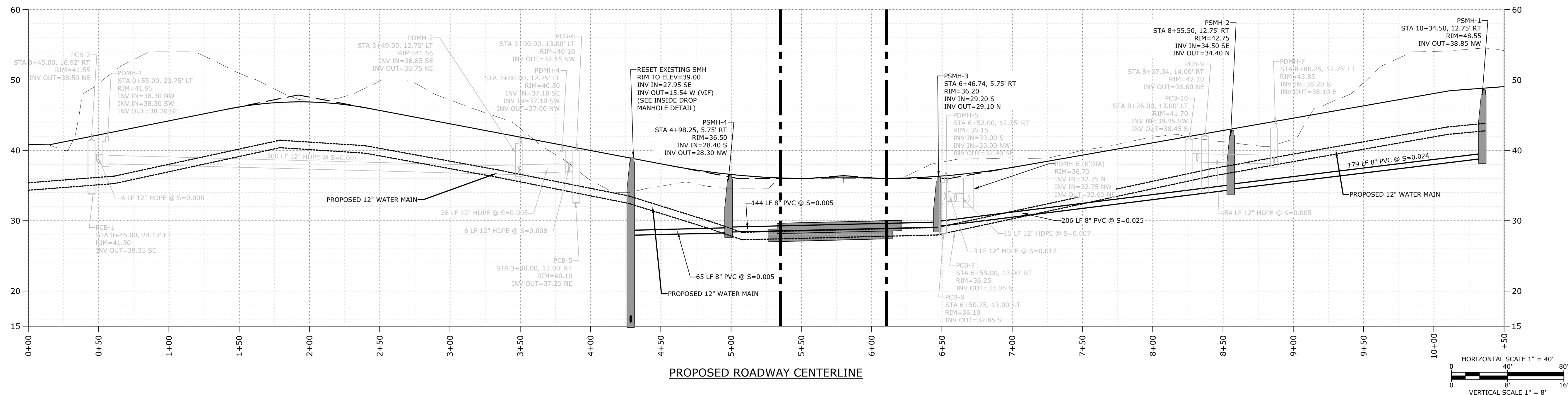
C-103.2



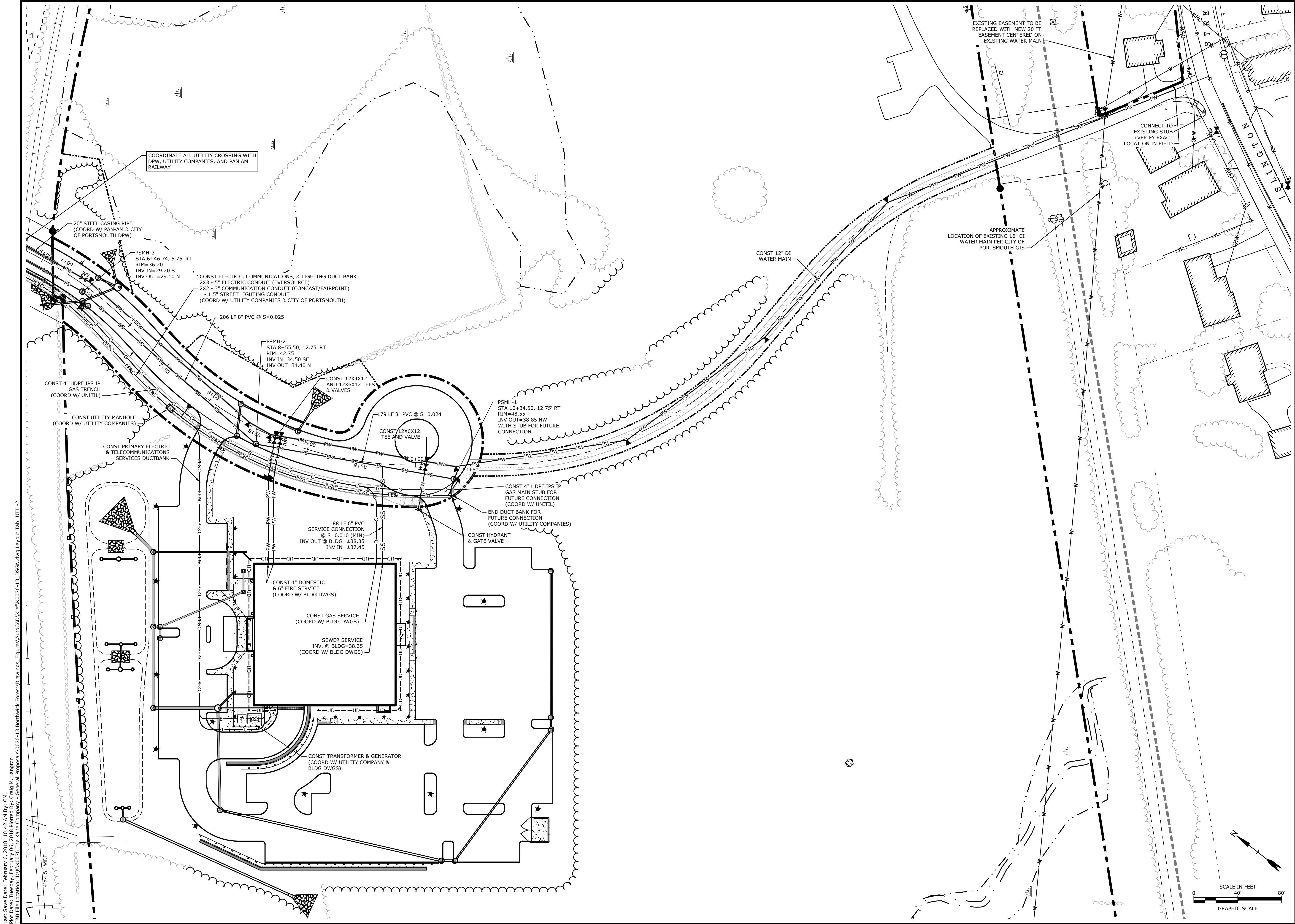


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DATE:	3/20/2017	
FILE:	K0076-13_DSGL.DWG	
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C-104.1







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File Location: J:\K0076 The Kane Company - General Proposals\0076-13 Borthwick Forest\Drawings - Figures\AutoCAD\Xref\K0076-13\_DSGN.dwg Layout Tab: UTIL-2

**Tighe&Bond**  
Engineers | Environmental Specialists

STATE OF NEW HAMPSHIRE  
PROFESSIONAL ENGINEER  
BRADLEY MEDINA  
No. 06830  
10/26/17

STATE OF NEW HAMPSHIRE  
PROFESSIONAL ENGINEER  
PATRICK W. CRAMMINS  
No. 12376  
2-6-18

**Proposed  
Subdivision Road  
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Development**

Borthwick Forest, LLC

Portsmouth,  
New Hampshire

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PROJECT NO: K0076-13

DATE: 3/20/2017

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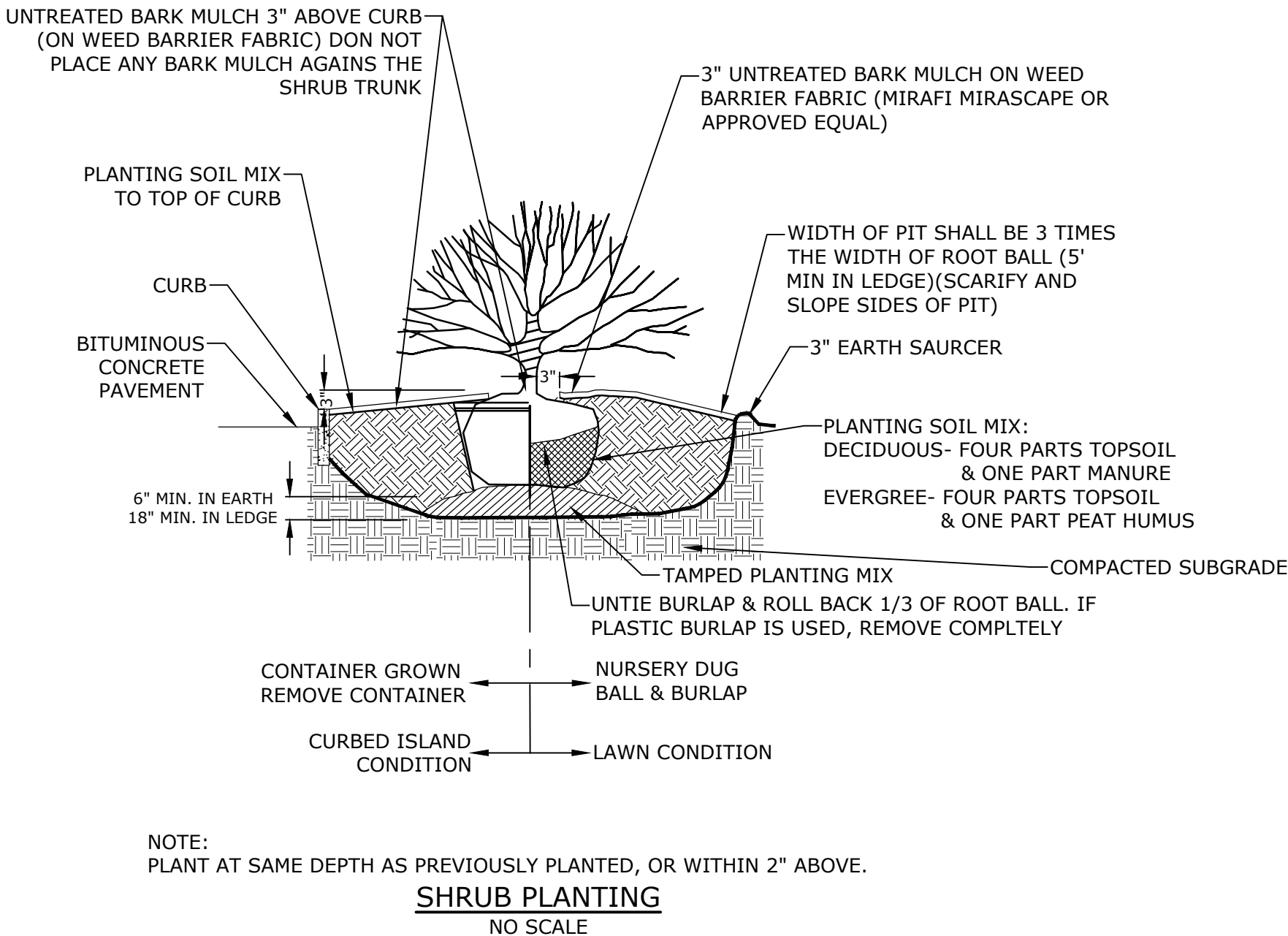
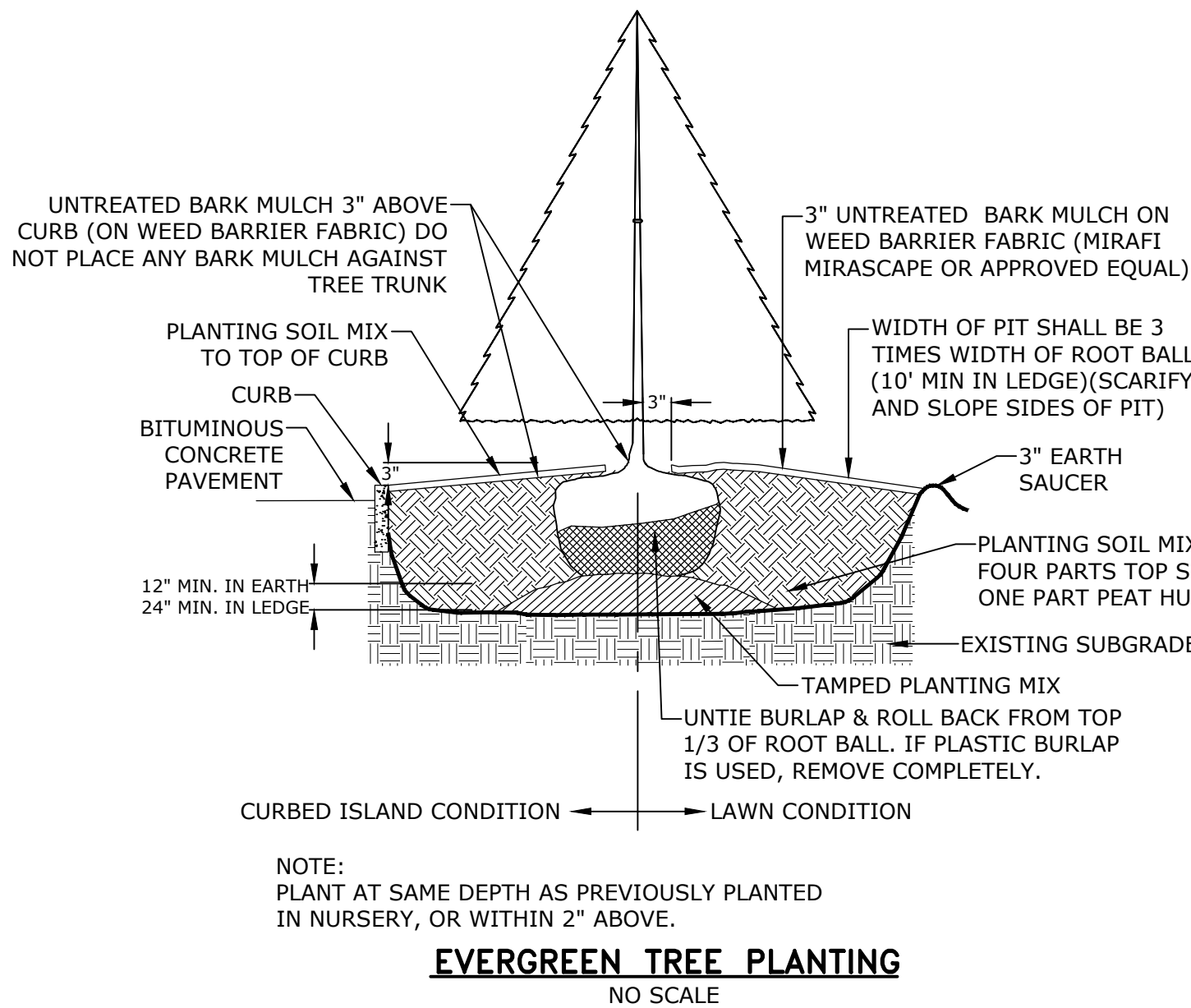
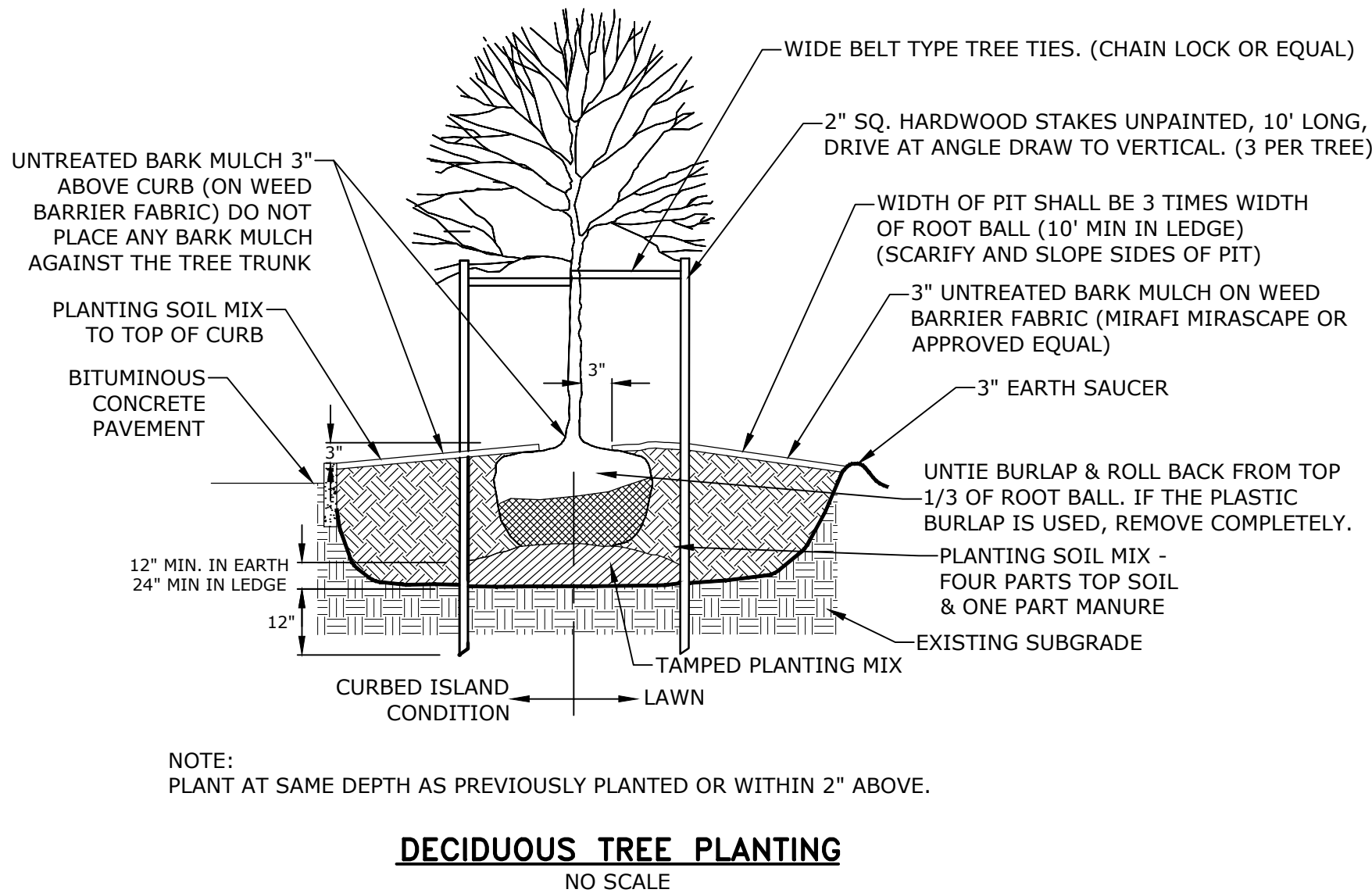
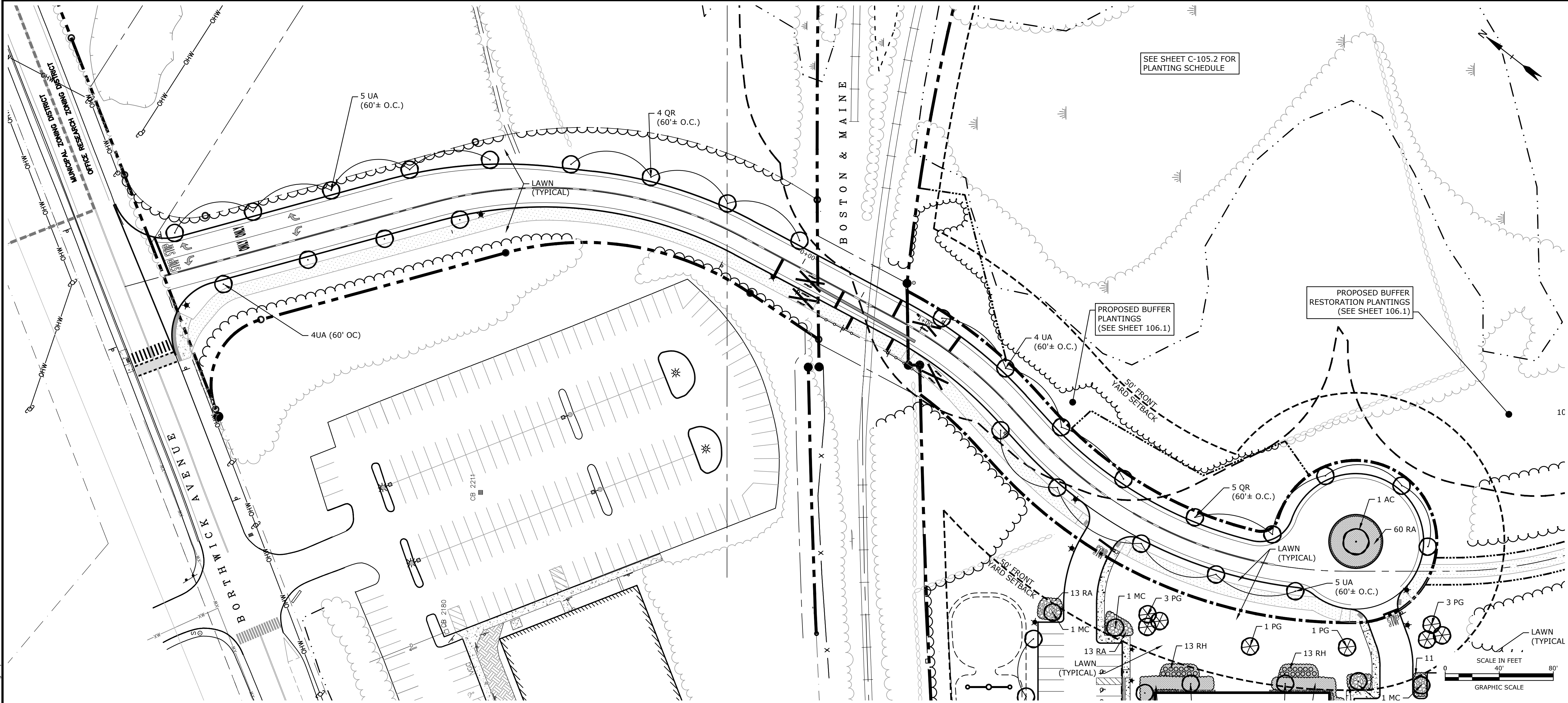
UTILITY PLAN

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C-104.2



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**Proposed  
Subdivision Road  
& Office Building  
Development**

Borthwick Forest, LLC

Portsmouth,  
New Hampshire

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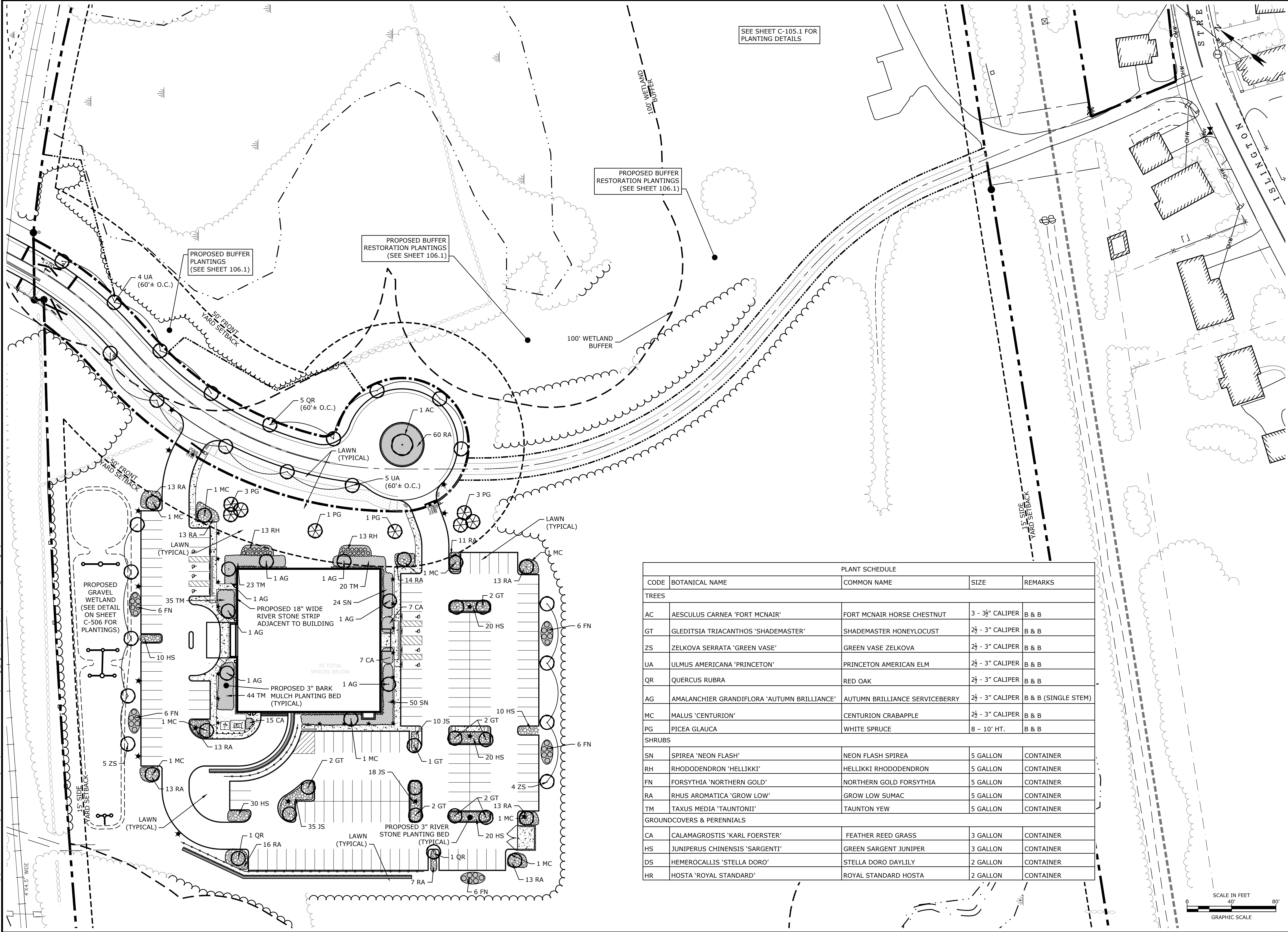
LANDSCAPE PLAN

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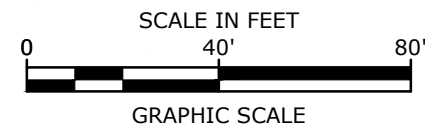
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PLANT SCHEDULE				
CODE	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS
TREES				
AC	AESCULUS CARNEA 'FORT MCNAIR'	FORT MCNAIR HORSE CHESTNUT	3 - 3½" CALIPER	B & B
GT	GLEDITSIA TRIACANTHOS 'SHADEMASTER'	SHADEMASTER HONEYLOCUST	2½ - 3" CALIPER	B & B
ZS	ZELKOVA SERRATA 'GREEN VASE'	GREEN VASE ZELKOVA	2½ - 3" CALIPER	B & B
UA	ULMUS AMERICANA 'PRINCETON'	PRINCETON AMERICAN ELM	2½ - 3" CALIPER	B & B
QR	QUERCUS RUBRA	RED OAK	2½ - 3" CALIPER	B & B
AG	AMALANCHIER GRANDIFLORA 'AUTUMN BRILLIANCE'	AUTUMN BRILLIANCE SERVICEBERRY	2½ - 3" CALIPER	B & B (SINGLE STEM)
MC	MALUS 'CENTURION'	CENTURION CRABAPPLE	2½ - 3" CALIPER	B & B
PG	PICEA GLAUCA	WHITE SPRUCE	8 - 10' HT.	B & B
SHRUBS				
SN	SPIREA 'NEON FLASH'	NEON FLASH SPIREA	5 GALLON	CONTAINER
RH	RHODODENDRON 'HELLIKKI'	HELLIKKI RHODODENDRON	5 GALLON	CONTAINER
FN	FORSYTHIA 'NORTHERN GOLD'	NORTHERN GOLD FORSYTHIA	5 GALLON	CONTAINER
RA	RHUS AROMATICA 'GROW LOW'	GROW LOW SUMAC	5 GALLON	CONTAINER
TM	TAXUS MEDIA 'TAUNTONII'	TAUNTON YEW	5 GALLON	CONTAINER
GROUNDCOVERS & PERENNIALS				
CA	CALAMAGROSTIS 'KARL FOERSTER'	FEATHER REED GRASS	3 GALLON	CONTAINER
HS	JUNIPERUS CHINENSIS 'SARGENTI'	GREEN SARGENT JUNIPER	3 GALLON	CONTAINER
DS	HEMEROCALLIS 'STELLA DORO'	STELLA DORO DAYLILY	2 GALLON	CONTAINER
HR	HOSTA 'ROYAL STANDARD'	ROYAL STANDARD HOSTA	2 GALLON	CONTAINER



**Proposed  
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Development**

Borthwick Forest, LLC

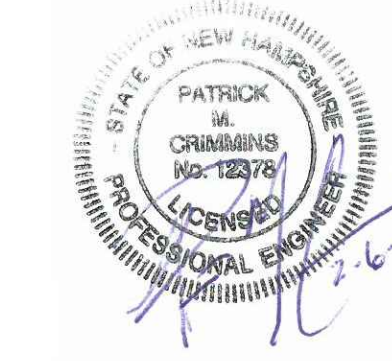
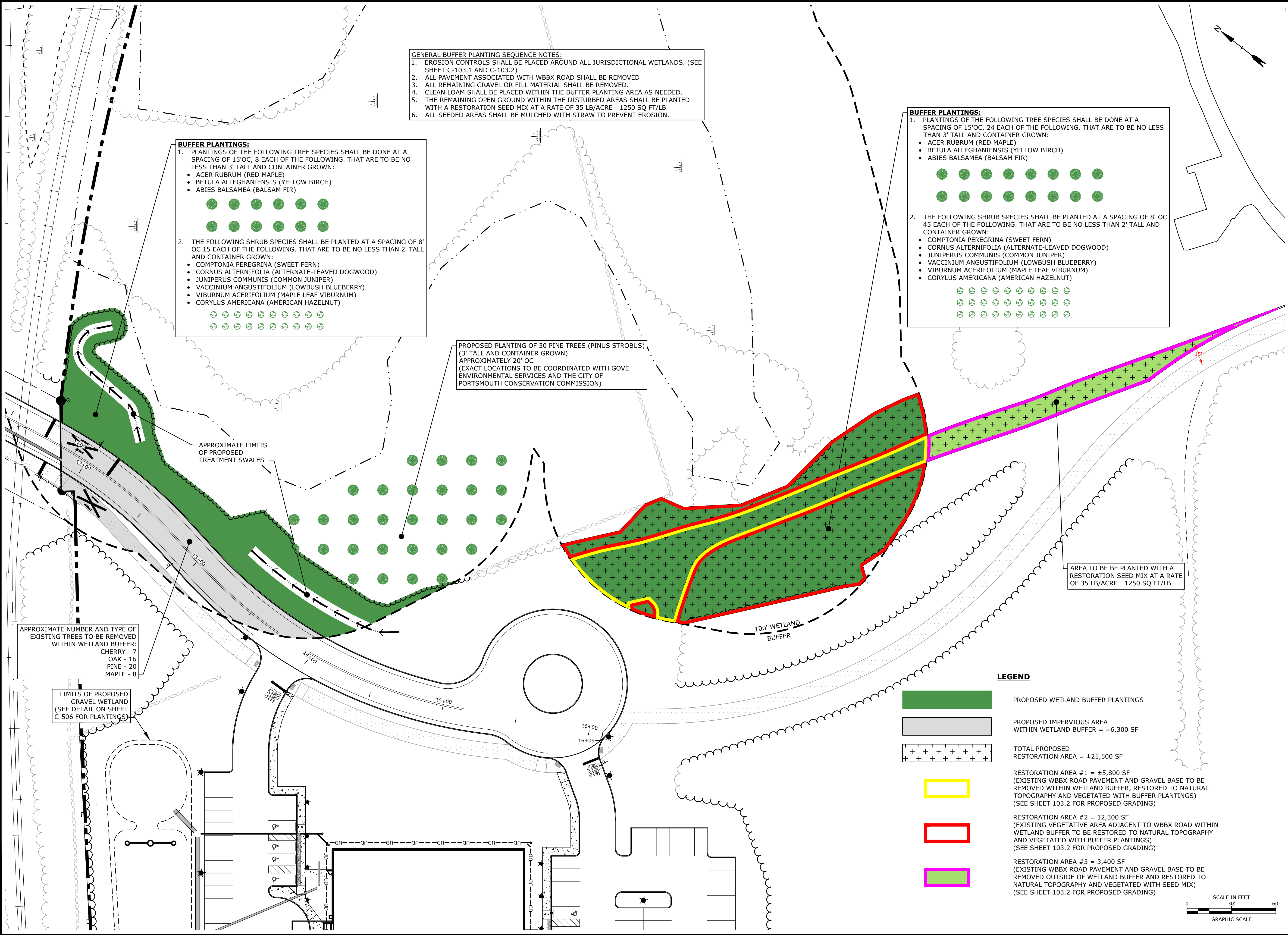
Portsmouth,  
New Hampshire

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APPROVED:	BLM



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## Proposed Subdivision Road & Office Building Development

Borthwick Forest, LLC

Portsmouth,  
New Hampshire

G	2/6/2018	Planning Board Submission
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E	8/21/2017	Revised TAC Submission
D	6/2/2017	AsT Submission
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B	5/11/2017	Planning Board Submission
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MARK	DATE	DESCRIPTION

PROJECT NO:	K0076-13
DATE:	4/24/2017
FILE:	K0076-13_DSGN.DWG
DRAWN BY:	CML
CHECKED:	PMC
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## BUFFER RESTORATION & PLANTING SEQUENCING PLAN

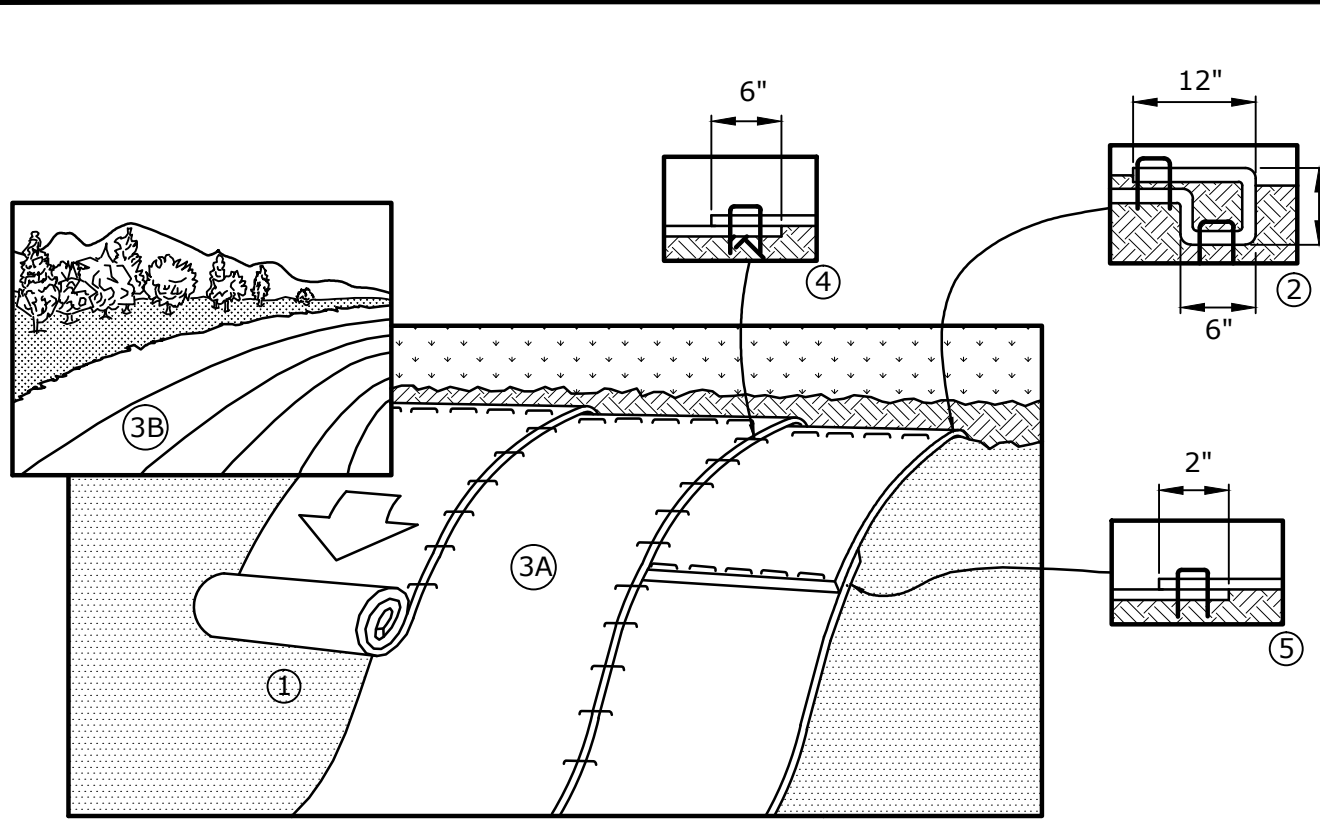
SCALE: AS SHOWN







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Plot Date: Tuesday, February 06, 2018 Plotted By: Craig M. Langston  
File Location: J:\K0076\Borthwick Forest\Drawings - General\Proposals\K0076-13 Borthwick Forest.dwg Layout Tab: C-502

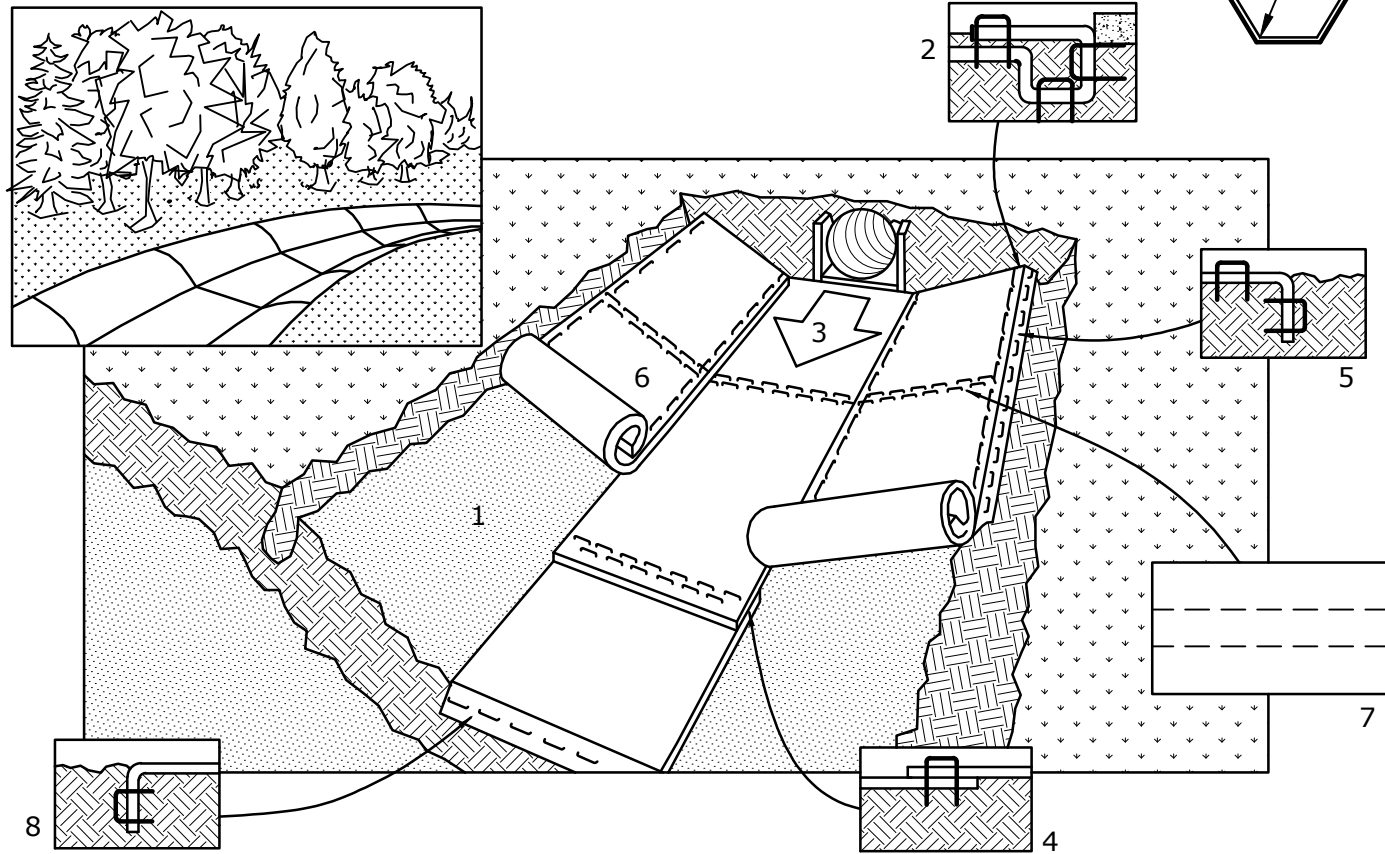


1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER AND SEED.
2. BEGIN AT THE TOP OF THE SLOPE, 36" OVER THE GRADE BREAK, BY ANCHORING THE BLANKET IN A 6" DEEP X 6" WIDE TRENCH WITH APPROXIMATELY 12" OF BLANKET EXTENDED BEYOND THE UPSLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF TAPES/STAPLES 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES SPACED 12" APART ACROSS THE WIDTH OF THE BLANKET.
3. ROLL THE BLANKETS DOWN THE SLOPE. ALL BLANKETS MUST BE SECURELY FASTENED TO THE SOIL SURFACE BY PLACING STAPLES IN APPROPRIATE LOCATIONS AS SHOWN ON THE STAPLE PATTERN GUIDE.
4. STAPLE LENGTHS SHALL BE A MINIMUM OF 8 INCHES.
5. EROSION CONTROL BLANKETS SHALL BE BORTH AMERICAN GREEN C125 BN OR EQUAL.

### EROSION CONTROL BLANKET INSTALLATION FOR STEEP SLOPES

NO SCALE

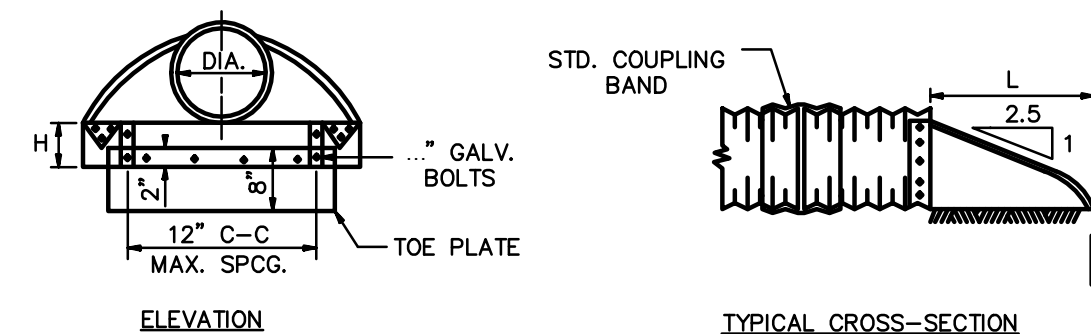
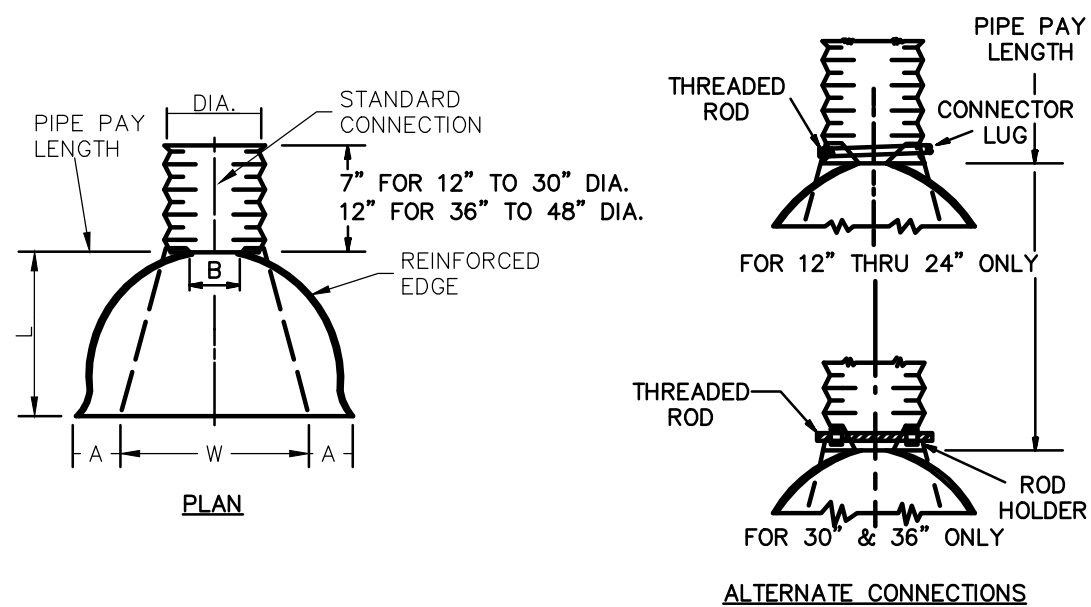
NOTE:  
HORIZONTAL STAPLE SPACING SHOUL BE ALTERED IF NECESSARY TO ALLOW STAPLES TO SECURE THE CRITICAL POINTS ALONG THE CHANNEL SURFACE REFER TO GENERAL STAPLE PATTERN GUIDE FOR CORRECT STAPLE RECOMMENDATIONS FOR CHANNELS.



- NOTES:
1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING APPLICATION OF LIME, FERTILIZER, AND SEED.
  2. BEGIN AT THE TOP OF THE CHANNEL BY ANCHORING THE BLANKET IN A 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
  3. ROLL CENTER BLANKET IN DIRECTION OF WATER FLOW ON BOTTOM OF CHANNEL.
  4. PLACE BLANKETS END OVER END (SHINGLE STYLE) WITH A 6" OVERLAP. USE A DOUBLE ROW OF STAGGERED STAPLES 4" APART TO SECURE BLANKETS.
  5. FULL LENGTH EDGE OF BLANKETS AT TOP OF SIDE SLOPES MUST BE ANCHORED IN 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
  6. BLANKETS ON SIDE SLOPES MUST BE OVERLAPPED 4" OVER THE CENTER BLANKET AND STAPLED.
  7. IN HIGH FLOW CHANNEL APPLICATIONS, A STAPLE CHECK SLOT IS RECOMMENDED AT 30 TO 40 FOOT INTERVALS. USE A ROW OF STAPLES 4" APART OVER THE ENTIRE WIDTH OF THE CHANNEL. PLACE A SECOND ROW 4" BELOW THE FIRST ROW IN A STAGGERED PATTERN.
  8. TERMINAL END OF THE BLANKETS MUST BE ANCHORED IN A 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
  9. EROSION CONTROL BLANKETS SHALL BE BORTH AMERICAN GREEN C125 BN OR EQUAL.

### EROSION CONTROL BLANKET INSTALLATION

NO SCALE



### METAL FLARED END SECTION

NO SCALE

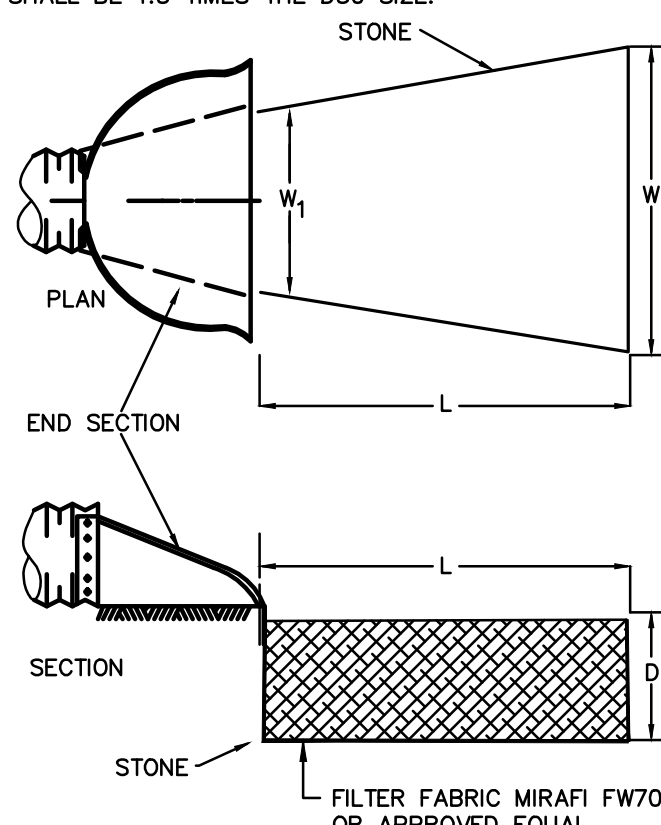
NOTES:

1. END SECTION FOR 12" TO 30" DIA. PIPE IN ONE PIECE, FOR 36" TO 48" DIA. PIPE TO BE MADE FROM TWO SHEETS JOINED BY RIVETING OR BOLTING ON CENTER LINE.
2. CONNECTOR SECTION, CORNER PLATE AND TOE PLATE TO BE SAME THICKNESS AS END SECTION AND EACH TO BE GALVANIZED.

PIPE DIA.	METAL GAGE	DIMENSIONS				
		A (1" TOL.)	B (1" TOL.)	H (1" TOL.)	L (1" TOL.)	W (2" TOL.)
12"	16	6"	6"	6"	21"	24"
15"	16	7"	8"	6"	26"	30"
18"	16	8"	13"	6"	31"	36"
24"	16	10"	16"	6"	41"	48"
30"	14	12"	16"	8"	51"	60"
36"	14	14"	19"	9"	60"	72"
42"	12	16"	22"	11"	69"	84"
48"	12	18"	27"	12"	78"	90"

NOTES:

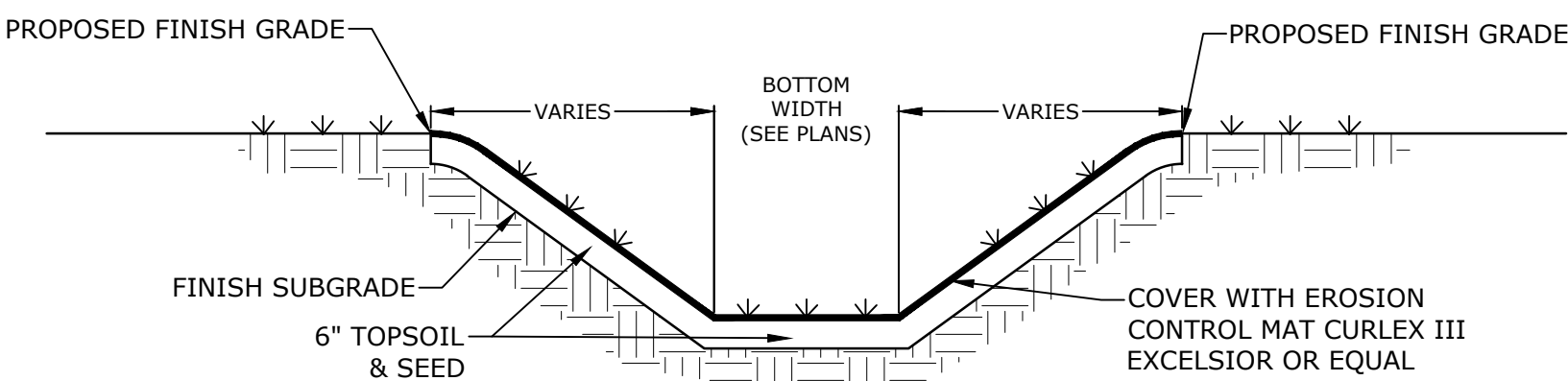
1. STONE SIZE AND MAT DIMENSIONS DETAILED ON TABLE BELOW.
2. STONE SHALL CONSIST OF SUB-ANGULAR FIELD STONE OR ROUGH UNHEWN QUARRY STONE OF APPROXIMATELY RECTANGULAR SHAPE. FLAT OR ROUND ROCKS ARE NOT ACCEPTABLE. THE STONE SHALL BE HARD AND OF SUCH QUALITY THAT IT WILL NOT DISINTEGRATE ON EXPOSURE TO WATER OR WEATHERING, BE CHEMICALLY STABLE AND IT SHALL BE SUITABLE IN ALL OTHER RESPECTS FOR THE PURPOSE INTENDED. THE BULK SPECIFIC GRAVITY (SATURATED SURFACE-DRY BASIS) OF THE INDIVIDUAL STONES SHALL BE AT LEAST 2.5.
3. THE STONE SHALL BE COMPOSED OF A WELL-GRADED MIXTURE DOWN TO THE ONE-INCH SIZE PARTICLE SUCH THAT 50 PERCENT OF THE MIXTURE BY WEIGHT SHALL BE LARGER THAN THE D50 SIZE SPECIFIED. A WELL-GRADED MIXTURE IS DEFINED AS A MIXTURE COMPOSED PRIMARILY OF THE LARGER STONE SIZE BUT WITH A SUFFICIENT MIXTURE OF OTHER SIZES TO FILL THE PROGRESSIVELY SMALLER VOIDS BETWEEN THE STONES. THE DIAMETER OF THE LARGEST STONE SIZE IN SUCH A MIXTURE SHALL BE 1.5 TIMES THE D50 SIZE.



RIP RAP APRONS					
FES #1	W1	W2	L	D50	D
FES #1	6'	32'	26'	7"	15"
FES #2	3'	15'	12'	6"	14"
FES #3	3'	19'	16'	6"	14"
FES #4	5'	19'	14'	6"	14"
FES #5	5'	23'	18'	6"	14"

### RIP-RAP APRON

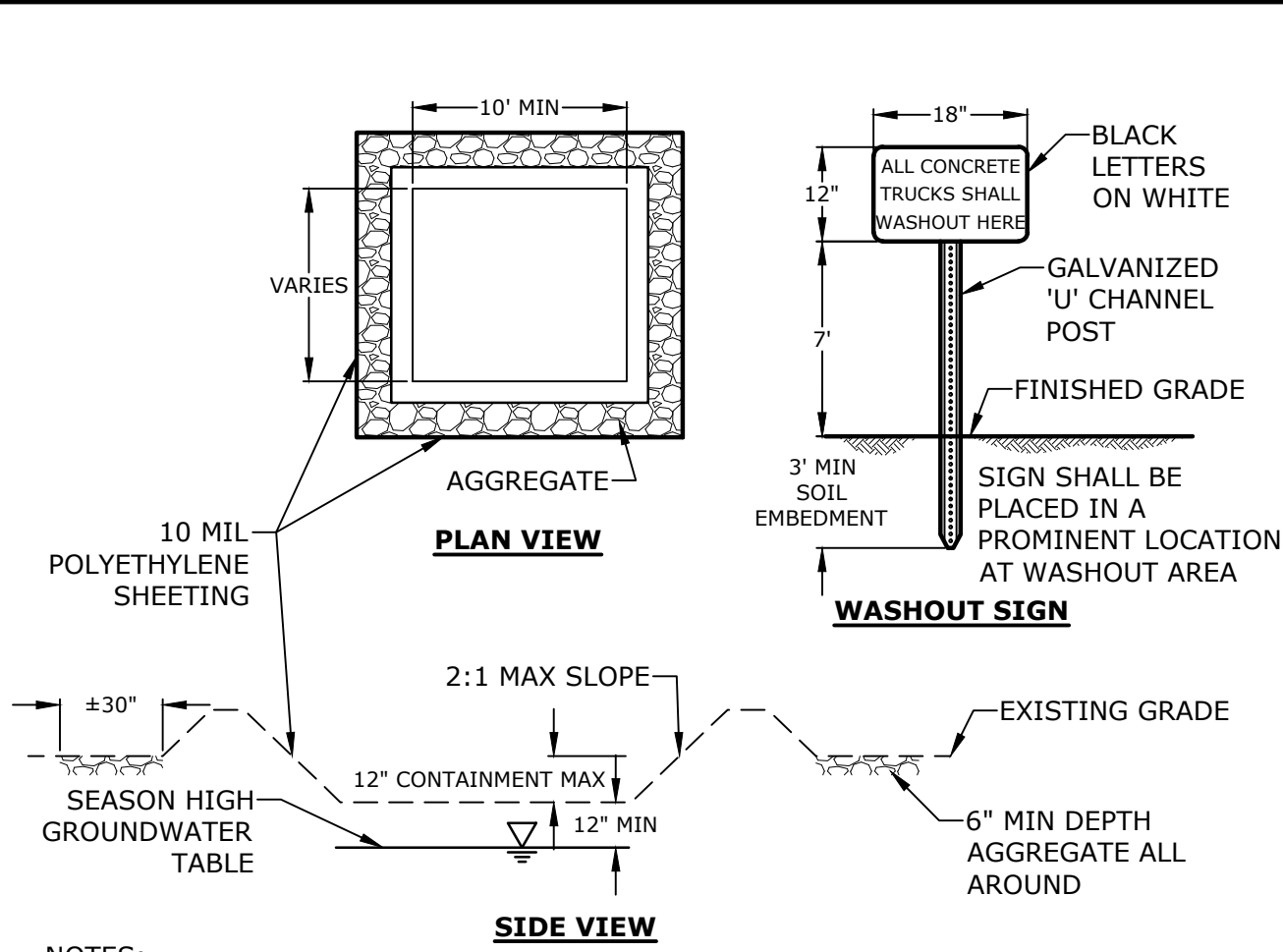
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- NOTES:
1. THE FOUNDATION AREA OF THE WATERWAY SHALL BE CLEARED AND GRUBBED OF ALL TREES, BRUSH, STUMPS, AND OTHER OBJECTIONABLE MATERIAL. MATERIALS REMOVED SHALL BE DISPOSED OF SO THEY WILL NOT INTERFERE WITH THE CONSTRUCTION OR PROPER FUNCTIONING OF THE WATERWAY.
  2. THE WATERWAY SHALL BE EXCAVATED OR SHAPED TO LINE, GRADE AND CROSS-SECTION AS REQUIRED TO MEET THE DESIGN CRITERIA. THE WATERWAY SHALL BE FREE OF IRREGULARITIES WHICH WILL IMPEDE NORMAL FLOW.
  3. EARTH FILLS REQUIRED TO MEET SUBGRADE REQUIREMENTS BECAUSE OF OVER EXCAVATION OR TOPOGRAPHY SHALL BE COMPACTED TO THE SAME DENSITY AS THE SURROUNDING SOIL TO PREVENT UNEQUAL SETTLEMENT THAT COULD CAUSE DAMAGE TO THE COMPLETED WATERWAY. EARTH REMOVED AND NOT NEEDED IN CONSTRUCTION SHALL BE SPREAD OR DISPOSED OF SO IT WILL NOT INTERFERE WITH THE FUNCTIONING OF THE WATERWAY.
  4. CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER AS TO MINIMIZE EROSION AND AIR AND WATER POLLUTION. ALL APPROPRIATE STATE AND LOCAL LAWS AND REGULATIONS SHALL BE COMPLIED WITH FOR INSTALLATION.
  5. VEGETATION SHALL BE ESTABLISHED IN THE SWALE PRIOR TO ALLOWING STORMWATER RUNOFF TO FLOW THROUGH THE SWALE.
  6. MAINTENANCE OF THE VEGETATION IN THE GRASSED WATERWAY IS EXTREMELY IMPORTANT IN ORDER TO PREVENT RILLING, EROSION, AND FAILURE OF THE WATERWAY. MOWING SHOULD BE DONE FREQUENTLY ENOUGH TO CONTROL ENCROACHMENT OF WEEDS AND WOODY VEGETATION AND TO KEEP THE GRASSES IN A VIGOROUS CONDITION. THE VEGETATION SHOULD NOT BE MOWED TOO CLOSELY SO AS TO REDUCE THE EROSION RESISTANCE IN THE WATERWAY.
  7. THE WATERWAY SHOULD BE INSPECTED PERIODICALLY AND AFTER EVERY MAJOR STORM TO DETERMINE THE CONDITION OF THE WATERWAY. RILLS AND DAMAGED AREAS SHOULD BE PROMPTLY REPAIRED AND REVEGETATED AS NECESSARY TO PREVENT FURTHER DETERIORATION.

### GRASSED LINED SWALE

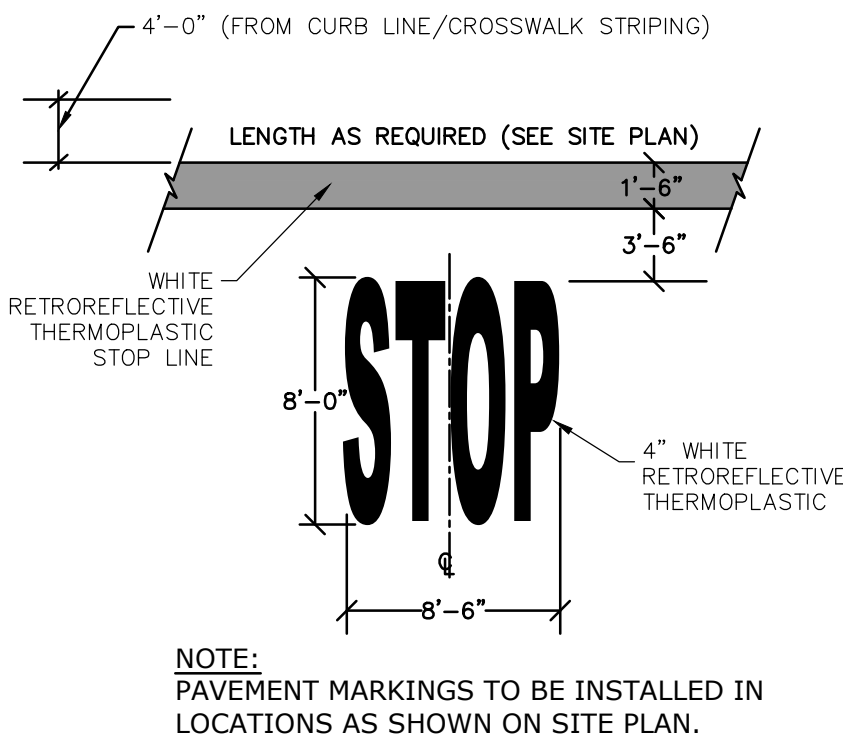
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- NOTES:
1. CONTAINMENT SHALL BE STRUCTURALLY SOUND AND LEAK FREE AND CONTAIN ALL LIQUID WASTES.
  2. CONTAINMENT DEVICES MUST BE OF SUFFICIENT QUANTITY OR VOLUME TO COMPLETELY CONTAIN THE LIQUID WASTES GENERATED.
  3. WASHOUT SHALL BE CLEANED OR NEW FACILITIES CONSTRUCTED AND READY TO USE ONCE WASHOUT IS 75% FULL.
  4. WASHOUT AREA(S) SHALL BE INSTALLED IN A LOCATION EASILY ACCESSIBLE BY CONCRETE TRUCKS
  5. ONE OR MORE AREAS MAY BE INSTALLED ON THE CONSTRUCTION SITE AND MAY BE RELOCATED AS CONSTRUCTION PROGRESSES.
  6. AT LEAST WEEKLY, REMOVE ACCUMULATION OF SAND AND AGGREGATE AND DISPOSE OF PROPERLY.

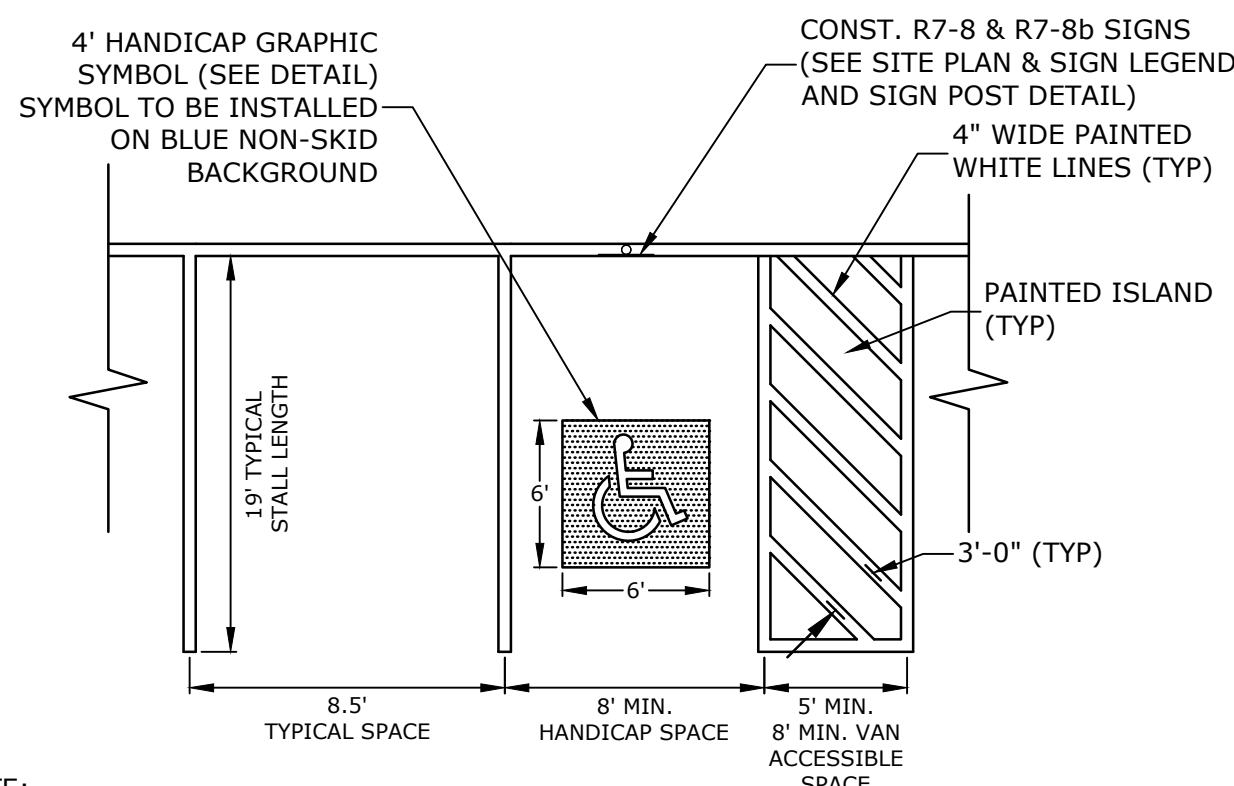
### CONCRETE WASHOUT AREA

NO SCALE



### STOP BAR & LEGEND

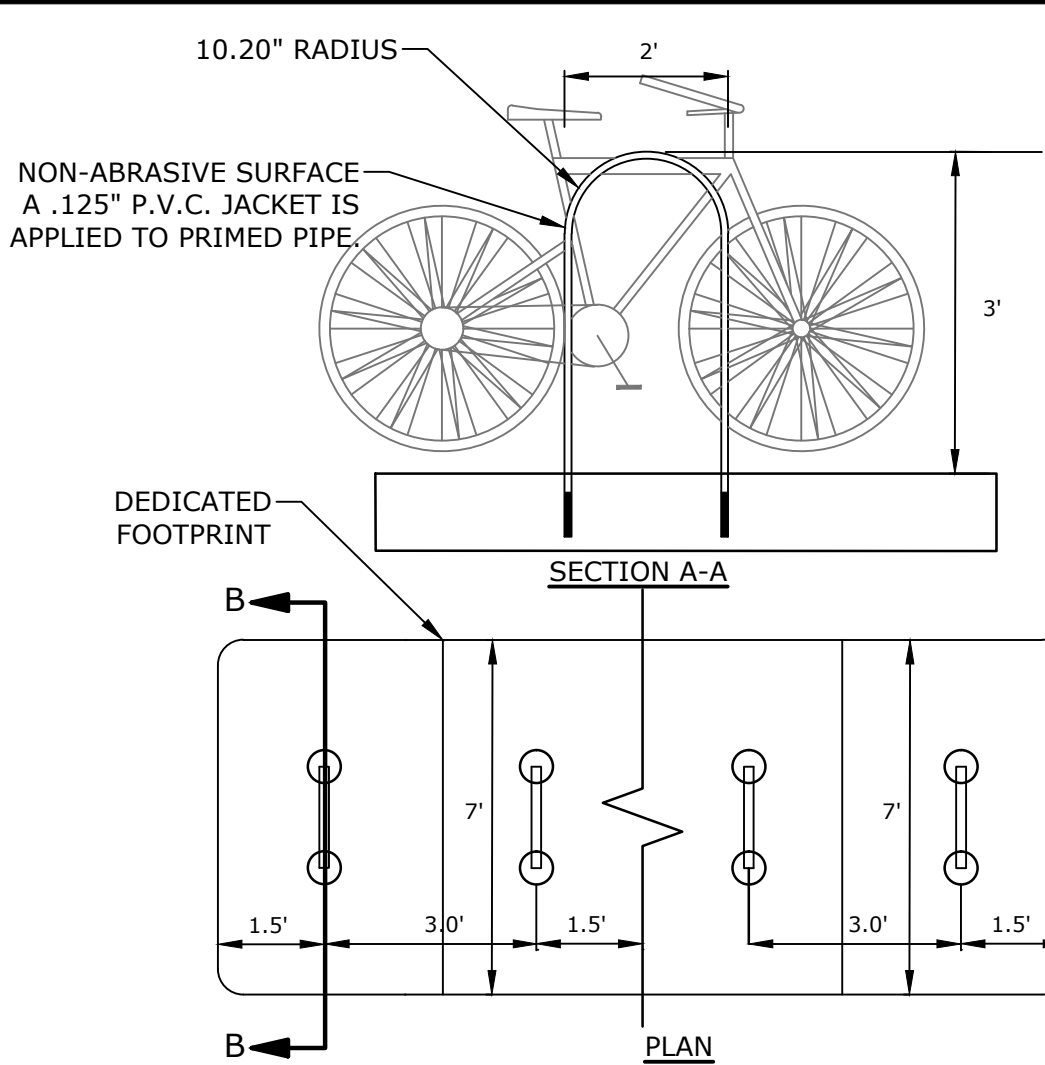
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- NOTE:
1. ALL PAINT SHALL BE FAST DRYING TRAFFIC PAINT, MEETING THE REQUIREMENTS OF AASHTO M248-TYPE F. PAINT SHALL BE APPLIED AS SPECIFIED BY MANUFACTURER.
  2. SYMBOLS & PARKING STALLS SHALL CONFORM TO THE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT AND LOCAL AND STATE REQUIREMENTS.
  3. FINISH PAVEMENT GRADES AT ALL HANDICAP ACCESSIBLE STALLS AND PAINTED ACCESS AISLES SHALL NOT EXCEED 2% IN ANY DIRECTION.

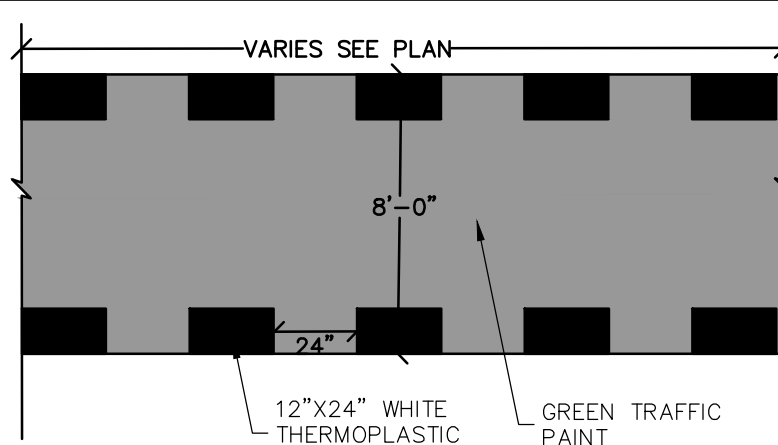
### STALL STRIPING-SINGLE STRIPE

NO SCALE



### BIKE RACK

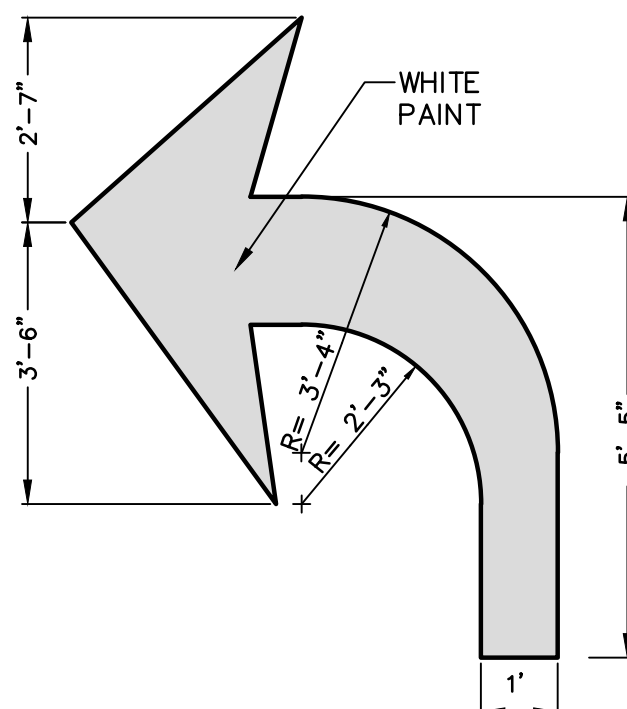
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- NOTE:
1. STRIPING SHALL BE CONSTRUCTED USING WHITE THERMO PLASTIC, REFLECTORIZED PAVMENT MARKING MATERIAL MEETING THE REQUIREMENTS OF ASTM D 4505.
  2. ALL PAINT SHALL BE FAST DRYING TRAFFIC PAINT, MEETING THE REQUIREMENTS OF AASHTO M248-TYPE F. PAINT SHALL BE APPLIED AS SPECIFIED BY THE MANUFACTURER.

### BIKE CROSSING BOX

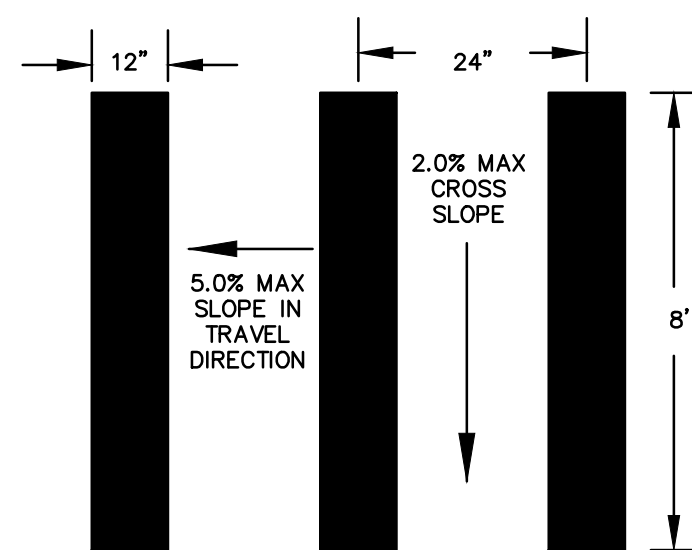
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- NOTES:
1. ALL FLOW ARROWS TO BE SOLID WHITE THERMOPLASTIC STRIPING AS PER DIMENSIONS ABOVE. ALL MARKINGS MUST CONFORM TO THE LATEST EDITION OF THE MUTCD.

### TRAFFIC DIRECTIONAL MARKINGS

NO SCALE

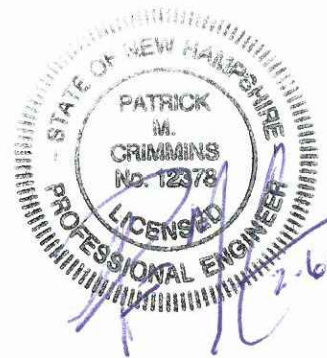
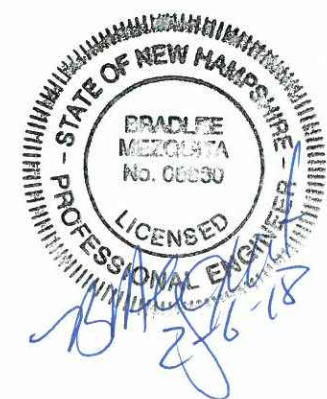


- NOTE:
1. STRIPING SHALL BE CONSTRUCTED USING WHITE THERMO PLASTIC, REFLECTORIZED PAVMENT MARKING MATERIAL MEETING THE REQUIREMENTS OF ASTM D 4505

### CROSSWALK STRIPING

NO SCALE

**Tighe&Bond**  
Engineers | Environmental Specialists



## Proposed Subdivision Road & Office Building Development

Borthwick Forest, LLC

Portsmouth, New Hampshire

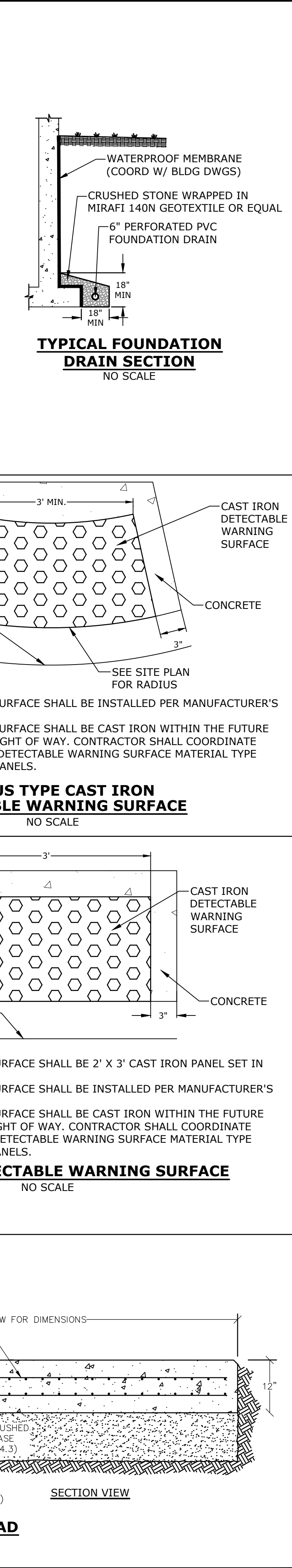
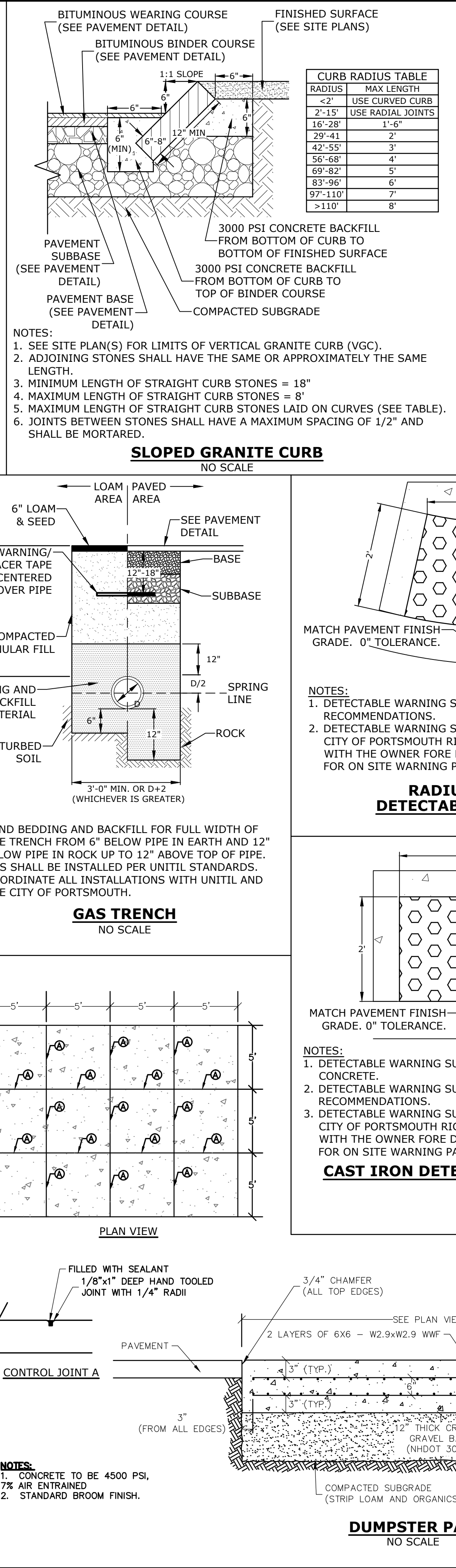
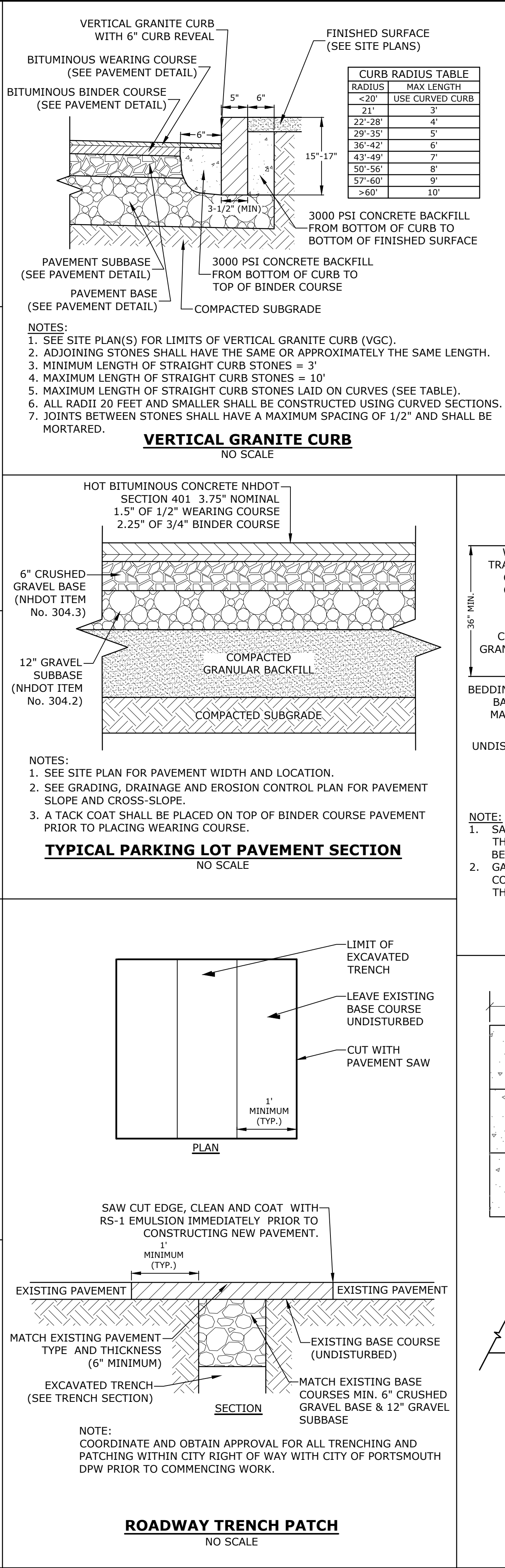
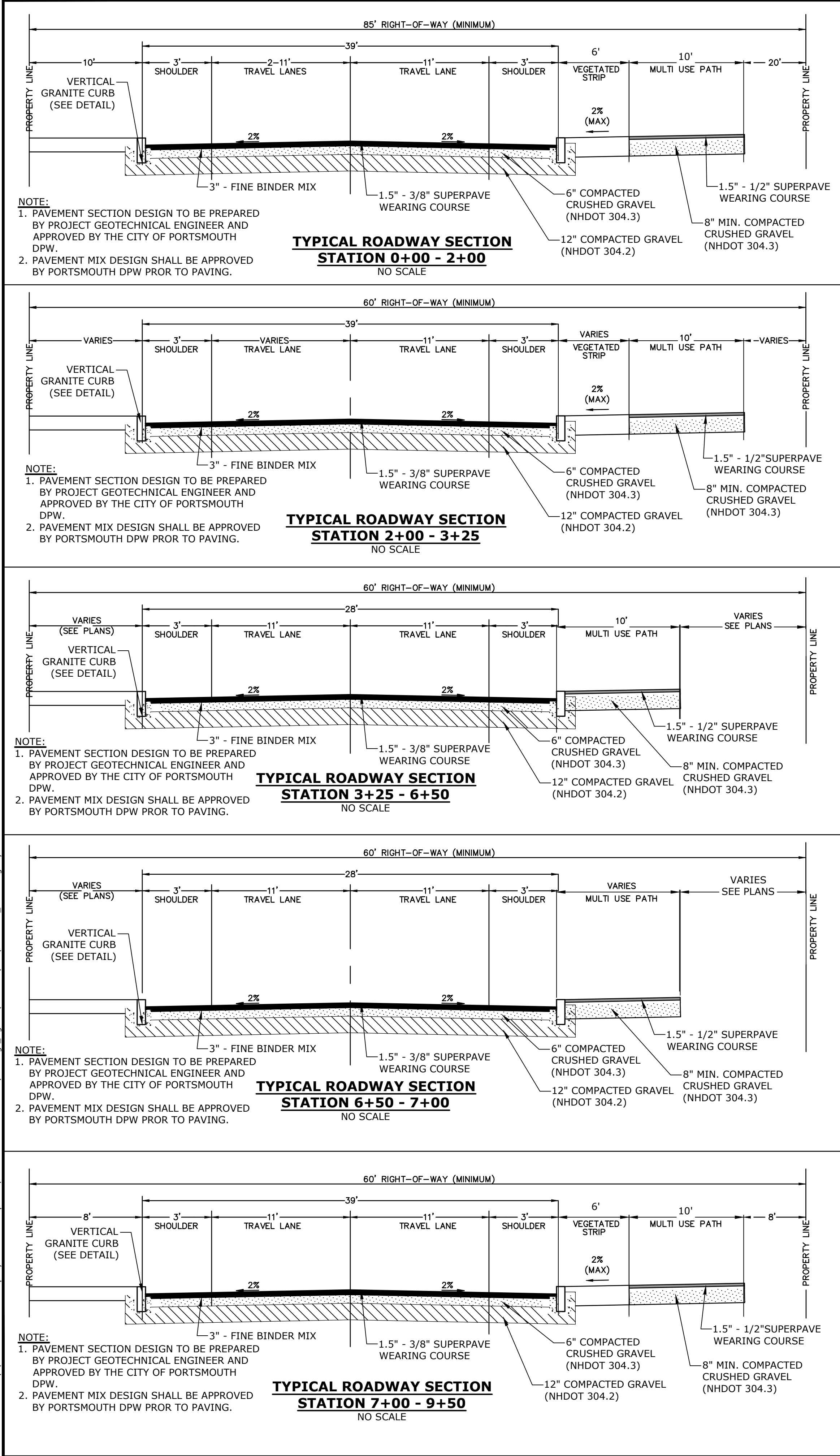
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D	6/2/2017	AsT Submission
C	5/11/2017	Planning Board Submission
B	4/24/2017	TAC & ConCom Submission
A	3/20/2017	TAC Submission
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FILE:		K0076-13_DTLS.DWG
DRAWN BY:		CML
CHECKED:		PMC
APPROVED:		BLM

DETAILS SHEET

SCALE: AS SHOWN

C-502





**Tighe&Bond**  
Engineers | Environmental Specialists

BRADLEE M. CRIMMINS  
No. 12376  
LICENSED PROFESSIONAL ENGINEER  
STATE OF NEW HAMPSHIRE

Proposed  
Subdivision Road  
& Office Building  
Development

Borthwick Forest, LLC

Portsmouth,  
New Hampshire

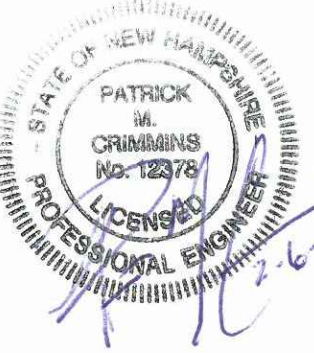
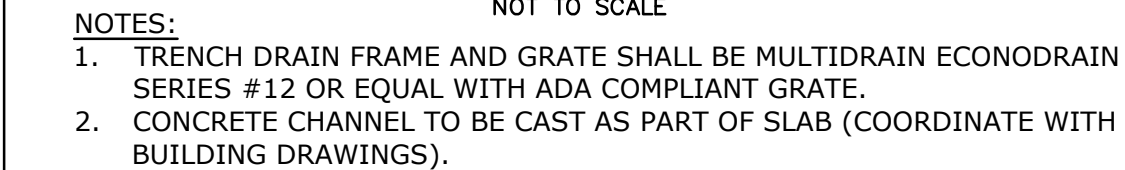
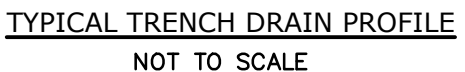
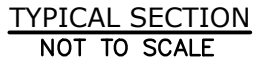
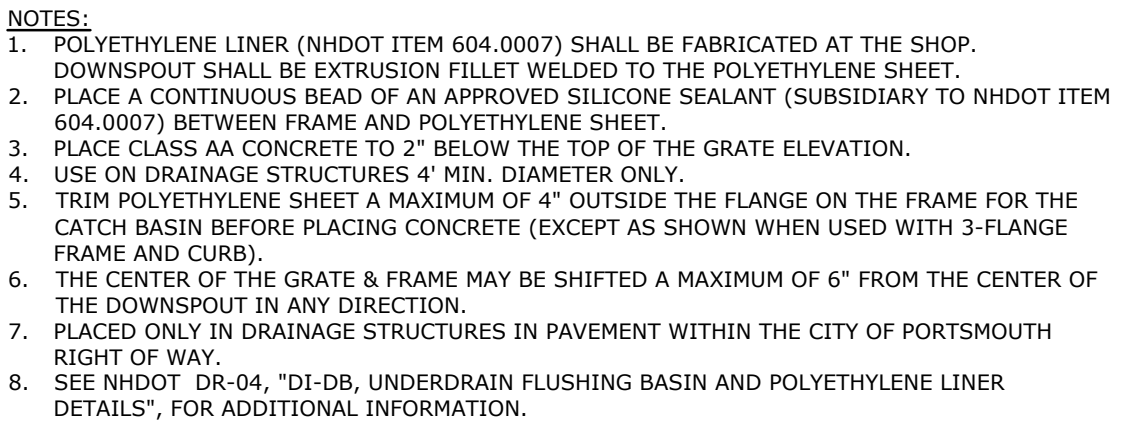
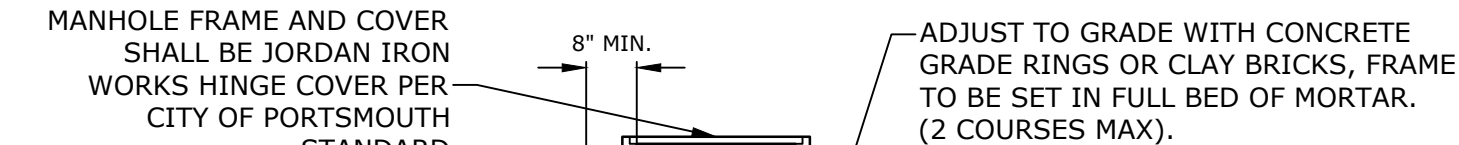
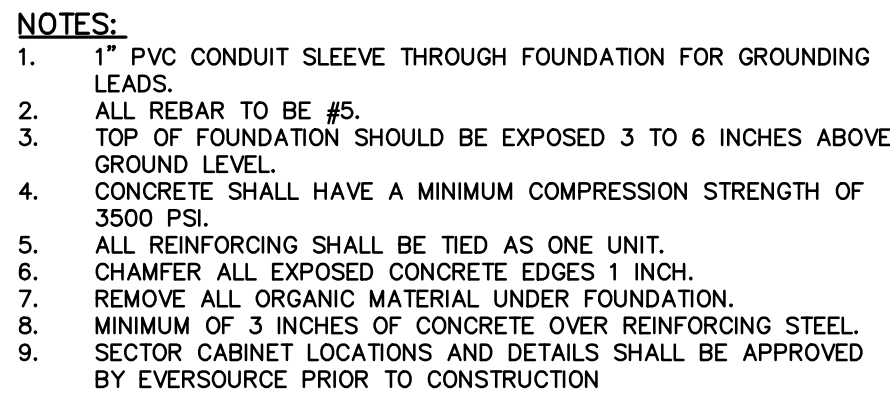
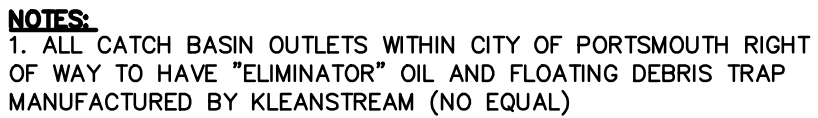
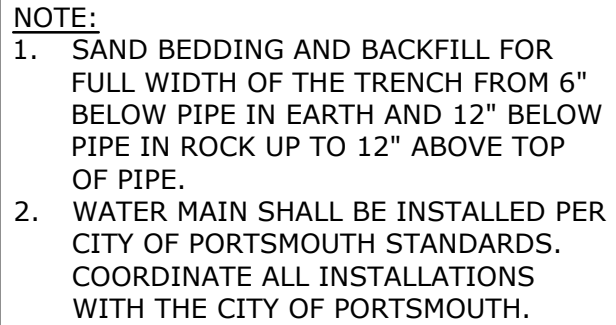
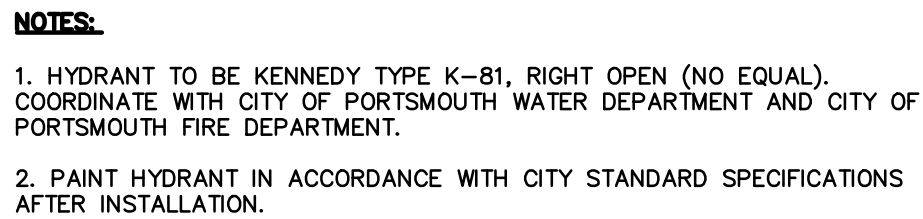
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CHECKED: PMC		
APPROVED: BLM		
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**NOTES:**

1. POUR THRUST BLOCKS AGAINST UNDISTURBED MATERIAL, WHERE TRENCH WALL HAS BEEN DISTURBED, EXCAVATE LOOSE MATERIAL AND EXTEND THRUST BLOCK TO UNDISTURBED MATERIAL. NO JOINTS SHALL BE COVERED WITH CONCRETE.
2. ON BONDS AND TIES, EXTEND THRUST BLOCKS FULL LENGTH OF FITTING.
3. PLACE BARGE RODS IN FRONT OF ALL PLUGS BEFORE POURING THRUST BLOCKS.
4. WHERE M.J. PIPE IS USED, M.J. PLUG WITH RETAINER GLAND MAY BE SUBSTITUTED FOR END BLOCKINGS.
5. INSTALLATION AND STANDARD DIMENSIONAL REQUIREMENTS SHALL BE WITH CITY OF PORTSMOUTH WATER DEPARTMENT STANDARDS.



# Proposed Subdivision Road & Office Building Development

Borthwick Forest, LLC

Portsmouth,  
New Hampshire

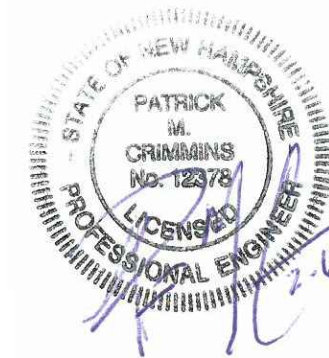
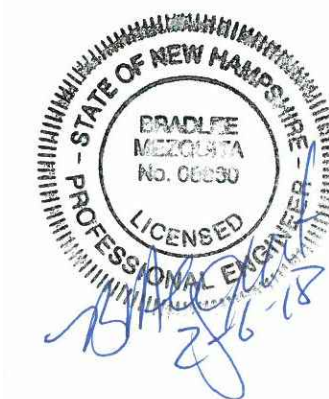
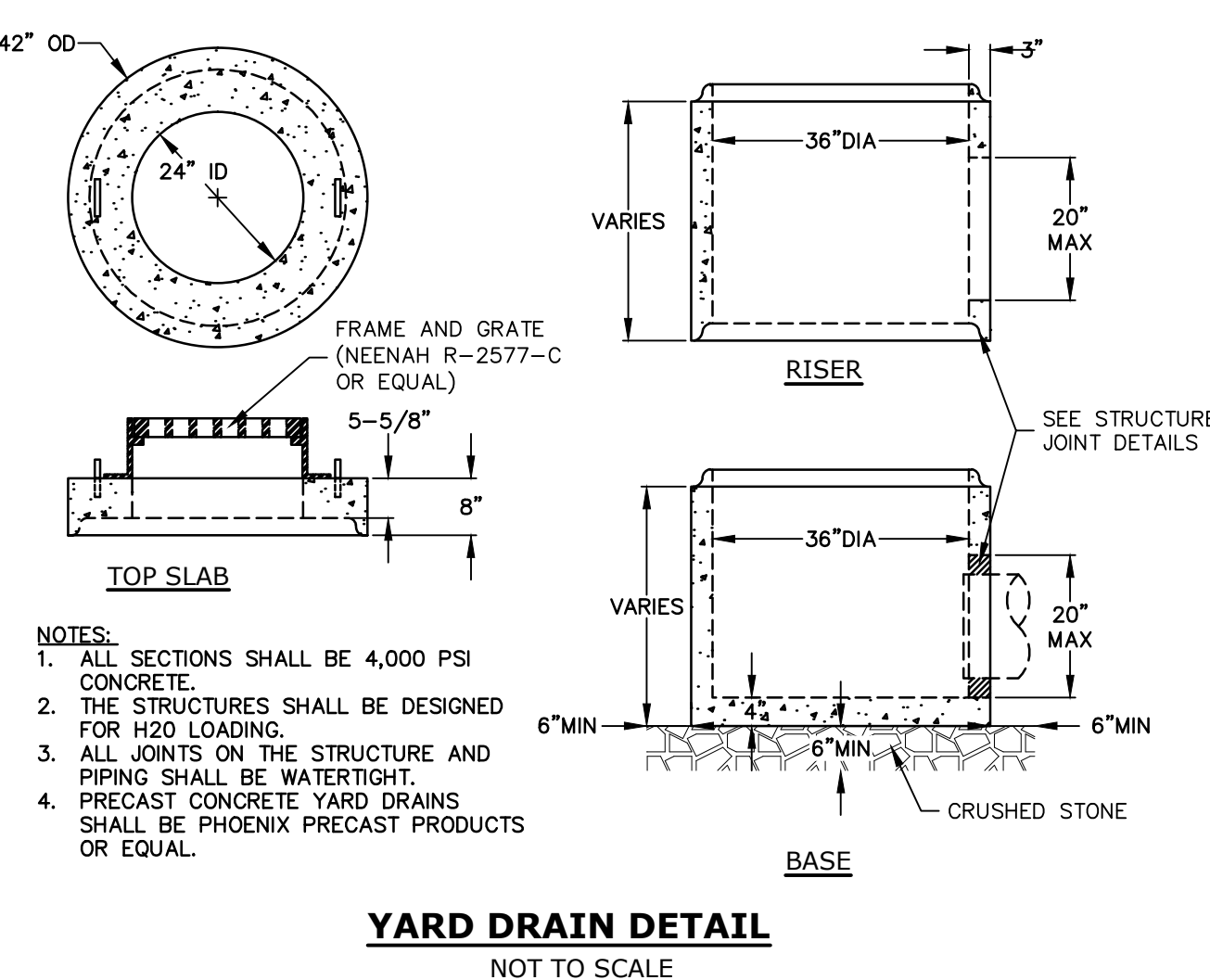
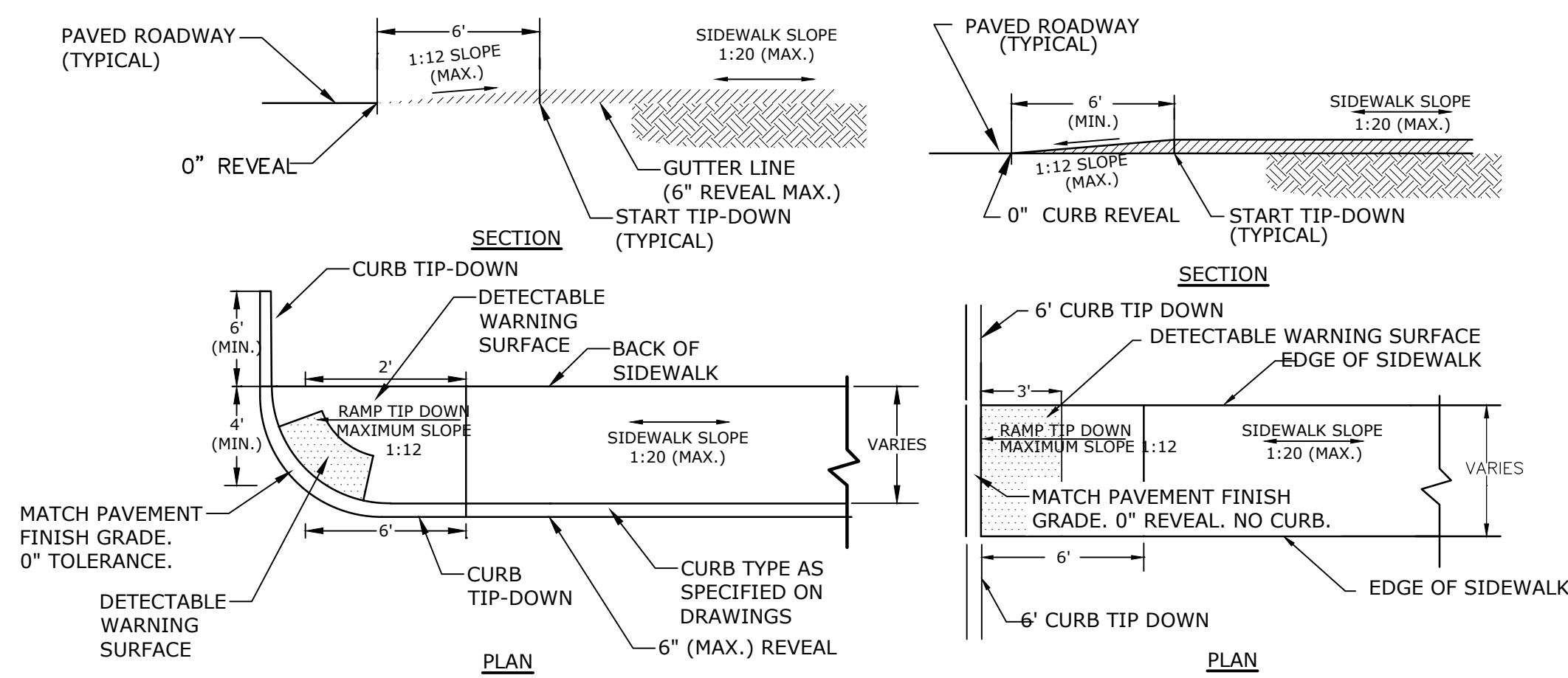
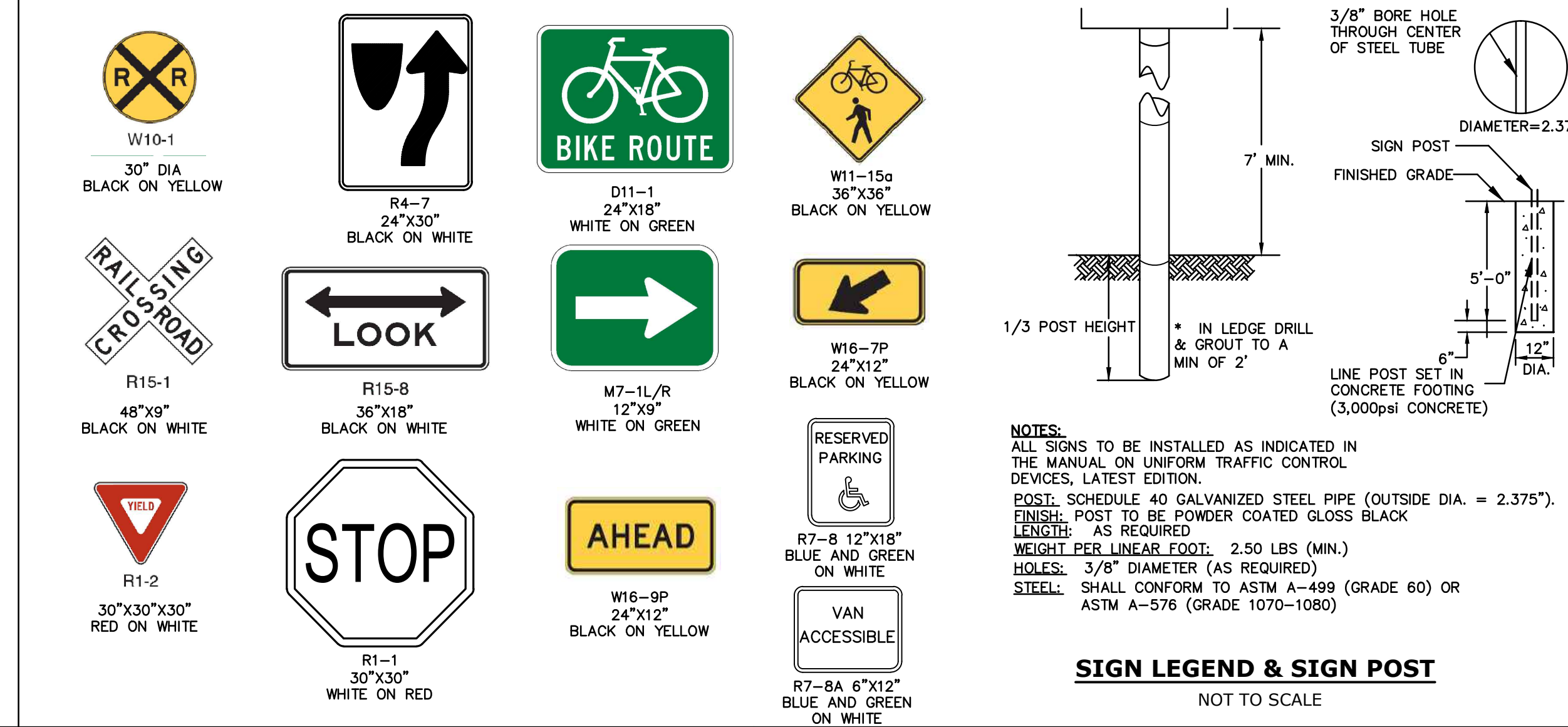
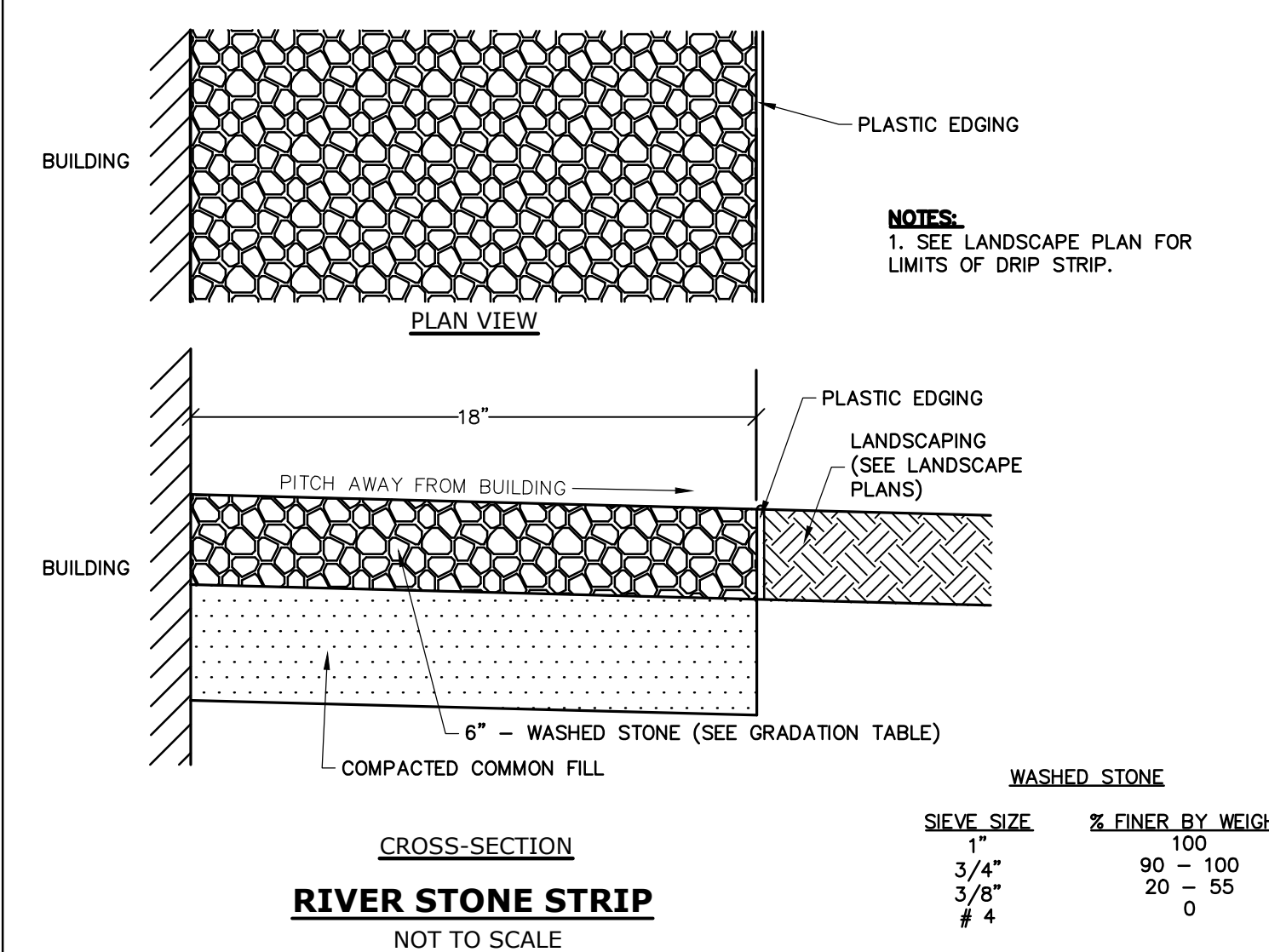
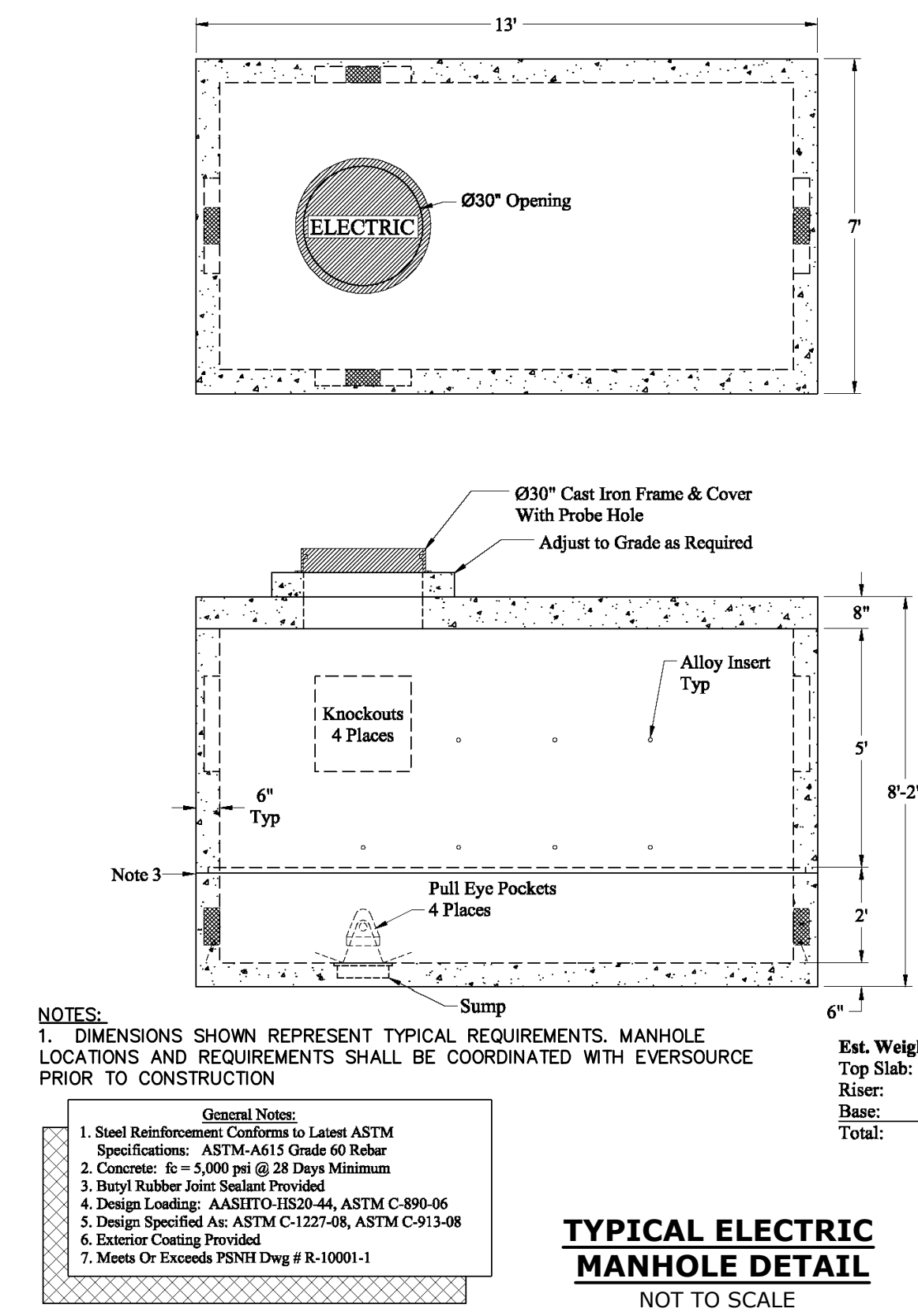
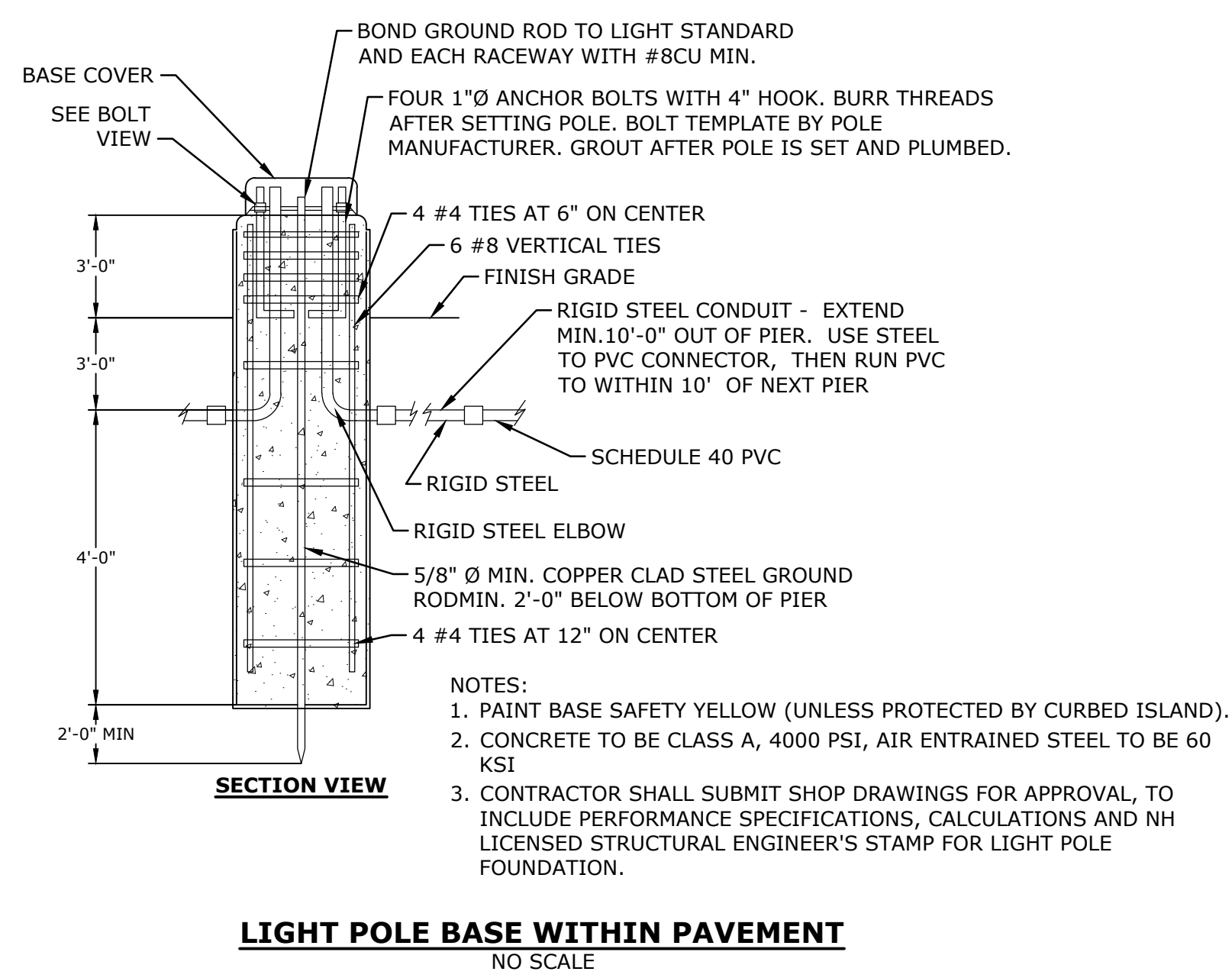
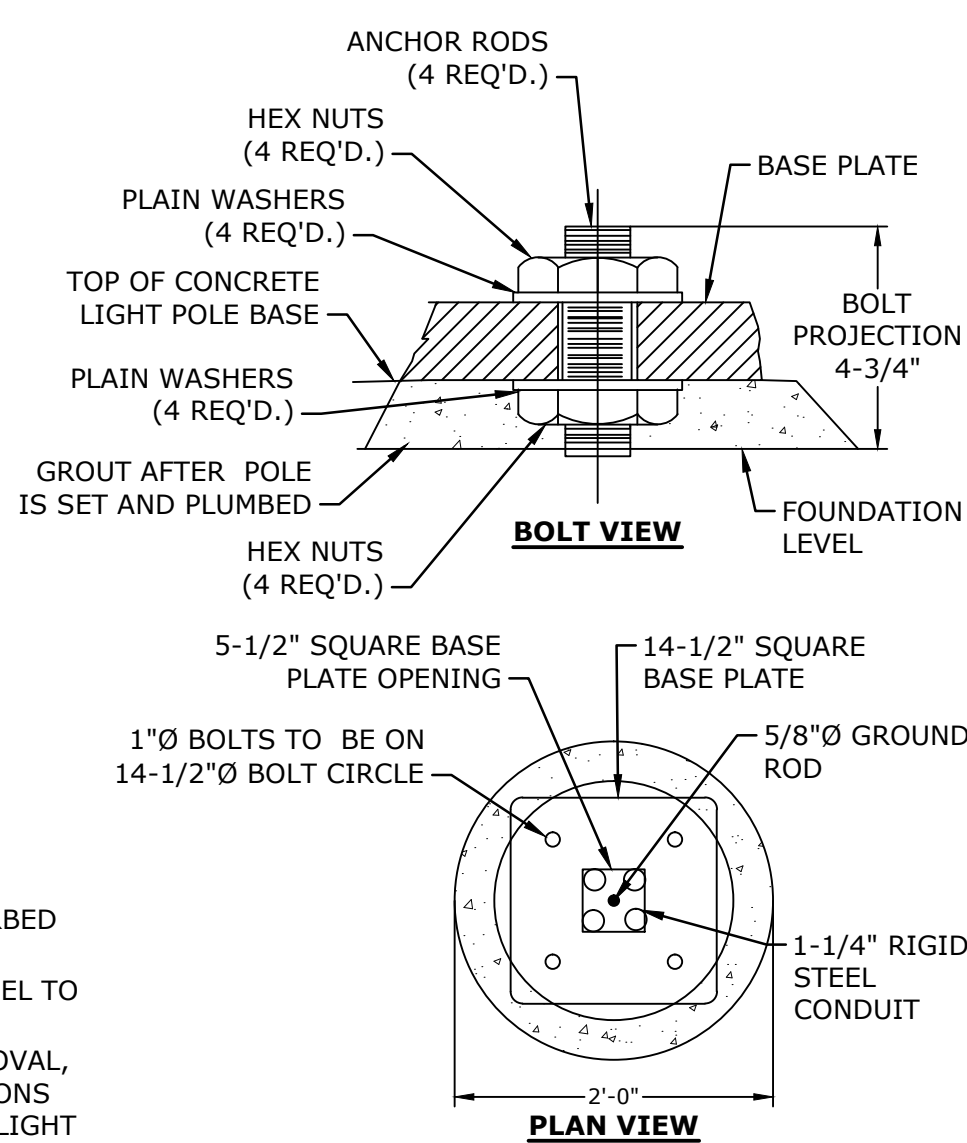
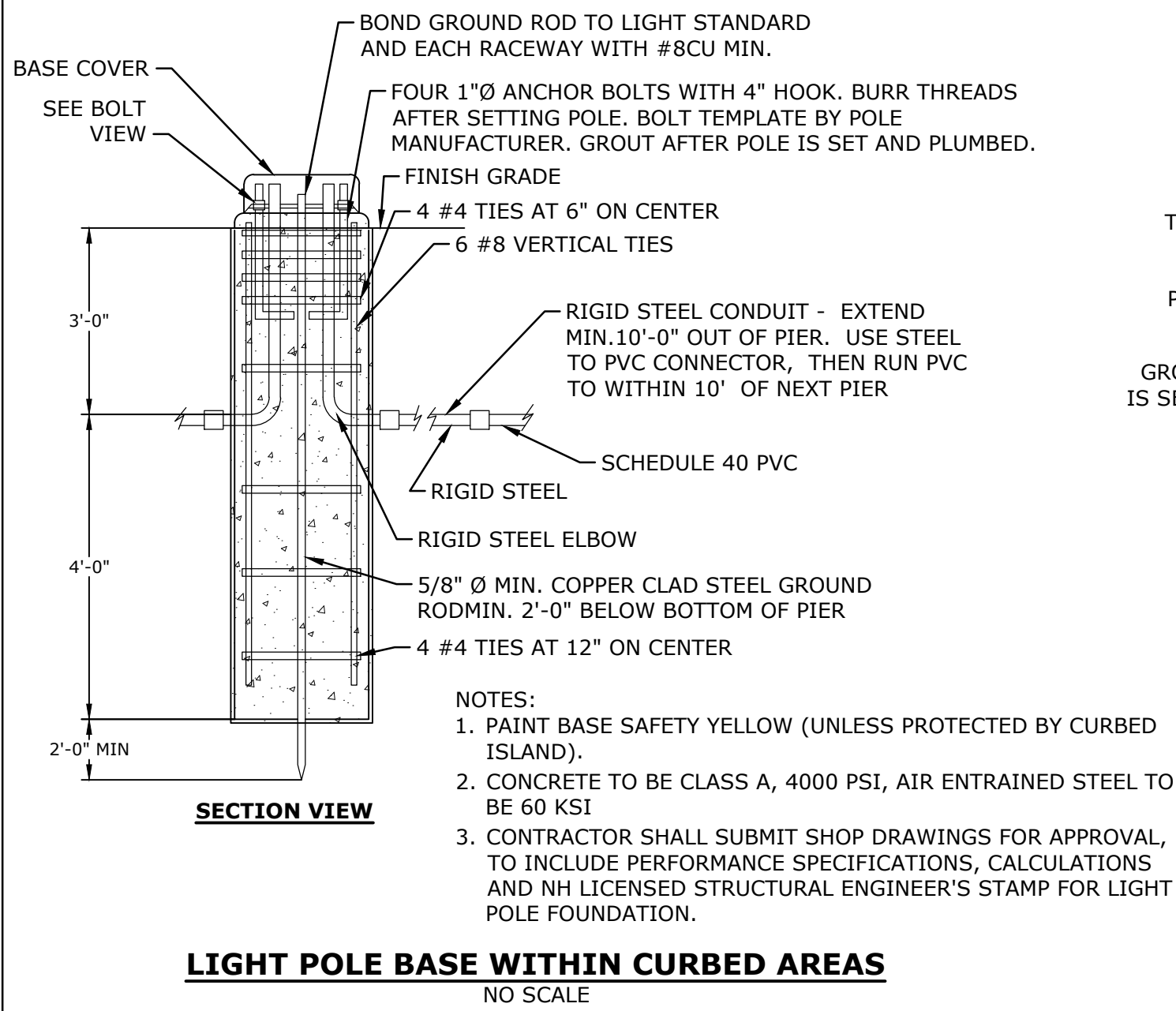
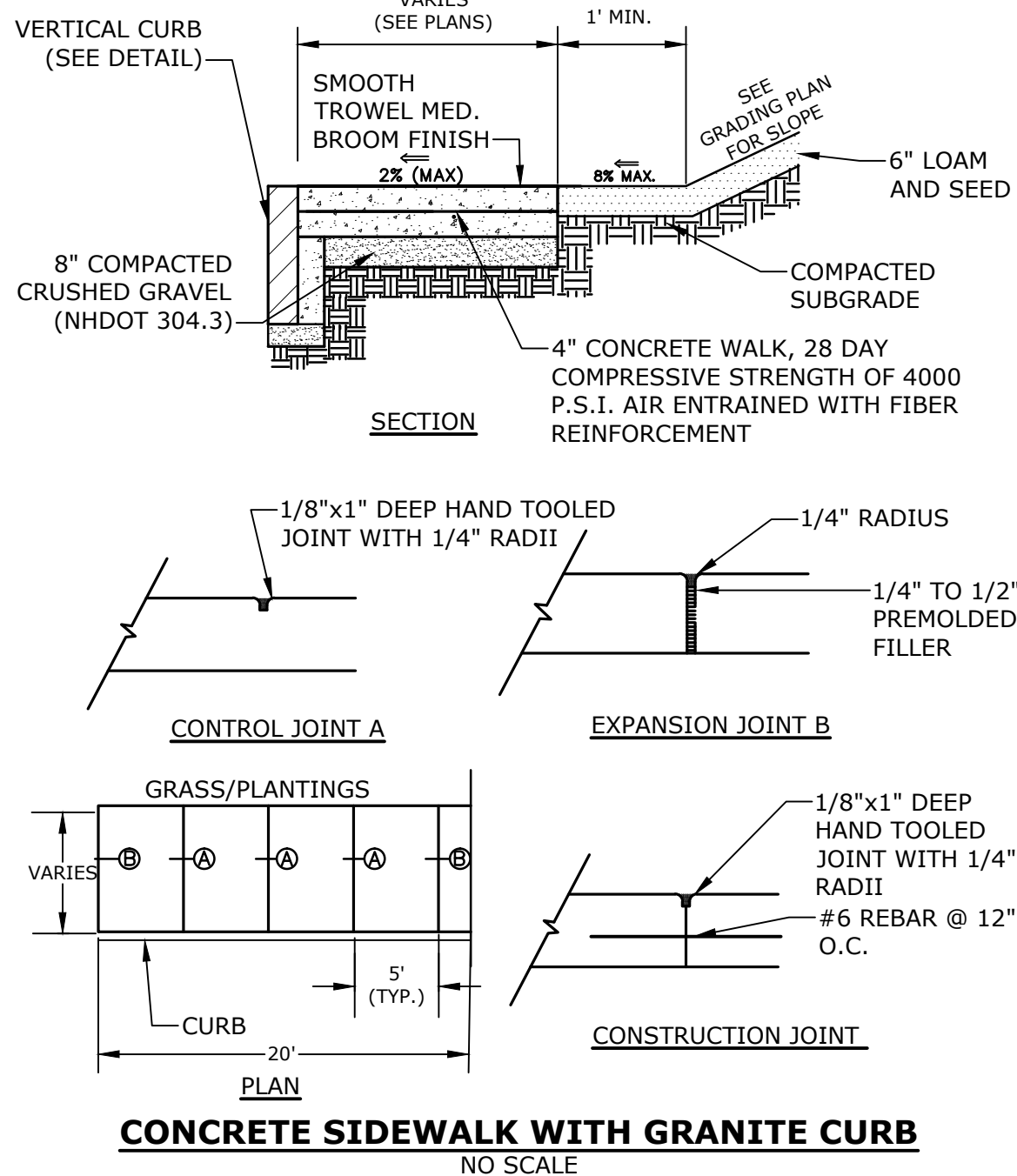
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## Proposed Subdivision Road & Office Building Development

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Portsmouth, New Hampshire

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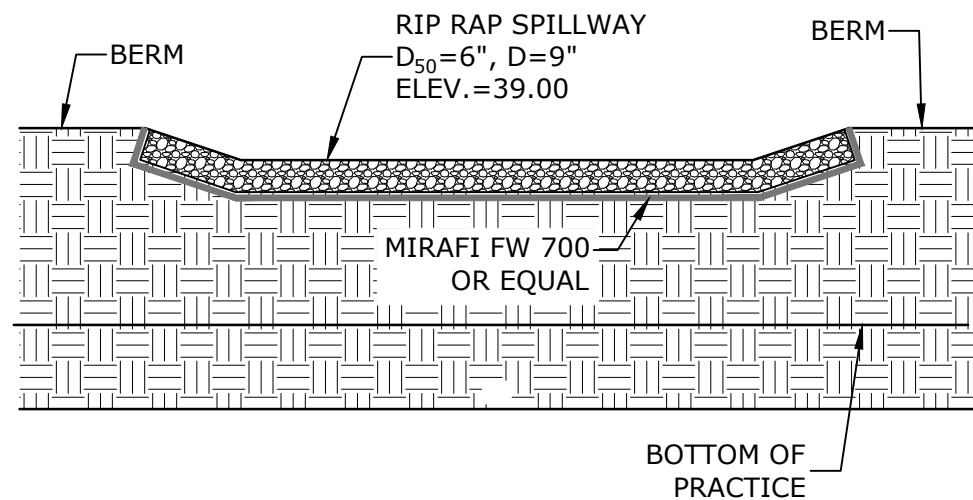
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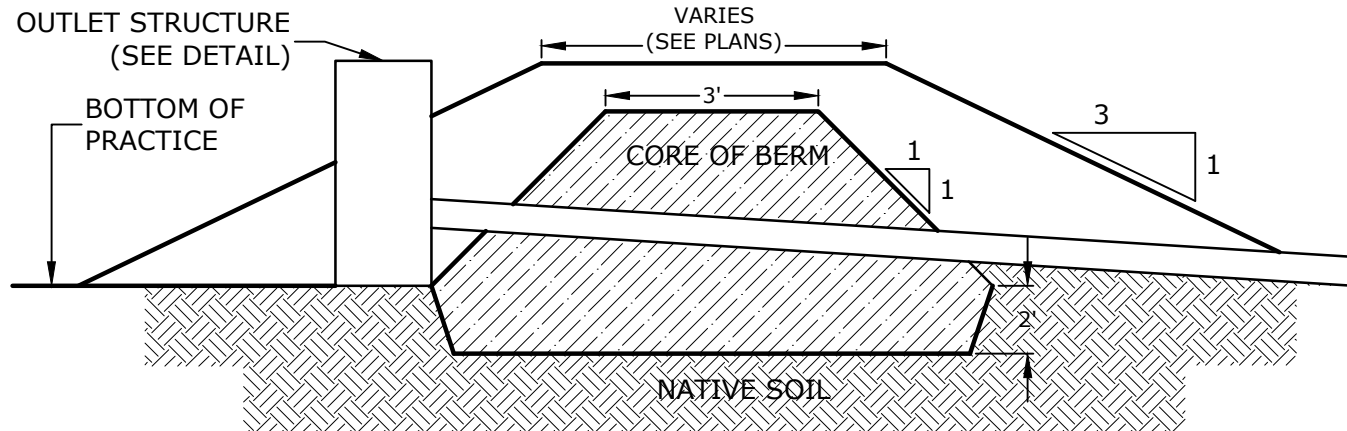


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File Location: J:\K0076 The Kane Company - General Proposals\0076-13 Borthwick Forest\Drawings - Figures\AutoCAD\Xref\K0076-13 DTLS.dwg Layout Tab: C-506



NOTES:  
1. SEE GRADING & DRAINAGE PLAN(S) FOR LOCATION(S) AND DIMENSIONS.

#### RIP RAP SPILLWAY NO SCALE

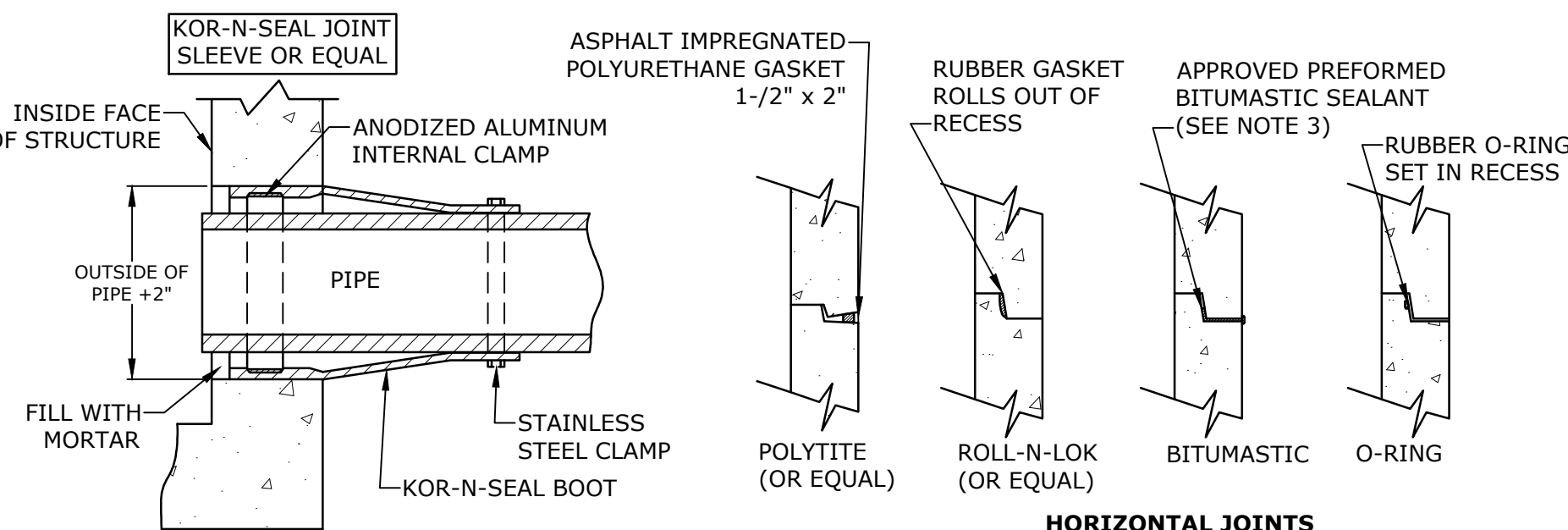


NOTES:  
1. CORE MATERIAL SHALL MEET USGS CLASSIFICATION SC, SM, CL OR ML AND HAVE A MAXIMUM PARTICLE SIZE OF 3" AND A PERMEABILITY LESS THAN 0.000005 CM/S, AND MEET THE FOLLOWING GRADATION:

SIEVE SIZE	PERCENT FINER BY WEIGHT
3 INCH	100
# 200	50 -100.

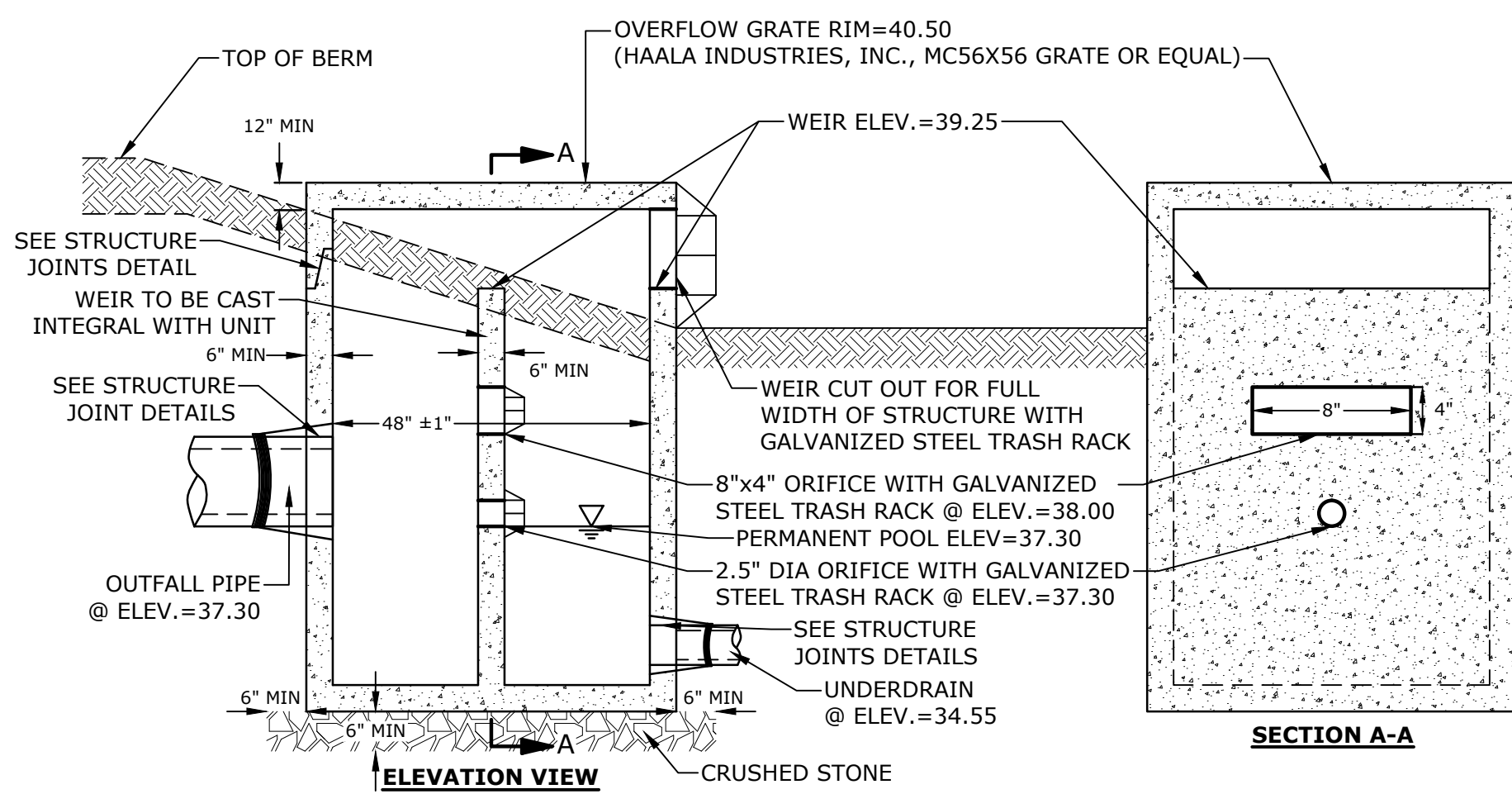
2. PIPE SHALL BE FULLY EMBEDDED IN CORE TO ELIMINATE SEEPAGE

#### CLAY CORE BERM NO SCALE



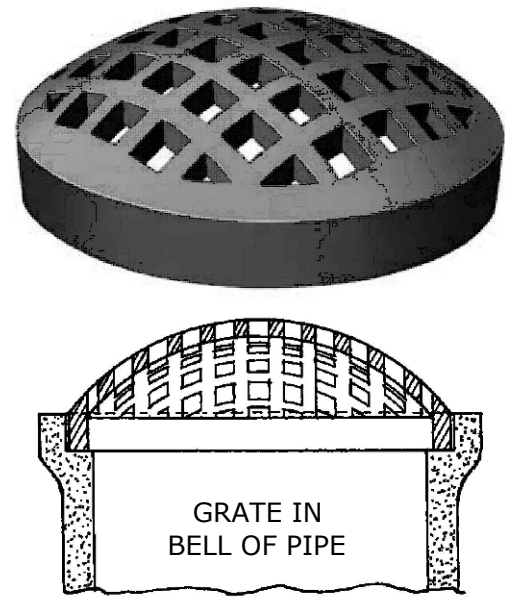
NOTES:  
1. HORIZONTAL JOINTS BETWEEN THE SECTIONS OF PRECAST CONCRETE BARRELS SHALL BE PER CITY OF PORTSMOUTH DPW STANDARD AND SHALL BE SEALED FOR WATERTIGHTNESS USING A DOUBLE ROW ELASTOMERIC OR MASTIC-LIKE GASKET.  
2. PIPE TO MANHOLE JOINTS SHALL BE PER CITY OF PORTSMOUTH STANDARD.  
3. FOR BITUMASTIC TYPE JOINTS THE AMOUNT OF SEALANT SHALL BE SUFFICIENT TO FILL AT LEAST 75% OF THE JOINT CAVITY.  
4. ALL GASKETS, SEALANTS, MORTAR, ETC. SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS' WRITTEN INSTRUCTIONS.

#### STRUCTURE JOINTS NO SCALE



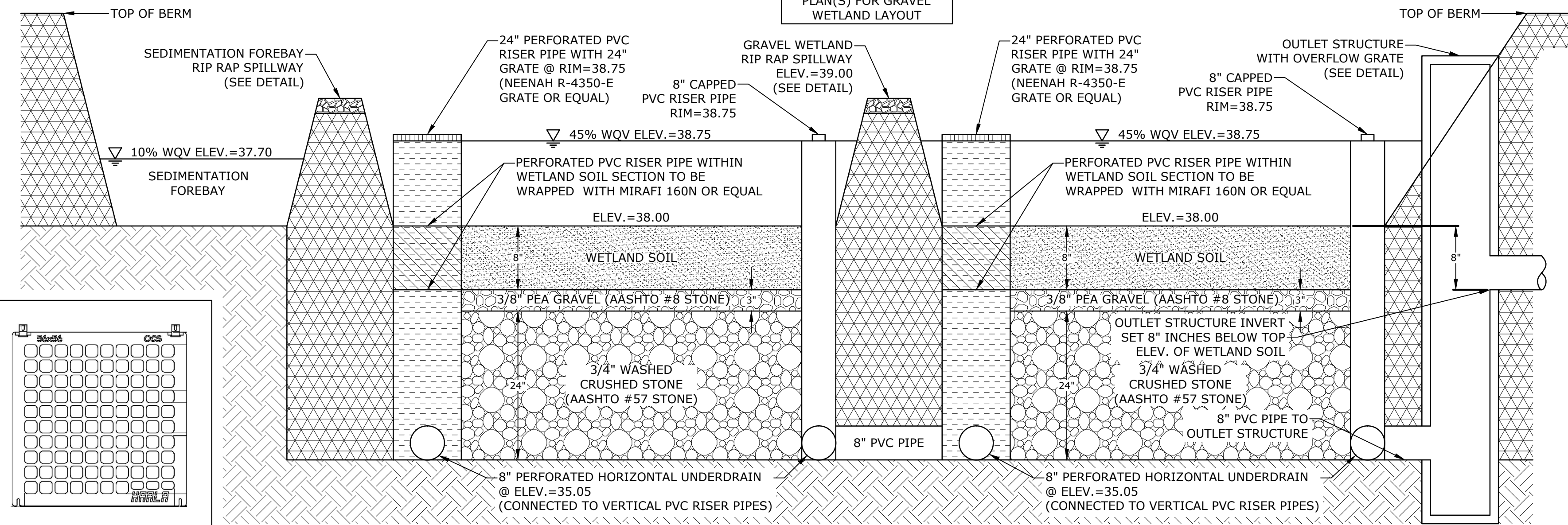
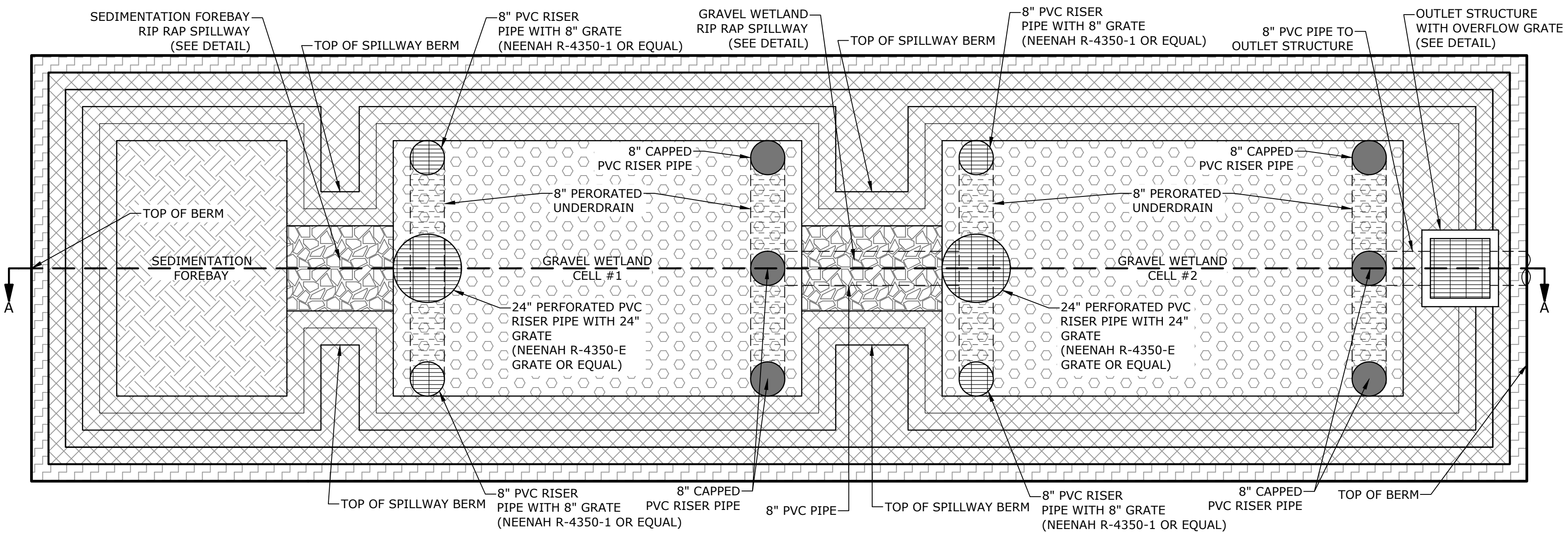
NOTES:  
1. ALL SECTIONS SHALL BE 4,000 PSI CONCRETE (TYPE II CEMENT).  
2. CIRCUMFERENTIAL REINFORCEMENT SHALL BE 0.12 SQUARE INCHES PER LINEAR FOOT IN ALL SECTIONS AND SHALL BE PLACED IN THE CENTER OF THE THIRD WALL.  
3. THE TONGUE OR THE GROOVE OF THE JOINT SHALL CONTAIN ONE LINE OF CIRCUMFERENTIAL REINFORCEMENT EQUAL TO 0.12 SQUARE INCHES PER LINEAR FOOT.  
4. THE STRUCTURES SHALL BE DESIGNED FOR H20 LOADING.  
5. ALL JOINTS ON THE STRUCTURE AND PIPING SHALL BE WATERTIGHT.

#### OUTLET STRUCTURE NO SCALE



NOTES:  
1. 8" GRAVEL WETLAND GRATES SHALL NEENAH R-4350-1 GRATE OR EQUAL.  
2. 24" GRAVEL WETLAND GRATES SHALL NEENAH R-4350-E GRATE OR EQUAL.

#### NEENAH R-4350 SERIES GRATE NO SCALE



NOTES:  
1. OUTLET STRUCTURE GRATE SHALL BE HAALA INDUSTRIES, INC. MC56X56 TOP MOUNT GRATE OR EQUAL.  
2. GRATE TO BE SECURED TO CONCRETE STRUCTURE.

#### HAALA MC56X56 GRATE NO SCALE

NOTES:  
1. WETLAND SOIL SHALL BE A SANDY CLAY LOAM WITH A HYDRAULIC CONDUCTIVITY OF 0.1-0.01 FT/DAY. ORGANIC CONTENT SHALL BE GREATER THAN 15% BY VOLUME. CLAY CONTENT SHALL BE LESS THAN 15% BY VOLUME.  
2. INFILTRATION TESTING OF THE NATIVE SOILS AT THE SUBGRADE AND WITHIN THE VICINITY OF THE PROPOSED GRAVEL WETLAND SHALL OCCUR PRIOR TO THE INSTALLATION OF THE GRAVEL WETLAND AND SHALL BE COORDINATED WITH THE ENGINEER. IF THE NATIVE SOILS EXCEED A PERMEABILITY RATE OF 0.03 FT/DAY OR IF EXCESSIVELY FRACTURED BEDROCK IS ENCOUNTERED THE SOILS SHOULD AMENDED OR LINER ADDED AS DETERMINED BY THE ENGINEER.  
3. PERFORATED PVC RISERS SHALL HAVE VERTICAL SLOTS CUT INTO PVC RISERS ABOVE GRADE MEASURING 3"x1/8".

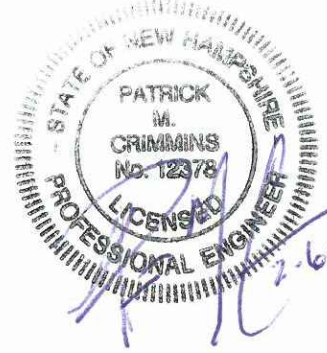
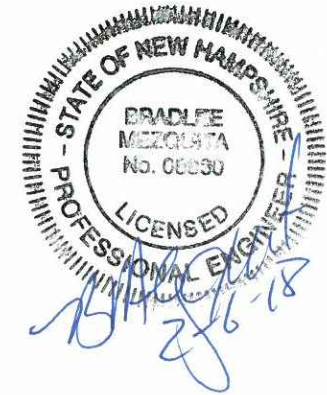
#### TYPICAL GRAVEL WETLAND NO SCALE

GRAVEL WETLAND INSPECTION / MAINTENANCE REQUIREMENTS		
INSPECTION / MAINTENANCE	FREQUENCY	ACTION
MONITOR TO ENSURE THAT GRAVEL WETLAND FUNCTIONS EFFECTIVELY AFTER STORMS	FOUR (4) TIMES ANNUALLY (QUARTERLY) AND AFTER ANY RAINFALL EVENT EXCEEDING 2.5" IN A 24-HR PERIOD	- TRASH AND DEBRIS TO BE REMOVED - ANY REQUIRED MAINTENANCE SHALL BE ADDRESSED - INSPECT SOIL AND REPAIR ERODED AREAS, ESPECIALLY ON SLOPES. - CHECK INLETS, OUTLETS, AND OVERFLOW SPILLWAY FOR BLOCKAGE, STRUCTURAL INTEGRITY AND EVIDENCE OF EROSION.
INSPECT VEGETATION	ANNUALLY	- INSPECT THE CONDITION OF ALL GRAVEL WETLAND VEGETATION - PRUNE BACK OVERGROWTH - REPLACE DEAD VEGETATION - REMOVE ANY INVASIVE SPECIES - COORDINATE WITH UNH STORMWATER CENTER FOR FURTHER VEGETATION MANAGEMENT GUIDELINES
INSPECT DRAWDOWN TIME - THE SYSTEM SHALL DRAWDOWN WITHIN 48-HOURS FOLLOWING A RAINFALL EVENT.	ANNUALLY	- HIRE QUALIFIED PROFESSIONAL TO ASSESS AND IMPLEMENT THE CONDITION OF THE FACILITY TO DETERMINE MEASURES REQUIRED TO RESTORE THE FILTRATION FUNCTION, INCLUDING BUT NOT LIMITED TO REMOVAL OF ACCUMULATED SEDIMENTS OR RECONSTRUCTION OF THE FILTER.

#### GRAVEL WETLAND PLANTING PLAN

SPECIES	PLANT SIZE	QUANTITY/SPACING
NEW ENGLAND EROSION CONTROL/RESTORATION MIX OR EQUIVALENT		35LB/ACRE
"RED OSIER DOGWOOD" CORNUS SERICEA	2'-3'	8'-10' ON CENTER
"SILKY DOGWOOD" CORNUS AMMOMUM	2'-3'	8'-10' ON CENTER
"Highbush Blueberry" VACCINIUM CORYBOSSUM		

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Borthwick Forest, LLC

Portsmouth,  
New Hampshire

H	2/6/2018	Planning Board Submission
G	1/12/2018	GMP Submission
F	8/21/2017	Revised TAC Submission
E	8/3/2017	Per AoT Comments
D	6/2/2017	AoT Submission
C	5/11/2017	Planning Board Submission
B	4/24/2017	TAC & ConCom Submission
A	3/20/2017	TAC Submission
MARK	DATE	DESCRIPTION
PROJECT NO:	K0076-13	
DATE:	3/20/2017	
FILE:	K0076-13_DTLS.DWG	
DRAWN BY:	CML	
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APPROVED:	BLM	

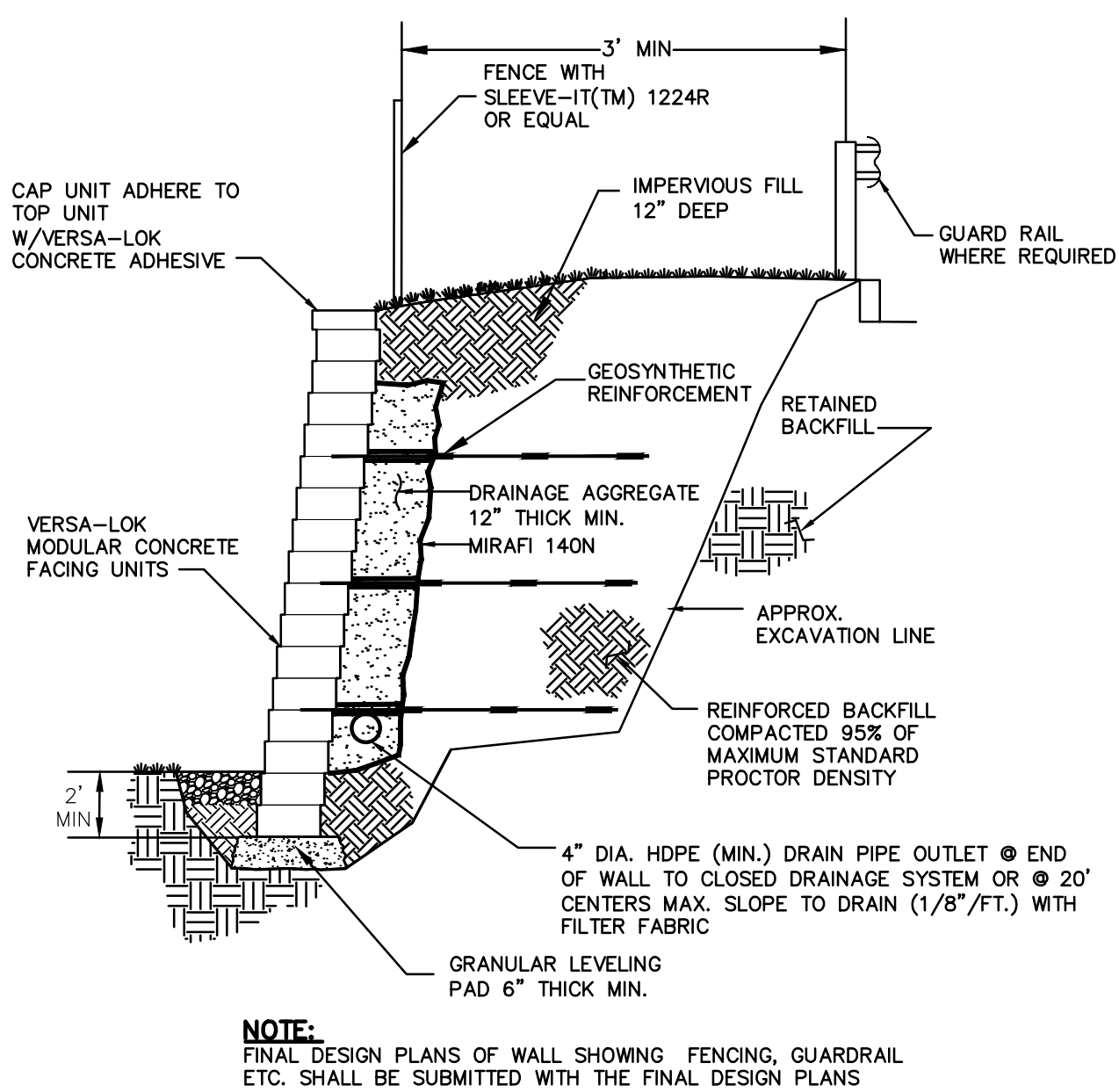
#### DETAILS SHEET

SCALE: AS SHOWN

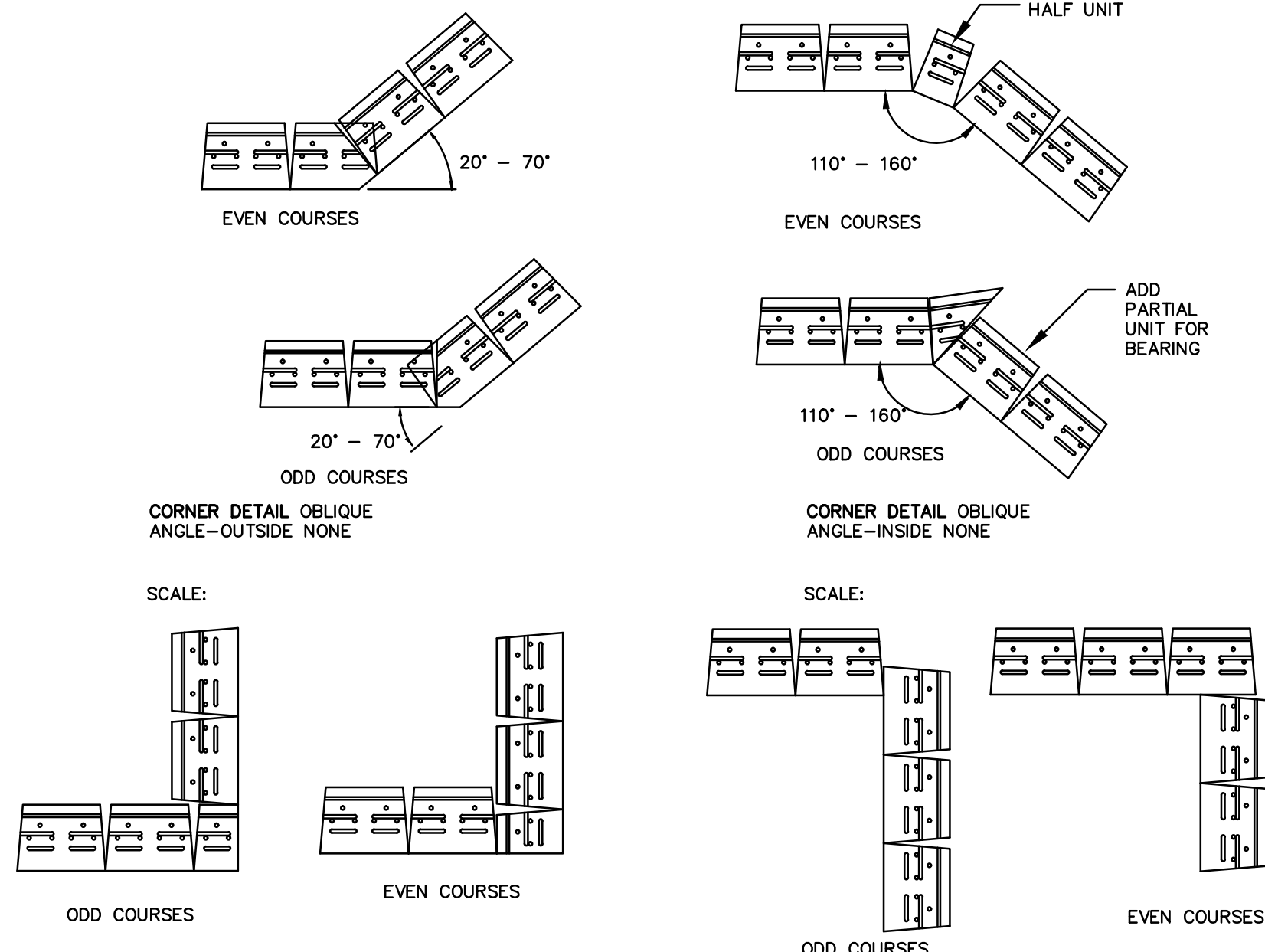
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Last Save Date: February 6, 2018 10:41 AM By: CML  
Plot Date: Tuesday, February 06, 2018 Plotted By: Craig M. Langton  
File Location: J:\K0076 The Kane Company - General Proposals\0076-13 Borthwick Forest\Drawings - Figures\AutoCAD\Xref\K0076-13 DTLS.dwg Layout Tab: C-507



**TYPICAL SECTION REINFORCED RETAINING WALL**  
NOT TO SCALE



**DRAINAGE FILL**  
DRAINAGE FILL SHALL BE CLEAN 1 INCH MINUS CRUSHED STONE OR GRANULAR FILL MEETING THE FOLLOWING GRADATION:

SIEVE SIZE	% PASSING BY WEIGHT
1 INCH	75-100
3/4 INCH	50-75
No. 4	0-60
No. 40	0-50
No. 200	0-5

**MINIMUM PARAMETERS**

SOIL	SOIL UNIT WEIGHT	Φ
FOUNDATION SOIL	130	32°

APPLIED SURCHARGE LOADING = 0.31 TIMES THE VERTICAL SURCHARGE LOAD UNIFORMLY DISTRIBUTED OVER THE HEIGHT OF THE WALL  
STATIC ACTIVE LATERAL EARTH PRESSURE = 40 PSF/FT  
OVERTURNING F.S. = 2.0  
SLIDING F.S. = 1.5

**MANUFACTURER'S DESIGN:**

- CONCRETE UNIT RETAINING WALL SHALL BE BY VERSA-LOK OR APPROVED EQUAL
- DESIGN SHALL BE FROM THE WALL MANUFACTURER AND SHALL INCLUDE A GLOBAL STABILITY ANALYSIS.
- MANUFACTURER DESIGN ENGINEER SHALL BE LICENSED IN THE STATE OF NEW HAMPSHIRE.
- DESIGN CALCULATIONS AND PLANS SHALL BE SUBMITTED TO THE WALL DESIGN ENGINEER SHALL COMPLETE SUFFICIENT INSPECTIONS DURING CONSTRUCTION TO CERTIFY WORK IS COMPLETE IN ACCORDANCE WITH DESIGN.
- SUBMIT AS-BUILT DRAWINGS OF WALL WITH WALL DESIGNER'S CERTIFICATION TO OWNER.

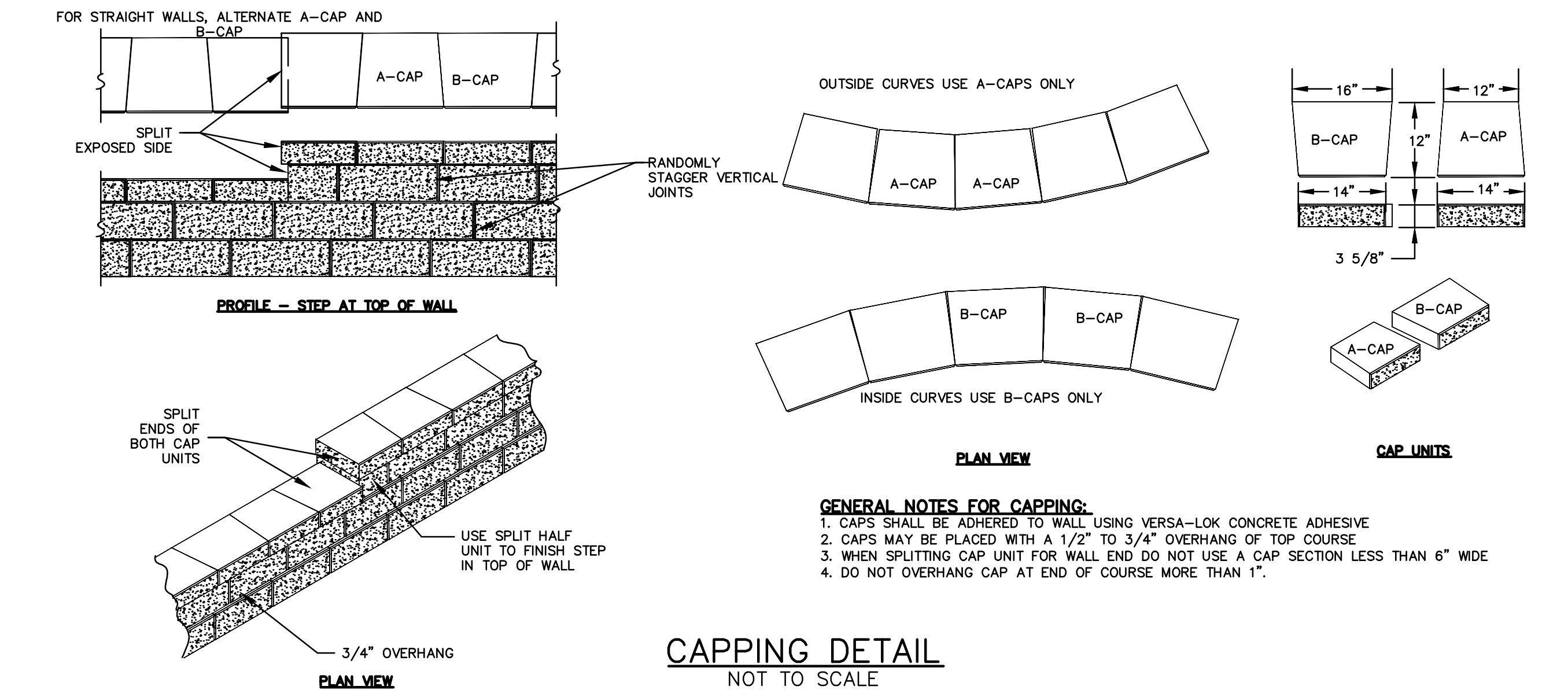
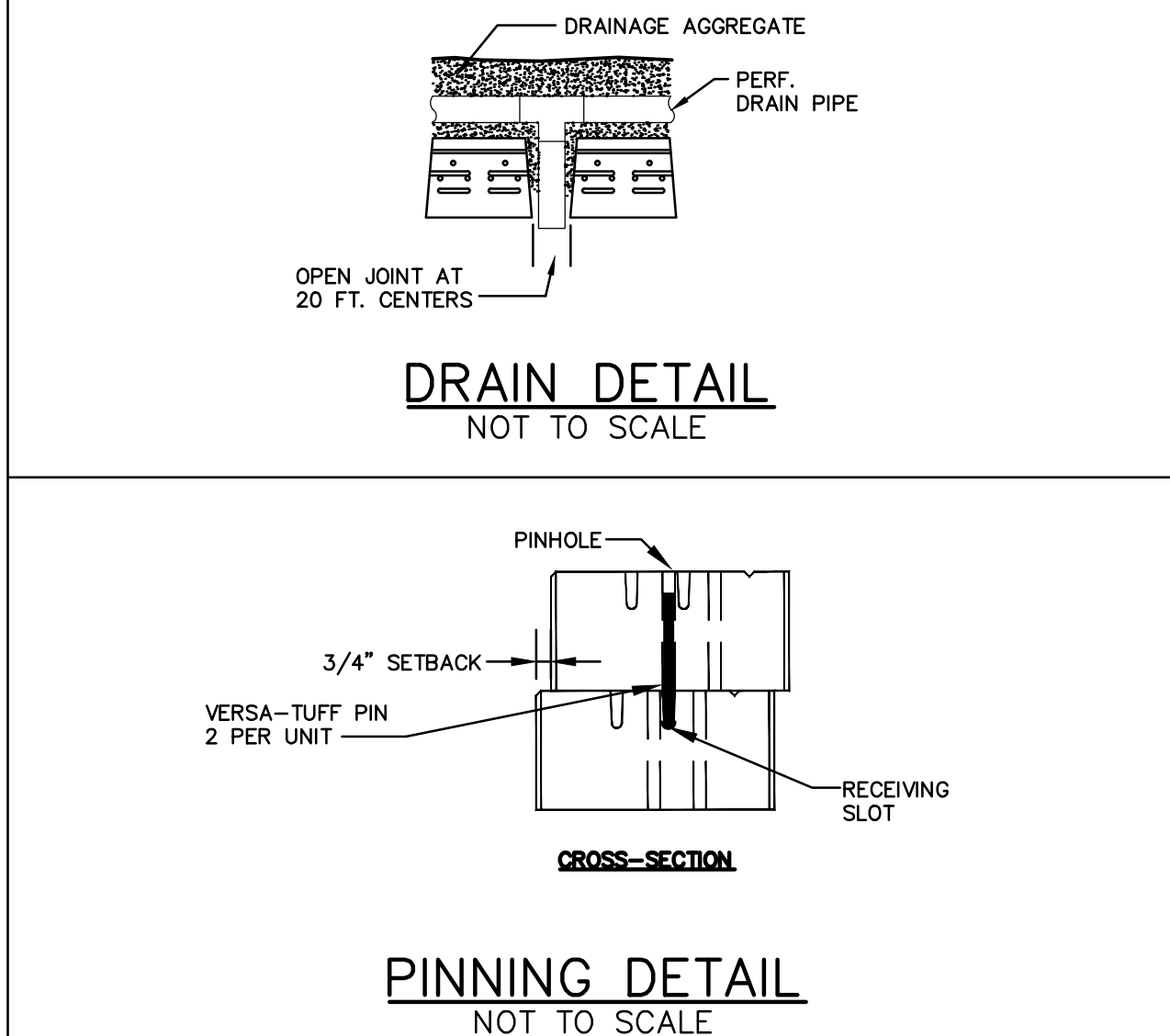
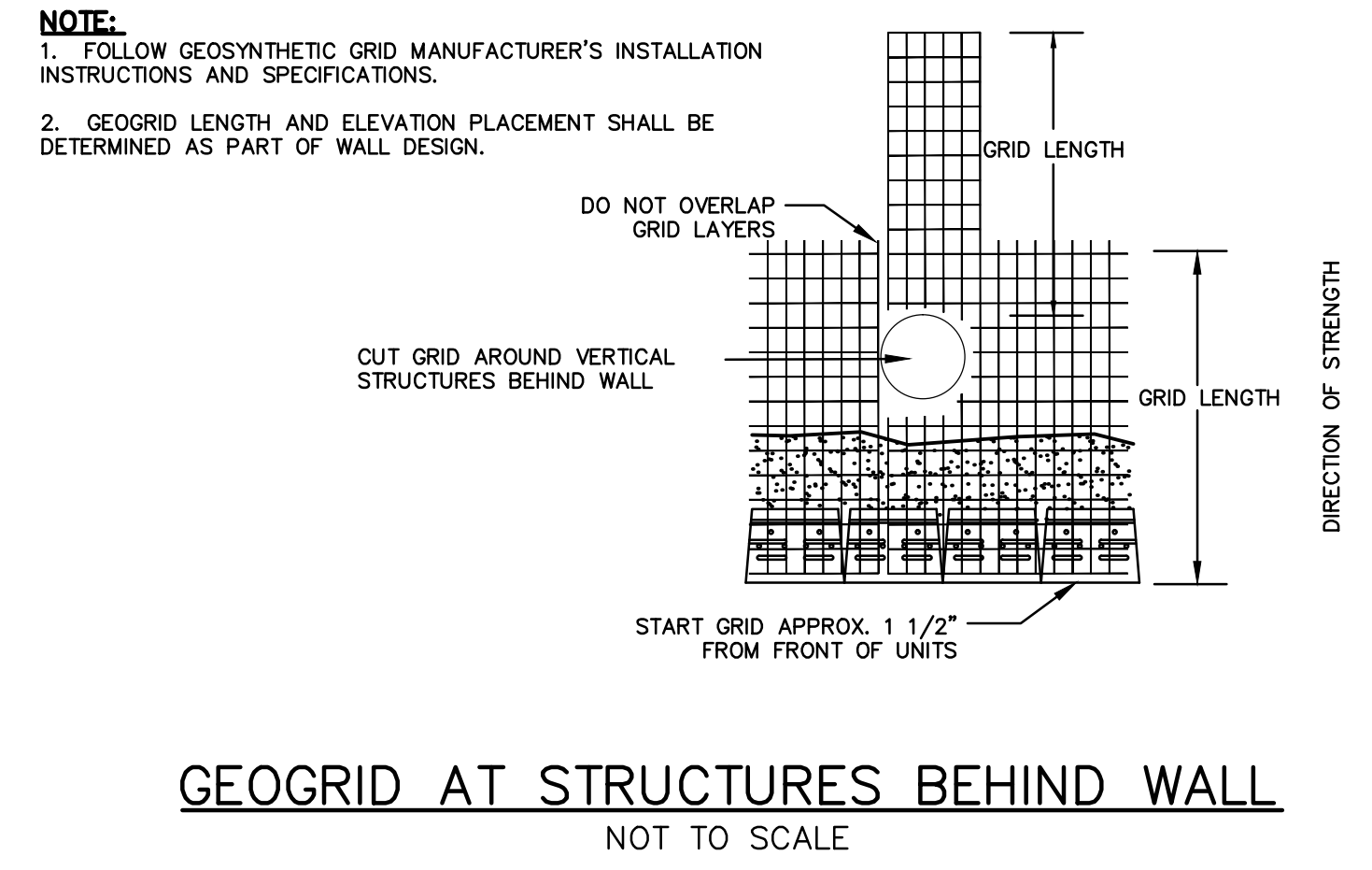
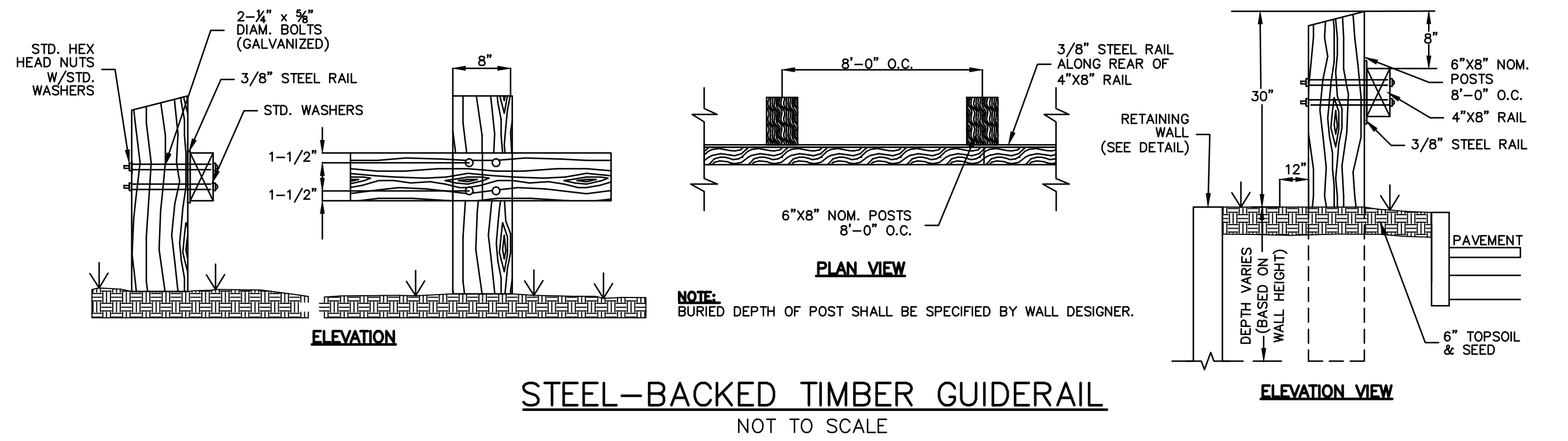
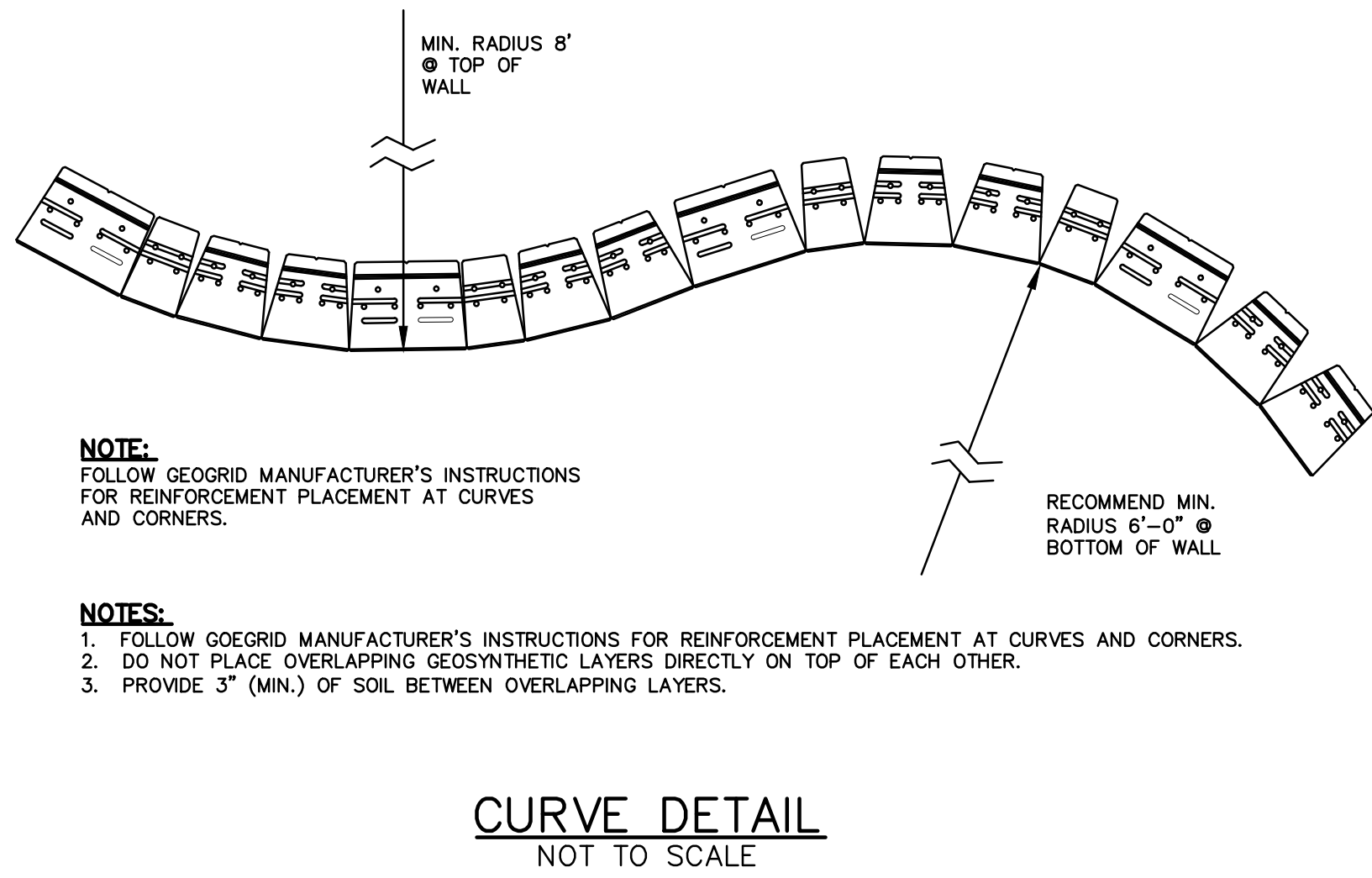
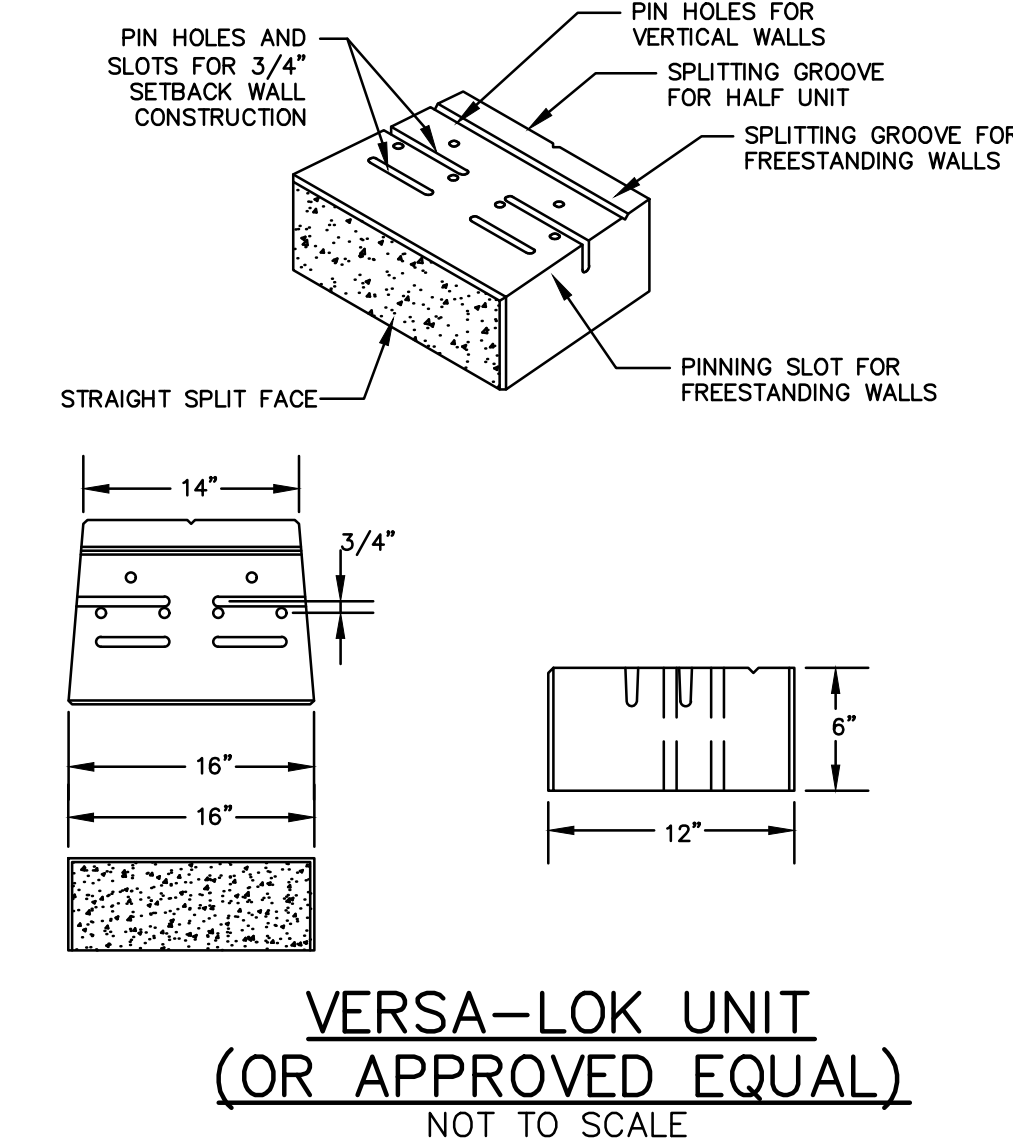
**LEVELING PAD**  
LEVELING PAD MATERIAL SHALL CONSIST OF HARD DURABLE PARTICLES OR FRAGMENTS OF STONE OR GRAVEL. FINE PARTICLES SHALL CONSIST OF NATURAL OR PROCESSED SAND. THE MATERIAL SHALL MEET THE FOLLOWING GRADATION:

SIEVE SIZE	% PASSING BY WEIGHT
3 INCH	100
1 INCH	55-85
No. 4	27-52
No. 200*	0-12

\* FRACTION PASSING THE No. 4 SIEVE

**REINFORCED BACKFILL**  
IMPORTED REINFORCED BACKFILL MATERIAL SHALL BE CLEAN, FREE-DRAINING WELL GRADED GRANULAR SOIL WITH A MAXIMUM PARTICLE SIZE OF 4" AND NOT MORE THAN 12% BY WEIGHT PASSING THE #200 SIEVE.  
ON-SITE MATERIAL SHALL NOT BE USED FOR REINFORCED BACKFILL MATERIAL. UNLESS IT MEETS THE ABOVE NOTED REQUIREMENTS.

- DRAINAGE NOTES:**
- CONTRACTOR SHALL DIRECT SURFACE RUNOFF AWAY FROM THE WALL DURING CONSTRUCTION.
  - ANY SURFACE DRAINAGE FEATURES, FINISH GRADING, PAVEMENT OR OTHER SURFACE TREATMENT SHALL BE INSTALLED IN THE AREA OF THE WALL IMMEDIATELY AFTER THE WALL IS COMPLETE. OR OTHER MEASURES SHALL BE TAKE TO PROTECT THE WALL FROM RUNOFF.
- GENERAL NOTES:**
- ALL INSTALLATION PROCEDURES SHALL BE IN ACCORDANCE WITH THE CURRENT EDITION "DESIGN & INSTALLATION GUIDELINES", BY VERSA-LOK. WHERE INFORMATION ON THESE PLANS CONFLICTS WITH THE GUIDELINES, THE PLANS SHALL SUPERSEDE.
  - STRIP ORGANIC SOILS FROM THE WALL AND GRID ALIGNMENT AREA.
  - BENCH CUT ALL EXCAVATED SLOPES.
  - DO NOT OVER EXCAVATE UNLESS DIRECTED TO DO SO BY THE GEOTECHNICAL ENGINEER.
  - GEOTECHNICAL ENGINEER SHALL VERIFY FOUNDATION SOILS AS BEING COMPETENT PER THE DESIGN STANDARDS AND PARAMETERS.
  - MINIMUM EMBEDMENT OF WALL BELOW FINISH GRADE SHALL BE INDICATED ON THE WALL DESIGN DRAWINGS.
  - WHERE PERFORATED DRAINS ARE USED, PROVIDE OUTLETS AT THE ENDS OF THE WALL TO CLOSED DRAINAGE SYSTEM OR AT 20' INTERVALS, SEE DETAILS.
  - BACKFILL AND COMPACT THE FILL MATERIAL BEHIND THE WALL IN 12 INCH MAXIMUM LIFTS AS THE WALL IS INSTALLED.
  - COMPACTION TESTS SHALL BE TAKEN AS THE WALL IS INSTALLED. EACH LIFT SHALL BE TESTED AT INTERVALS NOT EXCEEDING 100 FEET OF WALL LENGTH.
  - COMPACTION SHALL BE TO 95% OF MAXIMUM MODIFIED PROCTOR DENSITY OF THE FILL MATERIAL (ASTM D-1557).
  - PULL GEOGRID TIGHT PRIOR TO BACKFILLING.
  - SEE PROFILE FOR FINISH GRADE AT TOP AND ENDS OF WALL.
  - SEE PROFILE FOR WALL LAYOUT INFORMATION.
  - COMPACTION OF AREAS LOCATED WITHIN 15 FEET OF THE TOP OF THE WALL SHALL BE PERFORMED WITH NON-VIBRATORY ROLLING EQUIPMENT. PLATE VIBRATORY TAMPERS SHALL BE USED IN AREAS WITHIN 5 FEET OF THE WALL.
  - GEOGRID CUT LENGTHS ARE MEASURED FROM THE FACE OF THE RETAINING WALL.
  - GEOSYNTHETIC SHALL BE PLACED WITH STRONGER DIRECTION PERPENDICULAR TO WALL FACE.
  - WHERE GUARDRAIL OR FENCE POSTS ARE INSTALLED SUCH THAT THEY WILL PENETRATE A GEOGRID LAYER, THE GEOGRID SHALL BE PRE-CUT AND SLEEVED SO AS NOT TO DISTURB THE GEOGRID WITH THE INSERTION OF THE POST. THE POST SHALL NOT BE FORCED THROUGH ANY LAYER OF GEOGRID. FORCING A POST THROUGH A GEOGRID LAYER WOULD COMPROMISE THE STRUCTURAL INTEGRITY OF THE GEOGRID AND, HENCE, THE RETAINING WALL SYSTEM.
  - ANY PLANTINGS SET BEHIND THE WALLS SHALL BE PLACED WITHOUT CUTTING OF THE GEOGRID REINFORCING LAYERS. THIS CAN BE ACCOMPLISHED BY SETTING PLANTINGS ABOVE THE GEOGRID LAYERS OR BEYOND THE LIMITS OF THE GEOGRID LAYERS.
  - INSTALLATION OF A VERTICAL SEGMENTAL RETAINING WALL REQUIRES THAT EXTRA ATTENTION BE GIVEN TO LEVELING OF THE BLOCK, AT ALL ELEVATIONS AND IN ALL DIRECTIONS.
  - IF CONDITIONS ARE DIFFERENT THAN THOSE STATED IN THESE DRAWINGS AND SPECIFICATIONS, THE CONTRACTOR MUST CONTACT THE DESIGN ENGINEER PRIOR TO PROCEEDING WITH THE CONSTRUCTION OF THE WALL.
  - WALL DESIGNS SHALL CONSIDER EFFECTS OF SLOPE, TRAFFIC LOADS, AND/OR BUILDING LOADS AS REQUIRED.
  - ALL WALLS 4' OR GREATER REQUIRE INSTALLATION OF A SAFETY RAIL.



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PROJECT NO: K0076-13  
DATE: 3/20/2017  
FILE: K0076-13\_DTLS.DWG  
DRAWN BY: CML  
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APPROVED: BLM

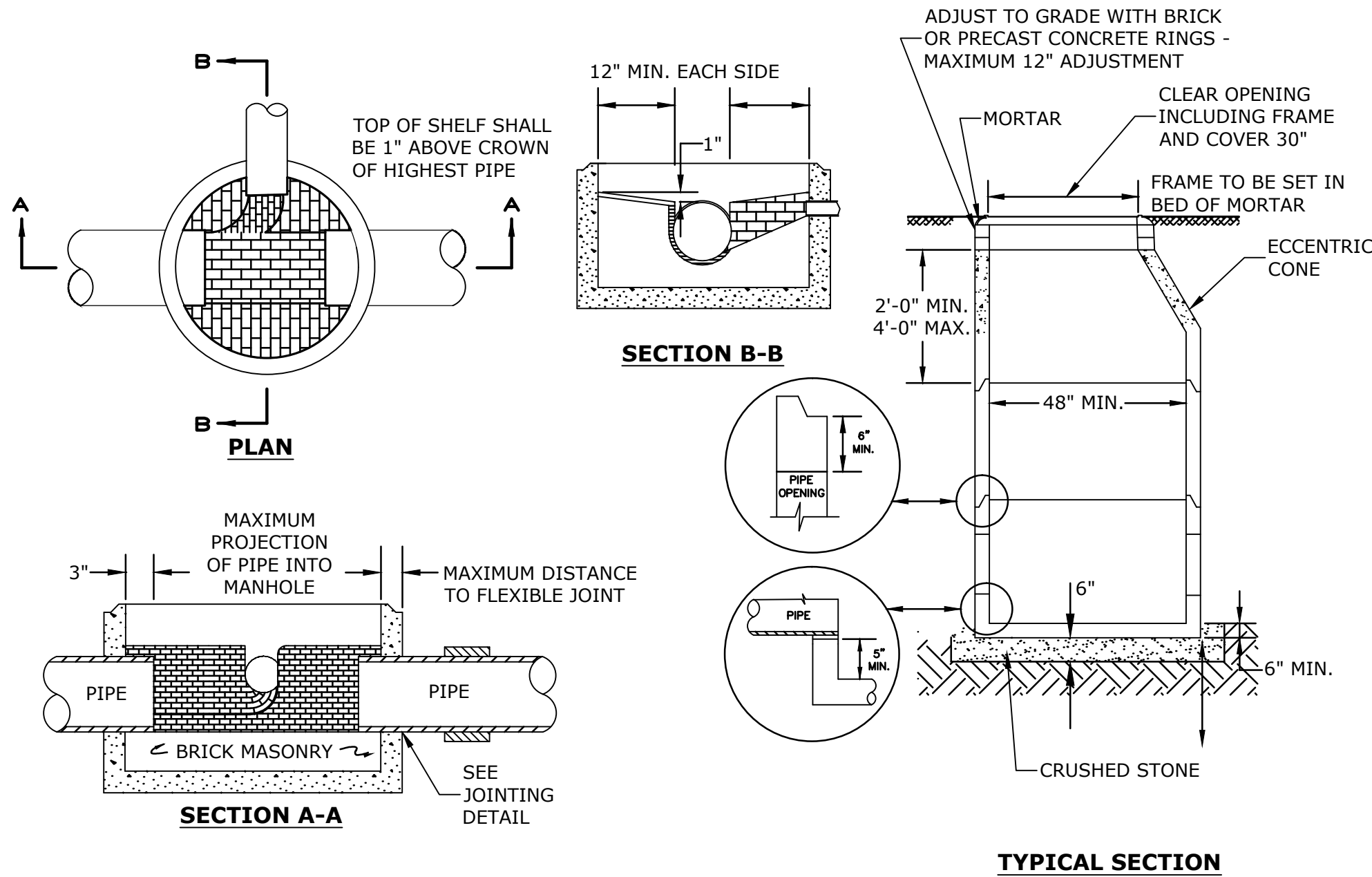
**DETAILS SHEET**

SCALE: AS SHOWN

**C-507**



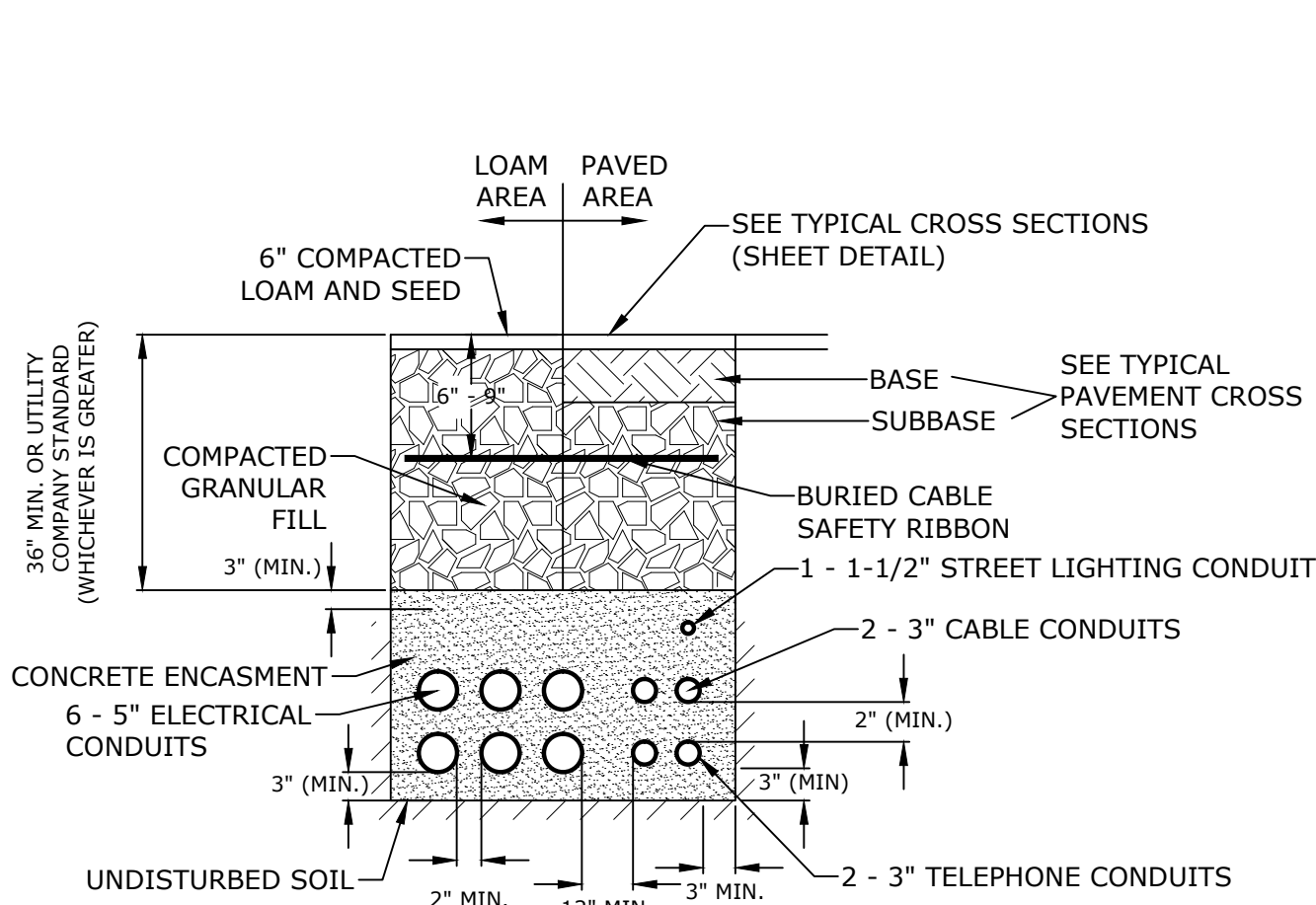
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- NOTES:**
1. INVERT AND SHELF TO BE PLACED AFTER EACH LEAKAGE TEST.
  2. CARE SHALL BE TAKEN TO INSURE THAT THE BRICK INVERT IS A SMOOTH CONTINUATION OF THE SEWER INVERT.
  3. INVERT BRICKS SHALL BE LAID ON EDGE.
  4. BITUMINOUS WATERPROOF COATING TO BE APPLIED TO ENTIRE EXTERIOR OF MANHOLE.
  5. FRAMES AND COVERS: MANHOLE FRAMES AND COVERS WITHIN CITY RIGHT OF WAY SHALL BE CITY STANDARD HINGE COVERS MANUFACTURED BY E. FRAMES AND COVERS WILL BE PURCHASED FROM THE CITY OF PORTSMOUTH DEPARTMENT OF PUBLIC WORKS.
  6. HORIZONTAL JOINTS SHALL BE SEALED FOR WATER TIGHTNESS USING A DOUBLE ROW OF ELASTOMERIC OR MASTIC-LIKE SEALANT.
  7. BARREL AND CONE SECTIONS SHALL BE PRECAST REINFORCED CONCRETE DESIGNED FOR H20 LOADING, AND CONFORMING TO ASTM C478-06.

**SEWER MANHOLE**

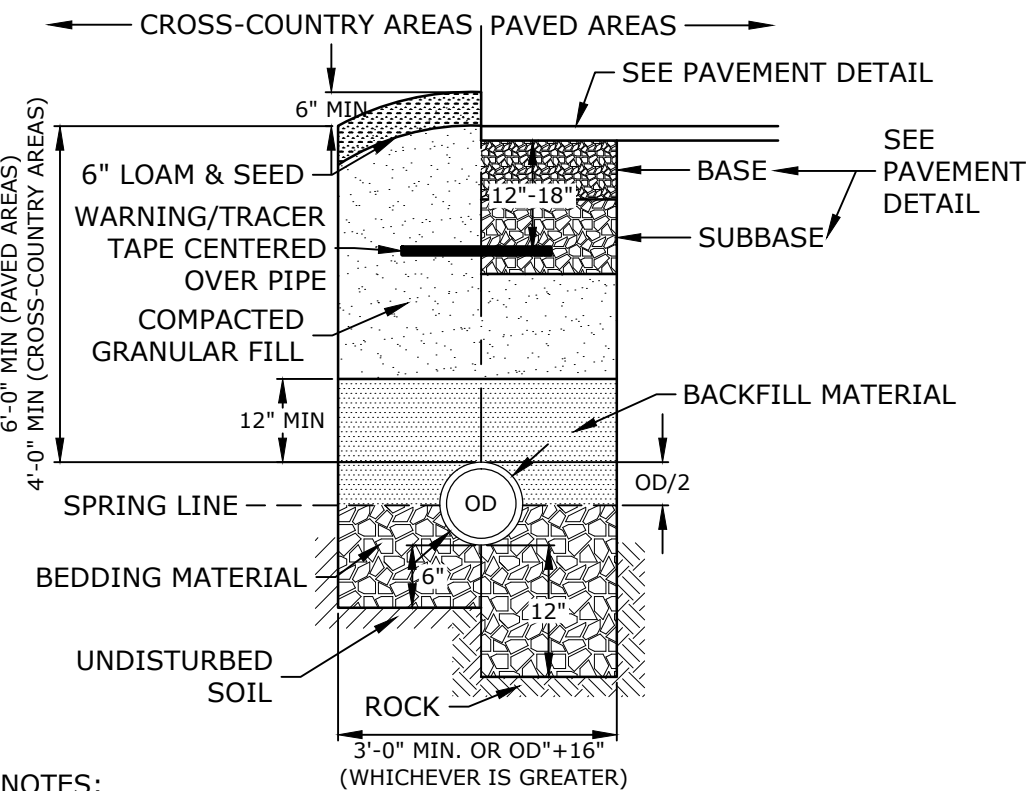
NO SCALE



- NOTE:**
1. NUMBER, MATERIAL, AND SIZE OF UTILITY CONDUITS TO BE DETERMINED BY LOCAL UTILITY OR AS SHOWN ON CONDUIT PLAN (SHEET C-104.1 & C-104.2).
  2. DIMENSIONS SHOWN REPRESENT OWNERS MINIMUM REQUIREMENTS. ACTUAL DIMENSIONS MAY BE GREATER BASED ON UTILITY COMPANY STANDARDS, BUT SHALL NOT BE LESS THAN THOSE SHOWN.
  3. NO CONDUIT RUN SHALL EXCEED 360 DEGREES IN TOTAL BENDS.
  4. A SUITABLE PULLING STRING, CAPABLE OF 200 POUNDS OF PULL, MUST BE INSTALLED IN THE CONDUIT BEFORE UTILITY COMPANY IS NOTIFIED TO INSTALL CABLE. THE STRING SHOULD BE BLOWN INTO THE CONDUIT AFTER THE RUN IS ASSEMBLED TO AVOID BONDING THE STRING TO THE CONDUIT.
  5. UTILITY COMPANY MUST BE GIVEN THE OPPORTUNITY TO INSPECT THE CONDUIT PRIOR TO BACKFILL. THE CONTRACTOR IS RESPONSIBLE FOR ALL REPAIRS SHOULD THE UTILITY COMPANY BE UNABLE TO INSTALL ITS CABLE IN A SUITABLE MANNER.
  6. ALL CONDUIT INSTALLATIONS MUST CONFORM TO THE CURRENT EDITION OF THE NATIONAL ELECTRIC SAFETY CODE, STATE AND LOCAL CODES AND ORDINANCES, AND, WHERE APPLICABLE, THE NATIONAL ELECTRIC CODE.
  7. ALL 90° SWEEPS WILL BE MADE USING RIGID GALVANIZED STEEL. SWEEPS WITH A 36 TO 48 INCH RADIUS.

**ELECTRICAL AND COMMUNICATION CONDUIT**

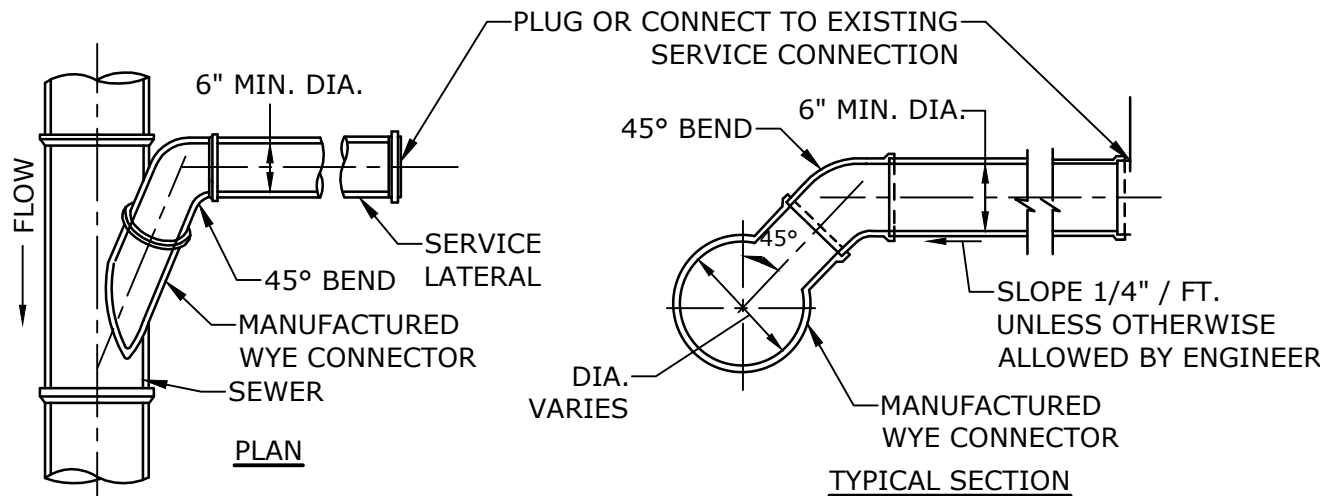
NO SCALE



- NOTES:**
1. CRUSHED STONE BEDDING FOR FULL WIDTH OF THE TRENCH FROM 6" BELOW PIPE IN EARTH AND 12" BELOW PIPE IN ROCK UP TO SPRING LINE.
  2. SAND BLANKET BACKFILL FOR FULL WIDTH OF THE TRENCH FROM SPRING LINE UP TO 12" ABOVE TOP OF PIPE.
  3. SANITARY SEWER SHALL BE INSTALLED PER THE CITY OF PORTSMOUTH DEPARTMENT OF PUBLIC WORKS STANDARDS. COORDINATE ALL INSTALLATIONS WITH THE CITY OF PORTSMOUTH.

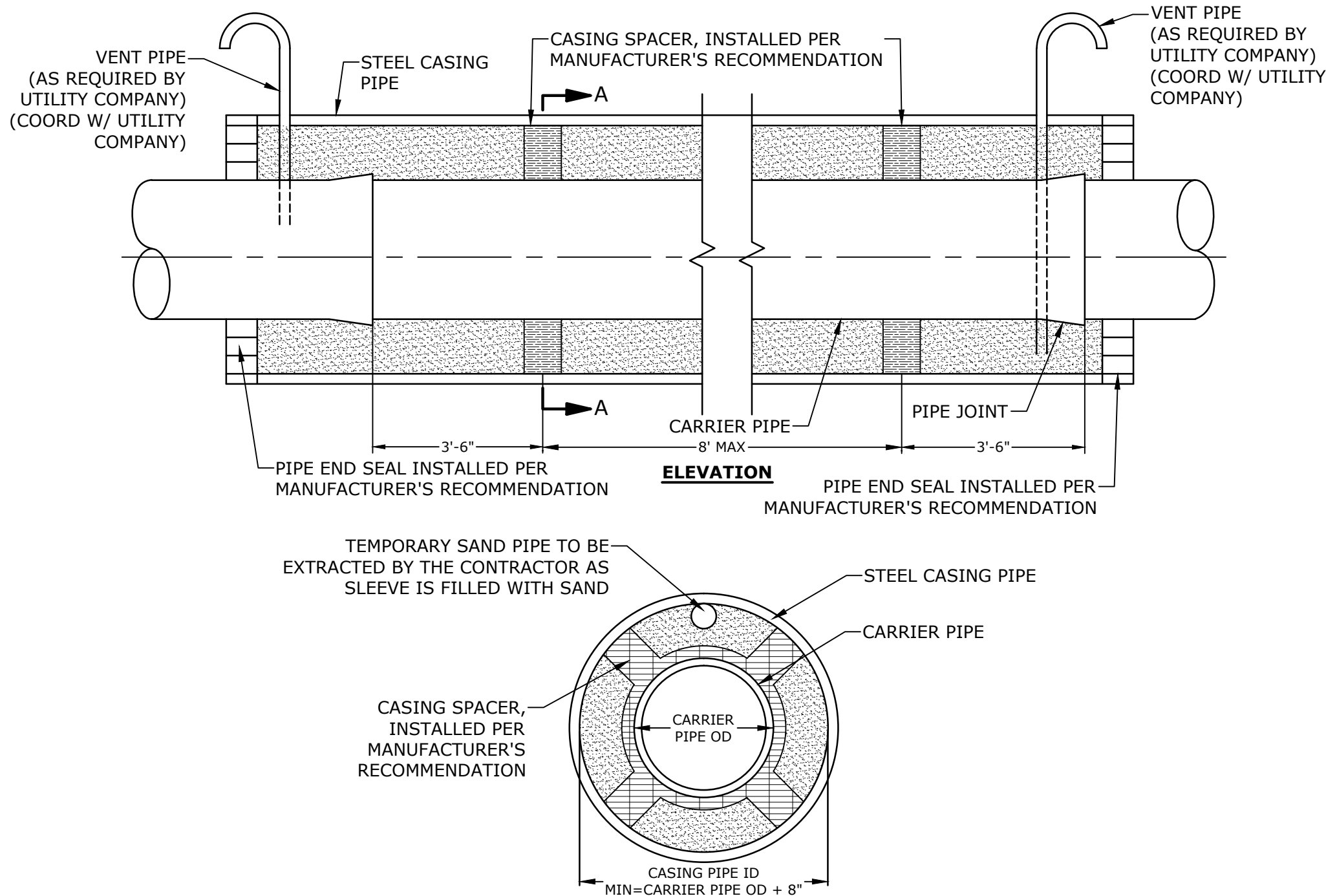
**SEWER TRENCH**

NO SCALE



**STANDARD SERVICE LATERAL CONNECTION**

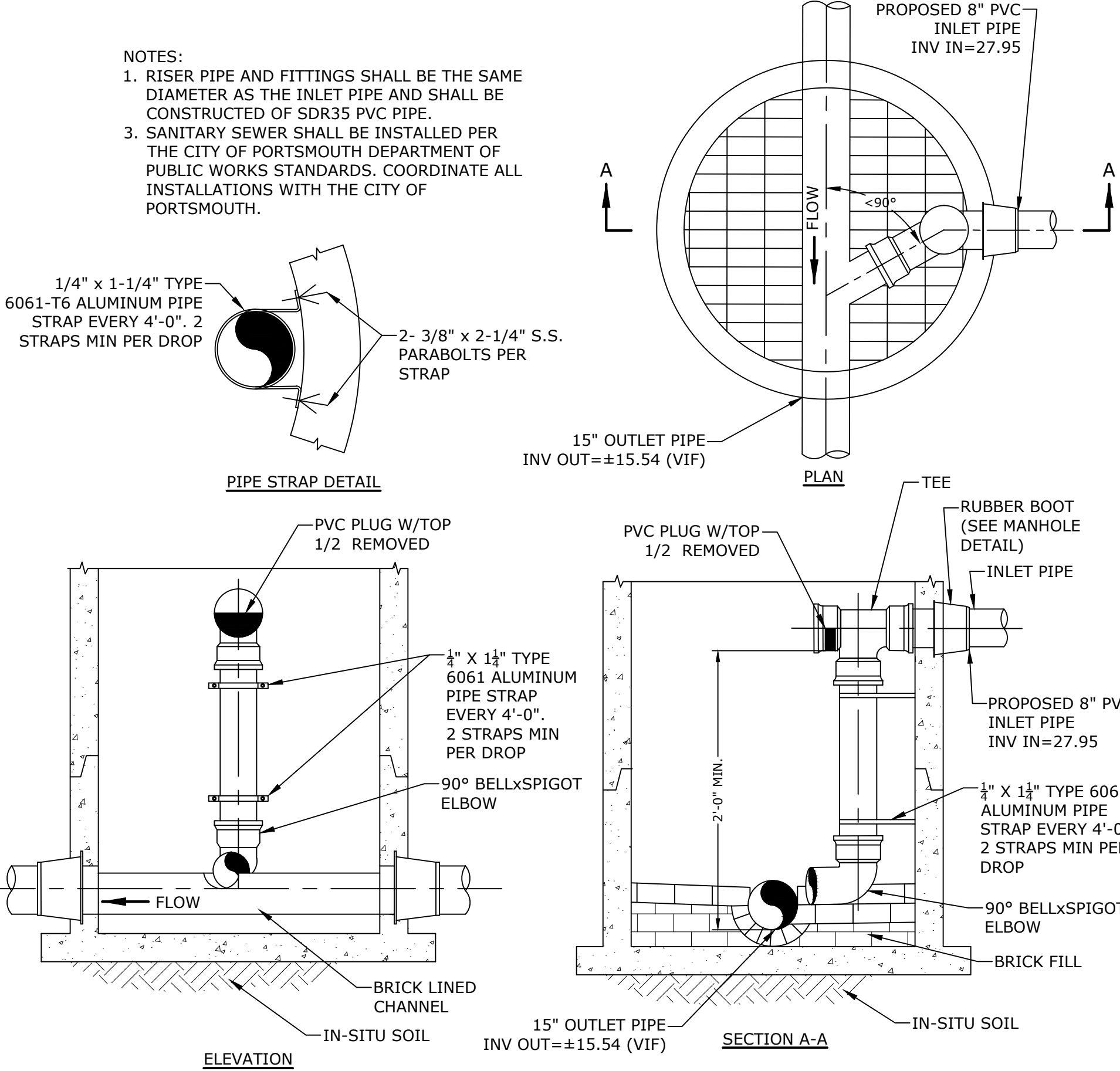
NO SCALE



- NOTES:**
1. SEAL ENDS OF SLEEVE TO PREVENT MIGRATION OF MATERIAL AND WATER THROUGH ANNULAR SPACE BETWEEN CASING PIPE AND CARRIER PIPE
  2. STEEL CASING PIPE SHALL MEET COOPERS E-80 RAILROAD LOADING WITH A MINIMUM YIELD STRENGTH OF 35,000 PSI AND SHALL CONFORM TO THE LATEST REVISIONS OF THE REQUIREMENTS OF A.W.A. STANDARDS FOR FABRICATING ELECTRICALLY WELDED STEEL WATER PIPES OR ITS EQUIVALENT.
  3. STEEL CASING PIPE JOINTS SHALL BE FULLY WELDED AROUND THE COMPLETE CIRCUMFERENCE OF THE PIPE.
  4. CONTRACTOR SHALL COORDINATE ALL UTILITY AND CARRIER PIPE WORK WITHIN THE RAIL ROAD RIGHT OF WAY WITH PAN-AM, EVERSOURCE, UNITIL, & AND THE CITY PORTSMOUTH DPW PRIOR TO CONSTRUCTION.

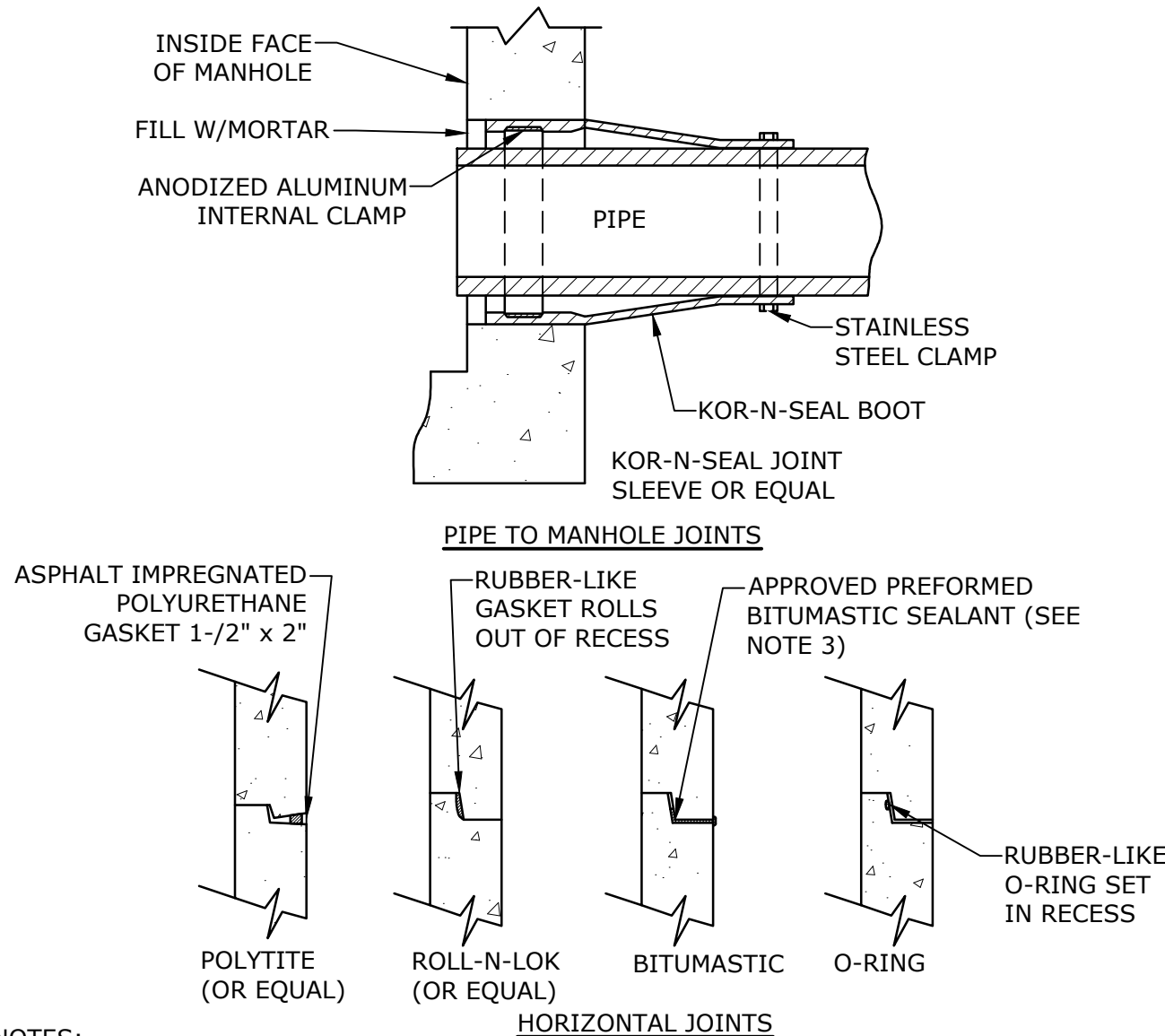
**UTILITY PIPELINE SLEEVE DETAIL (CARRIER PIPE)**

NO SCALE



**INSIDE DROP MANHOLE**

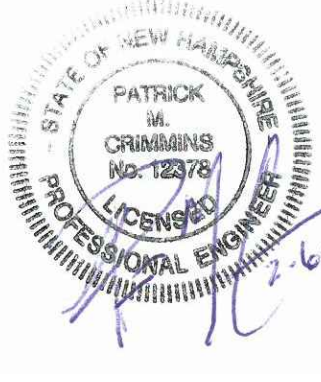
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- NOTES:**
1. HORIZONTAL JOINTS BETWEEN THE SECTIONS OF PRECAST CONCRETE BARRELS SHALL BE PER CITY OF PORTSMOUTH DPW STANDARD AND SHALL BE SEALED FOR WATERTIGHTNESS USING A DOUBLE ROW ELASTOMERIC OR MASTIC-LIKE SEALANT.
  2. PIPE TO MANHOLE JOINTS SHALL BE PER CITY OF PORTSMOUTH STANDARD.
  3. FOR BITUMASTIC TYPE JOINTS THE AMOUNT OF SEALANT SHALL BE SUFFICIENT TO FILL AT LEAST 75% OF THE JOINT CAVITY.
  4. ALL GASKETS, SEALANTS, MORTAR, ETC. SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS' WRITTEN INSTRUCTIONS.

**MANHOLE JOINTS**

NO SCALE



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**DETAILS SHEET**

SCALE: AS SHOWN

C-508



Statistics						
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Calc Zone	+	0.4 f	9.6 f	0.0 f	N/A	N/A
PARKING	+	1.5 f	7.0 f	0.2 f	35.0:1	7.5:1
SIDEWALK #1	◇	2.4 f	9.1 f	0.1 f	91.0:1	24.0:1
SIDEWALK #2	□	2.4 f	8.2 f	0.3 f	27.3:1	8.0:1

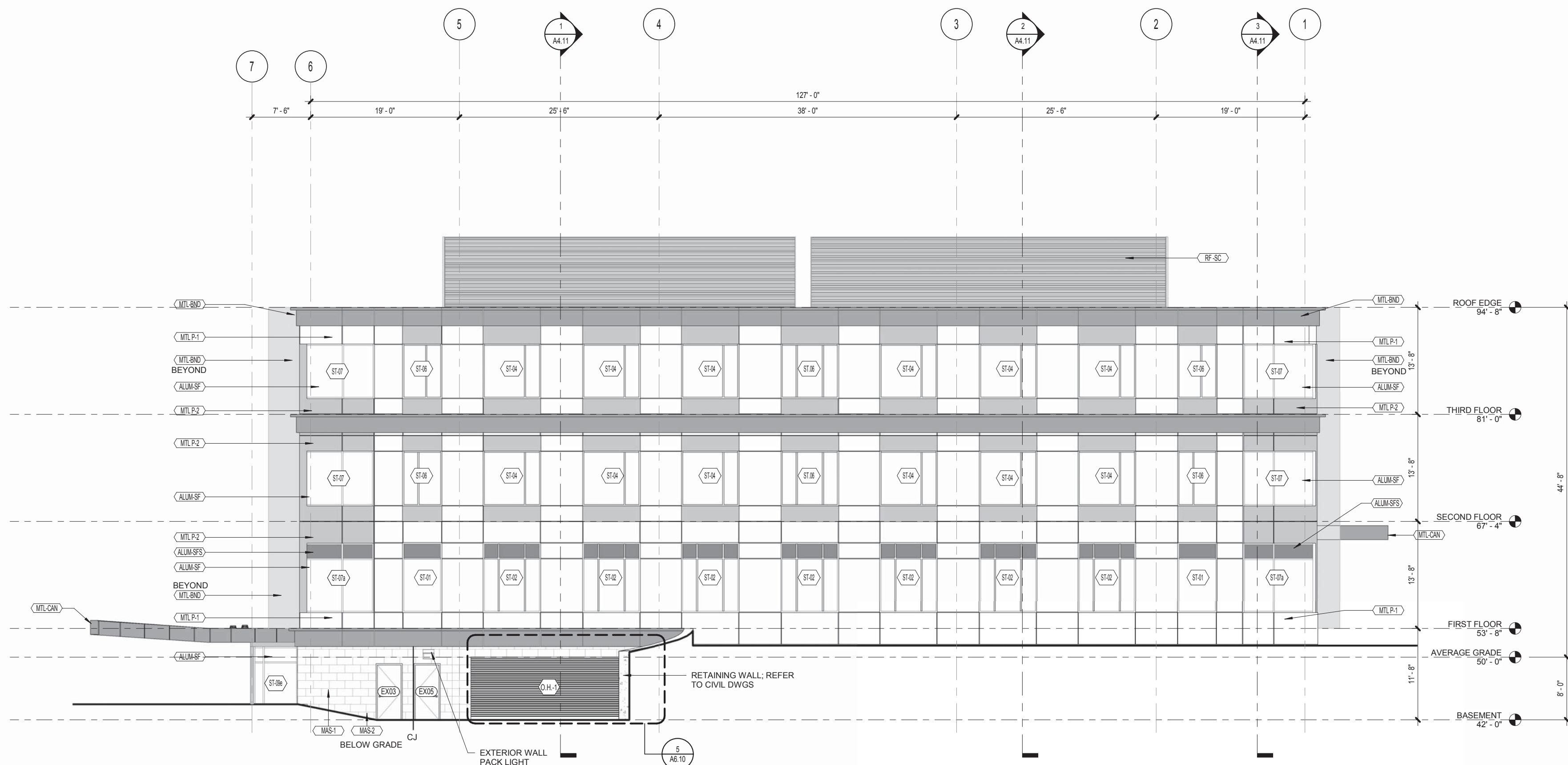
Luminaire Locations										
No.	Label	Location			MH	Orientation	Tilt	Aim		
X	Y	Z						X	Y	Z
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2	A	-193.79	-7.95	19.50	19.50	90.00	0.00	-192.54	-7.95	0.00
3	A	-193.79	145.07	19.50	19.50	90.00	0.00	-192.54	145.07	0.00
4	A	-157.73	-145.89	19.50	19.50	44.07	0.00	-156.86	-145.00	0.00
5	A	82.25	143.17	19.50	19.50	250.20	0.00	81.08	142.75	0.00
6	A	-166.19	199.89	19.50	19.50	113.69	0.00	-165.04	199.39	0.00
7	A	-193.79	76.99	19.50	19.50	90.00	0.00	-192.54	76.99	0.00
8	A	-58.51	-116.56	19.50	19.50	360.00	0.00	-58.51	-115.31	0.00
9	A	-58.51	-116.56	19.50	19.50	180.00	0.00	-58.51	-117.81	0.00
10	A	56.22	-116.56	19.50	19.50	360.00	0.00	56.22	-115.31	0.00
11	A	56.22	-116.56	19.50	19.50	180.00	0.00	56.22	-117.81	0.00
12	A	104.99	-57.79	19.50	19.50	270.00	0.00	103.74	-57.79	0.00
13	A	104.99	-57.78	19.50	19.50	90.00	0.00	104.97	-57.78	0.00
14	A	104.97	-57.79	19.50	19.50	360.00	0.00	104.97	-56.54	0.00
15	A	153.87	-130.31	19.50	19.50	270.00	0.00	152.62	-130.31	0.00
16	A	56.21	-116.57	19.50	19.50	270.00	0.00	54.96	-116.57	0.00
17	A	-58.51	-116.57	19.50	19.50	90.00	0.00	-57.26	-116.57	0.00
18	A	104.99	58.83	19.50	19.50	270.00	0.00	103.74	58.83	0.00
19	A	104.99	58.83	19.50	19.50	90.00	0.00	106.24	58.83	0.00
20	A	104.96	58.82	19.50	19.50	180.00	0.00	104.96	57.57	0.00
21	A	-137.28	-50.72	19.50	19.50	360.00	0.00	-137.28	-49.47	0.00
22	A	-137.28	-50.72	19.50	19.50	180.00	0.00	-137.28	-51.97	0.00
1	B	-71.16	-36.91	18.00	18.00	180.00	15.00	-71.16	-42.25	0.00
1	C	35.84	39.57	3.50	3.50	0.00	0.00	35.84	39.57	0.00
2	C	35.84	17.48	3.50	3.50	0.00	0.00	35.84	17.48	0.00
3	C	35.84	-46.32	3.50	3.50	0.00	0.00	35.84	-46.32	0.00
4	C	30.14	-46.32	3.50	3.50	0.00	0.00	-30.14	-46.32	0.00
5	C	35.84	-4.52	3.50	3.50	0.00	0.00	35.84	-4.52	0.00
6	C	35.84	-26.50	3.50	3.50	0.00	0.00	35.84	-26.50	0.00
7	C	35.84	61.55	3.50	3.50	0.00	0.00	35.84	61.55	0.00
8	C	35.84	83.60	3.50	3.50	0.00	0.00	35.84	83.60	0.00
9	C	13.82	-46.32	3.50	3.50	0.00	0.00	13.85	-46.32	0.00
10	C	-8.16	-46.32	3.50	3.50	0.00	0.00	-8.16	-46.32	0.00
11	C	-121.79	-1.89	3.50	3.50	0.00	0.00	-121.79	-1.89	0.00
12	C	-121.79	-23.88	3.50	3.50	0.00	0.00	-121.79	-23.88	0.00
13	C	-121.79	-45.89	3.50	3.50	0.00	0.00	-121.79	-45.89	0.00
14	C	-121.79	59.13	3.50	3.50	0.00	0.00	-121.79	59.13	0.00
15	C	-121.79	81.14	3.50	3.50	0.00	0.00	-121.79	81.14	0.00
16	C	-121.79	103.14	3.50	3.50	0.00	0.00	-121.79	103.14	0.00
17	C	-121.79	125.16	3.50	3.50	0.00	0.00	-121.79	125.16	0.00
1	D	-89.15	-37.81	12.00	12.00	180.00	15.00	-89.15	-41.03	0.00
2	D	-106.45	76.58	12.00	12.00	270.00	15.00	-109.67	76.58	0.00

Schedule										
Symbol	Label	Quantity	Manufacturer	Description	Lamp	Number Lamps	Filename	Lumens Per Lamp	Light Loss Factor	Wattage
□ ○	A	22	EYE LIGHTING INTERNATIONAL OF NORTH AMERICA	Cast white enamel aluminum housing, white plastic reflector, clear plastic enclosure	10 white LEDs with clear plastic optics below each	1	KanLED-SA-L7-Type-IV-4000K-IES	5769	1	69.51
□	B	1	EYE LIGHTING INTERNATIONAL OF NORTH AMERICA	Aluminum housing, no enclosure	32 white LED with clear optics below each	1	Aphos-L7-4000K-Type-1IA-70-CRI-Photometric-IES-IES	8135	1	74.92
○	C	17	Uphoria Lighting	KBAB WITH 4 LIGHT BOARDS (16 LEDs), 350mA DRIVER, 4000K COLOR TEMP, AND SYMMETRIC OPTIC	LED	1	KBAB_LED_16C_350_40K_SYM_MVOLT.ies	1116	1	20
□	D	2	EYE LIGHTING INTERNATIONAL OF NORTH AMERICA	Aluminum housing, no enclosure	16 white LED with clear optics below each	1	Aphos-Wall-Area-Mini-L3-4000K-Type-II-70-CRI-Photometric-IES-IES	4047	1	38.15

Plan View  
Scale - 1" = 20'

Designer  
REMCarthy  
Date  
02/05/2018  
Scale  
Not to Scale  
Drawn No.  
Summary





2 EXTERIOR ELEVATION - NORTH  
1/8" = 1'-0"

- ## GENERAL NOTES - EXTERIOR ELEVATIONS
1. COMPONENT AND CLADDING ELEMENTS SHALL BE INSTALLED TO SATISFY THE REQUIREMENTS OF THE - 2009 INTERNATIONAL BUILDING CODE - WIND LOADS.
  2. BUILDING "COMPONENTS AND CLADDING" WHICH ARE ELEMENTS OF THE BUILDING ENVELOPE THAT DO NOT QUALIFY AS PART OF THE MAIN WINDFORCE RESISTING SYSTEM, SHALL BE DESIGNED AND INSTALLED TO SATISFY THE WINDLOAD CRITERIA FOR THE BUILDING. THIS SHALL INCLUDE INCREASES FOR EXPOSURE PER ASCE 7-05 AS WELL AS FOR HEIGHT, EDGE STRIPS, AND END ZONE CONDITIONS AS DEFINED BY FIGURE 6.3 OF ASCE 7-05.
  3. FOR THIS BUILDING DESIGN WINDLOAD IS TO BE **100 MPH EXPOSURE B** - REFER TO DRAWING S0.1 FOR WIND PRESSURE VALUES.
  4. THESE COMPONENTS AND CLADDING SHALL BE CLAD, BUT NOT BE LIMITED TO THE FOLLOWING:
    - A. ROOFING INCLUDING SHEATHING, TRIM, SHINGLES, MEMBRANE ROOFING, ETC.
    - B. CLADDING CONDITIONS INCLUDING STOREFRONT, ENTRANCES, DOORS, ETC. (MANUFACTURED COMPONENTS SHALL BE LABELED TO CLARIFY NOICATE THE WINDLOAD DESIGN PRESSURE BUT NOT LESS THAN 31 PSF).
    - C. CLADDING INCLUDING VINYL SIDING, FIBER CEMENT SIDING, BRICK, TRIM, FLASHINGS, AND GUTTERS. (FASTENERS SHALL BE DIRECTLY INTO STUDS OR OTHER STRUCTURAL COMPONENT WITH SPACING AND TYPE OF FASTENER DESIGNED TO INDIVIDUALLY SUPPORT THE TRIBUTARY AREA OF THE COMPONENT OR CLADDING SUPPORTED BY AND INDIVIDUAL FASTENER).
  5. EXTERIOR GLASS AND GLAZING IN WINDOWS AND STOREFRONTS SHALL COMPLY WITH MA 780 CMR SECTION 2404 FOR BUILDING, SNOW, SEISMIC AND DEAD LOADING

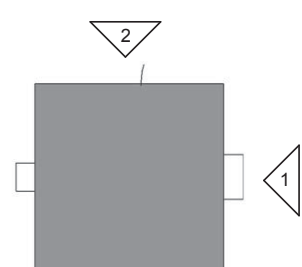
PROFESSIONAL SEAL



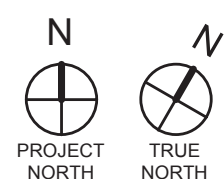
1 EXTERIOR ELEVATION - EAST  
1/8" = 1'-0"

## EXTERIOR ELEVATION FINISHES

- |      |  |
|------|--|
| WS1  | MASONRY VENEER: ARRISCAFT REMISSANCE COLOR: WHITE  |
| WS2  | MASONRY VENEER: ADAIR LIMESTONE COLOR: BLUE- GREY VEINED   |
| WR1  | METAL PANEL: ALUMINOUM COLOR: RUSTED METAL<br>REFER TO EXTERIOR ELEVATIONS FOR REVEALS                       |
| WR2  | METAL PANEL: ALUMINOUM COLOR: BRILLIANT SILVER METALLIC<br>REFER TO EXTERIOR ELEVATIONS FOR REVEALS          |
| WR3  | METAL PANEL: ALUMINOUM COLOR: BRUSHED 50<br>REFER TO EXTERIOR ELEVATIONS FOR REVEALS                         |
| WR4  | METAL PANEL: 7/8" CORRUGATED COLOR: PAC-CLAD ZINC<br>REFER TO EXTERIOR ELEVATIONS FOR REVEALS                |
| WR6  | METAL PANEL: BAND: ALUMINOUM COLOR: BRUSHED 50<br>REFER TO EXTERIOR ELEVATIONS FOR REVEALS                   |
| WR8  | METAL PANEL: ALUMINOUM COLOR: BRUSHED 50<br>REFER TO EXTERIOR ELEVATIONS FOR REVEALS                         |
| WR9  | METAL: CANOPY ALUMINOUM COLOR: BRUSHED 50<br>REFER TO EXTERIOR ELEVATIONS FOR REVEALS                        |
| WR10 | METAL: CANOPY ALUMINOUM COLOR: BRUSHED 50<br>REFER TO EXTERIOR ELEVATIONS FOR REVEALS                        |
| WUB5 | KAWNEER STOREFRONT SYSTEM COLOR: TO BE DETERMINED<br>OR AS APPROVED FROM MANUF. FULL RANGE OF COLOR SAMPLES  |
| WUB9 | KAWNEER STOREFRONT SYSTEM: STANDARD<br>OR AS APPROVED FROM MANUF. FULL RANGE OF COLOR SAMPLES                |
| WUBR | HOLLOW METAL DOOR & FRAME (INSULATED) COLOR: TO BE DETERMINED<br>REFER TO DOOR SCHEDULE FOR MORE INFORMATION |
| ORR  | INSULATED ROLL-UP DOOR COLOR: GREY<br>REFER TO DOOR SCHEDULE FOR MORE INFORMATION                            |
| RS   | ROOF SCREEN: COLOR: GREY<br>REFER TO SPECIFICATION FOR MORE INFORMATION                                      |
| LOU  | LOUVER: COLOR: GREY<br>REFER TO SPECIFICATION FOR MORE INFORMATION   |



KEYPLAN A3.01



**PORTSMOUTH  
MEDICAL PARK,  
BUILDING A**  
BORTHWICK AVE  
PORTSMOUTH, NEW HAMPSHIRE

[illegible]

Architect:	JAL
Drawn By:	MAL
Project No.:	301701
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Drawing Sheet Title:

**EXTERIOR  
ELEVATIONS**

Drawing Sheet Number:

## A3.01





- ## GENERAL NOTES - EXTERIOR ELEVATIONS



MASL	MASONRY VENEER: AIRRISCAFT RENAISSANCE COLOR: WHITE
MASL2	MASONRY VENEER: ADAIR LIMESTONE COLOR: BLUE-GREY VEINED
URL FV	METAL PANEL: ALU/COBOD COLOR: RUSTED METAL REFER TO EXTERIOR ELEVATIONS FOR REVEALS
URL FV2	SEALANT COLOR: TO BE DETERMINED
URL FV3	METAL PANEL: ALU/COBOD COLOR: BRILLIANT SILVER METALLIC REFER TO EXTERIOR ELEVATIONS FOR REVEALS
URL FV4	SEALANT COLOR: TO BE DETERMINED
URL FV4A	METAL PANEL: 78° CORNELL COLOR: PAC-CLAD ZINC REFER TO EXTERIOR ELEVATIONS FOR REVEALS
URL FV4B	SEALANT COLOR: TO BE DETERMINED
URL FV60	METAL PANEL: BAND ALU/COBOD COLOR: BRUSHED 50 REFER TO EXTERIOR ELEVATIONS FOR REVEALS
URL FV6	SEALANT COLOR: TO BE DETERMINED
URL FV6A	METAL FASCIA ALU/COBOD COLOR: BRUSHED 50 REFER TO EXTERIOR ELEVATIONS FOR REVEALS
URL FV6B	SEALANT COLOR: TO BE DETERMINED
URL FV6C	METAL CANOPY ALU/COBOD COLOR: BRUSHED 50 REFER TO EXTERIOR ELEVATIONS FOR REVEALS
URL FV6D	SEALANT COLOR: TO BE DETERMINED
ALUM SF	KAWNEER STOREFRONT SYSTEM COLOR: TO BE DETERMINED OR AS PROVIDED FROM MANUF. FULL RANGE OF COLOR SAMPLES
ALUM SF5	KAWNEER STOREFRONT SYSTEM COLOR: TO BE DETERMINED OR AS PROVIDED FROM MANUF. FULL RANGE OF COLOR SAMPLES
ALUM OR	HOLLOW METAL DOOR & FRAME (INSULATED) COLOR: TO BE DETERMINED REFER TO DOOR SCHEDULE FOR MORE INFORMATION
CHGR	INSULATED ROLL UP DOOR COLOR: GREY REFER TO DOOR SCHEDULE FOR MORE INFORMATION
RF 50	ROOF SCREEN: COLOR: GREY REFER TO SPECIFICATION FOR MORE INFORMATION
LLOVER	LOUVER: COLOR: GREY REFER TO SPECIFICATION FOR MORE INFORMATION

	Date	Issue Description
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Architect:	JAL
Drawn By:	MAL
Project No.:	301701
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## A3.02

